FREEDOM CIRCLE FOCUS AREA PLAN/ GREYSTAR PROJECT GENERAL PLAN AMENDMENT ENVIRONMENTAL IMPACT REPORT

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1. INTRODUCTION

This Draft Program/Project Environmental Impact Report (Draft EIR) has been prepared by the City of Santa Clara in accordance with the California Environmental Quality Act (CEQA)[1] and associated CEQA Guidelines[2] to describe the potential environmental consequences of the proposed Freedom Circle Focus Area Plan/Greystar General Plan Amendment (the "project").[3] This Draft EIR is intended to serve as an informational document for use by public agency decision makers and the public in their consideration of the proposed Focus Area Plan/Greystar General Plan Amendment. If the EIR is certified and the Freedom Circle Focus Area Plan/Greystar General Plan Amendment adopted, the EIR will be used by City and agency staff to help implement the Focus Area Plan and the Greystar project. References to the Focus Area Plan Area without consideration of the Greystar project site or references to the individual Greystar project itself will be labeled in terms to make clear those distinctions ("not including the Greystar site," "remainder of the Plan Area," "Greystar project," "Greystar site," etc.).

The Freedom Circle Focus Area Plan is defined as a "focus area plan," which is one of several policy and regulatory tools used by the City of Santa Clara to implement the City's 2010-2035 General Plan. A focus area plan provides a foundation for the future comprehensive, detailed planning study (or "comprehensive plan," such as a specific plan) necessary to be adopted prior to allowing development in the Plan Area. A focus area plan provides a preliminary analysis of land use, utilities, streets, services, parks, and other public facilities as part of a coordinated planning process established to determine new infrastructure and service needs adequate to support future development and to plan for timing of development appropriate to sustain environmental quality.

The Greystar project is a proposal for an undeveloped 13.3-acre site in the Plan Area that would allow development of three seven-story residential buildings with 1,075 residences, plus approximately 2,000 square feet of neighborhood amenity space (which for the purposes of this analysis is assumed to be ground-floor retail space, and is therefore referred to as such throughout this document)[4] and a two-acre public park. Coupled with a proposed General Plan text amendment that is explained further in Chapter 3, the site-specific Greystar project

[1]The California Environmental Quality Act (CEQA) is codified in section 21000, et seq., of the California Public Resources Code.

[2]The CEQA Guidelines are set forth in sections 15000 through 15387 of the California Code of Regulations, Title 14, Chapter 3.

[3]The terms "Freedom Circle Focus Area Plan," "Plan" (when distinguished from any other plan), and "Focus Area Plan" as used in this EIR all refer to the current draft Freedom Circle Focus Area Plan; the terms "Greystar Project," "Greystar project," and "Greystar" (when distinguished from any other project) as used in this EIR all refer to the current Greystar project proposal.

[4]Because the exact use has not yet been decided, for the purposes of the analysis in this EIR, the space is conservatively presumed to be retail rather than a less intense alternative neighborhood use such as an occasionally used community event space.

development proposal and General Plan amendment is evaluated in this EIR concurrently with the Freedom Circle Focus Area Plan. The proposed General Plan text amendment will allow the Greystar project to proceed concurrent with preparation of the future planning study required for the remainder of the Plan Area.[1]

As this EIR applies to both the Freedom Circle Focus Area Plan and the proposed Greystar project, CEQA Guidelines section 15146 (Degree of Specificity) states:

> "The degree of specificity required in an EIR will correspond to the degree of specificity involved in the underlying activity which is described in the EIR."

As this EIR applies specifically to the proposed Greystar project, Guidelines section 15146 continues:

> "(a) An EIR on a construction project will necessarily be more detailed in the specific effects of the project than will an EIR on the adoption of a local general plan comprehensive zoning ordinance because the effects of the construction can be predicted with greater accuracy."

As this EIR applies to the overall Freedom Circle Focus Area Plan, Guidelines section 15146 concludes:

> "(b) An EIR on a project such as the adoption or amendment of a comprehensive zoning ordinance or a local general plan should focus on the secondary effects that can be expected to follow from the adoption or amendment, but the EIR need not be as detailed as an EIR on the specific construction projects that might follow." Further details are described below under 1.3, "Program EIR Approach and Assumptions."

For the reasons described in CEQA Guidelines section 15146 above and EIR section 1.3 below, this EIR is identified as a "Program/Project EIR"; the Freedom Circle Focus Area Plan is a "program," and the proposed Greystar project is a "project" within the Plan Area.

The reader is encouraged to review the Focus Area Plan and the Greystar project materials for more detail. Pursuant to section 15150 (Incorporation By Reference) of the CEQA Guidelines, the Freedom Circle Focus Area Plan is incorporated into this Draft EIR by reference.

The draft Freedom Circle Focus Area Plan, Greystar project plans, and this Draft EIR are posted at:[2]

https://www.santaclaraca.gov/our-city/departments-a-f/community-development/planning-division/specific-plans/freedom-circle
and

[1]Chapter 3, Project Description, of this EIR, explains the proposed General Plan Amendment that would provide for additional Future Focus Areas to be added to the General Plan Land Use diagram through the General Plan Amendment process and recognize that a Future Focus Area is a precursor to the comprehensive planning process required for implementation of all Focus Areas but not a comprehensive planning process in and of itself.

[2]Due to Covid-19 restrictions, all City libraries and City Hall remain closed, and no hard copies of the EIR will be available.

https://www.santaclaraca.gov/Home/Components/BusinessDirectory/BusinessDirectory/297/2495?npage=2

1.1 EIR PURPOSE AND INTENDED USE

The Focus Area Plan Area is located within the City of Santa Clara, and the City is the Lead Agency[1] for this EIR, which has been prepared pursuant to all relevant sections of CEQA. The EIR is intended to inform decision makers, other responsible agencies, and the general public of the proposed Freedom Circle Focus Area Plan/Greystar General Plan Amendment and its environmental consequences. The EIR has been prepared by the City of Santa Clara to identify, evaluate, and assist the City in mitigating the potential environmental consequences of the Plan (including the Greystar project). The EIR is also intended to provide the CEQA-required environmental documentation for the adoption of the Freedom Circle Focus Area Plan/Greystar General Plan Amendment, and associated Santa Clara General Plan amendments and zoning code changes.

The EIR is intended to serve as a public information and disclosure document identifying and analyzing those environmental impacts resulting from the Focus Area Plan/Greystar General Plan Amendment that are expected to be significant, and describing mitigation measures and alternatives that could avoid or reduce significant adverse impacts and increase beneficial effects.[2] Such impacts and needed mitigations are discussed in this EIR to the level of detail necessary to allow reasoned decisions about the project and conditions of project approval. As a result of the information in this EIR, the Santa Clara City Council may act to approve or deny the various project actions, and/or to establish requirements or conditions of approval considered necessary to mitigate identified project impacts on the environment.

As the Lead Agency, and as appropriate under CEQA, the City of Santa Clara also intends the EIR to serve as the CEQA-required environmental documentation for consideration of this project by other Responsible Agencies[3] and Trustee Agencies[4] (e.g., California Department of Transportation, California Department of Fish and Wildlife) which may have limited discretionary authority over future site-specific development proposals facilitated by the Plan. In addition, as a program EIR (see below), the City may rely on this EIR in evaluating and acting on subsequent, parcel-specific development proposals in the Plan Area, to the extent that such future reliance on this EIR is permitted by CEQA and the CEQA Guidelines.

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[1]The CEQA Guidelines define the “Lead Agency” as the public agency that has the principal responsibility for carrying out or approving a project.

[2]CEQA Guidelines section 15149(b).

[3]Under CEQA Guidelines, the term "Responsible Agency" includes all public agencies, other than the Lead Agency, which have discretionary approval authority over aspects of the project for which the Lead Agency has prepared an EIR.

[4]Under CEQA Guidelines, the term "Trustee Agency" means a state agency having jurisdiction by law over natural resources affected by the project which are held in trust by the people of California. Trustee Agencies in California include the California Department of Fish and Wildlife (CDFW), State Lands Commission, California Department of Parks and Recreation, and (in limited circumstances) the University of California. (CEQA Guidelines section 15386.)

1.2 FREEDOM CIRCLE FOCUS AREA PLAN

The Freedom Circle Focus Area Plan is one step in the comprehensive planning process required as a General Plan prerequisite for incorporating a new "Focus Area" into the City's 2010-2035 General Plan, under Phase III, which is programmed to occur between 2023 and 2035. The Focus Area Plan would designate changes to the Land Use Diagram that describe the future land uses anticipated in the Focus Area Plan Area. The Focus Area Plan process requires conformance with applicable General Plan policies, including preparation and approval of a future, comprehensive planning study (such as a specific plan). The planning study would establish more detailed policies, regulations, and actions for the Plan Area, and would also refine the framework for development, development capacity, and related infrastructure and implementation needs.

In addition, Chapter 3, Project Description, of this EIR, discusses the General Plan Amendment (GPA) proposed by the Freedom Circle Focus Area Plan. The GPA would permit additional Future Focus Areas to be added to the General Plan Land Use diagram through the General Plan Amendment process in addition to the three Future Focus Areas already designated in the General Plan. (The Freedom Circle Focus Area is not currently in an adopted Future Focus Area.) The GPA would also recognize that (1) the creation of a Future Focus Area is a precursor to the comprehensive planning process required for implementation of all Focus Areas and (2) the designation of a Future Focus Area is not a comprehensive planning process in and of itself but instead a designation where a future comprehensive plan could be considered. Chapter 3 further explains how the Greystar project would be permitted to proceed concurrently with the future comprehensive planning effort (such as a specific plan), through the proposed GPA.

In order for a "focus area plan" to be implemented, the General Plan has provided prerequisite goals and policies, including:

- Goal 5.4.7-G1: All applicable prerequisites are met, and a comprehensive plan is adopted, prior to implementation of any Future Focus Area.

- Goal 5.4.7-G2: Adequate infrastructure, services and funding are planned to support new development in Future Focus Areas.

- Goal 5.4.7-G3: New residential development that includes provisions for compatibility with surrounding nonresidential uses.

- Policy 5.4.7-P1: Require the adoption of the comprehensive plan prior to any rezoning within that designated Future Focus Area.

- Policy 5.4.7-P2: Implement development in Future Focus Areas in conformance with applicable General Plan policies for Neighborhood Compatibility, Mobility and Transportation, Public Services, and Environmental Quality.

- Policy 5.4.7-P3: Allow Future Focus Area plans to be initiated by one or more private parties who provide funding to the City for planning the entire Focus Area; the City may include a reimbursement program for the private parties as part of the Future Focus Area Plan.

- Policy 5.4.7-P4: Until such time as a comprehensive plan is adopted for a Future Focus Area, allow development in accordance with the land use designations on the Phase II General Plan Land Use Diagram.

- Policy 5.4.7-P5: Discourage any new development that would preclude the implementation of the residential neighborhoods identified in the Future Focus Areas, Phases II and III, of the General Plan Land Use Diagrams.

- Policy 5.4.7-P6: Encourage new comprehensive plans for Future Focus Areas to provide a full complement of uses, including neighborhood-oriented retail and commercial activities, open space, and public facilities.

- Policy 5.4.7-P7: Implement appropriate measures for new residential development to reduce any land use conflicts with surrounding non-residential uses.

- Policy 5.4.7-P8: Require development of public amenities, including parks and open space, in the first phase of development for all Future Focus Areas.

- Policy 5.4.7-P9: Emphasize walkability and access to transit and existing roadways in Future Focus Area comprehensive plans.

- Policy 5.4.7-P10: Provide access across expressways or major arterial streets so that new residential development in Future Focus Areas has adequate access to neighborhood retail, services and public facilities.

The Freedom Circle Focus Area Plan includes the following goals:

- Develop an urban-scale mixed-use activity center in North Santa Clara to support economic vitality while increasing residential options.

- Provide for a range of housing types and densities to accommodate future residents and to create diversity in building scale and typology.

- Create a complete neighborhood that provides easy access to day-to-day services and amenities for residents, employees and visitors.

- Reduce reliance on private vehicles and improve jobs/housing balance by locating amenities and jobs within walking distance to housing.

- Create a human-scaled public realm through inviting architecture and urban design.

- Improve multi-modal transportation options and connections.

- Enhance connectivity to the San Tomas Aquino Creek trail.

The Greystar project, included in the Plan Area and proposed as part of the Plan, would be a 1,075-unit multi-family residential project (with some project-serving retail and a two-acre public park) proposed for two currently vacant parcels formerly owned by Intel Corporation in the southeastern portion of the Plan Area. Because the General Plan land use designation

currently allows high-intensity office/R&D, the Greystar project would require a General Plan amendment to allow residential use.

As a site-specific development proposal and General Plan Amendment evaluated in this EIR concurrently with the Freedom Circle Focus Area Plan, the Greystar project, if approved, could proceed without adoption of the future planning study required for the remainder of the Plan Area.

1.3 PROGRAM AND PROJECT EIR APPROACH AND ASSUMPTIONS

This EIR has been prepared as a program EIR for the Focus Area Plan, while incorporating a project-level analysis for the proposed Greystar project. A program EIR is a type of EIR authorized by section 15168 (Program EIR) of the CEQA Guidelines for use in documenting the environmental impacts of community general plans, specific plans, precise plans, and other planning "programs." As explained in the CEQA Guidelines, a program EIR is useful in evaluating the potential environmental impacts of a project that involves a series of interrelated actions that can reasonably be characterized as a single project. This EIR describes the anticipated areawide and community-wide impacts of the Plan (including the Greystar project). The EIR describes the cumulative, aggregate effects of the Plan related to land use planning, infrastructure needs, mobility and connectivity, and associated development assumptions on Plan areawide and community-wide environmental conditions, and also the implications of these components as they apply to the site-specific Greystar project. Such impacts are described at a level of detail consistent with the level of detail provided in the proposed Freedom Circle Focus Area Plan/Greystar General Plan Amendment.

Pursuant to CEQA, this program EIR evaluates the Plan-related impacts and mitigation needs that can be identified at this time. While this EIR evaluates the project-specific impacts and mitigation needs for the Greystar project at the project level (this document services as a project EIR for the Greystar project), other future, individual, site-specific development and infrastructure projects ultimately facilitated by the Focus Area Plan and required comprehensive planning study (e.g., specific plan), but which are not yet described in a design level of detail, will be evaluated for consistency with this EIR when they are proposed, subject to adoption of the comprehensive planning study. The CEQA-required environmental review of these subsequent development applications and improvement projects will be accomplished when such proposals come before the City. At that time, when the details of those individual project are sufficiently defined, each project will be subject to its own, project-specific environmental determination by the City, in compliance with CEQA requirements.

The program EIR also has been intentionally prepared to streamline future CEQA compliance, including CEQA compliance for the required comprehensive planning study (specific plan). For example, the mitigation measures in the EIR are not generalized goals and policies, but instead are detailed actions and performance standards that will be required by the comprehensive plan's CEQA document to implement site-specific, individual development projects and public improvements. Subject to adoption of the comprehensive planning study (specific plan), environmental review of future projects could be expected to proceed pursuant to CEQA sections 15168 (Program EIR), 15183 (Projects Consistent With a Community Plan, General Plan, or Zoning), 15183.3 (Streamlining for Infill Projects), 21094 (Later Projects; Tiered Environmental Impact Reports; Initial Study; Use of Prior Reports), 15063 (Initial Study), 15152 (Tiering), 15162 (Subsequent EIRs and Negative Declarations), 15163 (Supplement to an EIR),

15164 (Addendum to an EIR or Negative Declaration), other CEQA streamlining provisions, Public Resources Code section 21155.4 (Implementation of the Sustainable Communities Strategy), or Government Code section 65457 (Specific Plans).

Individual development projects and public improvements within the Focus Area may be able to use this EIR to streamline subsequent CEQA review in a number of different ways. If the City determines that (1) the individual project is within the scope of the program examined in the program EIR, (2) no new effects that are not otherwise examined in the program EIR will occur as a result of the individual project, and (3) no new mitigation measures are required, then no additional environmental documentation will be required for that project. If these conditions are not met and a subsequent EIR or negative declaration is required, the program EIR can (1) provide the basis in an initial study for determining whether the later activity may have any significant effects, (2) be incorporated by reference to deal with regional influences, secondary effects, cumulative impacts, broad alternatives, and other factors that apply to the program as a whole, or (3) focus an EIR on a subsequent project to permit discussion solely of new effects which had not been considered before. (CEQA Guidelines section 15168)

Impact Assessment Assumptions

This program EIR evaluates the likely environmental consequences of development under the Freedom Circle Focus Area Plan/Greystar General Plan Amendment by the year 2040 (the horizon year for the Focus Area Plan), and identifies mitigation measures and alternatives that could avoid or reduce potentially significant adverse environmental impacts and increase beneficial effects.[1] Based both on projections provided by the Association of Bay Area Governments (ABAG) and on the proposed Focus Area Plan (including the Greystar project), the City has prepared development assumptions for the Plan Area (including the Greystar project) that forecast anticipated growth between 2020 and 2040.

The Freedom Circle Focus Area (upon approval of the proposed General Plan amendment) would be added as a Phase III Focus Area to the General Plan (Section 5.4.7, and any change in land use designation or rezoning of land within the Freedom Circle area would be subject to the requirements of the Future Focus Area Goals and Policies of the General Plan, as amended (see above). Although projects identified for Phase III of the General Plan require the City to perform the necessary Phase III prerequisite studies as part of the planning process, there is no near-term timeframe limit during which a Future Focus Area can be considered, which would allow for the Greystar project to be developed concurrently with the Focus Area planning process. The Freedom Circle Focus Area Plan, encompassing an area primarily designated High Intensity Office/R&D with some Regional Commercial, would allow development of up to 3,600 dwelling units (including the Greystar project site), 2,000,000 square feet of net new office space above the remaining 1,020,000 square feet of development currently allowed in the Plan Area, and 2,000 square feet of retail (on the Greystar project site), with additional land provided for public parks (including the 2.0-acre park proposed by the Greystar project) and open space. The Greystar project, also evaluated in this EIR (at a project level rather than a program level), proposes development of three buildings with 1,075 residential units and 2,000 square feet of retail space, plus a 2.0-acre park, on two existing parcels in the Plan Area.

Since future development in the Plan Area would be based on market demand and individual property owner decisions regarding if and when to develop their properties, the development

[1]CEQA Guidelines section 15149(b).

assumptions are forecasts of what could occur with implementation of the Focus Area Plan (and comprehensive planning study), not mandatory development targets. However, the Greystar project applicant has submitted an application seeking a General Plan amendment to allow development of their property, and the applicant has provided information of sufficient detail to provide the detailed project-level evaluation required under CEQA.

Development in the Focus Area Plan Area would be expected to occur in two phases, as described in Chapter 3 (Project Description), section 3.5 (Development Assumptions). However, as required under CEQA Guidelines section 15378, this EIR evaluates the combined Focus Area Plan phases as one whole project.

Impact Assessment Baseline

CEQA Guidelines sections 15125(a) and (e) conservatively stipulate that the existing environmental setting (the physical environmental conditions in the project vicinity when the Notice of Preparation [NOP] is published or the environmental analysis begun) normally constitutes the baseline physical conditions for determining whether an impact is significant. The NOP for this EIR was published on June 26, 2020. Consistent with this guideline, all impact evaluations in this EIR use the "Setting" section of each environmental topic chapter (e.g., Air Quality, Noise, Transportation) as the existing physical environmental conditions to describe "what is on the ground now" (as of June 26, 2020 in compliance with CEQA law). These existing conditions are the starting point (baseline) from which impacts resulting from the Freedom Circle Focus Area Plan/Greystar General Plan Amendment are identified. Therefore, project effects are added to existing conditions to identify potential impacts resulting from Plan implementation (including the Greystar project). The environmental baseline is "what is on the ground now," not "what might be on the ground if the Focus Area Plan is not adopted."

For the environmental baseline, CEQA and CEQA case law recognize that the inventory of existing conditions is permitted to encompass a reasonable time span. For example, the most recent, available, and precise data should be used instead of more recent anecdotal or speculative data.

For a comparison of impacts resulting from the proposed Freedom Circle Focus Area Plan/Greystar General Plan Amendment versus the current City of Santa Clara General Plan, see the discussion of Alternative 1 (No Project – Existing City of Santa Clara General Plan) in chapter 21 of this EIR (Alternatives to the Proposed Project).

1.4 EIR SCOPE--SIGNIFICANT ISSUES AND CONCERNS

This EIR addresses the following areas of potential environmental impact or controversy known to the Lead Agency (the City of Santa Clara), including those issues and concerns identified by the City in its Notice of Preparation (NOP) of this EIR (dated June 26, 2020)[1] and by other

[1]The Notice of Preparation (NOP) is a CEQA-required notice sent by the Lead Agency to notify the Responsible Agencies, Trustee Agencies, and potentially involved federal agencies that the Lead Agency plans to prepare an EIR for the project. The NOP is also used to solicit guidance regarding the necessary and appropriate scope and content of the EIR. The City's NOP for the Freedom Circle Focus Area Plan/ Greystar General Plan Amendment, and comment letters received on the NOP, are included in the EIR appendix.

agencies, organizations, and individuals in response to the NOP. In addition, a public scoping meeting was held during the NOP 30-day review period to solicit input.

These environmental concerns relate to the following topics (listed in the order that they are addressed in this EIR):[1]

- Aesthetics
- Air Quality
- Biological Resources
- Cultural and Historical Resources (including Tribal Cultural Resources)
- Geology and Soils
- Greenhouse Gas Emissions and Energy
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation
- Utilities and Service Systems

1.5 "SIGNIFICANT IMPACTS" AND OTHER KEY EIR TERMINOLOGY

This EIR identifies those adverse environmental impacts that are expected to be “significant” and corresponding mitigation measures designed to avoid or reduce those impacts to less-than-significant levels or, if less-than-significant levels cannot feasibly be achieved, to reduce the significant impacts to the extent feasible. Where the EIR determines that a particular impact cannot be mitigated to a less-than-significant level, the EIR identifies that impact as "significant and unavoidable." EIR section 20.3 (Significant Unavoidable Impacts) lists all significant unavoidable project impacts of the Plan (including the Greystar project). Identified significant impacts that are not listed in section 20.3 as unavoidable are either less than significant without the need for mitigation, or can be mitigated to a less-than-significant level by implementation of the associated mitigation measure(s) identified in this EIR. The individual environmental topic chapters provide more detail.

CEQA Guidelines section 15130 mandates that an EIR consider and discuss the cumulative impacts of a project when the project's incremental effect is cumulatively considerable. A cumulative impact is the result of the combination of the impacts resulting from the project together with other projects causing related impacts (section 15130). EIR section 20.1 discusses cumulative impacts.

The particular EIR terms noted above ("significant," "unavoidable," "mitigation," “cumulative”) and other key CEQA terminology used in this EIR are defined in Table 1-1.

[1]As explained in the NOP, Agriculture and Forestry Resources, Mineral Resources, and Wildfire have been determined not to apply to the Focus Area Plan (including the Greystar project site), based on the Plan Area’s location and characteristics. Further discussion is provided in section 20.5, “Effects Found Not to Be Significant,” in chapter 20 of this EIR.

1.6 EIR ORGANIZATION AND CONTENT

Each of the environmental topics presented in chapters 4 (Aesthetics) through 18 (Utilities and Service Systems) include the following subsections:

Setting, which describes relevant existing conditions related to the environmental topic;

Regulatory Setting, which describes federal, State and local laws, regulations and policies relevant to potential impacts for the environmental topic; and

Impacts and Mitigation Measures, including:

- *Significance Criteria*, which identifies the CEQA and other agency-recommended criteria for determining the significance of a potential impact;

- *Relevant Freedom Circle Focus Area Plan Policies,* which describes aspects of the proposed Plan designed to inform City planning and decision-makers (and the comprehensive plan) on potential impacts related to the environmental topic; and

- *Impacts and Mitigations*, which identifies potential project impacts; whether each identified impact is "significant" or "less-than-significant"; mitigation for each identified "significant" impact; and whether each impact would be "significant" or "less-than-significant" after mitigation.

In addition, this Draft EIR includes a chapter evaluating the Plan's consistency with local and regional plans (chapter 19), a chapter that includes various CEQA-mandated sections (chapter 20), a chapter comparing various alternatives to the proposed Plan (chapter 21), and a chapter introducing the mitigation monitoring requirements should the proposed Focus Area Plan and/or Greystar project be adopted (chapter 22).

Table 1-1

DEFINITIONS OF KEY EIR TERMINOLOGY

Significant Impact	"Significant effect on the environment" (significant impact) means a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic and aesthetic significance. "*An economic or social change by itself shall not be considered a significant effect on the environment. A social or economic change related to a physical change may be considered in determining whether the physical change is significant."* (CEQA Guidelines, section 15382)
Cumulative Impacts	"Cumulative impacts" are defined as *"two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts."* (CEQA Guidelines, section 15355)
Significant Unavoidable Impact	"Significant unavoidable impact" is defined as a significant adverse environmental impact for which either no mitigation or only partial mitigation is feasible. If the project is to be approved without imposing an alternative design, the Lead Agency must include in the record of the project approval a written statement of the specific reasons to support its action - i.e., a "statement of overriding considerations." (CEQA Guidelines, sections 15126.2[c] and 15093[b])
Significance Criteria	The criteria used in this EIR to determine whether an impact is or is not *"*significant*"* are based on (a) CEQA-defined "mandatory findings of significance" - i.e., where any of the specific conditions occur under which the Legislature and the Secretary of Resources have determined constitute a potentially significant effect on the environment, which are listed in CEQA Guidelines section 15065; (b) specific criteria that a Resources Agency has determined are "normally" considered to constitute a "significant effect on the environment"; (c) the relationship of the project effect to the adopted policies, ordinances, and standards of the Lead Agency and of responsible agencies; and/or (d) commonly accepted practice and the professional judgment of the EIR authors and Lead Agency staff.
Mitigation Measure	For each significant impact, the EIR must identify a specific "mitigation" measure or set of measures capable of *"(a) avoiding the impact altogether by not taking a certain action or parts of an action; (b) minimizing impacts by limiting the degree or magnitude of the action and its implementation; (c) rectifying the impact by repairing, rehabilitating, or restoring the impacted environment; (d) reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; or (e) compensating for the impact by replacing or providing substitute resources or environments, including through permanent protection of such resources in the form of conservation easements."* (CEQA Guidelines, section 15370)

SOURCE: MIG, 2021.

2. SUMMARY

This EIR chapter provides a summary description of the Freedom Circle Focus Area Plan/ Greystar General Plan Amendment, a list of associated environmental issues to be resolved, a summary identification of significant impacts and mitigation measures associated with the Specific Plan, and a summary identification of possible alternatives to the Focus Area Plan/Greystar General Plan Amendment (pursuant to CEQA Guidelines section 15123, Summary).

This summary should not be relied upon for a thorough understanding of the details of the project, its individual impacts, and related mitigation needs. Please refer to Chapter 3 for a complete description of the project, Chapters 4 through 18 for a complete description of environmental impacts and associated mitigation measures, Chapter 19 for a discussion of the Plan's consistency with other local and regional plans, Chapter 20 for CEQA-mandated sections, and Chapter 21 for an evaluation of alternatives to the project.

2.1 PROPOSED FREEDOM CIRCLE FOCUS AREA PLAN/ GREYSTAR PROJECT GENERAL PLAN AMENDMENT

The Freedom Circle Focus Area Plan is one step in the comprehensive planning process required as a General Plan prerequisite for incorporating a new “Focus Area” into the City’s 2010-2035 General Plan, under Phase III, which is programmed to occur between 2023 and 2035. The Focus Area Plan would designate changes to the Land Use Diagram that describe the future land uses anticipated in the Focus Area Plan Area. The Focus Area Plan process requires conformance with applicable General Plan policies, including preparation and approval of a future, comprehensive planning study (such as a specific plan). The planning study would establish more detailed policies, regulations, and actions for the Plan Area, and would also refine the framework for development, development assumptions, and related infrastructure and implementation needs. The Draft EIR briefly summarizes or describes Focus Area Plan policies designed to inform City planning and decision-makers of the detailed actions and performance standards that will be required by the comprehensive plan’s CEQA document to implement site-specific, individual development projects and public improvements, where such policies are relevant to the environmental analysis as set forth in the EIR.

The Greystar project, included in the Plan Area and proposed while this Focus Area Plan as part of the Plan, would be a 1,075-unit multi-family residential project (with some project-serving retail and a two-acre public park) proposed for two currently vacant parcels formerly owned by Intel Corporation in the southeastern portion of the Plan Area. Because the General Plan land use designation currently allows high-intensity office/R&D rather than residential and retail development as proposed, the Greystar project would require a General Plan amendment.

Because it is not currently designated a Future Focus Area but will be, and as a site-specific development proposal and General Plan Amendment evaluated in this EIR concurrently with the Freedom Circle Focus Area Plan, the Greystar project, if approved, could proceed without

adoption of the future planning study required for the remainder of the Plan Area.[1] As discussed in Chapter 3, Project Description, of this EIR, the proposed General Plan Amendment would allow for a change in land use designation and rezoning for the Greystar project site as long as a new future focus area was being proposed (e.g., the new Freedom Circle Future Focus Area) and would also allow for the Greystar project to be developed concurrently with the Focus Area planning process.

2.1.1 Freedom Circle Focus Area Plan Area/Greystar Project Site

The Freedom Circle Focus Area covers approximately 108 acres and currently contains predominantly commercial uses such as biotech and electronics, business offices, a hotel (Marriott), and various support services (such as car rental, UPS store, medical/dental, and restaurants).

The Plan Area is generally bounded by Great America Parkway to the west, California's Great America amusement park to the north, San Tomas Aquino Creek to the east, and U.S. 101 to the south.

The Freedom Circle Focus Area Plan Area, much like the surrounding neighborhood, is characterized by several "superblocks" with ample surface parking, significant setbacks, and significant separation between buildings. The Plan Area is relatively flat and developed with buildings ranging in height from two and three stories to up to 13 stories (Marriott Hotel) in the west; buildings in the rest of the Plan Area range from one to three stories. The Plan Area is generally underutilized, and some buildings are vacant. There are no residential land uses, public parks, or historic structures located in the Plan Area. Private automobiles predominate the suburban streetscape environment that is defined by limited pedestrian and bicycle accessibility. Visible infrastructure includes local streets and utilities, such as streetlights, and the City's Pump Station on Freedom Circle at Mission College Boulevard in the east. Due to the large-lot development pattern and limited number of roadways within the Plan Area, linkages and connectivity across the Plan Area are limited.

The vacant Greystar project site (approximately 13.3 acres) is located in the southeast portion of the Plan Area, bordered by San Tomas Aquino Creek, U.S. 101, Pedro's Restaurant, and part of Santa Clara Park (a 12-building business center).

As used in this EIR, the terms "Freedom Circle Focus Area Plan," "Plan" (when distinguished from any other plan), and "Focus Area Plan" are intended to refer all aspects of the current draft Freedom Circle Focus Area Plan/Greystar General Plan Amendment, including all the approval actions required to implement the Plan. Because CEQA Guidelines section 15378 (Project) defines a "project" as "the whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment[.]," any references to the Focus Area Plan Area without consideration of the Greystar project site or to the individual Greystar project itself will be labeled in terms to make clear those distinctions (i.e., "not including the Greystar site," "remainder of the Plan Area,"

[1]Chapter 3, Project Description, of this EIR, explains the proposed General Plan Amendment that would provide for additional Future Focus Areas to be added to the General Plan Land Use diagram through the General Plan Amendment process and recognize that a Future Focus Area is a precursor to the comprehensive planning process required for implementation of all Focus Areas but not a comprehensive planning process in and of itself.

"Greystar project" or "Greystar site"). The terms "Greystar Project," "Greystar project," "Greystar General Plan Amendment (or GPA)," and "Greystar" (when distinguished from any other project) as used in this EIR all refer to the specific, current, individual Greystar project proposal.

A more detailed description is included in upcoming Draft EIR chapter 3 (Project Description).

2.1.2 Basic Project Objectives

(a) Focus Area Plan. The overarching goal of the Freedom Circle Focus Area Plan is to outline new land uses that will convert the area from an employment center to a high-intensity mixed-use neighborhood including residential developments. As such, the Freedom Circle Focus Area Plan has been formulated to establish the comprehensive planning framework necessary to guide development, with goals, policies, and design principles that will inform redevelopment in the Focus Area (including the Greystar project).

The Focus Area Plan goals listed below are referred to collectively in this EIR as the "basic project objectives" (CEQA Guidelines section 15124[b]):

- Develop an urban-scale mixed-use activity center in North Santa Clara to support economic vitality while increasing residential options.
- Provide for a range of housing types and densities to accommodate future residents and to create diversity in building scale and typology.
- Create a complete neighborhood that provides easy access to day-to-day services and amenities for residents, employees and visitors.
- Reduce reliance on private vehicles and improve jobs/housing balance by locating amenities and jobs within walking distance to housing.
- Create a human-scaled public realm through inviting architecture and urban design.
- Improve multi-modal transportation options and connections.
- Enhance connectivity to the San Tomas Aquino Creek trail.

(b) Greystar Project. The basic objectives of the Greystar project, as provided by the applicant and identified by the City, are:

- To both acknowledge the level of development interest in North Santa Clara, and to be consistent with and comply with the policies of the Freedom Circle Focus Area Plan. The Focus Area Plan will outline new land uses that will convert the area from an employment center to a high-intensity mixed-use neighborhood including residential developments. These changes will help meet the demand for housing and for using land more efficiently at high, urban densities.
- Create a vibrant residential community that complements other North Santa Clara neighborhoods and encourages walking and bike riding, linking the Freedom Circle neighborhood to the San Thomas Aquino Creek Trail via a new, two-acre public park.

- Redevelop a vacant lot in North Santa Clara and adjacent to the San Tomas Aquino Creek Trail with attractive and desirable amenities, housing, and a public park available to all Santa Clara residents.

- Support, enhance and connect to the City's existing and planned open space network.

- Create a vibrant, two-acre, multifunctional public park with space allocated for such activities including a dog park, sport court, and a playground for ages 2 and up.

- Meet the City's Affordable Housing Ordinance and Inclusionary Zoning requirements, including any direction on levels of affordability from the City Council.

- Create a human scaled public realm through inviting architecture and urban design.

- Activate street frontages and ground floor uses to create a pedestrian-friendly, cohesive urban environment.

- Minimize surface parking by providing below-grade and structured parking facilities.

- Redesign the Freedom Circle right-of-way adjacent to the project to better balance space dedicated to vehicles, bicycles, and pedestrians.

- Minimize environmental impacts through sustainable building and infrastructure by designing to a GreenPoint Rated Silver (or equivalent) level and remaining consistent with CALGreen and Santa Clara Climate Action Plan requirements.

- Contribute to the City's vehicle miles travelled (VMT) goals and implement Transportation Demand Management (TDM programs).

- Support and enhance the City's goal for a balanced transportation network serving all modes of transportation - including walking, biking, and driving - to address the City's transportation challenges and needs, and to build on Santa Clara's existing transportation system.

- Realize a market economic return on the property that reflects the costs of land, site preparation, environmental considerations, infrastructure, open space improvements and vertical development.

2.1.3 Development Forecast

The Freedom Circle Focus Area Plan would not entitle development, but is instead one step in the comprehensive planning process required as a General Plan prerequisite for incorporating a new "Focus Area" into the City's 2010-2035 General Plan, under Phase III, which is programmed to occur between 2023 and 2035. The Focus Area Plan would designate changes to the Land Use Diagram that describe the future land uses anticipated in the Focus Area Plan Area. The Focus Area Plan process requires conformance with applicable General Plan policies, including preparation and approval of a future, comprehensive planning study (such as a specific plan). The planning study would establish more detailed policies, regulations, and actions for the Plan Area, and would also refine the framework for development, development capacity, and related infrastructure and implementation needs. The Greystar project is a

proposal for an undeveloped 13.3-acre site in the Plan Area that would allow development of three seven-story residential buildings with 1,075 residences, plus some ground-floor retail and a two-acre public park. As a site-specific development proposal and General Plan amendment evaluated in this EIR concurrently with the Freedom Circle Focus Area Plan, the Greystar project, if approved, could proceed without adoption of the future planning study required for the remainder of the Plan Area.

However, for purposes of CEQA, because the Focus Area Plan is one of a series of interrelated actions (i.e., is a necessary requirement in planning for future development in the Plan Area), the anticipated development forecasted for the Plan Area is shown in Table 3-2 in chapter 3, Project Description. This development forecast represents assumptions of maximum development that could occur by 2040 with implementation of a future comprehensive plan (specific plan) under market conditions (including the Greystar project), not mandatory development targets identified by the City of Santa Clara.

As shown in Table 3-2 in chapter 3 (Project Description) of this EIR, total residential and non-residential development in the Plan Area would include up to 3,600 residential units, 2,000,000 square feet (SF) of office above the remaining 1,020,000 SF of development currently allowed, 2,000 square feet of amenity space, and a 2.0 acre public park, and various open spaces.[1] Of these totals, the Greystar project would include approximately 1,075 residential units, 2,000 square feet of retail, and a 2.0-acre public park.

2.2 REQUIRED APPROVALS

2.2.1 Focus Area Plan

City of Santa Clara Discretionary Approvals

Implementation of the Freedom Circle Focus Area Plan would require, but is not limited to, the following discretionary approvals by the City of Santa Clara:

City approvals being sought now

- Certification of the Final Environmental Impact Report
- Adoption of a Mitigation Monitoring and Reporting Program
- Adoption of the Freedom Circle Focus Area Plan
- Adoption of a General Plan amendment to designate the Freedom Circle Focus Area Plan Area as a Phase III Focus Area in the City of Santa Clara 2010-2035 General Plan and associated zoning changes for consistency with the current zoning code

[1]Due to the preliminary nature of the Focus Area Plan, public parkland requirements and open space requirements for remaining development in the Focus Area Plan cannot be determined at this time; however, chapter 15, Public Services, of this EIR provides a discussion of the regulatory setting for determining potential future impacts on public parks and possible related parkland needs and open space needs, as well as an evaluation of the Greystar project park impacts.

Future City approvals

- Preparation and adoption of a comprehensive planning study (such as a specific plan) for the Focus Area
- Future discretionary review as necessary, including CEQA review, for individual public and private development proposals in the Plan Area

Other Government Agency Approvals

Future individual public and private development proposals in the Plan Area would be expected to also require review or approvals from other jurisdictional agencies, including, but not limited to:

- Santa Clara Valley Transportation Authority (VTA)
- Santa Clara Water & Sewer Utilities Department
- Silicon Valley Power (SVP)
- County of Santa Clara Department of Environmental Health
- Santa Clara County Airport Land Use Commission (ALUC)
- San Francisco Bay Regional Water Quality Control Board (RWQCB)
- Bay Area Air Quality Management District (BAAQMD)
- California Department of Toxic Substances Control (DTSC)
- California Department of Transportation (Caltrans)
- California Department of Fish and Wildlife (CDFW)
- United States Fish and Wildlife Service (USFWS)

2.2.2 Greystar Project

City of Santa Clara Discretionary Approvals

Implementation of the Greystar project would require, but is not limited to, the following discretionary approvals by the City of Santa Clara:

- Certification of the Final Environmental Impact Report
- Adoption of a Mitigation Monitoring and Reporting Program
- Adoption of the Freedom Circle Focus Area Plan

- Adoption of General Plan amendments and zoning changes as necessary to ensure consistency between the Greystar Project and the City of Santa Clara 2010-2035 General Plan and current zoning code
- Architectural Review
- Vesting Tentative Parcel Map
- Confirmation of existing view easements along U.S. 101

Other City/agency review

Implementation of the Greystar Project would also require, but is not limited to, the following additional review and/or approval by other City of Santa Clara departments and other agencies:

- City of Santa Clara Water & Sewer Utilities (water and wastewater hookups)
- Santa Clara Fire Department (proposed fire prevention systems and emergency vehicle access)
- Silicon Valley Power (SVP)
- California Department of Toxic Substances Control (contaminated soil removal/remediation, including removal of cap; removal/ modification of land use covenant/deed restriction)
- Santa Clara Fire Department, Fire Prevention & Hazardous Materials Division (CUPA) (contaminated soil removal/remediation)
- Bay Area Air Quality Management District (possible permit for excavation of contaminated soil)
- San Francisco Regional Water Quality Control Board (possible waste discharge requirements for contaminated soil to be removed/remediated)
- Santa Clara County Airport Land Use Commission (ALUC)
- Santa Clara Valley Water District (Valley Water) (encroachment permit related to proposed trail connection to San Tomas Aquino Creek Trail)
- Santa Clara Valley Transportation Authority (VTA)
- California Department of Transportation (Caltrans)
- California Department of Fish and Wildlife (CDFW)
- United States Fish and Wildlife Service (USFWS)

2.3 ENVIRONMENTAL ISSUES

As required by the CEQA Guidelines, this EIR addresses the following areas of potential environmental impact or controversy known to the Lead Agency (the City of Santa Clara), including those issues and concerns identified by the City in its Notice of Preparation (NOP) of this EIR (dated June 26, 2020) and by other agencies, organizations, and individuals in response to the NOP. These environmental concerns relate to the following topics (listed in the order that they are addressed in this EIR):[1]

- Aesthetics
- Air Quality
- Biological Resources
- Cultural and Historical Resources
- Geology and Soils
- Greenhouse Gas Emissions and Energy
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation
- Utilities and Service Systems

2.4 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

For each of the 15 environmental topics listed above, any ***"significant"*** project or cumulative impact and associated mitigation measure or measures identified in this EIR are summarized in Table 2.1, the SUMMARY OF POTENTIALLY SIGNIFICANT IMPACTS AND RECOMMENDED MITIGATION MEASURES, which follows.[2] The summary chart has been organized to correspond with the more detailed impact and mitigation discussions in chapters 4 through 18 of this EIR. The chart is arranged in five columns: (1) impacts, (2) significance without mitigation, (3) mitigation measures, (4) the entity responsible for implementing each mitigation measure, and (5) the level of impact significance after implementation of the mitigation measure(s).

[1]As explained in the NOP, Agriculture and Forestry Resources, Mineral Resources, and Wildfire have been determined not to apply to the Specific Plan, based on the Plan Area's location and characteristics. Further discussion is provided in section 20.5, "Effects Found Not to Be Significant," in chapter 20 (CEQA-Mandated Sections) of this EIR.

[2]Additional discussion of cumulative impacts is provided in chapter 20, CEQA-Mandated Sections, of this EIR, with the exception Air Quality (chapter 5), Greenhouse Gas Emissions and Energy (chapter 9), and Utilities and Service Systems (chapter 18). These environmental topics are analyzed in their respective chapters due to the inherently cumulative nature of impacts related to regional and/or global conditions or City-wide capital improvement planning implications.

Table 2.1
SUMMARY OF POTENTIALLY SIGNIFICANT IMPACTS AND RECOMMENDED MITIGATION MEASURES

Impacts	Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Significance With Mitigation
AESTHETICS				
Impact 4-1: Effects on Scenic Vistas—Plan Area	LS	N/A	N/A	N/A
Impact 4-2: Effects on Scenic Vistas—Greystar Project	LS	N/A	N/A	N/A
Impact 4-3: Impacts on Existing Visual Character and Quality—Plan Area. New development throughout the Plan Area could include a combination of residential, retail, office, and open space uses. New uses could include combinations of, for example, residential, retail, restaurant, and office uses in single or mixed-use buildings. The Freedom Circle Focus Area Plan is, by definition, a generalized plan. As stated in the General Plan, a comprehensive planning study is required for future focus areas, which would include, among other items, "…appropriate design guidelines for private development, public facilities, streetscapes and transitions to adjacent land uses" (Prerequisite Policy 5.1.1-P8). Although the Focus Area Plan includes goals and policies intended to provide direction for minimizing visual impacts from future development, these general goals and policies lack the detail and enforceability that would be	S	**Mitigation 4-3.** As required by the City of Santa Clara General Plan, the City shall prepare a future comprehensive planning study for the Freedom Circle Focus Area Plan (whether a specific plan or another type of plan) and it shall include the following performance and design standards and guidelines that apply to all future individual development proposals in the Plan Area to minimize visual impacts by: (a) those enhancing form and design in the Plan Area; (b) those incorporating land use densities and associated changes in intensity consistent with the General Plan; (c) those encouraging street trees and landscaping along corridors to beautify the streetscape; (d) those coordinating signage color, shape, and graphic styles with the City's signage system; (e) those including standards to ensure compatibility of new development with nearby existing and planned development; (f) those establishing standards related to building form, mass, and scale that enhance the	City	LS

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SU = Significant unavoidable impact
NA = Not applicable

See Table 1.1 for definitions.

Impacts	Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Significance With Mitigation
included in the comprehensive planning study, and therefore present potential conflicts with applicable General Plan policies governing scenic quality. This represents a ***potentially significant impact.***		pedestrian realm and provide transitions to adjacent lower-density development and public spaces; (g) those including guidelines and standards for pedestrian amenities; and (h) those fostering site design so that building height and massing would not overshadow new parks and plazas and/or interfere with solar collectors. Incorporation of such performance and design standards and guidelines in the required comprehensive planning study for the Plan Area would minimize conflicts with General Plan policies pertaining to visual character. Therefore, implementation of this mitigation would reduce this impact to a ***less-than-significant level.***		
Impact 4-4: Impacts on Existing Visual Character and Quality—Greystar Project	LS	N/A	N/A	N/A
Impact 4-5: Project Light and Glare Effects—Plan Area	LS	N/A	N/A	N/A
Impact 4-6: Project Light and Glare Effects—Greystar Project	LS	N/A	N/A	N/A
AIR QUALITY				
Impact 5-1: Conflict with 2017 Clean Air Plan – Freedom Circle Focus Area Plan	LS	N/A	N/A	N/A

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NA = Not applicable

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Impacts	Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Significance With Mitigation
Impact 5-2: Conflict with 2017 Clean Air Plan – Greystar General Plan Amendment	LS	N/A	N/A	N/A
Impact 5-3: Result in a Cumulatively Considerable Net Increase in Criteria Pollutants for which the Region is Non-Attainment – Freedom Circle Focus Area Plan. Implementation of the Freedom Circle Focus Area Plan could result in growth in the Plan Area that exceeds the level of growth accounted for in the City's General Plan and, therefore, could generate a cumulatively considerable net increase in criteria air pollutants for which the region is in non-attainment. This represents a ***potentially significant impact.***	S	**Mitigation Measure 5-3A: Implement BAAQMD Basic Construction Mitigation Measures.** The City shall require new development projects occurring under implementation of the Freedom Circle Focus Area Plan to implement the BAAQMD's Basic Control Mitigation Measures to address fugitive dust emissions that would occur during earthmoving activities associated with project construction. These measures include: 1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day. 2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered. 3. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited. 4. All vehicle speeds on unpaved roads shall be limited to 15 mph. 5. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid	City; Individual project applicants	SU

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Impacts	Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Significance With Mitigation
		as soon as possible after grading unless seeding or soil binders are used. 6. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points. 7. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation. 8. Post a publicly visible sign with the telephone number and person to contact at the City regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.		
		Mitigation Measure 5-3B: Require a Project-level Construction Assessment for New Development Proposed Under Implementation of the Freedom Circle Focus Area Plan. The City shall require applicants to	City; Individual project applicants	SU

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Impacts	Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Significance With Mitigation
		submit a quantitative project-level construction criteria air pollutant and toxic air contaminant emissions analysis for future development proposed under implementation of the Freedom Circle Focus Area Plan. The estimated construction criteria air pollutant and toxic air contaminant emissions shall be compared against the thresholds of significance maintained by the Bay Area Air Quality Management District (BAAQMD) and, if emissions are shown to be above BAAQMD thresholds, the City shall require the implementation of mitigation to reduce emissions below BAAQMD thresholds or to the maximum extent feasible. Mitigation measures to reduce emissions could include, but are not limited to: ▪ Selection of specific construction equipment (e.g., specialized pieces of equipment with smaller engines or equipment that will be more efficient and reduce engine runtime); ▪ Requiring equipment to use alternative fuel sources (e.g., electric-powered and liquefied or compressed natural gas), meet cleaner emission standards (e.g., U.S. EPA Tier IV Final emissions standards for equipment greater than 50-horsepower), and/or utilizing added exhaust devices (e.g., Level 3 Diesel Particular Filter); ▪ Minimizing the idling time of diesel-powered construction equipment to two minutes;		

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Impacts	Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Significance With Mitigation
		▪ Requiring that all construction equipment, diesel trucks, and generators be equipped with Best Available Control Technology for emission reductions of NOx and PM; ▪ Requiring all contractors use equipment that meets CARB's most recent certification standard for off-road heavy-duty diesel engines; and ▪ Application of Low-VOC paints to interior and/or exterior surfaces (e.g., paints that meet SCAQMD Rule 1113 "Low-VOC" or "Super-Compliant" requirements).		
		Mitigation Measure 5-3C: Use Low- and Super Compliant VOC Architectural Coatings During Operational Activities. The City shall require the use of Low- and Super-Compliant VOC Architectural Coatings in maintaining buildings in Freedom Circle Focus Area Plan through Covenants Conditions and Restrictions (CC&Rs) and Ground Lease. Developed parcels shall require within their CC&Rs and/or ground leases requirements for all future interior and exterior spaces to be repainted with architectural coatings that meet the "Low-VOC" or "Super-Compliant" requirements. "Low-VOC" refers to paints that meet the more stringent regulatory limits of South Coast Air Quality Management District AQMD Rule 1113. "Super-Compliant" refers to paints that have been reformulated to levels well below the "Low-VOC" limits.	City; Individual project applicants	SU

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Impacts	Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Significance With Mitigation
		Mitigation Measure 5-3D: Implement TDM Program. Proposed residential and office land uses within the Freedom Circle Focus Area Plan shall prepare and implement Transportation Demand Management (TDM) programs that achieve a minimum reduction in vehicle miles traveled (VMT) of 20 percent compared to baseline conditions (i.e., without internal or external reductions accounted for, such as geographic location, land use interconnectivity, etc.), with at least 10 percent of the reduction coming through project-specific TDM measures (e.g., transit subsidies, telecommuting options, etc.). Even with implementation of these measures, this impact would remain ***significant and unavoidable***.	City; Individual project applicants	SU
Impact 5-4: Result in a Cumulatively Considerable Net Increase in Criteria Pollutants for which the Region is Non-Attainment – Greystar General Plan Amendment. Implementation of the Greystar General Plan Amendment / Project could result in the emission of criteria air pollutants that have the potential to exceed BAAQMD thresholds of significance. These activities represent a ***potentially significant impact.***	S	**Mitigation Measure 5-4A: See Mitigation Measure 5-3A.** **Mitigation Measure 5-4B: Use Low- and Super Compliant VOC Architectural Coatings During Construction.** During construction, the City shall require the Greystar Project use architectural coatings for exterior applications that meet “Low-VOC” or “Super-Compliant” standards, as defined in South Coast Air Quality Management District AQMD Rule 1113. “Super-Compliant” refers to paints that have been reformulated to levels well below the “Low-VOC”	Greystar project applicant	LS

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Impacts	Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Significance With Mitigation
		limits. This impact would be ***less than significant with mitigation incorporated.***		
Impact 5-5: Generate Toxic Air Contaminant Emissions that Expose Sensitive Receptors to Substantial Pollutant Concentrations During Construction – Freedom Circle Focus Area Plan. Implementation of the Freedom Circle Focus Area Plan would result in construction activities over the next approximately 20 years that generate toxic air contaminant emissions and could expose sensitive receptors to substantial pollutant concentrations. These activities represent a ***potentially significant impact.***	S	**Mitigation Measure 5-5: See Mitigation Measure 5-3B.** Even with implementation of these measures, this impact would remain ***significant and unavoidable.***	City; Individual project applicants	SU
Impact 5-6: Expose Sensitive Receptors to Substantial Operational Pollutant Concentrations – Freedom Circle Focus Area Plan	LS	N/A	N/A	N/A
Impact 5-7: Expose Sensitive Receptors to Substantial Pollutant Concentrations – Greystar General Plan Amendment	LS	N/A	N/A	N/A
Impact 5-8: Odors – Freedom Circle Focus Area Plan	LS	N/A	N/A	N/A
Impact 5-9: Odors – Greystar General Plan Amendment	LS	N/A	N/A	N/A

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Impacts	Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Significance With Mitigation
BIOLOGICAL RESOURCES				
Impact 6-1: Impacts on Special-Status Species, Riparian Habitat, Sensitive Natural Communities, and Wetlands	LS	N/A	N/A	N/A
Impact 6-2: **Potential Impacts on Threatened and Endangered Species Habitat.** Because biological resources are mobile and may colonized or relocate, even within built structures, before project work begins, the City would evaluate whether each individual, future project application (with the exception of the Greystar site [Ground-truthing of the biological resources on the Greystar property site on the December 12, 2020 site visit provided no evidence that further biological surveys would be required to be in compliance with this EIR's mitigation measures, as the site contained no vegetation, no aquatic resources, is regularly disked, and did not contain any small mammal burrows.]) would be required to prepare a biological resource survey for City review prior to approval of any development. This is to ensure that any future project activities within the Focus Plan Area that have the potential to degrade the habitat of any threatened or endangered species are evaluated according to Policy 5.10.1-P1 of the Santa Clara General Plan (see "Regulatory Setting" above). Disregarding City evaluation of the need for	S	**Mitigation 6-2.** Upon receiving applications for projects within the project area, the City shall evaluate the need for a specific biological resource survey of the project area and adjacent area that may be indirectly impacted by project work. If no biological resources are determined to be at risk for an individual project (i.e., potential for bird and bat species, within and directly adjacent to the project area, to occur and/or be affected by project activities is negligible), no further survey shall be required. However, if the City determines that biological resources within the proposed project area require further analysis, the project proponent shall be required to conduct a biological resource survey of the habitat and special-status species that may be impacted by project activities, either directly or indirectly. A report shall be provided to the City detailing survey methods, results, performance standards, and avoidance and minimization measures required to protect any special-status species with potential to be impacted, consistent with the regulatory agency protocols. Implementation of this measure would reduce the impact to a ***less-than-significant*** level.	City; Individual project applicants	LS

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Impacts	Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Significance With Mitigation
further biological resource surveys would be in violation of City policy and is therefore considered a ***potentially significant impact.***				
Impact 6-3: **Potential Impacts on Special-Status Plants.** There is a low potential for Congdon's tarplant (*Centromadia parryi* ssp. *congdonii*; California Rare Plant Rank 1B.2) and arcuate bush mallow (*Malacothamnus arcuatus*; California Rare Plant Rank 1B.2) to occur within the project area (with the exception of the Greystar site, which has been confirmed not to contain these plant species) , especially if the area is left undisturbed for a long period of time (i.e., a year or longer) and plants are able to colonize the project site. Without a proactive mitigation procedure in place, Plan implementation and any future projects planned within the Focus Area Plan could inadvertently result in the removal of special-status plants. This is considered a ***potentially significant impact.***	S	**Mitigation 6-3.** Before any project work within the project area, including the Greystar project site, a qualified botanist shall conduct site-specific, focused surveys according to CDFW guidelines to determine presence or absence of special-status plant species on the individual project site and any adjacent potential area of disturbance. A comprehensive, site-wide survey should be conducted within May to September before project work begins, to encompass the Congdon's tarplant and arcuate bush mallow's blooming periods. Following the completion of the surveys, a survey results report shall be prepared and provided to the City. This report should include, but should not be limited to, the following: (1) a description of the survey methodology; (2) a discussion of the survey results; and (3) a map showing the survey area and the location of any special-status plants encountered. If no rare plants are found, then no further mitigation would be required. If rare plants are found during the survey, the number of individuals present shall be documented, and the limits of population shall be marked with flagging. The flagged border of the population shall be avoided by construction personnel for the duration of the project. If the	City; Individual project applicants	LS

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Impacts	Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Significance With Mitigation
		species cannot be avoided or may be indirectly impacted, the applicant shall notify CDFW to discuss avoidance, minimization, and other measures as appropriate for each species population, including measures to be taken and protocols to be followed if special-status plants are inadvertently disturbed during construction activities. CDFW may require the preparation and implementation of a mitigation plan that details avoidance, preservation, and/or compensation for the loss of individual special-status plant species. Mitigation may include the purchase of mitigation bank credits, preserving and enhancing existing on-site populations, creation of off-site populations through seed collection and/or transplantation and monitoring these populations to ensure their successful establishment, and/or preserving occupied habitat off-site in perpetuity. Specific amount and method of mitigation and/or credits shall be determined in formal consultation with CDFW and/or USFWS. Implementation of this measure would reduce the impact to a ***less-than-significant level.***		
Impact 6-4: **Potential Impacts on Nesting Birds or Roosting Bats.** The Federal Migratory Bird Treaty Act and California Fish and Game Code sections 3503, 3503.5, 3513,	S	**Mitigation 6-4.** The demolition of any buildings, disturbance of gravel substrate, and/or removal of trees, shrubs, or weedy vegetation shall be avoided during the February 1 through August	City; Individual project applicants	LS

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Impacts	Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Significance With Mitigation
3800, and 4150 protect migratory and nesting birds, as well as roosting bats. Although the project does not specify which trees or buildings might be removed under individual projects facilitated by the Plan, trees (potential nesting and roosting habitat) or buildings could be disturbed or removed by Plan implementation. The possibility of removing trees and/or buildings that contain nests or roosting bats is identified here as a potentially significant impact. Any direct removal of trees or indirect disturbance by construction or operational activities during the nesting season that causes nest abandonment and/or loss of reproductive effort (killing or abandonment of eggs or young) is considered a "take." There is a low potential for burrowing owl (*Athene cunicularia*; California species of special concern), white-tailed kite (*Elanus leucurus*; California Fully-Protected Species), pallid bat (*Antrozous pallidus*), and Townsend's big-eared bat (*Corynorhinus townsendii*; California species of special concern) to utilize the landscaped habitat within the project area for roosting and/or nesting, especially if the area is left undisturbed for a long period of time. In addition, many common bird species without a special status, though protected by the MBTA, MBPA, and California Fish and Game Code (CFGC), may utilize buildings, gravel		31 bird nesting period to the extent possible. If no demolition, gravel disturbance, vegetation, or tree removal is proposed during the nesting period, no further action is required. If it is not feasible to avoid the nesting period, the project applicant shall retain a qualified wildlife biologist to conduct a survey for nesting birds at most 14 days prior to the start of removal of trees, shrubs, grassland vegetation, or buildings, including prior to grading or other construction activity. If demolition of buildings, disturbance of gravel substrate, or vegetation removal efforts do not begin within the 14 days following the nesting bird survey, another survey shall be required. The area surveyed shall include all construction sites, access roads, and staging areas, as well as reasonably accessible areas within 150 feet outside the boundaries of the areas to be cleared or as otherwise determined by the biologist and dependent on species' life history requirements. If an active nest is discovered in the areas to be directly physically disturbed, or in other habitats within the vicinity of construction boundaries and may be disturbed by construction activities (as determined by the qualified biologist), clearing and construction shall be postponed within a species-specific no-work buffer (to be determined by the qualified biologist and based on the species life history and regulatory requirements) until the biologist has determined		

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Impacts	Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Significance With Mitigation
substrates, and the landscaped vegetation within the project area for nesting, foraging, and roosting. Common bat species protected by the CFGC may also rarely utilize vegetation or roof tiles within the project area for individual roosting. Without a proactive mitigation procedure in place, Plan implementation could inadvertently result in the removal of existing trees containing nests or eggs of migratory birds, raptors, or bird species during the nesting season, or roosting bats, which would be considered unlawful take under the MBTA and the CFGC (see Regulatory Setting above). This is considered a ***potentially significant impact.***		that the young have fledged (left the nest), the nest fails, or the nest is otherwise determined to be inactive by the biologist (i.e., predation). To avoid impacts to roosting bats that may rarely utilize the project area vegetation, roof tiles, and/or vacant buildings for day roosting, the project applicant shall retain a qualified wildlife biologist to conduct a survey for roosting bats no sooner than 14 days prior to the start of demolition of any vacant buildings left with entry and egress points accessible to bats or removal of suitable bat roosting vegetation. If demolition of buildings or vegetation removal efforts do not begin within the 14 days following the roosting bat survey, another survey shall be required. If roosting bats are detected, the biologist shall enact a minimum of a 150-foot no-work buffer and confer with CDFW to determine potential roost protection or roost eviction practices. After conferring with CDFW, the protective buffer may be adjusted based on specific roost needs. Once bats have been suitably protected by a buffer and/or safely evicted from roosting sites (as approved by CDFW, avoiding take as defined by CESA and the CFGC), construction may resume outside the buffered area. A nesting bird and roosting bat survey report of the methods and results of the pre-project survey will be submitted to the City for review and approval prior to commencement of		

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Impacts	Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Significance With Mitigation
		construction activities for individual projects. Any additional construction monitoring, as determined through any necessary coordination/discretionary approvals with the resource agencies, will be documented per requirements set forth in an approved mitigation monitoring and reporting program for the entirety of the project. Implementation of this measure would reduce the impact to a ***less-than-significant level.***		
Impact 6-5: Potential Impacts on Protected Trees, Plants, and Shrubs	LS	N/A	N/A	N/A
CULTURAL AND HISTORIC RESOURCES				
Impact 7-1: Destruction/Degradation of Historic Resources—Plan Area. There may be one or more properties or features within the Focus Area Plan Area, now or in the future, that meets the CEQA definition of a historic resource, including properties or features eligible for listing in a local, State, or Federal register of historic resources. Future development projects in the Focus Area Plan Area, which would be required to be consistent with the standards and guidelines incorporated in a subsequent comprehensive planning study (such as a specific plan) adopted by the City to guide Plan Area development, may ultimately cause substantial adverse changes in the	S	**Mitigation 7-1.** For any individual discretionary project under the subsequent comprehensive planning study (such as a specific plan) adopted by the City to guide Plan Area development that the City determines may involve a property that contains a potentially significant historic resource, the resource shall be assessed by a professional who meets the Secretary of the Interior's Professional Qualifications Standards to determine whether the property is a significant historic resource and whether or not the project may have a potentially significant adverse effect on the historic resource. If, based on the recommendation of the qualified professional, the City determines that the project may have a	City; Individual project applicants	SU

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Impacts	Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Significance With Mitigation
significance of one or more such historic resources. Substantial adverse changes that may occur include physical demolition, destruction, relocation, or alteration of one or more historic resources or its immediate surroundings such that the resource is "materially impaired." The significance of a historic resource would be considered potentially "materially impaired" when and if an individual future development project proposes to demolish or materially alter the physical characteristics that justify the determination of its significance (CEQA Guidelines section 15064.5[b]). Such adverse changes in the significance of a CEQA-defined historic resource would be a ***significant impact.***		potentially significant effect, the City shall require the applicant to implement the following mitigation measures: (a) Adhere to at least one of the following Secretary of the Interior's Standards:[1] ▪ Secretary of Interior's *Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings*; or ▪ Secretary of Interior's *Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings*. The qualified professional shall make a recommendation to the City as to whether the project fully adheres to the Secretary of the Interior's Standards, and any specific modifications necessary to do so. The final determination as to a project's adherence to the Standards shall be made by the City body with final decision-making authority over the project. Such a determination of individual project adherence to the Secretary of the Interior's Standards will constitute mitigation of the project		

[1]Under the CEQA Guidelines (section 15064.5[b][3]), a project's adverse impact on a historic resource generally can be mitigated to a less-than-significant level by following either of these standards.

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Impacts	Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Significance With Mitigation
		historic resource impacts to a ***less-than-significant level*** (CEQA Guidelines section 15064.5). (b) If the City determines that measure (a) is not feasible, the historic resource shall be moved to a new location compatible with the original character and use of the historic resource, and its historic features and compatibility in orientation, setting, and general environment shall be retained, such that a substantial adverse change in the significance of the historic resource is avoided.[1] Implementation of measure (b) would reduce the impact to a ***less-than-significant level.*** If the City determines that neither measure (a) nor measure (b) is feasible, to the extent required by CEQA, additional analysis shall be conducted in accordance with CEQA Guidelines Section 15064.5 and 15162, particularly in order for specific project alternatives to be designed and evaluated. If the City determines that		

[1]One example of a substantial adverse change would be the loss of eligibility for listing on the California Register. The State Historical Resources Code encourages the retention of historic resources on-site and discourages the non-historic grouping of historic buildings into parks or districts. However, it is recognized that moving a historic building, structure, or object is sometimes necessary to prevent its destruction. Therefore, a moved building, structure, or object that is otherwise eligible may be listed in the California Register if it was moved to prevent its demolition at its former location and if the new location is compatible with the original character and use of the historic resource. A historic resource should retain its historic features and compatibility in orientation, setting, and general environment.
(California Office of Historic Preservation, *California Register and National Register: A Comparison,* Technical Assistance Series 6; Sacramento, CA: California Department of Parks and Recreation, 2001)

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Impacts	Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Significance With Mitigation
		neither measure (a) nor (b) is found to be feasible, then the City shall, as applicable and to the extent feasible, implement the following measures in the following order: (c) Document the historic resource before any changes that would cause a loss of integrity and loss of continued eligibility. The documentation shall adhere to the Secretary of the Interior's *Standards for Architectural and Engineering Documentation*. The level of documentation shall be proportionate with the level of significance of the resource. The documentation shall be made available for inclusion in the Historic American Building Survey (HABS) or the Historic American Engineering Record (HAER) Collections in the Library of Congress, the California Historical Resources Information System (CHRIS), and the Bancroft Library, as well as local libraries and historical societies. (d) Retain and reuse the historic resource to the maximum feasible extent and continue to apply the Secretary of the Interior's Standards to the maximum feasible extent in all alterations, additions, and new construction. (e) Through careful methods of planned deconstruction to avoid damage and loss, salvage character-defining features and materials for educational and interpretive use on-site, or for reuse in new construction on the site		

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Impacts	Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Significance With Mitigation
		in a way that commemorates their original use and significance. (f) Interpret the historical significance of the resource through a permanent exhibit or program in a publicly accessible location on the site or elsewhere within the Plan Area. Implementation of measures (b), (c), (d), (e), and/or (f) would reduce a significant impact on historic resources, but not to a less-than-significant level. Without knowing the characteristics of the potentially affected historic resource or of the future individual development proposal, the City cannot determine with certainty that measure (a) or (b) above would be considered feasible. Consequently, this impact is currently considered ***significant and unavoidable.***		
Impact 7-2: Destruction/Degradation of Historic Resources—Greystar Project	LS	N/A	N/A	N/A
Impact 7-3: Potential for Disturbance of Buried Archaeological Resources, Including Human Remains, and Tribal Cultural Resources—Plan Area. Development facilitated by the subsequent comprehensive planning study (such as a specific plan) could disturb unrecorded sensitive archaeological resources or tribal cultural resources in the	S	**Mitigation 7-3.** During the City's standard project-specific review process for all future, discretionary, public improvement and private development projects under the subsequent comprehensive planning study (such as a specific plan) adopted by the City to guide development in the Plan Area, the City shall determine the possible presence of, and the	City; Individual project applicants	LS

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Impacts	Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Significance With Mitigation
Plan Area. This possibility represents a ***potentially significant impact.***		potential for new or substantially more severe impacts of the action on, archaeological resources and tribal cultural resources. The City shall require individual project applicants or environmental consultants to contact the California Historical Resources Information System (CHRIS) to determine whether the particular project is located in a sensitive area. Future discretionary development projects that CHRIS determines may be located in a sensitive area – i.e., on or adjoining an identified archaeological site – shall proceed only after the project applicant contracts with an archaeologist who meets the Secretary of the Interior's Professional Qualifications Standards, to conduct a determination in regard to cultural values remaining on the site and warranted mitigation measures, as described directly below. In general, to make an adequate determination in these instances, the archaeologist shall conduct a preliminary field inspection to (1) assess the amount and location of visible ground surface, (2) determine the nature and extent of previous impacts, and (3) assess the nature and extent of potential impacts. Such field inspection may demonstrate the need for some form of additional subsurface testing (e.g., excavation by auger, shovel, or backhoe unit) or, alternatively, the need for on-site monitoring of subsurface activities (i.e., during grading or trenching).		

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Impacts	Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Significance With Mitigation
		In addition, the City shall continue to notify the Native American tribes traditionally and culturally affiliated with the Plan Area of the discretionary, public improvement and private development projects if those proposed improvements or projects are subject to a CEQA Negative Declaration (including Mitigated Negative Declaration) or Environmental Impact Report (EIR), in accordance with California Assembly Bill 52, and if a Native American tribe requests consultation, conduct a good faith consultation. Following field inspection and completion of all necessary phases of study as determined by the archaeologist and the City, damage to any identified archaeological resources shall be avoided or mitigated to the maximum extent possible. Preservation in place to maintain the relationship between the artifact(s) and the archaeological context is the preferred manner of mitigating impacts on an archaeological site. Preservation may be accomplished by: ▪ Planning construction to avoid the archaeological or tribal cultural site; ▪ Incorporating the site within a park, green space, or other open space element; ▪ Covering the site with a layer of chemically stable soil; or		

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NA = Not applicable

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Impacts	Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Significance With Mitigation
		▪ Deeding the site into a permanent conservation easement. When in-place mitigation is determined by the City to be infeasible, a *data recovery plan*, which makes provisions for adequate recovery of culturally or historically consequential information about the site (including artifacts discovered on the site), subject to review and approval by the City, shall be prepared and adopted prior to any excavation being undertaken. Such studies shall be submitted to the CHRIS Northwest Information Center. If Native American artifacts are indicated, the studies shall also be submitted to the Native American Heritage Commission (NAHC). CHRIS and NAHC are recognized as experts in their respective disciplines. Identified cultural resources shall be recorded on form DPR 422 (archaeological sites). Mitigation measures recommended by these two groups (CHRIS and NAHC), as reviewed and approved by the City, shall be undertaken prior to and during construction activities. Although the precise details of the mitigation measures would be specific to the particular project site, the measures shall be consistent with the avoidance and mitigation strategies described in this programmatic mitigation measure.		

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SU = Significant unavoidable impact
NA = Not applicable

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Impacts	Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Significance With Mitigation
		A *data recovery plan* and data recovery for a historic resource shall not be required if the City determines that testing or studies already completed have adequately recovered the necessary data, provided that the data have already been documented in an EIR or are available for review at the CHRIS Northwest Information Center (CEQA Guidelines section 15126.4[b]). Resource identification training procedures shall be implemented for construction personnel, conducted by an archaeologist who meets the Secretary of the Interior's Professional Qualifications Standards. In the event that subsurface cultural resources are otherwise encountered during approved ground-disturbing activities for a Plan Area construction activity, work within 50 feet shall be stopped and a qualified archaeologist retained to evaluate the finds following the procedures described above. Project personnel shall not collect cultural resources. Although work may continue beyond 50 feet, the archaeologist shall be empowered to temporarily halt or redirect construction activities to ensure avoidance of adverse impacts to archaeological resources. If human remains are found, the rules set forth in State Health and Safety Code section 7050.5 and CEQA Guidelines section 15126.4(b) apply and shall be followed.		

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Impacts	Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Significance With Mitigation
		Implementation of this measure would reduce the impact to a ***less-than-significant level.***		
Impact 7-4: Potential for Disturbance of Buried Archaeological Resources, Including Human Remains and Tribal Cultural Resources—Greystar Project. Development of the Greystar project could disturb unrecorded sensitive archaeological resources or tribal cultural resources on the project site. This possibility represents a ***potentially significant impact.***	S	**Mitigation 7-4.** Prior to construction activities, resource identification training procedures shall be implemented for construction personnel, conducted by an archaeologist who meets the Secretary of the Interior's Professional Qualifications Standards. The qualified professional archaeologist shall be retained by the applicant and approved by the City and shall meet U.S. Secretary of the Interior's Professional Qualifications and Standards. Training shall include a written handout and focus on how to identify cultural/Native American resources that may be encountered during earth-moving activities, including the procedures to be followed in such an event. On-site archaeological monitor duties and the general steps a qualified professional archaeologist would follow in conducting a salvage investigation shall also be explained, in case either or both becomes necessary. During ground-disturbing project construction activities, if subsurface cultural resources are encountered, work within 50 feet shall be stopped and a qualified archaeologist retained to evaluate the finds following the procedures described below. Project personnel shall not collect cultural resources. Although work may	City; Greystar project applicant	LS

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Impacts	Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Significance With Mitigation
		continue beyond 50 feet, the archaeologist shall be empowered to temporarily halt or redirect construction activities to ensure avoidance of adverse impacts to archaeological resources. All cultural/archaeological resources unearthed by project construction activities shall be evaluated by the qualified professional archaeologist. Should the newly discovered artifacts be determined to be prehistoric, Native American Tribes and/or Individuals shall be contacted and consulted, and Native American construction monitoring shall be initiated if requested by the Tribes and/or Individuals. The City shall coordinate with the archaeologist to develop an appropriate treatment plan that avoids or mitigates, to the maximum extent possible, damage to any identified resources. Preservation in place to maintain the relationship between the artifact(s) and the archaeological context is the preferred manner of mitigating impacts on an archaeological site. Preservation may be accomplished by: ▪ Planning construction to avoid the archaeological or tribal cultural site; ▪ Incorporating the site within a park, green space, or other open space element; ▪ Covering the site with a layer of chemically stable soil; or		

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Impacts	Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Significance With Mitigation
		▪ Deeding the site into a permanent conservation easement. If in-place mitigation is determined by the City to be infeasible, a *data recovery plan*, which makes provisions for adequate recovery of culturally or historically consequential information about the site (including artifacts discovered on the site), subject to review and approval by the City, shall be prepared and adopted prior to any excavation being undertaken. The study shall be submitted to the CHRIS Northwest Information Center, and if Native American artifacts are indicated, the study shall also be submitted to the Native American Heritage Commission (NAHC). CHRIS and NAHC are recognized as experts in their respective disciplines. Identified cultural resources shall be recorded on form DPR 422 (archaeological sites). Any additional mitigation measures recommended by these two groups (CHRIS and NAHC), as reviewed and approved by the City, shall be undertaken prior to and during construction activities. Although the precise details of those measures would be based on the nature and extent of the resource(s) uncovered on the site, the measures shall be consistent with the avoidance and mitigation strategies described above in this mitigation measure.		

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Impacts	Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Significance With Mitigation
		In addition, if the qualified archaeologist determines that construction excavations have exposed, or have a high probability of exposing, cultural and/or archaeological artifacts, construction monitoring for cultural and/or archaeological resources shall be required. The City shall retain a qualified archaeological monitor, who meets the qualifications set forth by the U.S. Secretary of the Interior's Professional Qualifications and Standards, who will work under the guidance and direction of a professional archaeologist. The archaeological monitor shall be present during all construction excavations (e.g., grading, trenching, or clearing/grubbing) into non-fill sediments. Multiple earth-moving construction activities may require multiple archaeological monitors. The frequency of monitoring shall be based on the rate of excavation and grading activities, proximity to known archaeological resources, the materials being excavated (native versus artificial fill soils), the depth of excavation, and if found, the abundance and type of archaeological resources encountered. Full-time monitoring can be reduced to part-time inspections if determined adequate by the project archaeologist. If human remains are found, the rules set forth in State Health and Safety Code section 7050.5 and CEQA Guidelines section 15126.4(b) apply		

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Impacts	Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Significance With Mitigation
		and shall be followed, in consultation with the Native American Heritage Commission (as appropriate). Implementation of this measure would reduce the impact to a ***less-than-significant level***.		
GEOLOGY AND SOILS				
Impact 8-1: Effects of Strong Seismic Ground Shaking—Plan Area	LS	N/A	N/A	N/A
Impact 8-2: Effects of Strong Seismic Ground Shaking—Greystar Project	LS	N/A	N/A	N/A
Impact 8-3: Potential Soil Erosion and Loss of Topsoil—Plan Area	LS	N/A	N/A	N/A
Impact 8-4: Potential Soil Erosion and Loss of Topsoil—Greystar Project	LS	N/A	N/A	N/A
Impact 8-5: Potential Ground Instability Impacts—Plan Area. The potential for ground instability can depend on specific, highly localized underlying soil conditions. Determination of differential settlement, liquefaction, lateral spreading, and subsidence potential in the Plan Area would require site-specific geotechnical studies for future individual development proposals. Possible ground instability conditions, if not properly	S	**Mitigation 8-5.** Subject to City review and approval, complete and implement the geotechnical mitigation recommendations identified in the required individual project- and site-specific geotechnical investigations and engineering studies for site-specific proposals, in coordination with City grading permit and building permit performance standards. Such recommendations could address design- and construction-level details regarding the type of	City; Individual project applicants	LS

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Impacts	Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Significance With Mitigation
engineered for, could result in associated significant damage to project buildings, other improvements, and adjacent property, with direct or indirect risks to life or property, representing a ***potentially significant impact.***		building foundation, the extent of subsurface excavation, the details of retaining structures, any need for subsurface water extraction, and other engineering issues and solutions. Incorporation of this mitigation requirement would reduce this impact to a ***less-than-significant level*****.**		
Impact 8-6: Potential Ground Instability Impacts—Greystar Project. The potential for ground instability would depend on specific, highly localized underlying soil conditions. As discussed in section 8.1.4, the Rockridge geotechnical report concluded that although no major geotechnical or geological issues would prevent development of the proposed project on the site, the following issues would need to be addressed: ▪ adequate foundation support for the structures; ▪ weaker, more compressible zones of clay above about 30 feet below ground surface (bgs); ▪ moderately to highly expansive near-surface soil and susceptibility to large volume changes with moisture changes; and	S	**Mitigation 8-6.** The City shall require the applicant to provide a final geotechnical report, prepared by a geotechnical engineer, for City review and approval. The final geotechnical report (as discussed in Impact 8-2 above) shall include a supplemental field investigation that includes: (1) new borings as necessary to confirm subsurface conditions; (2) review of final project plans and specifications with recommendations based on professional geotechnical engineering (such as final foundation design recommendations and potential need for piles); (3) any other engineering studies to address design- and construction-level details related to type of building foundation, the extent of subsurface excavation, details of retaining structures or subsurface water extraction, and other engineering issues and solutions as may be determined necessary in consultation with the City; and (4) observation of site preparation, foundation installation, shoring installation, and	City; Greystar project applicant	LS

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Impacts	Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Significance With Mitigation
▪ liquefaction-induced settlement potential at one location in the southwestern part of the site. Possible ground instability conditions, if not properly engineered for, could result in associated significant damage to project buildings, other improvements, and adjacent property, with direct or indirect risks to life or property, representing a ***potentially significant impact.***		the placement and compaction of fill during construction by a professional geotechnical engineer. The mitigations and recommendations in the final geotechnical report, subject to review and approval by the City, shall be complied with and would provide reasonable, professional assurances that the project incorporates design and engineering refinements to reduce the degree of impacts to less-than-significant levels by either avoiding identified soil and geologic impact areas altogether (i.e., basic project design changes) or by rectifying the impact through conventional engineering and construction procedures (e.g., suitable foundation design and construction). Incorporation of these measures into project final plans prior to issuance of permits and City inspection and verification procedures prior to project operation is required and would reduce this impact to a ***less-than-significant level*****.**		
Impact 8-7: Potential for Disturbance of Paleontological Resources—Plan Area. Development facilitated by the Freedom Circle Focus Area Plan could disturb unrecorded paleontological resources in the Plan Area. This possibility represents a ***potentially significant impact.***	S	**Mitigation 8-7.** For all public improvement and private development projects in the Freedom Circle Focus Area Plan Area, the following measures shall be implemented: *(1) Education Program.* Project applicants shall implement a program that includes the following elements:	City; Individual project applicants	LS

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Impacts	Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Significance With Mitigation
		▪ Resource identification training procedures for construction personnel, conducted by a paleontologist who meets the Secretary of the Interior's Professional Qualifications Standards; ▪ Spot-checks and monitoring by a qualified paleontologist of all excavations deeper than seven feet below ground surface; and ▪ Procedures for reporting discoveries and their geologic context. *(2) Procedures for Resources Encountered.* If subsurface paleontological resources are encountered, excavation shall halt within a buffer area of at least 50 feet around the find, where construction activities will not be allowed to continue until the project paleontologist evaluates the resource and its stratigraphic context. Work shall be allowed to continue outside the buffer area; however, the paleontologist shall be empowered to temporarily halt or redirect construction activities to ensure avoidance of adverse impacts to paleontological resources. During monitoring, if potentially significant paleontological resources are found, "standard" samples shall be collected and processed by a qualified paleontologist to recover micro vertebrate fossils. If significant fossils are found and collected, they shall be prepared to a reasonable point of identification.		

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Impacts	Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Significance With Mitigation
		Excess sediment or matrix shall be removed from the specimens to reduce the bulk and cost of storage. Itemized catalogs of material collected and identified shall be provided to a local museum repository with the specimens. Significant fossils collected during this work, along with the itemized inventory of these specimens, shall be deposited in a local museum repository for permanent curatorship and storage. A report documenting the results of the monitoring and salvage activities, and the significance of the fossils, if any, shall be prepared. The report and inventory, when submitted to the City, shall signify the completion of the program to mitigate impacts on paleontological resources. Implementation of this measure would reduce the impact to a ***less-than-significant level.***		
Impact 8-8: Potential for Disturbance of Paleontological Resources—Greystar Project. Similar to Impact 8-7, development of the Greystar project could disturb unrecorded paleontological resources in the Plan Area. This possibility represents a ***potentially significant impact.***	S	**Mitigation 8-8.** The Greystar project shall be required, as a condition of project approval, to implement the following measures: *(1) Education Program.* The project applicant shall implement a program that includes the following elements: ▪ Resource identification training procedures for construction personnel, conducted by a paleontologist who meets the Secretary of	City; Greystar project applicant	LS

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Impacts	Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Significance With Mitigation
		the Interior's Professional Qualifications Standards; ▪ Spot-checks and monitoring by a qualified paleontologist of all excavations deeper than seven feet below ground surface; and ▪ Procedures for reporting discoveries and their geologic context. *(2) Procedures for Resources Encountered.* If subsurface paleontological resources are encountered, excavation shall halt within a buffer area of at least 50 feet around the find, where construction activities will not be allowed to continue until the project paleontologist evaluates the resource and its stratigraphic context. Work shall be allowed to continue outside the buffer area; however, the paleontologist shall be empowered to temporarily halt or redirect construction activities to ensure avoidance of adverse impacts to paleontological resources. During monitoring, if potentially significant paleontological resources are found, "standard" samples shall be collected and processed by a qualified paleontologist to recover micro vertebrate fossils. If significant fossils are found and collected, they shall be prepared to a reasonable point of identification. Excess sediment or matrix shall be removed from the specimens to reduce the bulk and cost of storage.		

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Impacts	Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Significance With Mitigation
		Itemized catalogs of material collected and identified shall be provided to a local museum repository with the specimens. Significant fossils collected during this work, along with the itemized inventory of these specimens, shall be deposited in a local museum repository for permanent curatorship and storage. A report documenting the results of the monitoring and salvage activities, and the significance of the fossils, if any, shall be prepared. The report and inventory, when submitted to the City, shall signify the completion of the program to mitigate impacts on paleontological resources. Implementation of this measure would reduce the impact to a ***less-than-significant level.***		
GREENHOUSE GAS EMISSIONS AND ENERGY				
Impact 9-1: GHG Emissions and Plan Consistency – Freedom Circle Focus Area Plan. Implementation of the Freedom Circle Focus Area Plan could generate GHG emissions that have a significant effect on the environment and/or conflict with a plan, policy, or regulation adopted for the purposes of reducing GHG emissions. This represents a *potentially significant impact.*	S	**Mitigation Measure 9-1A: See Mitigation Measure 5-3D.** **Mitigation Measure 9-1B: Utilize GHG-Free Electricity.** The City shall require new development projects occurring under implementation of the Freedom Circle Focus Area Plan to source 100% of their electricity from GHG-free sources. GHG-free electricity may come from on-site renewable electricity generation (e.g., photovoltaic systems),	City; Individual project applicants	LS

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Impacts	Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Significance With Mitigation
		enrollment in a GHG-free electricity program (e.g., Silicon Valley Power's *Santa Clara Green Power* program), or any combination of measures that ensure electricity consumed by projects subject to discretionary approval come entirely from GHG-free sources, as determined by the City. This impact would be ***less than significant with mitigation incorporated.***		
Impact 9-2: GHG Emissions and Plan Consistency – Greystar General Plan Amendment	LS	N/A	N/A	N/A
Impact 9-3. Wasteful, Inefficient, or Unnecessary Consumption of Energy Resources – Freedom Circle Focus Area Plan	LS	N/A	N/A	N/A
Impact 9-4. Wasteful, Inefficient, or Unnecessary Consumption of Energy Resources – Greystar General Plan Amendment	LS	N/A	N/A	N/A
Impact 9-5. Conflict with or Obstruct a State or Local Plan for Renewable Energy or Energy Efficiency – Freedom Circle Focus Area Plan	LS	N/A	N/A	N/A

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Impacts	Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Significance With Mitigation
Impact 9-6. Conflict with or Obstruct a State or Local Plan for Renewable Energy or Energy Efficiency – Greystar General Plan Amendment	LS	N/A	N/A	N/A
HAZARDS AND HAZARDOUS MATERIALS				
Impact 10-1: Project-Related Potential Impacts Due to Hazardous Materials Transport, Use, Storage, and Disposal—Plan Area	LS	N/A	N/A	N/A
Impact 10-2: Project-Related Potential Impacts Due to Hazardous Materials Transport, Use, Storage, and Disposal—Greystar Project	LS	N/A	N/A	N/A
Impact 10-3: Potential Exposure to Existing Hazardous Materials Contamination—Plan Area	LS	N/A	N/A	N/A
Impact 10-4: Potential Exposure to Existing Hazardous Materials Contamination—Greystar Project	LS	N/A	N/A	N/A
Impact 10-5: Project-Related Potential Asbestos and PCB Exposure—Plan Area	LS	N/A	N/A	N/A
Impact 10-6: Project-Related Potential Asbestos and PCB Exposure—Greystar Project	LS	N/A	N/A	N/A

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Impacts	Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Significance With Mitigation
Impact 10-7: Project-Related Potential Lead-Based Paint Exposure—Plan Area	LS	N/A	N/A	N/A
Impact 10-8: Project-Related Potential Lead-Based Paint Exposure—Greystar Project	LS	N/A	N/A	N/A
Impact 10-9: Potential for Hazardous Materials Near Schools—Plan Area	LS	N/A	N/A	N/A
Impact 10-10: Potential for Hazardous Materials Near Schools—Greystar Project	LS	N/A	N/A	N/A
Impact 10-11: Protocols for Government Code Section 65962.5 Sites—Plan Area	LS	N/A	N/A	N/A
Impact 10-12: Protocols for Government Code Section 65962.5 Sites—Greystar Project	LS	N/A	N/A	N/A
Impact 10-13: Consistency With San Jose Airport Comprehensive Land Use Plan—Plan Area	LS	N/A	N/A	N/A
Impact 10-14: Consistency With San Jose Airport Comprehensive Land Use Plan—Greystar Project	LS	N/A	N/A	N/A

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Impacts	Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Significance With Mitigation
HYDROLOGY AND WATER QUALITY				
Impact 11-1: Construction Period and Post-Construction Water Quality Impacts—Plan Area	LS	N/A	N/A	N/A
Impact 11-2: Construction Period and Post-Construction Water Quality Impacts—Greystar Project	LS	N/A	N/A	N/A
Impact 11-3: Long-Term Water Quality Impacts from Project Operation—Plan Area	LS	N/A	N/A	N/A
Impact 11-4: Long-Term Water Quality Impacts from Project Operation—Greystar Project	LS	N/A	N/A	N/A
Impact 11-5: Effects on Groundwater Recharge and Groundwater Management—Plan Area	LS	N/A	N/A	N/A
Impact 11-6: Effects on Groundwater Recharge and Groundwater Management—Greystar Project	LS	N/A	N/A	N/A
Impact 11-7: Drainage Patterns and Risk of Flooding—Plan Area	LS	N/A	N/A	N/A
Impact 11-8: Drainage Patterns and Risk of Flooding—Greystar Project	LS	N/A	N/A	N/A

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Impacts	Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Significance With Mitigation
LAND USE AND PLANNING				
Impact 12-1: Project Effects on the Physical Arrangement of the Community—Plan Area	LS	N/A	N/A	N/A
Impact 12-2: Project Effects on the Physical Arrangement of the Community—Greystar Project	LS	N/A	N/A	N/A
Impact 12-3: Project Consistency with Land Use Plans, Policies, and Regulations Adopted for the Purpose of Avoiding or Mitigating Environmental Effects—Plan Area	LS	N/A	N/A	N/A
Impact 12-4: Project Consistency with Land Use Plans, Policies, and Regulations Adopted for the Purpose of Avoiding or Mitigating Environmental Effects—Greystar Project	LS	N/A	N/A	N/A
NOISE				
Impact 13-1: Temporary Construction Noise Levels – Freedom Circle Focus Area Plan. The implementation of the Freedom Circle Focus Area Plan could result in construction and development activities in the Plan Area that generate noise levels above City standards and/or otherwise result in a	S	**Mitigation 13-1: Reduce Potential Freedom Circle Focus Area Plan Construction Noise Levels**. To reduce potential noise levels from Focus Area Plan related construction activities, the City shall ensure future development projects within the Plan Area:	City; Individual project applicants	LS

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Impacts	Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Significance With Mitigation
substantial, temporary increase in ambient noise levels in the vicinity of the Plan Area. This represents a ***potentially significant impact.***		*1) Notify Residential and Commercial Land Uses of Planned Construction Activities.* This notice shall be provided at least one week prior to the start of any construction activities, describe the noise control measures to be implemented by the Project, and include the name and phone number of the designated contact for the Applicant/project representative and the City of Santa Clara responsible for handling construction-related noise complaints (per Section 8). This notice shall be provided to: A) The owner/occupants of residential dwelling units within 500 feet of construction work areas; and B) The owner/occupants of commercial buildings (including institutional buildings) within 200 feet of construction work areas or within 400 feet of construction work areas if pile driving equipment will be used. *2) Notify San Tomas Aquino Creek Trail Users of Construction Activities.* Prior to the start of construction activities within 500 feet of the San Tomas Aquino Creek Trail, signs shall be posted along the trail warning of potential temporary elevated noise levels during construction. Signs shall be posted within 250 feet of impacted trail segments (i.e., portions of the trail within 500 feet of a work area) and shall remain posted throughout the duration of all substantial noise generating construction activities (typically demolition, grading, and initial foundation installation activities).		

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Impacts	Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Significance With Mitigation
		3) Restrict Work Hours. All construction-related work activities, including material deliveries, shall be subject to the requirements of City Municipal Code Section 9.10.230. Construction activities, including deliveries, shall occur only during the hours of 7:00 AM to 6:00 PM, Monday through Friday, and 9 AM to 6 PM on Saturday, unless otherwise authorized by City permit. The applicant/project representative and/or its contractor shall post a sign at all entrances to the construction site informing contractors, subcontractors, construction workers, etc. of this requirement. *4) Control Construction Traffic and Site Access*. Construction traffic, including soil and debris hauling, shall follow City-designated truck routes and shall avoid routes (including local roads in the Plan Area) that contain residential dwelling units to the maximum extent feasible given specific project location and access needs. *5) Construction Equipment Selection, Use, and Noise Control Measures*. The following measures shall apply to construction equipment used in the Plan Area: A) To the extent feasible, contractors shall use the smallest size equipment capable of safely completing work activities; B) Construction staging shall occur as far away from residential and commercial land uses as possible; C) All stationary noise-		

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Impacts	Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Significance With Mitigation
		generating equipment such as pumps, compressors, and welding machines shall be shielded and located as far from sensitive receptor locations as practical. Shielding may consist of existing vacant structures or a three- or four-sided enclosure provide the structure/ barrier breaks the line of sight between the equipment and the receptor and provides for proper ventilation and equipment operations; D) Heavy equipment engines shall be equipped with standard noise suppression devices such as mufflers, engine covers, and engine/mechanical isolators, mounts, etc. These devices shall be maintained in accordance with manufacturer's recommendations during active construction activities; E) Pneumatic tools shall include a noise suppression device on the compressed air exhaust; F) The applicant/project representative and/or their contractor shall connect to existing electrical service at the site to avoid the use of stationary power generators (if feasible); G) No radios or other amplified sound devices shall be audible beyond the property line of the construction site. *6) Implement Construction Activity Noise Control Measures*: The following measures shall apply to construction activities in the Plan Area: A) Demolition: Activities shall be sequenced to take advantage of existing shielding/noise reduction provided by existing buildings or parts of buildings and methods that minimize noise		

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Impacts	Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Significance With Mitigation
		and vibration, such as sawing concrete blocks, prohibiting on-site hydraulic breakers, crushing, or other pulverization activities, shall be employed to the maximum extent feasible; B) Demolition Site Preparation, Grading, and Foundation Work: During all demolition, site preparation, grading, and structure foundation work activities within 500 feet of a residential dwelling unit or 400 feet of a commercial building (including institutional buildings), a physical noise barrier capable of achieving the construction noise level standards set forth in Section 7 below shall, if required pursuant to Section 7, be installed and maintained around the site perimeter to the maximum extent feasible given site constraints and access requirements. Potential barrier options capable of reducing construction noise levels could include, but are not limited to: i) A concrete, wood, or other barrier installed at-grade (or mounted to structures located at-grade, such as a K-Rail), and consisting of a solid material (i.e., free of openings or gaps other than weep holes) of sufficient height (determined pursuant to Section 7) that has a minimum rated transmission loss value of 20 dB; ii) Commercially available acoustic panels or other products such as acoustic barrier blankets that have a minimum sound transmission class (STC) or transmission loss value of 20 dB; iii) any combination of noise barriers and commercial products capable of achieving		

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Impacts	Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Significance With Mitigation
		required construction noise reductions during demolition, site preparation, grading, and structure foundation work activities; iv) The noise barrier may be removed following the completion of building foundation work (i.e., it is not necessary once framing and typical vertical building construction begins provided no other grading, foundation, etc. work is still occurring on-site); and C) Pile Driving: If pile driving activities are required within 500 feet of a residential dwelling unit or 400 feet of a commercial building, the piles shall be pre-drilled with an auger to minimize pile driving equipment run times. *7) Prepare Project-Specific Construction Noise Evaluation*. Prior to the start of any specific construction project lasting 12 months or more, the City shall review and approve a project-specific construction noise evaluation prepared by a qualified acoustical consultant that: A) Identifies the planned project construction sequence and equipment usage; B) Identifies typical hourly average construction noise levels for project construction equipment; C) Compares hourly average construction noise levels to ambient noise levels at residential and commercial land uses near work areas (ambient noise levels may be newly measured or presumed to be consistent with those levels shown in Table 13-2 and 13-3 of the Freedom Circle Focus Area Plan/Greystar General Plan		

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Impacts	Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Significance With Mitigation
		Amendment Draft Environmental Impact Report (EIR); and D) Identifies construction noise control measures incorporated into the project that ensure: i) activities do not generate noise levels that are above 60 dBA L_{eq} at a residential dwelling unit and exceed the ambient noise environment by at least 5 dBA Leq for more than one year; and ii) activities do not generate noise levels that are above 70 dBA Leq at a commercial property (including institutional land uses) and exceed the ambient noise environment by at least 5 dBA Leq for more than one year. Such measures may include but are not limited to: a) The requirements of Sections 4, 5, 6, and 8; b) Additional project and/or equipment-specific enclosures, barriers, shrouds, or other noise suppression methods. The use of noise control blankets on building facades shall be considered only if noise complaints are not resolvable with other means or methods. *8) Prepare a Construction Noise Complaint Plan*. The Construction Noise Complaint Plan shall: A) Identify the name and/or title and contact information (including phone number and email) for a designated project and City representative responsible for addressing construction-related noise issues; B) Includes procedures describing how the designated project representative will receive, respond, and resolve construction noise complaints; C) At a		

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Impacts	Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Significance With Mitigation
		minimum, upon receipt of a noise complaint, the project representative shall notify the City contact, identify the noise source generating the complaint, determine the cause of the complaint, and take steps to resolve the complaint; D) The elements of the Construction Noise Complaint Plan may be included in the project-specific noise evaluation prepared to satisfy Section 7 or as a separate document. *9) Owner/Occupant Disclosure*: The City shall require future occupants/tenants in the Plan Area receive disclosure that properties in the Plan Area may be subject to elevated construction noise levels from development in the Plan Area. This disclosure shall be provided as part of the mortgage, lease, sub-lease, and/or other contractual real-estate transaction associated with the subject property. With implementation of these measures, this impact would be ***less than significant***.		
Impact 13-2: Temporary Construction Noise Levels – Greystar General Plan Amendment. The Greystar project could result in construction and development activities in the Plan Area that generate noise levels above City standards and/or otherwise	S	**Mitigation 13-2: Reduce Greystar Project Construction Noise Levels**. To reduce potential noise levels from Greystar Project construction activities, the City shall ensure the Applicant:	City; Greystar project applicant	LS

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Impacts	Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Significance With Mitigation
result in a substantial, temporary increase in ambient noise levels in the vicinity of the Plan Area. This represents a ***potentially significant impact.***		*1) Notify Residential and Commercial Land Uses of Planned Construction Activities*. See Freedom Circle Focus Area Plan/Greystar General Plan Amendment Draft Environmental Impact Report (EIR) Mitigation Measure 13-1, Section 1. *2) Notify San Tomas Aquino Creek Trail Users of Construction Activities.* See Freedom Circle Focus Area Plan/Greystar General Plan Amendment Draft EIR Mitigation Measure 13-1, Section 2. *3) Restrict Work Hours*. See Freedom Circle Focus Area Plan/Greystar General Plan Amendment Draft EIR Mitigation Measure 13-1, Section 3. *4) Control Construction Traffic and Site Access*. See Freedom Circle Focus Area Plan/Greystar General Plan Amendment Draft EIR Mitigation Measure 13-1, Section 4. *5) Construction Equipment Selection, Use, and Noise Control Measures*. See Freedom Circle Focus Area Plan/Greystar General Plan Amendment Draft EIR Mitigation Measure 13-1, Section 5. *6) Implement Construction Activity Noise Control Measures*: See Freedom Circle Focus Area Plan/Greystar General Plan Amendment		

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Impacts	Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Significance With Mitigation
		Draft EIR Mitigation Measure 13-1, Section. The project will not require pile driving and, therefore, pile driving control measures identified in Mitigation Measure 13-1, Section 6 C) are not applicable. See below for noise barrier mitigation requirements per Mitigation Measure 13-1, Section 6 B). *7) Prepare Project-Specific Construction Noise Evaluation*. Not applicable. The construction noise analysis presented in the Freedom Circle Focus Area Plan/Greystar General Plan Amendment Draft Environmental Impact Report constitutes the Project-specific construction noise evaluation per Mitigation Measure 13-1, Section 7. *8) Prepare a Construction Noise Complaint Plan*. See Freedom Circle Focus Area Plan/Greystar General Plan Amendment Draft EIR Mitigation Measure 13-1, Section 8. *9) Owner/Occupant Disclosure*: See Freedom Circle Focus Area Plan/Greystar General Plan Amendment Draft EIR Mitigation Measure 13-1, Section 9. Per Mitigation Measure 13-1, Section 6 B), the following noise barriers shall be installed and maintained around the perimeter of active work areas: A) For all demolition, site preparation, grading, and foundation work within 100 feet of		

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Impacts	Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Significance With Mitigation
		the commercial property (Pedro's Restaurant and Cantina) that borders the site's southwest perimeter: i) a 6-foot-tall barrier shall be installed starting at Freedom Circle and extending south along the property boundary to the site's southern property line (approximately 640 linear feet). B) For all demolition, site preparation, grading, and foundation work within 150 feet of commercial properties across Freedom Circle: i) a 6-foot-tall barrier shall be provided along the length of the property line that fronts Freedom Circle, excepting construction access points as needed (approximately 1,130 linear feet). C) Noise barriers shall consist of ½" plywood or any other material weighing 4 pounds per square foot or more or having a minimum documented transmission loss value of 20 dBA. The barriers may be erected on temporary retaining walls or temporary K-rails or other solid structures (which shall be considered as part of the total height of the barrier). Boards shall be staggered one over two, or joints otherwise fastened and sealed, to prevent sound transmission through joints. There shall be no openings or gaps in the barrier. The barrier shall be regularly inspected (e.g., weekly) and maintained during construction activities (e.g., warped or cracked boards shall be replaced upon discovery). D) The noise barrier may be removed following the completion of building foundation work within the distances specific above (i.e., it is not necessary once framing and typical vertical building construction		

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Impacts	Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Significance With Mitigation
		begins provided no other grading, foundation, etc. work is still occurring on-site). With implementation of these measures, this impact would be ***less than significant***.		
Impact 13-3: Temporary Construction Vibration Levels – Freedom Circle Focus Area Plan. The implementation of the Freedom Circle Focus Area Plan could result in construction and development activities in the Plan Area that generate vibration levels above City standards and/or otherwise result excessive ground-borne vibration levels. This represents a ***potentially significant impact.***	S	**Mitigation 13-3: Reduce Potential Freedom Circle Focus Area Plan Construction Vibration Levels.** To reduce potential vibration-related structural damage and other excessive vibration levels from Focus Area Plan related construction activities, the City shall ensure future development projects within the Plan Area: *1) Notify Residential and Commercial Land Uses of Planned Construction Activities*. See Freedom Circle Focus Area Plan/Greystar General Plan Amendment Draft Environmental Impact Report (EIR) Mitigation Measure 13-1, Section 1. *2) Restrict Work Hours*. See Freedom Circle Focus Area Plan/Greystar General Plan Amendment Draft EIR Mitigation Measure 13-1, Section 2. *3) Prohibit Vibratory Equipment*. The use of large vibratory rollers, vibratory/impact hammers, and other potential large vibration-generating equipment (e.g., hydraulic breakers/hoe rams) shall be prohibited within 100 feet of any	City; Individual project applicants	LS

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Impacts	Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Significance With Mitigation
		residential building façade and 50 feet of any commercial building façade during construction activities. Plate compactors and compactor rollers are acceptable, and deep foundation piers or caissons shall be auger drilled. *4) Prepare Project-Specific Construction Vibration Evaluation Plan*. If it is not feasible to prohibit vibratory equipment per Section 3) due to site- or project-specific conditions or design considerations, the City shall review and approve a project-specific construction vibration evaluation that: A) Identifies the project's planned vibration-generating construction activities (e.g., demolition, pile driving, vibratory compaction); B) Identifies the potential project-specific vibration levels (given project-specific equipment and soil conditions, if known) at specific building locations that may be impacted by the vibration-generating work activities (generally buildings within 50 feet of the work area); C) Identifies the vibration control measures incorporated into the project that ensure equipment and work activities would not damage buildings or result in vibrations that exceed Caltrans' strongly perceptible vibration detection threshold for peak particle velocity (PPV) of 0.1 inches/second (in/sec). Such measures may include, but are not limited to: i) the requirements of Sections 1, 2, and 3; ii) the use of vibration monitoring to measure actual vibration levels; iii) the use of photo monitoring		

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Impacts	Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Significance With Mitigation
		or other records to document building conditions prior to, during, and after construction activities; and iv) the use of other measures such as trenches or wave barriers; D) Identifies the name (or title) and contact information (including phone number and email) of the Contractor and City-representatives responsible for addressing construction vibration-related issues; and E) Includes procedures describing how the construction contractor will receive, respond, and resolve to construction vibration complaints. At a minimum, upon receipt of a vibration complaint, the Contractor and/or City representative described in the first condition D) above shall identify the vibration source generating the complaint, determine the cause of the complaint, and take steps to resolve the complaint by reducing ground-borne vibration levels to peak particle velocity levels that do not exceed accepted guidance or thresholds for structural damage that are best applicable to potentially impacted buildings (e.g., see Freedom Circle Focus Area Plan/Greystar General Plan Amendment Draft EIR Table 13-6) and Caltrans' strongly perceptible vibration detection threshold (PPV of 0.1 in/sec, see Freedom Circle Focus Area Plan/Greystar General Plan Amendment Draft EIR Table 13-7). With implementation of these measures, this impact would be ***less than significant.***		

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Impacts	Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Significance With Mitigation
Impact 13-4: Temporary Construction Vibration Levels – Greystar General Plan Amendment. The Greystar project could result in construction and development activities in the Plan Area that generate vibration levels above City standards and/or otherwise result excessive ground-borne vibration levels. This represents a ***potentially significant impact.***	S	**Mitigation 13-4: Reduce Greystar Project Construction Vibration Levels.** To reduce potential vibration-related structural damage and other excessive vibration levels from Greystar project construction activities, the City shall require the Applicant: *1) Notify Residential and Commercial Land Uses of Planned Construction Activities*. See Freedom Circle Focus Area Plan/Greystar General Plan Amendment Draft Environmental Impact Report (EIR) Mitigation Measure 13-1, Section 1. *2) Restrict Work Hours*. See Freedom Circle Focus Area Plan/Greystar General Plan Amendment Draft EIR Mitigation Measure 13-1, Section 2. *3) Prohibit Vibratory Equipment*. See Freedom Circle Focus Area Plan/Greystar General Plan Amendment Draft EIR Mitigation Measure 13-3, Section 3. *4) Prepare Project-Specific Construction Vibration Evaluation Plan*. See Freedom Circle Focus Area Plan/Greystar General Plan Amendment Draft EIR Mitigation Measure 13-1, Section 3. Mitigation Measure 13-3, Section 4 A) – C) are not applicable because the construction vibration analysis presented in the Freedom Circle Focus Area Plan/Greystar General Plan	City; Greystar project applicant	LS

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Impacts	Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Significance With Mitigation
		Amendment Draft EIR constitutes the Project-specific construction vibration evaluation per Mitigation Measure 13-3, Section 4. With implementation of these measures, this impact would be ***less than significant.***		
Impact 13-5: On-site Noise Levels from Focus Area Plan Development. The implementation of the Freedom Circle Focus Area Plan could result in new residential, office, and other land uses that generate noise from on-site equipment, activities, or other operations in excess of applicable City standards. This represents a ***potentially significant impact.***	S	**Mitigation 13-5: Control Fixed and Other On-site Noise-Generating Sources and Activities in the Freedom Circle Area Plan.** To ensure on-site, operations-related equipment and activities associated with the Focus Area Plan do not generate noise levels that exceed City standards or otherwise result in a substantial permanent increase in ambient noise levels, future development projects shall submit a project-specific operational noise analysis to the City for review and approval prior to the issuance of the first building permit for the project, or as otherwise determined by the City. The noise analysis shall be prepared by a qualified acoustical consultant and shall identify all major fixed machinery and equipment, non-residential truck docks/dedicated loading zones, waste collection areas, and above ground parking garages included in the final project design/site plan. The noise analysis shall also document how project noise sources and activities will comply with the exterior sound limits established in Municipal Code Section 9.10.040, Schedule A and the noise compatibility guidelines in General Plan Table 8.14-1. Fixed machinery and	City; Individual project applicants	LS

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Impacts	Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Significance With Mitigation
		equipment may include, but is not limited to, pumps, fans (including air intake or exhaust fans in parking garages), compressors, air conditioners, generators, and refrigeration equipment. The control of noise from such equipment may be accomplished by selecting quiet equipment types, siting machinery and equipment inside buildings, within an enclosure (e.g., equipment cabinet or mechanical closets, or behind a parapet wall or other barrier/ shielding. Truck docks/dedicated loading zones consist of a loading dock or other dedicated area for the regular loading and unloading of retail, commercial, or other non-residential goods from delivery trucks. The control of noise from such truck docks/loading areas, waste collection areas, and parking garages may be accomplished by placing such areas away from sensitive land uses, restricting activities or operating hours for certain areas, or other design means. With implementation of these measures, this impact would be ***less than significant***.		
Impact 13-6: On-site Noise Levels from Greystar Project. The implementation of the Greystar project could result in new residential, park, and retail land uses that could generate noise from on-site equipment, activities, or	S	**Mitigation 13-6: Control Greystar Project Parking Garage Ventilation System Noise Levels.** To ensure potential parking garage ventilation systems do not generate noise levels that exceed City standards or otherwise result in	City; Greystar project applicant	LS

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NA = Not applicable

See Table 1.1 for definitions.

Impacts	Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Significance With Mitigation
other operations in excess of applicable City standards. This represents a ***potentially significant impact.***		a substantial permanent increase in ambient noise levels, the City shall require the Applicant to prepare an acoustical study that identifies the final type, location, and sound power level of all parking garage ventilation systems. The study shall also document how project noise sources and activities will comply with the exterior sound limits established in Municipal Code Section 9.10.040, Schedule A. The control of noise from ventilation systems may be accomplished by selecting quiet equipment types, siting machinery and equipment inside buildings, within an enclosure (e.g., equipment cabinet or mechanical closets), the installation of louvres or baffles, or other design means. With implementation of these measures, this impact would be ***less than significant***.		
Impact 13-7: Increases in Traffic Noise Levels – Freedom Circle Focus Area Plan. The implementation of the Freedom Circle Focus Area Plan could generate vehicle trips that substantially increase existing and future No Project traffic noise levels and/or exceed City noise and land use compatibility standards. This represents a ***potentially significant impact.***	S	**Mitigation 13-7.** No feasible mitigation is available.	City; Individual project owners	SU
Impact 13-8: Increases in Traffic Noise Levels – Greystar Project	LS	N/A	N/A	N/A

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Impacts	Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Significance With Mitigation
Impact 13-9: Operational Vibrations – Freedom Circle Focus Area Plan	LS	N/A	N/A	N/A
Impact 13-10: Operational Vibrations – Greystar Project	LS	N/A	N/A	N/A
Impact 13-11: Exposure to Airport-Related Noise – Freedom Circle Focus Area Plan and Greystar Project	LS	N/A	N/A	N/A
POPULATION AND HOUSING				
Impact 14-1: Effects on Population Growth—Plan Area	LS	N/A	N/A	N/A
Impact 14-2: Effects on Population Growth—Greystar Project	LS	N/A	N/A	N/A
Impact 14-3: Population and Housing Displacement Effects—Plan Area	LS	N/A	N/A	N/A
Impact 14-4: Population and Housing Displacement Effects—Greystar Project	LS	N/A	N/A	N/A
Impact 14-5: Temporary Employment Impacts—Plan Area	LS	N/A	N/A	N/A
Impact 14-6: Temporary Employment Impacts—Greystar Project	LS	N/A	N/A	N/A

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Impacts	Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Significance With Mitigation
PUBLIC SERVICES				
Impact 15-1: Increase in Fire Protection/Emergency Medical Service (EMS) Demands—Plan Area	LS	N/A	N/A	N/A
Impact 15-2: Impacts on Fire Protection/Emergency Medical Service (EMS) Demands-- Greystar Project	LS	N/A	N/A	N/A
Impact 15-3: Increase in Police Service Demands—Plan Area	LS	N/A	N/A	N/A
Impact 15-4: Impacts on Police Service Demands--Greystar Project	LS	N/A	N/A	N/A
Impact 15-5: Impacts on Public Schools—Plan Area	LS	N/A	N/A	N/A
Impact 15-6: Impacts on Public Schools--Greystar Project	LS	N/A	N/A	N/A
Impact 15-7: Impacts on Parks and Recreational Facilities—Plan Area	LS	N/A	N/A	N/A
Impact 15-8: Impacts on Parks and Recreational Facilities--Greystar Project	LS	N/A	N/A	N/A
Impact 15-9: Impacts on Other Public Facilities—Plan Area	LS	N/A	N/A	N/A

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Impacts	Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Significance With Mitigation
Impact 15-10: Impacts on Other Public Facilities—Greystar Project	LS	N/A	N/A	N/A
Impact 15-11: Construction Period Impacts—Plan Area	LS	N/A	N/A	N/A
Impact 15-12: Construction Period Impacts—Greystar Project	LS	N/A	N/A	N/A
RECREATION				
Impact 16-1: Impacts on Parks and Recreational Facilities—Plan Area	LS	N/A	N/A	N/A
Impact 16-2: Impacts on Parks and Recreational Facilities—Greystar Project	LS	N/A	N/A	N/A
Impact 16-3: Construction Period Impacts—Plan Area	LS	N/A	N/A	N/A
Impact 16-4: Construction Period Impacts—Greystar Project	LS	N/A	N/A	N/A
TRANSPORTATION				
Impact 17-1: Conflict With Adopted Policies, Plans, or Programs Regarding Roadways—Plan Area	LS	N/A	N/A	N/A

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Impacts	Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Significance With Mitigation
Impact 17-2: Conflict With Adopted Policies, Plans, or Programs Regarding Roadways—Greystar Project	LS	N/A	N/A	N/A
Impact 17-3: Impacts on Transit Related to Conflicts with Adopted Policies, Plans, or Programs—Plan Area	LS	N/A	N/A	N/A
Impact 17-4: Impacts on Bicycle Facilities—Plan Area	LS	N/A	N/A	N/A
Impact 17-5: Impacts on Pedestrian Facilities—Plan Area	LS	N/A	N/A	N/A
Impact 17-6: Impacts on Transit Related to Conflicts with Adopted Policies, Plans, or Programs—Greystar Project	LS	N/A	N/A	N/A
Impact 17-7: Impacts on Bicycle Facilities—Greystar Project	LS	N/A	N/A	N/A
Impact 17-8: Impacts on Pedestrian Facilities—Greystar Project	LS	N/A	N/A	N/A
Impact 17-9: Impacts Related to Vehicle Miles Traveled—Plan Area	LS	N/A	N/A	N/A
Impact 17-10: Impacts Related to Vehicle Miles Traveled—Greystar Project	LS	N/A	N/A	N/A

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Impacts	Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Significance With Mitigation
Impact 17-11: Hazards Due to Design Features or Incompatible Uses—Plan Area	LS	N/A	N/A	N/A
Impact 17-12: Hazards Due to Design Features or Incompatible Uses—Greystar Project	LS	N/A	N/A	N/A
Impact 17-13: Emergency Access—Plan Area	LS	N/A	N/A	N/A
Impact 17-14: Emergency Access—Greystar Project	LS	N/A	N/A	N/A
UTILITIES AND SERVICE SYSTEMS				
Impact 18-1: Focus Area Plan Inconsistency with General Plan and UWMP Growth Projections. The WSA prepared for the proposed Focus Area Plan includes development in the Plan Area that has not been identified in the General Plan (i.e., exceeds the General Plan land use projections for 2035, the General Plan horizon year), and therefore, because the 2015 Urban Water Management Plan (UWMP) was based on General Plan buildout projections, this WSA is inconsistent with General Plan and UWMP buildout projections. Until the Focus Area Plan development exceeding General Plan growth projections is included in the General Plan and the UWMP (i.e., the 2020 UWMP), the Focus	S	**Mitigation 18-1.** The WSA prepared for the proposed Focus Area Plan includes development in the Plan Area that has not been identified in the General Plan (i.e., exceeds the General Plan land use projections for 2035, the General Plan horizon year), and therefore, because the 2015 Urban Water Management Plan (UWMP) was based on General Plan buildout projections, this WSA is inconsistent with General Plan and UWMP buildout projections. Until the Focus Area Plan development exceeding General Plan growth projections is included in the General Plan and the UWMP (i.e., the 2020 UWMP), the Focus Area Plan is inconsistent with the General Plan/Urban Water Management Plan, and this	City; Individual project applicants	LS

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Impacts	Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Significance With Mitigation
Area Plan is inconsistent with the General Plan/Urban Water Management Plan, and this inconsistency would represent a ***potentially significant project and cumulative impact.***		inconsistency would represent a ***potentially significant project and cumulative impact***.		
Impact 18-2: Greystar Project Inconsistency with General Plan and UWMP Growth Projections	LS	N/A	N/A	N/A
Impact 18-3: Project and Cumulative Need for Water, Wastewater, and Storm Drainage System Infrastructure—Plan Area	LS	N/A	N/A	N/A
Impact 18-4: Project and Cumulative Need for Water, Wastewater, and Storm Drainage System Infrastructure—Greystar Project	LS	N/A	N/A	N/A
Impact 18-5: Cumulative Wastewater Pump Station Capacity Impacts—Plan Area. As noted in the Woodard & Curran technical memo conducted for the Focus Area Plan (and discussed above), future wastewater generated by anticipated development in the Focus Area Plan Area is projected to exceed the current combined wastewater capacity of the Northside and Rabello pump stations (46.1 mgd) by 0.2 mgd (for a total of 46.3 mgd), which represents a *cumulative wastewater impact*. Therefore, the proposed Freedom Circle Focus Area Plan contribution to cumulative pump station capacity at the Northside and Rabello pump	S	**Mitigation 18-5.** The City shall require individual projects implemented under the Freedom Circle Focus Area Plan (and the future, required comprehensive planning study – e.g., specific plan) to make a fair-share contribution to the wastewater pump station improvements necessary to accommodate cumulative development in Santa Clara. The fair-share contributions for future projects developed under the Focus Area Plan and required comprehensive planning study shall be determined based on a detailed wastewater pump station engineering study prepared by the City and each project's percent of wastewater	City; Individual project applicants	LS

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Impacts	Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Significance With Mitigation
stations would be a ***significant cumulative impact.***		contribution to cumulative flow capacity needs above the current pump capacity. This mitigation would provide funding for wastewater pump station upgrades, which would reduce the Plan's contribution to the cumulative impact to a ***less-than-significant level.*** The City would be required to plan and construct the improvements. Because the timing of these improvements cannot be guaranteed or estimated at this time (spring 2021), the combined wastewater capacity of the two pump stations could be exceeded by development proposals already under consideration. Therefore, the City shall continually monitor pump station capacity in order to coordinate the pump station improvements with development proposals. Until pump station capacity improvements adequate to accommodate the incremental increases in wastewater flows are completed, the City shall delay individual project building permits. In addition, as a standard condition of approval, each individual project would need to provide sanitary sewer information to the City, and no project would be approved by the City until the City determines that sufficient sewer capacity exists. Implementation of this mitigation measure would reduce Plan cumulative wastewater pump capacity impacts to a ***less-than-significant level***.		

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Impacts	Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Significance With Mitigation
Impact 18-6: Cumulative Wastewater Pump Station Capacity Impacts—Greystar Project	LS	N/A	N/A	N/A
Impact 18-7: Wastewater Treatment Capacity Impacts—Plan Area	LS	N/A	N/A	N/A
Impact 18-8: Wastewater Treatment Capacity Impacts—Greystar Project	LS	N/A	N/A	N/A
Impact 18-9: Impacts on Solid Waste Disposal and Recycling Service—Plan Area	LS	N/A	N/A	N/A
Impact 18-10: Impacts on Solid Waste Disposal and Recycling Service—Greystar Project	LS	N/A	N/A	N/A
Impact 18-11: Electricity, Natural Gas, and Telecommunications Infrastructure—Plan Area	LS	N/A	N/A	N/A
Impact 18-12: Electricity, Natural Gas, and Telecommunications Infrastructure—Greystar Project	LS	N/A	N/A	N/A

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Any cumulative impact requiring mitigation has been included in the Table 2.1 summary of potentially significant impacts, including the cumulative impacts from Air Quality (chapter 5), Greenhouse Gas Emissions and Energy (chapter 9), and Utilities and Service Systems (chapter 18). The cumulative impacts for these environmental topics are analyzed in their respective chapters due to the inherently cumulative nature of impacts related to regional and/or global conditions or City-wide capital improvement planning implications. EIR chapter 20, CEQA-Mandated Sections, provides additional discussion of cumulative impacts for the other impact topics.

2.5 SUMMARY OF ALTERNATIVES

To provide a basis for further understanding of the environmental effects of a proposed project and possible approaches to reducing its identified significant impacts, the CEQA Guidelines require an EIR to also "…describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project, but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives."

2.5.1 Identified Alternatives

Pursuant to these CEQA sections, chapter 21 identifies and evaluates the following five alternatives to the project:

(a) Freedom Circle Focus Area Plan

- **Alternative FC-1A: No Project (Without Greystar Project) - Existing City of Santa Clara 2010-2035 General Plan.** Under Alternative FC-1A (No Project—Without Greystar Project), there would be no change in the current land use and zoning controls in the Focus Plan Area, and the Greystar project would not proceed as proposed. The Freedom Circle Focus Area Plan would not be adopted, and development would proceed under the current 2010-2035 General Plan, including development allowed on the Greystar site. New infrastructure would be maintained or constructed as required to accommodate new development on a project-by-project basis, and not as a planned, integrated set of improvements specifically for the Plan Area. The No Project alternative would continue to allow development under the existing High Intensity Office/R&D (HDRD) with some Regional Commercial (RC) General Plan designations. The HDRD classification would accommodate medical facilities, data centers (and supporting on-site uses), and campus-like corporate/office developments with a maximum Floor Area Ratio (FAR) of 2.00; the RC classification would accommodate commercial developments such as regional shopping centers, local-serving offices, medical facilities, and travel-related services such as hotels, gas stations, restaurants, convention centers, and amusement parks, among other uses, with a maximum Floor Area Ratio (FAR) of 0.60. Because no residential uses would be developed, no new public parks or open spaces would be required. For this alternatives analysis it is assumed that the Greystar project would not be developed under its current proposal and reasonably foreseeable development on the Greystar site would include approximately 1,159,000 SF of commercial (see Alternative G-1, Greystar—No Project, for further discussion of what the General Plan would allow on the Greystar site). No goals or policies of the Freedom Circle Focus Area Plan would be implemented, and no residential

units would be developed. No additional office square footage as proposed by the Focus Area Plan (i.e., the 2,000,000 SF above GP allowed) would be developed.

- **Alternative FC-1B: No Project (With Greystar Project) - Existing City of Santa Clara 2010-2035 General Plan.** Under Alternative FC-1B (No Project—With Greystar Project), there would be no change in the current land use and zoning controls in the Focus Plan Area, with the exception of those necessary to accommodate the Greystar project, which would proceed as proposed. The Freedom Circle Focus Area Plan would not be adopted, and development would proceed under the current 2010-2035 General Plan (except for the Greystar proposal). New infrastructure would be maintained or constructed as required to accommodate new development on a project-by-project basis, and not as a planned, integrated set of improvements specifically for the Plan Area. The No Project alternative would continue to allow development under the existing High Intensity Office/R&D (HDRD) with some Regional Commercial (RC) General Plan designations. The HDRD classification would accommodate medical facilities, data centers (and supporting on-site uses), and campus-like corporate/office developments with a maximum Floor Area Ratio (FAR) of 2.00; the RC classification would accommodate commercial developments such as regional shopping centers, local-serving offices, medical facilities, and travel-related services such as hotels, gas stations, restaurants, convention centers, and amusement parks, among other uses, with a maximum Floor Area Ratio (FAR) of 0.60. Because no residential uses would be developed (except for Greystar), no new public parks or open spaces would be required, but Greystar's 2.0-acre park would still be proposed. For this alternatives analysis it is assumed that the Greystar project, which could theoretically be approved without approval of the Focus Area Plan, would be a reasonably foreseeable development, and therefore the Greystar project has been included in this "no project" alternative. No goals or policies of the Freedom Circle Focus Area Plan would be implemented, and no residential units (other than the Greystar project) would be developed. No additional office square footage as proposed by the Focus Area Plan (i.e., the 2,000,000 SF above GP allowed) would be developed.

- **Alternative FC-2: Mainly Commercial Office Development.** Under Alternative FC-2, a Freedom Circle Focus Area Plan would be adopted, but the maximum allowable office development would be approved (excluding parcels assumed not to be redeveloped, such as the hotel and other office buildings). Total office development would be 6,410,000 square feet, which would be an increase of 4,061,000 square feet over existing office development in the Plan Area and an increase of 1,041,000 square feet more than the proposed Focus Area Plan. No residential development would be included (besides the Greystar project), and because no other residential uses would be developed, no new public parks or open spaces would be required (again, besides the Greystar project). Alternative FC-2 would result in a net reduction of 2,525 fewer residential units and 5,732 fewer residents, but increases of 1,041,000 SF net new office development and 2,000 SF retail, and a 2.0-acre public park (both retail and the park would be on the Greystar site).

- **Alternative FC-3: Mainly Residential Development.** Under Alternative FC-3, a Freedom Circle Focus Area Plan would be adopted, but most development would be multi-family residential. No community development would be included in the Focus Area Plan. Alternative FC-3 would result in a net reduction of 3,501,000 less square feet of office space, but a net gain of approximately 1,871 multi-family dwelling units, for a total of 5,471 dwelling units in the Plan Area. Overall impacts throughout the Plan Area would be expected to be higher, generally due to the single-use (residential) aspect of the alternative.

- **Alternative FC-4: Reduced Focus Area Plan (with Greystar Project).** Under Alternative FC-4 (Reduced Focus Area Plan—With Greystar Project), a Focus Area Plan would be adopted but overall development would be reduced by 20 percent (except for the Greystar project, which would be included as proposed). Alternative FC-4 would result in approximately 3,075 residential units (a net reduction of 525 units); 2,695,200 square feet of commercial office (a net reduction of 2,673,800 square feet); and a minimum of 2.0 acres of new public parkland (for the Greystar project site). This alternative would not restrict development in the Plan Area, and all other Plan frameworks and design standards and guidelines would be anticipated to remain essentially the same. Overall impacts throughout the Plan Area would be expected to be lower, though not substantially. For this alternatives analysis it is assumed that the Greystar project, which could theoretically be approved without approval of the Focus Area Plan, would be a reasonably foreseeable development, and therefore the Greystar project has been included in this "reduced" alternative.

- **Alternative FC-5: Alternative Project Location (Considered But Rejected).** Section 15126.6(a) of the CEQA Guidelines states, "An EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic project objectives but would avoid or substantially lessen any of the significant effects of the project[.]" Further, section 15126.6(c) explains, "Among the factors that may be used to eliminate alternatives from detailed consideration in an EIR are: (i) failure to meet most of the basic project objectives, (ii) infeasibility, or (iii) inability to avoid significant environmental effects." Because an alternative project location would be infeasible, would not necessarily avoid or lessen the significant impacts of the proposed project and might result in new significant impacts, and would not necessarily be able to achieve the basic project objectives, a project alternative in a different location was eliminated from further detailed consideration. No further evaluation of alternative project locations is required under CEQA.[1]

(b) Greystar Project

- **Alternative G-1: No Project - Existing City of Santa Clara 2010-2035 General Plan.** Under Alternative G-1 (No Project), there would be no change in the current land use and zoning controls on the Greystar project site. The Greystar project would not be approved, and development would be allowed to proceed under the current 2010-2035 General Plan. The No Project alternative would continue to allow development under the existing High Intensity Office/R&D (HDRD) General Plan designation. The HDRD classification would accommodate medical facilities, data centers (and supporting on-site uses), and campus-

[1]CEQA Guidelines section 15126.6(c) explains that alternatives may be eliminated from detailed consideration in the EIR if they fail to meet most of the basic project objectives, are infeasible, or do not avoid significant environmental effects. CEQA Guidelines section 15126.6(f) indicates that the Lead Agency should consider site suitability, economic viability, availability of infrastructure, general plan consistency, other regulatory limitation, jurisdictional boundaries, and the proponent's control over alternative sites in determining the range of alternatives to be evaluated in an EIR. With respect to alternative locations, CEQA Guidelines section 15126.6(f) indicates that alternative locations need not be evaluated in every case. The key question in determining whether to evaluate alterative locations is whether any of the significant effects of the project would be avoided or substantially lessened by putting the project in another location. Only locations that would avoid or substantially lessen significant effects need be evaluated in the EIR. CEQA Guidelines section 15126(f)(2) indicates that alternatives that are remote or speculative, or the effects of which cannot be reasonably predicted, need not be considered.

like corporate/office developments with a maximum Floor Area Ratio (FAR) of 2.00. Because no residential uses would be developed, no new public parks or open spaces would be required. No residential development would occur on the Greystar site, and no parkland would be required (i.e., the 2.0-acre public park would not be developed). In addition, there would be no retail development.

- **Alternative G-2: Same Residential Buildout But Larger Park.** Under Alternative G-2, the Greystar project would be developed essentially the same as proposed but with a larger park (3.0 to 4.0 acres rather than the proposed 2.0 acres). Though there would be changes made to configuration of the site (mainly to create the additional 1.0 to 2.0 acres), the number of dwelling units would stay the same, though there could be a different mix of unit types and the size of units could vary. The main project characteristics would remain the same. Relevant to air quality, energy, GHG, and noise impacts, this alternative would result in generally the same approximately 5,722 average daily vehicle trips (ADT) because the only change in this alternative would be the increase the size of the park from 2.0 acres to 3.0 or 4.0 acres. Therefore, this alternative would generate the same approximately 5,722 ADT as the proposed Greystar project.

- **Alternative G-3: Reduced Residential Buildout But Larger Park.** Under Alternative G-3, the Greystar project would be developed similar to Alternative G-2 except that residential development would be reduced by 20 percent from 1,075 units to 860 units. The other aspects of the project would be the same: 2,000 SF retail and a larger park (3.0 to 4.0 acres rather than the proposed 2.0 acres). Relevant to air quality, energy, GHG, and noise impacts, this alternative would result in approximately 4,771 average daily vehicle trips (ADT) due to the 20 percent reduction in residential units. Therefore, this alternative would generate about 951 fewer ADT than the proposed project (5,722).

- **Alternative G-4: Alternative Project Location (Considered But Rejected).** Section 15126.6(a) of the CEQA Guidelines states, “An EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic project objectives but would avoid or substantially lessen any of the significant effects of the project[.]” Further, section 15126.6(c) explains, “Among the factors that may be used to eliminate alternatives from detailed consideration in an EIR are: (i) failure to meet most of the basic project objectives, (ii) infeasibility, or (iii) inability to avoid significant environmental effects.” Because an alternative project location would be infeasible, would not necessarily avoid or lessen the significant impacts of the proposed project and might result in new significant impacts, and would not necessarily be able to achieve the basic project objectives, a project alternative in a different location was eliminated from further detailed consideration. No further evaluation of alternative project locations is required under CEQA.

2.5.2 Environmentally Superior Alternative

The CEQA Guidelines (section 15126.6[e][2]) stipulate, "If the environmentally superior alternative is the 'no project' alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives."

(a) Freedom Circle Focus Area Plan. Of all the identified alternatives other than the No Project alternative (Alternative FC-1), Alternative FC-3: Mainly Residential Development would be the “environmentally superior alternative” because although the overall severity of impacts

compared to the other alternatives (see EIR Table 21-2) would be similar, if not greater in some instances, this alternative would meet most basic project objectives similarly or more effectively, particularly with respect to addressing the City's existing jobs/housing imbalance and providing needed affordable housing in Santa Clara.

(b) Greystar Project. Of all the identified alternatives other than the No Project alternative (Alternative G-1), Alternative G-3: Reduced Residential Buildout/Larger Park would result in the least adverse overall environmental impacts and would therefore be the "environmentally superior alternative." This conclusion is based on the overall reduction in the severity of impacts compared to the other alternatives (see EIR Table 21-3). However, while the alternative would meet most of the project objectives, it would not address the City's existing jobs/housing imbalance because it would not provide as much needed affordable housing in Santa Clara as either the proposed project or Alternative G-2

2.6 MITIGATION IMPLEMENTATION

For those mitigation measures identified in this EIR that are adopted by each jurisdictional City, a ***mitigation monitoring and reporting program*** will be undertaken by City staff to ensure and verify mitigation implementation. Implementation of most of the mitigation measures recommended in this EIR could be effectively implemented through incorporation into the final version of one or more of the various Freedom Circle Focus Area Plan/Greystar General Plan Amendment components and/or can be implemented (monitored and verified) through the City's standard development review procedures following adoption of these components. Pursuant to CEQA Guidelines Section 15087, adoption of a mitigation monitoring and reporting program will be necessary before the Plan can be adopted by the Santa Clara City Council. Chapter 22 (Mitigation Monitoring) of this EIR provides additional detail.

3. PROJECT DESCRIPTION

This EIR chapter describes the proposed Freedom Circle Focus Area Plan/Greystar General Plan Amendment actions (together, the "project") addressed in this EIR. Throughout the EIR, the Focus Area Plan and the Greystar project are collectively referred to as the "Freedom Circle Focus Area Plan" because CEQA Guidelines section 15378 (Project) defines a "project" as "the whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment[.]" Any references to the Focus Area Plan Area without consideration of the Greystar project site or to the individual Greystar project itself will be labeled in terms to make clear those distinctions (i.e., "not including the Greystar site," "remainder of the Plan Area," "Greystar project" or "Greystar site").

As explained by CEQA Guidelines section 15124 (Project Description), the project description that follows has been detailed to the extent needed for adequate evaluation of environmental impacts, at the project level for the Greystar project and at the program level for the remainder of the Plan area. This description includes: (1) the location and boundaries of the Focus Area Plan Area, including the location and boundaries of the Greystar project site; (2) the background leading up to the proposed Focus Area Plan and the Greystar project; (3) the basic objectives of the Focus Area Plan and the Greystar project; (4) the Focus Area Plan goals and policies; (5) the design characteristics of the Greystar project; (6) the development assumptions used to evaluate quantitative environmental impacts for both the Focus Area Plan and the Greystar Project; (7) construction timing (as applicable); and (8) jurisdictional approvals required to implement both the Focus Area Plan and the Greystar Project.

The Focus Area Plan and Greystar project plans are available at:[1]

https://www.santaclaraca.gov/our-city/departments-a-f/community-development/planning-division/specific-plans/freedom-circle
and
https://www.santaclaraca.gov/Home/Components/BusinessDirectory/BusinessDirectory/297/2495?npage=2

3.1 LOCATION

See Figures 3.1 (Context Map) and 3.2 (Regional Setting). Santa Clara, a city of about 130,000, is located near the southern part of San Francisco Bay, bordered by the cities of Sunnyvale and Cupertino to the west, San Jose to the south and east, and Milpitas to the northeast. Santa Clara is home to a wide range of neighborhoods and businesses, including many technology firms, such as Applied Materials, Hewlett-Packard, Intel, Nvidia, Oracle, and Ericsson.

[1]Due to Covid-19 restrictions, all City libraries and City Hall remain closed, and no hard copies of the EIR will be available.

FIGURE 3.1: CONTEXT MAP

Freedom Circle Focus Area Plan

- City of Santa Clara
- City Boundary
- Santa Clara County
- Alameda County
- Water Bodies
- FC Focus Area Plan
- Highways

N

0 0.75 1.5 3 Miles

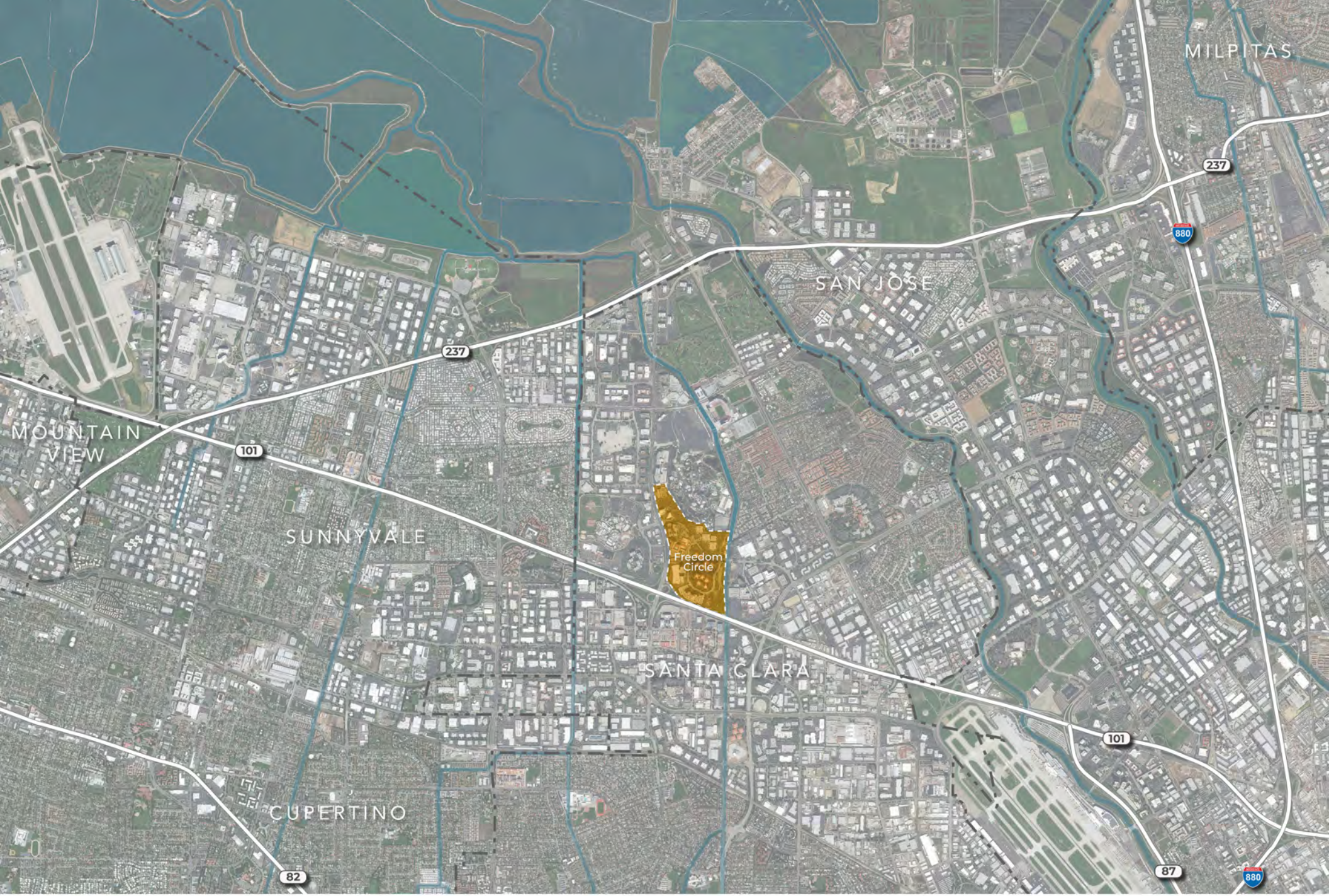


FIGURE 3.2: REGIONAL SETTING

Freedom Circle Focus Area Plan

- Focus Area Plan
- City Boundary
- Creeks/Water Bodies
- Freeways

N

0 0.5 1 2 Miles

Founded in 1852, "The Mission City" has grown into an internationally diverse community and is also home to Santa Clara University, Mission College, California's Great America Theme Park, the Santa Clara Convention Center, and Levi's® Stadium (home of the San Francisco 49ers). The city is also located adjacent to Norman Y. Mineta San Jose International Airport, a major airport in the San Francisco Bay Area.

The Freedom Circle Focus Area covers approximately 108 acres and currently contains predominantly commercial uses such as biotech and electronics, business offices, a hotel (Marriott), and various support services (such as car rental, UPS store, medical/dental, and restaurants). In addition, the vacant Greystar project site (approximately 13.3 acres) is located in the southeast portion of the Plan Area, bordered by San Tomas Aquino Creek, U.S. 101, Pedro's Restaurant, and part of Santa Clara Park (a 12-building business center).[1]

As shown on Figures 3.3 (Plan Area Aerial Base Map) and 3.4 (Aerial Base), the Plan Area is generally bounded by Great America Parkway to the west, California's Great America amusement park to the north, San Tomas Aquino Creek to the east, and U.S. 101 to the south. From Great America Parkway, the Plan Area boundary extends over a half-mile roughly south to the U.S. 101 offramp connection to Great America Parkway, then follows the offramp and U.S. 101 almost a half-mile to San Tomas Aquino Creek where it turns and heads north to Mission College Boulevard. The Plan Area boundary heads west about 200 hundred feet and turns onto Agnew Road where it heads north, splitting away from Agnew Road and extending to California's Great America amusement park parking lot before heading west and following the amusement park property line to Patrick Henry Drive. About 400 feet west of there, it connects with Great America Parkway.

Mission College Boulevard, a four-lane thoroughfare with a planted median strip and posted speed limit of 40 mph, divides the Plan Area from the west (Great America Parkway) to the east (San Tomas Aquino Creek). Hichborn Drive also provides access to the Plan Area from the west, at Great America Parkway, and joins Freedom Circle, an interior loop road connecting to Mission College Boulevard in two places, one about 235 feet west of the Plan Area boundary at San Tomas Aquino Creek, and the other about 1,340 feet west of the Plan Area boundary at San Tomas Aquino Creek. About one-third of the Plan Area land is north of Mission College Boulevard, with the remaining two-thirds south of Mission College Boulevard.

Existing Conditions in the Plan Area

The Freedom Circle Focus Area Plan Area, much like the surrounding neighborhood, is characterized by several "superblocks" with ample surface parking, significant setbacks, and significant separation between buildings. The Plan Area is relatively flat and developed with buildings ranging in height from two and three stories to up to 13 stories (Marriott Hotel) in the west; buildings in the rest of the Plan Area range from one to three stories (the City's Stormwater Pump Station in the east next to the two vacant Greystar parcels is one-story; the

[1]Although this is the first environmental review of the Greystar project, a previous application for development on the same site was considered in the late 1990s, which proposed an office/R&D project (the Freedom Circle/Informix Office Park). A CEQA document was prepared at the time, and the project received its entitlements, but the property owner decided to sell the site (along with development entitlements) to Intel. In 2012, prior to expiration of the development agreement, Intel informed the City that it would not seek to extend the project approvals. Therefore, the Greystar proposal is evaluated as a new project in this EIR.

FIGURE 3.3: PLAN AREA AERIAL BASE MAP

Study Area Parcel
City Boundary
Park/Open Space
Creeks/Water Bodies
Community Destination

Freedom Circle Focus Area Plan

N

0 750 1,500 3,000 Feet

FIGURE 3.4: AERIAL BASE

Study Area

Freedom Circle Focus Area Plan

N

0 750 1,500 Feet

Santa Clara Park business complex is comprised of two-story buildings; three-story buildings are to the north near California's Great America amusement park). The Plan Area is generally underutilized, and some buildings are vacant. There are no residential land uses, public parks, or historic structures located in the Plan Area. Private automobiles predominate the suburban streetscape environment that is defined by limited pedestrian and bicycle accessibility. Visible infrastructure includes local streets and utilities, such as streetlights, and the City's Pump Station on Freedom Circle at Mission College Boulevard in the east. Across the street from the Pump Station at Mission College Boulevard and Agnew Road is Fire Station No. 8. In addition, the Santa Clara/Great America digital sign is located in the southeastern corner of the Pedro's Restaurant parking lot, adjacent to the Greystar project site. In general, due to the large-lot development pattern and limited number of roadways within the Plan Area, linkages and connectivity across the Plan Area are limited.

The Plan Area is currently designated in the General Plan as High-Intensity Office/R&D (approximately 83 percent) with one portion designated Regional Commercial.[1] Buildings cover about 23 percent of the Plan Area. All the privately owned lots in the Plan Area have areas greater than one acre. The spatial separation between buildings is high, with significant building setbacks.

See Figure 3.5 (Existing Zoning), and Figure 3.6 (Land Use Plan).

Existing Conditions on the Greystar Project Site

As discussed above, the Greystar project site is in the southeast part of the Plan Area. The site is generally level and separated from San Tomas Aquino Creek in the east by a levee and the San Tomas Aquino Creek Trail. Trail elevations along the project border vary, ranging between about three to nine feet higher than elevations on the site, except in the south as the trail descends to cross below U.S. 101. There, trail elevations are lower than those on the site. The Greystar site was previously used for construction staging and parking but is now vacant and generally covered with grass, weeds, dirt patches, and some asphalt pavement and gravel. There are two driveways on the site: one about 125 feet from the Pedro's parking lot, and the other about 170 feet from the City's Pump Station.

3.2 BACKGROUND

3.2.1 Focus Area Plan

The Freedom Circle Focus Area Plan is the City's vision for new land uses to convert the area from an employment center to a high-intensity mixed-use neighborhood, including residential development. Due to the rate of growth and development interest in North Santa Clara, the City is proposing to designate Freedom Circle as a Future Focus Area. The Focus Area Plan proposes these new land uses to help meet the demand for housing by using land more efficiently at high, urban densities. The Focus Area Plan would be built out over the next fifteen years or more, with the Greystar project (see below) being developed first.

[1] City of Santa Clara, "MapSantaClara," https://map.santaclaraca.gov/public/index.html?viewer=regional, accessed 9/4/20.

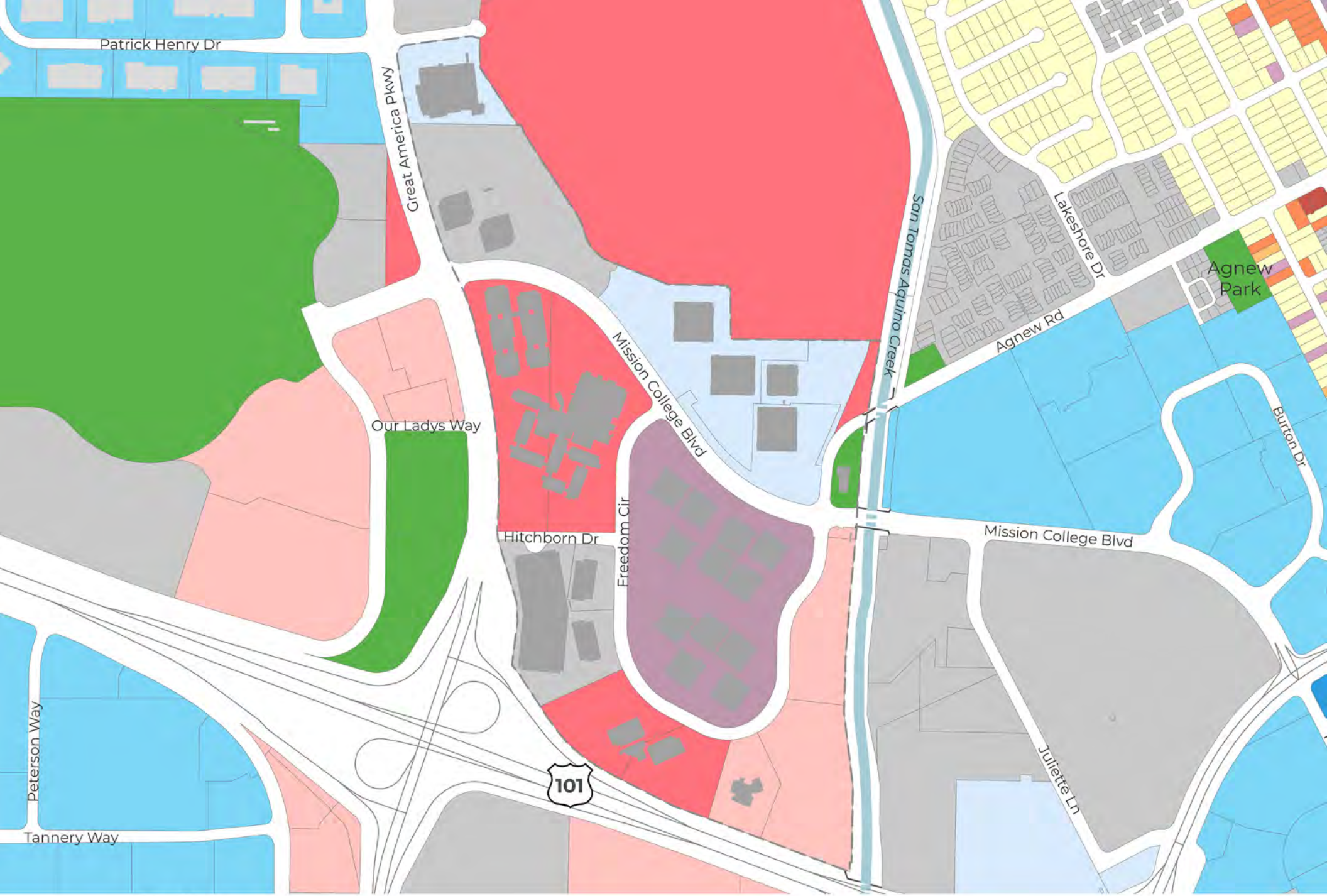


FIGURE 3.5: EXISTING ZONING

Freedom Circle Focus Area Plan

- Study Area
- Creeks/Water Bodies
- PD - Planned Development
- ML - Light Industrial
- MP - Planned Industrial
- CT - Thoroughfare Commercial
- B - Public/Quasi Public
- A - Agricultural
- CP - Commercial Park
- R1-6L - Single Family
- CN - Neighborhood Commercial
- R3-25D - Moderate Density Multiple-Dwelling
- R3-18D - Low Density Multiple-Dwelling

N

0 750 1,500 Feet

FIGURE 3.6: LAND USE PLAN

Freedom Circle Focus Area Plan

- Study Area
- Greystar Project
- Creeks/Water Bodies
- High-Intensity Office / R&D
- Very High-Density Residential
- Very High-Density Mixed-Use
- Regional Commercial
- Parks / Open Space
- Public / Quasi Public
- Bike/Ped Connection
- Node
- Gateway
- Primary Vehicular Circulation
- Local Vehicular Connection
- San Tomas Aquino Creek Trail
- Class II Bike Lane
- New Traffic Signal

N

0 750 1,500 Feet

The planning process is designed to actively engage local residents, business and property owners, developers, neighborhood representatives, elected and appointed officials, and interested others. The project team conducted a community workshop (February 25, 2019) to initiate the planning process (in conjunction with the neighboring Patrick Henry Drive Specific Plan and Kylli Development project) with City leadership.

3.2.2 Greystar Project

While this Focus Area Plan was being prepared, Greystar Real Estate Partners proposed a high-density residential project (with some project-serving retail and a two-acre public park) for development on two currently vacant parcels in the southeastern portion of the Plan Area (formerly owned by Intel Corporation). Because the General Plan land use designation currently allows high-intensity office/R&D, the Greystar project would require a General Plan Amendment (see below for more details) to change the designation to allow high-density residential. Anticipated construction of the project would occur over a 48-month period and would represent the first phase of the Focus Area Plan.

3.3 BASIC PROJECT OBJECTIVES

3.3.1 Focus Area Plan

The overarching goal of the Freedom Circle Focus Area Plan is to outline new land uses that will convert the area from an employment center to a high-intensity mixed-use neighborhood including residential developments. As such, the Freedom Circle Focus Area Plan has been formulated to establish the comprehensive planning framework necessary to guide development, with goals, policies, and design principles that will inform redevelopment in the Focus Area (including the Greystar project).

The Focus Area Plan goals listed below are referred to collectively in this EIR as the “basic project objectives” (CEQA Guidelines section 15124[b]):

- Develop an urban-scale mixed-use activity center in North Santa Clara to support economic vitality while increasing residential options.
- Provide for a range of housing types and densities to accommodate future residents and to create diversity in building scale and typology.
- Create a complete neighborhood that provides easy access to day-to-day services and amenities for residents, employees and visitors.
- Reduce reliance on private vehicles and improve jobs/housing balance by locating amenities and jobs within walking distance to housing.
- Create a human-scaled public realm through inviting architecture and urban design.
- Improve multi-modal transportation options and connections.
- Enhance connectivity to the San Tomas Aquino Creek trail.

3.3.2 Greystar Project.

The basic objectives of the Greystar project, as provided by the applicant and identified by the City, are:

- To both acknowledge the level of development interest in North Santa Clara, and to be consistent with and comply with the policies of the Freedom Circle Focus Area Plan. The Focus Area Plan will outline new land uses that will convert the area from an employment center to a high-intensity mixed-use neighborhood including residential developments. These changes will help meet the demand for housing and for using land more efficiently at high, urban densities.

- Create a vibrant residential community that complements other North Santa Clara neighborhoods and encourages walking and bike riding, linking the Freedom Circle neighborhood to the San Thomas Aquino Creek Trail via a new, two-acre public park.

- Redevelop a vacant lot in North Santa Clara and adjacent to the San Tomas Aquino Creek Trail with attractive and desirable amenities, housing, and a public park available to all Santa Clara residents.

- Support, enhance and connect to the City's existing and planned open space network.

- Create a vibrant, two-acre, multifunctional public park with space allocated for such activities including a dog park, sport court, and a playground for ages 2 and up.

- Meet the City's Affordable Housing Ordinance and Inclusionary Zoning requirements, including any direction on levels of affordability from the City Council.

- Create a human scaled public realm through inviting architecture and urban design.

- Activate street frontages and ground floor uses to create a pedestrian-friendly, cohesive urban environment.

- Minimize surface parking by providing below-grade and structured parking facilities.

- Redesign the Freedom Circle right-of-way adjacent to the project to better balance space dedicated to vehicles, bicycles, and pedestrians.

- Minimize environmental impacts through sustainable building and infrastructure by designing to a GreenPoint Rated Silver (or equivalent) level and remaining consistent with CALGreen and Santa Clara Climate Action Plan requirements.

- Contribute to the City's vehicle miles travelled (VMT) goals and implement Transportation Demand Management (TDM programs).

- Support and enhance the City's goal for a balanced transportation network serving all modes of transportation - including walking, biking, and driving - to address the City's transportation challenges and needs, and to build on Santa Clara's existing transportation system.

- Realize a market economic return on the property that reflects the costs of land, site preparation, environmental considerations, infrastructure, open space improvements and vertical development.

3.4 FREEDOM CIRCLE FOCUS AREA PLAN/GREYSTAR GENERAL PLAN AMENDMENT

3.4.1 Freedom Circle Focus Area Plan

(a) General Plan Amendment. Comprehensive planning is a prerequisite for new development in Santa Clara, and Focus Areas have been identified throughout the city to support and foster a diverse economic and cultural base by encouraging improvements and new development tailored to each area's character and the quality of these areas. Future Focus Areas are intended to continue to support community vitality, and all Future Focus Areas require a detailed, comprehensive plan prior to any development approval. While a focus area plan (such as the Freedom Circle Focus Area Plan) provides a preliminary foundation for more comprehensive planning, the comprehensive plans (such as a specific plan) specify land use, utilities, streets, services, public parks, and other public facilities for each plan area (see Figure 3.6, Land Use Plan). This coordinated planning process has been established to provide for determining new infrastructure and services needs to support future development and for timing of development to sustain environmental quality. To provide for consistency with the General Plan, the Freedom Circle Focus Area Plan proposes a General Plan Amendment that would provide for additional Future Focus Areas to be added to the General Plan Land Use diagram through the General Plan Amendment process in addition to the three Future Focus Areas already designated in the General Plan, and would recognize that (1) the creation of a Future Focus Area is a precursor to the comprehensive planning process required for implementation of all Focus Areas and (2) the designation of a Future Focus Area is not a comprehensive planning process in and of itself but instead a designation where a future comprehensive plan could be considered. The proposed General Plan Amendment would add the following text and new policy to the General Plan (under section "5.4.7 Future Focus Areas Goals and Policies"):

> *In addition to the three Future Focus Areas, additional Future Focus Areas may be added to the General Plan Land Use diagram through the General Plan Amendment process. The creation of a Future Focus Area is a precursor to the comprehensive planning process required for all Focus Areas.*
>
> *Policy 5.4.7-P11 Allow for General Plan Amendments and rezonings outside of existing Future Focus Areas in combination with the designation of new Future Focus Areas.*

Upon Focus Area Plan approval (with the proposed General Plan Amendment), the Freedom Circle Focus Area would be added as a Phase III Focus Area to the General Plan (Section 5.4.7), and any change in land use designation or rezoning of land within the Freedom Circle area would be subject to the requirements of the Future Focus Area Goals and Policies of the General Plan, as amended (see above). Although projects identified for Phase III of the General Plan require the City to perform the necessary Phase III prerequisite studies as part of the planning process, there is no near-term timeframe limit during which a Future Focus Area can be considered. This condition would allow for the Greystar project to be developed concurrently with the Freedom Circle Focus Area planning process.

(b) Freedom Circle Focus Area Plan Overview. The Freedom Circle Focus Area Plan, encompassing an area primarily designated High Intensity Office/R&D with some Regional Commercial, would allow development of up to 3,600 dwelling units (including the Greystar project site), 2,000,000 square feet of net new office space, and 2,000 square feet of retail (on the Greystar project site), with at least 2-acres provided for public parks. The Focus Area Plan proposes the following general land use designations (as shown on Figure 3.6), which would be refined during the planning process based on community, landowner, and City discussion: High-Intensity Office/R&D, Very High-Density Residential (51-100 dwelling units [du]/acre), Very High-Density Mixed Use (51-100 du/acre and FAR[1] of 2.0), Regional Commercial, Parks/Open Space, and Public/Quasi Public.

3.4.2 Greystar Project

(a) General Plan Amendment. As described above, the proposed General Plan Amendment would allow for a change in land use designation and rezoning for the Greystar project site from industrial to residential as long as a new Future Focus Area was being proposed (e.g., the new Freedom Circle Future Focus Area) and for the Greystar project to be developed concurrently with the Focus Area planning process. The change in Greystar land use designation from industrial to residential would not conflict with the need for a comprehensive planning study (Specific Plan) to implement the Future Focus Area, and the individual Greystar project would therefore be consistent with the General Plan.

(b) Greystar Project Overview. See Figure 3.7 (Project Aerial Base), Figures 3.8A and 3.8B (Site Plan) and Figure 3.9 (Site Plan). The Greystar project proposes a change in land use designation and zoning to allow high-density residential (see previous description) to allow development of 1,075 residential units, 2,000 square feet of neighborhood amenity space (which can include a retail use), and parking in three distinct buildings, plus a 2.0-acre public park, on two existing parcels. As shown on Figure 3.22 (Cross-sections), each of the buildings would be seven stories tall, and none would exceed 100 feet in height. Figure 3.9 shows Building A in the southern part of the project site, next to U.S. 101; Building B would be directly north of and adjacent to Building A; and Building C would be in the northern part of the project site, next to the City's stormwater pump station. The on-site park would be located between Building B and Building C.

As shown in Table 3-1, all three buildings would include a combination of studio, one-bedroom, and two-bedroom residential units. Building A would include a total of 363 units (62 studios, 198 1-bedroom, 103 2-bedroom). Building B would include a total of 398 residential units (52 studios, 228 1-bedroom, 118 2-bedroom). Building C would include a total of 314 residential units (56 studios, 171 1-bedroom, 87 2-bedroom). Also included in each building would be a club room, fitness room, co-working/business lounge, pet spa, courtyards, leasing office, and lobbies. Building B would include 2,000 square feet designated for use as a neighborhood amenity. Building C would include 1,250 square feet for undesignated (miscellaneous) amenity use by building residents.

[1]FAR stands for "floor area ratio" and is used as a broad measure of building mass by computing the ratio of floor area to the gross land area.

FIGURE 3.7: PROJECT AERIAL BASE

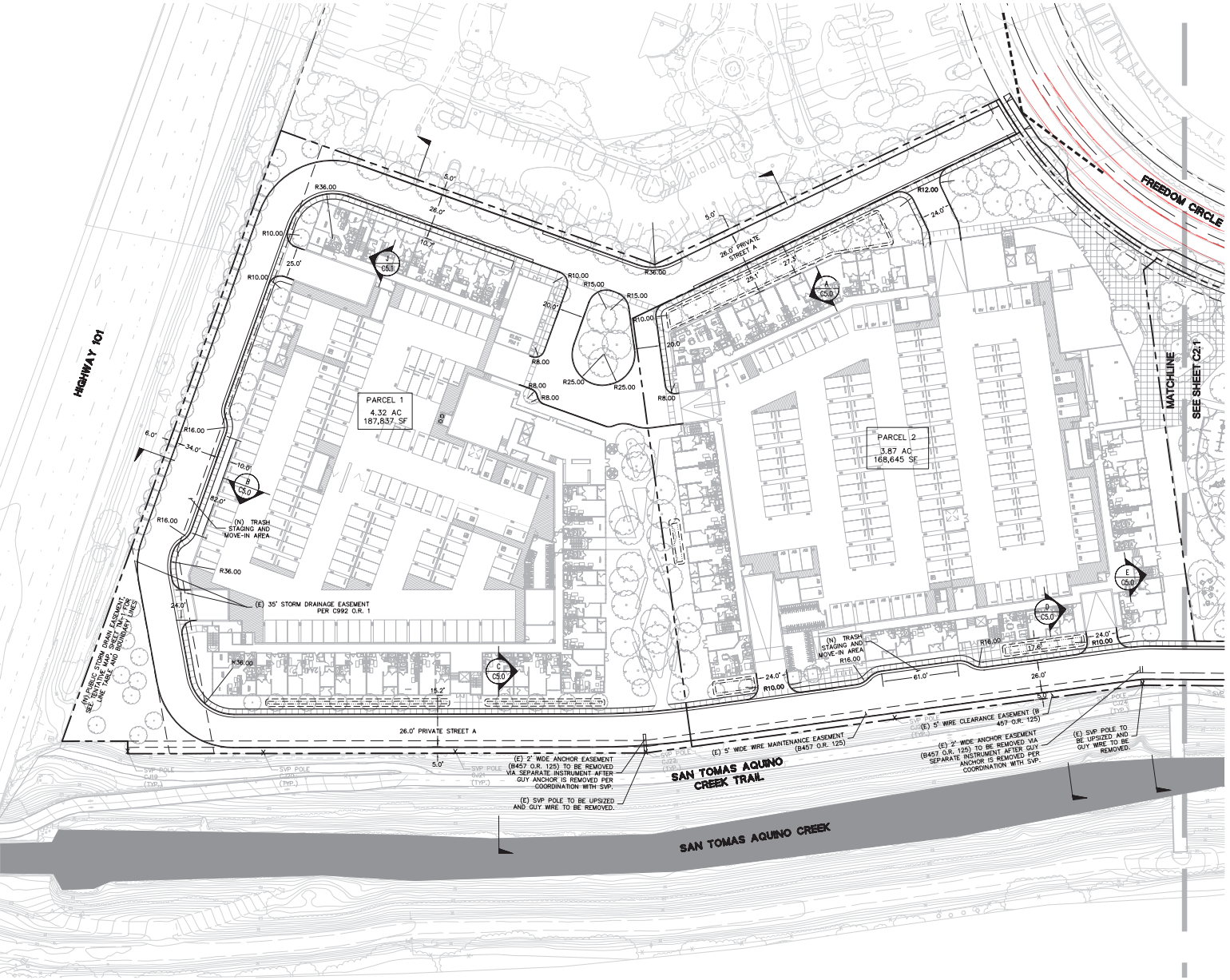
Study Area

Greystar Project Site

Freedom Circle Focus Area Plan

N

0 750 1,500 Feet



LEGEND

- PROPERTY LINE
- ADJACENT PROPERTY LINE
- BIORETENTION AREA
- (N) VERTICAL CURB
- (N) VERTICAL CURB AND GUTTER
- EXISTING EASEMENT LINE
- SIGHT TRIANGLE LINE
- CROSS SECTION REFERENCE
- SAN TOMAS AQUINO CREEK

SITE PLAN NOTES

1. UNUSED DRIVEWAYS IN THE PUBLIC RIGHT-OF-WAY SHALL BE REPLACED WITH CITY STANDARD CURB, GUTTER, AND SIDEWALK.
2. DAMAGE CURB, GUTTER, AND SIDEWALK WITHIN THE PUBLIC RIGHT-OF-WAY ALONG THE PROPERTY'S FRONTAGE SHALL BE REPAIRED OR REPLACED (TO THE NEAREST SCORE MARK) IN A MANNER ACCEPTABLE TO THE CITY ENGINEER OF HIS DESIGNEE. THE EXTENTS OF SAID REPAIR OR REPLACEMENT WITHIN THE PROPERTY FRONTAGE SHALL BE AT THE DISCRETION OF THE CITY ENGINEER OR HIS DESIGNEE.
3. ALL NEW DRIVEWAYS ALONG THE PROPERTY WILL COMPLY WITH THE CITY'S DRIVEWAY AND INTERSECTION VISION TRIANGLE REQUIREMENTS. VISUAL OBSTRUCTIONS OVER THREE FEET IN HEIGHT WILL NOT BE ALLOWED WITHIN THE DRIVER'S SIGHT TRIANGLE NEAR DRIVEWAYS AND INTERSECTIONS IN ORDER TO ALLOW AN UNOBSTRUCTED VIEW OF ONCOMING TRAFFIC.
4. SEE THE VESTING TENTATIVE PARCEL MAP, SHEET TM-1, FOR ALL PARCEL LINE AND CURVE TABLES.
5. SEE THE VESTING TENTATIVE PARCEL MAP, SHEET TM-1, FOR ALL OF THE PROPOSED EASEMENT INFORMATION.
6. NORTHERN DRIVEWAY ENTRANCE/EXIT AT INTERSECTION OF PRIVATE STREET A AND FREEDOM CIRCLE SHALL HAVE SIGNAGE AND STRIPING, BOTH ON-SITE (PRIVATE STREET A) AND OFF-SITE (FREEDOM CIRCLE) THAT DESIGNATES RIGHT TURN IN, RIGHT TURN OUT ONLY.

GRAPHIC SCALE
40 0 40 80

FIGURE 3.8A: SITE PLAN

Freedom Circle Focus Area Plan

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Sheet Title:
PRELIMINARY SITE PLAN

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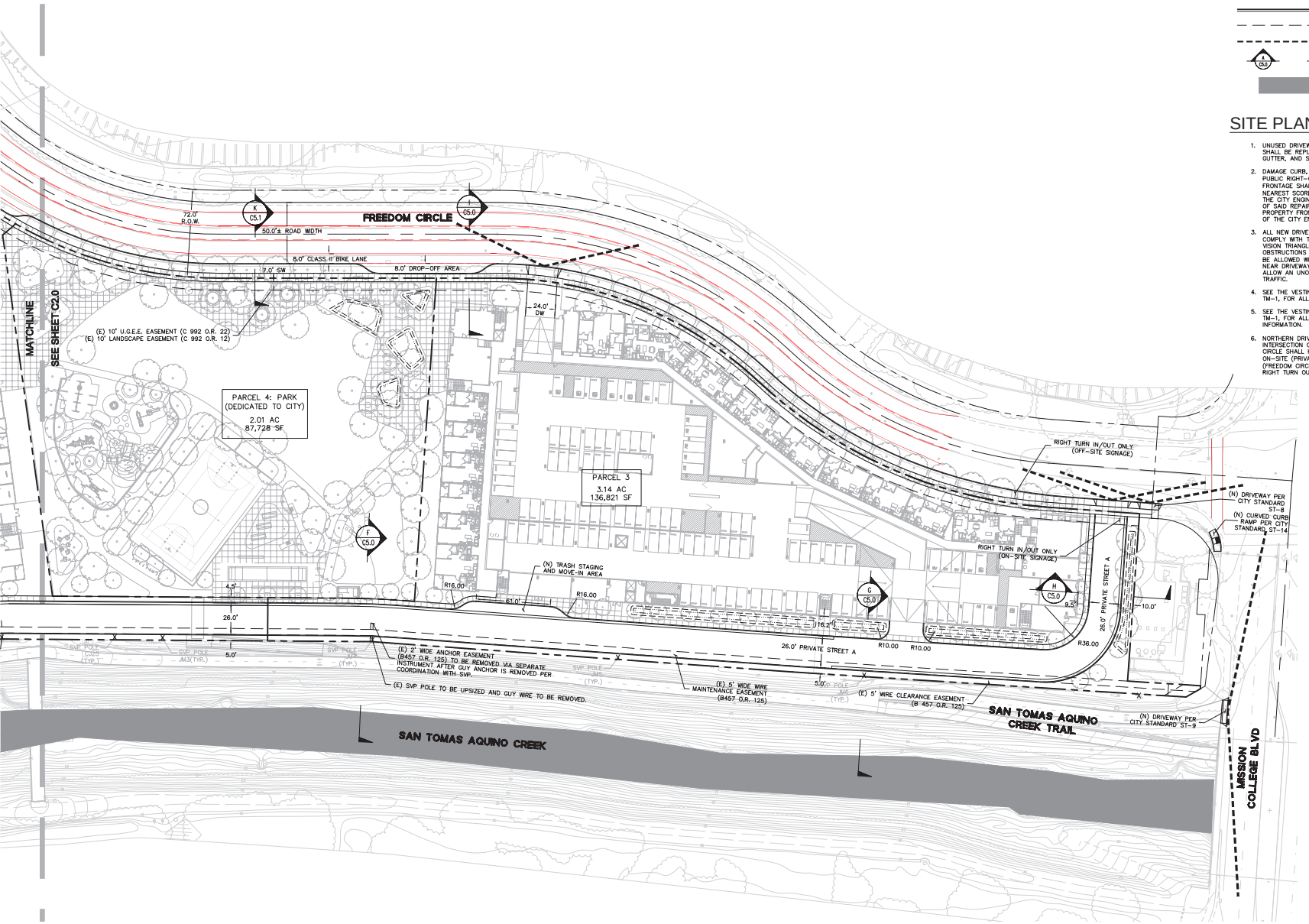
Date: 07/13/2021
Scale: AS SHOWN

Sheet No:
C2.0



LEGEND

- PROPERTY LINE
- ADJACENT PROPERTY LINE
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- (N) VERTICAL CURB
- (N) VERTICAL CURB AND GUTTER
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GRAPHIC SCALE
40 0 40 80

FIGURE 3.8B: SITE PLAN

Freedom Circle Focus Area Plan

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No.	Description	Date

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PRELIMINARY SITE PLAN

Job No. : 20002
Date: 07/13/2021
Scale: AS SHOWN

Sheet No:
C2.1

FIGURE 3.9: SITE PLAN

Table 3-1
GREYSTAR PROJECT--RESIDENTIAL UNIT AND PARKING BREAKDOWN

	Studio	1-bedroom	2-bedroom	Vehicle Parking[1]	Bicycle Parking[2]
Building A	62	198	103	466	133
Building B	52	228	118	536	148
Building C	56	171	87	411	115
Totals	170	597	308	1,413	396

SOURCE: Greystar Project Plans, Plan Sheet A-000 (Project Summary), August 11, 2021.

Notes:

[1] Building B and C parking totals include public and retail parking spaces (10 public spaces each in Building B and Building C, and 10 retail spaces in Building B). As described in Chapter 17, Transportation and Circulation, of this EIR, although the current Greystar project plans indicate 10 retail parking spaces, the Greystar applicant has agreed to reduce the number of retail parking spaces from 10 to 8 (via a Condition of Approval) to comply with City parking requirements, which effectively makes total vehicle parking 1,411 spaces.

[2] Bicycle parking includes both Class 1 and Class 2 spaces. Class 1 bicycle parking is typically for long-term bicycle parking (from two hours to overnight), while Class 2 bicycle parking is designed for short-term bicycle parking (less than two hours).

Parking would be in three levels (one level partially below ground) and would include a total of 1,413 spaces for vehicles (Building A – 466 spaces; Building B – 536 spaces; Building C – 411 spaces). Of this total, 1,383 spaces would be for residents (including approximately 207 spaces for electric vehicles or designated for "future" electric vehicles, and 138 spaces for residential guests) and 30 spaces would be for public and retail parking (with 10 public spaces each in Building B and Building C, and 10 retail spaces in Building B).[1]

Bicycle parking would total 396 spaces (360 Class 1 spaces and 36 Class 2 spaces).[2] Building A would provide 121 Class 1 spaces and 12 Class 2 spaces. Building B would provide 134 Class 1 spaces and 14 Class 2 spaces (which would include 1 Class 1 and 1 Class 2 space for the retail use). Building C would provide 105 Class 1 spaces and 10 Class 2 spaces.

(b) Demolition and Site Preparation. Prior to construction, the site would require grubbing to remove existing vegetation (grass and weeds plus some remnant asphalt and concrete). The site does not contain any buildings, but on-site demolition would be necessary to remove a bus shelter (roughly halfway along Freedom Circle between Mission College Boulevard and the

[1]Although the current Greystar project plans indicate 10 retail parking spaces, the Greystar applicant has agreed to reduce the number of retail parking spaces from 10 to 8 (via a Condition of Approval) to comply with City parking requirements; see Chapter 17, Transportation and Circulation, of this EIR.

[2]Class 1 bicycle parking is for long-term bicycle parking (from two hours to overnight) and protects the entire bicycle and its components from theft, vandalism, or inclement weather, such as bicycle lockers or rooms with key access. Class 2 bicycle parking is for short-term bicycle parking (less than two hours), such as customers or visitors to stores, libraries, and apartments or condominiums. (VTA Bicycle Technical Guidelines, December 13, 2012.)

Pedro's Restaurant parking lot). Project grading and excavation (removal of contaminated soil, and construction of a new two-way private "perimeter road"), Freedom Circle Drive improvements, underground parking and foundations for Buildings A, B, and C, and the public park) would require an estimated 106,200 cubic yards (cy) of cut and 34,700 cy of fill (net cut = 71,500 cy). In addition, prior to grading/excavation activities, additional contaminated soil cleanup activities would be required and an existing deed restriction would need to be amended or rescinded before the Greystar site would be considered suitable for residential use by the State Department of Toxic Substance Control (DTSC).[1] Necessary cleanup activities would also need to be coordinated with the Santa Clara Fire Department and the Santa Clara County Department of Environmental Health (see chapter 10, Hazards and Hazardous Materials, of this EIR, for a discussion of soil contaminants and management issues).

(c) Site Circulation and On-Street Parking. Access to the Greystar site is from Freedom Circle, via Mission College Boulevard. A new 26-foot-wide two-way private road (the perimeter road) would be constructed to follow the site perimeter from Freedom Circle next to the Pedro's Restaurant parking lot, around the southern part of the site, then north parallel to the levee. The road would turn left at the City's Pump Station and rejoin Freedom Circle next to the Pump Station driveway, where a new project driveway would be constructed. This road would also serve as the fire access road for the project.

Access to building garages would be provided to residents and guests for all three buildings via the perimeter road off of Freedom Circle: three driveways for Building A (garage level 2 and garage level B1 on the southern side of the building; garage level 1 on the western side near the landscaped roundabout in the vehicle courtyard between Buildings A and B); four driveways for Building B (garage level 1, with secured residential access, on the opposite side of the landscaped roundabout; garage level 2 and garage level B1 on the eastern side; garage level 1 for guest/ leasing/retail/public park only on the western side of the building about 60 feet from Freedom Circle); and one driveway for Building C (garage level 2 and level B1, with secured residential access, on the eastern side of the building). A second Building C driveway would be accessible from Freedom Circle on the western side of the building (for all three garage levels).

(d) Building Lobbies. Building A would include three lobbies: one lobby next to the leasing office by the vehicle courtyard; a second lobby on the eastern side of the building; and a third lobby (the "move-in lobby") on the southern side. Building B would include four lobbies: one lobby next to the leasing office by the park; a second lobby next to the vehicle courtyard; a third lobby to the east by the park; and a fourth lobby (the "move-in lobby") on the eastern side. Building C would include three lobbies: one lobby next to the leasing office by the park; a second lobby in the north near perimeter road and Freedom Circle; and a third lobby fourth lobby (the "move-in lobby") on the eastern side.

(e) Trash Rooms. Two trash rooms would be provided for each building, with each trash room connected to trash chutes serving the upper levels. Building C would also have a third trash "closet" (not connected to trash chutes) for the ground floor and level 2 only. Trash staging areas for bin rollout and garbage truck loading would be located on the south side of Building A and on the east sides of Building B and Building C. These would also be the designated "move-

[1]Eric Chodoroff, Project Manager, DTSC Site Mitigation and Restoration Program – Berkeley, email dated July 22, 2020, to John Davidson, Principal Planner, City of Santa Clara Community Development Department.

in areas" for the buildings. The park would have a separate trash enclosure located on the east side of the park, next to the perimeter road.

(f) Courtyards, Pools, and Spas. The project would include two courtyards in Building A (totaling 28,645 SF), two courtyards in Building B (totaling 35,055 SF), and one courtyard in Building C (totaling 20,620 SF). The courtyards would be located on top of the podium level. There would also be a private courtyard between Building A and Building B. In addition, each of the three buildings would have a pool and spa area on the podium level.

(g) Architectural Design and Materials. Figures 3.10 through 3.21 show architect plans for the three residential buildings (from four directions) and provide representations of the types of materials proposed. The contemporary building design would incorporate varied heights with interspersed courtyard areas. Awnings and sunshades, balconies and railings, and varying window treatments of the residential buildings would provide visual highlights. Exterior treatments would include textures such as cement plaster, fiber cement siding, and porcelain tile, with colors ranging from muted tones to pastels to stronger accent colors. Screen systems would be placed on portions of the Building C ground level on the east side and eastern edge of the north side.

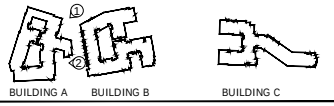
(h) Landscaping. See Figures 3.23 (Landscape Plan) and 3.24 (Planting Plan). There are currently no trees on the project site, and therefore no trees would be removed. The project proposes to plant trees around the building perimeters, near the sidewalks, around the vehicle courtyard, near the project site boundaries (except for most of the boundary adjacent to the San Tomas Aquino Creek Trail), in the public park, and in other areas on the project site. Other landscaping (shrubs, grasses, etc.) would be planted in the courtyards and the pool areas.

(i) Public Park. See Figures 3.25 (Park Plan) and 3.26 (Park Lighting Plan). The project proposes to construct a 2.0-acre public park, to be dedicated to the City, which would include a play field, playground, multi-use sport court, bocce court, picnic area with barbecue and trellis, benches and community tables, planters and other landscaping, a dog area, and a variety of seating areas. Play equipment such as swings and play structures would be installed as appropriate for children from 2-5 years of age and 6-12 years. The park would include four bike racks, and as described earlier parking would be available in the Building B parking garage, adjacent to the park. The park would be accessible via a bike path running from the proposed 8-foot Class II bike facility on Freedom Circle, through the park along its south side, and ultimately a new connection from the park to access the San Tomas Aquino Creek Trail. In addition, two pedestrian trails, one on the north side of the park and the other on the south side, would provide additional access.

Lighting for the park would include pedestrian scale lights and full cut-off or shoebox designs to meet or exceed the standards of the Illuminating Engineering Society of North America (IES), with about 66 bollards and 23 pole lights located around park trails, the park perimeter, and in shrubbery. Circular benches at the seating area near Freedom Circle would be underlit, and the barbecue/picnic area trellis would have downlights.

BUILDING A - NORTHWEST PERSPECTIVE (1)
SCALE: N.T.S.

KEY PLAN



MATERIALS

CP1	Cement Plaster - Field Color
CP2	Cement Plaster - Field Color
CP3	Cement Plaster - Field Color
CP4	Cement Plaster - Field Color
CP5	Cement Plaster - Field Color
CP6	Cement Plaster - Accent Color
FC1	Fiber Cement Siding - Horizontal Siding
FC2	Fiber Cement Siding - Horizontal Siding
FC3	Fiber Cement Siding - Horizontal Siding
FC4	Fiber Cement Siding - Horizontal Siding
FC5	Fiber Cement Siding - Vertical Board and Batten
FC6	Fiber Cement Siding - Vertical Board and Batten
FC7	Fiber Cement Siding - Horizontal Wood Like Siding
PT1	Porcelain Tile - Color 1
PT2	Porcelain Tile - Color 2
PP1	Green Screen
PP2	Decorative Screen
W1	Vinyl Window
W2	Vinyl/Aluminum Acoustic Window
A1	Metal Awning
A2	Sun Shade
R1	Balcony - Metal Railing with Glass Panel
R2	Balcony - Perforated Metal Panel
R3	Balcony - Railing Metal Pickets

BUILDING A - NORTH ELEVATION (2)
SCALE: 1" = 20' - 0"

FIGURE 3.10: BUILDING A - NORTHWEST PERSPECTIVE AND NORTH ELEVATION

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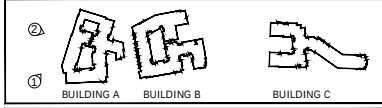
Sheet No:
A-301

BUILDING A - SOUTHEAST PERSPECTIVE (1)
SCALE: N.T.S.

KEY PLAN



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A1	Metal Awning
A2	Sun Shade
R1	Balcony - Metal Railing with Glass Panel
R2	Balcony - Perforated Metal Panel
R3	Balcony - Railing Metal Pickets

BUILDING A - SOUTH ELEVATION (2)
SCALE: 1" = 20' - 0"

FIGURE 3.11: BUILDING A - SOUTHEAST PERSPECTIVE AND SOUTH ELEVATION

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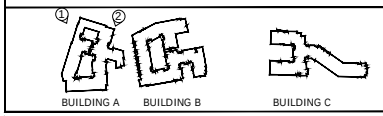
Sheet No:
A-302

BUILDING A - SOUTHWEST PERSPECTIVE (1)
SCALE: N.T.S.

KEY PLAN



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R1	Balcony - Metal Railing with Glass Panel
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BUILDING A - WEST ELEVATION (2)
SCALE: 1" = 20' - 0"

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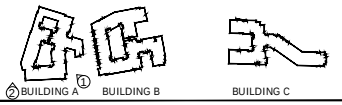
FIGURE 3.12: BUILDING A – SOUTHWEST PERSPECTIVE AND WEST ELEVATION

BUILDING A - NORTHEAST PERSPECTIVE (1)
SCALE: N.T.S.

KEY PLAN



MATERIALS

CP1	Cement Plaster - Field Color
CP2	Cement Plaster - Field Color
CP3	Cement Plaster - Field Color
CP4	Cement Plaster - Field Color
CP5	Cement Plaster - Field Color
CP6	Cement Plaster - Accent Color
FC1	Fiber Cement Siding - Horizontal Siding
FC2	Fiber Cement Siding - Horizontal Siding
FC3	Fiber Cement Siding - Horizontal Siding
FC4	Fiber Cement Siding - Horizontal Siding
FC5	Fiber Cement Siding - Vertical Board and Batten
FC6	Fiber Cement Siding - Vertical Board and Batten
FC7	Fiber Cement Siding - Horizontal Wood Like Siding
PT1	Porcelain Tile - Color 1
PT2	Porcelain Tile - Color 2
PP1	Green Screen
PP2	Decorative Screen
W1	Vinyl Window
W2	Vinyl/Aluminum Acoustic Window
A1	Metal Awning
A2	Sun Shade
R1	Balcony - Metal Railing with Glass Panel
R2	Balcony - Perforated Metal Panel
R3	Balcony - Railing Metal Pickets

BUILDING A - EAST ELEVATION (2)
SCALE: 1" = 20' - 0"

FIGURE 3.13: BUILDING A – NORTHEAST PERSPECTIVE AND EAST ELEVATION

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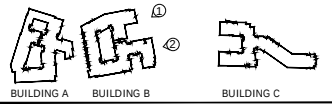
BUILDING B - NORTHWEST PERSPECTIVE (1)
SCALE: N.T.S.

KEY PLAN



MATERIALS

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CP2	Cement Plaster - Field Color
CP3	Cement Plaster - Field Color
CP4	Cement Plaster - Field Color
CP5	Cement Plaster - Field Color
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FC3	Fiber Cement Siding - Horizontal Siding
FC4	Fiber Cement Siding - Horizontal Siding
FC5	Fiber Cement Siding - Vertical Board and Batten
FC6	Fiber Cement Siding - Vertical Board and Batten
FC7	Fiber Cement Siding - Horizontal Wood Like Siding
PT1	Porcelain Tile - Color 1
PT2	Porcelain Tile - Color 2
PP1	Green Screen
PP2	Decorative Screen
W1	Vinyl Window
W2	Vinyl/Aluminum Acoustic Window
A1	Metal Awning
A2	Sun Shade
R1	Balcony - Metal Railing with Glass Panel
R2	Balcony - Perforated Metal Panel
R3	Balcony - Railing Metal Pickets

BUILDING B - NORTH ELEVATION (2)
SCALE: 1" = 20' - 0"

FIGURE 3.14: BUILDING B – NORTHWEST PERSPECTIVE AND NORTH ELEVATION

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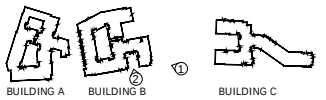
BUILDING B - NORTHEAST PERSPECTIVE (1)
SCALE: N.T.S.

BUILDING B - EAST ELEVATION (2)
SCALE: 1" = 20' - 0"

KEY PLAN



MATERIALS

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CP2	Cement Plaster - Field Color
CP3	Cement Plaster - Field Color
CP4	Cement Plaster - Field Color
CP5	Cement Plaster - Field Color
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FC6	Fiber Cement Siding - Vertical Board and Batten
FC7	Fiber Cement Siding - Horizontal Wood Like Siding
PT1	Porcelain Tile - Color 1
PT2	Porcelain Tile - Color 2
PP1	Green Screen
PP2	Decorative Screen
W1	Vinyl Window
W2	Vinyl/Aluminum Acoustic Window
A1	Metal Awning
A2	Sun Shade
R1	Balcony - Metal Railing with Glass Panel
R2	Balcony - Perforated Metal Panel
R3	Balcony - Railing Metal Pickets

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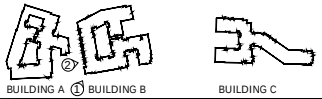
FIGURE 3.15: BUILDING B – NORTHEAST PERSPECTIVE AND EAST ELEVATION

BUILDING B - SOUTHEAST PERSPECTIVE (1)
SCALE: N.T.S.

BUILDING B - SOUTH ELEVATION (2)
SCALE: 1" = 20' - 0"

KEY PLAN



MATERIALS

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CP2	Cement Plaster - Field Color
CP3	Cement Plaster - Field Color
CP4	Cement Plaster - Field Color
CP5	Cement Plaster - Field Color
CP6	Cement Plaster - Accent Color
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PT1	Porcelain Tile - Color 1
PT2	Porcelain Tile - Color 2
PP1	Green Screen
PP2	Decorative Screen
W1	Vinyl Window
W2	Vinyl/Aluminum Acoustic Window
A1	Metal Awning
A2	Sun Shade
R1	Balcony - Metal Railing with Glass Panel
R2	Balcony - Perforated Metal Panel
R3	Balcony - Railing Metal Pickets

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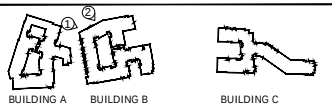
FIGURE 3.16: BUILDING B – SOUTHEAST PERSPECTIVE AND SOUTH ELEVATION

BUILDING B - SOUTHWEST PERSPECTIVE (1)
SCALE: N.T.S.

KEY PLAN



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CP2	Cement Plaster - Field Color
CP3	Cement Plaster - Field Color
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CP6	Cement Plaster - Accent Color
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FC4	Fiber Cement Siding - Horizontal Siding
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FC6	Fiber Cement Siding - Vertical Board and Batten
FC7	Fiber Cement Siding - Horizontal Wood Like Siding
PT1	Porcelain Tile - Color 1
PT2	Porcelain Tile - Color 2
PP1	Green Screen
PP2	Decorative Screen
W1	Vinyl Window
W2	Vinyl/Aluminum Acoustic Window
A1	Metal Awning
A2	Sun Shade
R1	Balcony - Metal Railing with Glass Panel
R2	Balcony - Perforated Metal Panel
R3	Balcony - Railing Metal Pickets

BUILDING B - WEST ELEVATION (2)
SCALE: 1" = 20' - 0"

FIGURE 3.17: BUILDING B – SOUTHWEST PERSPECTIVE AND WEST ELEVATION

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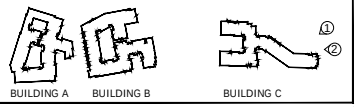
BUILDING C - NORTHWEST PERSPECTIVE (1)
SCALE: N.T.S.

KEY PLAN



MATERIALS

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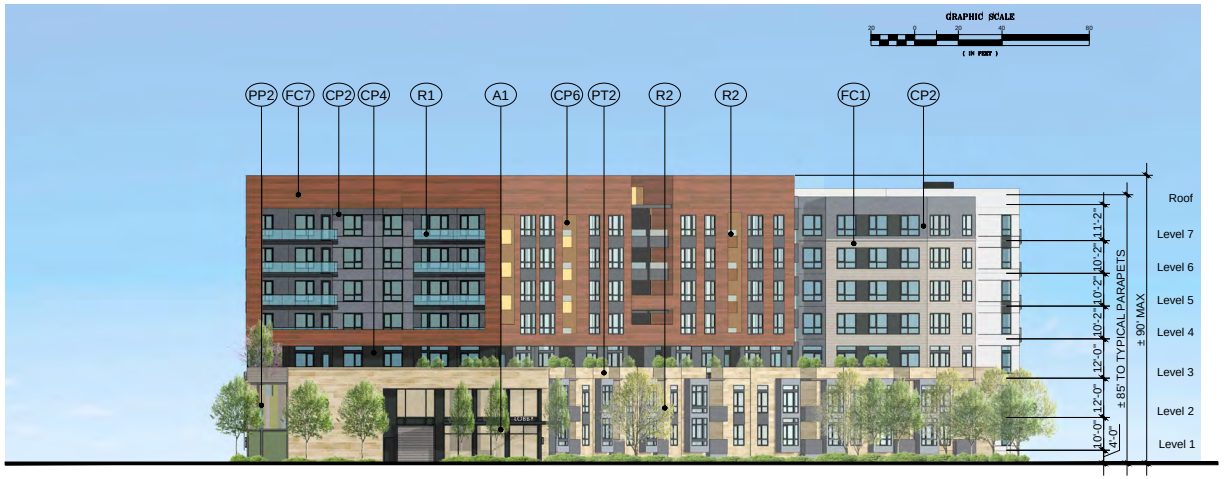
CP2	Cement Plaster - Field Color
CP3	Cement Plaster - Field Color
CP4	Cement Plaster - Field Color
CP5	Cement Plaster - Field Color
CP6	Cement Plaster - Accent Color
FC1	Fiber Cement Siding - Horizontal Siding
FC2	Fiber Cement Siding - Horizontal Siding
FC3	Fiber Cement Siding - Horizontal Siding
FC4	Fiber Cement Siding - Horizontal Siding
FC5	Fiber Cement Siding - Vertical Board and Batten
FC6	Fiber Cement Siding - Vertical Board and Batten
FC7	Fiber Cement Siding - Horizontal Wood Like Siding
PT1	Porcelain Tile - Color 1
PT2	Porcelain Tile - Color 2
PP1	Green Screen
PP2	Decorative Screen
W1	Vinyl Window
W2	Vinyl/Aluminum Acoustic Window
A1	Metal Awning
A2	Sun Shade
R1	Balcony - Metal Railing with Glass Panel
R2	Balcony - Perforated Metal Panel
R3	Balcony - Railing Metal Pickets



BUILDING C - NORTH ELEVATION (2)
SCALE: 1" = 20' - 0"

FIGURE 3.18: BUILDING C – NORTHWEST PERSPECTIVE AND NORTH ELEVATION

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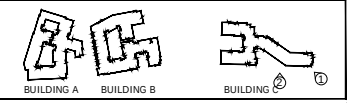
BUILDING C - NORTHEAST PERSPECTIVE (1)
SCALE: N.T.S.

KEY PLAN



MATERIALS

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PT2	Porcelain Tile - Color 2
PP1	Green Screen
PP2	Decorative Screen
W1	Vinyl Window
W2	Vinyl/Aluminum Acoustic Window
A1	Metal Awning
A2	Sun Shade
R1	Balcony - Metal Railing with Glass Panel
R2	Balcony - Perforated Metal Panel
R3	Balcony - Railing Metal Pickets

BUILDING C - EAST ELEVATION (2)
SCALE: 1" = 20' - 0"

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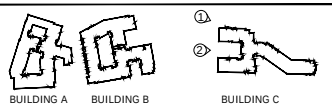
FIGURE 3.19: BUILDING C – NORTHEAST PERSPECTIVE AND EAST ELEVATION

BUILDING C - SOUTHWEST PERSPECTIVE (1)
SCALE: N.T.S.

KEY PLAN



MATERIALS

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CP3	Cement Plaster - Field Color
CP4	Cement Plaster - Field Color
CP5	Cement Plaster - Field Color
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PP1	Green Screen
PP2	Decorative Screen
W1	Vinyl Window
W2	Vinyl/Aluminum Acoustic Window
A1	Metal Awning
A2	Sun Shade
R1	Balcony - Metal Railing with Glass Panel
R2	Balcony - Perforated Metal Panel
R3	Balcony - Railing Metal Pickets

BUILDING C - SOUTH ELEVATION (2)
SCALE: 1" = 20' - 0"

FIGURE 3.20: BUILDING C – SOUTHWEST PERSPECTIVE AND SOUTH ELEVATION

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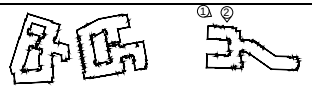
BUILDING C - SOUTHWEST PERSPECTIVE (1)
SCALE: N.T.S.

KEY PLAN



MATERIALS

CP1	Cement Plaster - Field Color
CP2	Cement Plaster - Field Color
CP3	Cement Plaster - Field Color
CP4	Cement Plaster - Field Color
CP5	Cement Plaster - Field Color
CP6	Cement Plaster - Accent Color
FC1	Fiber Cement Siding - Horizontal Siding
FC2	Fiber Cement Siding - Horizontal Siding
FC3	Fiber Cement Siding - Horizontal Siding
FC4	Fiber Cement Siding - Horizontal Siding
FC5	Fiber Cement Siding - Vertical Board and Batten
FC6	Fiber Cement Siding - Vertical Board and Batten
FC7	Fiber Cement Siding - Horizontal Wood Like Siding
PT1	Porcelain Tile - Color 1
PT2	Porcelain Tile - Color 2
PP1	Green Screen
PP2	Decorative Screen
W1	Vinyl Window
W2	Vinyl/Aluminum Acoustic Window
A1	Metal Awning
A2	Sun Shade
R1	Balcony - Metal Railing with Glass Panel
R2	Balcony - Perforated Metal Panel
R3	Balcony - Railing Metal Pickets

BUILDING C - WEST ELEVATION (2)
SCALE: 1" = 20' - 0"

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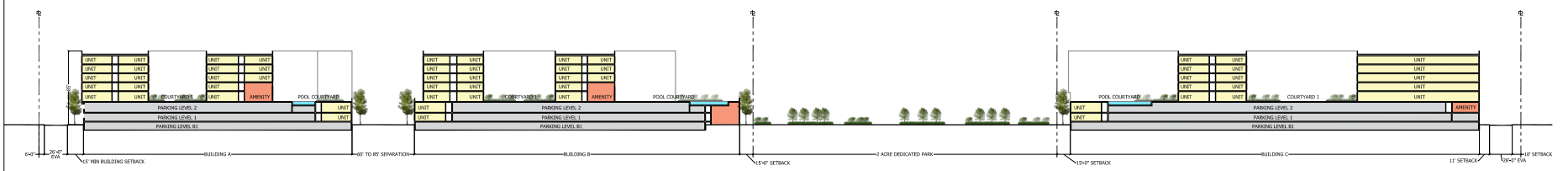
Sheet Title:
BUILDING C ELEVATIONS & PERSPECTIVES

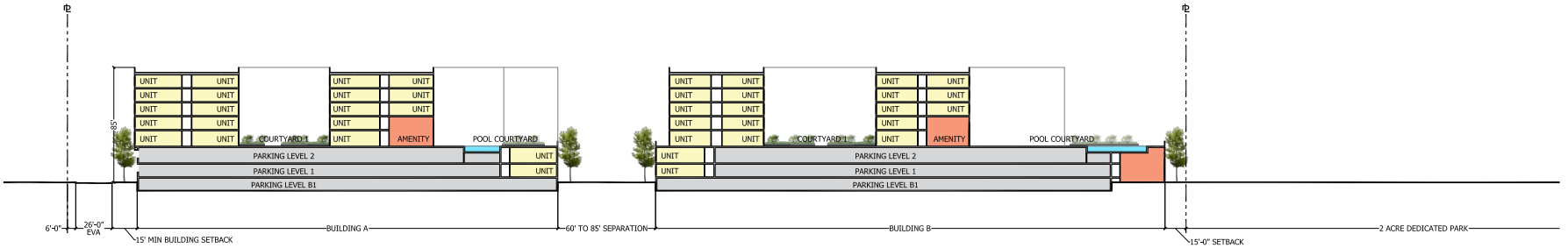
Job No.: 20002
Date: 8/11/2021
Scale: AS NOTED

Sheet No:
A-324

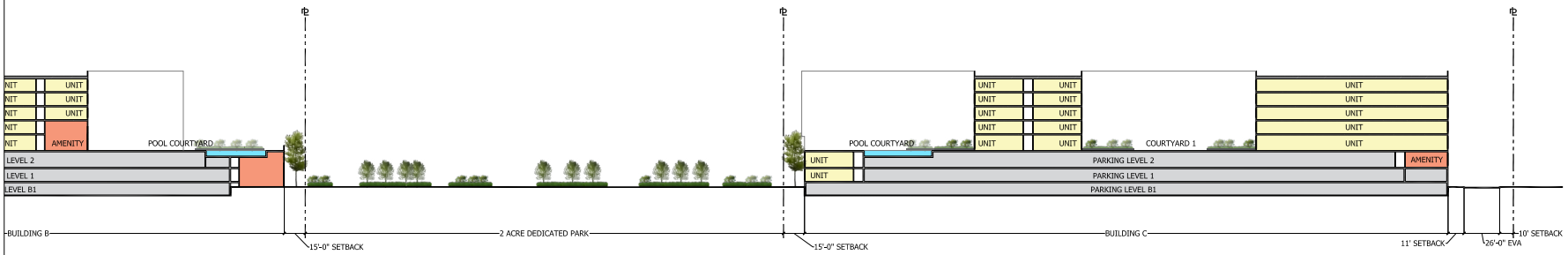
FIGURE 3.21: BUILDING C – SOUTHWEST PERSPECTIVE AND WEST ELEVATION



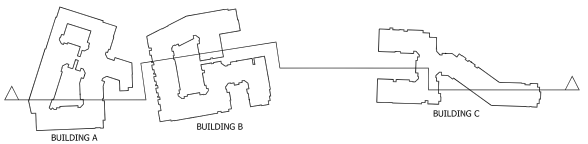
COMPOSITE SITE SECTION - SCALE: 1' = 60' 3



BUILDING A AND B SITE SECTION - SCALE: 1' = 40' 2



BUILDING C SITE SECTION - SCALE: 1' = 40' 1



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Sheet Title:
COMPOSITE SECTIONS

Job No. : 20002
Date: 8/11/2021
Scale: AS NOTED

Sheet No:
A-401

FIGURE 3.22: CROSS SECTIONS

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LANDSCAPE PLAN

Job No. 20002
Date: 08/11/2021
Scale: 1"=60'-0"

Sheet No:
L-101

FIGURE 3.23: LANDSCAPE PLAN

Freedom Circle
Focus Area Plan

FIGURE 3.24: PLANTING PLAN

Freedom Circle Focus Area Plan

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No. Description Date

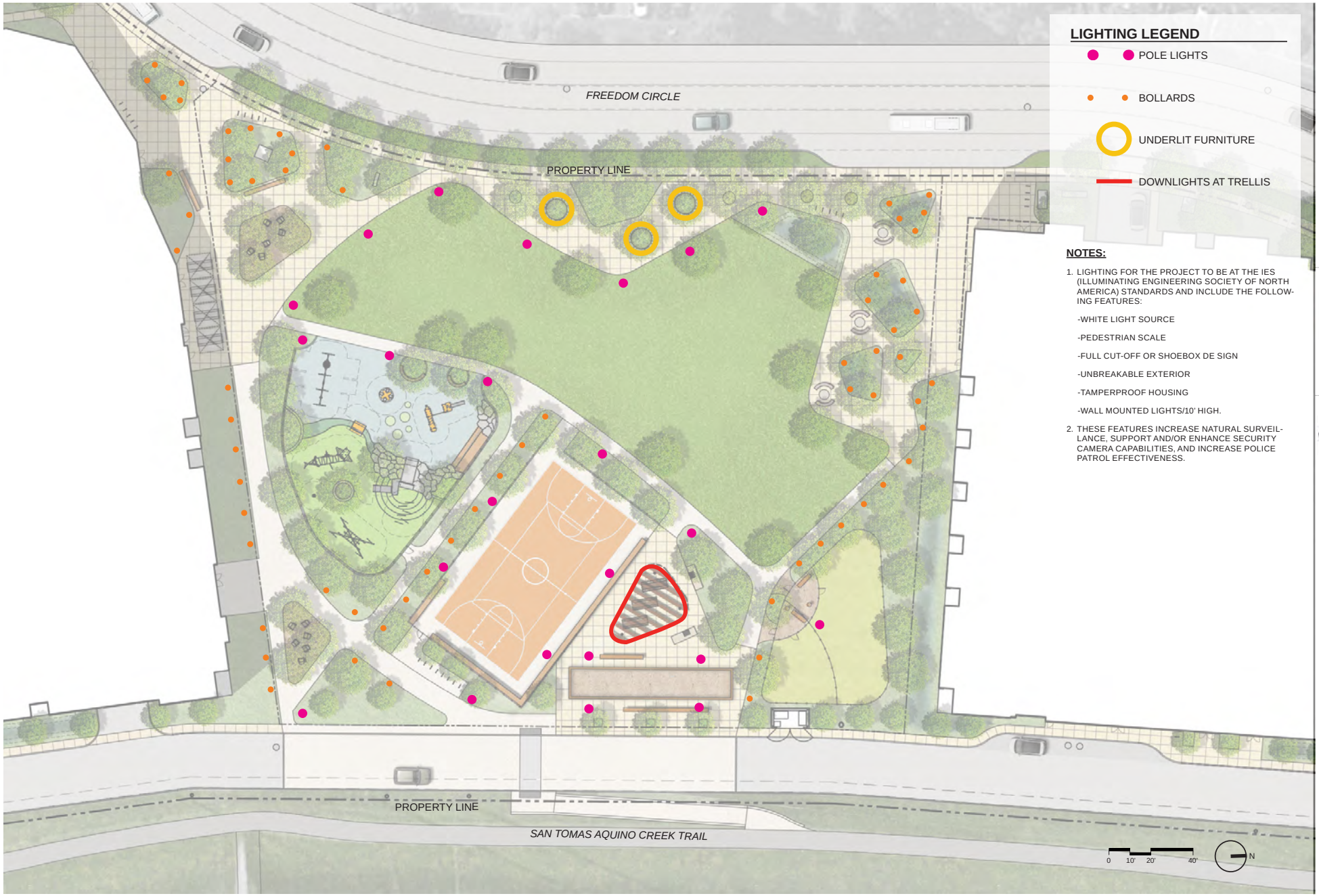
Sheet Title:
PARK PLAN

Job No. 20002
Date: 08/11/2021
Scale: 1"=20'-0"

Sheet No:
L-108

FIGURE 3.25: PARK PLAN

Freedom Circle
Focus Area Plan



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CONCEPTUAL PARK LIGHTING PLAN

Job No. 20002
Date: 08/11/2021
Scale: 1"=20'-0"

Sheet No:
L-401

FIGURE 3.26: PARK LIGHTING PLAN

(j) Santa Clara/Great America Sign. The Santa Clara/Great America Sign is located in the southeastern part of the Pedro's Restaurant parking lot next to the Greystar project site. A view easement, which covers part of the southern portion of the project site, currently extends approximately 83 feet from the parcel boundary near U.S. 101 on the western side (by the current location of the sign) to 120 feet from the parcel boundary on the eastern side (by the San Tomas Aquino Creek Trail). The Greystar project proposes confirmation of this view easement to assure that views of the Santa Clara/Great America remain protected.

(k) Storm Water and Flooding. The project would need to connect to the City's storm drain system, which includes existing storm drains along Freedom Circle. In addition, the project design would incorporate on-site storm water treatment provisions to comply with Santa Clara Valley Urban Runoff Pollution Prevention Program requirements, including as applicable Low Impact Development (LID) practices and Best Management Practices (BMP). Storm water treatment techniques would include a combination of site design and source control measures, plus use of bioretention and other treatment methods. Also, according to the Federal Emergency Management Agency (FEMA) floodplain mapping, the proposed project site is designated Zone X, which means "Area with Reduced Flood Risk Due to Levee" – i.e., not in the 1% annual flood hazard zone. Storm water features and floodplain mapping are described in chapter 11, Hydrology and Water Quality.

(l) Sustainable Design. The Greystar project applicant proposes the following sustainability measures:[1]

Site Design for Healthy and Livable Communities:

- Conserve resources by increasing density close to job centers.
- Provide pedestrian pathways throughout the project to connect buildings and the public park and to promote outdoor activities and social gatherings.
- Provide bike storage and repair stations to encourage bicycle use.
- Siting courtyard orientation to take advantage of passive heating and cooling methods.

Water Conservation:

- Allocate storm water treatment zones in each building to treat rain runoff.
- Incorporate a resource efficient plant palette in the landscape design.

Indoor Air Quality:

- Specify low VOC paint and adhesives.
- Utilize environmentally preferable material for interior finishes.
- Provide operable windows in each living room and bedroom for natural ventilation and light.

Energy Efficiency:

- Design high efficiency building systems to reduce energy and water consumption.
- Design a high efficiency HVAC system with zone control and effective ductwork.
- Prepare for PV and EV charging station installation.
- Specify appliances and lighting that meet Energy Star efficiency.
- Design an efficient distribution of domestic hot water with water-efficient fixtures.

Material/Resource Conservation:

- Use recycled or sustainable products that preserve natural resources.

[1] "Freedom Circle Residential Sustainability Measures," Draft 0819-2020.

- Use certified wood, dimensioned and engineered lumber.
- Specify durable and non-combustible material with a portion of rain screen cladding.

(m) Infrastructure. See chapter 18, Utilities and Service Systems, for further detail. Potable water service to the Greystar project would be provided by the City of Santa Clara Water & Sewer Utilities Department. Sanitary sewer service would also be provided by the Water & Sewer Utilities Department. The project would be responsible for pipes on-site and connections to City water and sewer mains, per City approved plans and in compliance with City standards.

Electricity would be provided by Silicon Valley Power, and natural gas service would be provided by PG&E. Telecommunications (telephone, cable, internet) would be available through any of several private companies. Solid waste recycling and trash removal would be provided by GreenWaste Recovery.

(n) Parcel Configuration. The Greystar project proposes to create four parcels from the two existing parcels, with one parcel (the public park) to be dedicated to the City in the future.

3.5 FOCUS AREA PLAN DEVELOPMENT ASSUMPTIONS

3.5.1 Development Forecast

As discussed previously in section 3.4.1 (Freedom Circle Focus Area Plan), the Focus Area Plan would not entitle development in the Focus Area Plan Area but instead would provide a required preliminary step leading to future development after completion of a comprehensive planning study (such as a specific plan). However, for purposes of CEQA, because the Focus Area Plan is one of a series of interrelated actions (i.e., is a necessary requirement in planning for future development in the Plan Area), the anticipated development forecasted for the Plan Area is shown in Table 3-2.

This development forecast represents assumptions of maximum development that could occur by 2040 with implementation of a future comprehensive plan (specific plan) under market conditions, not mandatory development targets identified by the City of Santa Clara. This would also include office development that is currently allowable in the Plan Area but has not occurred; i.e., remaining allowable development under existing zoning, which would be up to approximately 1,020,00 square feet (SF).

As shown in Table 3-2, total residential and non-residential development in the Plan Area would include up to 3,600 residential units, 2,000,000 SF of office above the remaining 1,020,000 SF of development currently allowed, 2,000 square feet of retail, a 2.0-acre park and, in addition, open space.[1] With full buildout under the Focus Area Plan, total office development would equal approximately 5,369,000 SF (2,349,000 SF existing development plus 1,020,000 SF currently allowed but unbuilt development plus 2,000,000 SF of proposed additional development).

[1]Due to the preliminary nature of the Focus Area Plan, any public parkland requirements and/or open space requirements for remaining development in the Focus Area Plan cannot be determined at this time; however, chapter 15, Public Services, of this EIR provides a discussion of the regulatory setting for determining potential future impacts on public parks and possible related parkland and/or open space needs, as well as an evaluation of the Greystar project park impacts.

Table 3-2
ANTICIPATED DEVELOPMENT

	Residential Units	Non-Residential Uses		Public Parkland[1]
Focus Area Plan (including Greystar project)	3,600	Office	2,000,000 SF	≥2.0 acres[2]
		Retail	2,000 SF	
Greystar Project	1,075	Retail	2,000 SF	2.0 acres
Total Maximum Buildout in Plan Area with Focus Area Plan Approval (including Greystar project) and remaining allowable development in Plan Area	3,600	Office	3,020,000 SF[3]	≥2.0 acres[2]
		Retail	2,000 SF	

SOURCE: City of Santa Clara; MIG, Inc.; Hexagon Transportation Consultants, 2021.

SF = square feet

[1] Public parks and open spaces are defined in City Code Section 17.35, Park and Recreational Land.
[2] In addition to the 2.0-acre park proposed in the Greystar project, any public park requirements and/or open space requirements for the remainder of the Focus Area Plan would be determined during a future planning study when anticipated development numbers are refined.
[3] This includes the 1,020,000 SF of remaining allowable but unbuilt development in the Plan Area.

3.5.2 Development Phasing

Development would be based on market demand and individual property owner decisions regarding if and when to develop their properties; however, because the Greystar project applicant has submitted an application seeking a General Plan amendment to allow development of their property, development in the Focus Area Plan Area would be expected to occur in two phases, as shown in Table 3-3.

As shown in Table 3-3, up to approximately 1,100 dwelling units and 2,000 square feet (SF) of retail would be allowed by the Plan to be built during 2020-2024, with up to approximately 2,500 additional dwelling units and up to 3,020,000 SF of office space (including remaining allowable development plus the additional 2,000,000 SF office space) allowed to be built by 2025-2040, assuming adoption of a comprehensive planning study (e.g., specific plan).

Table 3-3
FOCUS AREA PLAN BUILDOUT PHASING

Estimated Occupancy Years	Max. Estimated Residential Units	Max. Estimated Non-Residential
2020-2024	1,100[1]	2,000 SF retail
2025-2040	2,500	3,020,000 SF office
Total	3,600	3,022,000 SF

SOURCE: City of Santa Clara; MIG, Inc., 2021.

SF = square feet

[1] The number of residential units originally proposed when the NOP was issued (1,100), though higher than the current proposal (1,075 units), does not affect the analysis because the higher number provides for a more conservative analysis.

3.5.3 Preliminary Construction Timing

Construction for the Focus Area Plan Area (excluding the Greystar project) would not be expected to occur prior to 2025-2040.

For the Greystar project, construction of the three buildings is estimated to occur over a 48-month period, in the following order: Building B, Building A, and Building C (the public park would be constructed sometime during construction of Buildings A and B). The preliminary construction timing for the Greystar project is as follows:[1]

Activity:	Duration:
Clear and Grub	4 weeks
Excavation (approximately 140,900 cubic yards—106,200 cubic yards of cut and 34,700 cubic yards of fill; net cut = 71,500 cubic yards)	16 weeks
Structural Concrete	20 weeks
Structural Concrete/Structural Framing	20 weeks
Structural Framing/Rough In	24 weeks
Exterior/Interior Work (Structural Framing/Rough In)	28 weeks
Exterior/Interior Work	20 weeks
Exterior/Interior Work (Site Work/Landscape)	48 weeks
Site Work/Landscape	12 weeks
Total	192 weeks (48 months)

[1]Due to the preliminary nature of the Focus Area Plan, construction timing for remaining development in the Plan Area cannot be determined at this time but would instead be determined with future individual project applications.

3.6 REQUIRED APPROVALS

3.6.1 Focus Area Plan

City of Santa Clara Discretionary Approvals

Implementation of the Freedom Circle Focus Area Plan would require, but is not limited to, the following discretionary approvals by the City of Santa Clara:

City approvals being sought now

- Certification of the Final Environmental Impact Report
- Adoption of a Mitigation Monitoring and Reporting Program
- Adoption of the Freedom Circle Focus Area Plan
- Adoption of a General Plan amendment to designate the Freedom Circle Focus Area Plan Area as a Phase III Focus Area in the City of Santa Clara 2010-2035 General Plan and associated zoning changes for consistency with the zoning code

Future City approvals

- Preparation and adoption of a comprehensive planning study (such as a specific plan) for the Focus Area
- Future discretionary review as necessary, including CEQA review, for individual public and private development proposals in the Plan Area

Other Government Agency Approvals

Future individual public and private development proposals in the Plan Area would be expected to also require review or approvals from other jurisdictional agencies, including, but not limited to:

- Santa Clara Valley Transportation Authority (VTA)
- Santa Clara Water & Sewer Utilities Department
- Silicon Valley Power (SVP)
- County of Santa Clara Department of Environmental Health
- Santa Clara County Airport Land Use Commission (ALUC)
- San Francisco Bay Regional Water Quality Control Board (RWQCB)
- Bay Area Air Quality Management District (BAAQMD)
- California Department of Toxic Substances Control (DTSC)

- California Department of Transportation (Caltrans)
- California Department of Fish and Wildlife (CDFW)
- United States Fish and Wildlife Service (USFWS)

3.6.2 Greystar Project

City of Santa Clara Discretionary Approvals

Implementation of the Greystar project would require, but is not limited to, the following discretionary approvals by the City of Santa Clara:

- Certification of the Final Environmental Impact Report
- Adoption of a Mitigation Monitoring and Reporting Program
- Adoption of the Freedom Circle Focus Area Plan
- Adoption of General Plan amendments and zoning changes as necessary to ensure consistency between the Greystar Project and the City of Santa Clara 2010-2035 General Plan and current zoning code
- Architectural Review
- Vesting Tentative Parcel Map
- Confirmation of existing view easement along U.S. 101

Other City/agency review

Implementation of the Greystar Project would also require, but is not limited to, the following additional review and/or approval by other City of Santa Clara departments and other agencies:

- City of Santa Clara Water & Sewer Utilities (water and wastewater hookups)
- Santa Clara Fire Department (proposed fire prevention systems and emergency vehicle access)
- Silicon Valley Power (SVP)
- California Department of Toxic Substances Control (contaminated soil removal/remediation, including removal of cap; removal/ modification of land use covenant/deed restriction)
- Santa Clara Fire Department, Fire Prevention & Hazardous Materials Division (CUPA) (contaminated soil removal/remediation)
- Bay Area Air Quality Management District (possible permit for excavation of contaminated soil)

- San Francisco Regional Water Quality Control Board (possible waste discharge requirements for contaminated soil to be removed/remediated)
- Santa Clara County Airport Land Use Commission (ALUC)
- Santa Clara Valley Water District (Valley Water) (encroachment permit related to proposed trail connection to San Tomas Aquino Creek Trail)
- Santa Clara Valley Transportation Authority (VTA)
- California Department of Transportation (Caltrans)
- California Department of Fish and Wildlife (CDFW)
- United States Fish and Wildlife Service (USFWS)

4. AESTHETICS

This EIR chapter describes aesthetic and visual effects of the proposed Freedom Circle Focus Area Plan/Greystar General Plan Amendment. The chapter addresses the specific visual impact concerns identified by the CEQA Guidelines--i.e., would development under the proposed Plan (and/or the Greystar project) result in a substantial adverse effect on a scenic vista, substantially damage scenic resources, conflict with applicable zoning and other regulations governing scenic quality, or create a new source of substantial light or glare.[1]

4.1 SETTING

The City of Santa Clara is located at the southern part of San Francisco Bay, bordered by the cities of Sunnyvale and Cupertino to the west, San Jose to the south and east, and Milpitas to the northeast. State Route 237 (SR 237) marks the northern City limits. Prominent visual features visible from the city include the Santa Cruz Mountains to the southwest and the Diablo Range to the northeast.

Calabazas Creek flows along the western border of Santa Clara from Scott Boulevard to SR 237. San Tomas Aquino Creek generally flows through the middle of the city from around Monroe Street (its juncture with Saratoga Creek) to the northern City limits at SR 237 and from there empties into the mud flats of the southern part of San Francisco Bay. Along the City's eastern border, the Guadalupe River flows from about Trimble Road near U.S. 101 to SR 237, and from there north of the city across SR 237 to Sunnyvale Baylands Park and the Alviso ponds complex.

Several major transportation corridors cross the city: SR 237, U.S. 101, and SR 82 from west to east, and the Lawrence, San Tomas, and Montague expressways from south to north. The Valley Transportation Authority (VTA) light rail, in the northern part of the city, follows along Tasman Boulevard. South of U.S. 101, the Caltrain rail line runs west-east through the city.

The city is essentially built out with retail commercial corridors, single family neighborhoods, mainly in the southern part of the city south of U.S. 101, and industrial/office employment centers in the north that characterize the surrounding environs.

The Plan Area is located entirely within Santa Clara, in an area in the northwestern part of the city with major hospitality and amusement uses (Marriott Hotel, California's Great America amusement park) and several business office centers (Mission Towers, Santa Clara Business Park). Figure 3.4 in chapter 3, Project Description, of the EIR shows the Plan Area boundaries.

[1]CEQA Guidelines, appendix G, item I (a through d).

4.1.1 Visual Character of the Freedom Circle Focus Area Plan Area

(a) General Visual Character. The Plan Area is bordered by San Tomas Aquino Creek to the east, U.S. 101 to the south, Great America Parkway to the west, and California's Great America amusement park to the north. In the northwestern part of the Plan Area along Patrick Henry Drive is the Abbott Laboratories building, a two-story building with an attached parking lot, landscaping (trees, grass, and planting strips), sidewalks, and streetlights. Views to the west include office buildings, which continue along both sides of the Great America Parkway corridor. As shown on Figure 4.1, buildings on the east side of Great America Parkway are typically taller (ranging from three to six stories) in the Plan Area than those across the street to the west, outside of the Plan Area, which range from one to four stories. South of Mission College Boulevard, heading toward U.S. 101, building heights in the Plan Area increase, with the 13-story Marriott Hotel and the 12-story Mission Towers buildings at Hichborn Drive.

Figure 4.1. View looking north from Great America Parkway and Mission College Boulevard; taller buildings on the right are in the Plan Area, and shorter buildings on the left are across the Great America Parkway are outside of the Plan Area (Source: Google Maps street view)

At the southern part of the Plan Area adjacent to the U.S. 101 offramp at Great America Parkway are the 11-story Santa Clara Towers (two buildings). Farther east is the two-story Pedro's Restaurant and Cantina, which is adjacent to the currently vacant Greystar project site. The California's Great America/City of Santa Clara digital message/display sign is in the southeastern corner of the Pedro's Restaurant parking lot, next to the Greystar project site. (See Figure 4.2.) South across U.S. 101 and outside of the Plan Area are five- and six-story buildings in the Santa Clara Square office complex.

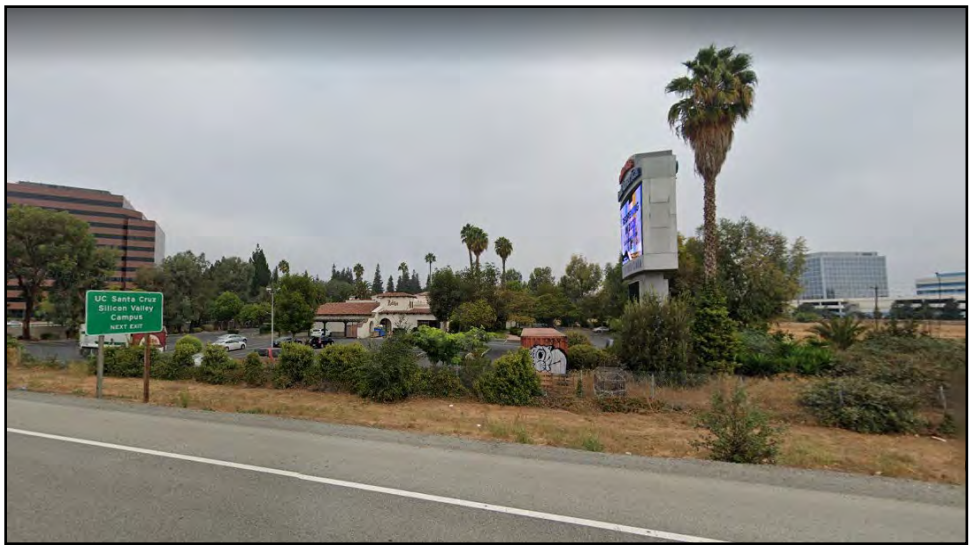

Figure 4.2. View looking north from along U.S. 101 with the Greystar project site on the right; the California's Great America/City of Santa Clara digital message/display sign and Pedro's Restaurant and Cantina in the middle; and Santa Clara Towers on the left (Source: Google Maps street view)

As shown in Figure 4.3, adjacent to the eastern part of the Plan Area, the San Tomas Aquino Creek Trail runs north and south, with the Greystar project site on the west and San Tomas Aquino Creek on the east. Buildings visible to the east of the Plan Area vary in height from 4 to 13 stories. The east bank of the creek is vegetated, with trees along much of the length of the east-side levee road. Along the west side of the creek are overhead utility lines with a fence separating the bike path from the west-side levee road and adjacent Plan Area parcels.

Figure 4.3. View looking north along the San Tomas Aquino Creek Trail with the Greystar project site on the left and the Intel building on the right (Source: Google Maps street view)

The Santa Clara Park business complex is enclosed within Freedom Circle and Mission College Boulevard, with 12 two-story buildings, adjoining parking lots, landscaping, and trees within the business park and lining the perimeter. Views from inside the business park are limited, though some taller buildings are more easily seen in the west (see Figure 4.4). Views from the eastern part of the business park include the Greystar project site and the office buildings east of San Tomas Aquino Creek, beyond the Plan Area (see Figure 4.5).

Figure 4.4. View looking west from parking lot in Santa Clara Park with Malwarebytes building on left and Marriott Hotel on right (Source: Google Maps street view)

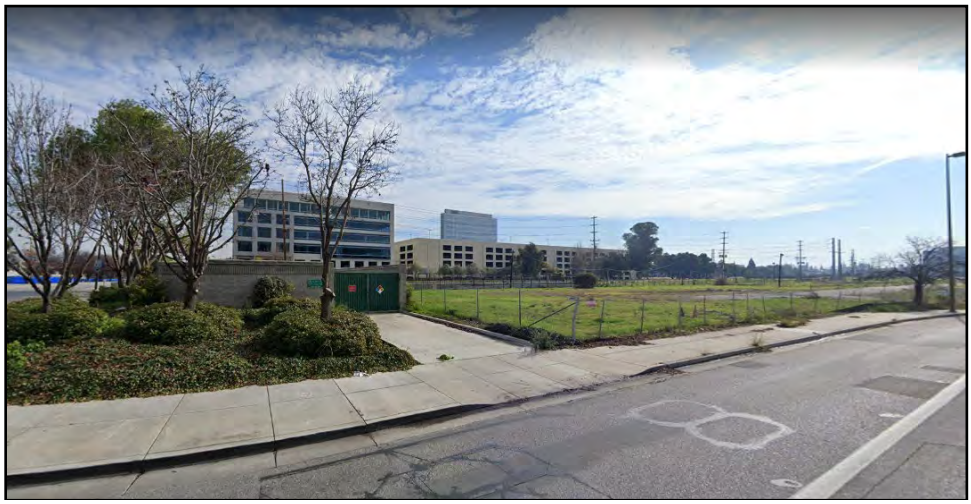

Figure 4.5. View looking southeast from Freedom Circle at Mission College Boulevard; buildings in the background are outside of the Plan Area and east of San Tomas Aquino Creek; the City's Freedom Circle Storm Station is on the left, and the Greystar project site adjacent to it, on the right (Source: Google Maps street view)

The area north of Mission College Boulevard contains four three-story office buildings with large parking areas, assorted landscaping, and trees throughout the parking areas and around the perimeter. Towards the west, the parking area merges with parking lots behind the two six-story office buildings at Mission College Boulevard and Great American Parkway and extends around north to join the Abbott Laboratories parking lot, adjacent to California's Great America amusement park to the east and northeast.

Though some views of California's Great America amusement park are available along Patrick Henry Drive in the northwestern part of the Plan Area, most views of the amusement park north of the Plan Area are limited (see Figure 4.6).

Figure 4.6. View looking north from a Plan Area parking lot (vegetation partially obscures Great America amusement park rides) (Source: Google Maps street view)

(b) Prominent Features. As discussed in section 12, Land Use and Planning, except for the vacant Greystar project site, the Plan Area is essentially built out with uses such as biotech and electronics, business offices, hotels, and various support services (such as car rental, UPS store, medical/dental, and restaurants). The San Tomas Aquino Creek Trail is adjacent to the eastern Plan Area boundary. The Plan Area is generally flat with surface elevations ranging from 20 to 30 feet above mean sea level (MSL). There are no rock outcroppings in the Plan Area.

(c) Greystar Project Site. The Greystar project site is located adjacent to U.S. 101 (the Bayshore Freeway) at the southern boundary of the Plan Area. The site extends north about one-third mile from U.S. 101 the toward Mission College Boulevard (see Figure 4.7). The site contains no existing buildings or other structures and is essentially covered with grass, with some limited paving remaining from prior uses.

Views from U.S. 101 show the undeveloped Greystar site. Prominent visual features are the Intel Corporate facility to the east and Santa Clara Towers to the west of the Greystar site.

Figure 4.7. View of Greystar project site looking north from U.S. 101 (Source: Google Maps street view)

Views to the south, across U.S. 101, include the buildings in the Santa Clara Square office complex discussed above. In general, due to the flat topography and surrounding development, views of the Greystar project site are limited.

In addition, though not a visual feature of the site, a view easement covers part of the southern portion of the project site, extending approximately 83 feet from the parcel boundary near U.S. 101 on the western side (near the sign) to 120 feet from the parcel boundary on the eastern side. This view easement was established to protect the sight lines of the Santa Clara/Great America sign. As discussed in chapter 3, Project Description, the Greystar project proposes confirmation of the view easement to assure that views of the Santa Clara/Great America remain protected.

The Greystar project site and surrounding areas to the north, east, south, and west are generally flat, and although the Greystar project site is vacant, the surrounding parcels are developed with industrial and office/R&D buildings and parking lots. Vegetation in the vicinity of the Greystar project site consists primarily of landscaped areas with shrubs, grass, and street trees.

4.1.2 Existing Scenic Vistas

Existing, limited vistas within the Plan Area include views of distant hills, but because Santa Clara is generally flat and urbanized, vistas are often blocked by buildings, trees, power poles, and walls. Public views of these features occasionally emerge on long, straight roads along the perimeter of the Plan Area (such as Great America Parkway) or in the gaps between buildings and/or structures such as Agnew Road near the Fire Station (see Figure 4.8).

Figure 4.8. View looking northeast from Agnew Road at eastern Plan Area boundary with the San Tomas Aquino Creek Trail crossing Agnew Road on the right and the East Bay Hills in the background (Source: Google Maps street view)

4.1.3 Existing Scenic Highways

There are no officially designated State scenic highways within the city, including the Plan Area and the Greystar project site.[1]

4.1.4 Existing Light and Glare

Existing sources of nighttime light in and around the Plan Area include those common to urban areas (e.g., street lights, parking lot lighting, building lighting, illuminated signs, vehicle headlamps, interior building lighting visible through windows). Existing sources of glare in and around the Plan Area are typical of urban areas, such as reflection of sunlight and artificial light off windows, buildings and other surfaces in the day, and glare from inadequately shielded and improperly directed light sources at night. In particular, along the western boundary of the Plan Area are several mid-rise office buildings and hotels that contribute to nighttime light in the general area. Also, the rides at California's Great America amusement park, which are typically lit at night, are visible, with the taller rides prominent from some vantage points around the amusement park. South of the Plan Area, traffic along U.S. 101 and office buildings farther south on the other side of the freeway are also sources of nighttime light.

Because the Greystar project site is currently vacant, there are no sources of nighttime light or glare from that part of the Plan Area.

[1]State of California, Caltrans, Scenic Highways, https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways, accessed 7/23/20.

4.1.5 Existing Shade and Shadow Conditions

The following discussion is relevant to applicable General Plan policies evaluated in section 4.4.3 (Impacts and Mitigations), below. The issue of shade and shadow as it pertains to the Plan Area involves the blockage of direct sunlight by existing or proposed structures, and associated effects on adjacent properties. The effects of shading by one structure upon another element (structure, space, etc.) can be either positive or negative depending upon the site-specific circumstances. Some potential beneficial effects of shading for adjacent elements may include desired cooling during warm weather. Perceived adverse effects of shading may include loss of desirable natural light, such as natural light for passive or active solar energy applications, or loss of warming influences during cool weather. Factors influencing the perceived impact of shadow are site-specific and can include building placement; the height, bulk and setback of structures; the time of year; the duration of shading in a day; weather; landscaping; and the sensitivity of adjacent land uses to loss of sunlight.

Currently the Greystar project site is vacant, so there are no structures that could cause shadows on adjacent parcels.

4.2 REGULATORY SETTING

4.2.1 State

California Outdoor Advertising Act. As provided in California Business and Professions Code section 5200 et seq., the Outdoor Advertising Act regulates the placement of outdoor advertising displays visible from California highways. Caltrans regularly reviews freeways and highways to enforce outdoor advertising requirements, including placement within interstate or primary highway rights-of-way, height and length, display size, illumination standards (stipulated in Vehicle Code Section 21466.5), and glare.

California Solar Shade Control Act. Under the California Solar Shade Control Act (Public Resource Code Sections 25980-25986), no property owner shall allow a tree or shrub to be placed or to grow so as to cast a shadow greater than 10 percent at any one time between the hours of 10:00 AM and 2:00 PM over an existing solar collector used for water heating, space heating or cooling, or power generation on an adjacent property. These limitations apply to the placement of new trees or shrubs, and do not apply to trees and shrubs that already cast a shadow upon that solar collector. The location of a new solar collector is required to comply with local building and setback regulations but must be set back not less than five feet from the property line and must be no less than 10 feet above the ground.[1]

Title 24 Outdoor Lighting Zones. The Building Energy Efficient Standards within Title 24 specify outdoor lighting requirements for residential and non-residential development. The intent of these standards is to improve the quality of outdoor lighting and help reduce the impacts of light pollution, light trespass, and glare. The standards regulate lighting characteristics, such as maximum power and brightness, shielding, and sensor controls to turn lighting on and off. Different lighting standards are set by classifying areas by lighting zone. The

[1]California Codes, Public Resource Code Sections 25980-25986 (https://leginfo.legislature.ca.gov/faces/codes_displayText.xhtml?lawCode=PRC&division=15.&title=&part=&chapter=12.&article=).

classification is based on U.S. Census Bureau population figures, and the areas can be designated as LZ0 (very low), LZ1 (low), LZ2 (moderate), LZ3 (moderately high), or LZ4 (high). Lighting requirements for dark and rural areas are stricter in order to protect the areas from new sources of light pollution and light trespass. According to the U.S. Census Bureau, the entire Plan Area is defined as an urban area and is therefore designated as Lighting Zone 4 per the California Energy Commission outdoor lighting zone classification standards.

4.2.2 Local

Santa Clara General Plan. The General Plan contains the following policies that enhance the community character and provide design guidance applicable to the Focus Area Plan (including the Greystar project):

- Policy 5.3.1-P3: Support high quality design consistent with adopted design guidelines and the City's architectural review process.

- Policy 5.3.1-P6: Allow planned development only if it is consistent with General Plan land use density and intensity requirements and provides a means to address unique situations to achieve high community design standards that would otherwise not be feasible.

- Policy 5.3.1-P10: Provide opportunities for increased landscaping and trees in the community, including requirements for new development to provide street trees and a minimum 2:1 on- or off-site replacement for trees removed as part of the proposal to help increase the urban forest and minimize the heat island effect.

- Policy 5.3.1-P24: Coordinate sign programs for commercial uses to promote continuity, improve streetscape design and reduce visual clutter.

- Policy 5.3.1-P29: Encourage design of new development to be compatible with, and sensitive to, nearby existing and planned development, consistent with other applicable General Plan policies.

- Policy 5.3.4-P7: Use design techniques, such as stepping down building heights, and siting incompatible activities, such as loading and unloading, away from residential uses.

- Policy 5.3.4-P12: Prioritize pedestrian-oriented streetscape and building design in mixed-use development, including features such as wider sidewalks, street furniture, specialty planters, signage, public art, street trees, special paving materials, decorative awnings, enhanced entrances, colors, variety of materials and textures and distinctive building massing and articulation.

- Policy 5.9.1-P17: Foster site design for new development so that building height and massing do not overshadow new parks and plazas.

- Policy 5.10.3-P4: Encourage new development to incorporate sustainable building design, site planning and construction, including encouraging solar opportunities.

Santa Clara City Code. City Code Title 18 has provisions related to building height, exterior lighting, glare, and signs. City Code Chapter 18.76 provides for architectural review of development applications, including authority to require design modification of buildings, parking

areas, landscaping, signs, and other facilities and improvements as deemed necessary by the Development Review Officer.

Santa Clara Community Design Guidelines. The Community Design Guidelines establish design criteria for the City in support of the General Plan, to encourage orderly and harmonious appearance of structures, addressing (among others) aspects such on-site amenities; vehicular and pedestrian circulation; building orientation, height, scale, and bulk; parking and parking structures; equipment location and screening; fencing; setbacks; landscaping; lighting; and signs.

4.3 IMPACTS AND MITIGATION MEASURES

This section describes potential aesthetic and visual resource impacts that could result from the Freedom Circle Focus Area Plan/Greystar General Plan Amendment, and discusses components of the Plan that would avoid or reduce those potential impacts.

4.3.1 Significance Criteria

Based on the CEQA Guidelines,[1] implementation of the Freedom Circle Focus Area Plan/ Greystar General Plan Amendment would have a significant impact related to aesthetics and visual resources if it would:

(a) Have a substantial adverse effect on a scenic vista;

(b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway;

(c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality; or

(d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the Plan Area.

Criterion (b) regarding State scenic highways does not apply to the proposed Freedom Circle Focus Area Plan/Greystar General Plan Amendment because neither the Plan Area nor the Greystar project site are located adjacent to or in the vicinity of a California state scenic highway (U.S. 101 is not a California state scenic highway). There are no designated State scenic highways in the city Santa Clara. Therefore, this topic is not discussed further.

4.3.2 Relevant Freedom Circle Focus Area Plan Policies

The Focus Area Plan includes the following policies relevant to the aesthetics and visual resources significance criteria (see 4.3.1 above):

[1] CEQA Guidelines, appendix G, item I (a through d).

- **FC-P7:** Encourage sensitive design and site planning to mitigate the scale and height of larger buildings through use of building massing, setbacks, façade articulation, fenestration, varied parapets and roof lines, and pedestrian-scaled architectural details.

- **FC-P8:** Provide appropriate transition between new development in the Focus Area and adjacent uses consistent with General Plan Transition Policies.

- **FC-P9:** Require that building facades and entrances directly face street frontages, with a high proportion of transparent windows facing the street for nonresidential uses.

- **FC-P15:** Develop design standards and guidelines to support active ground-floor environments, welcoming public spaces, and safe and comfortable sidewalks and pathways.

The reader is encouraged to review the Focus Area Plan for more detail. Pursuant to section 15150 (Incorporation By Reference) of the CEQA Guidelines, the Freedom Circle Focus Area Plan is incorporated into this Draft EIR by reference. The Plan is posted on the Freedom Circle Focus Area Plan website at:[1]

https://www.santaclaraca.gov/our-city/departments-a-f/community-development/planning-division/specific-plans/freedom-circle

4.3.3 Impacts and Mitigations

CEQA requires environmental impacts to be analyzed compared to ***existing conditions on the ground***. The Freedom Circle Focus Area Plan proposes to amend the General Plan to add the Focus Plan Area to Phase III of the General Plan and identify the Plan Area as the location of future higher-density, higher-intensity, mixed-use development, which may result in building heights and massing greater than existing conditions. Before development in the Plan Area can be considered, a comprehensive planning study (such as a specific plan) would need to be prepared and adopted by the City, as required by the General Plan. This comprehensive planning study would include standards and guidelines that provide for consistency of future development with City and regional regulations. For instance, building heights in the Plan Area would be allowed to increase as long as they are consistent with Federal Aviation Administration (FAA) flight path restrictions for Norman Y. Mineta San Jose International Airport (see EIR chapter 10, Hazards and Hazardous Materials, for a discussion of FAA and airport requirements).

Currently, while many of the buildings in the Plan Area are one, two, and three stories, several of the buildings are between 11 and 13 stories in height. In the immediate vicinity, several of the buildings are between 4 and 13 stories in height. In California's Great America amusement park to the north, there are several rides between 102 and 225 feet, approximately 9 to 20 stories (see photos above).

Impact 4-1: Effects on Scenic Vistas—Plan Area. Existing, limited vistas within the Plan Area include views of distant hills, but due to the generally flat, urbanized nature of Santa Clara, these vistas are often blocked by buildings, trees, power poles, and walls. Public views of these features occasionally emerge along view corridors created by long, straight roads along the

[1]Due to Covid-19 restrictions, all City libraries and City Hall remain closed, and no hard copies of the EIR will be available.

perimeter of the Plan Area (e.g., Great America Parkway) and also by Mission College Boulevard, which transects the Plan Area. Occasionally, public views are accessible selectively between buildings and other structures, but no scenic vistas can be viewed from existing public areas in the Plan Area because the Plan Area (with the exception of the Greystar project site) is already built out and is largely private development with limited public access, and because of a lack of significant scenic vistas in the vicinity.

As described and illustrated above, the Plan Area does not afford expansive or high quality scenic views, and the proposed development would neither exacerbate or improve that condition. Therefore, Plan impacts on scenic vistas are considered ***less-than-significant*** (see criterion [a] in subsection 4.3.1, "Significance Criteria," above).

Mitigation 4-1. No significant impact has been identified; no mitigation is required.

Impact 4-2: Effects on Scenic Vistas—Greystar Project. As discussed in Impact 4-1, existing, limited vistas within the Plan Area include views of distant hills, but due to the generally flat, urbanized nature of Santa Clara these vistas are often blocked by buildings, trees, power poles, and walls. Public views of these features occasionally emerge along view corridors such as the San Tomas Aquino Creek Trail adjacent to the eastern boundary of the Greystar site and the Plan Area, and to a lesser extent parts of Freedom Circle.

Figures 4.9 and 4.10 show architect's renderings of the three 7-story residential buildings proposed by the Greystar project from two viewpoints, one looking toward the south and the other toward the north, both from around Freedom Circle. Although the project buildings would obscure some viewpoints to the south and east along Freedom Circle Road, as shown in previous Figure 4.5, the vistas are already disrupted by existing buildings east of San Tomas Aquino Creek and south across U.S. 101. Further, no scenic vistas can be viewed from the Greystar project site because the Plan Area (with the exception of the Greystar site itself) is already built out and is largely private development with limited public access, and because of a lack of significant scenic vistas in the vicinity. Therefore, Greystar project impacts on scenic vistas would be considered ***less-than-significant*** (see criterion [a] in subsection 4.3.1, "Significance Criteria," above).

Mitigation 4-2. No significant impact has been identified; no mitigation is required.

VIEW FROM FREEDOM CIRCLE DRIVE LOOKING SOUTH

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SITE RENDERING

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A-011

FIGURE 4.9: ARCHITECT'S RENDERING - SOUTH VIEW

VIEW FROM FREEDOM CIRCLE DRIVE LOOKING NORTH

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SITE RENDERING

Job No. : 20002
Date: 8/11/2021
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Sheet No:
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FIGURE 4.10: ARCHITECT'S RENDERING - NORTH VIEW

Impact 4-3: Impacts on Existing Visual Character and Quality—Plan Area. New development throughout the Plan Area could include a combination of residential, retail, office, and open space uses. New uses could include combinations of, for example, residential, retail, restaurant, and office uses in single or mixed-use buildings. The Freedom Circle Focus Area Plan is, by definition, a generalized plan. As stated in the General Plan, a comprehensive planning study is required for future focus areas, which would include, among other items, "…appropriate design guidelines for private development, public facilities, streetscapes and transitions to adjacent land uses" (Prerequisite Policy 5.1.1-P8). Although the Focus Area Plan includes goals and policies intended to provide direction for minimizing visual impacts from future development, these general goals and policies lack the detail and enforceability that would be included in the comprehensive planning study, and therefore present potential conflicts with applicable General Plan policies governing scenic quality. This represents a ***potentially significant impact*** (see criterion [c] in subsection 4.3.1, "Significance Criteria," above).

The Focus Area Plan includes goals and policies that would support General Plan policies governing scenic quality (see section 4.2, Regulatory Setting) but because the Focus Area Plan goals and policies are generalized, consistency with General Plan policies cannot be ensured until the future, more detailed comprehensive planning study is completed, they could present potential conflicts:

- Policy 5.3.1-P3: Support high quality design consistent with adopted design guidelines and the City's architectural review process.

  Potential conflict. *The following Focus Area Plan goal and policy would support high-quality design but provide no enforceable performance standard to assure consistency with the General Plan policy:*

  FC-G5: Create a human-scaled public realm through inviting architecture and urban design.

  FC-P9: Require that building facades and entrances directly face street frontages, with a high proportion of transparent windows facing the street for nonresidential uses.

- Policy 5.3.1-P6: Allow planned development only if it is consistent with General Plan land use density and intensity requirements and provides a means to address unique situations to achieve high community design standards that would otherwise not be feasible.

  Potential conflict*. The following Focus Area Plan goal and policy would support the land use density and intensity envisioned for the Plan Area but provide no performance enforceable standard to assure consistency with the General Plan policy:*

  FC-G5: Create a human-scaled public realm through inviting architecture and urban design.

FC-P1: Allow for a range of housing density and development intensity throughout the plan area, consistent with the General Plan designations and overall buildout capacity.

- Policy 5.3.1-P10: Provide opportunities for increased landscaping and trees in the community, including requirements for new development to provide street trees and a minimum 2:1 on- or off-site replacement for trees removed as part of the proposal to help increase the urban forest and minimize the heat island effect.

  Potential conflict. *The following Focus Area Plan policies would support opportunities for increased landscaping but provide no enforceable performance standard to assure consistency with the General Plan policy:*

  FC-P4: Provide public parkland and privately-owned public open space that is accessible to all residents, adequate to meet resident activity needs, and consistent with the General Plan requirements and other City regulations.

  FC-P5: Require the dedication of public parkland, or payment of in-lieu fees, for residential development, consistent with the City's Parkland Dedication Ordinance.

- Policy 5.3.1-P24: Coordinate sign programs for commercial uses to promote continuity, improve streetscape design and reduce visual clutter.

  Potential conflict. *The following Focus Area Plan policy would support improved streetscape design and reduce visual clutter but provides no enforceable performance standard to assure consistency with the General Plan policy:*

  FC-P3: Require active street frontages and ground floor uses to create a pedestrian-friendly, cohesive urban environment.

- Policy 5.3.1-P29: Encourage design of new development to be compatible with, and sensitive to, nearby existing and planned development, consistent with other applicable General Plan policies.

  Potential conflict. *The following Focus Area Plan policy would support compatibility with nearby existing and planned development but provides no enforceable performance standard to assure consistency with the General Plan policy:*

  FC-P8: Provide appropriate transition between new development in the Focus Area and adjacent uses consistent with General Plan Transition Policies.

- Policy 5.3.4-P7: Use design techniques, such as stepping down building heights, and siting incompatible activities, such as loading and unloading, away from residential uses.

  Potential conflict. *The following Focus Area Plan policy would support design techniques to minimize effects of incompatible activities but provides no enforceable performance standard to assure consistency with the General Plan policy:*

FC-P15: Develop design standards and guidelines to support active ground-floor environments, welcoming public spaces, and safe and comfortable sidewalks and pathways.

- Policy 5.3.4-P12: Prioritize pedestrian-oriented streetscape and building design in mixed-use development, including features such as wider sidewalks, street furniture, specialty planters, signage, public art, street trees, special paving materials, decorative awnings, enhanced entrances, colors, variety of materials and textures and distinctive building massing and articulation.

  Potential conflict. *The following Focus Area Plan policies would support pedestrian-oriented streetscape and building design but provide no enforceable performance standard to assure consistency with the General Plan policy:*

  FC-P3: Require active street frontages and ground floor uses to create a pedestrian-friendly, cohesive urban environment.

  FC-P15: Develop design standards and guidelines to support active ground-floor environments, welcoming public spaces, and safe and comfortable sidewalks and pathways.

  FC-P16: Design and program the plan area and sites to encourage walking, bicycling and transit use.

- Policy 5.9.1-P17: Foster site design for new development so that building height and massing do not overshadow new parks and plazas.

  Potential conflict*. The following Focus Area Plan policy would support appropriate building height and massing but provides no enforceable performance standard to assure consistency with the General Plan policy:*

  FC-P7: Encourage sensitive design and site planning to mitigate the scale and height of larger buildings through use of building massing, setbacks, façade articulation, fenestration, varied parapets and roof lines, and pedestrian-scaled architectural details.

- Policy 5.10.3-P4: Encourage new development to incorporate sustainable building design, site planning and construction, including encouraging solar opportunities.

  Potential conflict. *The following Focus Area Plan policy would support sustainability in development but provides no enforceable performance standard to assure consistency with the General Plan policy:*

  FC-P17: Minimize environmental impacts through sustainable building and infrastructure design, consistent with CALGreen and Santa Clara Climate Action Plan requirements.

Mitigation 4-3. As required by the City of Santa Clara General Plan, the City shall prepare a future comprehensive planning study for the Freedom Circle Focus Area Plan (whether a specific plan or another type of plan) and it shall include the following performance and design standards and guidelines that apply to all future individual development proposals in the Plan Area to minimize visual impacts by: (a) those enhancing form and design in the Plan Area; (b) those incorporating land use densities and associated changes in intensity consistent with the General Plan; (c) those encouraging street trees and landscaping along corridors to beautify the streetscape; (d) those coordinating signage color, shape, and graphic styles with the City's signage system; (e) those including standards to ensure compatibility of new development with nearby existing and planned development; (f) those establishing standards related to building form, mass, and scale that enhance the pedestrian realm and provide transitions to adjacent lower-density development and public spaces; (g) those including guidelines and standards for pedestrian amenities; and (h) those fostering site design so that building height and massing would not overshadow new parks and plazas and/or interfere with solar collectors. Incorporation of such performance and design standards and guidelines in the required comprehensive planning study for the Plan Area would minimize conflicts with General Plan policies pertaining to visual character. Therefore, implementation of this mitigation would reduce this impact to a ***less-than-significant level.***

Impact 4-4: Impacts on Existing Visual Character and Quality—Greystar Project. Section 4.1(c), "Greystar Project Site," describes the existing visual character of the Greystar project site and vicinity. As described earlier, the Greystar project would be a new development in the southeast part of the Plan Area on a vacant site between the San Tomas Aquino Creek Trail (and levee road), Pedro's Restaurant, and Freedom Circle. There are no other residential uses in this part of the Plan Area; however, there are multi-story buildings in the general vicinity, east across San Tomas Aquino Creek but outside of the Plan Area. As follows, the Greystar project design would be substantially consistent with General Plan policies governing scenic quality (see section 4.2, Regulatory Setting), although some potential conflicts could arise:

- Policy 5.3.1-P3: Support high quality design consistent with adopted design guidelines and the City's architectural review process.

  No conflict. Final design review and approval of the Greystar project would be required by the City (Architectural Review Committee), per City Code chapter 18.76 (Architectural Review) and the Community Design Guidelines.

- Policy 5.3.1-P6: Allow planned development only if it is consistent with General Plan land use density and intensity requirements and provides a means to address unique situations to achieve high community design standards that would otherwise not be feasible.

  No conflict. Approval of the Greystar project would require amendments to the General Plan and zoning code to redesignate the project site for high-density residential development, and the project would be consistent with the new designation. The project has been designed to provide high-intensity multi-family housing (with some retail) in an

urban district in the employment-rich northern part of Santa Clara and would help address the City's and State's housing shortage.

- Policy 5.3.1-P10: Provide opportunities for increased landscaping and trees in the community, including requirements for new development to provide street trees and a minimum 2:1 on- or off-site replacement for trees removed as part of the proposal to help increase the urban forest and minimize the heat island effect.

  No conflict. There are no trees on the project site that would be required to be removed. In addition, the Greystar project would plant trees around the perimeter of the project site near the sidewalk, in the park, and in other areas on the project site.

- Policy 5.3.1-P24: Coordinate sign programs for commercial uses to promote continuity, improve streetscape design and reduce visual clutter.

  No conflict. The Greystar project includes a small amount of retail use (approximately 2,000 square feet) and would not require a sign program; however, as indicated in the project plans, signs would typically be located near driveways and public entries (e.g., lobbies), with colors, shapes, and graphic styles subject to review by the City's Architectural Review Committee.

- Policy 5.3.1-P29: Encourage design of new development to be compatible with, and sensitive to, nearby existing and planned development, consistent with other applicable General Plan policies.

  No conflict. The Greystar project has been designed to provide high-intensity multi-family housing (with some retail) in an urban district identified by the City as well-suited for higher density development. Compared to existing one- to three-story development to the west of the project site, the Greystar project could appear more dense, and there is potential for some overshadowing during winter mornings (as discussed later in this chapter). However, the existing development in this area is commercial in nature and already has much denser and taller development adjacent and to the west (i.e., Mission Towers, Santa Clara Towers). Development anticipated to occur in this area would likely also be comprised of higher density projects (commercial, residential, or a mixture), which would be comparable to the Greystar project. In addition, in comparison to existing development to the east, across San Tomas Aquino Creek, the Greystar project would be similar in heights to several buildings and therefore compatible with other development in the area.

- Policy 5.3.4-P7: Use design techniques, such as stepping down building heights, and siting incompatible activities, such as loading and unloading, away from residential uses.

  No conflict. The Greystar project incorporates varied building heights, awnings and sunshades, balconies and railings, and varied window treatments to provide visual variety for the residential buildings. The project open space also provides visual relief to residents. Loading areas (such as garage entrances and the designated "move-in" and trash staging areas) are located in areas with less potential for conflict with residential units and also include shrubs, trees, and other landscaping.

- Policy 5.3.4-P12: Prioritize pedestrian-oriented streetscape and building design in mixed-use development, including features such as wider sidewalks, street furniture, specialty planters, signage, public art, street trees, special paving materials, decorative awnings, enhanced entrances, colors, variety of materials and textures and distinctive building massing and articulation.

  No conflict. The Greystar project includes several pedestrian-oriented design elements, including pedestrian paths; a private courtyard (paseo) between Building A and Building B (with an intertwined pedestrian path running through it); courtyards with lounge seating for residents; and BBQ areas with fire pits, game tables, and other amenities. Trees would be planted around the perimeter of the project site, near the sidewalk. There would be selected areas with planter strips. Building colors would range from muted tones to pastels and accent colors. Wall sidings would provide several different textures. Variation in building massing and articulation would provide visual variety.

- Policy 5.9.1-P17: Foster site design for new development so that building height and massing do not overshadow new parks and plazas.

  ***Potential conflict**. During low-sun periods, such as winter and parts of early spring and late fall, the Greystar project could conflict with this policy due to the proposed building heights and their effect on the near new plazas and park. (See discussion below under "Shadow Effects.")*

- Policy 5.10.3-P4: Encourage new development to incorporate sustainable building design, site planning and construction, including encouraging solar opportunities.

  ***Potential conflict.** As shown on Figures 4.11A through 4.11C, the Greystar project could temporarily interfere with solar opportunities on parts of neighboring properties to the west (the Pedro's Restaurant parcel and the Santa Clara Park parcel) by casting shadows on future locations for solar collectors during winter mornings.*

The Greystar project design would serve to achieve a coordinated, connected environment within the project site that would establish visual identity and sense of place in the southeastern part of the Plan Area. The following discussion addresses the potential project conflict related to building height and shadows.

Shadow Effects. The issue of shade and shadow as it pertains to the project involves the potential blockage of direct sunlight by proposed structures, and associated effects on adjacent properties. The effects of shading by one structure upon another element (structure, space, etc.) can be either positive or negative depending upon the site-specific circumstances. Potential beneficial effects of shading for adjacent elements may be perceived as a desired cooling effect during warm weather. Possible adverse effects of shading may include the loss of desirable natural light, including natural light for passive or active solar energy applications, or the loss of desired warming influences during cool weather. Factors influencing the effects of shadow are site-specific and can include building placement, the height, bulk and setback of structures, the time of year, the duration of shading in a day, weather, landscaping, and the sensitivity of adjacent land uses to loss of sunlight.

Land uses are generally considered shadow-sensitive when sunlight is important to function, physical comfort, or the conduct of commerce. Facilities and operations identified as potentially

sensitive to the loss of sunlight may include public parks, plazas, and open space areas; routinely usable outdoor areas of residential properties; commercial uses such as pedestrian-oriented outdoor spaces or restaurants with outdoor eating areas; and existing solar energy collectors.

Shadow-sensitive land uses within and adjacent to the Greystar project site include the adjacent Pedro's Restaurant parcel, portions of the Santa Clara Park parcel, the future public park, and the open spaces within the project site (i.e., pedestrian pathways, paseo).

Project-related maximum shadow pattern diagrams are depicted on Figures 4.11A through 4.11C for the longest and shortest shadow periods during the four seasons (summer solstice, spring and fall equinoxes, and winter solstice). As shown, the proposed buildings would result in the following shadow effects:

- Summer Solstice. Shadows during summer solstice would be most pronounced in the mornings and would be cast on the landscaped roundabout in the vehicle courtyard between Buildings A and B, parts of the courtyards in Building B, and the west sides of buildings A, B, and C. By midday, the shadows would recede. Later in the afternoon, shadows would be cast on the east side of the project site, mainly on the perimeter road.

- Spring/Fall Equinoxes. Shadows during the spring and fall equinoxes would be substantial in the mornings, covering almost all of the landscaped roundabout in the vehicle courtyard, but would only extend into a portion (less than half) of the paseo and a small part of the future public park (on the southern side). The west sides of Buildings A, B, and C would also have extensive shadows, which would extend into the Pedro's Restaurant parking lot and into part of the Santa Clara Park parking lot; shadows would be cast onto part of the Pedro's Restaurant building itself, though by midday they would recede. The courtyards in Building B would also be cast in shadow. Later in the afternoon, shadows would be cast on the east side of the project site, mainly on the perimeter road though partly extending onto the San Tomas Aquino Creek Trail. Parts of the landscaped roundabout in the vehicle courtyard and the paseo would still be cast in shadow in the late afternoon, as would the courtyards in Building B.

- Winter Solstice. Shadows during winter solstice would be pronounced in the morning, with most of the paseo in shadow and the landscaped roundabout in the vehicle courtyard between Buildings A and B completely in shadow. The courtyards in Building B would also be cast in shadow, and over one-quarter of the park would be in shadow. The west side of Buildings A, B, and C would also have pronounced shadows, which would extend into the Pedro's Restaurant parking lot and onto part of the Pedro's Restaurant building itself, as well as onto parts of some of the buildings in Santa Clara Park. These conditions would change by midday, although most of the paseo and all of the landscaped roundabout would remain in shadow. The courtyards in Building B would also still be in shadow as would about one-quarter of the park. By late afternoon, all of the paseo would be in shadow but only part of the landscaped roundabout would be in shadow. The courtyards in Building B would still be cast in shadow, and about one-quarter of the park would be in shadow. Shadows would extend across the San Tomas Aquino Creek Trail.

SUMMER SOLSTICE
JUNE 21 AT 9:00 AM

SUMMER SOLSTICE
JUNE 21 AT 12:00 PM

SUMMER SOLSTICE
JUNE 21 AT 3:00 PM

FIGURE 4.11A: GREYSTAR PROJECT SHADOW STUDY - SUMMER SOLSTICE

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: Architecture
: Planning
: Urban Design
: 1970 Broadway, Suite 500
: Oakland, California 94612
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Revisions:

No.	Description	Date

Sheet Title:
SHADOW STUDY-SUMMER SOLSTICE

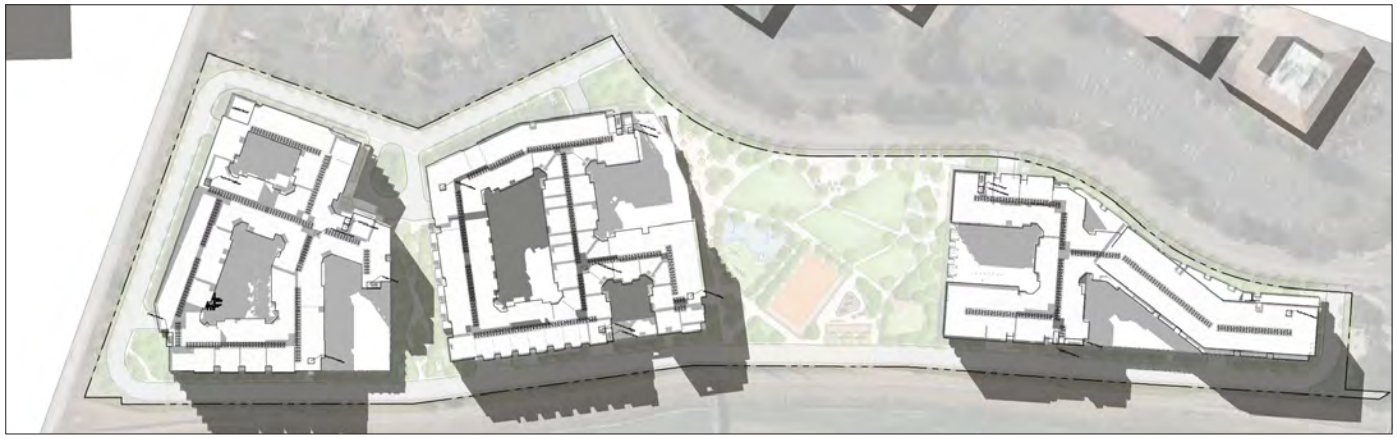
Job No. : 20002
Date: 06/30/2020
Scale:

Sheet No:
A-

Freedom Circle
Focus Area Plan

SPRING / FALL EQUINOX
MARCH / SEPT 21 AT 9:00 AM

SPRING / FALL EQUINOX
MARCH / SEPT 21 AT 12:00 PM



SPRING / FALL EQUINOX
MARCH / SEPT 21 AT 3:00 PM

FIGURE 4.11B: GREYSTAR PROJECT SHADOW STUDY - SPRING/FALL EQUINOX

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Focus Area Plan

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No.	Description	Date

Sheet Title:
SHADOW STUDY- SPRING / FALL EQUINOX

Job No. : 20002
Date: 06/30/2020
Scale:

Sheet No:
A-

WINTER SOLSTICE
DECEMBER 21 AT 9:00 AM

WINTER SOLSTICE
DECEMBER 21 AT 12:00 PM

WINTER SOLSTICE
DECEMBER 21 AT 3:00 PM

FIGURE 4.11C: GREYSTAR PROJECT SHADOW STUDY - WINTER SOLSTICE

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No.	Description	Date

Sheet Title:
SHADOW STUDY-
WINTER SOLSTICE

Job No. : 20002
Date: 06/30/2020
Scale:

Sheet No:
A-

Freedom Circle
Focus Area Plan

In summary, the proposed project would cast shadows on several project features and adjacent properties over the course of the seasons, varying with the time of day (e.g., angle of the sun). The courtyards in Building B would have the most consistent shadow effects, but not all year round. Shadow effects on adjacent properties would likewise be limited by the season and time of day, primarily in the mornings or late afternoons.

Therefore, because the project would not conflict with applicable zoning or other regulations governing scenic quality and its shadow effects would not be considered significant due to their limited duration and variability, the impact of the Greystar project on the existing visual character and quality of project site and its surroundings is considered ***less-than-significant*** (see criterion [c] in subsection 4.3.1, "Significance Criteria," above).

Mitigation 4-4. No significant impact has been identified; no mitigation is required.

Impact 4-5: Project Light and Glare Effects—Plan Area. Development facilitated by the Focus Area Plan and required comprehensive planning study (specific plan) would be subject to light and glare requirements described in section 4.2 (Regulatory Setting) of this EIR chapter (e.g., Santa Clara City Code, Title 24 Outdoor Lighting Zones). Lighting characteristics in the Plan Area would not be expected to represent a source of substantial new light or glare due to the fact that the area is already developed with urban uses that are sources of daytime and nighttime light and glare and do not contain uses sensitive to light or glare. Application of the standard regulations described above would result in ***less-than-significant light and glare impacts*** (see criterion [d] in subsection 4.3.1, "Significance Criteria," above).

Mitigation 4-5. No significant impact has been identified; no mitigation is required.

Impact 4-6: Project Light and Glare Effects—Greystar Project. Similar to Impact 4-5, the Greystar project would be subject to light and glare requirements described in section 4.2 (Regulatory Setting) of this EIR chapter (e.g., Santa Clara City Code, Title 24 Outdoor Lighting Zones). An overall increase in nighttime lighting would be expected due to the project, but the project's lighting characteristics would not be expected to represent a source of substantial new light or glare which would adversely affect views and vision. Although the project site is vacant, the area around the project site is already developed with urban uses that contain sources of daytime and nighttime light and glare. There are no identified uses sensitive to light or glare. The project would also not be expected to significantly increase daytime or nighttime light or glare in a way that would adversely affect daytime or nighttime views in the area. Therefore, application of the City of Santa Clara standard regulations described above would result in ***less-than-significant light and glare impacts*** (see criterion [d] in subsection 4.3.1, "Significance Criteria," above).

Mitigation 4-6. No significant impact has been identified; no mitigation is required.

5. AIR QUALITY

This chapter examines air quality emissions associated with the proposed Freedom Circle Focus Area Plan/Greystar General Plan Amendment, includes a summary of applicable air quality regulations and policies, and analyzes potential air quality impacts associated with the proposed Focus Area Plan and Greystar Project. Unless otherwise noted, this analysis refers to the Freedom Circle Focus Area (Plan Area) as being inclusive of the Greystar properties and proposed development. The methodologies and assumptions used in the preparation of this section follow the CEQA Guidelines developed by the Bay Area Air Quality Management District (BAAQMD) (BAAQMD 2017a). Information on existing air quality conditions, federal, and State ambient air quality standards, and pollutants of concern was obtained from the U.S. Environmental Protection Agency (U.S. EPA), California Air Resources Board (CARB), and BAAQMD.

This EIR air quality analysis has been closely coordinated with the climate change and energy analyses contained in Chapter 9 of this EIR. As described in Section 5.3, potential project impacts with respect to air quality include conflict with or obstruction of the applicable air quality plan, cumulatively considerable net increases in criteria air pollutants, exposure of sensitive receptors to substantial pollutant concentrations, and other emissions (such as odors) that could adversely affect a substantial number of people.

5.1 SETTING

Air quality is a function of pollutant emissions and topographic and meteorological influences. The physical features and atmospheric conditions of a landscape interact to affect the movement and dispersion of pollutants and determine its air quality.

5.1.1 Regulated Air Pollutants

5.1.1.1 Topography and Meteorology

The U.S. EPA has established National Ambient Air Quality Standards (NAAQS) for six common air pollutants: ozone (O_3), particulate matter (PM), which consists of “inhalable coarse” PM (particles with an aerodynamic diameter between 2.5 and 10 microns in diameter, or PM_{10}) and “fine” PM (particles with an aerodynamic diameter smaller than 2.5 microns, or $PM_{2.5}$), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), and lead. The U.S. EPA refers to these six common pollutants as “criteria” pollutants because the agency regulates the pollutants on the basis of human health and/or environmentally based criteria.

CARB has established California Ambient Air Quality Standards (CAAQS) for the six common air pollutants regulated by the federal Clean Air Act (the CAAQS are more stringent than the NAAQS) plus the following additional air pollutants: hydrogen sulfide (H_2S), sulfates (SO_X), vinyl chloride, and visibility reducing particles. Both the NAAQS and CAAQS are set at levels that are protective of human health.

Regulated air pollutants are described below:

- **Ground-level Ozone**, or smog, is not emitted directly into the atmosphere. It is created from chemical reactions between oxides of nitrogen (NO_X) and volatile organic compounds (VOCs), also called Reactive Organic Gases (ROG), in the presence of sunlight.[1] Thus, ozone formation is typically highest on hot sunny days in urban areas with NO_X and ROG pollution. Ozone irritates the nose, throat, and air pathways and can cause or aggravate shortness of breath, coughing, asthma attacks, and lung diseases such as emphysema and bronchitis.

  - **ROGs** is a CARB term defined as any compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate, and includes several low-reactive organic compounds which have been exempted by the U.S. EPA (CARB 2004).

  - **VOCs** is a U.S. EPA term defined as any compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate, which participates in atmospheric photochemical reactions. The term exempts organic compounds of carbon which have been determined to have negligible photochemical reactivity such as methane, ethane, and methylene chloride (CARB 2004).

- **Particulate Matter**, also known as particle pollution, is a mixture of extremely small solid and liquid particles made up of a variety of components such as organic chemicals, metals, and soil and dust particles (U.S. EPA 2016a).

  - **PM_{10}**, also known as inhalable coarse, respirable, or suspended PM, consists of particles less than or equal to 10 micrometers in diameter (approximately $1/7^{th}$ the thickness of a human hair). These particles can be inhaled deep into the lungs and possibly enter the blood stream, causing health effects that include, but are not limited to, increased respiratory symptoms (e.g., irritation, coughing), decreased lung capacity, aggravated asthma, irregular heartbeats, heart attacks, and premature death in people with heart or lung disease (U.S. EPA 2016a).

  - **$PM_{2.5}$**, also known as fine PM, consists of particles less than or equal to 2.5 micrometers in diameter (approximately $1/30^{th}$ the thickness of a human hair). These particles pose an increased risk because they can penetrate the deepest parts of the lung, leading to and exacerbating heart and lung health effects (U.S. EPA 2016a).

- **Carbon Monoxide (CO)** is an odorless, colorless gas that is formed by the incomplete combustion of fuels. Motor vehicles are the single largest source of carbon monoxide in the Bay Area. At high concentrations, CO reduces the oxygen-carrying capacity of the blood and can aggravate cardiovascular disease and cause headaches, dizziness, unconsciousness, and even death (U.S. EPA 2016b).

[1]United States Environmental Protection Agency (U.S. EPA). 2017. "Ozone Basics." U.S. EPA, Environmental Topics [Air], Ground Level Ozone, What is “good”” versus “bad” ozone. April 5, 2017. Web. August 21, 2017. <https://www.epa.gov/ozone-pollution/ozone-basics#what%20where%20how>

- **Nitrogen Dioxide (NO_2)** is a by-product of combustion. NO_2 is not directly emitted, but is formed through a reaction between nitric oxide (NO) and atmospheric oxygen. NO and NO_2 are collectively referred to as NO_X and are major contributors to ozone formation. NO_2 also contributes to the formation of particulate matter. NO_2 can cause breathing difficulties at high concentrations (U.S. EPA 2016c).

- **Sulfur Dioxide (SO_2)** is one of a group of highly reactive gases known as SO_X. Fossil fuel combustion in power plants and industrial facilities are the largest emitters of SO_2. Short-term effects of SO_2 exposure can include adverse respiratory effects such as asthma symptoms. SO_2 and other SO_X can react to form PM (U.S. EPA 2016d).

- **Sulfates (SO_4^{2-})** are the fully oxidized ionic form of sulfur. SO_4^{2-} are primarily produced from fuel combustion. Sulfur compounds in the fuel are oxidized to SO_2 during the combustion process and subsequently converted to sulfate compounds in the atmosphere. Sulfate exposure can increase risks of respiratory disease (CARB 2009).

- **Lead** is a metal found naturally in the environment as well as in manufactured products. Mobile sources used to be the main contributor to ambient lead concentrations in the air. In the early 1970s, the U.S. EPA established national regulations to gradually reduce the lead content in gasoline, and in 1996, lead was banned from gasoline. As a result of these efforts, emissions of lead from the transportation sector and levels of lead in the air decreased dramatically. Lead can adversely affect multiple organ systems of the body and people of every age group. Lead poisoning in young children can cause brain damage, behavioral problems, and liver or kidney damage. Lead poisoning to adults can cause reproductive problems, muscle and joint pain, nerve disorders and kidney disease (CARB 2016a).

- **Visibility Reducing Particles** impact the environment by decreasing visibility (haze). These particles vary greatly in shape, size and chemical composition, and come from a variety of natural and manmade sources. Some haze-causing particles are directly emitted to the air such as windblown dust and soot. Others are formed in the air from the chemical transformation of gaseous pollutants (e.g., sulfates, nitrates, organic carbon particles) which are the major constituents of fine PM. These fine particles, caused largely by combustion of fuel, can travel hundreds of miles causing visibility impairment. Haze not only impacts visibility, but some haze-causing pollutants have been linked to serious health problems and environmental damage as well. Exposure to $PM_{2.5}$ and PM_{10} in the ambient air can contribute to a broad range of adverse health effects, including premature death, hospitalizations and emergency department visits for worsened heart and lung diseases (CARB 2016b).

Common criteria air pollutants, such as ozone precursors, SO_2, and PM, are emitted by many sources and have effects on a regional basis (i.e., throughout the Bay Area). Other pollutants, such as hazardous air pollutants (HAPs") and toxic air contaminants (TACs; see Section 5.1.1.2) are generally not as prevalent and/or emitted by fewer and more specific sources and, therefore, have greater effects on local air quality conditions and local receptors.

5.1.1.2 Toxic Air Contaminants

In addition to criteria air pollutants, the U.S. EPA and CARB have classified certain pollutants as HAPs and TACs, respectively. These pollutants can cause severe health effects at very low

concentrations, and many are suspected or confirmed carcinogens. The U.S. EPA has identified 187 HAPs, including such substances as benzene and formaldehyde; CARB also considers particulate emissions from diesel-fueled engines and other substances to be TACs (CARB 2016c).[2]

- **Diesel Particulate Matter (DPM)**. Diesel engines emit both gaseous and solid material; the solid material is known as DPM. Almost all DPM is less than 1 µm in diameter, and thus is a subset of $PM_{2.5}$. DPM is typically composed of carbon particles and numerous organic compounds. Diesel exhaust also contains gaseous pollutants, including VOCs and NO_x. The primary sources of diesel emissions are ships, trains, trucks, rail yards and heavily traveled roadways. These sources are often located near highly populated areas, resulting in greater DPM related health consequences in urban areas. The majority of DPM is small enough to be inhaled into the lungs and what particles are not exhaled can be deposited on the lung surface and in the deepest regions of the lungs where the lung is most susceptible to injury. In 1998, CARB identified DPM as a TAC based on evidence of a relationship between diesel exhaust exposure and lung cancer and other adverse health effects. DPM also contributes to the same non-cancer health effects as $PM_{2.5}$ exposure (CARB 2016c).

5.1.2 San Francisco Bay Area Air Basin

The U.S. EPA and CARB are the federal and state agencies charged with maintaining air quality in the nation and state, respectively. The U.S. EPA delegates much of its authority over air quality to CARB. CARB has geographically divided the state into 15 air basins for the purposes of managing air quality on a regional basis. An air basin is a CARB-designated management unit with similar meteorological and geographic conditions. The City of Santa Clara, in Santa Clara County, is within the southern portion of the San Francisco Bay Area Air Basin (SFBAAB). The SFBAAB covers all of Alameda, Contra Costa, Marin, Napa, Santa Clara, San Mateo, and San Francisco counties, and portions of Solano and Sonoma counties.

5.1.2.1 Topography and Meteorology

The topography and meteorology of the SFBAAB are characterized by the coast mountain ranges and the seasonal migration of the Pacific high-pressure cell. Regionally, basin airflow is affected by the coast mountain ranges, which create complex terrains consisting of higher elevations, valleys, and bays. The Golden Gate to the west and the Carquinez Strait to the east create gaps in the mountain ranges that allow air to flow into and out of the SFBAAB. In the summer, winds from the northwest are channeled through the Golden Gate and other narrow openings, resulting in localized areas of high wind speeds. Air flowing from the coast inland is called the sea breeze and begins developing in the late morning or early afternoon; air flowing from the inland regions back to the coast, or drainage, occurs at night.

Basin climate is also influenced by the Pacific high-pressure cell, a semi-permanent area of high pressure located over the Pacific Ocean. In the summer, the cell is centered over the northeastern Pacific Ocean, pushing storms to the north and resulting in generally stable conditions within the Bay Area. In the winter, the cell weakens and migrates south, bringing cooler temperatures and stormy conditions.

[2]Since CARB's list of TACs references and includes U.S. EPA's list of HAPs, this EIR uses the term TAC when referring to HAPs and TACs.

The SFBAAB is most susceptible to air pollution during the summer when cool marine air flowing through the Golden Gate can become trapped under a layer of warmer air (known as an inversion) and prevented from escaping the valleys and bays created by the Coast Ranges. Air pollution potential is highest along the southeastern portion of the peninsula because this area is most protected from the high winds and fog of the marine layer, the emission density is relatively high, and pollutant transport from upwind sites is possible. Wintertime inversions are weaker and more localized and are the result of rapid heat radiation from the earth's surface.

The Plan Area is located in Santa Clara County, which is south of the San Francisco Bay with San Mateo and Alameda counties bordering it to the north, Santa Cruz County to the west, San Benito County to the south, and Stanislaus and Merced counties to the east. During the summer in Santa Clara County, mostly clear skies result in warm daytime temperatures and cool nights. Winter temperatures are mild, except for very cool but generally frost-less mornings.

Further inland where the moderating effect of the bay is not as strong, temperature extremes are greater. Wind patterns are influenced by local terrain, with a northwesterly sea breeze typically developing during the daytime. Winds are usually stronger in the spring and summer. Rainfall amounts are modest, ranging from 13 inches in the lowlands to 20 inches in the hills (BAAQMD 2019a).

5.1.2.2 San Jose International Airport and Moffett Airfield Wind Conditions

The Plan Area is approximately 2.9 miles east of Moffett Airfield and approximately 2.5 miles northwest of San Jose International Airport. As shown in Figure 5-1, the prevailing winds at Moffett Airfield and San Jose International Airport are generally from the north and northwest, respectively, indicating prevailing winds within the Plan Area are likely from the north/northwest.

5.1.2.3 County and Regional Emission Levels

CARB's estimate of emissions generated within Santa Clara County and the SFBAAB in 2012, the most recent year for which data is available, is summarized in Table 5-1.

5.1.3 Ambient Air Quality Standards and Attainment Status

In general, the NAAQS and CAAQS define "clean" air, and are established at levels designed to protect the health of the most sensitive groups in our communities by defining the maximum amount of a pollutant (averaged over a specified period of time) that can be present in outdoor air without any harmful effects on people or the environment. Air pollutant levels are typically described in terms of concentration, which refers to the amount of pollutant material per volumetric unit of air. Concentrations are typically measured in parts per million (ppm) or micrograms per cubic meter ($\mu g/m^3$).

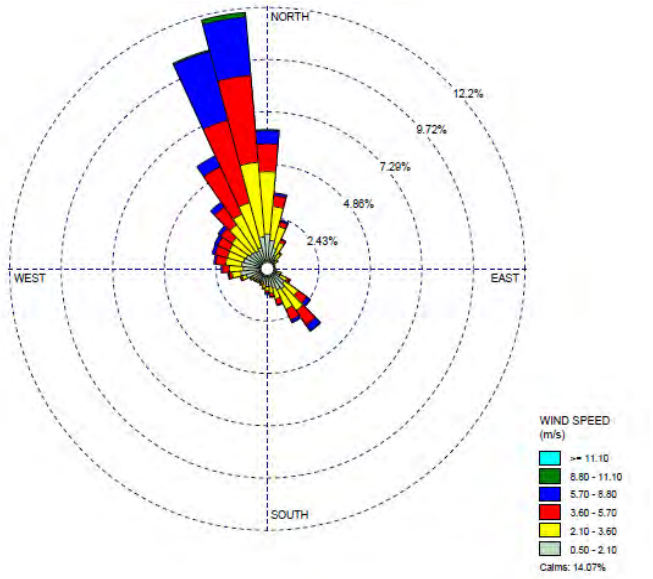
The U.S. EPA, CARB, and regional air agencies assess the air quality of an area by measuring and monitoring the amount of pollutants in the ambient air and comparing pollutant levels against NAAQS and CAAQS. Based on these comparisons, regions are classified into one of the following categories.

- **Attainment.** A region is "in attainment" if monitoring shows ambient concentrations of a specific pollutant are less than or equal to the NAAQS or CAAQS. In addition, an area that

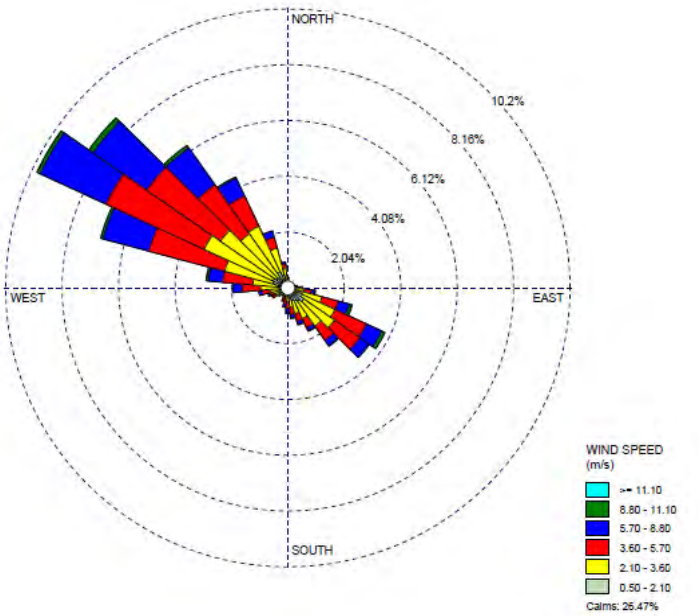
has been re-designated from nonattainment to attainment is classified as a "maintenance area" for 10 years to ensure that the air quality improvements are sustained.

Figure 5-1
MOFFETT AIRFIELD AND SAN JOSE INTERNATIONAL AIRPORT PREVAILING WIND CONDITIONS

Moffett Airfield Annual Wind Pattern (2013 to 2017)



San Jose International Airport Annual Wind Pattern (2013 to 2017)



Source: BAAQMD 2018a, 2018b
Wind roses depicting prevailing annual wind patterns at Moffett Airfield (first) and San Jose International Airport (second) for the years 2013 to 2017. A wind speed of one meter per second (m/s) is approximately equal to 2.2 miles per hour (mph).

Table 5-1
SANTA CLARA COUNTY / SFBAAB EMISSIONS SUMMARY

Source	Santa Clara County 2012 Pollutant Emissions (Tons Per Day)						
	ROG	**NO_X**	**PM**	**PM_{10}**	**$PM_{2.5}$**	**CO**	**SO_X**
Stationary(A)	12.3	11.0	2.8	1.8	1.1	8.3	2.7
Area-wide(B)	17.2	3.5	26.4	14.2	4.3	15.4	0.1
Mobile(C)	25.3	46.0	3.7	3.6	2.2	214.5	0.3
Total(D)	54.7	60.5	33.0	19.6	7.6	238.2	3.1
Source	**SFBAAB 2012 Pollutant Emissions (Tons Per Day)**						
	ROG	**NO_X**	**PM**	**PM_{10}**	**$PM_{2.5}$**	**CO**	**SO_X**
Stationary(A)	61.0	39.9	21.1	14.3	10.4	34.9	20.2
Area-wide(B)	69.2	15.2	104.6	56.5	18.5	69.2	0.5
Mobile(C)	112.7	235.8	16.8	16.4	10.5	865.4	3.6
Total(D)	242.9	290.8	142.5	87.2	39.4	969.5	24.3
Source	**Santa Clara County 2012 Pollutant Emissions (Tons Per Year)(E)**						
	ROG	**NO_X**	**PM**	**PM_{10}**	**$PM_{2.5}$**	**CO**	**SO_X**
Stationary(A)	4,490	4,015	1,022	657	402	3,030	986
Area-wide(B)	6,278	1,278	9,636	5,183	1,570	5,621	37
Mobile(C)	9,235	16,790	1,351	1,314	803	78,293	110
Total(D)	19,966	22,083	12,045	7,154	2,774	86,943	1,132
Source	**SFBAAB 2012 Pollutant Emissions (Tons Per Year)(E)**						
	ROG	**NO_X**	**PM**	**PM_{10}**	**$PM_{2.5}$**	**CO**	**SO_X**
Stationary(A)	22,265	14,564	7,702	5,220	3,796	12,739	7,373
Area-wide(B)	25,258	5,548	38,179	20,623	6,753	25,258	183
Mobile(C)	41,136	86,067	6,132	5,986	3,833	31,5871	1,314
Total(D)	88,659	106,17	52,013	31,828	14,381	353,868	8,870

Source: CARB, 2013a and 2013b.

(A) Stationary sources include fuel combustion in stationary equipment or a specific type of facility such as printing and metals processing facilities.

(B) Area-wide sources include solvent evaporation (e.g., consumer products, painting, and asphalt paving) and miscellaneous processes such as residential space heating, fugitive windblown dust, and cooking.

(C) Mobile sources include automobiles, trucks, and other vehicles intended for “on-road” travel and other self-propelled machines such as construction equipment and all-terrain vehicles intended for “off-road” travel.

(D) Totals may not equal due to rounding.

(E) CARB emissions data is available in tons per day. Tons per year emission estimates are derived by multiplying tons per day data times 365 days per year.

- **Nonattainment.** If the NAAQS or CAAQS are exceeded for a pollutant, the region is designated as nonattainment for that pollutant. It is important to note that some NAAQS and CAAQS require multiple exceedances of the standard in order for a region to be classified as nonattainment. Federal and State laws require nonattainment areas to develop strategies, implementation plans, and control measures to reduce pollutant concentrations to levels that meet, or attain, standards.

- **Unclassified.** An area is unclassified if the ambient air monitoring data are incomplete and do not support a designation of attainment or nonattainment.

5.1.3.1 SFBAAB Attainment Status

Table 5-2 below lists the NAAQS and CAAQS and summarizes the SFBAAB attainment status. The SFBAAB is unclassified or designated attainment for all NAAQS and CAAQS except federal ozone, state ozone, state PM_{10}, federal $PM_{2.5}$, and state $PM_{2.5}$ standards. Ozone is primarily a problem in the summer, and fine particle pollution in the winter.

5.1.3.2 Local Air Quality Conditions

Most of Santa Clara County is south of the cooler waters of the San Francisco Bay and far from the cooler marine air which usually reaches across San Mateo County in summer. Ozone frequently forms on hot summer days when the prevailing seasonal northerly winds carry ozone precursors southward across the county, causing health standards to be exceeded.

Santa Clara County experiences many exceedances of the $PM_{2.5}$ standard each winter. This is due to the high population density, wood smoke, industrial and freeway traffic, and poor wintertime air circulation caused by extensive hills to the east and west that block wind flow into the region (BAAQMD 2019a).

The BAAQMD maintains a comprehensive air quality monitoring network consisting of over 30 stations distributed among the nine Bay Area counties in its jurisdiction. Table 5-3 shows the three most recent years' worth of data from the monitor located on Jackson Street in San Jose. The Jackson Street location is the closest station in proximity to the Plan Area with data for all six criteria air pollutants.

As shown in Table 5-3, air quality conditions have generally improved or remained about the same over the 2017 to 2019 time period:

- PM_{10} CAAQS exceedances decreased from 6 exceedances to 4 exceedances between 2017 and 2018 and remained constant at 4 exceedances in 2019;
- $PM_{2.5}$ NAAQS exceedances increased from 6 exceedances to 15 exceedances between 2017 and 2018, but there were no recorded exceedances in 2019; and
- O_3 8- and 1-hour CAAQS and NAAQS are generally on a downward trend over the three years' worth of data.

Table 5-2
AMBIENT AIR QUALITY STANDARDS AND SFBAAB ATTAINMENT STATUS

Pollutant	Averaging Time	CAAQS (A)		NAAQS (B)	
		Standard (C)	Attainment Status (D)	Standard (C)	Attainment Status (D)
Ozone	1-Hour	180 µg/m^3	**N**	--	--
	8-Hour	137 µg/m^3	**N**	137 µg/m^3	**N**
PM10	24-Hour	50 µg/m^3	**N**	150 µg/m^3	U
	Annual Average	20 µg/m^3	**N**	--	--
PM2.5	24-Hour	--	--	35 µg/m^3	**N(E)**
	Annual Average	12 µg/m^3	**N**	12 µg/m^3	A
Carbon Monoxide	1-Hour	23,000 µg/m^3	A	40,000 µg/m^3	A
	8-Hour	10,000 µg/m^3	A	10,000 µg/m^3	A
Nitrogen Dioxide	1-Hour	339 µg/m^3	A	188 µg/m^3	U(F)
	Annual Average	57 µg/m^3	--	100 µg/m^3	A
Sulfur Dioxide	1-Hour	655 µg/m^3	A	196 µg/m^3	A
	24-Hour	105 µg/m^3	A	--	--
Sulfates	24-Hour	25 µg/m^3	A	--	--
H_2S	1-Hour	42 µg/m^3	U	--	--
Vinyl Chloride	24-Hour	26 µg/m^3	--	--	--

Source: BAAQMD 2017b, U.S. EPA 2020 modified by MIG.

(A) Table does not list CAAQS for lead and visibility reducing particles. California standards for ozone, carbon monoxide, sulfur dioxide (1 and 24-hour), nitrogen dioxide, suspended PM_{10} and $PM_{2.5}$ are values that are not to be exceeded. The standards for sulfates, hydrogen sulfide, and vinyl chloride are not to be equaled or exceeded.

(B) Standards shown are the primary NAAQS designed to protect public health.

(C) All standards shown in terms of micrograms per cubic meter (µg/m^3) for comparison purposes.

(D) A= Attainment, N= Nonattainment, U=Unclassifiable.

(E) On January 2013, the U.S. EPA issued a final rule to determine the Bay Area attains the 24-hour PM2.5 national standard. This EPA rule suspends key State Implementation Plan (SIP) requirements as long as monitoring data continue to show that the Bay Area attains the standard. Despite this EPA action, the Bay Area will continue to be designated as “non-attainment” for the national 24-hour PM2.5 standard until such time as the Air District submits a “redesignation request” and a “maintenance plan” to EPA, and EPA approves the proposed redesignation.

(F) To attain this standard, the 3-year average of the 98th percentile of the daily maximum 1-hour average at each monitor within an area must not exceed 0.100ppm (effective January 22, 2010). The US Environmental Protection Agency (EPA) expects to make a designation for the Bay Area by the end of 2017.

Table 5-3
LOCAL AMBIENT AIR QUALITY (2017-2019)

Monitoring Station	Pollutant Standard			Exceedances		
	Pollutant	State / Federal	Concentration	2017	2018	2019
San Jose (Jackson Street)	PM_{10} 24-hour	CAAQS	50 µg/m^3	6	4	4
		NAAQS	150 µg/m^3	0	0	0
	$PM_{2.5}$ 24-hour	CAAQS	N/A	--	--	--
		NAAQS	35 µg/m^3	6	15	0
	O_3 8-hour	Both	137 µg/m^3	4	0	2
	O_3 1-hour	CAAQS	180 µg/m^3	3	0	1
		NAAQS	N/A	--	--	--
	CO 8-hour	Both	10,000 µg/m^3	0	0	0
	CO 1-hour	CAAQS	23,000 µg/m^3	0	0	0
		NAAQS	40,000 µg/m^3	0	0	0
	NO_2 1-hour	CAAQS	339 µg/m^3	0	0	0
		NAAQS	188 µg/m^3	0	0	0
	SO_2 24-hour	CAAQS	105 µg/m^3	0	0	0
		NAAQS	N/A	--	--	--
	SO_2 1-hour	CAAQS	655 µg/m^3	0	0	--
		NAAQS	196 µg/m^3	0	0	--

Source: BAAQMD 2018c, 2019b, 2020a

5.1.4 Sensitive Air Quality Receptors

Some people are more affected by air pollution than others. The BAAQMD defines sensitive receptors as "facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly and people with illnesses" (BAAQMD 2017a). In general, children, senior citizens, and individuals with pre-existing health issues (e.g., asthmatics) are considered sensitive receptors. Both CARB and the BAAQMD consider schools, schoolyards, parks and playgrounds, daycare facilities, nursing homes, hospitals, and residential areas as sensitive air quality land uses and receptors (BAAQMD 2017a, and CARB 2005).

In general, sensitive air quality receptors in proximity of the Plan Area include:

- Individuals recreating along the San Thomas Aquino Creek Trail, which is located immediately east of and adjacent to the Plan Area;
- Residential receptors at the Santa Clara Square Apartments, approximately 770 feet southwest of the southern portion of the Plan Area, across U.S 101; and

- Potential future residential receptors associated with the Freedom Circle Focus Area Plan.[3]

5.1.4.1 Existing Air Pollution-Related Health Risks

Sensitive air quality receptors are usually most affected by local sources of air pollution. The southern portion of the Plan Area abuts U.S. Highway 101 (Highway 101), and Great America Parkway, which is designated as a major arterial roadway in the City's General Plan, borders the Plan Area to the west.

CalEnviroScreen

CalEnviroScreen is a mapping tool that helps identify California communities that are most affected by many sources of pollution, and where people are often especially vulnerable to pollution's effects. The tool uses environmental, health, and socioeconomic information to produce scores for every census tract in the state. The CalEnviroScreen model is made up of four components – two pollution burden components (exposure and environmental effect) and two population characteristics components. The four components are further divided into 20 indicators.

- **Exposure** indicators are based on the measurements of different types of pollution that people may come into contact with.
- **Environmental effects** indicators are based on the locations of toxic chemicals in or near communities.
- **Sensitive population** indicators measure the number of people in a community who may be more severely affected by pollution because of their age or health.
- **Socioeconomic factors** are conditions that may increase people's stress or make healthy living difficult and cause them to be more sensitive to pollution's effects (OEHHA 2018).

Each census tract receives scores for as many of the 20 indicators as possible, and the scores are then mapped so that different communities can be compared. Percentiles are assigned to each census tract based on the census tract's score in relation to the rest of the state. An area with a high score is one that experiences a much higher pollution burden than areas with low scores. For example, if a census tract has an indicator in the 40th percentile, it means that indicator's percentile is higher than 60 percent of the census tracts in the state.

According to the CalEnviroScreen 4.0 Map, the Plan Area is in census tract 6085505001 and is within CalEnviroScreen's 37 percentile (cumulative). As defined SB 535, a disadvantaged community is defined as the top 25 percent scoring areas from CalEnviroScreen's indicators (i.e., 75th percentile and up), along with other areas with high amounts of pollution and low populations. Based on the Plan Area's pollution indicator percentiles, the Plan Area is not located in a disadvantaged community (as designated by SB 535 or the BAAQMD Community Air Risk Evaluation (CARE) program),[4] nor is it exposed to high amounts of pollution.

[3]California's Great America is not considered an air quality sensitive receptor since, as opposed to a public park or playground, it is unanticipated that the same receptor would be present day after day during construction and/or operational activities. This is because California's Great America has a cost of admission and spans a large geographic area in which receptors would move about.

[4]The BAAQMD CARE Program identifies communities that experience higher pollution levels than others. These communities are generally near pollution sources (such as freeways, busy distribution centers, and large industrial facilities) and negative impacts on public health in these areas are greater. The CARE Program aims to reduce these health impacts linked to local air quality.

BAAQMD Health Risk Data

Existing carcinogenic health risk and $PM_{2.5}$ concentration data was obtained for the Plan Area, including the Greystar Project site, from the BAAQMD (BAAQMD 2020b). The health risk and $PM_{2.5}$ data is broken down by three primary sources: highways, major roads (defined as roadways having annual average daily traffic (AADT) volumes of 30,000 or more), and rail lines. The on-road mobile source data consists of information prepared by the California Department of Transportation (Caltrans) and the Metropolitan Transportation Commission (MTC). Using assigned vehicle volumes for various roadways segments, the BAAQMD estimated DPM concentrations in proximity of the highways / roadways using fleet mix information from CARB's Emission Factor database, or EMFAC, version 2014 (EMFAC2014). The BAAQMD then converted the DPM concentrations to corresponding health risks based on guidance contained in the Office of Environmental Health and Hazard Assessment (OEHHA) *Air Toxics Hot Spots Program Guidance Manual* (OEHHA 2015). The OEHHA guidance methodology for assessing potential health risk takes into account numerous variables, including the receptor's exposure frequency to pollutants, age-specific breathing rates and sensitivity factors, total duration of exposure, and the cancer potency factor of the contaminant being inhaled.

Figure 5-2 (Freedom Circle Focus Area Plan Tentative Air Quality Receptors) and Figure 5-3 (Greystar Project Site Air Quality Receptors) depict a total of 17 distinct receptor locations that are representative of where residential receptors could be located within the Plan Area (eight receptors for Figure 5-2 and nine receptors for Figure 5-3).[5] Table 5-4 and Table 5-5 summarize the existing health risk and $PM_{2.5}$ concentration information compiled for the distinct locations shown in Figure 5-3 and Figure 5-3, respectively.

As shown in Figure 5-3 and Table 5-5, cancer risks and $PM_{2.5}$ concentrations are generally greatest along the southwestern portion of the Greystar Project site, which is adjacent to Highway 101. The highest location for cancer risk is at Receptor 6 (Figure 5-3). Cancer risk values decrease as receptors are located further and further away from Highway 101 (i.e., to the north). There are no stationary sources permitted by the BAAQMD within 1,000 feet of the Greystar Project site.

Figure 5-2 and Table 5-4 demonstrate similar risk characteristics as those shown in Figure 5-3 and Table 5-5, with cancer risks and $PM_{2.5}$ concentrations being greatest toward the southern portion of the site and decreasing to the north. There is one stationary source permitted by the BAAQMD within 1,000 feet of the greater Plan Area, located at 3979 Freedom Circle (within the Plan Area itself).

[5]Risks for the Plan Area are only shown for the parcel that proposes residential land uses. All other land uses would be commercial or retail, and are not considered sensitive locations.

Table 5-4
EXISTING HEALTH RISKS AND $PM_{2.5}$ CONCENTRATIONS IN THE PLAN AREA

Receptor / Source Location	Cancer Risk (Per Million Population)	$PM_{2.5}$ Concentration ($\mu g/m^3$)	Chronic Hazard Index(A)
Mobile Sources			
Receptor 1	38.3	0.7	--
Receptor 2	39.0	0.6	--
Receptor 3	39.2	0.7	--
Receptor 4	43.9	0.8	--
Receptor 5	43.7	0.8	--
Receptor 6	43.2	0.8	--
Receptor 7	52.1	0.9	--
Receptor 8	58.1	1.1	--
Receptor 9	50.6	0.9	--
Stationary Sources within 1,000 Feet of Proposed Residential Locations			
3979 Freedom Circle	8.89	0.20	0.01

Source: BAAQMD 2020b
(A) The Chronic Hazard Index is a unitless measurement.

Table 5-5
EXISTING HEALTH RISKS AND $PM_{2.5}$ CONCENTRATIONS AT GREYSTAR PROJECT SITE

Receptor / Source Location	Cancer Risk (Per Million Population)	$PM_{2.5}$ Concentration ($\mu g/m^3$)	Chronic Hazard Index(A)
Mobile Sources			
Receptor 1	43.6	0.8	--
Receptor 2	44.7	0.8	--
Receptor 3	66.6	1.2	--
Receptor 4	64.9	1.2	--
Receptor 5	61.4	1.1	--
Receptor 6	118.7	2.2	--
Receptor 7	106.3	2.0	--
Receptor 8	105.3	2.0	--

Source: BAAQMD 2020b
(A) The Chronic Hazard Index is a unitless measurement.

5.1.5 Existing Emissions Levels in the Plan Area

As described in Sections 5.1.3.1 and 5.1.3.2, air quality in the region has generally been improving over the last three years; however, the region is still designated as non-attainment for several pollutants at the state and federal level, including ozone, PM_{10}, and $PM_{2.5}$. The Santa Clara County sub-region is particularly prone to ozone exceedances in the summer, because of ozone precursors (e.g., those generated by vehicular activity) being carried southward from the north, and $PM_{2.5}$ exceedances in the winter, because of various human activities (e.g., wood smoke, traffic, etc.) and poor meteorological conditions. Other human activities, such as ground disturbance during the site preparation and grading phases of construction, can also lead to the entrainment of particulates in the air.

The existing non-residential land uses in the Plan Area generate emissions from the following sources:

- **Small "Area" Sources.** Existing land uses generate emissions from small area sources including landscaping equipment and the use of consumer products such as paints, cleaners, and fertilizers that result in the evaporation of chemicals to the atmosphere during product use.

- **Energy Use and Consumption**. Existing land uses generate emissions from the combustion of natural gas in building water and space heating equipment, as well as industrial processes.

- **Mobile Sources.** Existing land uses generate emissions from vehicles travelling to and from the Plan Area.

Existing land uses in the Plan Area are summarized in Table 5-6. Existing emissions were estimated using the California Emissions Estimator Model, or CalEEMod, Version 2016.3.2. The existing emissions were estimated using default data assumptions within CalEEMod, with the following project-specific modifications:

- **Land Use Development:** The default acreage and square footage for each existing, modeled land use within the Plan Area was adjusted to reflect existing development conditions.

- **Energy Use and Consumption:** The non-residential default electrical energy intensity, light energy intensity, and natural gas energy intensity values were adjusted upwards by a factor of 1.05, 1.02, and 1.01, respectively, to reflect lower energy efficiency requirements of the 2013 energy code (CAPCOA 2017a). This is appropriate as most buildings in the Plan Area were constructed prior to the adoption of both the 2013 (modeled energy efficiency) and 2016 (CalEEMod default assumption) Title 24 building energy efficiency standards.

- **Mobile Sources:**

    - The default, weekday trip generation rates for existing land use types were replaced based on the Plan Area's existing trip generation, as used in the Transportation Analysis prepared for the Focus Area Plan by Hexagon Transportation Consultants (Hexagon 2021a). In addition, the default weekend trip generation rates for the various land uses accounted for in CalEEMod were adjusted downward, consistent with the trip reduction credits taken in the Transportation Analysis (Hexagon 2021a). According to the Transportation Analysis, the existing land uses generate approximately 16,325 total daily vehicle trips per weekday. As estimated using CalEEMod, the existing land uses in the Plan Area generate approximately 33,852,062 annual vehicle miles travelled, or VMT (see Appendix 25.2).[6]

    - The annual vehicle emission factors were updated based on derived EMFAC2021 emission rates for Santa Clara County, consistent with the methodology described in the CalEEMod User's Guide, Appendix A (CAPCOA 2017b).

[6]The project's trip distance in CalEEMod is based on model defaults. In reality, the Focus Area Plan's location in an urbanized setting and proximity to transit could result in fewer VMT than that accounted for in the modeling due to shorter trip distances associated with operation of the existing land uses.

Figure 5-2
FREEDOM CIRCLE FOCUS AREA PLAN TENTATIVE AIR QUALITY RECEPTORS

Figure 5-3
GREYSTAR PROJECT SITE AIR QUALITY RECEPTORS

Table 5-6
EXISTING LAND USE BUILDING SPACE

Land Use	Square Feet / Rooms
General Office Building	2,122,500
Research and Development	209,500
Quality Restaurant	17,000
Hotel	750

The emissions generated by current land uses in the Plan Area are shown in Table 5-7. The emissions are shown for two scenarios:

- **Year 2020 (Current Conditions)**, which are based on Year 2020 vehicle fleet characteristics (e.g., vehicle type, age, emission rates), and represent the emissions levels that existed at the time the Notice of Preparation was released for this EIR.
- **Year 2040 (Future Conditions)**, which are based on Year 2040 vehicle characteristics and represent the projected emissions that the existing land uses would generate in the future (assuming no change in land uses). This scenario provides an estimate of how emissions would change in the Plan Area as a result of regulations that would reduce motor vehicle emissions in the future (i.e., how emissions in the Plan Area could look, absent implementation of the Focus Area Plan / Greystar Project).

Table 5-7
EXISTING LAND USE CRITERIA AIR POLLUTANT EMISSIONS ESTIMATES

Emissions Source	Maximum Daily Pollutant Emissions (Tons per Year)						
	ROG	NOx	CO	PM_{10}		$PM_{2.5}$	
				Dust	Exhaust	Dust	Exhaust
Existing Land Use Operational Emissions in Year 2020 (Current Conditions)							
Area Sources	15.3	<0.1	<0.1	0.0	<0.1	0.0	<0.1
Energy Sources	0.5	4.6	3.8	0.0	0.3	0.0	0.3
Mobile Sources	8.4	11.4	67.7	11.5	0.2	2.9	0.1
Year 2020 Total(A)	24.2	16.0	71.5	11.5	0.5	2.9	0.5
Existing Land Use Operational Emissions in Year 2040 (Future Conditions)							
Area Sources	15.3	<0.1	<0.1	0.0	<0.1	0.0	<0.1
Energy Sources	0.5	4.6	3.8	0.0	0.3	0.0	0.3
Mobile Sources	3.8	4.0	30.4	11.5	<0.1	2.9	<0.1
Year 2040 Total(A)	19.6	8.6	34.3	11.5	0.4	2.9	0.4
Emissions Source	**Maximum Daily Pollutant Emissions (Pounds per Day)**						
	ROG	NOx	CO	PM_{10}		$PM_{2.5}$	
				Dust	Exhaust	Dust	Exhaust
Existing Land Use Operational Emissions in Year 2020 (Current Conditions)							
Area Sources	83.7	<0.1	0.2	0.0	<0.1	0.0	<0.1
Energy Sources	2.8	25.0	21.0	0.0	1.9	0.0	1.9
Mobile Sources	46.0	62.6	370.8	63.1	0.8	15.7	0.8
Year 2020 Total(A)	132.4	87.6	392.0	63.1	2.7	15.7	2.7
Existing Land Use Operational Emissions in Year 2040 (Future Conditions)							
Area Sources	83.7	<0.1	0.2	0.0	<0.1	0.0	<0.1
Energy Sources	2.8	25.0	21.0	0.0	1.9	0.0	1.9
Mobile Sources	20.7	22.1	166.8	63.0	0.3	15.7	0.3
Year 2040 Total(A)	107.2	47.1	187.9	63.0	2.2	15.7	2.2

Source: MIG 2021, see Appendix 25.2.
(A) Totals may not equal due to rounding.

5.1.6 Existing Emissions Levels at the Greystar Project Site

The Greystar Project site is currently undeveloped. A nominal amount of emissions may be generated by landscaping equipment used to maintain the site, but otherwise there are no criteria air pollutant emissions currently associated with the two properties.

5.2 REGULATORY SETTING

5.2.1 Federal

5.2.1.1 Federal Clean Air Act

The Federal Clean Air Act (CAA), as amended, provides the overarching basis for both Federal and State air pollution prevention, control, and regulation. The Act establishes the U.S. EPA's responsibilities for protecting and improving the nation's air quality. The U.S. EPA oversees Federal programs for setting air quality standards and designating attainment status, permitting new and modified stationary sources of pollutants, controlling emissions of HAPs, and reducing emissions from motor vehicles and other mobile sources. In 1971, to achieve the purposes of Section 109 of the CAA, the U.S. EPA developed primary and secondary NAAQS. Primary standards are designed to protect human health with an adequate margin of safety. Secondary standards are designed to protect property and public welfare from air pollutants in the atmosphere.

The U.S. EPA requires each State prepare and submit a State Implementation Plan (SIP) that consists of background information, rules, technical documentation, and agreements that an individual State will use to attain compliance with the NAAQS within federally-imposed deadlines. State and local agencies implement the plans and rules associated with the SIP, but the rules are also federally enforceable.

5.2.1.2 Safe Affordable Fuel-Efficient (SAFE) Rule

On September 27, 2019, the U.S. EPA and the National Highway Traffic Safety Administration (NHTSA) published the SAFE Vehicles Rule Part One: One National Program." (84 Fed. Reg. 51,310 (Sept. 27, 2019)). The Part One Rule revoked California's authority to set its own greenhouse gas emissions standards and set zero emission vehicle mandates in California. As a result of the loss of the zero emission vehicles (ZEV) sales requirements in California, there may be fewer ZEVs sold and thus additional gasoline-fueled vehicles sold in future years (CARB 2019).

In April 2020, the U.S. EPA and NHTSA issued the SAFE Vehicles Rule for Model Years 2021-2026 Passenger Cars and Light Trucks (Final SAFE Rule) that relaxed federal greenhouse gas emissions and fuel economy standards. The Final SAFE Rule relaxed federal greenhouse gas emissions and Corporate Average Fuel Economy (CAFE) standards to approximately 1.5 percent per year from model year (MY) 2020 levels over MYs 2021–2026. The previously established emission standards and related "augural" fuel economy standards would have achieved approximately 4 percent per year improvements through MY 2025. The Final SAFE Rule affects both upstream (production and delivery) and downstream (tailpipe exhaust) carbon dioxide (CO_2) emissions (CARB 2020).

In May 2020, California, joining almost twenty-two other states, filed a lawsuit challenging the SAFE Rule. This litigation is ongoing.

5.2.2 State

5.2.2.1 California Clean Air Act

In addition to being subject to Federal requirements, air quality in the state is also governed by more stringent regulations under the California Clean Air Act, which was enacted in 1988 to develop plans and strategies for attaining the CAAQS. As discussed above, in California, both the Federal and State Clean Air acts are administered by CARB. CARB oversees the functions of local air pollution control districts and air quality management districts, which in turn administer air quality activities at the regional level.

5.2.2.2 CARB In-Use Off-Road Diesel Equipment Program

CARB's In-Use Off-Road Diesel Equipment regulation is intended to reduce emissions of NO_x and PM from off-road diesel vehicles, including construction equipment, operating within California. The regulation imposes limits on idling; requires reporting equipment and engine information and labeling all vehicles reported; restricts adding older vehicles to fleets; and requires fleets to reduce their emissions by retiring, replacing, or repowering older engines or installing exhaust retrofits for PM. The requirements and compliance dates of the off-road regulation vary by fleet size, and large fleets (fleets with more than 5,000 horsepower) must meet average targets or comply with Best Available Control Technology (BACT) requirements beginning in 2014. CARB has off-road anti-idling regulations affecting self-propelled diesel-fueled vehicles of 25 horsepower and up. The off-road anti-idling regulations limit idling on applicable equipment to no more than five minutes, unless exempted due to safety, operation, or maintenance requirements.

5.2.2.3 CARB On-Road Heavy-Duty Diesel Vehicles (In-Use) Regulation

CARB's On-Road Heavy-Duty Diesel Vehicles (In-Use) regulation (also known as the Truck and Bus Regulation) is intended to reduce emission of NO_X, PM, and other criteria pollutants generated from existing on-road diesel vehicles operating in California. The regulation applies to nearly all diesel-fueled trucks and buses with a gross vehicle weight rating (GVWR) greater than 14,000 pounds that are privately or federally owned, and for privately and publicly owned school buses. Heavier trucks and buses with a GVWR greater than 26,000 pounds must comply with a schedule by engine model year or owners can show compliance with more flexible options. Fleets complying with the heavier trucks and buses schedule must install the best available PM filter on 1996 model year and newer engines, and replace the vehicle 8 years later. Trucks with 1995 model year and older engines had to be replaced starting in 2015. Replacements with a 2010 model year or newer engine meet the final requirements, but owners can also replace the equipment with used trucks that have a future compliance date (as specified in regulation). By 2023, all trucks and buses must have at least 2010 model year engines with few exceptions.

5.2.2.4 CARB Stationary Diesel Engines – Emission Regulations

In 1998, CARB identified DPM as a TAC. To reduce public exposure to DPM, in 2000, the CARB approved the Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles (Risk Reduction Plan) (CARB 2000). Integral to this plan is the implementation of control measures to reduce DPM such as the control measures for stationary diesel-fueled engines. As such, diesel generators must comply with regulations under CARB's amendments to *Airborne Toxic Control Measure for Stationary Compression Ignition Engines* and be permitted by BAAQMD.

5.2.2.5 CARB Air Quality and Land Use Handbook

CARB's Air Quality and Land Use Handbook is intended to serve as a general reference guide for evaluating and reducing air pollution impacts associated with new projects that go through the land use decision-making process (CARB 2005). The CARB Handbook recommends that planning agencies consider proximity to air pollution sources when considering new locations for "sensitive" land uses, such as residences, medical facilities, daycare centers, schools, and playgrounds, although such analysis is not required by CEQA. Air pollution sources of concern include freeways, rail yards, ports, refineries, distribution centers, chrome plating facilities, dry cleaners, and large gasoline service stations. Key recommendations in the Handbook relative to the Plan Area include taking steps to consider or avoid siting new, sensitive land uses:

- Within 500 feet of a freeway, urban roads with 100,000 vehicles/day, or rural roads with 50,000 vehicles/day;
- Within 300 feet of gasoline fueling stations; or
- Within 300 feet of dry cleaning operations (dry cleaning with TACs is being phased out and will be prohibited in 2023).

CARB prepared a technical supplement to the Handbook, a *Technical Advisory on Strategies to Reduce Air Pollution Exposure Near High Volume Roadways* (CARB 2017), that provides recommendations for strategies to minimize exposure of the public to air pollutants due to proximity to high volume roadways, such as reducing traffic emissions and removing pollution from the air.

5.2.2.6 Air Toxics "Hot Spots" Program

State requirements specifically address emissions of air toxics through Assembly Bill (AB) 1807 (known as the Tanner Bill) that established the State Air Toxics "Hot Spots" Program and the Air Toxics Hot Spots Information and Assessment Act of 1987 (AB 2588) (California Health and Safety Code Section 44300 et seq.). Under the Air Toxics Hot Spots Information and Assessment Act of 1987 (or Air Toxics "Hot Spots" Act) and Air Toxics Hot Spots Program, the State (CARB) must collect data on toxic emissions from stationary sources (facilities) throughout the State and ascertain potential health risks that these emissions pose to members of community for developing cancer or for resulting in non-cancer health effects. California's Children's Environmental Health Protection Act of 1999 (California Health and Safety Code Section 39606), also requires explicit consideration of infants and children in assessing risks from air toxics.

Substances regulated under California's Air Toxics Hot Spots Program are defined in statute and include a list of substances developed by the following sources:

- International Agency for Research on Cancer;
- U.S. EPA;
- U.S. National Toxicology Program;
- CARB Toxic Air Contaminant Identification Program List;
- Hazard Evaluation System and Information Service (State of California);
- Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986) list of carcinogens and reproductive toxicants (State of California); and
- Any additional substance recognized by the State Board as presenting a chronic or acute threat to public health when present in the ambient air.

5.2.2.7 Senate Bill 535 (Disadvantaged Communities)

In 2012, the Legislature passed Senate Bill 535, directing that 25 percent of the proceeds from the Greenhouse Gas Reduction Fund go to projects that provide a benefit to disadvantaged communities.

5.2.2.8 California Building Industry Association v. Bay Area Air Quality Management District (2015)

The California Supreme Court in *California Building Industry Association v. Bay Area Air Quality Management District*, 62 Cal.4th 369 (2015) ruled that CEQA review is focused on a project's impact on the environment "and not the environment's impact on the project." The opinion also holds that when a project has "potentially significant exacerbating effects on existing environmental hazards" those impacts are properly within the scope of CEQA because they can be viewed as impacts of the project on "existing conditions" rather than impacts of the environment on the project. The Supreme Court provided the example of a project that threatens to disperse existing buried environmental contaminants that would otherwise remain undisturbed. The Court concluded that it is proper under CEQA to undertake an analysis of the dispersal of existing contaminants because such an analysis would be focused on how the project "would worsen existing conditions." The court also found that the limited number of express CEQA provisions that require analysis of the impacts of the existing environment on a project – such as impacts associated with school siting and airports – should be viewed as specific statutory exceptions to the general rule that such impacts are not properly within CEQA's scope.

5.2.3 Regional - Bay Area Air Quality Management District

The BAAQMD is the agency primarily responsible for maintaining air quality and regulating emissions of criteria and toxic air pollutants within the SFBAAB. The BAAQMD carries out this responsibility by preparing, adopting, and implementing plans, regulations, and rules that are designed to achieve attainment of state and national air quality standards.

5.2.3.1 Rules and Regulations

The BAAQMD currently has 13 regulations containing more than 100 rules that control and limit emissions from sources of pollutants. Table 5-8 below presents the major BAAQMD rules and regulation that may apply to future development projects in the Plan Area and the currently proposed Greystar Project.

Table 5-8
POTENTIALLY APPLICABLE BAAQMD RULES AND REGULATIONS

Regulation	Rule	Description
1- General Provisions and Definitions	1- General Provisions and Definitions	301 – Public Nuisance: Establishes that no person shall discharge quantities of air contaminants or other materials which cause injury, detriment, nuisance or annoyance to any considerable number or person or the public; or which endangers the comfort, repose, health or safety of any such person or the public.
2- Permits	2- New Source Review	Provides for the review of new and modified sources of pollutants; requires use of Best Available Control Technology and emissions offsets to achieve no net increase in nonattainment pollutants; implements Prevention of Significant Deterioration review for attainment pollutants.
2 – Permits	5 – New Source Review of Toxic Air Contaminants	Provides for the review of new and modified sources of toxic air contaminants; requires use of Best Available Control Technology for sources that have a risk above certain thresholds and limits total project risks to 10.0 in a million cancer risk, 1.0 chronic hazard index, and 1.0 acute hazard index.
6 – Particulate Matter	1 – General Requirements	Limits visible particulate matter emissions.
6 – Particulate Matter	3 – Wood-Burning Devices 2019 Amendment	306 – Prohibits the installation of a wood-burning device in new building construction.
8 – Organic Compounds	3 – Architectural Coatings	Sets forth VOC limitations and requirements for architectural coatings. Flat, non-flat, and non-flat – high glass coatings are required to meet standards of 50, 100, and 150 grams of VOC per liter (g/L), respectively. Traffic marking coatings are required to meet a standard of 100 g/L.
7- Odorous substances	Odorous Substances	Establishes general limitations on odorous substances and specific emission limitations on certain odorous compounds, such as ammonia.
9 – Inorganic Gaseous Pollutants	8 – NOx and CO from Stationary Internal Combustion Engines	Limits emissions of NOx and CO from stationary internal gas combustion engines more than 50 brake horsepower.
11 – Hazardous Pollutants	2 – Asbestos Demolition, Renovation, and Manufacturing	Controls emissions of asbestos to the atmosphere during demolition.

Source: BAAQMD, 2020c

5.2.3.2 2017 Clean Air Plan

On April 29, 2017, the BAAQMD adopted its *Spare the Air-Cool the Climate 2017 Clean Air Plan* (Clean Air Plan). The 2017 Clean Air Plan updates the most recent Bay Area ozone plan, the

2010 Clean Air Plan, in fulfillment of state ozone planning requirements. The Plan focuses on the three following goals:

- Attain all state and national air quality standards;
- Eliminate disparities among Bay Area communities in cancer health risk from toxic air contaminants; and
- Reduce Bay Area GHG emissions to 40 percent below 1990 levels by 2030, and 80 percent below 1990 levels by 2050.

The plan includes 85 distinct control measures to help the region reduce air pollutants and has a long-term strategic vision which forecasts what a clean air Bay Area will look like in the year 2050. The control measures aggressively target the largest source of GHG, ozone pollutants, and particulate matter emissions – transportation. The 2017 Clean Air Plan includes more incentives for electric vehicle infrastructure, off-road electrification projects such as Caltrain and shore power at ports, and reducing emissions from trucks, school buses, marine vessels, locomotives and off-road equipment (BAAQMD 2017c).

5.2.3.3 Planning Healthy Places

In May 2016, the BAAQMD released *Planning Health Places*, a guidebook that provides important air quality and public health information that is intended to assist local government in addressing and minimizing potential air quality issues. The BAAQMD intends that the information and recommendations in the guidebook be incorporated into city or county General Plans, neighborhood or specific plans, land use development ordinances, or into single projects. *Planning Healthy Places* recommends three primary strategies: 1) reduce or prevent emissions from pollution source(s) when possible; 2) implement best management practices where appropriate to reduce exposure to harmful pollutants, and 3) perform a more detailed study of an area when necessary.

Recommended best practices for reducing emissions of local air pollution include but are not limited to: including policies that limit the use of diesel generators, or control their emissions; limiting the idling of trucks to two minutes or less; requiring the electrification of loading docks in new and existing commercial land uses; and the implementation of transportation demand management strategies, traffic management strategies, and stipulations on development projects to use only the cleanest equipment, vehicles and fuel during construction.

5.2.4 Local - City of Santa Clara General Plan

On November 16, 2010, the Santa Clara City Council adopted the 2010-2035 General Plan. Section 5.10.2 of the General Plan, Air Quality Goals and Policies, contains the following policies related to air quality:

- Policy 5.10.2-P1: Support alternative transportation modes and efficient parking mechanisms to improve air quality.
- Policy 5.10.2-P2: Encourage development patterns that reduce vehicle miles traveled and air pollution.
- Policy 5.10.2-P3: Encourage implementation of technological advances that minimize public health hazards and the generation of air pollutants.
- Policy 5.10.2-P4: Encourage measures to reduce greenhouse gas emissions to reach 30 percent below 1990 levels by 2020.

- Policy 5.10.2-P5: Promote regional air pollution prevention plans for local industry and businesses.
- Policy 5.10.2-P6: Require "Best Management Practices" for construction dust abatement.

Section 5.10.5 of the General Plan, Safety Goals and Policies, also contains the following safety policies related to air quality:

- Policy 5.10.5-P34: Implement minimum setbacks of 500 feet from roadways with average daily trips of 100,000 or more and 100 feet from railroad tracks for new residential or other uses with sensitive receptors, unless a project-specific study identifies measures, such as site design, tiered landscaping, air filtration systems, and window design, to reduce exposure, demonstrating that the potential risks can be reduced to acceptable levels.
- Policy 5.10.5-P35: Establish minimum buffers between odor sources and new residential or other uses with sensitive receptors, consistent with BAAQMD guidelines, unless a project-specific study demonstrates that these risks can be reduced to acceptable levels.

In addition, the City's General Plan includes "Prerequisite Goals and Policies" that relate to air quality. The following policy related to air quality was included in the General Plan to address significant impacts identified in the Draft EIR for the General Plan. The General Plan envisions three main phases of General Plan implementation. Phase I was to be implemented between 2010 and 2015, Phase II between 2015 and 2025, and Phase III between 2025 and 2035 The "Community Risk Reduction Plan" mentioned in the policy below, and related to Phase III implementation that will occur in the future, has not yet been developed by the City.

- Policy 5.1.1-P24: Prior to the implementation of Phase III, the City will include a community Risk Reduction Plan ("CRRP") for acceptable Toxic Air Contaminant ("TAC") concentrations, consistent with the Bay Area Air Quality Management District ("BAAQMD") CEQA Guidelines, including risk and exposure reduction targets, measures to reduce emissions, monitoring procedures, and a public participations process.

5.3 IMPACTS AND MITIGATION MEASURES

The BAAQMD's CEQA Air Quality Guidelines contains guidance on assessing and mitigating both project- and plan-level air quality impacts. The BAAQMD's guidelines state (BAAQMD 2017a, pg. 9-1):

> *"The term general and area plan refers broadly to discretionary planning activities which may include, but are not limited to the following: general plans, redevelopment plans, specific plans, area plans, community plans, congestion management plans, and annexations of lands and service areas. General and area plans are often subject to program-level analysis under CEQA, as opposed to project-level analysis. As a general principle, the guidance offered within* [the BAAQMD's CEQA Air Quality Guidelines] *should be applied to discretionary, program-level planning activities; whereas the project-level guidance offered in other chapters should be applied to individual project-specific approvals, such as a proposed development project.*
>
> *Air quality impacts from future development pursuant to general or area plans can be divided into construction-related impacts and operational-related impacts. Construction-related impacts are associated with construction activities likely to occur in conjunction*

with future development allocated by the plan. Operational-related impacts are associated with continued and future operation of developed land uses, including increased vehicle trips and energy use.

Whereas the proposed Freedom Circle Focus Area Plan provides the blueprint and basis for future land use decisions within the Plan Area, the Greystar General Plan Amendment constitutes a specific development proposal. The Freedom Circle Focus Area Plan is a planning-level document that does not authorize or approve any specific project and is therefore analyzed using the plan-level guidance contained in the Chapter 9 of the BAAQMD CEQA Air Quality Guidelines (BAAQMD 2017a). The Greystar General Plan Amendment is evaluated using the project-level guidance contained in Part II (Chapters 4 through 8) the BAAQMD CEQA Air Quality Guidelines (BAAQMD 2017a).

5.3.1 Significance Criteria

Based on the CEQA Guidelines,[7] implementation of the Freedom Circle Focus Area Plan and Greystar Project would have a significant impact related to air quality if they would:

(a) Conflict with or obstruct implementation of the applicable air quality plan;

(b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard;

(c) Expose sensitive receptors to substantial pollutant concentrations; or

(d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

The BAAQMD CEQA Air Quality Guidelines contain the BAAQMD's recommendations to Lead Agencies for evaluating and assessing the significance of potential project- and plan-level air quality impacts (BAAQMD 2017a). The BAAQMD plan- and project-level thresholds of significance are summarized in Table 5-9 and Table 5-10, respectively.

Table 5-9
BAAQMD PLAN-LEVEL THRESHOLDS OF SIGNIFICANCE

Pollutant	Threshold of Significance
Criteria Air Pollutants and Precursor Emissions	Construction: None
	Operational: Consistency with current air quality plan and projected VMT or vehicle trip increase is less than or equal to projected population increase.
Local Community Risks and Hazards	Land use diagram identifies special overlay zones around existing and planned sources of TACs and $PM_{2.5}$, including special overlay zones of at least 500 feet (or Air District-approved modeled distance) on each side of all freeways and high-volume roadways, and plan identifies goals, policies, and objectives to minimize potentially adverse impacts.
Odors	Identify locations of odor sources in plan; identify goals, policies, and objectives to minimize potentially adverse impacts.
Source: BAAQMD 2017a	

[7] CEQA Guidelines, Appendix G, items II (a) through (d).

Table 5-10
BAAQMD PROJECT-LEVEL THRESHOLDS OF SIGNIFICANCE

Pollutant	**BAAQMD Project-Level Threshold of Significance**		
	Construction Emissions	**Operational Emissions**	
	Daily Emissions (pounds/day)	Daily Emissions (pounds/day)	Annual Emissions (tons per year)
ROG	54	54	10
NO_X	54	54	10
Exhaust PM10	82	82	15
Exhaust PM2.5	54	54	10
Fugitive Dust $PM_{10}/PM_{2.5}$	Best Management Practices	*None*	
Local CO	*None*	9.0 ppm (8-hour average) 20.0 ppm (1-hour average)	
Risks and Hazards – New Source/Receptor (Individual)	Compliance with Qualified Community Risk Reduction Plan; or Increased cancer risk of >10.0 in a million; and Increased non-cancer risk of >1.0 Hazard Index (chronic or acute); and Ambient $PM_{2.5}$ increase: >0.3µg/m^3 annual average		
Risks and Hazards – New Source/Receptor (Cumulative)	Compliance with Qualified Community Risk Reduction Plan; or Increased cancer risk of >100 in a million (from all local sources); and Increased non-cancer risk of >10.0 Hazard Index (from all local sources) (chronic); and Ambient $PM_{2.5}$ increase: >0.8µg/m^3 annual average (from all local sources)		
Accidental Release of Acutely Hazardous Pollutants	*None*	Storage or use of acutely hazardous materials locating near receptors or receptors locating near stored or used acutely hazardous materials considered significant	
Odors	*None*	Complaint History – 5 confirmed complaints per year averaged over three years	
Source: BAAQMD 2017a			

5.3.2 Relevant Freedom Circle Focus Area Plan Components

The Freedom Circle Focus Area Plan includes the following goals and policies that would reduce potential air quality impacts associated with future development in the Plan Area (City of Santa Clara 2021).

- FC-G4: Reduce reliance on private vehicles and improve jobs/housing balance by locating amenities and jobs within walking distance to housing.
- FC-G6: Improve multi-modal transportation options and connections.
- FC-P11: Establish parking ratios that support transit, active transportation, and shared vehicle use.
- FC-P12: Encourage shared parking between uses and parcels, including the shared use of existing structures.
- FC-P14: Provide new street, bicycle and pedestrian networks that break down large blocks and sites, accommodate multiple modes of travel, and maximize connections to activity hubs.

- FC-P16: Design and program the Plan Area and sites to encourage walking, bicycling and transit use.
- FC-P17: Minimize environmental impacts through sustainable building and infrastructure design, consistent with CALGreen and Santa Clara Climate Action Plan requirements.
- FC-P18: Redesign Mission College Boulevard, Freedom Circle, and Hichborn Drive to better balance space dedicated to vehicles, bicycle, and pedestrians.
- FC-P19: Maintain VTA bus transit service on Mission College Boulevard and improve transit stops and shelters.
- FC-P20: Design pedestrian and bicycle networks and infrastructure to facilitate access to transit stops on Great America Parkway, Mission College and Tasman Drive.
- FC-P21: Require developments to contribute to City vehicle miles travelled (VMT) goals and implement Transportation Demand Management (TDM programs).
- FC-P22: Require developers and property owners to coordinate with area employers and stakeholders to explore shared private transit systems and the formation of a Transit Management Authority (TMA) as part of the Specific Plan process.

5.3.3 Impacts and Mitigations

Impact 5-1: Conflict with 2017 Clean Air Plan – Freedom Circle Focus Area Plan. Consistent with the BAAQMD's CEQA Air Quality Guidelines, the proposed Freedom Circle Focus Area Plan would result in a significant impact if it would be inconsistent with the 2017 Clean Air Plan or result in a projected increase in vehicle trips or VMT that exceeds a projected population increase. As described below, the Freedom Circle Focus Area Plan includes goals and policies that would be consistent with the 2017 Clean Air Plan and would not result in an increase in trip generation that exceeds the projected increase in service population. Therefore, the proposed Freedom Circle Focus Area Plan would be consistent with the 2017 Clean Air Plan; no impact would occur.

Consistency Analysis with the 2017 Clean Air Plan

The BAAQMD's CEQA Guidelines recommend a lead agency analyze consistency with the 2017 Clean Air Plan using the following three questions:

1) Consistency Question 1: Does the project support the primary goals of the Air Quality Plan?
2) Consistency Question 2: Does the project include applicable control measures from the Air Quality Plan?
3) Consistency Question 3: Does the project disrupt or hinder implementation of any Air Quality Plan control measures?

The BAAQMD's 2017 Clean Air Plan is a multi-pollutant plan focused on protecting public health and the climate. Specifically, the primary air quality-related goals[8] of the 2017 Clean Air Plan (Consistency Question 1) are to:

- Goal 1: Attain all state and national air quality standards; and

[8] In addition to the two goals above, the 2017 Clean Air Plan includes a third primary goal related to Bay Area greenhouse gas (GHG) emissions. For the purposes of this EIR, consistency with the 2017 Clean Air Plan's goal related to GHG emissions is considered and evaluated separately in EIR chapter 9 (Greenhouse Gas Emissions and Energy).

- Goal 2: Eliminate disparities among Bay Area communities in cancer health risk from toxic air contaminants.

According to the BAAQMD CEQA Guidelines, to meet the thresholds of significance for operational-related criteria air pollutant and precursor impacts for plans (i.e., attain state and air quality standards; Consistency Question 1, Goal 1), a proposed plan must satisfy the following criteria:

- Criteria 1: Consistency with current air quality plan control measures; and
- Criteria 2: A proposed plan's projected VMT or vehicle trips increase is less than or equal to its projected population increase.

Based on the preceding discussion of the criteria needed to meet the BAAQMD thresholds of significance for plan-level documents, the following analysis is organized as such:

- **Consistency with Air Quality Plan Control Measures.** This section addresses:
  - Consistency Question 1 (Primary Goals of Air Quality Plan): Goal 1 - Attain Air Quality Standards, Criteria 1 (Applicable Control Measures)
  - Consistency Question 2 (Include Applicable Control Measures from Air Quality Plan)
- **Disrupt or Hinder Implementation of Air Quality Plan Control Measures.** This section addresses:
  - Consistency Question 3
- **Increases in Vehicle Trips and Service Population.** This section addresses:
  - Consistency Question 1 (Primary Goals of Air Quality Plan): Goal 1 - Attain Air Quality Standards, Criteria 2 (Vehicle Trips and Service Population (SP) Growth)[9]
- **Eliminate Health Risk Disparities Among Bay Area Communities.** This section addresses:
  - Consistency Question 1 (Primary Goals of Air Quality Plan): Goal 2 – Eliminate Health Risk Disparities Among Bay Area Communities

Consistency with Air Quality Plan Control Measures

The 2017 Clean Air Plan contains 85 control strategies designed to reduce ozone precursors, protect public health, and serve as a regional climate protection strategy. The control strategies are based on nine economic sectors consistent with CARB's Scoping Plan, as shown in Table 5-11.[10]

The BAAQMD's implementation of the control strategies employ a wide range of tools and resources, and many of the control strategies are not intended or designed to be achieved by local government. Table 5-12 identifies the 2017 Clean Air Plan control measures that are

[9]The existing land uses within the Plan Area do not support residential dwelling units and, therefore, a comparison between population and vehicle trip growth under existing and proposed conditions is not possible. Instead, this EIR utilizes Service Population (SP) as a proxy instead of population for assessing how vehicle trips would change in relation to the proposed land uses. SP is defined as a combination of resident and employees a project serves.

[10]The BAAQMD 2017 Clean Air Plan use the same economic sectors contained in CARB's 2017 Scoping Plan.

relevant to the Freedom Circle Focus Area Plan and summarizes the Plan's consistency with the measures.

Table 5-11
BAAQMD 2017 CLEAN AIR PLAN CONTROL MEASURE SECTORS

Sector	No. of Measures	General Description of Sector Applicability
Agriculture (AG)	4	Applies to sources of air pollution from agricultural operations include on and off-road trucks and farming equipment, aircraft for crop spraying, animal waste, pesticide and fertilizer use, crop residue burning, travel on unpaved roads, and soil tillage.
Buildings (BL)	4	Applies to residential, commercial, governmental, and institutional buildings, which generate emissions through energy use for heating, cooling, and operating the building, and from the materials used in building construction and maintenance
Energy (EN)	2	Applies to emissions of criteria pollutants, TACs, and GHGs from electricity generated and used within the Bay area, as well as GHG emissions from electricity generated outside the Bay area that is imported and used within the region
Natural and Working Lands (NW)	3	Applies to emissions from natural and working lands, including forests, woodlands, shrub lands, grasslands, rangelands, and wetlands.
Stationary Sources (SS)	40	Applies to stationary sources generally used in commercial and industrial facilities. Such sources are typically regulated through BAAQMD rulemaking, permitting, and enforcement programs
Super GHGs (SL)	3	Applies to emissions of methane, black carbon, and fluorinated gases
Transportation (TR)	23	Applies to on-road motor vehicles such as light-duty automobiles or heavy-duty trucks, as well as off-road vehicles, including airplanes, locomotives, ships and boats, and off-road equipment such as airport ground-support equipment, construction equipment and farm equipment.
Waste (WA)	4	Applies to emissions from landfills and composting activities.
Water (WR)	2	Applies to direct emissions from the treatment of water and wastewater at publicly owned treatment works and indirect emissions associated with the energy used to pump, convey, recycle, and treat water and wastewater throughout the Bay

Table 5-12
BAAQMD 2017 CLEAN AIR PLAN CONTROL MEASURE CONSISTENCY: FREEDOM CIRCLE FOCUS AREA PLAN

Applicable 2017 Clean Air Plan Control Measures	Consistency
Transportation Control Measures	
TR1: Clean Air Teleworking Initiative	Consistent. Future land uses in the Plan area would comply with the requirements outlined in the City of Santa Clara's Climate Action Plan and General Plan. The Plan Area is in the City's Transportation Management District 1 (North of Caltrain) and is required to achieve a minimum VMT reduction of 20 percent, including 10 percent through TDM measures (i.e., measures specifically implemented by the project, and not inherent trip reductions due to project location, such as proximity to transit). Telecommuting is an example of a measure that could be implemented through a TDM plan that would reduce single-occupancy vehicle trips and VMT.
TR2: Trip Reduction Programs	Consistent. The Freedom Circle Focus Area Plan qualifies as a transit supportive project under the City's VMT Transportation Analysis Policy for Environmental Review (Hexagon 2021b). This means the project meets the following criteria: • It is within ½ a mile of an existing Major Transit Stop or an existing transit stop along a High-Quality Transit Corridor; • Has high density meeting a minimum non-residential FAR of 0.75 and minimum residential density of 35 dwelling units per acre; • Promotes multimodal transportation networks; • Has transit-oriented design elements; • Limits parking to what is required by City Code for residents, customers, or employees; and • Provides an equal or greater amount of affordable housing than the existing land uses. The Focus Area Plan, by nature, inherently reduces trips because of its proximity to transit and high density, mixed-use development style. In addition, as described under TR1, the land uses would be required to comply with the City of Santa Clara's Climate Action Plan and General Plan, which require the development and implementation of TDM measures.
TR5: Transit Efficiency and Use	Consistent. Although this is generally a control measure that is implemented at the regional level, the Freedom Circle Focus Area Plan would provide connections to regional and local transit, with numerous stops for VTA Routes 20, 57, and 59 provided in proximity of the Plan Area. In addition, the Focus Area Plan includes policies (e.g., FC-P19) to improve transit stops and shelters, which could increase ridership.
TR7: Safe Routes to Schools and Safe Routes to Transit	Consistent. The Focus Area Plan provides goals and policies that will facilitate clear and safe pedestrian circulation. The Focus Area Plan calls for the Plan Area to be designed in a manner that encourages walking, bicycling and transit use.

Applicable 2017 Clean Air Plan Control Measures	Consistency
TR8: Ridesharing, Last-Mile Connection	Consistent. As described under consistency with TR1 and TR2, the land uses would be required to comply with the City of Santa Clara's Climate Action Plan and General Plan, which require the development and implementation of TDM measures. The TDM plans could include measures such as transit subsidies, carpool incentives, bicycling incentives, carshare memberships, additional last mile services, and/or vanpools.
TR9: Bicycle and Pedestrian Access and Facilities	Consistent. The Plan Area would be designed to provide ample, safe, amenities and facilities for bicycles and pedestrians (FC-P16).
TR10: Land Use Strategies	Consistent. The Freedom Circle Focus Area Plan would provide high-density residential and employment opportunities in a transit rich area, and non-vehicular infrastructure to increase the allure of non-vehicular modes of transport.
TR13: Parking Policies	Consistent. The Focus Area Plan would encourage parking between uses and parcels, and have parking structured in a manner that supports shared vehicle use (FC-P11 and -P12).
TR14: Cars & Light Trucks	Consistent. The land uses in the Plan Area would support the adoption of ZEV and Plug-in Electric Vehicles through compliance with EV infrastructure requirements detailed in the CalGreen Code.
TR23: Lawn Care Equipment	Consistent. This control measure is primarily implemented through the BAAQMD by its buy-back program; the Focus Area Plan would not impede the implementation of this control measure. Potential landscaping companies contracted to do work within the Plan Area are anticipated to benefit from the BAAQMD's implementation of TR23.
Building Control Measures	
BL1: Green Buildings	Consistent. Future development in the Plan Area would be subject to the latest CalGreen requirements, which establish statewide standards for sustainable building practices.
BL2: Decarbonize Buildings	Consistent. Future development in the Plan Area would be subject to the latest CalGreen requirements, which establish statewide standards for sustainable building practices and the decarbonization of buildings.
BL4: Urban Heat Island Mitigation	Consistent. Future development in the Plan Area would be subject to the latest CalGreen requirements, which establish statewide standards for sustainable building practices. New high-rise residential land uses (defined as four or more habitable stories above grade in the 2019 Title 24 Building Code) are required to have roofs that meet the aged solar reflectance and thermal emittance requirements specified in CalGreen Code Section 140.3(a)(1)(A)(ii). Different requirements exist for low-sloped roofs than steep-sloped roofs. These requirements include measures to reduce unwanted energy transfer into buildings, such as that can occur through the urban heat island effect.

Applicable 2017 Clean Air Plan Control Measures	Consistency
Natural and Working Lands Control Measures	
NW2: Urban Tree Planting	Consistent. Future development in the Plan Area would be required to provide open space or pay fees for parks and open space, consistent with the City's Parkland Dedication Ordinance. Parks / open space would facilitate the planting of trees in an urban setting. In addition, future development would be subject to General Plan policies and City Code standards related to urban tree planting. For example, General Plan Policies 5.3.4-P5 and 5.3.4-P12 encourage various design elements (such as street tree planting along all streets) and prioritizing pedestrian-oriented streetscape (e.g., specialty planters and street trees). City Code Section 12.35.020 also requires written permit from the superintendent of streets prior to the alteration or removal of any tree, plant or shrub planted or growing in the streets or public places of the City (including trenching activities around or alongside any tree, plant, or shrub with the intent of cutting the roots or otherwise causing damage).
Waste Management Control Measures	
WA4: Recycling and Waste Reduction	Consistent. The Focus Area Plan would provide convenient recycling and composting facilities.
Water Control Measures	
WR2: Support Water Conservation	Consistent. Future development in the Plan Area would be subject to the latest CalGreen requirements, which includes measures related to water conservation.

As shown in Table 5-12, the Freedom Circle Focus Area Plan would be in compliance and consistent with the relevant control measures contained in the 2017 Clean Air Plan.

Disrupt or Hinder Implementation of Clean Air Plan Control Measures

As shown in Table 5-12, the proposed Freedom Circle Focus Area Plan incorporates standards and guidelines that are consistent with and similar to applicable 2017 Clean Air Plan control measures. Thus, the proposed Freedom Circle Focus Area Plan would not disrupt or hinder implementation of any 2017 Clean Air Plan control measures.

Vehicle Trips and Service Population Growth

The BAAQMD CEQA Air Quality Guidelines recommend Lead Agencies evaluate projected VMT or vehicle trips in relation to projected population increases when considering the adoption of a plan-level document. As discussed previously, the existing land uses in the Plan Area do not support dwelling units nor a residential population. Therefore, this analysis uses service population (SP) as a proxy for assessing how potential growth in the Plan Area could change under implementation of the proposed Focus Area Plan.

Table 5-13 summarizes the number of weekday trips for existing conditions and proposed conditions, as well as what percent proposed conditions would increase the weekday trip generation and SP in the Plan Area over existing conditions.

Table 5-13
TRIP GENERATION AND SERVICE POPULATION INCREASES

Scenario	Weekday Trip Generation	Service Population	Percent Greater than Existing Conditions	
			Weekday Trip Generation	Service Population
Existing Conditions	16,325[(A)]	5,781[(A)]	--	--
Proposed Conditions	70,250[(B)]	28,602[(C)]	+430%	+495%

Source: Hexagon 2020, 2021a, and 2021b; ABAG 2011
(A) Hexagon 2021a
(B) Hexagon 2021b, Table 13
(C) Hexagon 2020, Table 2 provided employment rates (square feet / employee) for retail and office land uses; ABAG 2011, Table 2 provided employment rate for hotel land use; residential portion of SP obtained for estimates provided in EIR Chapter 14, Population and Housing.

As shown in Table 5-13, implementation of the Freedom Circle Focus Area Plan would result in a greater increase in SP than it would weekday trip generation, which indicates there would be fewer trips per SP under future conditions than existing conditions. Therefore, the proposed Focus Area Plan would be consistent with the second criteria related to the 2017 Clean Air Plan's goal of attaining air quality standards, and not conflict with the 2017 Clean Air Plan.

Eliminate Disparities in Health Risks

As explained in more detail under Impact 5-5, the Freedom Circle Focus Area Plan could result in significant health risk increases at new and existing sensitive receptor locations during development activities occurring under implementation of the Focus Area Plan. The City would implement mitigation measures to reduce potential health risks that could be posed by construction activities, but it cannot be definitively known or concluded at this time that the mitigation measures would reduce potential adverse health effects to levels that would be less than significant based on the speculative nature and timing of specific future development projects in the Plan Area.

The Plan Area is not an impacted community identified under the BAAQMD's CARE Program and is not considered a disadvantaged community pursuant to SB 535. Therefore, although the proposed Focus Area Plan could result in significant health risk increases, it would not do so in an area that is currently disadvantaged. The potential health risks posed by future development in the Plan Area are solely related to those posed by construction activities, which are temporary in nature. The Focus Area Plan proposes residential, office, retail, and community-serving land uses; it would not include industrial or other land uses that have the potential to generate TAC emissions from large stationary sources or industrial processes. The Plan Area is not located in or adjacent to a disadvantaged community, nor does it propose land uses that would generate long-term, stationary sources of emissions that could promote disparities in health risks. For these reasons, the proposed Focus Area Plan would not increase health risk disparities in the Bay Area.

Conclusion

Based on the preceding analysis, the implementation of the proposed Freedom Circle Focus Area Plan would be consistent with and not hinder the implementation of any applicable 2017 Clean Air Plan Control Measures. In addition, the proposed Focus Area Plan's growth in SP would be greater than the increase in trip generation within the Plan Area, and the Focus Area

Plan would not promote disparities in health risks. Therefore, the proposed Freedom Circle Focus Area Plan would be consistent with the 2017 Clean Air Plan. This impact would be less than significant (see criterion [a] in subsection 5.3.1, "Significance Criteria," above).

Mitigation 5-1. No significant impact has been identified; no mitigation is required (see criterion [a] in subsection 5.3.1, "Significance Criteria," above).

Impact 5-2: Conflict with 2017 Clean Air Plan – Greystar General Plan Amendment. The proposed Greystar General Plan Amendment / Project would not conflict with or obstruct implementation of the BAAQMD 2017 Clean Air Plan. As described in Impact 5-1, the 2017 Clean Air Plan includes 85 control measures that are grouped into nine categories. Most of these control measures would not apply to the Greystar Project, because they are implemented at the local and regional local by municipal governments and/or the BAAQMD. Table 5-14 summarizes the Greystar Project's consistency with potentially applicable control strategies from the 2017 Clean Air Plan.

Table 5-14
BAAQMD 2017 CLEAN AIR PLAN CONTROL MEASURE CONSISTENCY: GREYSTAR GENERAL PLAN AMENDMENT

Applicable 2017 Clean Air Plan Control Measures	Consistency
Transportation Control Measures	
TR1: Clean Air Teleworking Initiative	Consistent. The Greystar Project would comply with the requirements outlined in the City of Santa Clara's Climate Action Plan and General Plan. The Greystar Project is in the City's Transportation Management District 1 (North of Caltrain) and is required to achieve a minimum VMT reduction of 20 percent, including 10 percent through TDM measures (i.e., measures specifically implemented by the project, and not inherent trip reductions due to project location, such as proximity to transit). Telecommuting is an example of a measure that could be implemented through a TDM plan that would reduce single-occupancy vehicle trips and VMT.
TR2: Trip Reduction Programs	Consistent. The Greystar Project would be required to comply with the City of Santa Clara's Climate Action Plan and General Plan, which require the development and implementation of TDM measures. Specifically, since the Greystar Project consists of residential development, the Project would be required to meet a 20% reduction in VMT, with at least 10% of that reduction coming from the Project's TDM Plan.

Applicable 2017 Clean Air Plan Control Measures	Consistency
TR9: Bicycle and Pedestrian Access and Facilities	Consistent. The Greystar Project would provide approximately 396 spaces for bicycle parking with 360 of those being Class 1 spaces (long-term; more than two-hours) while the remaining 36 would be Class 2 spaces (short-term; less than two hours). The Project would also include an approximately 2.0-acre park that would be accessible via a bike path running from the proposed multi-use trail (Class I bike path) on Freedom Circle, through the park along its south side, and finally connecting to the San Tomas Aquino Creek Trail. In addition, two pedestrian trails, one on the north side of the park and the other on the south side, would provide additional access. The Greystar Project has been designed to provide ample, safe, amenities and facilities for bicycles and pedestrians, consistent with FC-P16.
Building Control Measures	
BL1: Green Buildings	Consistent. The Greystar Project would be designed to CalGreen Code standards. The Project would feature many green elements – for example, it has been designed to use the community park as a bio-retention area, the building systems would be high efficiency (to reduce energy and water consumption), and the parking garage would be prepared for PV and EV changing. Walkways would be provided through the site to promote active modes of transportation, and the site's proximity to VTA bus stops makes transit an available option to residents.
BL2: Decarbonize Buildings	Consistent. The Greystar project has been designed to the latest CalGreen requirements, which establish statewide standards for sustainable building practices and the decarbonization of buildings.
BL4: Urban Heat Island Mitigation	Consistent. The Greystar Project would be subject to the 2019 Title 24 Building Code), which would require the proposed buildings to have roofs that meet the aged solar reflectance and thermal emittance requirements specified in CalGreen Code Section 140.3(a)(1)(A)(ii). Different requirements exist for low-sloped roofs than steep-sloped roofs. These requirements include measures to reduce unwanted energy transfer into buildings, such as that can occur through the urban heat island effect.
Waste Management Control Measures	
WA4: Recycling and Waste Reduction	Consistent. The Greystar Project would divert construction waste, consistent with CalGreen Code requirements. Furthermore, the Project would also use recycled or sustainable products during construction that would preserve natural resources.

As shown in Table 5-14, the Greystar Project would be consistent with applicable control measures contained in the 2017 Clean Air Plan. Furthermore, as discussed in Impact 5-4, implementation of the Greystar Project would not exceed the BAAQMD thresholds of significance for criteria air pollutants. It also would not promote or increase the disparities among Bay Area communities. This impact would be less than significant (see criterion [a] in subsection 5.3.1, "Significance Criteria," above).

Mitigation 5-2. No significant impact has been identified; no mitigation is required.

Impact 5-3: Result in a Cumulatively Considerable Net Increase in Criteria Pollutants for which the Region is Non-Attainment – Freedom Circle Focus Area Plan. Implementation of the Freedom Circle Focus Area Plan could result in growth in the Plan Area that exceeds the level of growth accounted for in the City's General Plan and, therefore, could generate a cumulatively considerable net increase in criteria air pollutants for which the region is in non-attainment. This represents a ***potentially significant impact*** (see criterion [b] in subsection 5.3.1, "Significance Criteria," above).

The Focus Area Plan would permit a substantially higher development intensity in the Plan Area than current conditions; however, the proposed land uses would serve a greater number of people in the city than the current land uses and would concentrate development in an area that is well served by local and regional transit. Nonetheless, the transition of current land uses to those proposed under the Focus Area Plan would result in criteria air pollutant and other emissions from construction activities and from the operation of the new residential, office, retail, and other community-serving land uses. The emissions levels associated with the growth proposed by the Freedom Circle Focus Area Plan would far exceed that accounted for in the City's General Plan and result in a cumulatively considerable net increase in emissions for which the region is in nonattainment.

Construction Criteria Air Pollutant Emissions

The adoption of the proposed Focus Area Plan would not directly result in construction of any development or infrastructure; however, future development activities that could occur based on the land use intensities proposed by the Focus Area Plan would result in short-term construction-related criteria air pollutant emissions that would have the potential to have an adverse effect on air quality. Short-term criteria air pollutant emissions would occur during demolition, site preparation, grading, building construction, paving, and architectural coating activities associated with specific new development projects. Emissions would occur from use of equipment, worker, vendor and hauling trips, and disturbance of onsite soils (fugitive dust). Heavy-duty off-road construction equipment (e.g., bulldozers, backhoes, cranes) as well as haul truck trips for any soil import / export would primarily generate emissions of NOx, and exhaust PM_{10} and $PM_{2.5}$. Fugitive dust emissions (PM_{10} and $PM_{2.5}$) would also be generated during earth disturbing activities (e.g., site preparation, grading, excavation). The quantity of fugitive dust emissions generated, however, would be dependent on a number of parameters, such as soil silt content, soil moisture, wind speed, acreage of disturbance area, and speed of the vehicle(s) passing over the disturbed area. ROG emissions would generally be greatest during the application of architectural coatings.

It is possible that either no construction could be occurring at any given time, or multiple projects could be occurring within the Plan Area simultaneously. The BAAQMD CEQA Air Quality Guidelines do not identify quantitative, plan-level thresholds for construction emissions; however, as shown in Table 5-10, the BAAQMD does maintain project-level thresholds of 54 pounds per average day for NOx, ROG, and $PM_{2.5}$ exhaust, and 82 pounds per average day for PM_{10} exhaust. The combination of fugitive dust and exhaust emissions of

multiple projects occurring within the Plan Area could exceed these project-level thresholds; however, as provided in the BAAQMD Air Quality CEQA Guidelines:

> *"In developing thresholds of significance for air pollutants, BAAQMD considered the emission levels for which a project's individual emissions would be cumulatively considerable. If a project exceeds the identified significance thresholds, its emissions would be cumulatively considerable, resulting in significant adverse air quality impacts to the region's existing air quality conditions. Therefore, additional analysis to assess cumulative impacts is unnecessary. The analysis to assess project-level air quality impacts should be as comprehensive and rigorous as possible"* (BAAQMD 2017a).

Although specific details regarding project development within the Plan Area are not known at this time, it is possible that one or more projects developed under implementation of the proposed Focus Area Plan could have the potential to exceed one or more of the BAAQMD's construction criteria air pollutant threshold of significance (e.g., NOx for a project involving a substantial amount of earthwork during grading).

Based on the preceding discussion and analysis, implementation of the proposed Focus Area Plan could have a ***potentially significant impact*** with regard to construction criteria air pollutant emissions that would be generated during construction, which requires mitigation. Accordingly, the City would implement Mitigation Measures 5-3A and 5-3B to address fugitive dust emissions and equipment exhaust emissions, respectively.

- Mitigation Measure 5-3A requires future development to implement the BAAQMD's Basic Construction Mitigation Measures to address fugitive dust emission during construction. As identified in Table 5-10, the BAAQMD does not maintain quantitative thresholds for fugitive dust during construction activities; rather, compliance and implementation of these Basic Construction Mitigation Measures renders fugitive dust emissions during project construction less than significant (BAAQMD 2017a).

- Mitigation Measure 5-3B requires future projects implemented under the Focus Area Plan to prepare and submit a project-specific air quality assessment to the City that quantitatively estimates emissions that could be generated by the project and compares them against thresholds maintained by the BAAQMD. The project-specific air quality assessment would identify mitigation, as applicable, to reduce project-specific impacts related to construction criteria air pollutant emissions that have the potential to exceed BAAQMD CEQA thresholds of significance. Due to the speculative nature of development and uncertainty related to where development activities would occur within the Plan Area, it is not possible at this time to identify project-specific impacts that could occur under implementation of the Freedom Circle Focus Area Plan; however, it is anticipated some development projects over the next 20 year could require the utilization of project-specific mitigation measures, such as requiring all heavy-duty off-road diesel-powered construction equipment to meet U.S. EPA Tier IV Final emissions standards (for equipment greater than 50-horsepower), to reduce construction emissions. The project-specific air quality assessment would be required to be reviewed and approved by the City prior to commencement of construction.

Application of Mitigation Measure 5-3A would require future projects in the Plan Area to implement the BAAQMD's Basic Construction Mitigation Measures, which would reduce fugitive dust emissions to less than significant levels. Mitigation Measure 5-3B would require the preparation of a project-specific air quality assessment to evaluate potential criteria air pollutant

construction emissions associated with the development project. Although future development projects would be required to implement Mitigation Measure 5-3B, it cannot be definitively known or stated at this time that all development projects occurring under implementation of the Focus Area Plan would be able to reduce potential criteria air pollutant emissions to levels that are below BAAQMD thresholds. Therefore, despite the implementation of Mitigation Measure 5-3B, criteria air pollutant construction emissions associated with the proposed Freedom Circle Focus Area Plan could exceed applicable BAAQMD thresholds and generate a cumulatively considerable net increase in criteria air pollutants for which the region is in non-attainment. This impact would be significant and unavoidable.

Operational Criteria Air Pollutant Emissions

Implementation of the Freedom Circle Focus Area Plan would introduce residential development to the Plan Area, a land use not currently accounted for in the site's underlying zoning and General Plan land use designation, and increase the quantity of non-residential building space allowed for in the Plan Area by approximately 2,002,000 square feet. The development intensities proposed by the Freedom Circle Focus Area Plan are approximately two-and-a-half times more intense than that originally envisioned in the General Plan.

Although not required by the BAAQMD, it is useful to compare the potential operational emissions associated with buildout of the Focus Area Plan to the BAAQMD's project-level thresholds of significance to determine which pollutants and sources would be of greatest concern under the planning horizon year of 2040. Accordingly, operational criteria air pollutant emissions were estimated for the Focus Area Plan using CalEEMod (version 2016.3.2). Operational emissions were estimated under full buildout using default data assumptions provided by CalEEMod, with the following project-specific modifications:

- **Land Use Development:** The default acreages for proposed land uses within the Plan Area were adjusted to reflect proposed development conditions (e.g., considering mix-use development, acreage in the Plan Area, and specific Greystar Project details). Please see Table 5-15 for a summary of the land uses proposed by the Focus Area Plan.

- **Area Sources:** Woodstoves and fireplaces were removed pursuant to BAAQMD Regulation 6-3-306, which prohibits the installation on wood burning devices in new development. The quantity of wood-burning fireplaces assumed by CalEEMod were added to natural-gas powered fireplaces.

- **Energy Use and Consumption:** The residential and non-residential default energy intensity values were adjusted to reflect a blend of older and newer buildings in the Plan Area (not all the parcels in the Plan Area are planned for redevelopment). Whereas the old (existing) buildings were assumed to be built to 2013 energy code standards, the new buildings were assumed to be built to the 2019 energy code standards.

- **Mobile Sources:**
  - The default, weekday trip generation rates for the proposed land use types were altered to reflect trip generation as provided in the Transportation Analysis prepared for the Focus Area Plan by Hexagon Transportation Consultants (Hexagon 2021b). The default weekend trip generation rates for the various land uses accounted for in CalEEMod were also adjusted downward, consistent with the trip reduction credits taken in the traffic analysis for internal capture and proximity to transit (Hexagon 2021b). Based on

Hexagon's Transportation Analysis, the proposed land uses would generate approximately 70,250 total daily vehicle trips per weekday. Based on CalEEMod estimates, with Hexagon's trip generation but default CalEEMod trip distances, the proposed land uses would generate approximately 139,837,795 annual VMT.

- The annual vehicle emission factors were updated based on derived EMFAC2021 emission rates for Santa Clara County, consistent with the methodology described in the CalEEMod User's Guide Appendix A (CAPCOA 2017b). The derived emission factors are for year 2040, the planning horizon for the Freedom Circle Focus Area Plan.

Table 5-15
FREEDOM CIRCLE FOCUS AREA PLAN PROPOSED LAND USES

Land Use	Size (Square Feet / Dwelling Units / Hotel Rooms)[A]
Mid-rise Apartment	3,600 Dwelling Units
General Office	5,369,495 Square Feet
Retail	2,000 Square Feet
Residential Gym[B]	7,350 Square Feet
City Park	2 Acres
Parking Garage	914,320 Square Feet
Hotel	750 Rooms

(A) Residential land uses are defined in terms of dwelling units, non-residential land uses are defined in terms of square footage.
(B) The "Residential Gym" land use is considered to be an amenity provided by the residential land uses (i.e., is inside the apartment complex) and therefore does not generate trips.

The net change in long-term emissions that would be generated under implementation of the Focus Area Plan in 2040 is shown in Table 5-16.

As shown in in Table 5-16, the pollutants of greatest concern associated with the Focus Area Plan would generally be:

- **ROG Emissions from Area Sources.** Specifically, ROG emissions from the use of consumer products (e.g., cleaning supplies, kitchen aerosols, cosmetics, and toiletries) and re-application of architectural coatings (see Appendix 25.2; Section 6.2 of the output). As described in Section 5.1.3.1, the SFBAAB is designated as non-attainment for ozone, and ROG/VOCs are a precursor to ozone (see Section 5.1.1.1). The City is limited in its capacity to require and regulate future residents and employees in the Plan Area use consumer products that meet specific ROG/VOC emission standards; however, there are architectural coatings that would reduce the quantity of fugitive ROG emissions associated with operation of the land uses within the Plan Area. Accordingly, the City would implement Mitigation Measure 5-3C, which requires the use of "Low-VOC" or "Super Compliant" requirements. "Low-VOC" refers to paints that meet the more stringent regulatory limits in South Coast Air Quality Management District (SCAQMD) Rule 1113;[11] however, many manufacturers have reformulated to levels well below these limits and are referred to as "Super-Compliant" Architectural Coatings.

[11]The proposed Focus Area Plan is within the jurisdiction of the BAAQMD, not the SCAQMD; however, the BAAQMD does not have a rule or regulation that sets such stringent standards for the VOC content of architectural coatings. Thus, to establish a performance metric for the mitigation measure, the SCAQMD's terminology is used instead.

Table 5-16
FREEDOM CIRCLE FOCUS AREA PLAN: NET CHANGE IN OPERATIONAL CRITERIA AIR POLLUTANT EMISSIONS (2040)

Emissions Scenario / Source	Maximum Daily Pollutant Emissions (Pounds per Day)						
	ROG	NOx	CO	PM_{10}		$PM_{2.5}$	
				Dust	Exhaust	Dust	Exhaust
Proposed Focus Area Plan Operational Emissions in Year 2040							
Area Sources	249.5	2.4	147.1	0.0	0.9	0.0	0.9
Energy Sources	4.9	44.1	33.9	0.0	3.4	0.0	3.4
Mobile Sources	85.0	85.3	686.8	259.9	1.1	64.8	1.0
Total(A)	339.4	131.8	867.8	259.9	5.3	64.8	5.3
Existing Land Use Operational Emissions in Year 2040(B)							
Area Sources	83.7	<0.1	0.2	0.0	<0.1	0.0	<0.1
Energy Sources	2.8	25.0	21.0	0.0	1.9	0.0	1.9
Mobile Sources	20.7	22.1	166.8	63.0	0.3	15.7	0.3
Total(A)	107.2	47.1	187.9	63.0	2.2	15.7	2.2
Net Change in Emissions Levels							
Area Sources	165.8	2.4	147.0	0.0	0.9	0.0	0.9
Energy Sources	2.2	19.1	12.9	0.0	1.5	0.0	1.5
Mobile Sources	64.3	63.2	250.0	197.0	0.8	49.1	0.7
Total(A)	232.2	84.7	679.9	197.0	3.2	49.1	3.1
BAAQMD CEQA Threshold	54	54	--	None	82	None	54

Source: MIG 2021, see Appendix 25.2.
(A) Totals may not equal due to rounding.
(B) See Table 5-6.

- **ROG, NOx, and PM Emissions from Mobile Sources.** Despite the Focus Area Plan being served by frequent bus service via VTA Routes 20, 57, and 59 and featuring many amenities to help reduce trips within the Plan Area (i.e., people could walk or bike to their destination), emissions from mobile sources would still remain a substantial source of emissions associated with buildout of the Focus Area Plan. As described in Section 5.1.3.1, the SFBAAB is designated as non-attainment for ozone, and NOx and ROG/VOCs are precursors to ozone (see Section 5.1.1.1). The SFBAAB is also designated as nonattainment for state PM_{10} and state and federal $PM_{2.5}$ air quality standards. Accordingly, the City would implement Mitigation Measure 5-3D, which requires future development within the Plan Area to develop and implement a TDM program, consistent with the City of Santa Clara's 2013 Climate Action Plan (see Chapter 9) and 2010-2035 General Plan (City of Santa Clara 2010, 2013). Mitigation Measure 5-3D would require future projects in the Plan Area prepare and implement a TDM plan that demonstrates a minimum VMT reduction of 20%, with at least 10% of that reduction coming from project-specific measures (i.e., not inherent reductions due to internal capture, proximity to transit, etc.).[12] The land uses within

[12]The emissions shown in Table 5-16 reflect an embedded VMT reduction of approximately 10 percent under buildout conditions. The specific VMT reduction associated with trip reduction is not known for certain but is assumed to be similar to the trip reduction value (i.e., an approximate 10 percent VMT reduction). It should be noted that the overall trip reduction assumed by the Transportation Analysis relies on the connectivity and interdependence of the land uses proposed by the Focus Area Plan and, therefore, is considered to be inherent of internal trip capture reductions associated with buildout of the Focus Area Plan.

the Plan Area would also be subject to the TDM requirements in the City's CAP Update, once adopted. If the VMT measures contained in the City's CAP Update are more stringent than those required by Mitigation Measure 5-3D, the land uses in the Plan Area would be required to comply with those instead (i.e., land uses would be required to comply with whichever VMT reduction requirement is more stringent). Despite the implementation of Mitigation Measure 5-3D, mobile sources would remain, in large part, the greatest source of operational criteria air pollutant emissions associated with buildout of the Focus Area Plan.

As shown in Table 5-2, the SFBAAB is currently designated as nonattainment for ozone, PM_{10}, and $PM_{2.5}$. Since ROG/VOC and NOx are precursors to ozone, Mitigation Measure 5-3C and Mitigation Measure 5-3D have been identified to address emission sources of these pollutants. Mitigation Measure 5-3D would also reduce PM emissions from mobile sources. Despite the implementation of these mitigation measures, growth allowed for under the Focus Area Plan would still be substantially more than that accounted for in the City's General Plan and could result in a cumulatively considerable net increase in pollutants for which the region is in nonattainment. This impact would be significant and unavoidable.

Mitigation Measure 5-3A: Implement BAAQMD Basic Construction Mitigation Measures. The City shall require new development projects occurring under implementation of the Freedom Circle Focus Area Plan to implement the BAAQMD's Basic Control Mitigation Measures to address fugitive dust emissions that would occur during earthmoving activities associated with project construction. These measures include:

1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
3. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
4. All vehicle speeds on unpaved roads shall be limited to 15 mph.
5. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
6. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
7. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
8. Post a publicly visible sign with the telephone number and person to contact at the City regarding dust complaints. This person shall respond and take

corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

Mitigation Measure 5-3B: Require a Project-level Construction Assessment for New Development Proposed Under Implementation of the Freedom Circle Focus Area Plan. The City shall require applicants to submit a quantitative project-level construction criteria air pollutant and toxic air contaminant emissions analysis for future development proposed under implementation of the Freedom Circle Focus Area Plan. The estimated construction criteria air pollutant and toxic air contaminant emissions shall be compared against the thresholds of significance maintained by the Bay Area Air Quality Management District (BAAQMD) and, if emissions are shown to be above BAAQMD thresholds, the City shall require the implementation of mitigation to reduce emissions below BAAQMD thresholds or to the maximum extent feasible. Mitigation measures to reduce emissions could include, but are not limited to:

- Selection of specific construction equipment (e.g., specialized pieces of equipment with smaller engines or equipment that will be more efficient and reduce engine runtime);
- Requiring equipment to use alternative fuel sources (e.g., electric-powered and liquefied or compressed natural gas), meet cleaner emission standards (e.g., U.S. EPA Tier IV Final emissions standards for equipment greater than 50-horsepower), and/or utilizing added exhaust devices (e.g., Level 3 Diesel Particular Filter);
- Minimizing the idling time of diesel-powered construction equipment to two minutes;
- Requiring that all construction equipment, diesel trucks, and generators be equipped with Best Available Control Technology for emission reductions of NOx and PM;
- Requiring all contractors use equipment that meets CARB's most recent certification standard for off-road heavy-duty diesel engines; and
- Application of Low-VOC paints to interior and/or exterior surfaces (e.g., paints that meet SCAQMD Rule 1113 "Low-VOC" or "Super-Compliant" requirements).

Mitigation Measure 5-3C: Use Low- and Super Compliant VOC Architectural Coatings During Operational Activities. The City shall require the use of Low- and Super-Compliant VOC Architectural Coatings in maintaining buildings in Freedom Circle Focus Area Plan through Covenants Conditions and Restrictions (CC&Rs) and Ground Lease. Developed parcels shall require within their CC&Rs and/or ground leases requirements for all future interior and exterior spaces to be repainted with architectural coatings that meet the "Low-VOC" or "Super-Compliant" requirements. "Low-VOC" refers to paints that meet the more stringent regulatory limits of South Coast Air Quality Management District AQMD Rule 1113. "Super-Compliant" refers to paints that have been reformulated to levels well below the "Low-VOC" limits.

Mitigation Measure 5-3D: Implement TDM Program. Proposed residential and office land uses within the Freedom Circle Focus Area Plan shall prepare and implement Transportation Demand Management (TDM) programs that achieve a minimum reduction in vehicle miles traveled (VMT) of 20 percent compared to baseline conditions (i.e., without internal or external reductions accounted for, such as geographic location, land use interconnectivity, etc.), with at least 10 percent of the reduction coming through project-specific TDM measures (e.g., transit subsidies, telecommuting options, etc.).

Even with implementation of these measures, this impact would remain ***significant and unavoidable***.

Impact 5-4: Result in a Cumulatively Considerable Net Increase in Criteria Pollutants for which the Region is Non-Attainment – Greystar General Plan Amendment. Implementation of the Greystar General Plan Amendment / Project could result in the emission of criteria air pollutants that have the potential to exceed BAAQMD thresholds of significance. These activities represent a ***potentially significant impact*** (see criterion [b] in subsection 5.3.1, "Significance Criteria," above).

The Greystar General Plan Amendment / Project would generate short-term construction and long-term operational emissions of regulated air pollutants (i.e., criteria air pollutants and TACs). These emissions would be released to the ambient air and disperse according to the topographic and meteorological influences that prevail near the Greystar Project site and in the greater SFBAAB. The BAAQMD and/or CARB monitor levels of criteria air pollutant concentrations in ambient air to evaluate attainment of the CAAQS and NAAQS; the significance of the level of criteria air pollutant emission that the Greystar Project could emit during construction and operation is evaluated below.

Neither the BAAQMD nor CARB conduct regular and routine monitoring of TACs because most TACs do not have an established ambient air quality standard against which ambient air concentrations can be compared[13]; however, TAC emissions could result in local effects if substantial concentrations were to occur at sensitive receptor locations as a result of the Greystar Project. The magnitude and significance of the Greystar Project's TAC emissions are discussed under Impact 5-7.

Construction Emissions Air Quality Impacts

Construction activities associated with development of the proposed Greystar Project would generally include: clearing and grubbing; mass excavation; structural concrete work, including structural framing and rough in; and exterior / interior work, including structural framing / rough in and site work / landscaping. In total, construction of the Greystar Project is anticipated to last approximately 48 months, beginning in July 2022 and concluding in June 2026, and require the

[13]Ambient air quality standards have been adopted for lead and vinyl chloride, both of which are TACs; however, these pollutants are monitored at far fewer locations than criteria air pollutants like ozone precursor and PM.

net off-haul of approximately 71,500 cubic yards of soil. All hauling activities associated with the Greystar Project are anticipated to occur within the first half-year of construction. Vendor deliveries, consisting of concrete, lumber, rebar, and other sorts of building materials, would occur on a continuous basis for the last approximately 42 months of construction. The specific types of heavy-duty, off-road equipment would vary between the construction phases, depending on the types of activities being undertaken, but would require the use of backhoes, graders, excavators, mini excavators, scrapers, bulldozers, cranes, telehandlers (e.g., Gradalls), and tractors / loaders. The Applicant, Greystar, provided a list of the heavy-duty off-road equipment that would be used during construction of the Greystar Project, as well as the number of hauling and vendor trips that are anticipated per construction phase. The heavy-duty off-road equipment list provided by Greystar provides detail related to the emissions standards each piece of heavy-duty off-road equipment would meet; - all engines would meet either U.S. EPA / CARB Tier III or IV emissions standards. Please see Appendix 25.2 for a full breakdown of heavy-duty equipment operating characteristics, as well as worker, vendor, and hauling trips, as provided by Greystar.

Potential construction emissions from construction of the Greystar Project were estimated using a combination of EMFAC2021, OFFROAD2017, U.S. EPA Tier III and IV emission factors, CalEEMod version 2016.3.2, and Project-specific information provided by Greystar regarding potential equipment use and vehicle trip generation. EMFAC2021 and OFFROAD2017 are emission inventories compiled by CARB for on- and off-road vehicles/equipment, respectively.[14] EMFAC2021 was solely used to estimate on-road emissions. OFFROAD2017, in conjunction with U.S. EPA Tier III and IV emission factors, were used to estimate off-road emissions. Consistent with information provided by Greystar, all off-road equipment used per phase was assumed to run eight hours a day, five days a week. Emission factors derived from EMFAC2021 and OFFROAD2017 databases are based on the 2022 calendar year. This is conservative, because in later years on- and off-road equipment would, on average, be cleaner burning (i.e., emit less pollutants) than equipment in 2022. CalEEMod was used to estimate ROG emissions associated with the application of architectural coatings, which were assumed to be applied during the last quarter-year of construction (i.e., April 2026 through June 2026).

Table 5-17 summarizes the on- and off-road emissions associated with construction of the Greystar Project on a calendar year basis (i.e., 2022, 2023, 2024, etc.).[15]

[14]Whereas off-road equipment includes things such as bulldozers, backhoes, scrapers, etc., on-road vehicles include worker, vendor, and hauling trips. Worker trips were assumed to be a blend of light duty auto (LDA) and light duty trucks (LDT1 and LDT2), while vendor trips were assumed to be a blend of medium heavy duty trucks (MHDT) and heavy heavy duty trucks (HHDT), and hauling trips were assumed to be 100% HHDT. These assumptions are consistent with vehicle type breakdown by trip type, as accounted for in the CalEEMod User Guide (CAPCOA 2017b). Trip lengths for worker (14.7 miles), vendor (7.3 milestrips are also based on CalEEMod default assumptions, while hauling (approximately 46.2 miles) trips are representative of the approximate distance from the Greystar Project site to the southernmost boundary of the BAAQMD's jurisdiction. The approximately 46.2 mile trip distances has been utilized for all haul trips to represent the potential necessity for contaminated soils to be hauled off-site and disposed of at the landfill in Kettleman City (CAPCOA 2017b).

[15]If contamination cannot be remediated on site, the Greystar Project may require the off haul and disposal of soils at the Kettleman City landfill. Should this occur, haul trucks would pass through other air district jurisdictional boundaries, such as, but not limited to: the Monterey Bay Unified Air Pollution Control District and San Joaquin Valley Unified Air Pollution Control District. The quantity of emissions emitted by haul trucks as they pass through these air districts would not be at levels such that they would exceed applicable thresholds, nor would the emissions be cumulatively considerable.

Table 5-17
GREYSTAR PROJECT UNMITIGATED CONSTRUCTION EMISSIONS

Year / Emissions Source	Average Daily Pollutant Emissions (Pounds per Day)						
	ROG	NOx	CO	PM_{10}		$PM_{2.5}$	
				Dust[A]	Exhaust	Dust[A]	Exhaust
Year 2022							
Off-road Sources	4.5	9.1	60.4	N/A[A]	0.5	N/A[A]	0.5
On-road Sources	0.8	17.7	12.7	N/A[A]	1.1	N/A[A]	0.5
Total[B]	5.3	26.8	73.1	N/A[A]	1.6	N/A[A]	0.9
Year 2023							
Off-road Sources	0.7	18.3	20.3	N/A[A]	0.9	N/A[A]	0.8
On-road Sources	0.6	1.1	12.2	N/A[A]	0.3	N/A[A]	0.1
Total[B]	1.3	19.4	32.6	N/A[A]	1.1	N/A[A]	0.9
Year 2024							
Off-road Sources	1.2	18.3	20.3	N/A[A]	1.3	N/A[A]	1.2
On-road Sources	0.5	1.1	12.2	N/A[A]	0.2	N/A[A]	0.1
Total[B]	1.7	19.4	32.6	N/A[A]	1.5	N/A[A]	1.3
Year 2025							
Off-road Sources	1.7	26.3	30.3	N/A[A]	2.0	N/A[A]	1.8
On-road Sources	0.5	1.3	15.1	N/A[A]	0.3	N/A[A]	0.1
Total[B]	2.2	27.6	45.4	N/A[A]	2.3	N/A[A]	1.9
Year 2026							
Off-road Sources	54.3[C]	30.8	38.2	N/A[A]	2.2	N/A[A]	2.0
On-road Sources	0.8	1.4	16.8	N/A[A]	0.3	N/A[A]	0.1
Total[B]	55.0[C]	32.2	55.0	N/A[A]	2.5	N/A[A]	2.1
BAAQMD CEQA Threshold	54	54	--	None	82	None	54
Potentially Significant?	Yes	No	N/A	Yes	No	Yes	No

Source: MIG 2021, see Appendix 25.2.
(A) As discussed in the analysis below this table, fugitive dust emissions have not been estimated for this Project.
(B) Totals may not equal due to rounding.
(C) This value reflects a rolling one-year average (i.e., July 2025 to June 2026) for architectural coating ROG emissions.

As shown in Table 5-17, the Greystar Project's construction emissions would be below all applicable thresholds for criteria air pollutant emissions, except for fugitive dust and ROG emissions.

Fugitive dust emissions, in the form of PM_{10} and $PM_{2.5}$, would be generated during construction from the following activities: vehicle travel (on- and off-road vehicles) over unpaved surfaces, active ground disturbing activities (e.g., grading, excavation, etc.), and soil stockpiling (both wind erosion and from the action of dropping material into stockpiles / trucks). Fugitive dust emissions from these activities have not been specifically estimated, because the BAAQMD does not have established quantitative threshold for evaluating their significance. Rather, the BAAQMD considers any fugitive dust emitted during construction as potentially significant, regardless of the quantity emitted, unless the BAAQMD's eight Basic Construction Measures are implemented to control fugitive dust emissions (BAAQMD 2017a, pg. 8-4). Therefore, the City shall require the implementation of these measures through Mitigation Measure 5-4A.

In addition, the City would also require the implementation of Mitigation Measure 5-4B, which requires the Greystar Project use architectural coatings for exterior applications that meet SCAQMD "Low-VOC" or "Super-Compliant" standards. Table 5-18 below summarizes the

Greystar Project's construction criteria air pollutant emissions after accounting for Mitigation Measure 5-4B.

Table 5-18
GREYSTAR PROJECT MITIGATED CONSTRUCTION EMISSIONS

Year / Emissions Source	Average Daily Pollutant Emissions (Pounds per Day)						
	ROG	NOx	CO	PM_{10}		$PM_{2.5}$	
				Dust[(A)]	Exhaust	Dust[(A)]	Exhaust
Year 2022							
Off-road Sources	4.5	9.1	60.4	N/A[(A)]	0.5	N/A[(A)]	0.5
On-road Sources	0.8	17.7	12.7	N/A[(A)]	1.1	N/A[(A)]	0.5
Total[(B)]	5.3	26.8	73.1	N/A[(A)]	1.6	N/A[(A)]	0.9
Year 2023							
Off-road Sources	0.7	10.9	13.5	N/A[(A)]	0.9	N/A[(A)]	0.8
On-road Sources	0.6	1.4	12.3	N/A[(A)]	0.3	N/A[(A)]	0.1
Total[(B)]	1.3	12.3	25.9	N/A[(A)]	1.1	N/A[(A)]	0.9
Year 2024							
Off-road Sources	1.2	18.3	20.3	N/A[(A)]	1.3	N/A[(A)]	1.2
On-road Sources	0.5	1.1	12.2	N/A[(A)]	0.2	N/A[(A)]	0.1
Total[(B)]	1.7	19.4	32.6	N/A[(A)]	1.5	N/A[(A)]	1.3
Year 2025							
Off-road Sources	1.7	26.3	30.3	N/A[(A)]	2.0	N/A[(A)]	1.8
On-road Sources	0.5	1.3	15.1	N/A[(A)]	0.3	N/A[(A)]	0.1
Total[(B)]	2.2	27.6	45.4	N/A[(A)]	2.3	N/A[(A)]	1.9
Year 2026							
Off-road Sources	38.6[(C)]	30.8	38.2	N/A[(A)]	2.2	N/A[(A)]	2.0
On-road Sources	0.8	1.4	16.8	N/A[(A)]	0.3	N/A[(A)]	0.1
Total[(B)]	39.3[(C)]	32.2	55.0	N/A[(A)]	2.5	N/A[(A)]	2.1
BAAQMD CEQA Threshold	54	54	--	None	82	None	54
Potentially Significant?	No	No	N/A	No	No	No	No

Source: MIG 2021, see Appendix 25.2.
(A) As discussed in the analysis below this table, fugitive dust emissions have not been estimated for this Project.
(B) Totals may not equal due to rounding.
(C) This value reflects a rolling one-year average (i.e., July 2025 to June 2026) for architectural coating ROG emissions.

As shown in Table 5-18, the Greystar Project's construction ROG emissions would be reduced below the BAAQMD significance threshold of 54 pounds per day after the implementation of Mitigation Measure 5-4B.

The proposed Greystar Project would not result in a significant air quality impact during construction activities after the incorporation of Mitigation Measure 5-4A and Mitigation Measure 5-4B.

Operational Emissions

Once constructed, the Greystar project would generate long-term emissions of criteria air pollutants from the area, energy, and mobile sources described under Impact 5-3. The operational emissions associated with the Greystar Project were estimated using CalEEMod default assumptions, with the following, project-specific modification made:

- **Land Use Development:** The default acreages and building square footages were updated based on the Greystar Plan Set, cover sheet dated November 13, 2020. In total, the Greystar Project would involve approximately:
    - 939,810 square feet of apartment space (inclusive of residential living space, as well as leasing area, co-working areas, etc.),
    - 2,000 square feet of retail space,
    - 7,350 square feet of residential gyms space,
    - 2 acres of parkland, and
    - 914,320 square feet of parking garage space.

- **Area Sources:** Woodstoves and fireplaces were removed pursuant to BAAQMD Regulation 6-3-306, which prohibits the installation on wood burning devices in new development. The quantity of wood-burning fireplaces assumed by CalEEMod were added to natural-gas powered fireplaces.

- **Energy Use and Consumption:** The residential and non-residential default energy intensity values were adjusted downward to reflect that the new buildings would be built to the 2019 energy code standards (CalEEMod version 2016.3.2 defaults assume structures would be built to the 2016 energy code standards).

- **Mobile Sources:**
    - The default, weekday trip generation rate for the residential and retail land uses were altered to reflect trip generation as provided in the Transportation Analysis prepared by Hexagon Transportation Consultants (Hexagon 2021b). The default weekend trip generation rates for the Project's land uses accounted for in CalEEMod were also adjusted downward, consistent with the trip reduction credits taken in the traffic analysis for internal capture and proximity to transit (Hexagon 2021b). Based on Hexagon's Transportation Analysis, the proposed land uses would generate approximately 5,722 total daily vehicle trips per weekday in 2030. Based on CalEEMod estimates, with Hexagon's trip generation but default CalEEMod trip distances, the proposed land uses would generate approximately 13,546,090 annual VMT.
    - The annual vehicle emission factors were updated based on derived EMFAC2021 emission rates for Santa Clara County, consistent with the methodology described in the CalEEMod User's Guide, Appendix A (CAPCOA 2017b). The derived emission factors are for year 2030.

The estimated operational emissions resulting from operation of the proposed Greystar Project are shown in Table 5-19.

Table 5-19
GREYSTAR PROJECT UNMITIGATED OPERATIONAL EMISSIONS (2030)

Emissions Scenario / Source	Maximum Daily Pollutant Emissions						
	ROG	NOx	CO	PM_{10}		$PM_{2.5}$	
				Dust	Exhaust	Dust	Exhaust
Operational Emissions in Year 2030 (Tons per Year)							
Area Sources	4.7	<0.1	8.0	0.0	<0.1	0.0	<0.1
Energy Sources	<0.1	0.4	0.2	0.0	<0.1	0.0	<0.1
Mobile Sources	2.0	2.1	15.1	4.6	<0.1	1.1	<0.1
Total[(A)]	6.8	2.7	23.3	4.6	0.1	1.1	0.1
BAAQMD CEQA Threshold	10	10	--	None	15	None	10
Threshold Exceeded?	No	No	No[(B)]	N/A	No	N/A	No
Operational Emissions in Year 2030 (Average Pounds per Day)							
Area Sources	25.8	0.7	43.8	0.0	0.3	0.0	0.3
Energy Sources	0.3	2.3	1.0	0.0	0.2	0.0	0.2
Mobile Sources	11.0	11.7	83.0	25.2	0.2	6.3	0.1
Total[(A)]	37.1	14.8	127.8	25.2	0.6	6.3	0.6
BAAQMD CEQA Threshold	54	54	--	None	82	None	54
Threshold Exceeded?	No	No	No[(B)]	N/A	No	N/A	No

Source: MIG 2021, see Appendix 25.2.
(A) Totals may not equal due to rounding.
(B) The BAAQMD CO significance thresholds are based on ambient air quality standards (see Table 5-2). According to the BAAQMD screening criteria, a project does not result in significant CO impacts if it would be consistent with the congestion management program and not increase traffic volumes to 44,000 vehicles per hour at impacted intersections. This impact is assessed in Impact 5-6.

As shown in Table 5-19, the proposed Greystar Project's long-term operational emissions would not exceed the BAAQMD thresholds of significance for operational criteria air pollutant emissions. As such, the Greystar Project's operational emissions, on a project-level, would be less than significant.

Conclusion

On a project-level, the proposed Greystar Project would not result in significant air quality impacts during construction activities after the implementation of Mitigation Measure 5-4A and Mitigation Measure 5-4B, and its operational emissions would be less than significant without mitigation. The Greystar Project would still be required to implement Mitigation Measures 5-3C and 5-3D, which address impacts for implementation of the entire Freedom Circle Focus Area Plan. The implementation of Mitigation Measures 5-3C and 5-3D for the Greystar Project would further reduce the area and mobile source emissions estimates presented in Table 5-19.

Mitigation Measure 5-4A: See Mitigation Measure 5-3A.

Mitigation Measure 5-4B: Use Low- and Super Compliant VOC Architectural Coatings During Construction. During construction, the City shall require the Greystar Project use architectural coatings for exterior applications that meet "Low-VOC" or "Super-Compliant" standards, as defined in South Coast Air Quality Management District AQMD Rule 1113. "Super-Compliant" refers to paints that have been reformulated to levels well below the "Low-VOC" limits. This impact would be ***less than significant with mitigation incorporated.***

Impact 5-5: Generate Toxic Air Contaminant Emissions that Expose Sensitive Receptors to Substantial Pollutant Concentrations During Construction – Freedom Circle Focus Area Plan. Implementation of the Freedom Circle Focus Area Plan would result in construction activities over the next approximately 20 years that generate toxic air contaminant emissions and could expose sensitive receptors to substantial pollutant concentrations. These activities represent a ***potentially significant impact*** (see criterion [c] in subsection 5.3.1, "Significance Criteria," above).

As discussed under Impact 5-3, the adoption of the proposed Focus Area Plan would not directly result in construction of any development or infrastructure; however, future development supported by the Focus Area Plan would result in short-term construction-related emissions. Some of these construction emissions would be TACs, which could have an adverse effect on receptors who are exposed to them. Specifically, heavy-duty off-road construction equipment, as well as haul trucks for any soil import / export, would generate exhaust $PM_{2.5}$, with a portion of the exhaust $PM_{2.5}$ consisting of DPM, a TAC.

Although specific details regarding project development within the Plan Area are not known at this time, it is plausible that construction TAC emissions associated with one or more projects developed under implementation of the proposed Focus Area Plan could have the potential to expose sensitive receptors to substantial pollutant concentrations.[16] For example, depending on the specific project and the way in which development unfolds within the Plan Area, project construction could also expose sensitive receptors to substantial pollutant concentrations of DPM, which could exceed the BAAQMD's cancer and non-cancer thresholds of significance of 10 in a million and 1.0 Hazard Index, respectively (see Table 5-10).

Based on the preceding discussion and analysis, implementation of the proposed Freedom Circle Focus Area Plan could have a ***potentially significant impact*** with regard to construction TAC emissions that would be generated during construction, which requires mitigation.

[16]Although this construction analysis primarily focuses on TAC emissions, criteria air pollutant emissions generated during construction activities (e.g., CO, O_3 ,etc.) have the potential to cause adverse health effect; however, as described under Impact 5-6, it would be speculative to transform criteria air pollutant emissions into corresponding health effects because, among other reasons, it takes a large quantity of emissions to have an appreciable effect on measured pollutant concentrations and associated adverse health risks. For the same reasons discussed under Impact 5-6, criteria air pollutant emissions generated during construction activities would not expose sensitive receptors to substantial pollutant concentrations.

Accordingly, the City would implement Mitigation Measure 5-5 to address equipment exhaust emissions.

Mitigation Measure 5-5 would require the preparation of a project-specific air quality assessment to evaluate potential TAC construction emissions associated with the development project. Although future development projects would be required to implement Mitigation Measure 5-5, it cannot be definitively known or stated at this time that all development projects occurring under implementation of the Focus Area Plan would be able to reduce potential TAC emissions to levels that are below BAAQMD thresholds. For example, future development projects upwind of the Greystar Project site (i.e., to the west / northwest; see Figure 5-1) would generate emissions that could adversely affect the new receptors and exceed applicable BAAQMD thresholds of significance. Therefore, despite the implementation of Mitigation Measure 5-5, TAC construction emissions associated with the proposed Freedom Circle Focus Area Plan could result in significant adverse health risks at receptor locations. This impact would be significant and unavoidable.

Mitigation Measure 5-5: See Mitigation Measure 5-3B.

Even with implementation of these measures, this impact would remain ***significant and unavoidable*** (see criterion [c] in subsection 5.3.1, "Significance Criteria," above).

Impact 5-6: Expose Sensitive Receptors to Substantial Operational Pollutant Concentrations – Freedom Circle Focus Area Plan. Implementation of the proposed Focus Area Plan would not expose sensitive receptors to substantial operational pollutant concentrations of toxic air contaminants nor criteria air pollutants. This impact would be less than significant.

Operational Toxic Air Contaminant Emissions

The land uses envisioned under implementation the Freedom Circle Focus Area Plan would not include sources of TAC emissions such that significant exposures could occur. This impact would be less than significant, because the Focus Area Plan does not propose land uses that support large stationary sources, nor do they support the types of mobile sources that generate large amounts of TACs. Proposed land uses may include commercial-grade diesel generator or natural gas-fueled boilers that would require permitting by BAAQMD. These types of sources of air pollution would operate within accordance of BAAQMD rules and regulations and not cause significant exposure for on- or off-site sensitive receptors pursuant to BAAQMD permitting requirements. Furthermore, as described under “Receptor Exposure to Criteria Air Pollutants” there is uncertainty regarding where these sources of TACs and $PM_{2.5}$ emissions would occur and, therefore, where potential health risk increases could occur. Regardless of future source locations, the operational TACs emitted by projects facilitated under implementation of the Focus Area Plan would not exacerbate existing health risks at or in proximity of the Plan Area, since the Focus Area Plan does not propose large stationary sources that would emit these pollutants in substantial concentrations (e.g., industrial sources). Rather, the land uses proposed under the Focus Area Plan generally consist of residential, commercial, retail, and community serving land uses that typically generate most emissions from mobile sources, which are transient in nature and would disperse in accordance with vehicle travel (most of which would occur outside of the Plan Area) and prevailing meteorological conditions at the time of

release (e.g., wind, rain, etc.). Furthermore, the vast majority of the mobile sources associated with the Focus Area Plan land uses would be gasoline powered (attribute to passenger vehicles). The mobile sources would not consist of diesel-powered trucks, which are correlated to the movement of materials associated with industrial and warehousing operations and produce DPM emissions, the most common source of TAC emissions and corresponding health effects associated with mobile source operation. The proposed Focus Area Plan does not propose land uses that would generate substantial, operational TAC emissions. This impact would be less than significant.

Receptor Exposure to Criteria Air Pollutants

In addition to criteria air pollutant emissions on a regional scale and TAC emissions on a local scale, receptor exposure to elevated concentrations of criteria air pollutants (e.g., CO, O_3, and PM) is capable of causing adverse health effects on heart, lung, and other organ systems. As described under Impact 5-3, the proposed Focus Area Plan would generate cumulatively considerable operational criteria air pollutant emissions for which the region is designated nonattainment; however, these operational criteria air pollutant emissions would not expose receptors to substantial operational pollutant concentrations, as described below.

In the amicus brief filed by the SCAQMD on the California Supreme Court's decision in *Sierra Club versus County of Fresno*, the SCAQMD noted that, "[it] takes a large amount of additional precursor emissions [e.g., NOx] to cause a modeled increase in ambient ozone levels… a project emitting only 10 tons per year of NOx or VOC is small enough that its regional impact on ambient ozone levels may not be detected in the regional air quality models used to determine ozone levels…" (SCAQMD 2015). Although this information was submitted by the SCAQMD, it would generally apply to the SFBAAB as well since both the South Coast Air Basin and the SFBAAB are designated as nonattainment areas for state and national ozone standards (the South Coast Air Basin is designated as severe non-attainment, while the SFBAAB is designated as marginal non-attainment) (EPA 2020). Although implementation of the proposed Focus Area Plan would increase criteria air pollutant emissions within the SFBAAB (see Table 5-16), any analysis linking potential adverse health risks to corresponding pollutant concentrations would be speculative for several reasons.

First, to estimate potential adverse health effects from regional emissions, it is necessary to have information on the sources of the ozone and PM emissions, such as the location of emission points, velocity of emissions, the meteorology and topography of the area, and the location of receptors exposed to the emissions (SCAQMD 2015). While the general nature of the emissions sources occurring with implementation of the Focus Area Plan is known (i.e., area source, energy source, mobile source), the specific location of these sources within the Plan Area is not known, nor is other information, including source emission rate, exit velocity, operating characteristics (e.g., daytime or nighttime, seasonal or steady-state), etc.

Second, the majority of operational NOx and PM emissions would be attributable to mobile sources (i.e., vehicle trips) that would potentially travel on numerous local and regional roadways throughout the Plan Area and beyond that would be subject to varying meteorological and topographical influences (see Table 5-16). These emissions would be subject to small scale air patterns, such as those formed as wind passes between buildings and other anthropogenic features (e.g., cars), creating eddies and other turbulence that affect pollutant transport.

Third, as mentioned previously, the SCAQMD has stated (SCAQMD 2015, pgs. 10-11):

> *"For the so-called criteria pollutants, such as ozone, it may be more difficult to quantify health impacts . . . It takes time and the influence of meteorological conditions for these reactions to occur, so ozone may be formed at a distance downwind from the sources . . . Scientifically, health effects from ozone are correlated with increases in the ambient level of ozone in the air a person breathes . . . However, it takes a large amount of additional precursor emissions to cause a modeled increase in ambient ozone levels over an entire region. For example, the SCAQMD's 2012 AQMP* [Air Quality Management Plan] *showed that reducing NOx by 432 tons per day (157,680 tons/year) and reducing VOC by 187 tons per day (68,255 tons/year) would reduce ozone levels at the SCAQMD's monitor site with the highest levels by only 9 parts per billion. SCAQMD staff does not currently know of a way to accurately quantify ozone-related health impacts caused by NO_X or VOC emissions from relatively small projects."*

The proposed Focus Area Plan would not generate emissions anywhere near the levels cited by the SCAQMD in its amicus brief on the California Supreme Court's decision in *Sierra Club versus County of Fresno* (i.e., 432 tons per day of NOx and 187 tons per day of VOC).

Finally, adverse health effects associated with receptor exposure to criteria air pollutant concentrations is cumulative in nature. In other words, any potential health effects associated with Focus Area Plan operational emissions would also need to be considered in light of background pollutant emissions. As discussed previously in this EIR chapter, there are many efforts being undertaken at the state and regional level to reduce criteria air pollutant emissions from stationary and mobile sources. These actions are anticipated to reduce pollutant concentrations throughout the region over the next few decades. Therefore, even if the proposed Focus Area Plan does increase emissions in the Bay Area, criteria air pollutant concentrations in the region could still be lower in the future than they are currently due to the advancement of cleaner technologies.

As described above, it would be speculative to transform the mass increase in ROG, NO_X, and PM emissions that could occur with implementation of the proposed Focus Area Plan into quantifiable health risks for several specific reasons, including the uncertain location of emission points, velocity of emissions, the meteorology and topography of the area (which could affect the transport rate and photochemical reactions needed to produce ozone), background criteria air pollutant emissions in the future, and the location of receptors in relation to emission sources. However, given that the Focus Area Plan's operational emissions are far less than that modeled by the SCAQMD for its 2012 AQMP, which showed a relatively minor increase in criteria air pollutant concentrations for a large mass amount of emissions, mass operational emissions associated with implementation of the Focus Area Plan would not substantially alter criteria air pollutant concentrations within the SFBAAB.

Furthermore, the majority of emissions generated within the Plan Area by the land uses proposed in the Focus Area Plan would come from gasoline-powered mobile sources, which are transient in nature and would generate the majority of emissions off-site. The Focus Area Plan does not propose land uses that would generate substantial criteria air pollutants from stationary sources that require permitting by the BAAQMD, such as those associated with industrial operations. Aside from mobile source emissions, which are anticipated to become cleaner over time due to actions taken at the state and federal level, the next largest sources of criteria air pollutant emissions are anticipated to come from the use of consumer products and landscaping equipment. Neither of these sources would be used at the frequency nor magnitude required to

result in criteria air pollutant emissions that would be harmful to one's health. Therefore, implementation of the proposed Focus Area Plan would not exacerbate or contribute to significant health risks at or in proximity of the Plan Area, nor would it increase the number of state or national ambient air quality standard exceedances (as shown in Table 5-3). This impact would be less than significant.

Carbon Monoxide Emissions

As shown in Table 5-16, implementation of the proposed Focus Area Plan is estimated to increase CO emissions by approximately 679.9 pounds per day, when compared to what the existing land uses in the Plan Area could generate in 2040. The BAAQMD developed a screening-level analysis for CO hotspots in 2010 which finds that projects that are consistent with the applicable congestion management program, and that do not cause traffic volumes at affected intersections to increase to more than 44,000 vehicles per hour, would not result in a CO hotspot that could exceed State or Federal air quality standards (BAAQMD 2017a, pg. 3-4). Based on the Transportation Analysis prepared for the project (see Appendix 25.2), the maximum number of vehicles moving through any study intersection in a given hour in proximity of the Plan Area under the Focus Area Plan's 2040 cumulative growth conditions would be approximately 12,361 vehicles through the intersection of Great America Parkway and Mission College Boulevard during the PM peak hour (Hexagon 2021b). This is approximately one fourth of the BAAQMD's threshold of 44,000 vehicles per hour. Therefore, the Focus Area Plan would not cause or significantly contribute to CO concentrations that exceed State or Federal ambient air quality standards for CO. This impact would be less than significant.

Disclosure of Potential Existing Health Risks for New Residential Receptors in Plan Area

Per the recent ruling by the California Supreme Court in *California Building Industry Association v. Bay Area Air Quality Management District*, 62 Cal.4th 369 (2015), projects are not required to analyze how existing conditions might impact a project's future users or residents; however, the City's General Plan includes Policy 5.10.10-P34 requires, "projects to implement minimum setbacks of 500 feet from roadways with average daily trips of 100,000 or more and 100 feet from railroad tracks for new residential or other uses with sensitive receptors, unless a project-specific study identifies measures, such as site design, tiered landscaping, air filtration systems, and window design, to reduce exposure, demonstrating that the potential risks can be reduced to acceptable levels" (City of Santa Clara 2010). Therefore, the following is not an impact discussion under CEQA, but rather a consistency analysis with General Plan Policy 5.10.10-P34.

The proposed Focus Area Plan only has one location that proposes residential land uses within 500 feet of roadways with average daily trips of 100,000 or more, and that location consists of the Greystar General Plan Amendment / Project. Nonetheless, health risk estimates have also been provided for the other property where residential development is preliminarily planned for: the Irvine Property at 3900-3990 Freedom Circle and 2518-2650 Mission College Blvd. As described in Section 5.1.4.1, cancerogenic health risks within the Plan Area generally range from approximately 38 to 58 excess cancer risk per million population, which is in excess of the commonly applied BAAQMD threshold of significance of 10 excess cancer risks per million. Common building standards and practices include heating, ventilation, and air conditioning systems that are capable of removing the particulates that contribute to adverse health effects. Future projects offering under implementation of the proposed Freedom Circle Area Focus Plan would be required to evaluate consistency with General Plan Policy 5.10.5-P34 and, if

necessary, prepare a project site-specific analysis to evaluate potential adverse health risks posed by existing sources in proximity of the project site. Please see Impact 5-7 for the project-specific study that assesses potential health risks for receptors at the Greystar Project site.

Mitigation 5-6. No significant impact has been identified; no mitigation is required (see criterion [c] in subsection 5.3.1, "Significance Criteria," above).

Impact 5-7: Expose Sensitive Receptors to Substantial Pollutant Concentrations – Greystar General Plan Amendment. Implementation of the proposed Greystar General Plan Amendment / Project would not expose sensitive receptors to substantial pollutant concentrations of toxic air contaminants or criteria air pollutants during its construction or operation. This impact would be less than significant.

Construction Emissions

Criteria pollutants and $PM_{2.5}$ would be emitted from construction activities associated with development of the Greystar Project, including DPM emitted from the exhaust of construction equipment. DPM is a TAC, and high concentrations have potentially significant health risks. Equipment with diesel engines would be used during all phases of the proposed project (e.g., clearing and grubbing, mass excavation, structural work, etc.). Construction would also require the use of haul trucks during mass excavation, and vendor deliveries throughout Project construction. Although these on- and off-site source of emissions from equipment/vehicle operation would emit DPM, the resulting emissions would not result in substantial pollutant concentrations at receptor locations for several reasons.

First, the Plan Area is not located adjacent to any sensitive receptor locations. The nearest sensitive receptors are located at the Santa Clara Square Apartments, approximately 770 feet southwest of the Plan Area's southern boundary, across U.S. 101. The majority of construction activities at the Greystar Project site would take place 1,200 feet or more from these receptors, giving pollutants ample time and space to disperse, thereby lowing exhaust concentrations.

Second, as shown in Figure 5-1, the prevailing wind within the Plan Area is from the north/northwest. Given that the Plan Area is located slightly northeast of the Santa Clara Square Apartments, pollutants emitted during construction of the Greystar Project would disperse to the east of the Santa Clara Square Apartments, toward commercial land uses that are not sensitive.

Third, as discussed under Impact 5-4, the off-road heavy-duty equipment used to construct the Greystar Project would consist of a blend of engines that meet U.S. EPA Tier III and Tier IV emission standards. The Tier IV emission standards, specifically, are designed to reduce PM emissions by approximately 90 percent, compared to baseline levels (i.e., older engine standards) (U.S. EPA 2004). Engines meeting these standards not only reduce PM (and DPM) but also NOx as well.

Finally, in developing its significance thresholds for criteria air pollutant emissions the BAAQMD considered the level at which a project's emissions would result in a considerable contribution to the SFBAAB's air quality attainment conditions (BAAQMD 2017a). In developing the CAAQS and NAAQS, the U.S. EPA and CARB considered scientific evidence linking exposure to air pollutants to health risks, such as the potential to exacerbate asthma symptoms. Although each individual's health characteristics, environment, and pre-disposition to adverse respiratory health effects is different, compliance with the CAAQS and NAAQS, as well as health risk

thresholds, is intended to protect the most sensitive individuals. Thus, by association, consistency with the BAAQMD's criteria air pollutant thresholds would mean the project is complying with NAAQS and CAAQS and would not cause adverse health effects from criteria air pollutant exposure.

For the reasons described above, the proposed Greystar Project would not expose receptors to substantial pollutant concentrations during construction.

Operational Emissions

The Greystar Project also does not propose any large, industrial sources of air pollutants that would require permitting from the BAAQMD. Therefore, from an operational standpoint, the Greystar Project would not expose receptors to substantial pollutant concentrations, either.

See also the relevant discussion in Impact 5-6, which would relate to the Greystar project as well. This impact would be less than significant.

Disclosure of Potential Existing Health Risks at the Greystar Project Site

As described under Impact 5-6, the City's General Plan contains Policy 5.10.5-P34, which requires, "projects to implement minimum setbacks of 500 feet from roadways with average daily trips of 100,000 or more and 100 feet from railroad tracks for new residential or other uses with sensitive receptors, unless a project-specific study identifies measures, such as site design, tiered landscaping, air filtration systems, and window design, to reduce exposure, demonstrating that the potential risks can be reduced to acceptable levels" (City of Santa Clara 2010). The Greystar Project site is located adjacent to the U.S. 101 Freeway, and would place sensitive receptors within 500 feet of a roadway (i.e., the freeway) that has an average daily traffic volume of 100,000 or more. The following analysis constitutes the project-specific study required by General Plan Policy 5.10.5-P34 that identifies how site design and project features would reduce potential risks to acceptable levels. Per the recent ruling by the California Supreme Court in *California Building Industry Association v. Bay Area Air Quality Management District*, 62 Cal.4th 369 (2015), the following is not an impact discussion under CEQA, but rather a consistency analysis with General Plan Policy 5.10.5-P34.

Health Risks Related to Exposure to Emissions from U.S. 101, Major Streets, and Railroads

Once operational, the Greystar Project would locate new, residential receptors within 500 feet of U.S. 101, a local source of DPM and TAC emissions. Truck traffic along major roadways in the vicinity of the Project site (e.g., Great America Parkway) and train operation in the greater Santa Clara region (e.g., along Tasman Drive, north of the site) also contribute to background DPM and TAC concentrations at the Greystar Project site.

As discussed in Section 5.1.4.1, risk data was obtained from the BAAQMD to evaluate potential adverse health risks at receptor locations within the Greystar Project site area. Risks ranged from 43.6 cancer risk per million people in the northwestern portion of the Project site, to 118.7 cancer risk per million people in the southwestern portion of the Project site, with the overwhelming majority of risk being posed by emissions from Highway 101 (as opposed to major streets or railroads, which contribute to risks, but far less than the freeway does). These cancerogenic risk values are above the BAAQMD recommended cancer risk thresholds (10 cases of cancer per a population of one million) by a factor of approximately 4 to 12. Therefore, unless controlled, these DPM concentrations could have an adverse effect on sensitive receptors proposed by the Greystar Project. It is important to note, however, that the above

estimates are conservative and are likely to overestimate potential risks for the following reasons:

1. Per the guidance contained in the OEHHA document used by the BAAQMD to estimate potential health effects from receptor exposure to DPM concentrations, the lifetime exposure for a sensitive receptor is assumed to begin in the 3rd trimester (i.e., in the womb). It is also assumed that sensitive receptors would then continue to be exposed through the infant stage and into early childhood. Risks to adult receptors (receptors older than 16 at the time of initial exposure) would be much lower – approximately 80% lower and less than the BAAQMD carcinogenic risk threshold for the northernmost residential receptors (R-1 and R-2, see Figure 5-3).
2. The health risk estimates are based on near continuous exterior exposure; it does not account for much receptor travel to off-site locations. If the receptor is not present at the site, it would not be exposed to DPM concentrations and experience the corresponding adverse health effects.
3. The health risk estimates provided by the BAAQMD are based on activities occurring in the year 2017, approximately a decade before residential receptors would first be present at the site. CARB is currently undertaking major efforts through implementation of its Mobile Source Strategy to reduce exhaust emissions from trucks and trains. The use of cleaner burning trucks / zero emission trucks along U.S. 101 during the time period in which receptors would be present at the Greystar Project site would ultimately decrease DPM concentrations and corresponding health risks. Based on annual emission estimates contained in EMFAC2021 (a newer version of EMFAC than that used by the BAAQMD in its risk estimates), annual diesel emissions from on-road vehicles could decrease by up to 80% from 2017 to 2030.[17] Assuming traffic volumes stay approximately constant between 2017 and 2030, and similar reductions are achieved in the freight (e.g., railroad) sector, worst-case lifetime risks at the site would decrease from approximately 118.7 to 23.8 cancer risks per million (assuming continuous receptor exposure to DPM emissions in 2030, which would continue to decrease in subsequent years).
4. The health risk estimates do not take into account any reductions in PM that would be achieved by mechanically supplied air systems. Specifically, the 2019 amendments made to the California Building Standards Code require high-rise[18] multifamily dwellings to use HVAC systems and filters with a Minimum Efficiency Rating Value (MERV) of 13. This would be a requirement for all buildings proposed by the Greystar Project. MERV-13 filters can remove up to 85% of $PM_{2.5}$, which would result in a corresponding reduction in exposure to $PM_{2.5}$ and associated adverse health risks by 85%.[19]

Based on the preceding analysis, it is reasonable to assume receptors at the Greystar Site would not be exposed to pollutant concentrations that would adversely affect their health. Worst-case, lifetime, exterior cancerogenic health risks at the Greystar Project site in 2030 are

[17]This estimate is based on overall $PM_{2.5}$ exhaust from on-road vehicles operating in the in the Santa Clara sub-region of the SFBAAB, as accounted for in EMFAC2021.

[18]A high-rise building is defined by the California Building Code as any building used for human occupancy greater than 55 feet above the lowest level of Fire Department vehicle access. For the purposes of compliance with prescriptive indoor air quality requirements, the building energy efficiency standards consider a high rise residential building to be any building with four or more habitable stories.

[19]2019 Title 24 Building Code, Part 6, Subchapter 3, Section 120.1(b)(1)(C).

anticipated to be approximately 23.8 cancer risks per million; however, after the exterior air is passed through the building's HVAC system and MERV-13 filter, these risks would be reduced to approximately 3.6, which is below the BAAQMD recommended cancer risk threshold of 10 cases of cancer per million population. The placement of new residential receptors at the Greystar Project site would not expose those receptors to unacceptable health risks.

Mitigation 5-7. No significant impact has been identified; no mitigation is required (see criterion [c] in subsection 5.3.1, "Significance Criteria," above).

Impact 5-8: Odors – Freedom Circle Focus Area Plan. According to the BAAQMD's CEQA Air Quality Guidelines land uses associated with odor complaints include agricultural operations, wastewater treatment plants, landfills, and certain industrial operations (such as manufacturing uses that produce chemicals, paper, etc.). Future development under the Freedom Circle Focus Area Plan would result in new residential, retail, commercial, office, and other community serving land uses. It would not permit the land uses identified in the BAAQMD's CEQA Air Quality Guidelines identified as generating odor. No impact would occur.

Mitigation 5-8. No significant impact has been identified; no mitigation is required (see criterion [d] in subsection 5.3.1, "Significance Criteria," above).

Impact 5-9: Odors – Greystar General Plan Amendment. According to the BAAQMD's CEQA Air Quality Guidelines land uses associated with odor complaints include agricultural operations, wastewater treatment plants, landfills, and certain industrial operations (such as manufacturing uses that produce chemicals, paper, etc.). The Greystar General Plan Amendment / Project would result in the development of new residential, retail, and community serving land uses. It would not permit the land uses identified in the BAAQMD's CEQA Air Quality Guidelines identified as generating odor. No impact would occur.

Mitigation 5-9. No significant impact has been identified; no mitigation is required (see criterion [d] in subsection 5.3.1, "Significance Criteria," above).

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List of Acronyms, Abbreviations, and Symbols	
Acronym / Abbreviation	**Full Phrase or Description**
AB	Assembly Bill
AQMP	Air Quality Management Plan
BAAQMD	Bay Area Air Quality Management District
BACT	Best Available Control Technology
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CAFE	Corporate Average Fuel Economy
CalEEMod	California Emissions Estimator Model
CARB	California Air Resources Board
CEQA	California Environmental Quality Act
CO	Carbon monoxide
CO_2	Carbon dioxide
DPM	Diesel particulate matter
EIR	Environmental Impact Report
GVWR	Gross vehicle weight rating
H_2S	Hydrogen sulfide
HAP	Hazardous Air Pollutants

List of Acronyms, Abbreviations, and Symbols	
Acronym / Abbreviation	**Full Phrase or Description**
lbs	Pounds
m/s	Meters per second
Mph	Miles per hour
MY	Model Year
NAAQS	National Ambient Air Quality Standards
NHTSA	National Highway Traffic Safety Administration
NO	Nitrogen oxide
NO_2	Nitrogen dioxide
NO_x	Oxides of nitrogen
O_3	Ozone
OEHHA	Office of Environmental Health Hazard Assessment
PM	Particulate matter
ppb	Parts per billion
ppm	Parts per million
$PM_{2.5}$	Fine particulate matter
PM_{10}	Coarse particulate matter
ROG	Reactive organic gases
RTP	Regional Transportation Plan
SAFE Vehicles Rule	Safe Affordable Fuel-Efficient Vehicle Rule
SB	Senate Bill
SCAQMD	South Coast Air Quality Management District
SCS	Sustainable Communities Strategy
SFBAAB	San Francisco Bay Area Air Basin
SIP	State Implementation Plan
SO_2	Sulfur dioxide
SO_4^{2-}	Sulfates
SO_x	Oxides of sulfur
TA	Traffic Analysis
TAC	Toxic Air Contaminants
TDM	Travel Demand Management
TIA	Traffic Impact Analysis
U.S.	United States
U.S. EPA	United States Environmental Protection Agency
VMT	Vehicle Miles Traveled
VOC	Volatile organic compounds
ZEV	Zero Emission Vehicle
$\mu g / m^3$	Micrograms per cubic meter
%	Percent
°F	Degrees Fahrenheit

6. BIOLOGICAL RESOURCES

This EIR chapter describes biological resource describes the potential impacts on biological resources caused by the proposed project. The chapter addresses the specific biological resource concerns identified by the CEQA Guidelines--i.e., would development under the proposed Plan and Plan Amendment have substantial adverse effects on special-status species, sensitive natural habitat, protected wetlands, or wildlife or fish movement, or would it conflict with adopted policies or plans for protecting biological resources.[1]

In this chapter, the term "project area," as used in the biological resource nomenclature, is synonymous with the Freedom Circle Focus Area Plan area. Due to the general lack of biological resources in the project area, the evaluation in this chapter applies to both the Focus Area Plan Area and the individual Greystar project site (together, "project"), unless a particular distinction needs to be made for impact/mitigation purposes.

6.1 METHODS AND SETTING

The project area is a heavily urbanized area developed with office buildings, restaurants, and associated pavement (e.g., roads, driveways, parking) and introduced landscaping (e.g., grasses, shrubs, trees). The Greystar site is approximately 13.3 acres of undeveloped land. However, there is little habitat value for biological resources as the site is regularly disked. During the site visit on December 12, 2020, vegetation was overwhelmingly absent and/or in the dieback stage. No small mammal burrows were observed. The entirety of the other property within the Freedom Circle Focus Area Plan outside the Greystar site is developed.

(a) Existing Vegetation. Trees and shrubs in the project area are primarily urban landscaping and nonnative vegetation, do not include special-status plant species, and only provide minor value to wildlife. Due to the developed urban setting, this landscaping and other nonnative vegetation does not represent significant resources for native wildlife species.

Disturbed or ruderal lands often lack habitat characteristics suitable for special-status species. Small lawn areas and planting strips (non-native grassland) make up most of the larger vegetated areas in the project area, but they are fragmented and of a small scale, which provides low-quality habitat to wildlife. The Greystar site is currently undeveloped; however, it is regularly disked and had no visible small mammal burrows on the December 12, 2020 site visit—and therefore provides very little habitat value for raptor or other carnivore (i.e. coyote, fox) foraging and does not provide aestivation and/or cover to reptile or amphibian species. Vegetation on the Greystar site only provides very minimal nesting habitat for ground-nesting bird species and is highly unlikely to be utilized due to the heavy human use of the surrounding areas.

[1]CEQA Guidelines, appendix G, item IV (a through f).

There is no riparian habitat in the project area. While San Tomas Aquino Creek flows parallel to the eastern border of the Greystar site, it is separated by a raised levee with a paved biking/pedestrian trail at the top.

(b) Santa Clara Valley Habitat Plan. The Santa Clara Valley Habitat Plan was adopted to protect biological resources and enhance ecological diversity and function in the greater portion of Santa Clara County, while allowing appropriate and compatible growth and development. The City of Santa Clara is not a plan participant, and the Greystar General Plan Amendment Area is approximately 1.3 miles to the west (outside) of the Habitat Plan permit area at its nearest point.

(c) Database Reviews. The following databases were reviewed to collect special-status species data for the project area and general vicinity:

- The California Department of Fish and Wildlife's (CDFW) Natural Diversity Database's (CNDDB) records for the United States Geological Survey (USGS) 7.5-minute quadrangle containing the project area and the eight (8) surrounding quadrangles (Newark, Niles, La Costa Valley, Mountain View, Milpitas, Calaveras Reservoir, Cupertino, San Jose West, and San Jose East),[2]

- United States Fish and Wildlife Service (USFWS) Information for Planning and Conservation (IPaC) database,[3]

- USFWS National Wetland Inventory (NWI), and

- California Native Plant Society (CNPS) Rare Plant Inventory records for the United States Geological Survey (USGS) 7.5-minute quadrangle containing the project area and the eight (8) surrounding quadrangles (Newark, Niles, La Costa Valley, Mountain View, Milpitas, Calaveras Reservoir, Cupertino, San Jose West, and San Jose East).[4]

MIG biologists conducted a desktop analysis of the project area and surrounding area to determine if habitat suitable to support special-status species is present. For the purposes of this assessment, special-status species include those plants and wildlife listed, proposed for listing, or candidates for listing as threatened or endangered by the USFWS or National Oceanic and Atmospheric Administration (NOAA) Fisheries under the Federal Endangered Species Act (FESA), those listed or proposed for listing as rare, threatened, endangered, or candidates for listing by the CDFW under the California Endangered Species Act (CESA), animals designated as California Fully Protected (CFP) species or California Species of Special Concern (CSSC) by the CDFW, birds protected by the USFWS under the Migratory Bird Treaty Act (MTBA), by the CDFW under Fish and Game Code sections 3503 and 3513, and/or by the California Migratory Bird Protection Act (MBPA), nongame mammals protected by CDFW under Fish and Game Code section 4150, and plants listed as Rank 1A, 1B, 2, 3 and 4 of the CNPS Inventory. (See "Regulatory Setting" below.)

[2]Search conducted October 2020.

[3]Search conducted October 2020.

[4]Search conducted October 2020.

The potential occurrence of special-status plant and wildlife species in the project area was initially evaluated by developing a list of special-status species that are known to, or have the potential to, occur in the vicinity of the project area based on a 9-quad search of current database records (e.g., CNDDB and CNPS Electronic Inventory records) and review of the USFWS list of federal endangered and threatened species (i.e., IPaC). The potential for occurrence of those species included on the 9-quad list was then evaluated based on the habitat requirements of each species relative to the habitat within the project area. In the case of no documented occurrences within 5 miles of the project area, if there is clearly no suitable habitat present, and if the project area is clearly outside of the expected range of the species, these species were eliminated from consideration and are not discussed further in this EIR. Due to the highly urbanized nature of the project area, no species had more than a low potential to occur, and the vast majority are not expected to occur within the project area. Based on ground-truthing, all species were evaluated for their potential to occur on, or in the immediate vicinity of, the project area according to the following criteria:

- **Not Expected:** CNDDB or other documents do not record the occurrence of the species within or reasonably near the project area and within the last 10 years, and/or no components of suitable habitat are present within or adjacent to the project area.

- **Low Potential:** The CNDDB or other documents may or may not record the occurrence of the species within a 5-mile radius of the project area. However, few components of suitable habitat are present within or adjacent to the project area.

- **Moderate Potential:** Species does not meet all terms of High or Low category. For example: CNDDB or other reputable documents may record the occurrence of the species near but beyond a 5-mile radius of the project area, or some of the components representing suitable habitat are present within or adjacent to the project area, but the habitat is substantially degraded or fragmented.

- **High Potential:** The CNDDB or other reputable documents record the occurrence of the species off-site, but within a 5-mile radius of the project area and within the last 10 years. All or most of the components representing suitable habitat are present within the project area.

- **Present or Assumed Present:** Species was observed on the project area, or recent species records (within five years) from literature are known within the project area.

The list of special-status wildlife and plants that have the potential to occur in or near the project area, their habitat requirements, and a ranking of potential for occurrence in the project area are included in Tables 6-1 and 6-2, at the end of this chapter.

While a site visit was conducted on December 12, 2020, site conditions may change, and protocol-level species surveys were not conducted. Determinations of species potential to occur within the project area are based on past evidence and knowledge of natural resources within the geographic region but are not final and may alter with time and/or changing patterns of site use.

6.2 REGULATORY SETTING

Biological resources in California are managed and protected by several state and federal agencies, including the California Department of Fish and Wildlife (CDFW), the United States Fish and Wildlife Service (USFWS), NOAA Fisheries, and the Regional Water Quality Control Board. These agencies have jurisdiction under several laws and regulations, as explained below.

6.2.1 Federal

Federal Endangered Species Act. The Federal Endangered Species Act of 1973 (as updated in 50 CFR 17.11 and 17.12, January 1992) (FESA) protects plants and wildlife that are listed as endangered or threatened by the United States Fish and Wildlife Service (USFWS) and the NOAA Fisheries. Section 9 of the FESA prohibits the taking of endangered wildlife. Taking is defined as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in such conduct" (50 CFR 17.3). For plants, this statute pertains to removing, possessing, maliciously damaging, or destroying any endangered plant on federal land and removing, cutting, digging up, damaging, or destroying any endangered plant on non-federal land in knowing violation of state law (16 USC 1538).

Under Section 7 of the FESA, federal agencies are required to consult with the USFWS if their actions, including permit approvals or funding, could adversely affect an endangered species or its critical habitat. Through consultation and the issuance of a biological opinion, the USFWS may issue an incidental take statement allowing take of the species that is incidental to another authorized activity provided the action will not jeopardize the continued existence of the species. Consultation would be triggered if a particular project affects wetlands or waters of the U.S., requiring the United States Army Corps of Engineers (USACE) to issue a 404 permit. Section 10 of FESA provides for issuance of incidental take permits to private parties provided a habitat conservation plan is developed.

Migratory Bird Treaty Act. The U.S. Migratory Bird Treaty Act (MBTA; 16 USC §§ 703 et seq., Title 50 Code of Federal Regulations [CFR] Part 10) states it is "unlawful at any time, by any means or in any manner, to pursue, hunt, take, capture, kill; attempt to take, capture or kill; possess, offer for sale, sell, offer to barter, barter, offer to purchase, purchase, deliver for shipment, ship, export, import, cause to be shipped, exported, or imported, deliver for transportation, transport or cause to be transported, carry or cause to be carried, or receive for shipment, transportation, carriage, or export any migratory bird, any part, nest, or egg of any such bird, or any product, whether or not manufactured, which consists, or is composed in whole or in part, of any such bird or any part, nest or egg thereof…" In short, under the MBTA it is illegal to disturb a nest that is in active use, since this could result in killing a bird, destroying a nest, or destroying an egg. The USFWS enforces MBTA. The MBTA does not protect birds that are non-native or human-introduced or that belong to families that are not covered by any of the conventions implemented by the MBTA.

In 2017, the USFWS issued a memorandum stating that the MBTA does not prohibit incidental take; therefore, the MBTA is currently limited to purposeful actions, such as directly and knowingly removing a nest to construct a project, hunting, and poaching. However, California Fish and Game Code and California Migratory Bird Protection Act also protects nesting birds.

Federal Clean Water Act. The Clean Water Act's (CWA) purpose is to "restore and maintain the chemical, physical, and biological integrity of the nation's waters." Section 404 of the CWA

prohibits the discharge of dredged or fill material into “waters of the United States” without a permit from the U.S. Army Corps of Engineers (USACE). “Waters of the U.S.” include territorial seas, tidal waters, and non-tidal waters in addition to wetlands. Wetlands are defined as those areas “that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions” (33 CFR 328.3[b]). The discharge of dredged or fill material into waters of the U.S. is prohibited under the CWA except when in compliance with Section 404 of the CWA. Enforcement authority for Section 404 was given to the USACE, which it accomplishes under its regulatory branch. The United States Environmental Protection Agency (U.S. EPA) has veto authority over the USACE’s administration of the Section 404 program and may override a USACE decision with respect to permitting. Substantial impacts on wetlands may require an individual permit. projects that only minimally affect wetlands may meet the conditions of one of the existing Nationwide Permits. A Water Quality Certification or waiver pursuant to Section 401 of the CWA is required for Section 404 permit actions; this certification or waiver is issued by the Regional Water Quality Control Board (RWQCB).

6.2.2 State

California Endangered Species Act. The California Endangered Species Act of 1970 (CESA; Fish and Game Code 2050 et seq., and California Administrative Code Title 14, sections 670.2 and 670.51) generally parallels the main provisions of the federal ESA, but unlike its federal counterpart, the CESA applies the take prohibitions to species proposed for listing (called “candidates” by the state). CESA mandates that State agencies shall not approve projects that would jeopardize the continued existence of threatened or endangered species if reasonable and prudent alternatives are available that would avoid jeopardy. Section 2080 of the California Fish and Game Code prohibits the taking, possession, purchase, sale, and import or export of endangered, threatened, or candidate species, unless otherwise authorized by permit or in the regulations. "Take" is defined in section 86 of the Fish and Game Code as “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.” For projects that would affect a species that is on the federal and State lists, compliance with the federal ESA satisfies CESA if the California Department of Fish and Wildlife (CDFW) determines that the federal incidental take authorization is consistent with CESA under California Fish and Game Code Section 2080.1. For projects that would result in the take of a species that is only State-listed, the project proponent must apply for a take permit under Section 2081(b).

The CESA allows for take incidental to otherwise lawful development projects. State lead agencies are required to consult with the CDFW to ensure that any action they undertake is not likely to jeopardize the continued existence of any endangered or threatened species or result in destruction or adverse modification of essential habitat.

California Fish and Game Code. CDFW is authorized under the California Fish and Game Code, Sections 1600 et seq. to develop mitigation measures and enter into Streambed Alteration Agreements with applicants who propose projects that would obstruct the flow of, or alter the bed, channel, or bank of a river or stream in which there is a fish or wildlife resource, including intermittent and ephemeral streams. Often, projects that require a Streambed Alteration Agreement also require a permit from the USACE under section 404 of the Clean Water Act. In these instances, the conditions of the Section 404 permit and the Streambed Alteration Agreement may overlap.

Sections 3511, 4700, 5050, and 5515 address Fully Protected species. Prior to the passage of CESA, the classification of Fully Protected was the State's initial effort to identify and provide additional protection to those animals that were rare or faced possible extinction. Subsequently, many Fully Protected species have been listed under the State and/or federal endangered species acts. The only exceptions are golden eagle, white-tailed kite, trumpeter swan, northern elephant seal, and ringtail. Fully Protected species may not be taken or possessed at any time and no licenses or permits may be issued for their take except for collecting these species for necessary scientific research and relocation of the bird species for the protection of livestock.

Nesting birds, including raptors, are protected by the California Fish and Game Code Section 3503, which reads, "It is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto." In addition, under Fish and Game Code section 3503.5, "it is unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds-of-prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto". Passerines and non-passerine land birds are further protected under the federal Migratory Bird Treaty Act. As such, the CDFW typically recommends surveys for nesting birds that could potentially be directly (actual removal of trees/vegetation) or indirectly (noise disturbance) impacted by project-related activities. Disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered "taking" by the CDFW.

Fish & Game Code section 3513 states that Federal authorization of take or possession is no longer lawful under the state Fish & Game Code if the Federal rules or regulations are inconsistent with state law. The California Migratory Bird Protection Act (MBPA) was passed in September 2019 to provide a level of protection to migratory birds in California consistent with the U.S. MBTA prior to the 2017 rule change limiting protection of migratory birds under the U.S. MBTA to purposeful actions (i.e., directly and knowingly removing a nest to construct a project, hunting, and poaching). Thus, under the MBPA protections for migratory birds in California are consistent with rules and regulations adopted by the United States Secretary of the Interior under the U.S. MBTA before January 1, 2017, or those adopted subsequent to that date as long as they are consistent with the Fish and Game Code. The MBPA reverts to existing provisions of the U.S. MBTA on January 20, 2025.

California Fish and Game Code Section 4150 states, "All mammals occurring naturally in California which are not game mammals, fully protected mammals, or fur-bearing mammals, are nongame mammals. Nongame mammals or parts thereof may not be taken or possessed except as provided in this code or in accordance with regulations adopted by the commission." The non-game mammals that may be taken or possessed are primarily those that cause crop damage.

California Migratory Bird Protection Act. California Migratory Bird Protection Act. The California Fish and Game Code section 3513 states that Federal authorization of take or possession is no longer lawful under the state Fish and Game Code if the Federal rules or regulations are inconsistent with state law. The California Migratory Bird Protection Act (MBPA) was passed in September 2019 to provide a level of protection to migratory birds in California consistent with the federal MBTA prior to the 2017 rule change limiting protection of migratory birds under the federal MBTA to purposeful actions (i.e., directly and knowingly removing a nest to construct a project, hunting, and poaching). Thus, under the MBPA protections for migratory birds in California are consistent with rules and regulations adopted by the United States

Secretary of the Interior under the federal MBTA before January 1, 2017, or those adopted subsequent to that date as long as they are consistent with the California Fish and Game Code. The MBPA reverts to existing provisions of the federal. MBTA on January 20, 2025.

California Native Plant Protection Act. The California Native Plant Protection Act (NPPA) of 1977 (Fish and Game Code sections 1900-1913) was created with the intent to "preserve, protect and enhance rare and endangered plants in this state." The NPPA prohibits importation of rare and endangered plants into California, "take" of rare and endangered plants, and sale of rare and endangered plants. The NPPA is administered by the CDFW. The Fish and Game Commission has the authority to designate native plants as "endangered" or "rare" and to protect endangered and rare plants from take. The CESA provides further protection for rare and endangered plant species, but the NPPA remains part of the California Fish and Game Code. CESA defers to the California Native Plant Protection Act, which ensures that State-listed plant species are protected when State agencies are involved in projects subject to the California Environmental Quality Act (CEQA). In this case, plants listed as rare under the California Native Plant Protection Act are not protected under CESA but rather under CEQA.

Porter-Cologne Water Quality Control Act. The Porter-Cologne Water Quality Control Act (Porter-Cologne) imposes stringent controls on any discharges into the "waters of the State" (California Water Code § 13000 et seq.). Waters of the State are defined as any surface water or groundwater, including saline waters, within the boundaries of the state (California Water Code § 13050[e]). Pursuant to Porter-Cologne, the State Water Resources Control Board (SWRCB) has authority over State water rights and water quality policy. Porter-Cologne also establishes nine Regional Water Quality Control Boards (RWQCBs) to oversee water quality at the local/regional level.

Under Porter-Cologne, the State retains authority to regulate discharges of waste into any waters of the State, regardless of whether the USACE has concurrent jurisdiction under section 404 of the CWA. For the project area, RWQCB certification would be under the jurisdiction of the San Francisco Bay Region 2 RWQCB, with a local office in Oakland.

6.2.3 Local

Santa Clara General Plan. The General Plan contains goals to protect fish, wildlife, and their habitats, including rare and endangered species, and to conserve and restore riparian vegetation and habitat. The following General Plan policies address these biological resources protection and restoration goals and implement the CEQA Guidelines:

- Policy 5.3.1-P10: Provide opportunities for increased landscaping and trees in the community, including requirements for new development to provide street trees and a minimum 2:1 on- or off-site replacement for trees removed as part of the proposal to help increase the urban forest and minimize the heat island effect.

- Policy 5.3.4-P5: Encourage mixed-use development site planning and design to implement the elements illustrated in Figures 7.3-2 and 7.3-3 [of the General Plan], including street tree planting along all streets.

- Policy 5.3.4-P12: Prioritize pedestrian-oriented streetscape and building design in mixed-use development, including features such as wider sidewalks, street furniture, specialty planters, signage, public art, street trees, special paving materials, decorative awnings,

enhanced entrances, colors, variety of materials and textures and distinctive building massing and articulation.

- Policy 5.8.4-P7: Require new development to provide sidewalks, street trees and lighting on both sides of all streets in accordance with City standards, including new developments in employment areas.

- Policy 5.10.1-P1: Require environmental review prior to approval of any development with the potential to degrade the habitat of any threatened or endangered species.

- Policy 5.10.1-P3: Require preservation of all City-designated heritage trees listed in the Heritage Tree Appendix 8.10 of the General Plan.

- Policy 5.10.1-P4: Protect all healthy cedars, redwoods, oaks, olives, bay laurel and pepper trees of any size, and all other trees over 36 inches in circumference measured from 48 inches above-grade on private and public property as well as in the public right-of-way.

- Policy 5.10.1-P5: Encourage enhancement of land adjacent to creeks in order to foster the reinstatement of natural riparian corridors where possible.

- Policy 5.10.1-P12: Encourage property owners and landscapers to use native plants and wildlife-compatible nonnative plants, when feasible.

Santa Clara City Code. Relevant to trees, the Santa Clara City Code (Section 12.35.020) requires a written permit from the superintendent of streets prior to the alteration or removal of any tree, plant or shrub planted or growing in the streets or public places of the City (including trenching activities around or alongside any tree, plant, or shrub with the intent of cutting the roots or otherwise causing damage).

City of Santa Clara Climate Action Plan. The Santa Clara Climate Action Plan, adopted December 3, 2013, recommends that new development should incorporate a minimum of two shade trees near south-facing windows to mitigate the heat island effect through shading and cooling practices. The Climate Action Plan states a citywide tree-planting goal of 2,500.

6.3 IMPACTS AND MITIGATION MEASURES

This section describes potential impacts on biological resources that could result from the project area implementation and discusses components of the Plans that would avoid or reduce those potential impacts. The section also recommends mitigation measures as needed to reduce significant impacts to a level of less-than-significant.

6.3.1 Significance Criteria

Based on the CEQA Guidelines[5], implementation of the project area would have a significant impact on biological resources if it would:

[5]CEQA Guidelines, appendix G, items IV (a) through (f).

(a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS;

(b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the CDFW or USFWS;

(c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;

(d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;

(e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or

(f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

6.3.2 Relevant Focus Area Plan/General Plan Amendment Policies

Section 6.2 (Regulatory Setting), above, summarizes adopted regulations and requirements that apply to Focus Area Plan/General Plan Amendment implementation. The Regulatory Setting requirements would be implemented, as applicable, within the framework of adopted City policies and programs, including specific regulatory agency habitat and species requirements. These adopted, established requirements are considered uniformly applicable development policies and regulations. With the implementation of the mitigation measures described below, the policies of the Focus Area Plan/General Plan Amendment are considered consistent with the policies, programs, regulations, and requirements above. There is no aquatic habitat (wetlands, riparian, etc.), no major fish or wildlife migratory corridors, or any wildlife nursery sites within the project area. Significance criteria are addressed below.

6.3.3 Impacts and Mitigations[6,7]

Impact 6-1: Impacts on Special-Status Species, Riparian Habitat, Sensitive Natural Communities, and Wetlands. The project area, including the Greystar project site, is outside the nearest known Habitat Conservation Plan (HCP) area, approximately 1.3 miles west of the

[6]Ground-truthing of the biological resources on the Greystar property site on the December 12, 2020 site visit provided no evidence that further biological surveys would be required to be in compliance with this EIR's mitigation measures, as the site contained no vegetation, no aquatic resources, is regularly disked, and did not contain any small mammal burrows.

[7]Please note that while crotch bumble bee (*Bombus crotchii*) and western bumble bee (*Bombus occidentalis)* were determined to have low potential to occur within the Focus Area Plan Area, their ecology and life history are poorly understood. As such, discussion of impacts and/or appropriate protective mitigation measures are difficult as species presence is difficult to determine. As the potential at the Plan Area is low due to very low occurrence of native vegetation typically used for *Bombus* spp. foraging, the species are not discussed further within this document.

Santa Clara Valley Habitat Plan permit area at its nearest point. Two Natural Communities of Special Concern, as identified by CDFW, occur within the general geographic vicinity of the project area along the margins of the San Francisco Bay approximately 3.6 miles north: northern coastal salt marsh and sycamore alluvial woodland. However, these sensitive natural communities do not occur in or adjacent to the project area.

The California Natural Diversity Database (CNDDB) and USFWS Information for Planning and Conservation (IPaC) databases[8] did not identify any habitat types that could occur in the project area that would be able to support special-status species (see Table 6-1).

Based on the discussion above, including the information in Tables 6-1 and 6-2, implementation of the project would have a ***less-than-significant impact*** on special-status species, riparian habitat, sensitive natural communities, and wetlands (see criteria [a], [b], [c], [e], and [f] in subsection 6.3.1, "Significance Criteria," above). The Greystar site has little habitat value for biological resources as the site is regularly disked. During the site visit on December 12, 2020, vegetation was overwhelmingly absent and/or in the dieback stage. No small mammal burrows were observed. However, there is potential for two special-status plant species and for protected nesting birds and roosting bats to occur within or directly adjacent to the remainder of the project area, excepting the Greystar property. In addition, General Plan policies require the evaluation of potential degradation of habitat for threatened and endangered species for future development in the Freedom Circle Focus Plan Area and the planned development of the Greystar project Site. The potential for these species impacts and mitigation measures to reduce potential impacts are discussed below.

Mitigation 6-1. No significant impact has been identified; no mitigation is required.

Impact 6-2: **Potential Impacts on Threatened and Endangered Species Habitat.** Because biological resources are mobile and may colonized or relocate, even within built structures, before project work begins, the City would evaluate whether each individual, future project application (with the exception of the Greystar site)[9] would be required to prepare a biological resource survey for City review prior to approval of any development. This is to ensure that any future project activities within the Focus Plan Area that have the potential to degrade the habitat of any threatened or endangered species are evaluated according to Policy 5.10.1-P1 of the Santa Clara General Plan (see "Regulatory Setting" above). Disregarding City evaluation of the need for further biological resource surveys would be in violation of City policy and is therefore considered a ***potentially significant impact*** (see criterion [e] in subsection 6.3.1, "Significance Criteria," above).

[8]Search conducted October 2020.

[9]Ground-truthing of the biological resources on the Greystar property site on the December 12, 2020 site visit provided no evidence that further biological surveys would be required to be in compliance with this EIR's mitigation measures, as the site contained no vegetation, no aquatic resources, is regularly disked, and did not contain any small mammal burrows.

Mitigation 6-2. Upon receiving applications for projects within the project area, the City shall evaluate the need for a specific biological resource survey of the project area and adjacent area that may be indirectly impacted by project work. If no biological resources are determined to be at risk for an individual project (i.e., potential for bird and bat species, within and directly adjacent to the project area, to occur and/or be affected by project activities is negligible), no further survey shall be required. However, if the City determines that biological resources within the proposed project area require further analysis, the project proponent shall be required to conduct a biological resource survey of the habitat and special-status species that may be impacted by project activities, either directly or indirectly. A report shall be provided to the City detailing survey methods, results, performance standards, and avoidance and minimization measures required to protect any special-status species with potential to be impacted, consistent with the regulatory agency protocols. Implementation of this measure would reduce the impact to a ***less-than-significant*** level.

Impact 6-3: **Potential Impacts on Special-Status Plants.** There is a low potential for Congdon's tarplant (*Centromadia parryi* ssp. *congdonii*; California Rare Plant Rank 1B.2) and arcuate bush mallow (*Malacothamnus arcuatus*; California Rare Plant Rank 1B.2) to occur within the project area (with the exception of the Greystar site, which has been confirmed not to contain these plant species) , especially if the area is left undisturbed for a long period of time (i.e., a year or longer) and plants are able to colonize the project site. Without a proactive mitigation procedure in place, Plan implementation and any future projects planned within the Focus Area Plan could inadvertently result in the removal of special-status plants. This is considered a ***potentially significant impact*** (see criterion [d] in subsection 6.3.1, "Significance Criteria," above).

Mitigation 6-3. Before any project work within the project area, including the Greystar project site, a qualified botanist shall conduct site-specific, focused surveys according to CDFW guidelines to determine presence or absence of special-status plant species on the individual project site and any adjacent potential area of disturbance. A comprehensive, site-wide survey should be conducted within May to September before project work begins, to encompass the Congdon's tarplant and arcuate bush mallow's blooming periods. Following the completion of the surveys, a survey results report shall be prepared and provided to the City. This report should include, but should not be limited to, the following: (1) a description of the survey methodology; (2) a discussion of the survey results; and (3) a map showing the survey area and the location of any special-status plants encountered. If no rare plants are found, then no further mitigation would be required.

(continued)

Mitigation 6-3 (continued):

If rare plants are found during the survey, the number of individuals present shall be documented, and the limits of population shall be marked with flagging. The flagged border of the population shall be avoided by construction personnel for the duration of the project. If the species cannot be avoided or may be indirectly impacted, the applicant shall notify CDFW to discuss avoidance, minimization, and other measures as appropriate for each species population, including measures to be taken and protocols to be followed if special-status plants are inadvertently disturbed during construction activities.

CDFW may require the preparation and implementation of a mitigation plan that details avoidance, preservation, and/or compensation for the loss of individual special-status plant species. Mitigation may include the purchase of mitigation bank credits, preserving and enhancing existing on-site populations, creation of off-site populations through seed collection and/or transplantation and monitoring these populations to ensure their successful establishment, and/or preserving occupied habitat off-site in perpetuity. Specific amount and method of mitigation and/or credits shall be determined in formal consultation with CDFW and/or USFWS.

Implementation of this measure would reduce the impact to a ***less-than-significant level.***

Impact 6-4: **Potential Impacts on Nesting Birds or Roosting Bats.** The Federal Migratory Bird Treaty Act and California Fish and Game Code sections 3503, 3503.5, 3513, 3800, and 4150 protect migratory and nesting birds, as well as roosting bats. Although the project does not specify which trees or buildings might be removed under individual projects facilitated by the Plan, trees (potential nesting and roosting habitat) or buildings could be disturbed or removed by Plan implementation. The possibility of removing trees and/or buildings that contain nests or roosting bats is identified here as a potentially significant impact. Any direct removal of trees or indirect disturbance by construction or operational activities during the nesting season that causes nest abandonment and/or loss of reproductive effort (killing or abandonment of eggs or young) is considered a "take."

There is a low potential for burrowing owl (*Athene cunicularia*; California species of special concern), white-tailed kite (*Elanus leucurus*; California Fully-Protected Species), pallid bat (*Antrozous pallidus*), and Townsend's big-eared bat

(continued)

Impact 6-4 (continued):

(*Corynorhinus townsendii*; California species of special concern) to utilize the landscaped habitat within the project area for roosting and/or nesting, especially if the area is left undisturbed for a long period of time. In addition, many common bird species without a special status, though protected by the MBTA, MBPA, and California Fish and Game Code (CFGC), may utilize buildings, gravel substrates, and the landscaped vegetation within the project area for nesting, foraging, and roosting. Common bat species protected by the CFGC may also rarely utilize vegetation or roof tiles within the project area for individual roosting. Without a proactive mitigation procedure in place, Plan implementation could inadvertently result in the removal of existing trees containing nests or eggs of migratory birds, raptors, or bird species during the nesting season, or roosting bats, which would be considered unlawful take under the MBTA and the CFGC (see Regulatory Setting above). This is considered a ***potentially significant impact*** (see criterion [d] in subsection 6.3.1, "Significance Criteria," above).

The mitigation measure below would reduce this potentially significant impact to migratory and nesting birds to a less-than-significant level.

Mitigation 6-4. The demolition of any buildings, disturbance of gravel substrate, and/or removal of trees, shrubs, or weedy vegetation shall be avoided during the February 1 through August 31 bird nesting period to the extent possible. If no demolition, gravel disturbance, vegetation, or tree removal is proposed during the nesting period, no further action is required. If it is not feasible to avoid the nesting period, the project applicant shall retain a qualified wildlife biologist to conduct a survey for nesting birds at most 14 days prior to the start of removal of trees, shrubs, grassland vegetation, or buildings, including prior to grading or other construction activity. If demolition of buildings, disturbance of gravel substrate, or vegetation removal efforts do not begin within the 14 days following the nesting bird survey, another survey shall be required. The area surveyed shall include all construction sites, access roads, and staging areas, as well as reasonably accessible areas within 150 feet outside the boundaries of the areas to be cleared or as otherwise determined by the biologist and dependent on species' life history requirements.

If an active nest is discovered in the areas to be directly physically disturbed, or in other habitats within the vicinity of construction boundaries and may be disturbed by construction activities (as determined by the qualified biologist), clearing and construction shall be postponed within a species-specific no-work buffer (to be determined by the qualified biologist and based on the species life history and regulatory requirements) until the biologist has determined that the young have fledged (left the nest), the nest fails, or the nest is otherwise determined to be inactive by the biologist (i.e., predation).

(continued)

Mitigation 6-4 (continued):

To avoid impacts to roosting bats that may rarely utilize the project area vegetation, roof tiles, and/or vacant buildings for day roosting, the project applicant shall retain a qualified wildlife biologist to conduct a survey for roosting bats no sooner than 14 days prior to the start of demolition of any vacant buildings left with entry and egress points accessible to bats or removal of suitable bat roosting vegetation. If demolition of buildings or vegetation removal efforts do not begin within the 14 days following the roosting bat survey, another survey shall be required. If roosting bats are detected, the biologist shall enact a minimum of a 150-foot no-work buffer and confer with CDFW to determine potential roost protection or roost eviction practices. After conferring with CDFW, the protective buffer may be adjusted based on specific roost needs. Once bats have been suitably protected by a buffer and/or safely evicted from roosting sites (as approved by CDFW, avoiding take as defined by CESA and the CFGC), construction may resume outside the buffered area.

A nesting bird and roosting bat survey report of the methods and results of the pre-project survey will be submitted to the City for review and approval prior to commencement of construction activities for individual projects. Any additional construction monitoring, as determined through any necessary coordination/discretionary approvals with the resource agencies, will be documented per requirements set forth in an approved mitigation monitoring and reporting program for the entirety of the project.

Implementation of this measure would reduce the impact to a ***less-than-significant level.***

Impact 6-5: Potential Impacts on Protected Trees, Plants, and Shrubs. Section 12.35 (Trees and Shrubs) of the City of Santa Clara Municipal Code is an ordinance implemented to protect trees, plants, and shrubs along streets or public places within the city. Any of these trees, plants, or shrubs planned for removal must first obtain written permission from the superintendent of streets. Finally, Section 12.35 states “No person without such authorization shall trench around or alongside of any such tree, plant or shrub with the intent of cutting the roots thereof or otherwise damaging the same.” The ordinance was adopted by the City and is implemented as applicable. In addition, Policy 5.3.1-P10 of the Santa Clara General Plan provides opportunities for increased landscaping and trees in the community, including requirements for new development to provide street trees and a minimum 2:1 on- or off-site replacement for trees removed as part of the proposal to help increase the urban forest and minimize the heat island effect. Under CEQA, the ordinance and general plan policy are considered a uniformly applicable development regulation implemented to avoid or reduce impacts on trees, plants, and shrubs along City streets and within public spaces. On obtaining a written permit from the superintendent of streets before altering or removing any trees, plants, or shrubs along streets or public portions of the project, as well as ensuring the required minimum ratio for tree replacement required by General Plan Policy 5.3.1-P10, any project would be in compliance with all local policies or ordinances preserving trees. Therefore, project

implementation would have a ***less-than-significant impact*** on protected trees, plants, and shrubs (see criterion [e] in subsection 6.3.1, “Significance Criteria,” above).

Mitigation 6-5. No significant impact has been identified; no mitigation is required.

Table 6-1
SPECIAL-STATUS PLANT SPECIES WITH POTENTIAL TO OCCUR IN THE PROJECT AREA

Species	Status	Geographic Distribution	Habitat Requirements	Life Form; Blooming Period	Potential Occurrence in the project Area
ANGIOSPERM: MONOCOTS					
Angiosperms: Monocots					
stinkbells *Fritillaria agrestis*	CRPR 4.2	Occurs throughout California, primarily on the western side of the Diablo range.	Occurs in cismontane woodland, chaparral, valley and foothill grassland, pinyon, and juniper woodland. Sometimes on serpentine; mostly found in nonnative grassland or in grassy openings in clay soil. 10-1555 m.	Perennial bulbiferous herb; Blooms March to June	**Not Expected.** The project area is highly urbanized and does not contain and is not near any of the potential habitat for this species. The nearest documented occurrence of this species is in the La Costa quad, over 9 miles northeast of the project area.
Fragrant fritillary *Fritillaria liliacea*	CRPR 1B.2	Found throughout northern and central California wherever there is suitable habitat.	Cismontane woodland and coastal scrub and prairie, in valley and foothill grasslands (often serpentine bunchgrass grassland); 3-410 m.	Perennial bulbiferous herb; Blooms February to April	**Not Expected.** The project area is highly urbanized and does not contain and is not near any of the potential habitat for this species. The nearest documented occurrence of this species is over 10 miles east of the project area.
California alkali grass *Puccinellia simplex*	CRPR 1B.2	Occurs throughout California, primarily along the western edge of the San Joaquin Valley.	Occurs in chenopod scrub, meadows and seeps, valley and foothill grassland, and vernal pools in alkaline and vernally mesic soils. 2-930 m.	Annual herb; Blooms March to May.	**Not Expected.** The project area is highly urbanized and does not contain and is not near any of the potential habitat for this species. The nearest documented occurrence of this species is over 5.5 miles north of the project area.
ANGIOSPERMS: DICOTS					
Santa Clara thorn-mint *Acanthomintha lanceolata*	CRPR 4.2	Occurs in the Diablo Range from Santa Clara County south to Monterey and Fresno Counties.	Occurs in chaparral, cismontane woodland, and coastal scrub in shale	Annual herb; Blooms March to June.	**Not Expected.** The project area is highly urbanized and does not contain and is not

Species	Status	Geographic Distribution	Habitat Requirements	Life Form; Blooming Period	Potential Occurrence in the project Area
			scree and serpentine soils. 80-1200 m.		near any of the potential habitat for this species. The nearest documented occurrence of this species is over 7 miles east of the project area, in the vast undeveloped region in eastern Santa Clara County.
Alkali milk-vetch *Astragalus tener* var. *tener*	CRPR 1B.2	Endemic to the San Francisco Bay Area and surrounding counties.	Playas, valley and foothill grassland (adobe clay) or vernal pools on alkaline soils; 1-60 m.	Annual herb, Blooms March to June	**Not Expected.** The project area is highly urbanized and does not contain and is not near any of the potential habitat for this species. The nearest extant documented occurrence of this species is over 6 miles north of project area.
brittlescale *Atriplex depressa*	CRPR 1B.2	Occurs throughout the San Joaquin Valley, with some populations in the eastern San Francisco Bay area.	Occurs in chenopod scrub, meadows and seeps, playas, valley and foothill grassland, vernal pools. Usually in alkali scalds or alkaline clay in meadows or annual grassland; rarely associated with riparian, marshes, or vernal pools. 1-325 m.	Annual herb; Blooms April to October	**Not Expected.** The project area is highly urbanized and does not contain and is not near any of the potential habitat for this species. The nearest extant documented occurrence of this species is approximately 6 miles north of the project area.
lesser saltscale *Atriplex minuscula*	CRPR 1B.1	Occurs throughout the southern San Joaquin Valley, with some populations in the eastern San Francisco Bay area.	Occurs in chenopod scrub, playas, valley and foothill grassland. In alkali sink and grassland in sandy, alkaline soils. 0-225 m.	Annual herb; Blooms May to October	**Not Expected.** The project area is highly urbanized and does not contain and is not near any of the potential habitat for this species. The nearest extant documented occurrence of this species is approximately 6 miles north of the project area.

Species	Status	Geographic Distribution	Habitat Requirements	Life Form; Blooming Period	Potential Occurrence in the project Area
Big-scale balsamroot *Balsamorhiza macrolepis*	CRPR 1B.2	Endemic; ranges from Redding to San Jose west to the Sierra Nevadas.	Chaparral, cismontane woodland and valley and foothill grassland, sometimes serpentinite; 90-1555 m.	Perennial herb, March to June	**Not Expected.** The project area is highly urbanized, above the typical elevation for this species, and does not contain and is not near any of the potential habitat for this species. The nearest extant documented occurrence of this species is over 12 miles southeast of the project area.
Chaparral harebell *Campanula exigua*	CRPR 1B.2	Endemic to the San Francisco Bay Area and central coast ranges.	Chaparral (rocky, usually serpentinite); 275-1250 m.	Annual herb, May to June	**Not Expected.** The project area does not contain any of the habitat requirements for this species and is outside of the elevation range for this species. The nearest documented occurrence of this species is approximately 11 miles east of the project area.
Congdon's tarplant *Centromadia parryi* ssp. *congdonii*	CRPR 1B.2	Throughout western California from San Luis Obispo to Solano County.	Valley and foothill grasslands in depressions, swales, and floodplains with alkaline clay soils; usually disturbed areas; 0-230 m.	Annual herb; Blooms May to November	**Low Potential.** The project area is highly urbanized and contains only landscaped vegetation, however the project area is near other documented occurrences of this species, the nearest being approximately 1.25 miles northwest of the project area. This species has a low potential to occur within the project area.
Point Reyes salty bird's beak *Chloropyron maritimum* ssp. *palustre*	CRPR 1B.2	Extant occurrences in Humboldt, Marin, San Francisco, and Sonoma Counties.	Marshes and swamps (coastal salt); 0-10 m.	Annual herb (hemiparasitic); Blooms June to October	**Not Expected.** The project area is highly urbanized and does not contain and is not near any of the potential habitat for this species. Most documented occurrences within the vicinity of the project area are listed as extirpated or

Species	Status	Geographic Distribution	Habitat Requirements	Life Form; Blooming Period	Potential Occurrence in the project Area
					possibly extirpated. The nearest extant documented occurrence of this species is over 10 miles northwest of the project area.
Robust spineflower *Chorizanthe robusta* var. *robusta*	FE, CRPR 1B.2	Endemic to the San Francisco Bay Area and Monterey Coast.	Chaparral (maritime), cismontane woodland (openings), coastal dunes and coastal scrub in sandy or gravelly soils; 3-300 m.	Annual herb; Blooms April to September	**Not Expected.** The project area is highly urbanized and does not contain and is not near any of the potential habitat for this species. The only documented occurrence within the vicinity of the project area is listed as possibly extirpated and is over 6.5 miles southeast of the project area.
Mt. Hamilton fountain thistle *Cirsium fontinale var. campylon*	CRPR 1B.2	Endemic to Alameda, Santa Clara, and Stanislaus Counties.	Chaparral, cismontane woodland and valley and foothill grassland in serpentinite seeps; 100-890 m.	Perennial herb; Blooms February to October	**Not Expected.** The project area is highly urbanized, does not contain any of the habitat requirements for this species, and is outside of the elevation range for this species. The nearest documented occurrence of this species is over 12 miles southeast of the project area, in the Mt. Hamilton open space area.
Santa Clara red ribbons *Clarkia concinna* ssp. *automixa*	CRPR 4.3	Occurs in a small area in the south and eastern San Francisco Bay area.	Occurs in cismontane woodland, and chaparral on slopes and near drainages. 90-1500 m.	Annual herb; Blooms May to June	**Not Expected.** The project area does not contain any of the habitat requirements for this species and is outside of the typical elevation range for this species. The nearest documented occurrence of this species is over 9.5 miles east of the project area, in the open space in east Santa Clara County.

Species	Status	Geographic Distribution	Habitat Requirements	Life Form; Blooming Period	Potential Occurrence in the project Area
Lewis' clarkia *Clarkia lewisii*	CRPR 4.3	Occurs along the coast, from south of the San Francisco Bay area to San Diego.	Occurs in coastal scrub, chaparral, cismontane woodland, broadleafed upland forest, closed-cone coniferous forest. 30-610 m.	Annual herb; Blooms May to July	**Not Expected.** The project area is highly urbanized and does not contain and is not near any of the potential habitat for this species. The nearest documented occurrences of this species are over 7 miles west of the project area, in the open space in the west of Santa Clara County.
San Francisco collinsia *Collinsia multicolor*	CRPR 1B.2	Mid-coastal California from Monterey to Marin County including Santa Clara county.	Moist shady woodland, closed-cone coniferous forests and coastal scrub. Occasionally found in serpentine; 30-250 m.	Annual herb; Blooms March to May	**Not Expected.** The project area is highly urbanized and does not contain and is not near any of the potential habitat for this species. The nearest documented occurrence of this species is approximately 12 miles southeast of the project area.
Hospital Canyon larkspur *Delphinium californicum* ssp. *interius*	CRPR 1B.2	Endemic to Alameda, Contra Costa, Merced, Monterey, San Benito, Santa Clara, San Joaquin, and Stanislaus Counties.	Chaparral (openings), cismontane woodland (mesic) or coastal scrub; 230-1095 m.	Perennial herb, April to June	**Not Expected.** This species does not occur within Santa Clara County and the project area is outside the typical elevation range for this species. The nearest documented occurrence is over 15.5 miles northeast of the project area, in the open space in the Mt. Diablo Mountain range.
Western leatherwood *Dirca occidentalis*	CRPR 1B.2	San Francisco Bay area including Santa Clara to Marin County and east to Alameda county.	Cool, moist slopes in foothill woodland and riparian forests. Mesic environments in broadleaved upland forests, chaparral and coniferous woodlands and mixed evergreen and oak woodlands; 25-425 m.	Perennial deciduous shrub; Blooms January to April.	**Not Expected.** The project area is highly urbanized and does not contain and is not near any of the potential habitat for this species. The nearest documented occurrence of this species is over 7.5 miles southwest of

Species	Status	Geographic Distribution	Habitat Requirements	Life Form; Blooming Period	Potential Occurrence in the project Area
					the project area, in the open space in the hills in western Santa Clara County.
Santa Clara Valley dudleya *Dudleya abramsii* ssp. *setchellii*	SE, CRPR 1B.1	Endemic to Santa Clara County.	Cismontane woodland and valley and foothill grassland in serpentine, rocky soils; 60-455 m.	Perennial herb, April to October	**Not Expected.** The project area is highly urbanized, does not contain any of the habitat requirements for this species, and is outside of the typical elevation range for this species. The nearest documented occurrence of this species is over 10 miles southeast of the project area, in the open space in south Santa Clara County.
Jepson's woolly sunflower *Eriophyllum jepsonii*	CRPR 4.3	Occurs on the eastern Diablo range in the San Francisco Bay area.	Occurs in coastal scrub, chaparral, and cismontane woodland sometimes on serpentine soil. 200-1025 m.	Perennial herb; Blooms April to June	**Not Expected.** The project area is highly urbanized, does not contain any of the habitat requirements for this species, and is outside of the typical elevation range for this species. The nearest documented occurrences of this species are over 7 miles east of the project area, in the open space in eastern Santa Clara County.
Hoover's button-celery *Eryngium aristulatum* var. *hooveri*	CRPR 1B.1	Endemic to Alameda, San Benito, Santa Clara, San Diego and San Luis Obispo Counties.	Vernal pools; 3-45 m.	Annual/perennial herb; Blooms July to August	**Not Expected.** The project area is highly urbanized and does not contain any of the vernal pool habitat required by this species. The nearest extant documented occurrence of this species is over 5.5 miles north of the project area, along the margin of the San Francisco Bay.

Species	Status	Geographic Distribution	Habitat Requirements	Life Form; Blooming Period	Potential Occurrence in the project Area
San Joaquin spearscale *Extriplex joaquinana*	CRPR 1B.2	Occurs along the western San Joaquin valley and along the eastern Diablo range.	Occurs in chenopod scrub, meadows and seeps, playas, and valley and foothill grassland in alkaline soils. 1-835 m.	Annual herb; Blooms April to September	**Not Expected.** The project area is highly urbanized and does not contain and is not near any of the potential habitat for this species. The nearest documented occurrence of this species is over 6 miles north of the project area.
Diablo helianthella *Helianthella castanea*	CRPR 1B.2	Endemic to Alameda, Contra Costa, and San Mateo Counties; extirpated from Marin and San Francisco Counties.	Broadleafed upland forest, chaparral, cismontane woodland, coastal scrub, riparian woodland or valley and foothill grassland; 60-1,300 m.	Perennial herb; Blooms March to May	**Not Expected.** The project area is highly urbanized, does not contain any of the habitat requirements for this species, and is outside of the typical elevation range for this species. The nearest documented occurrences of this species are over 10 miles northeast of the project area, in the open space in southern Alameda County.
Loma Prieta hoita *Hoita strobilina*	CRPR 1B.1	Endemic to Alameda, Contra Costa, Santa Clara, and Santa Cruz Counties.	Chaparral, cismontane woodland, and riparian woodland, usually serpentinite and mesic; 30-860 m. elevation.	Perennial herb, May to October	**Not Expected.** This species does not occur in Santa Clara County. The project area is highly urbanized and does not contain and is not near any of the potential habitat for this species. The nearest documented occurrence of this species is over 10.5 miles southwest of the project area.
Contra Costa goldfields *Lasthenia conjugans*	FE, CRPR 1B.1	Endemic to western California from Santa Rosa to Monterey.	Cismontane woodland, playas (alkaline), valley and foothill grassland and vernal pools; 0-470 m. elevation.	Annual herb, March to June	**Not Expected.** The project area is highly urbanized and does not contain and is not near any of the potential habitat for this species. The nearest documented extant occurrence of this species is

Species	Status	Geographic Distribution	Habitat Requirements	Life Form; Blooming Period	Potential Occurrence in the project Area
					over 6 miles north of the project area.
bristly leptosiphon *Leptosiphon acicularis*	CRPR 4.2	Occurs within the San Francisco Bay area.	Occurs in chaparral, cismontane woodland, coastal prairie, and valley and foothill grassland. 55-1500 m.	Annual herb; Blooms April to July	**Not Expected.** The project area is highly urbanized, does not contain any of the habitat requirements for this species, and is outside of the typical elevation range for this species. The nearest documented occurrences of this species are over 10 miles northeast of project area, in the open space in southern Alameda County.
serpentine leptosiphon *Leptosiphon ambiguus*	CRPR 4.2	Occurs in the south and southeast San Francisco Bay area.	Occurs in cismontane woodland, coastal scrub, and valley and foothill grassland usually in serpentinite soils. 120-1130 m.	Annual herb; Blooms March to June	**Not Expected.** The project area is highly urbanized, does not contain any of the habitat requirements for this species, and is outside of the typical elevation range for this species. The nearest documented occurrences of this species are over 7 miles east of the project area, in the open space in eastern Santa Clara County.
wooly-headed lessingia *Lessingia hololeuca*	CRPR 3	Occurs within the San Francisco Bay area.	Occurs in broadleafed upland forest, coastal scrub, lower montane coniferous forest, and valley and foothill grassland in clay and serpentinite soils. 15-305 m.	Annual herb; Blooms June to October	**Not Expected.** The project area is highly urbanized and does not contain any of the habitat requirements for this species. The nearest documented occurrences of this species are over 7 miles east of the project area, in the open space in eastern Santa Clara County.
Smooth lessingia *Lessingia micradenia* var. *glabrata*	CRPR 1B.2	Endemic to Santa Clara County.	Open areas in chaparral and cismontane woodlands often in	Annual herb, July to November	**Not Expected.** The project area is highly urbanized, does not contain any of the habitat

Species	Status	Geographic Distribution	Habitat Requirements	Life Form; Blooming Period	Potential Occurrence in the project Area
			serpentine soils; usually on roadsides and disturbed areas; 120-420 m.		requirements for this species, and is outside of the typical elevation range for this species. The nearest documented occurrences of this species are over 14.5 miles southeast of the project area, in the open space south of San Jose.
Arcuate bush mallow *Malacothamnus arcuatus*	CRPR 1B.2	Found throughout the San Francisco Peninsula and the south bay area throughout San Mateo and Santa Clara counties and Merced County.	Ultramafic chaparral, gravelly alluvium. Locally, in openings in mixed evergreen forests; 15-355 m.	Perennial evergreen shrub; Blooms April to September	**Low Potential.** The project area is highly urbanized and does not contain any of the typical habitat requirements for this species, however there is an extant occurrence less than 2 miles north of the project area.
Hall's bush mallow *Malacothamnus hallii*	CRPR 1B.2	Endemic to western California from Mendocino and Lake Counties to Stanislaus County.	Chaparral and coastal scrub in serpentine soils; 10-760 m.	Perennial evergreen shrub; Blooms May to October	**Not Expected.** The project area is highly urbanized and does not contain any of the habitat requirements for this species. The nearest documented occurrences of this species are over 10 miles east of the project area, in the open space in eastern Santa Clara County.
Woodland woolythreads *Monolopia gracilens*	CRPR 1B.2	Through central California from San Mateo and Contra Costa counties south to San Luis Obispo County.	Grassy openings in chaparral, valley and foothill grasslands, cismontane woodland, broadleafed upland forests, North coast coniferous forest. Sandy to rocky serpentine soils; 100-1,200 m.	Annual herb; Blooms February to July	**Not Expected.** The project area does not contain any of the habitat requirements for this species and is outside of the elevation range for this species. The nearest documented occurrence of this species is over 8 miles southwest of the project area, in the open space in southwestern Santa Clara County.

Species	Status	Geographic Distribution	Habitat Requirements	Life Form; Blooming Period	Potential Occurrence in the project Area
Patterson's navarretia *Navarretia paradoxiclara*	CRPR 1B.3	Occurs east of Stockton and Modesto at the foot of the Sequoia National Forest, with one population in the east San Francisco Bay Area.	Occurs in serpentinite soils in openings, in vernally mesic soils, and often in drainages. Occurs in meadows and seeps. 150-435 m.	Annual herb; Blooms May to June	**Not Expected.** The project area does not contain any of the habitat requirements for this species and is outside of the typical elevation range for this species. The nearest documented occurrences are over 10 miles north of the project area, in western Alameda County.
Prostrate vernal pool navarretia *Navarretia prostrata*	CRPR 1B.1	Endemic to western California from near Fremont to the Mexican border.	Wetlands in coastal scrub, meadows, valley and foothill grassland; usually in alkaline clay soils; sometimes in disturbed areas; 15-1210 m.	Annual herb, April to July	**Not Expected.** The project area is highly urbanized and does not contain any of the habitat requirements for this species. The nearest documented occurrences of this species are over 6 miles north of the project area, along the margins of the San Francisco Bay.
Hairless popcornflower *Plagiobothrys glaber*	CRPR 1A	Endemic to Alameda, Marin, San Benito, and Santa Clara Counties.	Meadows and seeps (alkaline) and marshes and swamps (coastal salt); 15-180 m. elevation.	Annual herb, March to May	**Not Expected.** The project area is highly urbanized and does not contain any of the habitat requirements for this species. All nearby documented occurrences of this species are listed as possibly extirpated, and the nearest is approximately 4.5 miles south of the project area.
Chaparral ragwort *Senecio aphanactis*	CRPR 2.2	Occurs in western California from Concord to the Mexican border.	Chaparral, cismontane woodland, and coastal scrub, sometimes in serpentine soils; 15-800 m.	Annual herb, January to April	**Not Expected.** The project area is highly urbanized and does not contain any of the habitat requirements for this species. The nearest documented occurrence of this species is over 11 miles south of the project area.

Species	Status	Geographic Distribution	Habitat Requirements	Life Form; Blooming Period	Potential Occurrence in the project Area
maple-leaved checkerbloom *Sidalcea malachroides*	CRPR 4.2	Occurs along the coast in northern California.	Occurs often in disturbed areas, broadleafed upland forest, coastal prairie, coastal scrub, North Coast coniferous forest, and riparian woodland. 0-730 m.	Perennial herb; Blooms March to August	**Not Expected.** The project area is highly urbanized and does not contain any of the habitat requirements for this species. The nearest documented occurrence of this species is over 9.5 miles east of the project area, in the open space in eastern Santa Clara County.
long-styled sand-spurrey *Spergularia macrotheca* var. *longistyla*	CRPR 1B.2	Occurs within the San Francisco Bay region.	Occurs in meadows, seeps, marshes, and swamps in alkaline soils. 0-255 m.	Perennial herb; Blooms February to June	**Not Expected.** The project area is highly urbanized and does not contain any of the habitat requirements for this species. The nearest documented occurrence of this species is approximately 9 miles northwest of the project area, along the margins of the San Francisco Bay.
Metcalf Canyon jewel flower *Streptanthus albidus* ssp. *albidus*	SE, CRPR 1B.1	Endemic to Santa Clara County.	Valley and foothill grassland (serpentinite); 45-800 m. elevation.	Annual herb, April to July	**Not Expected.** The project area is highly urbanized and does not contain any of the habitat requirements for this species. The nearest documented occurrence of this species is over 11 miles southeast of the project area, in the open space in southern Santa Clara County.
Most beautiful jewel flower *Streptanthus albidus* ssp. *peramoenus*	CRPR 1B.2	Endemic to coastal California from Concord to San Luis Obispo.	Chaparral, cismontane woodland and valley and foothill grassland in serpentine soils; 94-1000 m. elevation.	Annual herb, March to October	**Not Expected.** The project area is highly urbanized and does not contain any of the habitat requirements for this species. The nearest documented occurrence of this species is over 12 miles east of the project area, in the open

Species	Status	Geographic Distribution	Habitat Requirements	Life Form; Blooming Period	Potential Occurrence in the project Area
					space in northeastern Santa Clara County.
Slender-leaved pondweed *Stuckenia filiformis*	CRPR 2.2	Occurs in Northern California in the Inner Coast Ranges and Sierra Nevadas from east of Redding to near San Jose.	Marshes and swamps (assorted shallow freshwater); 300-2150 m.	Perennial rhizomatous herb, May to July	**Not Expected.** The project area is highly urbanized, does not contain any of the habitat requirements for this species, and is outside of the typical elevation range for this species. The nearest documented occurrence of this species is over 11.5 miles north of the project area.
California seablite *Suaeda californica*	SE, CRPR 1B.1	Endemic to coastal California in the San Francisco Bay Area and near San Luis Obispo.	Marshes and swamps (coastal salt); 0-15 m.	Perennial evergreen shrub, July to October	**Not Expected.** The project area is highly urbanized and does not contain any of the habitat requirements for this species. Both nearby documented occurrences of this species are listed as possibly extirpated, and the nearest is over 6 miles north of the project area, along the margins of the San Francisco Bay.
Saline clover *Trifolium hydrophilum*	CRPR 1B.2	Endemic to San Francisco Bay Area and surrounding counties.	Marshes and swamps, valley and foothill grassland (mesic, alkaline), vernal pools; 0-300 m.	Annual herb, April to June	**Not Expected.** The project area is highly urbanized and does not contain any of the marsh, swamp, vernal pool, or valley and foothill grassland utilized by this species. The nearest documented occurrence is over 2.5 miles north of the project area, along the margins of the San Francisco Bay.

Species	Status	Geographic Distribution	Habitat Requirements	Life Form; Blooming Period	Potential Occurrence in the project Area
Caper-fruited tropidocarpum *Tropidocarpum capparideum*	CRPR 1B.1	California endemic; extant occurrences in Fresno, Monterey, and San Luis Obispo Counties.	Valley and foothill grassland (alkaline hills); 1-455 m.	Annual herb, March to May	**Not Expected.** The project area is highly urbanized and does not contain any of the habitat requirements for this species. All nearby documented occurrences of this species are considered extirpated, and the species likely no longer exists in the San Francisco Bay region.
NATURAL COMMUNITIES of SPECIAL CONCERN					
Northern Coastal Salt Marsh					This plant community is not present within the project area.
Sycamore Alluvial Woodland					This plant community is not present within the project area.

STATUS KEY:
Federal
FE: Federally-listed Endangered
FT: Federally-listed Threatened

State
SE: State-listed Endangered
SR: State-listed Rare
ST: State-listed Threatened

California Native Plant Society (CNPS) California Rare Plant Rank (CRPR):
1B: Plants listed as rare, threatened, or endangered in California and elsewhere
2B: Plants rare, threatened, or endangered in California, but more common elsewhere
3: Plants about which we need more information
4: Watch list: plants of limited distribution

CNPS CRPR added a decimal threat rank to the List rank to parallel that used by the CNDDB. This extension replaces the E (Endangerment) value from the R-E-D Code. CRPR ranks therefore read like this: 1B.1, 1B.2, etc. Threat code extensions and their meanings are as follows:
.1 – Seriously endangered in California (over 80% of occurrences threatened / high degree of immediacy of threat)
.2 – Fairly endangered in California (20-80% occurrences threatened)
.3 – Not very endangered in California (<20% of occurrences threatened or no current threats known)

SOURCES:
Calflora (October 2020) and the CNPS (October 2020) Rare and Endangered Plant Inventory was used to identify preferred habitat for each species

Table 6-2
SPECIAL-STATUS WILDLIFE SPECIES WITH POTENTIAL TO OCCUR IN THE PROJECT AREA

Species	Status	Geographic Distribution	Habitat Requirements	Potential for Occurrence
INVERTEBRATES				
Invertebrates: Crustaceans				
conservancy fairy shrimp *Branchinecta conservatio*	FE	Endemic to the grasslands of the northern two-thirds of the Central Valley; found in large, turbid pools.	Inhabit astatic pools located in swales formed by old, braided alluvium; filled by winter/spring rains, last until June.	**Not Expected.** There are no aquatic features required by this species within the project area. In addition, the focus area plan is not within or near any of the 8 known populations of this species (Butte, Tehama, Glenn, Yolo, Solano, Stanislaus, Merced, and Ventura Counties). There are no documented occurrences of this species within the 9-quadrangle CNDDB search radius.
Vernal pool tadpole shrimp *Lepidurus packardi*	FE	Inhabits vernal pools and swales in the Sacramento Valley containing clear to highly turbid waters.	Inhabited pools are often found in grass-bottomed swales of unplowed grasslands; some pools are mud-bottomed and highly turbid.	**Not Expected.** There are no aquatic features required by this species within the project area. The nearest documented occurrence of this species is over 6 miles north of the project area
Invertebrates: Insects				
crotch bumble bee *Bombus crotchii*	CE	Coastal California east to the Sierra-Cascade crest and south into Mexico.	Food plant genera include *Antirrhinum*, *Phacelia*, *Clarkia*, *Dendromecon*, *Eschscholzia*, and *Eriogonum*.	**Low Potential.** The project area is in a highly urbanized area with little to no habitat for the native plant species required for *Bombus* spp. foraging. The nearest documented occurrence of this species is approximately 6.5 miles southeast of the project area.
western bumble bee *Bombus occidentalis*	CE	Historically occurs throughout the western United States and western Canada.	Unknown, though likely similar to *B. crotchii*.	**Low Potential.** The project area is in a highly urbanized area with little to no habitat for the native plant species required for *Bombus* spp. foraging. The nearest documented occurrence of this species is

Species	Status	Geographic Distribution	Habitat Requirements	Potential for Occurrence
				approximately 10 miles northwest of the project area.
San Bruno elfin butterfly *Callophrys mossii bayensis*	FE	Coastal, mountainous areas with grassy ground cover, mainly in the vicinity of San Bruno Mountain, San Mateo County.	Colonies are located on steep, north-facing slopes within the fog belt. Larval host plant is *Sedum spathulifolium*.	**Not Expected.** The project area is not within San Mateo County, where the only known populations of this species occur. There are no documented occurrences of this species within the 9-quadrangle CNDDB search radius.
Bay checkerspot butterfly *Euphydryas editha bayensis*	FT	Restricted to native grasslands on outcrops of serpentine soil in the vicinity of San Francisco Bay.	*Plantago erecta* is the primary host plant, *Castilleja densiflorus* and *C. purpurscens* are secondary host plants.	**Not Expected.** The project area does not contain the serpentine habitat required by this species. The nearest documented occurrence of this species is approximately 12.5 miles southeast of the project area.
FISH				
Delta smelt *Hypomesus transpacificus*	FT	Sacramento-San Joaquin Delta. Seasonally in Suisun Bay, Carquinez Strait & San Pablo Bay.	Seldom found at salinities > 10 ppt. Most often at salinities < 2ppt.	**Not Expected.** There is no aquatic habitat required by this species within the project area.
Steelhead - central California coast DPS *Oncorhynchus mykiss irideus*	FT	This DPS includes all populations of steelhead from the Russian River south to Aptos Creek. Steelhead in drainages of San Francisco, San Pablo, and Suisun Bays are also part of this DPS.	Adult steelhead migrate from the ocean into streams in the late fall, winter, or early spring seeking out deep pools within fast moving water to rest prior to spawning. Steelhead spawn in shallow-water gravel beds.	**Not Expected.** There is no aquatic habitat required by this species within the project area. The nearest documented occurrence of this species is approximately 12 miles southeast of the project area.
Longfin smelt *Spirinchus thaleichthys*	FC, ST	Found in California's bays, estuaries, and nearshore coastal environments from the San Francisco Bay north to Lake Earl near the Oregon border. The San Francisco Bay estuary and the Sacramento-San Joaquin Delta support the largest longfin smelt population in California.	Found in aquatic and estuary habitats. This species is euryhaline, nektonic and anadromous. Found in open waters of estuaries, mostly in middle or bottom of water column. Prefer salinities of 15-30 parts per thousand but can be found in completely freshwater to almost pure seawater.	**Not Expected.** There is no aquatic habitat required by this species within the project area. The nearest documented occurrence of this species is over 17.5 miles northwest of the project area, within the San Francisco Bay.
AMPHIBIANS				
Amphibians: Frogs/Toads				
Foothill yellow-legged frog *Rana boylii*	SE, SSC	Occurs in the foothills of the western side of the Sierra Nevada mountains from the northern border of the state to the Tehachapi mountains.	Inhabits partly shaded, shallow streams and rifles with a rocky substrate in a variety of habitats. Need at least some cobble-sized	**Not Expected.** There is no aquatic habitat within the project area. In addition, the highly urbanized project area provides no suitable

Species	Status	Geographic Distribution	Habitat Requirements	Potential for Occurrence
			substrate for egg laying, need at least 15 weeks for metamorphosis.	foraging or estivation habitat for upland adults or migration. The nearest documented occurrence of this species is over 6.5 miles east of the project area.
California red-legged frog *Rana draytonii*	FT, SSC	Found from Riverside County to Mendocino County along the Coast Range, from Calaveras County to Butte County in the Sierra Nevada, and in Baja California.	Found in aquatic, artificial flowing waters, artificial standing waters, freshwater marsh, marsh and swamp, riparian forest, riparian scrub, riparian woodland, Sacramento/San Joaquin flowing waters, Sacramento/San Joaquin standing waters, south coast flowing waters, south coast standing waters, and wetland habitats. Likely within lowlands and foothills in or near permanent sources of deep water with dense, shrubby, or emergent riparian vegetation. Requires 11-20 weeks of permanent water for larval development. Must have access to estivation habitat.	**Not Expected.** There is no aquatic habitat within the project area. The nearest occurrence is over 6.5 miles east of the project area. In addition, the highly urbanized project area provides no suitable foraging or estivation habitat for upland adults or migration.
Amphibians: Salamanders/Newts				
California tiger salamander *Ambystoma californiense*	FT, ST	Found in the Coast Range and Sierra Nevada foothills of California. In the Coast Range, it occurs from southern San Mateo County south to central San Luis Obispo County, and also in the vicinity of northwestern Santa Barbara County. In the Sierra Nevada foothills, it occurs from northern Yolo County to northwestern Kern County and northern Tulare County.	Found in cismontane woodland, meadow & seep, riparian woodland, valley & foothill grassland, vernal pool, and wetland habitats. Need California ground squirrel or gopher burrows for underground refuges, and vernal pools or other seasonal water sources that do not support predatory fish or frog populations for breeding.	**Not Expected.** There is no aquatic habitat within the project area. The nearest occurrence is approximately 6 miles north of the project area. In addition, the highly urbanized project area provides no suitable foraging or estivation habitat for upland adults or migration.
Santa Cruz black salamander *Aneides niger*	SSC	Mixed deciduous and coniferous woodlands and coastal grasslands in San Mateo, Santa Cruz, and Santa Clara counties.	Adults found under rocks, talus, and damp woody debris.	**Not Expected.** The highly urbanized project area does not provide any of the required habitat for this project. The project area is approximately 7.5 miles northeast of the nearest documented occurrence within the Santa Cruz mountains.
California giant salamander *Dicamptodon ensatus*	SSC	Known from wet coastal forests near streams and seeps from Mendocino County south to Monterey County, and east to Napa County.	Aquatic larvae found in cold, clear streams, occasionally in lakes and ponds. Adults known from wet forests under rocks and logs near streams and lakes.	**Not Expected.** The highly urbanized project area does not provide any of the required habitat for this project. The project area is

Species	Status	Geographic Distribution	Habitat Requirements	Potential for Occurrence
				over 8.5 miles northeast of the nearest documented occurrence within the Santa Cruz mountains.
REPTILES				
Reptiles: Lizards				
Northern California legless lizard *Anniella pulchra*	SSC	Occurs in sandy or loose loamy soils under sparse vegetation in chaparral, coastal dunes, and coastal scrub.	Soil moisture is essential. They prefer soils with a high moisture content.	**Not Expected.** The project area does not provide any of the native soils or plant species required by this species. The nearest documented occurrence is listed as "possibly extirpated" and is over 7 miles southeast of the project area.
Reptiles: Snakes				
Alameda whipsnake *Masticophis lateralis euryxanthus*	FT, ST	Typically found in chaparral and scrub habitats but will also use adjacent grassland, oak savannah, and woodland habitats.	Mostly south-facing slopes and ravines, with rock outcrops, deep crevices, or abundant rodent burrows, where shrubs form a vegetative mosaic with oak trees and grasses.	**Not Expected.** There is no chaparral, scrub, grassland, oak savannah, or woodland habitat within or near the project area for several miles. The nearest documented occurrence of this species is approximately 9.5 miles northeast of the project area, within a vast undeveloped area.
Reptiles: Turtles/Tortoises				
Western pond turtle *Actinemys marmorata*	SSC	Found from Baja California, Mexico north through Klickitat County, Washington. In California, found west of the Sierra-Cascade crest. Absent from desert regions, except the Mojave Desert along the Mojave River and its tributaries.	Requires permanent or nearly permanent bodies of water including ponds, marshes, rivers, streams, and irrigation ditches below 6,000 feet in elevation. Requires basking sites, such as submerged rocks, logs, open mud banks, or floating vegetation mats. Needs basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 kilometers from water for egg-laying.	**Not Expected.** The project area does not provide any aquatic habitat for this species and is almost entirely hardscaped. The nearest documented occurrence is less than one mile to the north of the project area and while there is marginally suitable habitat in nearby San Tomas Aquino Creek, there is no habitat suitable for this species' migration within the project area. Turtles are highly unlikely to traverse the levee/paved path to migrate into the project area.

Species	Status	Geographic Distribution	Habitat Requirements	Potential for Occurrence
BIRDS				
Birds: Raptors				
Cooper's hawk *Accipiter cooperii*	WL	Occurs in cismontane woodland, riparian forest, riparian woodland, and upper montane coniferous forest. Also, found in urban areas.	Nest sites mainly in riparian growths of deciduous trees, as in canyon bottoms on river floodplains; also, live oaks.	**Low Potential.** This species may occasionally roost and/or forage within the project area, however the area does not contain any suitable nesting habitat for this species. The nearest documented occurrence of this species is over 6 miles southwest of the project area.
sharp-shinned hawk *Accipiter striatus*	WL	Ponderosa pine, black oak, riparian deciduous, mixed conifer, and Jeffrey pine habitats. Prefers riparian areas.	North-facing slopes with plucking perches are critical requirements. Nests usually within 275 ft of water.	**Low Potential.** This species may occasionally roost and/or forage within the project area, however the area does not contain any suitable nesting habitat for this species. The nearest documented occurrence of this species is over 11 miles northeast of the project area.
Golden eagle *Aquila chrysaetos*	FP	Inhabits foothills and mountains throughout California.	Nests on cliffs and escarpments or in tall trees overlooking open country; forages in annual grasslands, chaparral, and oak woodlands with plentiful medium and large-sized mammals.	**Low Potential.** This species may occasionally be seen flying over the project area, however the area does not contain any suitable nesting habitat for this species. The nearest documented occurrence of this species is over 8 miles northeast of the project area.
Burrowing owl *Athene cunicularia*	SSC	Found year-round throughout much of California, except the coastal counties north of Marin and mountainous areas. Breeding has not been observed in Sonoma County since 1987 and breeding colonies are considered extirpated from this county.	Found in coastal prairie, coastal scrub, Great Basin grassland, Great Basin scrub, Mojavean desert scrub, Sonoran Desert scrub, and valley and foothill grassland habitats. Likely in open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	**Low Potential.** While the project area contains a small amount of grassland, it is regularly disked and precludes the necessary ground squirrel and other small mammal burrows required for this species' roosting. However, linear strips of landscaped grass within the project area may provide a small amount of habitat for this species if left undisturbed. CNDDB

Species	Status	Geographic Distribution	Habitat Requirements	Potential for Occurrence
				lists nearby occurrences of this species as "possibly extirpated."
Swainson's hawk *Buteo swainsoni*	ST	Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, & agricultural or ranch lands with groves or lines of trees.	Requires adjacent suitable foraging areas such as grasslands, or alfalfa or grain fields supporting rodent populations.	**Not Expected.** The project area is outside this species' current range, which begins in eastern Contra Costa County at its nearest point. The nearest documented occurrence is over 3.5 miles south of the project area, however it is from 1889 and is listed as "possibly extirpated."
Northern harrier *Circus cyaneus*	SSC	Breeds from sea level near the coast to at least 9,000 feet in the Glass Mountain region of Mono County.	Found in coastal scrub, Great Basin grassland, marsh & swamp, riparian scrub, valley & foothill grassland, and wetland habitats. Likely in coastal salt & freshwater marshes. Nests and forages in grasslands, from salt grass in desert sink to mountain cienagas. Nests on ground in shrubby vegetation, usually at marsh edge; nest built of a large mound of sticks in wet areas.	**Low Potential.** This species may occasionally roost and/or forage within the project area is, however, the area does not contain any suitable nesting habitat for this species. The nearest documented occurrence of this species is approximately 6 miles northwest of the project area.
White-tailed kite *Elanus leucurus*	FP	Found year-round in nearly all areas of California up to the western Sierra Nevada foothills and southeast deserts. Common in the Central Valley of California and along the entire length of the coast, possibly breeding in more arid regions east of the Sierra Nevada and Transverse Range (Inyo and eastern Kern Counties). Documented breeding in Imperial County, western Riverside County, and eastern San Diego County. In the Sacramento Valley, populations have predominantly increased in irrigated agricultural areas where the California vole (*Microtus californicus*) often occurs.	Found in cismontane woodland, marsh & swamp, riparian woodland, valley and foothill grassland, and wetland habitats. Likely in rolling foothills and valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland. Open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching.	**Low Potential.** This species may occasionally roost and/or forage within the project area is, however, the area does not contain the protected groves of mature trees typically utilized for nesting by this species. The nearest documented occurrence of this species is approximately 2 miles northeast of the project area.
prairie falcon *Falco mexicanus*	WL	Occurs in Great Basin grassland, Great Basin scrub, Mojavean desert scrub, Sonoran desert scrub, and valley and foothill grassland.	Inhabits dry, open terrain, either level or hilly. Breeding sites located on cliffs. Forages far afield, even to marshlands and ocean shores.	**Low Potential.** This species may occasionally roost and/or forage within the project area is, however, the area does not contain the cliff typically utilized for nesting by this

Species	Status	Geographic Distribution	Habitat Requirements	Potential for Occurrence
				species. The nearest documented occurrence of this species has location information suppressed; however, it is within the La Costa USGS quadrangle over 9 miles northeast of the project area.
American peregrine falcon *Falco peregrinus anatum*	FP	Includes most of California during migration and winter. Breeding occurs along the coast of southern and central California, in the inland coastal mountains, in the Klamath Mountains and Cascade Range, in the Sierra Nevada, and in the Channel Islands.	Near wetlands, lakes, rivers, or other water; on cliffs, banks, dunes, mounds; also, human-made structures. Nest consists of a scrape or a depression or ledge in an open site.	**Low Potential.** This species may occasionally roost and/or forage within the project area is, however, the area does not contain the cliff and/or skyscraper habitat typically utilized for nesting by this species. The nearest documented occurrence of this species has location information suppressed; however, it is within the San Jose West USGS quadrangle over 1.5 miles south of the project area.
Birds: Shorebirds/Waterbirds/Rails				
Western snowy plover *Charadrius nivosus nivosus*	FT	Pacific population of western snowy plover occurs along the entire coastline.	Found in standing waters, sand shore, and wetland habitats. Likely within open sandy beaches, salt pond levees & shores of large alkali lakes. Needs sandy, gravelly, or friable soils for nesting.	**Not Expected.** The project area is does not have any coastline or other suitable foraging/roosting habitat for this species. The nearest documented occurrence of this species is over 2 miles north of the project area.
yellow rail *Coturnicops noveboracensis*	SSC	Summer resident in eastern Sierra Nevada in Mono County.	Occurs in freshwater marshlands.	**Not Expected.** The project area is does not contain any aquatic habitat required by this species for nesting and/or roosting and foraging. The nearest documented occurrence is over 2.5 miles northeast of the project area.
California black rail *Laterallus jamaicensis coturniculus*	ST, FP	The majority found in the tidal salt marshes of the northern San Francisco Bay region, primarily in San Pablo and Suisun Bays. Smaller populations occur in San Francisco Bay, the Outer Coast of Marin County, freshwater marshes in the foothills of the	Found in brackish marsh, freshwater marsh, marsh & swamp, salt marsh, and wetland habitats. Inhabits freshwater marshes, wet meadows and shallow margins of saltwater marshes bordering larger bays. Needs water depths of about 1 inch that do not fluctuate	**Not Expected.** The project area does not contain any aquatic habitat required by this species for nesting and/or roosting and foraging. The nearest documented occurrence is over 2 miles north of the project area.

Species	Status	Geographic Distribution	Habitat Requirements	Potential for Occurrence
		Sierra Nevada, and in the Colorado River Area.	during the year and dense vegetation for nesting habitat.	
California Ridgway's rail *Rallus obsoletus obsoletus*	FE, SE, FP	Found almost exclusively in the marshes of the San Francisco estuary in San Mateo, Santa Clara, Alameda, Contra Costa, Solano, Napa, Sonoma, and Marin counties.	Found in brackish marsh, marsh and swamp, salt marsh, and wetland habitats. Likely in salt water and brackish marshes traversed by tidal sloughs in the vicinity of San Francisco Bay. Associated with abundant growths of pickleweed but feeds away from cover on invertebrates from mud-bottomed sloughs.	**Not Expected.** The project area does not contain any aquatic habitat required by this species for nesting and/or roosting and foraging. The nearest documented occurrence is over 3.5 miles northwest of the project area.
black skimmer *Rynchops niger*	SSC	Occurs in alkali play and sand shore habitats.	Nests on gravel bars, low islets, and sandy beaches, in unvegetated sites. Nesting colonies usually less than 200 pairs.	**Not Expected.** The project area does not contain any aquatic habitat or shoreline habitat required by this species for nesting and/or roosting and foraging. The nearest documented occurrence is over 6.5 miles northwest of the project area.
California least tern *Sternula antillarum browni*	FE, SE, FP	Nests along the coast from San Francisco Bay south to Northern Baja California.	Found foraging in alkali playa, coastal, lake, and wetland habitats. Colonial breeder on bare or sparsely vegetated, flat substrates: sand beaches, alkali flats, landfills, or paved areas.	**Not Expected.** The project area does not contain any aquatic habitat or shoreline habitat required by this species for nesting and/or roosting and foraging. The nearest documented occurrence is over 4.5 miles northwest of the project area.
Birds: Passerines				
Tricolored blackbird *Agelaius tricolor*	ST, SSC	Permanent resident in Central Valley from Butte to Kern Counties; breeds at scattered coastal locations from Marin to San Diego Counties and at scattered locations in Lake, Sonoma, and Solano Counties; rare nester in Siskiyou, Modoc, and Lassen Counties.	Nests in dense colonies in emergent marsh vegetation, such as tules and cattails, or upland sites with blackberries, nettles, thistles, and grain fields; habitat must be large enough to support 50 pairs; probably requires water at or near the nesting colony.	**Low Potential.** This species may occasionally roost within the project area, however the project area does not contain the aquatic vegetation habitat required by this species for foraging and nesting. The nearest documented occurrence of this species is over 2.5 miles northeast of the project area.

Species	Status	Geographic Distribution	Habitat Requirements	Potential for Occurrence
Saltmarsh common yellowthroat *Geothlypis trichas sinuosa*	SSC	Found year-round in the vicinity of San Francisco Bay, from Tomales Bay in Marin County and Napa Sloughs in southern Sonoma County on the north, east to Carquinez Straight, and south to vicinity of San Jose in Santa Clara County. Historic locations of confirmed breeding include Lake Merced in San Francisco County, and Coyote Creek, Alviso, and Milpitas in Santa Clara County	Found in fresh and saltwater marshes. Requires thick, continuous cover down to water surface for foraging; tall grasses, tule patches, willows for nesting.	**Low Potential.** This species may occasionally roost within the project area, however the project area does not contain the marsh habitat that this species utilizes for foraging and nesting. The nearest documented occurrence is over 1.5 miles northwest of the project area, along the shore of the San Francisco Bay.
Alameda song sparrow *Melospiza melodia pusillula*	SSC	Resident of salt marshes bordering south arm of San Francisco Bay.	Found in salt marsh habitats. Inhabits pickleweed (*Salicornia* sp.) marshes; nests low in gumplant (*Grindelia* sp.) bushes (high enough to escape high tides) and in pickleweed.	**Low Potential.** This species may occasionally roost within the project area, however the project area does not contain the marsh habitat that this species utilizes for foraging and nesting. The nearest documented occurrence is approximately 1.5 miles northeast of the project area, along a wide, tidally influenced riparian corridor.
Bank swallow *Riparia riparia*	ST	Occurs in scattered locations in northern and central California in major lowland valleys and coastal areas where alluvial soils exist. The major breeding population is confined to the Sacramento and Feather Rivers and their major tributaries.	Found in riparian scrub, and riparian woodland habitats. This species is a colonial nester; nests primarily in riparian and other lowland habitats west of the desert. Requires vertical banks/cliffs with fine-textured/sandy soils near streams, rivers, lakes, ocean to dig nesting hole.	**Low Potential.** This species may occasionally forage and/or roost within the project area, however it is rare within the San Francisco Bay region. The project area does not contain the riparian cliff habitat required by this species for nesting. The nearest documented occurrence is over 12 miles north of the project area.
Birds: Nightbirds/Hummingbirds/Cuckoos				
western yellow-billed cuckoo *Coccyzus americanus occidentalis*	FT, SE	Riparian forest nester, along the broad, lower flood-bottoms of larger river systems.	Nests in riparian jungles of willow, often mixed with cottonwoods, with lower story of blackberry, nettles, or wild grape.	**Not Expected.** This species' range no longer extends into the San Francisco Bay area. The only documented occurrence within a 9-quadrangle radius is over 4.5 miles northeast of the project area, is listed as "extirpated," and is from 1899.

Species	Status	Geographic Distribution	Habitat Requirements	Potential for Occurrence
MAMMALS				
Mammals: Bats				
Pallid bat *Antrozous pallidus*	SSC	Common throughout low elevations of California. No found in the high Sierra from Shasta to Kern counties and the northwestern corner of the State from Del Norte and western Siskiyou counties to northern Mendocino County.	Found in chaparral, coastal scrub, desert wash, Great Basin grassland, Great Basin scrub, Mojavean Desert scrub, riparian woodland, Sonoran Desert scrub, upper montane coniferous forest, and valley & foothill grassland habitats. Prefers deserts, grasslands, shrublands, woodlands and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	**Low Potential.** The project area does not contain the open, dry, and/or rocky areas typically utilized by this species. However, this species may occasionally day roost within the large landscaped trees with suitable exfoliating bark or cavities or abandoned/vacant structures within the project area, especially if properties are left undisturbed for a longer amount of time. Large bat colony roosting is highly unlikely within the project area due to intense surrounding urbanization. The nearest documented occurrence is over 6 miles southeast of the project area.
Townsend's big-eared bat *Corynorhinus townsendii*	SSC	Found throughout California, but details of its distribution are not well known. Found in all but subalpine and alpine habitats.	Found in broadleaved upland forest, chaparral, chenopod scrub, Great Basin grassland, Great Basin scrub, Joshua tree woodland, lower montane coniferous forest, meadow and seep, Mojavean Desert scrub, riparian forest, riparian woodland, Sonoran Desert scrub, Sonoran thorn woodland, upper montane coniferous forest, and valley & foothill grassland habitats. Most common in mesic sites. Roosts in the open, hanging from walls and ceilings. Roosting sites limiting. Extremely sensitive to human disturbance.	**Low Potential.** The project area does not contain the habitat typically utilized by this species. However, this species may occasionally day roost within the large, landscaped trees with suitable exfoliating bark or cavities or abandoned/vacant structures within the project area, especially if properties are left undisturbed for a longer amount of time. Large bat colony roosting is highly unlikely within the project area due to intense surrounding urbanization. The nearest documented occurrence of this species is approximately 5 miles southwest of the project area.

Species	Status	Geographic Distribution	Habitat Requirements	Potential for Occurrence
Mammals: Rodents				
San Francisco dusky-footed woodrat *Neotoma fuscipes annectens*	SSC	This California endemic is found throughout the San Francisco Bay area in grasslands, scrub, and wooded areas.	Forest habitats of moderate canopy and moderate to dense understory. May prefer chaparral and redwood habitats. Constructs nests of shredded leaves, grass, and other material. May be limited by availability of nest-building materials.	**Not Expected.** The project area does not contain any of the forested or woodland habitats utilized by this species. The nearest documented occurrence is over 7.5 miles southwest of the project area.
Salt-marsh harvest mouse *Reithrodontomys raviventris*	FE, SE, FP	Occurs only in the saline emergent wetlands of the San Francisco Bay and its tributaries.	Found in marsh and swamp and wetland habitats. Pickleweed is primary habitat but may occur in other marsh vegetation types and in adjacent upland areas. Does not burrow; builds loosely organized nests. Requires higher areas for flood escape.	**Not Expected.** The project area does not contain and is not connected to any of the tidal wetland or marsh habitat required by this species. The nearest documented occurrence of this species is over 2.5 miles northeast of the project area, along the margin of the San Francisco Bay.
Salt-marsh wandering shrew *Sorex vagrans halicoetes*	SSC	Found in the salt marshes of the south arm of San Francisco Bay.	Found in marsh and swamp and wetland habitats; Medium high marsh 6-8 feet above sea level where abundant driftwood is scattered among pickleweed.	**Not Expected.** The project area does not contain and is not connected to any of the tidal wetland or marsh habitat required by this species. The nearest documented occurrence of this species is over 1 mile northwest of the project area and is listed as "extirpated." The next nearest extant occurrence is over 2.5 miles northeast of the project area, along the margin of the San Francisco Bay.
Mammals: Canids				
San Joaquin kit fox *Vulpes macrotis mutica*	FE, ST	Primarily occurs within the San Joaquin Valley, becoming rarer in the northern portion of the valley and northwest of the valley, just east of the San Francisco Bay Area.	Occurs in annual grasslands or grassy open stages with scattered shrubby vegetation. Needs loose-textured sandy soils for burrowing, and suitable prey base.	**Not Expected.** The project area does not provide the vast open areas required for this species' prey and denning. There are no documented occurrences of this species within the 9-quadrangle CNDDB search radius.

STATUS KEY:

Federal

FE: Federally-listed Endangered
FT: Federally-listed Threatened
FD: Federally-delisted
CE: Candidate Endangered
DL: Delisted

State

SE: State-listed Endangered
ST: State-listed Threatened
SCT: State-listed Candidate Threatened
SSC: California Species of Special Concern
WL: Watch List
FP: Fully Protected

SOURCES:

CNDDB (Accessed October 2020) were used to identify preferred habitat for each species.
Xerces.org used for invertebrate habitat and species information

7. CULTURAL AND HISTORICAL RESOURCES

This EIR chapter describes cultural and historic resource implications of the proposed Freedom Circle Focus Area Plan/Greystar General Plan Amendment. The chapter addresses the specific cultural and historic impact concerns identified by the CEQA Guidelines--i.e., would development under the proposed Plan (including the Greystar project) cause a substantial adverse change in an archaeological or historic resource, disturb human remains, or cause a substantial adverse change in the significance of a tribal cultural resource.[1]

As used in this chapter, the word "historical" refers to "relating to history," while the word "historic" refers to "recognized as having importance in history."

7.1 SETTING

7.1.1 Prehistoric and Historical Resources—Plan Area

(a) Early Settlement and Recent History. The Ohlone Native Americans inhabited what is now known as the San Francisco Bay area prior to invasion by the Spanish in 1769 and were named Costanoans by the Spanish. Costanoan-speaking tribal groups occupied the area from the Pacific Coast to the Diablo Range and from San Francisco to Point Sur. The Ohlones were hunters and gatherers, living in "tribelets" – small independent groups of usually related families occupying a specific territory and speaking the same language or dialect. The language of the local tribe was the Tamyan linguistic group.

These groups were independent political entities, each occupying specific territories defined by physiographic features. Each group controlled access to the natural resources of the territories. Although each tribal group had one or more permanent villages, their territory contained numerous smaller campsites used as needed during a seasonal round of resource exploitation. Extended families lived in domed structures thatched with tule, grass, wild alfalfa, ferns or carrizo.[2] Semi-subterranean sweathouses were built into pits excavated in stream banks and covered with a structure against the bank. The tule raft, propelled by double-bladed paddles similar to those used in the Santa Barbara Island region, were used to navigate across San Francisco Bay.[3]

[1]CEQA Guidelines, appendix G, items V (a) through (c) and XVIII (a) and (b).

[2]Levy, Richard. 1978. Costanoan in R.F. Heizer (ed.) Handbook of North American Indians. Vol. 8: California: 485-495. Washington D.C. Smithsonian Institute.

[3]Kroeber, A.L. 1976. Handbook of the Indians of California, New York. Dover Publications, Inc.

Local watersheds were an important source for seasonal foods such as migratory waterfowl and shorebirds by providing protein-rich supplements to the typical aboriginal diet of greens, roots and bulbs, seeds, and acorns, as well as fish[1].

The first Europeans to reach the San Francisco Bay area were Spanish explorers in 1769 as part of the Portolá expedition. In 1774, the de Anza expedition had set out to convert the Native American tribes to Christianity, resulting in the establishment of (among others) Mission San Francisco de Asis (Mission Dolores), founded in 1776 and Mission Santa Clara de Asis, founded in 1777. The Mission at Santa Clara was also known as Mission Santa Clara de Thamien in reference to the Tamyen people. The native Tamyen people were slowly subjugated and absorbed into the Mission system. By 1795, all the Tamyen villages had been abandoned and the people baptized into the Christian faith.[2]

In 1821, the Mexicans achieved independence from Spain, but the change of rulers created no changes in the way the missions operated. The Ohlone were still brought to the mission for compulsory baptism and conversion to Christianity. Records show that by December, 1828, there had been 8,279 baptisms, 2,376 marriages, and 6,408 deaths at Mission Santa Clara. In 1836, control of Mission Santa Clara was taken from the padres and turned over to civil commissioners who were supposed to oversee the "return of the land to the native population." This did not happen, and squatters took over the church buildings and land. Disorder and decay set in and by 1839, there were only 300 Native Americans remaining in the vicinity of Mission Santa Clara. About this time, the Mexican governor began issuing land grants to various favored people. The land was used for vast ranchos (ranches); large numbers of cattle were raised and roamed at will over the land. Hides and tallow from the livestock eventually comprised the first commercial export product and industry in the area.

During and after the Gold Rush of 1849, many of the gold seekers did not find gold and began to settle in the Santa Clara valley to farm the land. In the 1850's the hamlet of Santa Clara began to take shape as a recognizable small town. The town site was surveyed by William Campbell into lots one hundred yards square, and one lot was given to each citizen with the understanding that he was to build a house on it within three months or lose the property. A schoolhouse and a church were built, several hotels erected, mercantile businesses established, and 23 houses were imported from Boston to be set up in the town. In 1851, Santa Clara College was established on the old mission site and became a prominent feature of the developing town. Santa Clara incorporated as a town on July 5, 1852 and became a state-chartered city in 1862. By this time the city encompassed an area two miles long and one and a half miles wide. Outside city limits, small family farms and orchards developed. As the town grew, it was supported by a variety of manufacturing, seed, and fruit industries. One of the earliest manufacturing businesses in Santa Clara was Wampach Tannery, established in 1849. In 1866, the business was taken over by Jacob Eberhard. Eberhard Tannery provided employment for the area for many years until torn down in 1953. Its fine leather products were sent to the Eastern U.S. states as well as Europe. The immediate vicinity around Santa Clara became famous for its flower and vegetable seed farms. J.M. Kimberlin and Co. was the first seed company to establish in Santa Clara in 1875, and it eventually became the largest seed

[1]Levy, Richard. 1978.

[2]City of Cupertino. 2020. History. https://www.cupertino.org/our-city/about-cupertino/history, accessed April 15, 2020.

grower on the Pacific Coast. Many other fruit and seed companies were established in or in the immediate environs of Santa Clara.

At the end of the 19th century, more and more people arrived seeking the mild climate and job opportunities of the Santa Clara area. By 1906, the population of the city had grown to nearly 5,000. The population remained fairly stable and did not increase greatly until after World War II, when the city outgrew its 19th century boundaries and expanded to open lands north and west of the original city limits. The farms and orchards began to accommodate the burgeoning population.

The semiconductor chip, was developed in the 1950's. The resulting computer and electronics industries, based on the silicon chip, redeveloped remaining agricultural and orchard land and transformed the agricultural nature of Santa Clara and Santa Clara Valley.

The Plan Area was some of the last land in Santa Clara to be developed. Aerial photography and USGS maps show that the Plan Area remained agricultural until at least 1975 and had not reached the modern extent of development until the mid-1980's, with the City's need for additional business districts. By 1990, the City covered 19.3 square miles and had a population of more than 93,000.[1]

(b) Prehistoric Archaeological Resources. Prehistoric archaeological sites are commonly found near historical water courses. Prehistoric archaeological resources found at such sites often include middens and bedrock milling stations, as well as chert or obsidian flakes, projectile points, mortars and pestles, and dark friable soil containing shell and bone, dietary debris, heat-affected rock, or human burials.

Though the majority of the Plan Area is developed, with some small areas of managed vegetation, there is a possibility that as-yet unrecorded prehistoric cultural resources could exist beneath the surface of the Plan Area. Also see section 7.1.2, Prehistoric and Historical Resources—Greystar Project Site, below.

(c) Historical Resources. Under the CEQA Guidelines section 15064.5 (Determining the Significance of Impacts to Archaeological and Historical Resources), buildings, structures, and objects that are listed or eligible for listing on the California Register of Historical Resources (CRHR) or on a local register of historic resources are presumed to be historically or culturally significant. A 50-year age "threshold," which originally resulted from 36 Code of Federal Regulations 60.4 and pertains to the National Register of Historic Places (NRHP), is used by some jurisdictions as a guide for determining whether or not a resource may warrant evaluation. For instance, the City's General Plan includes a provision for "the evaluation of resources over 50 years old to determine eligibility for the City's list of Architecturally or Historically Significant Properties" (General Plan Policy 5.6.1-P6). The CRHR criteria (CCR § 4852) state that in order for a resource to achieve significance within the past 50 years, sufficient time must have passed to obtain a scholarly perspective on the events or individuals associated with the resource. The California Office of Historic Preservation (OHP) provides guidelines for resources that may be historic and have not yet reached 50 years of age.

[1]City of Santa Clara. History. https://www.santaclaraca.gov/our-city/about-santa-clara/city-history, accessed April 15, 2020.

Regionally, the Northwest Information Center (NWIC) keeps records of historic resource that have been documented in Santa Clara County.

Locally, the City adopted Criteria for Local Significance in 2004 that established a Historic Resources Inventory.

To date, no building or structure in the Plan Area is on a local or State historic resource inventory nor is on the National Register.

7.1.2 Prehistoric and Historical Resources—Greystar Project Site

(a) Overview. An assessment of the Greystar project site was conducted by Basin Research Associates[1] for the Greystar project applicant to determine if significant cultural, historic, and/or tribal cultural resources might be affected by the proposed Greystar project. The assessment was based on a prehistoric and historic site record and literature search completed by the California Historical Resources Information System, Northwest Information Center (CHRIS/NWIC) Sonoma State University, Rohnert Park, including review of the National Register of Historic Places listings for Santa Clara County, California; the California Inventory of Historic Resources (CAL/OHP 1976); the State Office of Historic Preservation Built Environment Resources Directory (BERD) for Santa Clara County; and other pertinent State and County documents, lists, and maps. In addition, a field survey was conducted on September 4, 2020 by Basin Research Associates staff.

(b) Project Site Setting. According to the Basin Research Associates report, the Santa Clara Valley provided a favorable environment for Native Americans due to the available resources and relatively close proximity to the bayshore. The project site is in an area within the *Tamyen* (*Tamien*) tribelet territory of the Ohlone to the west of Mission Santa Clara. However, no ethnographic settlements were known to have been located in, adjacent to, or near the project site. Although Native Americans were associated with the Mission, and the Native American village identified as *Ulis-tak* was situated along the west side of Guadalupe River (roughly within two miles of the project site), no artifacts of settlements (stone tools or tool manufacturing areas, quarries for tool stone, bedrock mortars or other milling feature sites, trails, etc.) have been identified in, adjacent to, or near the project site.[2]

The project site is located in what was the southwest corner of the former Rancho Ulistac. No known resources from that period (dwellings, corrals, orchards, etc.) have been identified in or adjacent to the project site, although it is possible that the general area may have been used for cattle grazing, which was common during that time. Map research indicates that there were no structures or orchards on the project site until orchards began to appear around 1939 and continuing into the 1970s.[3]

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[1]Basin Research Associates, "Archaeological Resources Assessment Report – Freedom Circle Residential Project, City of Santa Clara, Santa Clara County (APN 104-40-021 and 104-40-036)," prepared for Jimmy Ly, Greystar Real Estate Partners, October 7, 2020. This report is available online at: https://www.santaclaraca.gov/Home/Components/BusinessDirectory/BusinessDirectory/297/2495?npage=2.

[2]Basin Research Associates, pp. 8-11.

[3]Basin Research Associates, pp. 11-13.

(c) Archaeological and Historic Findings. A July 13, 2020 records search conducted by CHRIS/NWIC for the Greystar project applicant determined that the project area *"contains no previously recorded archaeological resources* [or] *previously recorded buildings or structures within or adjacent to the proposed project area,"* and although *"historical literature and maps indicated the potential for historic-period activity within vicinity of the proposed project area…there is a low potential for unrecorded historic-period archaeological resources in the proposed project area."*

In addition, review of the State Office of Historic Preservation Built Environment Resource Directory by CHRIS/NWIC identified no recorded buildings or structures located within the project site. Basin Research Associates contacted no other agencies, departments, or local historical societies regarding potential historic sites or structures.

(d) Cultural Resource Records/Tribal Contact. A September 28, 2020 records search conducted by CHRIS/NWIC for Basin Research Associates produced no records of prehistoric, combined prehistoric/historic, or historic sites on the project site or within 1,000 feet. Related cultural resource documents on file at CHRIS/NWIC that include the project site and/or adjacent areas were prepared in the past for transportation projects, projects completed for the South Bay Water Recycling Program, the San Tomas Aquino/Saratoga Creek Trail Project, and a fiber optic project, but none of these documents identified resources on and or adjacent to the project site.

Basin Research Associates contacted the State of California Native American Heritage Commission (NAHC) and requested a Sacred Lands File search. The NAHC search did not indicate the presence of Native American Sacred Sites within or near the project site. In addition, Basin Research Associates sent letters requesting additional information to eight Native American individuals and/or groups recommended by the NAHC as having local knowledge of the project area. One response was received from the Amah Mutsun Tribal Band of Mission San Juan Bautista. They recommended (1) cultural resources sensitivity training for all crews involved in any earth movement, and (2) California trained archaeological monitoring and qualified Native American monitoring when needed.

(e) Field Survey. A field survey of the project site by Basin Research Associates conducted on September 4, 2020 identified no evidence of prehistoric or historically significant archaeological resources or culturally modified soil (e.g., midden). Several features of the "built environment" were observed on the site (a concrete utility vault, electrical transmission power poles, electrical service boxes/cabinets, a water service pipe, and a wood and Plexiglas shade structure [i.e., the "bus shelter"]) but all were determined to be less than 50 years in age and none was considered significant.

7.2 REGULATORY SETTING

7.2.1 Federal

National Historic Preservation Act of 1966 (54 U.S.C. 300101 et seq., formerly 16 U.S.C. 470 et seq.) (NHPA). This law was enacted to prevent unnecessary harm to historic properties. The NHPA includes regulations that apply specifically to federal land-holding agencies, but also includes regulations ("Section 106"; 54 U.S.C. 306108) that pertain to all projects funded, permitted, or approved by any federal agency that have the potential to affect cultural resources.

Provisions of the NHPA establish a National Register of Historic Places, or NRHP (the National Register is maintained by the National Park Service); the Advisory Council on Historic Preservation; State Historic Preservation Offices; and federal grants-in-aid programs.

National Environmental Policy Act of 1969 (42 U.S.C. 4321 and 4331-4335, as amended) (NEPA). The act establishes guidelines to "preserve important historic, cultural, and natural aspects of our national heritage, and maintain, wherever possible, an environment which supports diversity and variety of individual choice." All projects that are subject to NEPA are subject to compliance with section 106 of the NHPA (54 U.S.C. 306108) and NEPA requirements concerning cultural resources.

American Indian Religious Freedom Act of 1978 (42 U.S.C. 1996 and 1996a, as amended) and Native American Graves and Repatriation Act of 1990 (25 U.S.C. 3001 et seq., as amended). These acts establish as national policy that traditional religious practices and beliefs, sacred sites (including right of access), and the use of sacred objects shall be protected and preserved. Native American remains are further protected by the Native American Graves Protection and Repatriation Act of 1990.

Secretary of the Interior's Standards. The Secretary of the Interior is responsible for establishing professional standards and providing guidance related to the preservation and protection of all cultural resources listed in, or eligible for listing in, the National Register of Historic Places. The Secretary of the Interior's *Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings* and the Secretary of the Interior's *Guidelines for Rehabilitating Historic Buildings* and the *Guidelines on Sustainability for Rehabilitating Historic Buildings* apply to all grants-in-aid projects assisted through the Historic Preservation Fund, and are intended to be applied to a wide variety of historic preservation and community projects and resources focused on heritage preservation, including buildings, structures, sites, objects, and districts.

National Register of Historic Places (NRHP). Archaeological and historical sites can be given a measure of protection if they are eligible for the National Register of Historic Places. The criterion most often applied to archaeological sites addresses the potential of a site to yield information important in prehistory or history. The National Register criteria, and other information issued by the Advisory Council on Historic Preservation, present the legal measures of significance relevant to cultural resources. The NRHP criteria are the following:

- The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects of State and local importance that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and that are associated with events that have made a significant contribution to the broad patterns of our history; or

- are associated with the lives of significant persons in our past; or

- embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack distinction; or

- have yielded, or may be likely to yield, information important to history or prehistory.

Code of Federal Regulations (CFR) Title 43 CFR 8365.1-5. This regulation addresses the collection of invertebrate fossils and fossil plants, including the willful disturbance, removal, and destruction of scientific resources or natural objects.

7.2.2 State

California Environmental Quality Act (Public Resources Code 21000 et seq.) (CEQA). Section 15064.5 of the CEQA Guidelines (California Code of Regulations Title 14, section 15000 et seq.) requires lead agencies to determine whether proposed projects requiring discretionary government approval may have a significant effect on historic, archaeological, or tribal cultural resources. This determination applies to cultural resources that meet significance criteria qualifying them as “unique” or “of importance,” or are listed or determined eligible for listing on the California Register of Historical Resources (CRHR). If a project may have an adverse effect on a unique or important historical or cultural resource, the project is determined to have a significant effect on the environment, and the effect must be mitigated. Under CEQA, a historical resource need not be listed already on a local, State, or federal list of historic resources to meet the CEQA impact criteria requiring mitigation.

The CEQA Guidelines specify that when a proposed individual project may adversely affect a CEQA-defined historic resource, the lead agency is required to carefully consider the possible project impacts on the historic resource before proceeding (Public Resources Code section 21084 and subsection 21084.1). In determining if there is a significant impact on one or more historic resources, the CEQA Guidelines essentially call for a two-part test: (1) is the resource "historically significant," and (2) would the project cause a "substantial adverse change" in the significance of the resource? Under section 15064.5(a) of the CEQA Guidelines, a historic resource shall be presumed to be historically or culturally significant if it is:

1. A resource listed in, or determined to be eligible by the State Historical Resources Commission for listing in, the California Register of Historical Resources (Public Resources Code section 5024.1, Title 14 CCR, section 4850 et seq.).

2. A resource included in a local register of historical resources, as defined in section 5020.1(k) of the Public Resources Code, or identified as significant in a historical resource survey meeting the requirements of section 5024.1(g) of the Public Resources Code, shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.

3. Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be a historical resource, provided the lead agency’s determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be “historically significant” if the resource meets the criteria for listing in the CRHR (Public Resources Code section 5024.1, Title 14 CCR, section 4800.3) as follows:

A. Is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage;

B. Is associated with the lives of persons important in our past;

C. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or

D. Has yielded, or may be likely to yield, information important in prehistory or history.

California Register of Historical Resources (CRHR). Under the CRHR (and almost identical to CEQA thresholds 3A through D, directly above), a historical resource may be determined significant under one or more of the following four criteria:

1. It is associated with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States; or
2. It is associated with the lives of persons important to local, California, or national history;
3. It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master or possesses high artistic values; or
4. It has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

California Senate Bill 18 (Chapter 905, "Traditional Tribal Cultural Places"). Senate Bill 18 requires cities and counties to conduct consultations with Native American tribes before local officials adopt or amend their general plans. These consultations are for preserving or mitigating impacts to Native American historic, cultural, sacred sites, features, and objects located within the city or county. A tribe has 90 days from the date of contact to request a consultation, unless the tribe agrees to a shorter timeframe. Senate Bill 18 also added a new topic that must be addressed in the general plan open space element: open space land for the protection of Native American historic, cultural, sacred sites, features, and objects.

California Assembly Bill 52 (Chapter 532, amends and adds sections to the Public Resources Code, relating to Native Americans). Assembly Bill 52 (AB 52) establishes that a project with an effect that may cause a substantial adverse change in the significance of a "tribal cultural resource" is a project that may have a significant effect on the environment. AB 52 requires a lead agency to begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project, if (1) the tribe requested to the lead agency, in writing, to be informed by the lead agency of proposed projects in that geographic area, and (2) the tribe then timely requests formal consultation for that particular proposed project after receiving notification of the project. Consultation must be completed prior to releasing a negative declaration, mitigated negative declaration, or environmental impact report.

AB 52 requires the Native American Heritage Commission (see below) to provide each California Native American tribe with: (1) a list of all public agencies that may be a lead agency within the geographic area in which the tribe is traditionally and culturally affiliated, (2) the contact information of those agencies, and (3) information on how the tribe may request those public agencies to notify the tribe of projects for the purposes of requesting consultation

Native American Heritage Commission (NAHC). The NAHC, established in 1976, was created to identify and catalog cultural resources (i.e., places of special religious or social significance to Native Americans, and known graves and cemeteries of Native Americans on

private lands) in California. The Commission is charged with the duty of preserving and ensuring accessibility of sacred sites and burials, the disposition of Native American human remains and burial items, maintaining an inventory of Native American sacred sites located on public lands, and reviewing current administrative and statutory protections related to these sacred sites. Among the functions of the NAHC is maintenance of lists of Native American Contacts and Most Likely Descendants. The NAHC authorizes Most Likely Descendants the right to determine the treatment, disposition, and analysis of Native American remains. Also, see AB 52, above.

7.2.3 Local

Santa Clara City Code. City Code title 18 (Zoning), chapter 18.106 (et seq.) applies to preservation of historic resources, including historic landmarks and districts. The section includes the identification of properties to be kept on the City's local Historic Resources Inventory (HRI) after recommendation by the City's Historical and Landmarks Commission (HLC) to the Planning Commission and adoption by the City Council. Section 18.106.030 codifies the HRI. Chapter 18.106 promotes the preservation and protection of historic, archaeological or cultural monuments, sites, objects, structures, buildings or other areas so designated as well as setting out regulations regarding historic structures within the City.

City of Santa Clara General Plan. The Santa Clara 2010-2035 General Plan outlines the historic preservation goals and policies of the City. The City's historic preservation goals are listed below:

- Goal 5.6.1-G1: Preservation of historic resources and neighborhoods.
- Goal 5.6.1-G2: Public awareness of the City's historic preservation programs.
- Goal 5.6.1-G3: Changes and maintenance of historic resources that retain the integrity of the property and its historic value.
- Goal 5.6.2-G1: New development that is compatible with nearby historic resources.
- Goal 5.6.2-G2: Preservation of the neighborhood context for historic resources.
- Goal 5.6.3-G1: Protection and preservation of cultural resources, as well as archaeological and paleontological sites.
- Goal 5.6.3-G2: Appropriate mitigation in the event that human remains, archaeological resources or paleontological resources are discovered during construction activities.

Policies relating to the goals are listed Section 5.6 of the City's General Plan. The General Plan also lists the resources on the City's local HRI as well as the criteria for inclusion on the HRI. The criteria for inclusion include historic or cultural significance, architectural significance, geographic significance, archaeological significance, and integrity. At the time of writing (April 2021), there are no listed historic resources on the City's HRI within the Plan Area.

7.3 IMPACTS AND MITIGATION MEASURES

This section describes potential impacts related to cultural and historic resources which could result from the Freedom Circle Focus Area Plan/Greystar General Plan Amendment and recommends mitigation measures as needed to reduce significant impacts.

7.3.1 Significance Criteria

Based on the CEQA Guidelines,[1] implementation of the Freedom Circle Focus Area Plan/ Greystar General Plan Amendment would have a significant impact related to historic, cultural, and tribal cultural resources if it would:

(a) Cause a substantial adverse change in the significance of a historic resource pursuant to CEQA Guidelines section 15064.5;

(b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines section 15064.5;

(c) Disturb any human remains, including those interred outside of dedicated cemeteries; or

(d) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

> (1) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or
>
> (2) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

7.3.2 Relevant Freedom Circle Focus Area Plan Policies

Section 7.2 (Regulatory Setting), above, applies to Focus Area Plan implementation. Because adopted regulations and requirements are already in place, the Plan does not include policies that directly address CEQA-defined cultural and historical resources impacts. The future, required comprehensive planning study (such as a specific plan) could include additional policies, standards, or guidelines pertaining to cultural and historical resources, if deemed necessary.

[1] CEQA Guidelines, appendix G, items V (a) through (c) and XVIII (a) and (b).

7.3.3 Impacts and Mitigations

Impact 7-1: Destruction/Degradation of Historic Resources—Plan Area. There may be one or more properties or features within the Focus Area Plan Area, now or in the future, that meets the CEQA definition of a historic resource, including properties or features eligible for listing in a local, State, or Federal register of historic resources. Future development projects in the Focus Area Plan Area, which would be required to be consistent with the standards and guidelines incorporated in a subsequent comprehensive planning study (such as a specific plan) adopted by the City to guide Plan Area development, may ultimately cause substantial adverse changes in the significance of one or more such historic resources. Substantial adverse changes that may occur include physical demolition, destruction, relocation, or alteration of one or more historic resources or its immediate surroundings such that the resource is "materially impaired." The significance of a historic resource would be considered potentially "materially impaired" when and if an individual future development project proposes to demolish or materially alter the physical characteristics that justify the determination of its significance (CEQA Guidelines section 15064.5[b]). Such adverse changes in the significance of a CEQA-defined historic resource would be a ***significant impact*** (see criterion [a] in subsection 7.3.1, "Significance Criteria," above).

The identification of historic resources must account for change over time. Today's newer buildings may be recognized as historic within the lifetime of the Focus Area Plan and subsequent comprehensive planning study (such as a specific plan) adopted by the City to guide Plan Area development. Today's older buildings may attain historic significance as more is uncovered about their past. Currently non-historic buildings may be recognized as historic in the future if the people or events associated with those buildings become historically or culturally distinguished. All these possibilities are accounted for in CEQA Guidelines section 15064.5 (Determining the Significance of Impacts to Archaeological and Historical Resources).

Consistent with the perspective described above, the California Office of Historic Preservation notes, "There is a common misconception that resources 50 years or older need to be evaluated, but anything younger cannot be considered significant….[T]he California Register criteria (CCR section 4852) state that in order for a resource to achieve significance within the past 50 years, sufficient time must have passed to obtain a scholarly perspective on the events or individuals associated with the resource….Specifically, the California Register statute allows CEQA Lead Agencies [in the case of this EIR, the City of Santa Clara] a fair amount of flexibility in justifying that a resource is significant, even if that resource is less than 50 years old."[1]

At of time of writing (April 2021), there are currently no buildings older than 45 years within the Plan Area.[2]

[1]California Office of Historic Preservation, CEQA Case Studies, September 2015 (Volume VI).

[2]Historic Aerials, 2020.

Due to the possibilities described above, the potential for a substantial adverse change to a historic resource due to individual discretionary development projects proposed under a subsequent comprehensive planning study (such as a specific plan) adopted by the City to guide Plan Area development would be evaluated by a qualified professional on a case-by-case basis in accordance with CEQA Guidelines section 15064.5 to determine whether projects would have new or substantially more severe impacts to historic resources.

Under CEQA, conformance with the Secretary of the Interior's Standards will normally mitigate impacts on a historic resource to a less-than-significant level. Under the *Standards for Rehabilitation*, new additions, alterations, or adjacent new construction must not destroy character-defining features, spaces, and spatial relationships. New work must be differentiated from the old and must be compatible with the historic materials, features, size, scale, proportion, and massing. New additions, alterations, and construction must be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

In some cases, it can be challenging to accommodate the needs of new uses while fully adhering to the *Standards for Rehabilitation* and, in many situations, it can be infeasible. In addition, changes to the eligibility, identification, and condition of historic resources and their surroundings between now and the time that individual development proposals are received for specific properties could affect potential impacts on historic resources. As a result, it cannot be determined at this time, without consideration of a current, specific development proposal, whether it would be feasible to mitigate to a less-than-significant level the impacts of any given subsequent development project, under the comprehensive planning study (such as a specific plan) adopted by the City to guide Plan Area development, involving properties that may contain historic resources. (As noted above under the Setting section, 7.1, no building or structure in the Plan Area is on a local or State historic resource inventory.) Although the following mitigation measures are intended to mitigate impacts on historic resources from implementation of a comprehensive planning study (such as a specific plan) adopted by the City to guide Plan Area development, the impacts on historic resources may still remain significant and unavoidable. This conservative approach is consistent with CEQA.

Mitigation 7-1. For any individual discretionary project under the subsequent comprehensive planning study (such as a specific plan) adopted by the City to guide Plan Area development that the City determines may involve a property that contains a potentially significant historic resource, the resource shall be assessed by a professional who meets the Secretary of the Interior's Professional Qualifications Standards to determine whether the property is a significant historic resource and whether or not the project may have a potentially significant adverse effect on the historic resource. If, based on the recommendation of the qualified professional, the City determines that the project may have a potentially significant effect, the City shall require the applicant to implement the following mitigation measures:

(continued)

Mitigation 7-1 (continued):

(a) Adhere to at least one of the following Secretary of the Interior's Standards:[1]

- Secretary of Interior's *Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings*; or
- Secretary of Interior's *Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings*.

The qualified professional shall make a recommendation to the City as to whether the project fully adheres to the Secretary of the Interior's Standards, and any specific modifications necessary to do so. The final determination as to a project's adherence to the Standards shall be made by the City body with final decision-making authority over the project. Such a determination of individual project adherence to the Secretary of the Interior's Standards will constitute mitigation of the project historic resource impacts to a ***less-than-significant level*** (CEQA Guidelines section 15064.5).

(b) If the City determines that measure (a) is not feasible, the historic resource shall be moved to a new location compatible with the original character and use of the historic resource, and its historic features and compatibility in orientation, setting, and general environment shall be retained, such that a substantial adverse change in the significance of the historic resource is avoided.[2] Implementation of measure (b) would reduce the impact to a ***less-than-significant level.***

If the City determines that neither measure (a) nor measure (b) is feasible, to the extent required by CEQA, additional analysis shall be conducted in accordance with CEQA Guidelines Section 15064.5 and 15162, particularly in order for specific project

(continued)

[1]Under the CEQA Guidelines (section 15064.5[b][3]), a project's adverse impact on a historic resource generally can be mitigated to a less-than-significant level by following either of these standards.

[2]One example of a substantial adverse change would be the loss of eligibility for listing on the California Register. The State Historical Resources Code encourages the retention of historic resources on-site and discourages the non-historic grouping of historic buildings into parks or districts. However, it is recognized that moving a historic building, structure, or object is sometimes necessary to prevent its destruction. Therefore, a moved building, structure, or object that is otherwise eligible may be listed in the California Register if it was moved to prevent its demolition at its former location and if the new location is compatible with the original character and use of the historic resource. A historic resource should retain its historic features and compatibility in orientation, setting, and general environment.
(California Office of Historic Preservation, *California Register and National Register: A Comparison,* Technical Assistance Series 6; Sacramento, CA: California Department of Parks and Recreation, 2001)

Mitigation 7-1 (continued):

alternatives to be designed and evaluated. If the City determines that neither measure (a) nor (b) is found to be feasible, then the City shall, as applicable and to the extent feasible, implement the following measures in the following order:

(c) Document the historic resource before any changes that would cause a loss of integrity and loss of continued eligibility. The documentation shall adhere to the Secretary of the Interior's *Standards for Architectural and Engineering Documentation*. The level of documentation shall be proportionate with the level of significance of the resource. The documentation shall be made available for inclusion in the Historic American Building Survey (HABS) or the Historic American Engineering Record (HAER) Collections in the Library of Congress, the California Historical Resources Information System (CHRIS), and the Bancroft Library, as well as local libraries and historical societies.

(d) Retain and reuse the historic resource to the maximum feasible extent and continue to apply the Secretary of the Interior's Standards to the maximum feasible extent in all alterations, additions, and new construction.

(e) Through careful methods of planned deconstruction to avoid damage and loss, salvage character-defining features and materials for educational and interpretive use on-site, or for reuse in new construction on the site in a way that commemorates their original use and significance.

(f) Interpret the historical significance of the resource through a permanent exhibit or program in a publicly accessible location on the site or elsewhere within the Plan Area.

Implementation of measures (b), (c), (d), (e), and/or (f) would reduce a significant impact on historic resources, but not to a less-than-significant level. Without knowing the characteristics of the potentially affected historic resource or of the future individual development proposal, the City cannot determine with certainty that measure (a) or (b) above would be considered feasible. Consequently, this impact is currently considered ***significant and unavoidable.***

Impact 7-2: Destruction/Degradation of Historic Resources—Greystar Project. The Greystar project site is vacant and does not contain any buildings or structures (except a wood and Plexiglas bus shelter). As discussed in section 7.1 (Setting) above, review of the State Office of Historic Preservation Built Environment Resource Directory by the CHRIS/NWIC identified no recorded buildings or structures located on the project site. As discussed in section 7.1.2, according to a cultural resources assessment by Basin Research Associates, several features of the "built environment" were observed on the site (a concrete utility vault, electrical transmission power poles, electrical service boxes/cabinets, a water service pipe, and a wood and Plexiglas shade structure [i.e., the bus shelter]). All were determined to be less than 50 years in age and none was considered significant. Therefore, because there are no buildings or structures on-site that would meet the CEQA definition of a historic resource, including properties or features eligible for listing in a local, State, or Federal register of historic resources, the project would result in a ***less-than-significant impact*** (see criterion [a] in subsection 7.3.1, "Significance Criteria," above).

Mitigation 7-2. No significant impact has been identified; no mitigation is required.

Impact 7-3: Potential for Disturbance of Buried Archaeological Resources, Including Human Remains, and Tribal Cultural Resources—Plan Area. Development facilitated by the subsequent comprehensive planning study (such as a specific plan) could disturb unrecorded sensitive archaeological resources or tribal cultural resources in the Plan Area. This possibility represents a ***potentially significant impact*** (see criteria [b], [c], and [d] in subsection 7.3.1, "Significance Criteria," above).

On March 26, 2021, the City of Santa Clara provided notification to Native American tribes identified by the Native American Heritage Commission (NAHC) as having traditional lands or cultural places in the proposed project vicinity to invite them to request consultation. To date, no tribes have requested consultation for the Plan (see also Impact 7-4 below which summarizes the Greystar project's consultation process).

Though almost all of the Plan Area is developed, with only the 13.3-acre Greystar Project site vacant, there is a possibility that as-yet unrecorded prehistoric cultural resources or tribal cultural resources could exist beneath the surface of the Plan Area. Contact with such resources during construction activities could result in a significant impact. The mitigation below would reduce the impact to a less-than-significant level.

Mitigation 7-3. During the City's standard project-specific review process for all future, discretionary, public improvement and private development projects under the subsequent comprehensive planning study (such as a specific plan) adopted by the City to guide development in the Plan Area, the City shall determine the possible presence of, and the potential for new or substantially more severe impacts of the action on, archaeological resources and tribal cultural resources. The City shall require individual project applicants or environmental consultants to contact the California Historical Resources Information System (CHRIS) to determine whether the particular project is located in a sensitive area. Future discretionary development projects that CHRIS determines may be located in a sensitive area – i.e., on or adjoining an identified archaeological site – shall proceed only after the project applicant contracts with an archaeologist who meets the Secretary of the Interior's Professional Qualifications Standards, to conduct a determination in regard to cultural values remaining on the site and warranted mitigation measures, as described directly below.

In general, to make an adequate determination in these instances, the archaeologist shall conduct a preliminary field inspection to (1) assess the amount and location of visible ground surface, (2) determine the nature and extent of previous impacts, and (3) assess the nature and extent of potential impacts. Such field inspection may demonstrate the need for some form of additional subsurface testing (e.g., excavation by auger, shovel, or backhoe unit) or, alternatively, the need for on-site monitoring of subsurface activities (i.e., during grading or trenching).

In addition, the City shall continue to notify the Native American tribes traditionally and culturally affiliated with the Plan Area of the discretionary, public improvement and private development projects if those proposed improvements or projects are subject to a CEQA Negative Declaration (including Mitigated Negative Declaration) or Environmental Impact Report (EIR), in accordance with California Assembly Bill 52, and if a Native American tribe requests consultation, conduct a good faith consultation.

Following field inspection and completion of all necessary phases of study as determined by the archaeologist and the City, damage to any identified archaeological resources shall be avoided or mitigated to the maximum extent possible. Preservation in place to maintain the relationship between the artifact(s) and the archaeological context is the preferred manner of mitigating impacts on an archaeological site. Preservation may be accomplished by:

- Planning construction to avoid the archaeological or tribal cultural site;
- Incorporating the site within a park, green space, or other open space element;

(continued)

Mitigation 7-3 (continued):

- Covering the site with a layer of chemically stable soil; or
- Deeding the site into a permanent conservation easement.

When in-place mitigation is determined by the City to be infeasible, a *data recovery plan*, which makes provisions for adequate recovery of culturally or historically consequential information about the site (including artifacts discovered on the site), subject to review and approval by the City, shall be prepared and adopted prior to any excavation being undertaken. Such studies shall be submitted to the CHRIS Northwest Information Center. If Native American artifacts are indicated, the studies shall also be submitted to the Native American Heritage Commission (NAHC). CHRIS and NAHC are recognized as experts in their respective disciplines.

Identified cultural resources shall be recorded on form DPR 422 (archaeological sites). Mitigation measures recommended by these two groups (CHRIS and NAHC), as reviewed and approved by the City, shall be undertaken prior to and during construction activities. Although the precise details of the mitigation measures would be specific to the particular project site, the measures shall be consistent with the avoidance and mitigation strategies described in this programmatic mitigation measure.

A *data recovery plan* and data recovery for a historic resource shall not be required if the City determines that testing or studies already completed have adequately recovered the necessary data, provided that the data have already been documented in an EIR or are available for review at the CHRIS Northwest Information Center (CEQA Guidelines section 15126.4[b]).

Resource identification training procedures shall be implemented for construction personnel, conducted by an archaeologist who meets the Secretary of the Interior's Professional Qualifications Standards. In the event that subsurface cultural resources are otherwise encountered during approved ground-disturbing activities for a Plan Area construction activity, work within 50 feet shall be stopped and a qualified archaeologist retained to evaluate the finds following the procedures described above. Project personnel shall not collect cultural resources. Although work may continue beyond 50 feet, the archaeologist shall be empowered to temporarily halt or redirect construction activities to ensure avoidance of adverse impacts to archaeological resources.

(continued)

Mitigation 7-3 (continued):

If human remains are found, the rules set forth in State Health and Safety Code section 7050.5 and CEQA Guidelines section 15126.4(b) apply and shall be followed.

Implementation of this measure would reduce the impact to a ***less-than-significant level.***

Impact 7-4: Potential for Disturbance of Buried Archaeological Resources, Including Human Remains and Tribal Cultural Resources—Greystar Project. Development of the Greystar project could disturb unrecorded sensitive archaeological resources or tribal cultural resources on the project site. This possibility represents a ***potentially significant impact*** (see criteria [b], [c], and [d] in subsection 7.3.1, "Significance Criteria," above).

As discussed above in section 7.1.2, the results of a records search by CHRIS/NWIC and a NAHC Sacred Lands File search indicated no Native American Sacred Sites within or near the project site. In addition, a field survey (conducted on September 4, 2020) identified no evidence of prehistoric or historically significant archaeological resources or culturally modified soil (e.g., midden). Based on these results and other archival and literature research, the project site has been determined to have a low to low-moderate sensitivity for subsurface prehistoric resources, despite the former alignment of Saratoga Creek through the project site.

Examples of prehistoric cultural resources include human bone (either isolated or intact burials); habitation remains (occupation or ceremonial structures such as distinct ground depressions and differences in compaction--e.g., house floors); artifacts including chipped stone objects such as projectile points and bifaces, groundstone artifacts such as manos, metates, mortars, pestles, grinding stones, pitted hammerstones, and shell and bone artifacts including ornaments and beads; evidence of hearths (fire-cracked rock or baked and vitrified clay), artifact caches, faunal and shellfish remains, distinctive changes in soil stratigraphy indicative of prehistoric activities; and other isolated artifacts. Historic cultural materials may include structural remains or portions of foundations from the late 19th through early 20th centuries (bricks, cobbles and/or boulders, stacked field stone, postholes, etc.); trash pits, privies, wells, and related artifacts; isolated or clusters of manufactured artifacts (glass bottles, metal cans, manufactured wood items, etc.); and human remains. In addition, other cultural materials including both artifacts and structures that can be attributed to Hispanic, Asian and other ethnic or racial groups are potentially significant. Such features or clusters of artifacts and samples include remains of structures, trash pits, and privies.

In response to a letter sent to one of eight Native American individuals and/or groups recommended by the NAHC as having local knowledge of the project area, the Amah Mutsun Tribal Band of Mission San Juan Bautista recommended (1) cultural resources sensitivity training for all crews involved in any earth movement, and (2) California trained archaeological monitoring and qualified Native American monitoring when needed. These

suggestions are adequately addressed by Mitigation Measure 7-4. Further, the cultural resources assessment by Basin Resources Associates concluded that no subsurface testing for buried archaeological resources would be necessary at this time, nor would archaeological monitoring be required or recommended as the project site does not appear to be sensitive for either buried prehistoric or significant historic cultural resources.

Because there is a possibility that as-yet unrecorded prehistoric cultural resources or tribal cultural resources could exist beneath the surface in the Greystar project site, and contact with such resources during construction activities could result in a significant impact, the following mitigation would be required to reduce the impact to a less-than-significant level.

Mitigation 7-4. Prior to construction activities, resource identification training procedures shall be implemented for construction personnel, conducted by an archaeologist who meets the Secretary of the Interior's Professional Qualifications Standards. The qualified professional archaeologist shall be retained by the applicant and approved by the City and shall meet U.S. Secretary of the Interior's Professional Qualifications and Standards. Training shall include a written handout and focus on how to identify cultural/Native American resources that may be encountered during earth-moving activities, including the procedures to be followed in such an event. On-site archaeological monitor duties and the general steps a qualified professional archaeologist would follow in conducting a salvage investigation shall also be explained, in case either or both becomes necessary.

During ground-disturbing project construction activities, if subsurface cultural resources are encountered, work within 50 feet shall be stopped and a qualified archaeologist retained to evaluate the finds following the procedures described below. Project personnel shall not collect cultural resources. Although work may continue beyond 50 feet, the archaeologist shall be empowered to temporarily halt or redirect construction activities to ensure avoidance of adverse impacts to archaeological resources.

All cultural/archaeological resources unearthed by project construction activities shall be evaluated by the qualified professional archaeologist. Should the newly discovered artifacts be determined to be prehistoric, Native American Tribes and/or Individuals shall be contacted and consulted, and Native American construction monitoring shall be initiated if requested by the Tribes and/or Individuals. The City shall coordinate with the archaeologist to develop an appropriate treatment plan that avoids or mitigates, to the maximum extent possible, damage to any identified resources. Preservation in place to maintain the relationship between the artifact(s) and the archaeological context is the preferred manner of mitigating impacts on an archaeological site. Preservation may be accomplished by:

- Planning construction to avoid the archaeological or tribal cultural site;
- Incorporating the site within a park, green space, or other open space element;

(continued)

Mitigation 7-4 (continued):

- Covering the site with a layer of chemically stable soil; or
- Deeding the site into a permanent conservation easement.

If in-place mitigation is determined by the City to be infeasible, a *data recovery plan*, which makes provisions for adequate recovery of culturally or historically consequential information about the site (including artifacts discovered on the site), subject to review and approval by the City, shall be prepared and adopted prior to any excavation being undertaken. The study shall be submitted to the CHRIS Northwest Information Center, and if Native American artifacts are indicated, the study shall also be submitted to the Native American Heritage Commission (NAHC). CHRIS and NAHC are recognized as experts in their respective disciplines.

Identified cultural resources shall be recorded on form DPR 422 (archaeological sites). Any additional mitigation measures recommended by these two groups (CHRIS and NAHC), as reviewed and approved by the City, shall be undertaken prior to and during construction activities. Although the precise details of those measures would be based on the nature and extent of the resource(s) uncovered on the site, the measures shall be consistent with the avoidance and mitigation strategies described above in this mitigation measure.

In addition, if the qualified archaeologist determines that construction excavations have exposed, or have a high probability of exposing, cultural and/or archaeological artifacts, construction monitoring for cultural and/or archaeological resources shall be required. The City shall retain a qualified archaeological monitor, who meets the qualifications set forth by the U.S. Secretary of the Interior's Professional Qualifications and Standards, who will work under the guidance and direction of a professional archaeologist. The archaeological monitor shall be present during all construction excavations (e.g., grading, trenching, or clearing/grubbing) into non-fill sediments. Multiple earth-moving construction activities may require multiple archaeological monitors.

The frequency of monitoring shall be based on the rate of excavation and grading activities, proximity to known archaeological resources, the materials being excavated (native versus artificial fill soils), the depth of excavation, and if found, the

(continued)

Mitigation 7-4 (continued):

abundance and type of archaeological resources encountered. Full-time monitoring can be reduced to part-time inspections if determined adequate by the project archaeologist.

If human remains are found, the rules set forth in State Health and Safety Code section 7050.5 and CEQA Guidelines section 15126.4(b) apply and shall be followed, in consultation with the Native American Heritage Commission (as appropriate).

Implementation of this measure would reduce the impact to a ***less-than-significant level.***

8. GEOLOGY AND SOILS

This EIR chapter describes geology and soils implications of the proposed Freedom Circle Focus Area Plan/Greystar General Plan Amendment. The chapter addresses the specific geology and soils impact concerns identified by the CEQA Guidelines--i.e., would development under the proposed Plan (and the Greystar project) directly or indirectly cause potential substantial adverse effects as a result of geologic hazards (e.g., earthquakes, liquefaction, landslides, soil erosion, expansive soils), or directly or indirectly destroy a unique paleontological resource or site or unique geologic feature, or have other impacts related to geology and soils questions listed in Appendix G of the CEQA Guidelines.[1]

The California Supreme Court decision (December 2015) in *California Building Industry Association v. Bay Area Air Quality Management District* concluded, "[W]e hold that CEQA does not generally require an agency to consider the effects of existing environmental conditions on a proposed project's future users or residents. What CEQA does mandate…is an analysis of how a project might exacerbate existing environmental hazards." The environmental impact analysis in this section (and throughout the EIR) takes into consideration this Court decision.

8.1 SETTING

8.1.1 Regional Geologic Setting

The approximately 108-acre Plan Area is located in the City of Santa Clara, which is situated centrally in the northern region of the Santa Clara Valley in the larger San Francisco Bay Region. The Santa Clara Valley (Valley) is an alluvial basin in the Coast Ranges geomorphic province of California, and, more specifically, nestled between the Santa Cruz Mountains to the west and southwest, the Diablo Range to the east, and San Francisco Bay to the north. The Coast Ranges geomorphic province of California contains generally northwest-oriented mountain ranges and valley basins.[2] The surficial geologic makeup of the Valley includes young Quaternary period Holocene (under 11,700 years-old) alluvial sediments intermixed with Bay muds and underlain by Quaternary period Pleistocene (2.58 million to 11,700 years-old) and Pliocene (5.3 to 2.58 million years-old) alluvial deposits of the Santa Clara Formation that eroded from the Santa Cruz Mountains and Diablo Range. Neogene and Paleogene period (23 to 2.58 million years-old and 23 to 66 million years-old respectively) sedimentary rocks and Franciscan Complex (205 to 66 million years-old) sedimentary and metamorphic rocks underly the Quaternary sediments and compose the geomorphic base of the Valley. Tectonic

[1]CEQA Guidelines, appendix G, item VII (a through f).

[2]City of Santa Clara, Integrated Final Environmental Impact Report for the City of Santa Clara Draft 2010-2035 General Plan, Volume I EIR Text, January 2011.

processes along the San Andreas Fault System have contributed to the deformation of the underlying rock formations in the Valley and the San Francisco Bay Region.[1]

8.1.2 Topography and Surface Soils

(a) Plan Area. Santa Clara is generally flat, with elevations ranging from near MSL (mean sea level) in the northern part of the city to 175 feet above MSL near the city's southern boundary.[2] Like the rest of the city, the Plan Area is generally flat, with surface elevations ranging from 17 to 50 feet above sea level. The Plan Area gently slopes from southeast to northwest.

Soil types in the Plan Area are primarily Urbanland-Hangerone complex soils, with some Urbanland-Campbell complex soils. Urbanland "soils" are defined as disturbed and human-transported material.[3] In the Plan Area, Urbanland includes impervious cover such as pavement, driveways, and buildings typical of urban development. The Urbanland-Hangerone complex unit consists mainly of impervious cover with underlying Hangerone series soils. The Hangerone series is composed of very deep, poorly drained alluvial soils derived from mixed rock sources; these soils have moderate clay content and form slopes ranging from zero (0) to two (2) percent. The Urbanland-Campbell complex is composed of impervious surface underlain by Campbell series soils that are also alluvial soils derived from mixed rock sources; these soils consist of subsurface silty clay loam and deep clay that is naturally moderately well drained and form slopes ranging from zero (0) to two (2) percent.[4] Soils with clay content may pose risk from expansion ("shrink-swell potential") because variations in moisture content result in volume changes—i.e., when expansive soil dries, it shrinks and when it becomes wet it swells. Shrinking and swelling of expansive soils can result in damage to building foundations and to pavement without proper design.[5]

No creeks pass through the Plan Area. The closest creek is San Tomas Aquino Creek, which is approximately 65 feet east of the Plan Area and flows south-north. Historical maps indicate that a portion of Saratoga Creek once crossed the northern Greystar parcel from southwest to northeast; however, during the 1970s, Saratoga Creek was rerouted upstream to connect with San Thomas Aquinas Creek. The creek channel on the site appears to be filled in.[6] Calabazas Creek is located approximately ½ mile west of the Plan Area and the Guadalupe River is located east of the Plan Area approximately one mile away.

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[1]EDAW et al., Final Environmental Impact Statement / Report for the South Bay Salt Pond Restoration Project, Volume 1, December 2007; International Commission on Stratigraphy, International Chronostratigraphic Chart, January 2020.

[2]City of Santa Clara, Integrated Final Environmental Impact Report for the City of Santa Clara Draft 2010-2035 General Plan, Volume I EIR Text, January 2011.

[3]U.S. Department of Agriculture. Natural Resources Conservation Service, Web Soil Survey. https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx, accessed 4/14/20.

[4]U.S. Department of Agriculture, Natural Resources Conservation Service, Supplement to the Soil Survey of Santa Cara Area, California, Western Part, 2015.

[5]Integrated Final Environmental Impact Report for the City of Santa Clara Draft 2010-2035 General Plan, pp. 191-192.

[6]West Associates, Inc., Phase I Environmental Site Assessment, 3935 Freedom Circle-Parcels 1 and 2, Santa Clara, California, August 2015, p. 3 and Table 7-1 p. 1.

(b) Greystar Project Site. The Greystar project site is also generally flat, with surface elevations ranging from approximately 26 to 33 feet above sea level. Slopes on the project site vary somewhat but tend toward the northwest.

Project site soils are Urbanland-Campbell complex soils.[1] Urbanland "soils" are defined as disturbed and human-transported material. The Urbanland-Campbell complex is composed of impervious surface underlain by Campbell series soils that are also alluvial soils derived from mixed rock sources; these soils consist of subsurface silty clay loam and deep clay that is naturally moderately well drained and form slopes ranging from zero (0) to two (2) percent.[2] Soils with clay content may pose risk from expansion ("shrink-swell potential") because variations in moisture content result in volume changes—i.e., when expansive soil dries, it shrinks and when it becomes wet it swells. Shrinking and swelling of expansive soils can result in damage to building foundations and to pavement without proper design.[3]

In addition, as discussed above, historical maps indicate that a portion of Saratoga Creek crossed the northern Greystar parcel from southwest to northeast, though during the 1970s Saratoga Creek was rerouted upstream to connect with San Thomas Aquinas Creek, and the creek channel on the site appears to be filled in. San Tomas Aquino Creek is located east of the Greystar project site, separated from the by a levee and bike path/pedestrian trail.[4]

8.1.3 Seismicity

(a) Earthquake Risk. The Plan Area is not located in an Alquist-Priolo Special Study Zone, and no faults run through the Plan Area or the City of Santa Clara. According to the Association of Bay Area Governments (ABAG), several active faults pass through the borders of Santa Clara County, including the San Andreas, Monte Vista, Hayward, Calaveras, Greenville, and Sargent faults.[5] These faults present potential hazards due to seismic shaking. According to ABAG, of the active faults in the San Francisco Bay Area, the Hayward fault is most likely to rupture in the next 30 years and would likely cause damage in Santa Clara County.[6]

The Hayward Fault is located approximately five miles east of Santa Clara and six and a half miles east of the Plan Area. The Calaveras fault is located approximately seven miles east of the city and approximately 10.5 miles east of the Plan Area. The San Andreas fault is located

[1]U.S. Department of Agriculture. Natural Resources Conservation Service, Web Soil Survey. https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx, accessed 6/3/21.

[2]Supplement to the Soil Survey of Santa Cara Area, California, Western Part, 2015.

[3]Integrated Final Environmental Impact Report for the City of Santa Clara Draft 2010-2035 General Plan, pp. 191-192.

[4]West Associates, Inc., Phase I Environmental Site Assessment, 3935 Freedom Circle-Parcels 1 and 2, Santa Clara, California, August 2015, p. 3 and Table 7-1 p. 1.

[5]ABAG Resilience Program, Alquist-Priolo Earthquake Fault Zones, http://resilience.abag.ca.gov/wp-content/documents/Map-Plates.pdf, accessed 4/14/20.

[6]ABAG Resilience Program, Santa Clara County Earthquake Hazard, http://resilience.abag.ca.gov/earthquakes/santaclara/, accessed 4/14/20.

approximately seven miles west of city boundaries and approximately 13 miles west of the Plan Area.[1]

(b) Earthquake Hazards. Hazards that can result from an earthquake include surface rupture, ground shaking, landsliding, differential settlement, liquefaction, and lateral spreading.

(1) Surface rupture occurs along active fault traces, or where compressed and distorted soils break open to relieve earthquake-induced stress. When this occurs on a fault, everything built across the trace or line of the fracture is generally destroyed, but if it occurs in the course of stress relief, the damage is usually less catastrophic. As noted above, no active or potentially active fault traces have been identified in the Plan Area.

(2) Ground shaking is caused by the seismic waves that radiate out from an earthquake's epicenter. The severity of ground shaking at a particular location is primarily determined by distance from the epicenter of the earthquake and by the local soil profile. Loose or unconsolidated sedimentary deposits (such as alluvial soils) can transform the relatively high frequency (back and forth) motion of underlying bedrock into lower frequency but higher amplitude motion at the surface. The most commonly used intensity scale for measuring earthquakes is the Modified Mercalli Intensity (MMI) scale. The intensity of ground shaking at a site varies for any particular earthquake based on several factors, including the size (magnitude) of the earthquake (which is related to the length of the fault that ruptures); the distance from the site to the fault source for the earthquake; the directivity (focusing of earthquake energy along the fault axis rather than perpendicular to the fault); and the type of geologic material underlying the site, with stronger shaking occurring on softer soils.[2] Table 8-1 shows the Mercalli intensity and moment magnitude scales with a description of effects typically experienced during earthquakes.

(3) Landsliding entails sudden slope failure. Due to the generally flat topography of the Plan Area, landsliding does not pose a significant concern.

(4) Differential settlement normally occurs within unconsolidated soils subjected to unequal surface loading. Movement of the ground causes an additional compaction of the soil that is proportional to the soil's pre-existing density and to the magnitude of imposed loads. These conditions often result in unequal settlement, which can cause the failure of poorly stabilized cut-and-fill embankments and of foundations that are not properly engineered to span areas of discontinuous support.

(5) Liquefaction is a loss of foundation support that occurs in saturated granular soils, most notably loose, uniformly graded, fine-grained sand. Under liquefaction, these materials can experience a temporary loss of strength due to build-up of excess pore water pressure, especially during cyclic loadings such as those induced by earthquakes. When this occurs, significant total and differential settlement of structures built on the surface can result. The California Geological Survey's (CGS's) California Earthquake Hazards Zone Application (EQ

[1]Integrated Final Environmental Impact Report for the City of Santa Clara Draft 2010-2035 General Plan, Volume I EIR Text, January 2011; USGS, Alquist-Priolo Faults, https://earthquake.usgs.gov/education/geologicmaps/apfaults.php, accessed 4/14/20.

[2]Association of Bay Area Governments, Earthquake and Hazards Program, The San Francisco Bay Area: On Shaky Ground--Documentation for 2003 Mapping Updated in 2010.

Table 8-1
MODIFIED MERCALLI INTENSITY SCALE AND MOMENT MAGNITUDE SCALE

Magnitude	Intensity/Shaking	Description/Damage
1.0 to 3.0	I. Not Felt	Not felt except by a very few under especially favorable conditions.
3.0 to 3.9	II. Weak	Felt only by a few persons at rest, especially on upper floors of buildings.
3.0 to 3.9	III. Weak	Felt quite noticeably by people indoors, especially on upper floors of buildings. Many people do not recognize it as an earthquake. Standing motor cars may rock slightly. Vibration similar to the passing of a truck. Duration estimated.
4.0 to 4.9	IV. Light	Felt indoors by many, outdoors by few people during the day. At night, some awakened. Dishes, windows, doors disturbed; walls make cracking sound. Sensation like heavy truck striking building. Standing motor cars rocked noticeably.
4.0 to 4.9	V. Moderate	Felt by nearly everyone; many awakened. Some dishes, windows broken. Unstable objects overturned. Pendulum clocks may stop.
5.0 to 5.9	VI. Strong	Felt by all, many frightened. Some heavy furniture moved; a few instances of fallen plaster. Damage slight.
5.0 to 5.9 6.0 to 6.9	VII. Very Strong	Damage negligible in buildings of good design and construction; slight to moderate in well-built ordinary structures; considerable damage in poorly built or badly designed structures; some chimneys broken.
6.0 to 6.9 7.0 +	VIII. Severe	Damage slight in specially designed structures; considerable damage in ordinary substantial buildings with partial collapse. Damage great in poorly built structures. Fall of chimneys, factory stacks, columns, monuments, walls. Heavy furniture moved.
6.0 to 6.9 7.0 +	IX. Violent	Damage considerable in specially designed structures; well-designed frame structures thrown out of plumb. Damage great in substantial buildings, with partial collapse. Buildings shifted off foundations.
7.0 +	X. Extreme	Some well built wooden structures destroyed; most masonry and frame structures destroyed with foundations. Rails bent.

SOURCE: ABAG Resilience Program, "Modified Mercalli Intensity (MMI) scale," http://resilience.abag.ca.gov/shaking/mmi/, accessed 4/14/20.

Zapp) shows the Plan Area within a Liquefaction Zone. According to the Seismic Hazards Mapping Act, projects in a State Geologist-mapped seismic hazard zone (including a Liquefaction Zone) require completion of a geotechnical report(s).[1] ABAG's 2011 update of its Liquefaction Hazard Maps (based on U.S. Geological Survey [USGS] and CGS liquefaction susceptibility mapping) indicates that the liquefaction susceptibility for the Plan Area is very high along the former path of Saratoga Creek from the Plan Area boundary with U.S. 101 in the south to San Tomas Aquino Creek in the northeast (which includes a portion of the Greystar project site). The liquefaction susceptibility is high in the eastern part of the Plan Area (including the remainder of the Greystar project site), and moderate in the western part.[2] Table 8-2 shows liquefaction hazards based on Modified Mercalli Intensity and liquefaction susceptibility.

(6) Lateral spreading occurs when local ground shaking causes generally flat-lying alluvial deposits to be displaced horizontally toward an open cut or excavation (such as along the side of a drainage channel). As mentioned earlier in subsection 8.1.2, one creek, San Tomas Aquino Creek, approximately 65 feet east of the Plan Area, flows south-north in a stabilized earthen channel roughly parallel to the Plan Area, although a portion of the former Saratoga Creek once crossed from southwest to northeast until the 1970s when the creek was rerouted to connect with San Thomas Aquinas Creek and the creek channel filled in. San Tomas Aquino Creek originates in the Santa Cruz Mountains and empties into the South San Francisco Bay via Guadalupe Slough.

(7) Subsidence is the motion of the ground as it shifts downward, mainly from the removal of subsurface water.

Table 8-2
ESTIMATE OF LIQUEFACTION HAZARD BASED ON COMBINATIONS OF MODIFIED MERCALLI INTENSITY AND LIQUEFACTION SUSCEPTIBILITY

MMI Value	Description of Shaking Severity	Liquefaction Susceptibility Category				
		Very Low	Low	Moderate	High	Very High
V	Light	--	--	--	--	--
VI	Moderate	--	--	--	--	--
VII	Strong	--	--	Moderately Low	Moderately Low	Moderate
VIII	Very Strong	--	--	Moderate	Moderate	High
IX	Violent	--	--	High	High	High
X	Very Violent	--	--	High	High	High

SOURCE: ABAG Earthquake and Hazards Program, "Supplementary Information Used for the 2011 Update of ABAG's Liquefaction Hazard Maps," September 2010.

[1]California Geological Survey, Earthquake Zones of Required Investigation, https://maps.conservation.ca.gov/cgs/EQZApp/app/, accessed 4/14/20.

[2]ABAG Earthquake and Hazards Program, "Supplementary Information Used for the 2011 Update of ABAG's Liquefaction Hazard Maps," September 2010; MTC/ABAG Hazard Viewer Map, https://mtc.maps.arcgis.com/apps/webappviewer/index.html?id=4a6f3f1259df42eab29b35dfcd086fc8, accessed 7/19/20.

8.1.4 Greystar Project Site-Specific Geotechnical Investigation

(a) Overview. As part of the project application materials for the Greystar development proposal, a site-specific geotechnical report for the site was prepared by Rockridge Geotechnical.[1] The report included laboratory testing and analysis of three hand-augured borings and 15 cone penetration tests (CPT) performed on the site. Based on a review of the existing geological setting and soil conditions on the project site, the report concluded that no major geotechnical or geological issues exist that would preclude development of the proposed project. However, laboratory testing of soil samples from the site indicated that the following geotechnical issues would need to be addressed:

- providing adequate foundation support for the proposed structures;
- the presence of weaker, more compressible zones of clay above a depth of about 30 feet below ground surface (bgs);
- the presence of moderately to highly expansive near-surface soil that is susceptible to large volume changes with changes in moisture content; and
- the potential for up to 1-1/2 inches of liquefaction-induced settlement at one location in the southwestern part of the site (cone penetration test location CPT-14).

Findings and recommendations of the Rockridge Geotechnical site-specific report are summarized below ([b] through [i]). In addition, Rockridge noted in their July 21, 2016 report that their conclusions and recommendations are preliminary and are not intended for the final building design; therefore, Rockridge recommended that prior to final building design, a final geotechnical report should be conducted, based on supplemental field investigation.[2]

(b) Potentially Liquefiable Soil. The project site is located within a mapped liquefaction hazard zone, as shown on the State of California Seismic Hazard Zones, Milpitas Quadrangle, Official Map, prepared by the California Geological Survey (CGS), dated October 19, 2004. Analysis of soil samples for liquefaction characteristics showed thin layers of potentially liquefiable soil typical for younger alluvial deposits in the area. Total and differential settlements resulting from liquefaction were estimated at between 1/2 inch and 1/4 inch across a horizontal distance of 30 feet, except at the CPT-14 location where total liquefaction-induced settlement was computed to be 1-1/2 inches and potentially liquefiable soil extending to a depth of about 40 feet bgs. Rockridge Geotechnical considers conditions at the CPT-14 site to be localized because no significant liquefiable soil at the other CPTs in the vicinity of CPT-14 were encountered. However, Rockridge Geotechnical recommends that during the final geotechnical investigation, the lateral extent of this liquefiable soil in the location of CPT-14 should be investigated.

[1]Preliminary Geotechnical Investigation for Due Diligence Evaluation, Proposed Freedom Circle Development, Santa Clara, California; Rockridge Geotechnical; July 21, 2016. This report is available online at: https://www.santaclaraca.gov/Home/Components/BusinessDirectory/BusinessDirectory/297/2495?npage=2.

[2]Rockridge Geotechnical, July 21, 2016, p. 21. See Impact 18-2 below.

(c) Lateral Spreading and Settlement. The risk of lateral spreading is considered very low due to flat site grades, the absence of free faces (free faces are rock surfaces exposed to air, which provide room for the rock to expand upon fragmentation), and the depth and relative thickness of the potentially liquefiable layers. Also, the potential for settlement of the ground surface and overlying improvements resulting from an earthquake due to differential compaction (e.g., cyclic densification) is also considered very low due to the cohesion or high relative density of the soil above groundwater level.

(d) Groundwater Depth. On-site test soil borings showed water depth to be approximately 7 feet below ground surface (bgs), but groundwater levels are expected to vary several feet with rainfall and the season. Rockridge Geotechnical determined that due to these possible fluctuations, groundwater depth should be assumed to be approximately seven feet bgs for preliminary design purposes.

Basement walls would need to be designed to resist static lateral earth pressures, lateral pressures caused by earthquakes, and traffic loads if vehicular traffic is expected within 10 feet of the wall. In addition, moisture migration protection should be included in final project design, which could include waterproofing of below-grade walls with water stops placed at construction joints. Assuming the possibility of perched water, Rockridge Geotechnical also recommends use of prefabricated drainage panels behind basement walls. The drainage panels should extend to the design groundwater table to facilitate groundwater movement around the buildings. Depending on any backfill requirements behind basement walls, bracing or hand compaction equipment might be necessary, as determined by the structural engineer, to prevent unacceptable surcharges on walls.

(e) Excavation and Shoring. Assuming a total excavation depth of approximately 12 to 15 feet bgs (for the below-ground parking level), excavations deeper than five feet would require worker entrance(s) to be sloped or shored (per CAL-OSHA standards). Temporary slope cuts in native soil above the groundwater table no steeper than 1:1 (horizontal:vertical) should be stable provided that use of equipment or building material does not cause surcharging. Excavations less than 12 feet deep can use a cantilevered soldier pile and lagging shoring system; if excavation depth is deeper than 12 feet, a cantilevered system may prove uneconomical and therefore tiebacks could be necessary. Where tiebacks are not feasible, internal bracing would be required.

(f) Foundation Type/Moisture Migration Prevention. The preliminary recommendation by Rockridge Geotechnical was based on an earlier project design that included a different site building configuration featuring four residential buildings, two office buildings, and two parking structures. Preliminary foundation types discussed for that configuration included use of spread footings on improved soil (using drill displacement sand-cement columns or compacted aggregate piers, for example) or a stiffened foundation system such as a mat or continuous grade beams. A deep foundation system supported through skin friction (i.e., using prestressed precast concrete piles or torque-down or auger cast-in-place piles) would also be an option. Due to the presence of liquefiable soils in the southwestern portion of the project site, longer piles may be required and should be evaluated in the final geotechnical investigation. Final foundation design recommendations would need to be determined based on final project plans, with supplemental field investigation of subsurface conditions and additional borings, and because of the potential for the ground to heave during pile-driving, a pre-construction survey and monitoring should be undertaken during pile driving to monitor these effects.

After review of the current project plans, Rockridge Geotechnical[1] (August 19, 2020) confirmed that those preliminary recommendations would still apply to the current building design, with the following two clarifying foundation recommendations: (1) for buildings that have one full or partial level of below-grade parking, mat foundations with no ground improvement would be able to provide sufficient support; but (2) for buildings that have partially below grade and partially at grade levels (for example, where courtyards constructed above the third parking level extend beyond the footprint of the below-grade parking level), potential differential settlement between the at-grade and the below-grade portions would be too great for a mat foundation to provide sufficient support on unimproved ground. Therefore, for (2), Rockridge Geotechnical recommends that ground improvement beneath the at-grade portion of the building should be performed, which would reduce the differential settlement and allow use of a mat foundation under both the at-grade and below-grade portions.

To protect against water vapor transmission through slab-on-grade floors (e.g., moisture migration), Rockridge Geotechnical also recommends use of a water vapor retarder and capillary break below slab-on-grade floors in any areas used for storage (such as utility rooms) or that would receive a floor covering or coating.

(g) Expansive Soils. Test results of soils near the surface (approximately one foot bgs) indicate highly expansive clay, and soils farther down (approximately 4-1/2 feet bgs) moderately expansive. Expansion and contraction in volume can occur when expansive soils undergo alternating cycles of wetting (swelling) and drying (shrinking). During these cycles, the volume of the soil changes markedly. These cycles can cause structural damage to buildings and infrastructure if the potentially expansive soils are not considered in project design and construction. Careful management of surface and subsurface drainage would be required to prevent moisture from collecting and causing movement or cracking of foundations, pavements, slabs, and below-grade walls.

To mitigate the effects of expansive soil, Rockridge Geotechnical recommends: moisture-conditioning the expansive soil; using select, non-expansive fill or lime-treated soil below interior and exterior slabs and behind retaining walls; and using either supporting foundations below the severe moisture change zone or use of a stiff, shallow foundation to limit structural deformation from the shrinking and swelling of underlying soils. Select fill should be approved by the project geotechnical engineer and consist of imported or on-site soil free of organic matter, with no rocks or lumps larger than three inches and a liquid limit less than 40 and plasticity index less than 12. A minimum of 18 inches of select fill should be placed beneath the concrete slab-on-grade for the at-grade buildings (the residential buildings and parking structures) and 12 inches of select fill beneath proposed exterior concrete flatwork (including patio slabs and sidewalks). The select fill should extend beyond the slab edges by at least six inches. As an alternative, the upper 18 inches of subgrade soil beneath slab-on-grade floors may be treated in place with lime. Also, depending on the time of year of construction, over-excavation and moisture-conditioning of up to two feet beneath the proposed improvements may be necessary.

[1]Rockridge Geotechnical; letter to Mr. Jimmy Ly, Development Manager, Greystar GP II, LLC, re: "Geotechnical Consultation Regarding Foundation Type, Freedom Circle Residential, Santa Clara, California"; August 19, 2020. This letter is available online at: https://www.santaclaraca.gov/Home/Components/BusinessDirectory/BusinessDirectory/297/2495?npage=2.

To prevent water from collecting beneath pavements and slabs or behind below-grade walls, which could result in subgrade instability under vehicular loads from cyclic swelling and shrinking, any permeable pavements, tree wells, irrigated landscaped zones, or storm water infiltration basins close to proposed buildings should incorporate design elements that prevent saturation beneath pavements and slabs or behind below-grade walls. While permeable pavement systems and infiltration basins may originally be designed to allow for water storage and infiltration, the low permeability of site soils (i.e., highly expansive clay) make infiltration into the subgrade soil infeasible.

According to Rockridge Geotechnical, to reduce water collection, subdrain systems should be used beneath permeable surfaces and vertical barriers should be installed between permeable surfaces underlain by subdrains and non-permeable surfaces underlain by conventional aggregate base. Water should not be allowed to collect alongside or beneath the building foundations, pavements, and flatwork.

(h) Soil Corrosivity. Analysis of a soil sample (depth = 2.5 feet bgs) indicated that the soil would be moderately corrosive to buried steel, and therefore buried iron, steel, cast iron, galvanized steel, and dielectric-coated steel or iron should be protected from corrosion, depending on the nature of the structure. The test results also indicated that sulfate ion concentrations were not sufficient to damage below-ground reinforced concrete structures, and that soil chloride concentration would not present a problem for the reinforcing steel in buried concrete structures.

(i) Construction Monitoring. Site preparation, foundation installation, shoring installation, and placement and compaction of fill should be observed by the project geotechnical engineer to compare the actual soil conditions with the anticipated soil conditions and to confirm that the contractor's work conforms with the geotechnical aspects of the plans and specifications.

(j) Soil Erosion. Although not discussed in the Rockridge geotechnical report, project site clearing would include removal of all existing ground coverings and would also include stripping of any vegetation and organic topsoil (if present). These activities could temporarily disturb the existing topography on the site and leave soils exposed to wind and water erosion during the construction period. Eroded soils can be carried in storm water runoff and then be discharged to surface waters, thereby affecting the water quality of receiving waters. Storm water runoff quality both during and after construction is regulated by the National Pollutant Discharge Elimination System (NPDES) program (established through the Federal Clean Water Act), which is administered by the State Water Resources Control Board, with local oversight provided by the Regional Water Quality Control Boards. Because the project proposes to disturb one or more acres of soil, the project would be required to obtain coverage under the state's General Permit for Discharges of Storm Water Associated with Construction Activity, which among other items would require preparation of a Storm Water Pollution Prevention Plan (SWPPP). In addition, the City of Santa Clara is a member of the Santa Clara Valley Urban Runoff Pollution Prevention Program, and therefore the project would be required to implement construction Best Management Practices (BMPs) to eliminate or reduce the discharge of pollutants from construction-related activities. (See chapter 11, Hydrology and Water Quality, of this EIR for further discussion.)

(k) Hazardous Soils Cleanup Coordination. Although not discussed in the Rockridge geotechnical report, prior to any grading activities, the Greystar project applicant would need to contact the State Department of Toxic Substances (DTSC) to coordinate removal and disposal

of hazardous soils issues and corresponding land use restrictions on the site. As noted by DTSC, *"Additional cleanup activities would be required and the deed restriction would need to be amended or rescinded in order for the Intel Freedom Circle Site (Greystar site) to be considered suitable for residential use."*[1] (See chapter 10, Hazards and Hazardous Materials, of this EIR for further discussion).

8.1.5 Paleontological Resources

Paleontological resources include fossil remains, as well as fossil localities and rock or soil formations that have produced fossil material. Paleontological resources are often encountered as small outcroppings protruding from the ground surface or during grading activities when soils are disturbed. The strongest indicator of the type of paleontological resource most likely to be encountered in an area are the underlying geologic formations, as different types of geologic strata (sedimentary rock layers) are better able to preserve paleontological resources over others.[2] As discussed above in subsection 8.1.1, Santa Clara's surficial geologic units include Holocene alluvial and Bay mud deposits, and Pleistocene alluvial deposits, with the underlying Santa Clara Formation. The Holocene unit is typically not considered paleontologically sensitive because remains found in this unit usually would not be older than about 10,000 years and, as a result, would be too young to be fossilized. However, Holocene deposits may contain remains that are lifted from older deposits by the movement of the geologic units.

Although an on-line archival search of the University of California Museum of Paleontology (UCMP) in Berkeley, California, conducted on April 14, 2020 indicated no records of recorded fossil sites within the Plan Area,[3] Holocene deposits underlying the city may still potentially contain paleontological resources, and the Pleistocene alluvial deposits and the Santa Clara Formation have high paleontological sensitivity.[4]

8.2 REGULATORY SETTING

8.2.1 Federal

Federal Disaster Mitigation Act of 2000. The Disaster Mitigation Act of 2000 authorizes the Federal Emergency Management Agency (FEMA) to set mitigation planning requirements for state, local, and Indian Tribal governments as a condition of mitigation grant and disaster assistance, and requires close coordination of mitigation planning and implementation efforts between FEMA and jurisdictions.

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[1]Eric Chodoroff, Project Manager, DTSC Site Mitigation and Restoration Program – Berkeley, email dated July 22, 2020, to John Davidson, Principal Planner, City of Santa Clara Community Development Department.

[2]Integrated Final Environmental Impact Report for the City of Santa Clara Draft 2010-2035 General Plan, Volume I EIR Text, January 2011.

[3]UCMP Specimen Search, University of California Museum of Paleontology, https://ucmpdb.berkeley.edu/loc.html, accessed 4/14/20.

[4]Integrated Final Environmental Impact Report for the City of Santa Clara Draft 2010-2035 General Plan, Volume I EIR Text, January 2011.

Code of Federal Regulations (CFR) Title 43 CFR 8365.1-5. This regulation addresses the collection of invertebrate fossils and fossil plants, including the willful disturbance, removal, and destruction of scientific resources or natural objects.

8.2.2 State

Alquist-Priolo Earthquake Fault Zoning Act. The Alquist-Priolo Earthquake Fault Zoning Act was passed in 1972 to mitigate the potential hazard of surface faults to structures for human occupancy. The main purpose of the Act is to prevent the construction of human-occupied buildings over active faults. The Act only addresses the hazard of fault rupture and is not directed toward other earthquake hazards.

The Act requires the State Geologist to establish regulatory zones (known as Earthquake Fault Zones) around the surface traces of active faults and to issue maps to all affected cities, counties, and State agencies for their use in planning and controlling development. Local agencies must regulate most development projects within the zones, and generally there can be no construction for human occupancy within 50 feet of an active fault zone.

Seismic Hazards Mapping Act. The Seismic Hazards Mapping Act, which was passed by the California legislature in 1990, addresses earthquake hazards related to liquefaction and seismically induced landslides. Under this Act, seismic hazard zones are mapped by the State Geologist in order to assist local governments in land use planning. Section 2697(a) of the Act states that "cities and counties shall require, prior to the approval of a project located in a seismic hazard zone, a geotechnical report defining and delineating any seismic hazard." Two exceptions to this are allowed related to certain single-family residential dwellings, and alterations or additions to any structure within a seismic hazard zone that do not exceed 50 percent of the structure's value or 50 percent of the floor area of the existing structure (Section 2693).

California Building Standards Code. The California Building Standards Code (CBSC) is contained in the California Code of Regulations (CCR), Title 24, and includes requirements for residential construction (California Residential Code) and non-residential construction (California Building Code), plumbing and electrical standards (California Plumbing Code and California Electrical Code, respectively), and related regulations. The purpose of the CBSC is to establish minimum standards to safeguard the public health, safety, and general welfare through structural strength, means of egress facilities, and general stability, by controlling the design, construction, quality of materials, use and occupancy, location, and maintenance of building and structures. The CBSC contains specific requirements for seismic safety, excavation, foundations, retaining walls, and site demolition. It also regulates grading activities, including drainage and erosion control. The 2019 California Building Code is based on the 2018 International Building Code (IBC) published by the International Code Council.

California Public Resources Code Section 5097. Public Resources Code Section 5097 prohibits willfully damaging any historical, archaeological, or vertebrate paleontological site or feature on public lands.

8.2.3 Regional/Local

Association of Bay Area Governments (ABAG) Multi-Jurisdictional Local Hazard Mitigation Plan. The ABAG Multi-Jurisdictional Local Hazard Mitigation Plan ("Taming Natural

Disasters") involves local agencies throughout its nine-county Bay Area jurisdiction, with an overall strategy to maintain and enhance disaster response of the region. The plan focuses on mitigation *before* rather than after disasters by: (1) identifying natural hazards faced by the community and region (e.g., earthquakes, flooding, severe weather), (2) assessing the community's and region's vulnerability to these hazards, and (3) identifying specific preventive actions that can be taken to reduce the risk from the hazards. The plan, which has been approved by FEMA and adopted by ABAG, fulfills the requirements of the Federal Disaster Mitigation Act of 2000. The City of Santa Clara adopted the Santa Clara County Annex to 2010 ABAG Local Hazard Mitigation Plan (December 2011), which was incorporated into the ABAG Plan and also approved by FEMA. Adoption of the Annex allows the City of Santa Clara to become eligible for State and federal disaster assistance. (The City's Local Hazard Mitigation Plan, Annex L of the Santa Clara County Operational Area Hazard Mitigation Plan, is discussed below.)

Santa Clara General Plan. The General Plan addresses hazards due to earthquake activity (including emergency response) and related geologic conditions and provides for protection of paleontological resources. Applicable General Plan policies include:

- Policy 5.6.3-P1: Require that new development avoid or reduce potential impacts to archaeological, paleontological and cultural resources.

- Policy 5.6.3-P2: Encourage salvage and preservation of scientifically valuable paleontological or archaeological materials.

- Policy 5.6.3-P4: Require that a qualified paleontologist/archaeologist monitor all grading and/or excavation if there is a potential to affect archeological or paleontological resources, including sites within 500 feet of natural water courses and in the Old Quad neighborhood.

- Policy 5.6.3-P5: In the event that archaeological/paleontological resources are discovered, require that work be suspended until the significance of the find and recommended actions are determined by a qualified archaeologist/paleontologist.

- Policy 5.10.5-P5: Regulate development, including remodeling or structural rehabilitation, to ensure adequate mitigation of safety hazards, including flooding, seismic, erosion, liquefaction and subsidence dangers.

- Policy 5.10.5-P6: Require that new development is designed to meet current safety standards and implement appropriate building codes to reduce risks associated with geologic conditions.

- Policy 5.10.5-P7: Implement all recommendations and design solutions identified in project soils reports to reduce potential adverse affects associated with unstable soils or seismic hazards.

- Policy 5.10.5-P8: Encourage property owners to retrofit potentially hazardous structures, such as unreinforced masonry buildings, and to abate or remove structural hazards.

Santa Clara City Code. As stated in City Code chapter 15.15 (Building Code), the City has adopted the California Building Code with local amendments, to address design and construction in seismically active areas as well as site soil conditions, including expansive soils

conditions or other soil problems which, if not corrected, could lead to structural defects (e.g., soil corrosivity), are considered in the planning process. Compliance with the Building Code is enforced by the City's Building Inspection Division.

City of Santa Clara Emergency Operations Plan. In 2017, the City of Santa Clara, in partnership with Santa Clara County, the County Fire Department, and all incorporated cities in the County, prepared a multi-jurisdictional hazard mitigation plan tailored to the Santa Clara County Operational Area (the Santa Clara County Operational Area Hazard Mitigation Plan). The Plan includes the City's Local Hazard Mitigation Plan (Annex L), which establishes mitigation actions and strategies specific to the City of Santa Clara. The Local Hazard Mitigation Plan includes actions related to property protection, public education and awareness, natural resource protection, emergency services, climate resilience, and other areas of concern that are or would be implemented before, during, or after a natural or man-made disaster to reduce the significance of impacts from earthquake, severe weather events, drought, landslide, and other emergency situations and/or disasters. In addition, the City maintains an Emergency Operations Center (EOC) to provide "response-ready" support (including serving as the coordination hub for emergency management activities) during large-scale emergencies or planned events. The EOC is staffed by all City departments.

8.3 IMPACTS AND MITIGATION MEASURES

This section describes potential impacts related to geology (including seismicity) and soils that could result from the Freedom Circle Focus Area Plan/Greystar General Plan Amendment, and discusses components of the Plan that would avoid or reduce those potential impacts. The section also recommends mitigation as needed to reduce potentially significant impacts to less-than-significant levels.

8.3.1 Significance Criteria

Based on the CEQA Guidelines,[1] implementation of the Freedom Circle Focus Area Plan/ Greystar General Plan Amendment would have a significant impact related to geology and soils if it would:

(a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

(i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to Division of Mines and Geology Special Publication 42);

(ii) Strong seismic ground shaking;

(iii) Seismic-related ground failure, including liquefaction; or

(iv) Landslides;

[1]CEQA Guidelines, appendix G, item VII (a through f).

(b) Result in substantial soil erosion or the loss of topsoil;

(c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landsliding, lateral spreading, subsidence, liquefaction, or collapse;

(d) Be located on expansive soil, as defined by Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property;

(e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater;

(f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Regarding criterion (a)(i), there are no known active faults in the Plan Area (see 8.1.3 Seismicity, above). No impact from fault rupture would result, and this issue is not discussed further.

Regarding criterion (a)(iv), the Plan Area and vicinity are relatively flat. Due to the absence of appreciable slopes in the vicinity, slope stability hazards are considered less-than-significant. No significant impact would result, and no mitigation is required. This issue is not discussed further.

Regarding criterion (e), the Plan Area is served by a comprehensive, integrated wastewater collection, treatment, and disposal system. Neither septic tank systems nor alternative wastewater disposal systems are proposed as part of Plan implementation. No impact would result, and this issue is not discussed further.

8.3.2 Relevant Freedom Circle Focus Area Plan Policies

Section 8.2 (Regulatory Setting), above, applies to Focus Area Plan implementation. Because adopted regulations and requirements are already in place, the Plan does not include components that directly address CEQA-defined geology and soil impacts.

8.3.3 Impacts and Mitigations

Impact 8-1: Effects of Strong Seismic Ground Shaking—Plan Area. The Plan Area could experience strong seismic ground shaking and related effects in the event of an earthquake on the regional fault system. The Focus Area Plan would not exacerbate the existing risk of strong seismic ground shaking. Mandated project compliance with the stringent seismic design provisions of the latest California Building Standards Code (CBSC), as adopted by the City, would reduce the risk of property loss or hazards to occupants to a ***less-than-significant level*** (see criterion [a][2] in subsection 8.3.1, “Significance Criteria,” above).

Mitigation 8-1. No significant impact has been identified; no mitigation is required.

Impact 8-2: Effects of Strong Seismic Ground Shaking—Greystar Project. The Greystar project could experience strong seismic ground shaking and related effects in the event of an

earthquake on the regional fault system. The intensity and extent of seismic ground shaking would be dependent on distance to the earthquake epicenter, magnitude and duration of the earthquake, and other characteristics of the generating fault. As discussed in section 8.1.4, the preliminary Rockridge geotechnical report noted that, "Given the site's very close proximity to the mapped trace of the Hayward Fault, we judge that strong to very strong ground shaking could occur at the site during a large earthquake on this fault."[1] Design considerations to ensure adequate foundation support for the structures are legally required to be incorporated in the final project design as required by the latest California Building Standards Code (CBSC), as would the stringent seismic design provisions also required by the CBSC. Rockridge also recommended that, prior to final project design plans, a supplemental field investigation and final geotechnical report be completed, which would include review of the project design and specifications. As a standard regulatory protocol mandated by the City, this final "design-level" geotechnical investigation, as recommended by Rockridge Geotechnical, would include borings to further evaluate subsurface conditions and develop final foundation design recommendations, and would be reviewed by City staff prior to issuance of building permits to ensure compliance. The final geotechnical report recommendations would be required as conditions of approval. The final selected foundation system would also require review by the project geotechnical engineer and approval by the City prior to issuance of building permits. In addition, observation during site preparation, foundation installation, shoring installation, and placement and compaction of fill by a geotechnical engineer would provide assurance that anticipated soil conditions and the contractor's work conform with the geotechnical aspects of the plans and specifications.[2]

These standard geotechnical requirements mandated by the City and performed by professional engineers – preparation of a final geotechnical report based on a detailed final geotechnical investigation (including laboratory testing of subsurface soils); compliance with the current CBSC; and construction monitoring (particularly to observe foundation installation, ground improvement, and fill placement); and City inspection and verification of project compliance with geotechnical/geologic requirements before project occupancy – would reduce the risk of property loss or hazards to occupants to a ***less-than-significant level*** (see criterion [a][2] in subsection 8.3.1, "Significance Criteria," above).

Mitigation 8-2. No significant impact has been identified; no mitigation is required.

Impact 8-3: Potential Soil Erosion and Loss of Topsoil—Plan Area. Grading and construction activities may result in minor erosion or the minor loss of some topsoil. City-required standard grading- and construction-period erosion control techniques (e.g., for reducing surface water runoff over exposed soil, which could include a combination of techniques such as minimizing active construction areas during the rainy season, preservation of existing vegetation, soil stabilization methods—soil binders, straw mulch, etc.—as well as project landscaping after construction), consistent with Best Management Practices (BMPs) in the California Stormwater Quality Association (CASQA) Stormwater Best Management Practice

[1]Preliminary Geotechnical Investigation for Due Diligence Evaluation, Proposed Freedom Circle Development, Santa Clara, California; Rockridge Geotechnical; July 21, 2016. Rockridge Geotechnical; letter to Mr. Jimmy Ly, Development Manager, Greystar GP II, LLC, re: "Geotechnical Consultation Regarding Foundation Type, Freedom Circle Residential, Santa Clara, California"; August 19, 2020.

[2]Rockridge Geotechnical, July 21, 2016, p. 21.

Handbook, would reduce soil erosion and topsoil loss potentials. In addition, as discussed in more detail in chapter 11, Hydrology and Water Quality, of this EIR, project grading activities involving disturbance of more than one acre would require a Notice of Intent (NOI) and a National Pollution Discharge Elimination System (NPDES) permit from the San Francisco Bay Regional Water Quality Control Board (RWQCB, Region 2 for Santa Clara). The RWQCB administers the NPDES stormwater permitting program in the Bay Area, including the Municipal Regional Stormwater NPDES Permit and C.3 (stormwater compliance) Permit. Project owners submit a Notice of Intent (NOI) to the RWQCB to be covered by the General Construction Permit prior to the beginning of construction. The General Construction Permit requires the preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP). For a project entailing disturbance of more than one acre, the SWPPP must be prepared before construction begins, usually during the planning and design phases of a project, and must include specifications for Best Management Practices (BMPs) that would be implemented during project construction to control contamination of surface flows and the potential discharge of pollutants from commencement of construction through project completion. These City and regional water quality requirements would reduce this potential impact to a ***less-than-significant level*** (see criterion [b] in subsection 8.3.1, "Significance Criteria," above).

Mitigation 8-3. No significant impact has been identified; no additional mitigation is required. See chapter 5 (Air Quality) and chapter 11 (Hydrology and Water Quality) of this EIR for more detail.

Impact 8-4: Potential Soil Erosion and Loss of Topsoil—Greystar Project. As discussed in chapter 11, Hydrology and Water Quality, and summarized above in Impact 8-3, disturbance of one or more acres of soil would require the project to obtain coverage under the state's General Permit for Discharges of Storm Water Associated with Construction Activity, which among other items would require preparation of a Storm Water Pollution Prevention Plan (SWPPP). Also, as discussed above in Impact 8-3, because grading and construction activities may result in minor erosion or the minor loss of some topsoil, standard grading- and construction-period erosion control techniques (e.g., for reducing surface water runoff over exposed soil) are typically required by the City for individual projects such as the Greystar project. These standard techniques include minimizing active construction areas during the rainy season; preservation of existing vegetation; soil stabilization methods—soil binders, straw mulch, etc.—as well as project landscaping after construction. These techniques would be required to be consistent with Best Management Practices (BMPs) in the California Stormwater Quality Association (CASQA) Stormwater Best Management Practice Handbook and the Santa Clara Valley Urban Runoff Pollution Prevention Program and would reduce potential Greystar project soil erosion and topsoil loss impacts to a ***less-than-significant level*** (see criterion [b] in subsection 8.3.1, "Significance Criteria," above).

Mitigation 8-4. No significant impact has been identified; no additional mitigation is required. See chapter 5 (Air Quality) and chapter 11 (Hydrology and Water Quality) of this EIR for more detail.

Impact 8-5: Potential Ground Instability Impacts—Plan Area. The potential for ground instability can depend on specific, highly localized underlying soil conditions. Determination of differential settlement, liquefaction, lateral spreading, and subsidence potential in the Plan Area would require site-specific geotechnical studies for future individual development proposals. Possible ground instability conditions, if not properly engineered for, could result in associated significant damage to project buildings, other improvements, and adjacent property, with direct or indirect risks to life or property, representing a ***potentially significant impact*** (see criteria [a][3], [c], and [d] in subsection 8.3.1, "Significance Criteria," above).

Although an earthquake would affect an area larger than the Plan Area, any potential for earthquake-induced differential settlement, liquefaction, lateral spreading, and subsidence, and associated damage to proposed buildings or other improvements would be localized (i.e., generally restricted to the area where the building foundation or other improvement has been constructed) and can be mitigated to a less-than-significant level through implementation of City-required geotechnical investigations and associated engineering design standards, specifications, and measures. Geotechnical mitigation requirements identified here include completion of detailed studies to address specific concerns as future site-specific project designs are refined. There is substantial, reasonable, historical information to support the conclusion that the specific subsequent geotechnical/geologic investigations, inspections, and specific formulations required to meet City-adopted standards would adequately mitigate related impacts to less-than-significant levels. Information pertaining to soil testing, soil treatments, building foundations, structural strengthening, subsurface design, construction methods, etc., has been developed and refined by the California Building Standards Commission (through the California Building Code) and the California Geological Survey (especially Special Publication 117A, "Guidelines for Evaluating and Mitigating Seismic Hazards in California 2008"), and research continues at universities and colleges, as well as professional organizations such as the Association of Environmental & Engineering Geologists. The City of Santa Clara requires such geotechnical/geologic investigations and specifications as part of its development review under its building code. Individual measures are typically, and most efficiently, specified at a later, more detailed level of design.

Under the City's grading permit and building permit provisions, requirements, and regulations, an individual development project cannot be given final approval without project compliance with geotechnical/geologic requirements. These requirements and related City inspection and verification procedures prior to project operation provide reasonable, professional assurances that projects would incorporate the design and engineering refinements necessary to reduce the degree of impacts to less-than-significant levels by either avoiding identified soil and geologic impact areas altogether (i.e., basic project design changes), or by rectifying the impact through conventional engineering and construction procedures (e.g., suitable foundation design and construction) prior to issuance of permits.

Mitigation 8-5. Subject to City review and approval, complete and implement the geotechnical mitigation recommendations identified in the required individual project- and site-specific geotechnical investigations and engineering studies for site-specific proposals, in coordination with City grading permit and building permit performance standards. Such recommendations could address design- and construction-level details regarding the type of building foundation, the extent of subsurface excavation, the details of retaining structures, any need for subsurface water extraction, and other engineering issues and solutions. Incorporation of this mitigation requirement would reduce this impact to a ***less-than-significant level*****.**

Impact 8-6: Potential Ground Instability Impacts—Greystar Project. The potential for ground instability would depend on specific, highly localized underlying soil conditions. As discussed in section 8.1.4, the Rockridge geotechnical report concluded that although no major geotechnical or geological issues would prevent development of the proposed project on the site, the following issues would need to be addressed:

- adequate foundation support for the structures;
- weaker, more compressible zones of clay above about 30 feet below ground surface (bgs);
- moderately to highly expansive near-surface soil and susceptibility to large volume changes with moisture changes; and
- liquefaction-induced settlement potential at one location in the southwestern part of the site.

Possible ground instability conditions, if not properly engineered for, could result in associated significant damage to project buildings, other improvements, and adjacent property, with direct or indirect risks to life or property, representing a ***potentially significant impact*** (see criteria [a][3], [c], and [d] in subsection 8.3.1, "Significance Criteria," above).

As discussed in section 8.1.4, the preliminary Rockridge Geotechnical report reviewed the potential effects of lateral spreading and settlement, liquefaction, expansive soils, and moisture-control and also discussed project foundation types:

Lateral Spreading/Settlement. Due to flat site grades, the absence of free faces (e.g., rock surfaces exposed to air), and depth and relative thickness of potentially liquefiable layers, the risk of lateral spreading would be very low. In addition, due to the cohesion and/or high relative density of the soil above the groundwater level,

earthquake-induced differential compaction (e.g., cyclic densification) and settlement potential would also be considered very low.

Liquefaction. Soil sample analysis showed potentially liquefiable soils typical for the area's younger alluvial deposits. Although the geotechnical report noted that settlement due to liquefaction would generally range between 1/2 inch and 1/4 inch, one location in the southwestern part of the site (identified in the geotechnical report as "CPT-14") could experience liquefaction-induced settlement of up to 1-1/2 inches. Therefore, the geotechnical report determined that during the final geotechnical investigation, the lateral extent of liquefiable soil in this location be further investigated.

Expansive Soils/Moisture Control. Highly expansive clay soils were identified near the surface and moderately expansive soils farther down. The geotechnical report concluded the need for: (1) moisture-conditioning of expansive soil; (2) use of non-expansive fill or lime-treated soil below interior and exterior slabs and behind retaining walls; (3) use of either supporting foundations below the severe moisture change zone or use of a stiff, shallow foundation to limit structural deformation from the shrinking and swelling of underlying soils; and (4) installation of surface and subsurface drainage to prevent the collection of moisture that can cause movement or cracking of foundations, pavements, slabs, and below-grade walls.

Foundation Types. The geotechnical report determined that preliminary foundation types could include spread footings on improved soil or a stiffened foundation system such as a mat or continuous grade beams. Deep foundation systems supported through piles would also be an option, though in the southwestern portion of the project site where liquefiable soils are present, longer piles may be required and would need to be evaluated in the final geotechnical investigation. In addition, a pre-construction survey and monitoring would be recommended prior to pile driving to monitor potential soil heaving. A supplemental geotechnical note (Rockridge Geotechnical; August 19, 2020) added two clarifications regarding foundation design: (1) for buildings that have one full or partial level of below-grade parking, mat foundations with no ground improvement would be able to provide sufficient support; and (2) for buildings that have partially below grade and partially at grade levels (for example, where courtyards constructed above the third parking level extend beyond the footprint of the below-grade parking level), ground improvement beneath the at-grade portion of the building would be necessary to reduce the differential settlement and allow use of a mat foundation under both the at-grade and below-grade portions. In addition, use of a water vapor retarder and capillary break below slab-on-grade floors would protect against water vapor transmission through slab-on-grade floors (e.g., moisture migration).

Mitigation 8-6. The City shall require the applicant to provide a final geotechnical report, prepared by a geotechnical engineer, for City review and approval. The final geotechnical report (as discussed in Impact 8-2 above) shall include a supplemental field investigation that includes: (1) new borings as necessary to confirm subsurface conditions; (2) review of final project plans and specifications with recommendations based on professional geotechnical engineering (such as final foundation design recommendations and potential need for piles); (3) any other engineering studies to address design- and construction-level details related to type of building foundation, the extent of subsurface excavation, details of retaining structures or subsurface water extraction, and other engineering issues and solutions as may be determined necessary in consultation with the City; and (4) observation of site preparation, foundation installation, shoring installation, and the placement and compaction of fill during construction by a professional geotechnical engineer.

The mitigations and recommendations in the final geotechnical report, subject to review and approval by the City, shall be complied with and would provide reasonable, professional assurances that the project incorporates design and engineering refinements to reduce the degree of impacts to less-than-significant levels by either avoiding identified soil and geologic impact areas altogether (i.e., basic project design changes) or by rectifying the impact through conventional engineering and construction procedures (e.g., suitable foundation design and construction). Incorporation of these measures into project final plans prior to issuance of permits and City inspection and verification procedures prior to project operation is required and would reduce this impact to a ***less-than-significant level*.**

Impact 8-7: Potential for Disturbance of Paleontological Resources—Plan Area. Development facilitated by the Freedom Circle Focus Area Plan could disturb unrecorded paleontological resources in the Plan Area. This possibility represents a ***potentially significant impact*** (see criterion [f] in subsection 8.3.1, "Significance Criteria," above).

As discussed above in the setting section, 8.1, Santa Clara's surficial geologic units include alluvial and Bay mud deposits, Pleistocene alluvial deposits, with the underlying Santa Clara Formation that may potentially contain paleontological resources; in addition, Pleistocene alluvial deposits and the Santa Clara Formation have high paleontological sensitivity. Although an on-line archival search indicated no records of recorded fossil sites within the Plan Area, it is possible that paleontological resources could be discovered during ground-disturbing activities. Contact with such fossil resources during ground-disturbing activities could result in significant impacts. The mitigation below would reduce the impact to a less-than-significant level.

Mitigation 8-7. For all public improvement and private development projects in the Freedom Circle Focus Area Plan Area, the following measures shall be implemented:

(1) Education Program. Project applicants shall implement a program that includes the following elements:

- Resource identification training procedures for construction personnel, conducted by a paleontologist who meets the Secretary of the Interior's Professional Qualifications Standards;

- Spot-checks and monitoring by a qualified paleontologist of all excavations deeper than seven feet below ground surface; and

- Procedures for reporting discoveries and their geologic context.

(2) Procedures for Resources Encountered. If subsurface paleontological resources are encountered, excavation shall halt within a buffer area of at least 50 feet around the find, where construction activities will not be allowed to continue until the project paleontologist evaluates the resource and its stratigraphic context. Work shall be allowed to continue outside the buffer area; however, the paleontologist shall be empowered to temporarily halt or redirect construction activities to ensure avoidance of adverse impacts to paleontological resources. During monitoring, if potentially significant paleontological resources are found, "standard" samples shall be collected and processed by a qualified paleontologist to recover micro vertebrate fossils. If significant fossils are found and collected, they shall be prepared to a reasonable point of identification. Excess sediment or matrix shall be removed from the specimens to reduce the bulk and cost of storage.

Itemized catalogs of material collected and identified shall be provided to a local museum repository with the specimens. Significant fossils collected during this work, along with the itemized inventory of these specimens, shall be deposited in a local museum repository for permanent curatorship and storage. A report documenting the results of the monitoring and salvage activities, and the significance of the fossils, if any, shall be prepared. The report and inventory, when submitted to the City, shall signify the completion of the program to mitigate impacts on paleontological resources.

Implementation of this measure would reduce the impact to a ***less-than-significant level.***

Impact 8-8: Potential for Disturbance of Paleontological Resources—Greystar Project. Similar to Impact 8-7, development of the Greystar project could disturb unrecorded paleontological resources in the Plan Area. This possibility represents a ***potentially significant impact*** (see criterion [f] in subsection 8.3.1, "Significance Criteria," above).

As discussed above in section 8.1, Santa Clara's surficial geologic units may potentially contain paleontological resources. Although an on-line archival search indicated no records of recorded fossil sites within the Plan Area (including the project site), it is possible that paleontological resources could be discovered during ground-disturbing activities. Contact with such fossil resources during ground-disturbing activities could result in significant impacts. The mitigation below would reduce the impact to a less-than-significant level.

Mitigation 8-8. The Greystar project shall be required, as a condition of project approval, to implement the following measures:

(1) Education Program. The project applicant shall implement a program that includes the following elements:

- Resource identification training procedures for construction personnel, conducted by a paleontologist who meets the Secretary of the Interior's Professional Qualifications Standards;
- Spot-checks and monitoring by a qualified paleontologist of all excavations deeper than seven feet below ground surface; and
- Procedures for reporting discoveries and their geologic context.

(2) Procedures for Resources Encountered. If subsurface paleontological resources are encountered, excavation shall halt within a buffer area of at least 50 feet around the find, where construction activities will not be allowed to continue until the project paleontologist evaluates the resource and its stratigraphic context. Work shall be allowed to continue outside the buffer area; however, the paleontologist shall be empowered to temporarily halt or redirect construction activities to ensure avoidance of adverse impacts to paleontological resources. During monitoring, if potentially significant paleontological resources are found, "standard" samples shall be collected and processed by a qualified paleontologist to recover micro vertebrate fossils. If significant fossils are found and collected, they shall be prepared to a reasonable point of identification. Excess sediment or matrix shall be removed from the specimens to reduce the bulk and cost of storage.

(continued)

Mitigation 8-8 (continued):

Itemized catalogs of material collected and identified shall be provided to a local museum repository with the specimens. Significant fossils collected during this work, along with the itemized inventory of these specimens, shall be deposited in a local museum repository for permanent curatorship and storage. A report documenting the results of the monitoring and salvage activities, and the significance of the fossils, if any, shall be prepared. The report and inventory, when submitted to the City, shall signify the completion of the program to mitigate impacts on paleontological resources.

Implementation of this measure would reduce the impact to a ***less-than-significant level.***

9. GREENHOUSE GAS EMISSIONS AND ENERGY

This chapter describes the impacts of the proposed Freedom Circle Focus Area Plan/Greystar General Plan Amendment with respect to greenhouse gas (GHG) emissions and energy. The chapter was prepared using methodologies and assumptions recommended by the Bay Area Air Quality Management District (BAAQMD), the regional air quality regulatory agency (BAAQMD 2017a). In keeping with these guidelines, the chapter describes existing sources and quantities of GHG emissions, potential short-term construction-related GHG emissions and energy consumption, potential direct and indirect operational emissions and energy consumption associated with the implementing the Focus Area Plan / Greystar General Plan Amendment, and mitigation measures needed to reduce any identified significant impacts.

9.1 SETTING

9.1.1 Climate Change

Climate change is the distinct change in measures of climate for a long period of time. Climate change can result from natural processes and from human activities. Natural changes in the climate can be caused by indirect processes such as changes in the Earth's orbit around the Sun or direct changes within the climate system itself (i.e., changes in ocean circulation). Human activities can affect the atmosphere through emissions of gases and changes to the planet's surface. Emissions affect the atmosphere directly by changing its chemical composition, while changes to the land surface indirectly affect the atmosphere by changing the way the Earth absorbs gases from the atmosphere. The term "climate change" is preferred over the term "global warming" because "climate change" conveys the fact that other changes can occur beyond just average increase in temperatures near the Earth's surface. Elements that indicate that climate change is occurring on Earth include:

- Rising of global surface temperatures by 1.3° Fahrenheit (°F) over the last 100 years
- Changes in precipitation patterns
- Melting ice in the Arctic
- Melting glaciers throughout the world
- Rising ocean temperatures
- Acidification of oceans
- Range shifts in plant and animal species

Climate change is intimately tied to the Earth's greenhouse effect. The greenhouse effect is a natural occurrence that helps regulate the temperature of the planet, and without it, life as we know it on Earth would not exist. Human activities since the beginning of the industrial revolution (approximately 150 years) have been adding to the natural greenhouse effect by increasing the gases in the atmosphere that "trap" energy, thereby contributing to an average increase in the Earth's temperature. Human activities that enhance the greenhouse effect are detailed below.

9.1.2 Greenhouse Gases

Gases that "trap" heat in the atmosphere and affect regulation of the Earth's temperature are known as "greenhouse gases". Many chemical compounds in the Earth's atmosphere exhibit the GHG property. GHG allow sunlight to enter the atmosphere freely. When the sunlight strikes the Earth's surface, it is either absorbed or reflected back toward space. Earth, or materials near the Earth's surface, that have absorbed energy from sunlight warm up during the daytime and emit infrared radiation back toward space during both the daytime and nighttime hours. GHG absorb this long-wave, infrared radiation and help keep the energy in the Earth's atmosphere.

GHG that contribute to climate regulation are a different type of pollutant than criteria or hazardous air pollutants because climate regulation is global in scale, both in terms of causes and effects. Some GHG are emitted to the atmosphere naturally by biological and geological processes such as evaporation (water vapor), aerobic respiration (carbon dioxide, or CO_2), and off-gassing from low-oxygen environments such as swamps or exposed permafrost (methane or CH_4). However, GHG emissions from human activities such as fuel combustion (e.g., CO_2) and refrigerants use (e.g., hydrofluorocarbons, or HFCs) significantly contribute to overall GHG concentrations in the atmosphere, climate regulation, and global climate change. Human production of GHG has increased steadily since pre-industrial times (approximately pre-1880), and atmospheric CO_2 concentrations have increased from a pre-industrial value of 280 parts per million (ppm) in the early 1800s to approximately 411 ppm in September 2020 (NOAA 2020). The effects of increased GHG concentrations in the atmosphere include increasing shifts in temperature and precipitation patterns and amounts, reduced ice and snow cover, sea level rise, and acidification of oceans. These effects in turn will impact food and water supplies, infrastructure, ecosystems, and overall public health and welfare.

The 1997 United Nations' Kyoto Protocol international treaty set targets for reductions in emissions of four specific GHG—CO_2, CH_4, nitrous oxide (N_2O), and sulfur hexafluoride (SF_6)—and two groups of gases—HFCs and perfluorocarbons (PFCs). These GHG are the primary GHG emitted into the atmosphere by human activities. Water vapor is also a common GHG that regulates the Earth's temperature; however, the amount of water vapor in the atmosphere can change substantially from day to day, whereas other GHG emissions remain in the atmosphere for longer periods of time. Black carbon consists of particles emitted during combustion; although a particle and not a gas, black carbon also acts to trap heat in the Earth's atmosphere. The most common GHG are described below.

- **Carbon Dioxide (CO_2)** is emitted and removed from the atmosphere naturally. Animal and plant respiration involves the release of CO_2 from animals and its absorption by plants in a continuous cycle. The ocean-atmosphere exchange results in the absorption and release of CO_2 at the sea surface. CO_2 is also released from plants during wildfires. Volcanic eruptions release a small amount of CO_2 from the Earth's crust. Human activities that affect CO_2 in the atmosphere include burning of fossil fuels, industrial processes, and product uses. Combustion of fossil fuels used for electricity generation and transportation are the largest source of CO_2 emissions in the United States. When fossil fuels are burned, the carbon stored in them is released into the atmosphere entirely as CO_2. Emissions from industrial activities also emit CO_2 such as cement, metal, and chemical production and use of petroleum produced in plastics, solvents, and lubricants.

- **Methane (CH_4)** is emitted from human activities and natural sources. Natural sources of CH_4 include wetlands, gas hydrates, permafrost, termites, oceans, freshwater bodies, soils, and

wildfires. Human activities that cause CH_4 releases include fossil fuel production, animal digestive processes from farms, manure management, and waste management. It is estimated that 50% of global CH_4 emissions are human generated. Releases from animal digestive processes at agricultural operations are the primary source of human-related CH_4 emissions. CH_4 is produced from landfills as solid waste decomposes. CH_4 is a primary component of natural gas and is emitted during its production, processing, storage, transmission, distribution, and use. Decomposition of organic material in manure stocks or in liquid manure management systems also releases CH_4. Wetlands are the primary natural producers of CH_4 because the habitat is conducive to bacteria that produce CH_4 during decomposition of organic material.

- **Nitrous Oxide (N_2O)** is emitted from human sources such as agricultural soil management, animal manure management, sewage treatment, combustion of fossil fuels, and production of certain acids. N_2O is produced naturally in soil and water, especially in wet, tropical forests. The primary human-related source of N_2O is agricultural soil management due to use of synthetic nitrogen fertilizers and other techniques to boost nitrogen in soils. Combustion of fossil fuels (mobile and stationary) is the second leading source of N_2O, although parts of the world where catalytic converters are used (such as California) have significantly lower levels than those areas that do not.

- **Sulfur Hexafluoride (SF_6)** is commonly used as an electrical insulator in high-voltage electrical transmission and distribution equipment such as circuit breakers, substations, and transmission switchgear. Releases of SF_6 occur during maintenance and servicing as well as from leaks of electrical equipment.

- **Hydrofluorocarbons (HFCs) and Perfluorocarbons (PFCs)** are entirely human made and are mainly generated through various industrial processes. These types of gases are used in aluminum production, semiconductor manufacturing, and magnesium production and processing. HFCs and PFCs are also used as substitutes for ozone-depleting gases like chlorofluorocarbons (CFCs) and halons.

In 1997, the United States (U.S.) was a signatory to the Kyoto Protocol; however, the treaty was not sent to Congress for ratification. Thus, while a signatory to the Kyoto Protocol, the U.S. is not an official party to this international agreement and is not subject to any emission reductions goals established pursuant to the Kyoto Protocol. Although the U.S. is not a party to this agreement, the GHG targeted for reduction by the Kyoto Protocol are also targeted under federal and State GHG reporting and emissions reduction programs.

GHG can remain in the atmosphere long after they are emitted. The potential for a particular greenhouse gas to absorb and trap heat in the atmosphere is considered its global warming potential (GWP). The reference gas for measuring GWP is CO_2, which has a GWP of one. By comparison, CH_4 has a GWP of 25, which means that one molecule of CH_4 has 25 times the effect on global warming as one molecule of CO_2. Multiplying the estimated emissions for non-CO_2 GHG by their GWP determines their CO_2 equivalent (CO_2e), which enables a project's combined GWP to be expressed in terms of mass CO_2 emissions. The GWP and estimated atmospheric lifetimes of the common GHG are shown in Table 9-1.

Table 9-1
GLOBAL WARMING POTENTIAL (GWP) OF COMMON GHG (100-YEAR HORIZON)

GHG	**GWP(A)**	**GHG**	**GWP(A)**
Carbon Dioxide (CO_2)	1	Perfluorocarbons (PFCs)	
Methane (CH_4)	25	CF_4	6,500
Nitrous Oxide (N_2O)	298	C_2F_6	9,200
Hydrofluorocarbons (HFCs)		C_4F_{10}	7,000
HFC-23	14,800	C_6F_{14}	7,400
HFC-134a	1,430	Sulfur Hexafluoride (SF_6)	22,800
HFC-152a	140		
HCFC-22	1,700		

Source: CARB 2014
(A) GWPs are based on the United Nations Intergovernmental Panel on Climate Change (IPCC) 4th Assessment Report.

9.1.3 Climate Change and California

The 2009 California Climate Adaptation Strategy prepared by the California Natural Resources Agency (CNRA) identified anticipated impacts to California due to climate change through extensive modeling efforts. General climate changes in California indicate that:

- California is likely to get hotter and drier as climate change occurs with a reduction in winter snow, particularly in the Sierra Nevada Mountain Range.
- Some reduction in precipitation is likely by the middle of the century.
- Sea levels will rise up to an estimated 55 inches.
- Extreme events such as heat waves, wildfires, droughts, and floods will increase.
- Ecological shifts of habitat and animals are already occurring and will continue to occur (CNRA 2009).

It should be noted that changes are based on the results of several models prepared under different climatic scenarios; therefore, discrepancies occur between the projections and the interpretation. The potential impacts of global climate change in California are detailed below.

In January 2018, the CNRA adopted *Safeguarding California Plan: 2018 Update*, which builds on nearly a decade of adaptation strategies to communicate current and needed actions State government should take to build climate change resiliency. It identifies hundreds of ongoing actions and next steps that State agencies are taking to safeguard Californians from climate impacts within a framework of 81 policy principles and recommendations. The 2018 update also has two new chapters and incorporates a feature showcasing the many linkages among policy areas. A new “Climate Justice” chapter highlights how equity is woven throughout the entire plan (CNRA 2018).

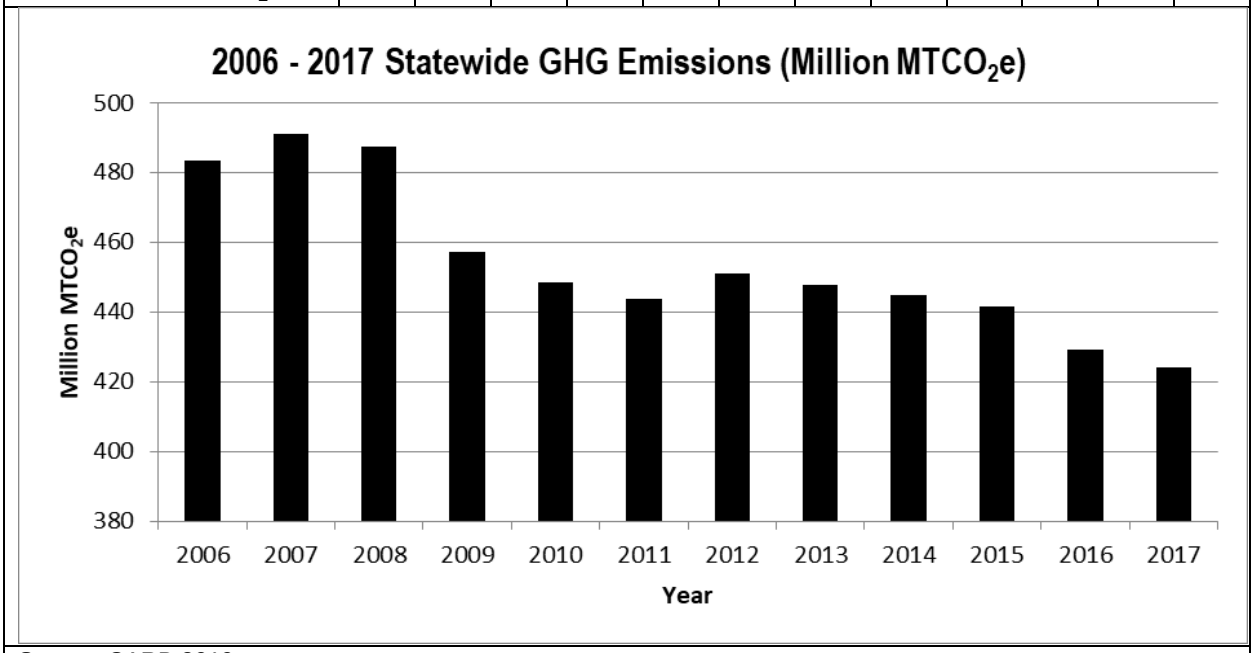
9.1.4 Statewide GHG Emissions

The California Air Resources Board (CARB) prepares an annual statewide GHG emission inventory using regional, State, and federal data sources, including facility-specific emissions reports prepared pursuant to the State’s Mandatory GHG Reporting Program. The statewide GHG emission inventory helps CARB track progress towards meeting the State’s Assembly Bill

(AB) 32 GHG emissions target of 431 million metric tons of CO_2 equivalents ($MTCO_2e$), as well as establish and understand trends in GHG emissions[1]. Statewide GHG emissions for the 2006 to 2017 time period are shown in Table 9-2.

Table 9-2
2006-2017 STATEWIDE GHG EMISSIONS (IN MILLION $MTCO_2E$)

Scoping Plan Sector	Year											
	'06	**'07**	**'08**	**'09**	**'10**	**'11**	**'12**	**'13**	**'14**	**'15**	**'16**	**'17**
Agriculture	35	36	36	33	34	35	36	35	36	34	34	32
Commercial/Residential	43	43	44	44	45	46	43	44	37	38	39	41
Electric Power	105	114	120	101	90	88	95	90	88	84	69	62
High GWP	10	11	12	12	14	15	16	17	18	19	20	20
Industrial	93	90	91	88	91	91	91	94	94	92	90	89
Recycling and Waste	8	8	8	8	8	8	8	9	9	9	9	9
Transportation	189	189	178	170	165	162	161	161	162	166	169	170
Total Million $MTCO_2e$(A)	***483***	***490***	***487***	***457***	***448***	***444***	***450***	***448***	***444***	***441***	***429***	***424***



Source: CARB 2019a
(A) Totals may not equal due to rounding. CARB inventory uses GWPs based on the United Nations' IPCC's 4th Assessment Report.

As shown in Table 9-2, statewide GHG emissions have generally decreased over the last decade, with 2017 levels (424 million $MTCO_2e$) approximately 12% less than 2006 levels (483 million $MTCO_2e$) and below the State's 2020 reduction target of 431 million $MTCO_2e$. The transportation sector (170 million $MTCO_2e$) accounted for more than one-third (approximately 40.1%) of the state's total GHG emissions inventory (424 million $MTCO_2e$) in 2017.

[1]CARB approved use of 431 million $MTCO_2e$ as the state's 2020 GHG emission target in May 2014. Previously, the target had been set at 427 million $MTCO_2e$.

9.1.5 Regional and Local GHG Emissions

9.1.5.1 San Francisco Bay Area

The BAAQMD conducts periodic inventories of GHG emissions within the San Francisco Bay Area Air Basin. Data for the most recent inventory (Year 2011) indicates the Bay Area emitted a total of 86.6 million $MTCO_2e$, or approximately 20 percent of the total statewide GHG emissions in Year 2011 (BAAQMD 2015).[2] Similar to the state inventory, the combustion of fossil fuels in mobile sources such as cars, trucks, locomotives, ships, and boats contribute the most (34.3 million $MTCO_2e$) toward regional GHG levels (approximately 40 percent of regional GHG emissions).

A summary of the 2011 regional GHG emissions inventory, by sector and county, is shown in Table 9-3. Santa Clara County, in which the City of Santa Clara is located, emitted approximately 16 million $MTCO_2e$, or about 18 percent of total regional emissions.

Table 9-3
2011 BAY AREA GHG EMISSIONS, BY SECTOR AND COUNTY (IN MILLION $MTCO_2E$)

Sector	Alameda	Contra Costa	Marin	Napa	San Francisco	San Mateo	Santa Clara	Solano(A)	Sonoma(A)	Total SF Bay Area
Industrial/ Commercial	2.7	17.8	0.4	0.2	1.2	1.4	4.1	2.7	0.5	31.0
Residential Fuel	1.3	1.0	0.3	0.1	0.9	0.8	1.5	0.3	0.4	6.6
Electricity / Co-Generation	0.9	7.2	0.1	0.1	0.5	0.4	2.2	0.4	0.2	12.0
Off-Road Equipment	0.2	0.2	0.0	0.0	0.2	0.1	0.4	0.0	0.1	1.2
Transportation	7.9	5.0	1.3	0.9	3.0	5.0	7.6	1.6	2.0	34.3
Agriculture/ Farming	0.1	0.2	0.2	0.1	0.0	0.0	0.2	0.1	0.2	1.1
TOTAL (All Sectors)(B)	13.2	31.4	2.4	1.5	5.7	7.7	16.0	5.1	3.5	86.5

Source: BAAQMD 2015
(A) Portions within the BAAQMD.
(B) Totals may not equal due to rounding.

[2]The BAAQMD GHG inventory is based on the United Nation (U.N.) Intergovernmental Panel on Climate Change's (IPCC) 2nd Assessment Report, which uses different GWP values to compute carbon dioxide equivalents. The GWP values in the 2nd Assessment Report are generally lower than the values in the U.N. IPCC 4th Assessment Report, which the CARB statewide inventory uses. For example, the GWP of methane was reported as 21 in the 2nd Assessment Report and is reported as 25 in the 4th Assessment Report.

The 2011 Regional GHG Emissions Inventory also includes a list of the "Top 200" major GHG emitting point source facilities in the region. The City of Santa Clara has four of the top 200 major GHG emitting point sources in the region, including Donald Von Raesfeld Power Plant, Graphic Packaging International, Inc., City of Santa Clara Power Plant (560 Robert Avenue), and Owens Corning Insulating Systems LLC.

9.1.5.2 Existing Plan Area GHG Emissions

The existing land uses within the Plan Area contribute to existing city, region, and statewide GHG emissions. The Plan Area's existing GHG emissions, presented below in Table 9-1, were estimated using the California Emissions Estimator Model (CalEEMod), Version 2016.3.2. GHG emissions generated within the Plan Area primarily come from the area, energy, and mobile sources described in Section 5.1.1, Air Quality, as well as the following additional sources specific to GHG emissions:

- **Energy Use and Consumption:** Emissions generated from purchased electricity and natural gas. As estimated by CalEEMod, the existing land uses in the Plan Area use and consume approximately 49,355,030 kilowatt hours (kWh) of electricity per year and 93,109,920 kilo-British Thermal Units (kBtus) of natural gas per year.

- **Solid Waste Disposal:** Emissions generated from the transport and disposal of waste generated by land uses. CalEEMod estimates approximately 2,416 tons of solid waste are generated per year by the people working within the Plan Area.

- **Water/Wastewater:** Emissions from electricity used to supply water to land uses, and treat the resulting wastewater generated. As provided in the Water Supply Assessment prepared for the proposed Focus Area Plan, existing land uses within the Plan Area use approximately 20.9 million gallons of water per year (City of Santa Clara 2020a).

The Plan Area's existing GHG emissions were estimated using default emissions assumptions provided by CalEEMod, with the Project-specific modifications described in Section 5.1.5 and below:

- **Mobile Sources.** CalEEMod does not estimate N_2O emissions from on-road vehicle travel or off-road construction sources. To account for this, CalEEMod emissions estimates were adjusted as follows:

    - N_2O emissions were estimated for the Plan by comparing the ratio of CO_2 and N_2O emissions from the on-road vehicle sector contained in the State's most recent GHG inventory (CARB 2019a). In 2017, statewide CO_2 and N_2O emissions estimates for the on-road transportation sector were 152.4 and 0.011 million metric tons, respectively (N_2O emissions are therefore equal to 0.007% of CO_2 emissions for this sector).

- **Energy Use and Consumption:** In addition to natural gas usage, the existing land uses in the Plan Area would generate indirect GHG emissions from electricity use. Silicon Valley Power (SVP) provides electricity service in the City of Santa Clara. CalEEMod does not contain GHG intensity values for this electric service provider. As such, the default GHG default assumptions regarding energy use were adjusted as follows:

- The GHG intensity value utilized in the 2020 modeling is based on SVP's forecasted carbon emission factor for 2020 (346.43 pounds/megawatt-hour (lbs/MWh), as estimated by the City in 2019 (City of Santa Clara 2019). The GHG intensity value utilized in the 2040 modeling is based on an estimated SVP carbon emission factor that reflects SVP's compliance with Senate Bill (SB) 100, which requires 60% of the total kilowatt-hours sold to retail end-use customers be served by renewable energy sources by 2030.

- Electricity generation emission factors for CH_4 (0.027 lbs/MWh) and N_2O (0.003 lbs/MWh) were obtained from the U.S. EPA's EGRID database for year 2018, the last year for which data was available at the time this EIR was prepared (U.S. EPA 2020).

The emissions generated by current land uses in the Plan Area are shown in Table 9-4. The emissions are shown for two scenarios:

- **Year 2020 (Current Conditions)**, which are based on Year 2020 vehicle fleet characteristics (e.g., vehicle type, age, emission rates), and represent the emissions levels that existed at the time the Notice of Preparation was released for this EIR.

- **Year 2040 (Future Conditions)**, which are based on Year 2040 vehicle characteristics and represent the projected emissions that the existing land uses would generate in the future (assuming no change in land uses). This scenario provides an estimate of how emissions would change in the Plan Area as a result of regulations that would reduce motor vehicle and energy emissions in the future (i.e., how emissions in the Plan Area could look, absent implementation of the Focus Area Plan / Greystar Project).

9.1.5.2 Existing GHG Emissions Levels at the Greystar Project Site

The Greystar Project site is currently undeveloped. A nominal amount of emissions may be generated by landscaping equipment used to maintain the site, but otherwise there are no GHG emissions currently associated with the two properties.

9.1.6 Energy

Energy is primarily categorized into three areas: electricity, natural gas, and fuels used for transportation. According to the U.S. Energy Information Administration (U.S. EIA), California is the most populous state in the U.S., representing 12 percent of the total national population, has the largest economy, and is second only to Texas in total energy consumption. However, California has one of the lowest per capita energy consumption levels in the U.S. This is a result of California's mild climate, extensive efforts to increase energy efficiency, and implementation of alternative technologies. California leads the nation in electricity generation from solar, geothermal, and biomass resources (U.S. EIA 2018).

9.1.6.1 Electricity

In 2018, almost half of California's net electricity generation was from renewable resources, including hydropower (U.S. EIA, 2019). In 2018, the California electric system used 281,120 gigawatt hours (GWh) of electricity, nearly 71 percent of which (199,595 GWh) was produced in-state (CEC 2019a). Santa Clara County consumed 16,708 GWh of electricity, about 6 percent of the state's electricity consumption in 2018 (CEC 2019a).

SVP is the utility provider in Santa Clara. In 2018, SVP sold approximately 3,551 million kWh of electricity (CEC 2020a); approximately 75 percent of that electricity was GHG free in 2017 (SVP 2020).

Table 9-4
EXISTING LAND USE GHG EMISSIONS ESTIMATES

Source	GHG Emissions (Metric Tons / Year)			
	CO_2	CH_4	N_2O	Total $MTCO_2e$
Existing Land Use Operational Emissions in Year 2020 (Current Conditions)				
Area	0.1	<0.0(A)	0.0	0.1
Energy	12,724.2	0.7	0.2	12,788.9
Mobile	12,992.5	0.8	0.9	13,012.6
Waste	490.4	29.0	0.0	1,215.0
Water	24.4	0.7	<0.0(A)	46.4
Total Existing GHG(B)	26,231.7	31.2	1.1	27,062.9
Service Population (SP)(C)	--	--	--	5,781
Existing GHG Efficiency ($MTCO_2e$ / SP)	--	--	--	4.7
Existing Land Use Operational Emissions in Year 2040 (Future Conditions)				
Area	0.1	<0.0(A)	0.0	0.1
Energy	7,779.1	0.7	0.2	7,843.7
Mobile	9,555.9	0.3	0.7	9,763.3
Waste	490.4	29.0	0.0	1,215.0
Water	13.1	0.7	<0.0(A)	35.1
Total Existing GHG(B)	17,838.6	30.7	0.8	18,857.3
Service Population (SP)(C)	--	--	--	5,781
Existing GHG Efficiency ($MTCO_2e$ / SP)	--	--	--	3.26

Source: MIG 2021 (see Appendix 25.2)
(A) <0.0 does not mean zero; rather, it means less than 0.05 but greater than zero.
(B) Totals may not equal due to rounding.
(C) Service Population is defined as the sum of the number of residents and number of jobs supported by the Focus Area Plan (CAPCOA 2010).

Based on the CalEEMod emissions estimates prepared for the Plan (see Section 5.1.5 and Appendix 25.2), the existing development in the Plan Area is estimated to consume approximately 49,355,030 kWh of electricity per year. Based on a service population of 5,781, this works out to approximately 8,537 kWh / service population on an annual basis.

9.1.6.2 Natural Gas

California accounts for less than 1 percent of total U.S. natural gas reserves and production; however, almost two-thirds of California households use natural gas for home heating (U.S. EIA 2020). In 2018, California consumed about 12,638 million therms of natural gas. Approximately 35 percent of this natural gas was consumed by the residential sector. Santa Clara County consumed approximately 440 million therms of natural gas in the same year, accounting for approximately 3.5 percent of statewide consumption. The residential and non-residential sectors made up approximately 53 percent and 47 percent of county-wide consumption (CEC 2020b).

Pacific Gas and Electric (PG&E) provides natural gas service to the Plan Area. PG&E is the principal distributor of natural gas in Northern California and provides natural gas for residential, commercial, and industrial markets. The annual gas sale to all markets in 2018 was approximately 4,794 million therms (CEC 2020c).

Based on the CalEEMod emissions estimates prepared for the Focus Area Plan (see Section 5.1.5 and Appendix 25.2), existing development in the Plan Area is estimated to consume approximately 93,109,920 kBtu per year.[3] Based on a SP of 5,781, this works out to approximately 16,106 kBtu/SP, annually.

9.1.6.3 Transportation

California's transportation sector consumed 80.6 million Btu of energy per capita in 2017, which ranked 31st in the nation (U.S. EIA 2017). Most gasoline and diesel fuel sold in California for motor vehicles is refined in California to meet state-specific formulations required by the California Air Resources Board.

According to the Board of Equalization (BOE), statewide taxable sales figures indicate a total of 15,339 million gallons of gasoline and 3,074 million gallons of diesel fuel were sold in 2018 (CEC 2019b; CDFTA 2018). Although exact estimates are not available by County, retail fuel outlet survey data indicates Santa Clara County accounted for approximately 4.2 percent and 2.7 percent of total statewide gasoline and diesel sales, respectively, in 2018 (CEC 2019c).

Using the adjusted trip generation described in Section 5.1.5 and default distances in CalEEMod, the existing land uses in the Plan Area are estimated to generate approximately 33,852,062 annual vehicle miles traveled (VMT) per year.

9.2 REGULATORY SETTING

This section summarizes key federal, State, and City statutes, regulations, and policies pertaining to GHG emissions and energy consumption and efficiency that would apply to the Focus Area Plan and Greystar Project. Global climate change resulting from GHG emissions is an ongoing environmental concern being discussed at the international, national, and statewide levels. At each level, agencies are considering strategies to control emissions of gases that contribute to global climate change.

9.2.1 International and Federal

9.2.1.1 International Regulation and the Kyoto Protocol

In 1988, the United Nations established the Intergovernmental Panel on Climate Change (IPCC) to evaluate the impacts of global warming and to develop strategies that nations could implement to curtail global climate change. In 1992, the United States joined other countries around the world in signing the "United Nations' Framework Convention on Climate Change" agreement with the goal of controlling GHG emissions. As a result, the Climate Change Action Plan was developed to address the reduction of GHG emissions in the United States and for the

[3]One therm is equal to 100,000 Btu, or 100 kBtu.

other signatory members. The plan currently consists of more than 50 voluntary programs for member nations to adopt.

9.2.1.2 Federal Regulation and the Clean Air Act

On December 7, 2009, the U.S. EPA issued an endangerment finding that current and projected concentrations of the six Kyoto GHGs in the atmosphere (CO_2, CH_4, N_2O, SF_6, HFCs, and PFCs) threaten the public health and welfare of current and future generations. This finding came in response to the Supreme Court ruling in *Massachusetts v. EPA*, which found that GHGs are pollutants under the Federal Clean Air Act. As a result, the U.S. EPA issued its GHG Tailoring Rule in 2010, which applies to facilities that have the potential to emit more than 100,000 $MTCO_2e$. In 2014, the U.S. Supreme Court issued its decision in *Utility Air Regulatory Group v. EPA* (No. 12-1146), finding that the U.S. EPA may not treat GHGs as an air pollutant for purposes of determining whether a source is a "major" source required to obtain a permit pursuant to the "Clean Air Act's Prevention of Significant Deterioration" or "Title V" operating permit programs. The U.S. EPA's Greenhouse Gas Reporting Program requires facilities that emit 25,000 $MTCO_2e$ or more of GHG to report their GHG emissions to the U.S. EPA to inform future policy decisionmakers.

9.2.1.3 The Trump Administration

Former President Trump and the U.S. EPA during the time of the Trump administration stated their intent to halt various federal regulatory activities to reduce GHG emissions. President Biden, who took office in January 2021, and his administration have begun to strengthen federal policy once again around GHG emissions on a national level. California and other states are still challenging some federal actions undertaken during the time of the Trump administration that would delay or eliminate GHG reduction measures and have committed to cooperating with other countries to implement global climate change initiatives. The timing and consequences of these types of federal decisions and potential responses from California and other states are speculative at this time.

The United States participates in the United Nations Framework Convention on Climate Change (UNFCCC). While the United States signed the Kyoto Protocol, which would have required reductions in GHGs, Congress never ratified the protocol. The federal government chose voluntary and incentive-based programs to reduce emissions and has established programs to promote climate technology and science. In 2015, the Paris Agreement was adopted, which aims at keeping global temperature rise this century below 2 degrees Celsius above pre-industrial levels and pursuing efforts to limit temperature increase above an additional 1.5 degrees Celsius. The Agreement was signed by President Obama in April 2016, but the agreement does not contain enforcement provisions that would require U.S. Senate ratification. On November 4, 2019, Former President Trump formally began the process to leave the Paris Climate Agreement. In accordance with Article 28 of the Paris Agreement, that process was complete on November 4, 2020. As one of his first acts in the Oval Office, President Biden signed an executive order to have the United States rejoin the Paris Climate Agreement. At this time, there are no federal regulations or policies pertaining to GHG emissions that directly apply to the project.[4]

[4]Though the U.S. EPA announced the Clean Power Plan on August 3, 2015, which sets standards for power plants and customizes goals for states to cut their carbon pollution, the U.S. Supreme Court stayed implementation of the Plan on February 9, 2016, pending further judicial review.

9.2.1.4 Federal Energy Policy and Conservation Act

In 1975, Congress enacted the Federal Energy and Policy Conservation Act, which established the first fuel economy standards for on-road motor vehicles in the United States. Pursuant to the act, the National Highway Traffic Safety Administration (NHTSA) is responsible for establishing additional vehicle standards.

9.2.1.5 Energy Independence and Security Act of 2007

On December 19, 2007, the Energy Independence and Security Act of 2007 was signed into law. In addition to setting increased Corporate Average Fuel Economy (CAFE) standards for motor vehicles, the act also includes the following provisions related to energy efficiency:

- Renewable fuel standards (RFS)
- Appliance and lighting efficiency standards
- Building energy efficiency

This federal legislation requires ever-increasing levels of renewable fuels to replace petroleum. The U.S. EPA is responsible for developing and implementing regulations to ensure transportation fuel sold in the United State contains a minimum volume of renewable fuel. The RFS program regulations were developed in collaboration with refiners, renewable fuel produces, and other stakeholders.

The RFS program was created under the Energy Policy Act of 2005 and established the first renewable fuel volume mandate in the United States. As required under the act, the original RFS program (RFS1) required 7.5 billion gallons of renewable fuel to be blended into gasoline by 2012. Under the Energy Independence and Security Act of 2007 (EISA), the RFS program was expanded in several key ways that laid the foundation for achieving significant reductions of GHG emissions through the use of renewable fuels, for reducing imported petroleum, and for encouraging the development and expansion of the nation's renewable fuels sector. The updated program is referred to as RFS2 and includes the following:

- EISA expanded the RFS program to include diesel, in addition to gasoline;
- EISA increased the volume of renewable fuel required to be blended into transportation fuel from 9 billion gallons in 2008 to 36 billion gallons by 2022;
- EISA established new categories of renewable fuel and set separate volume requirements for each one; and
- EISA required the U.S. EPA to apply lifecycle GHG performance threshold standards to ensure that each category of renewable fuel emits fewer GHG than the petroleum fuel it replaces (U.S. EPA 2015).

Additional provisions of the EISA address energy savings in government and public institutions, promoting research for alternative energy, additional research in carbon capture, international energy programs, and the creation of "green jobs."

9.2.1.6 Federal Vehicle Standards

In 2009, the NHTSA issued a final rule regulating fuel efficiency and GHG emissions from cars and light-duty trucks for model year 2011; and, in 2010, the U.S. EPA and NHTSA issued a final rule regulating cars and light-duty trucks for model years 2012–2016.

In 2010, President Obama issued a memorandum directing the Department of Transportation, Department of Energy, U.S. EPA, and NHTSA to establish additional standards regarding fuel efficiency and GHG reduction, clean fuels, and advanced vehicle infrastructure. In response to this directive, EPA and NHTSA proposed stringent, coordinated federal GHG and fuel economy standards for model years 2017–2025 light-duty vehicles. The proposed standards projected to achieve 163 grams per mile of CO_2 in model year 2025, on an average industry fleetwide basis, which is equivalent to 54.5 miles per gallon if this level were achieved solely through fuel efficiency. The final rule was adopted in 2012 for model years 2017–2021, and NHTSA intends to set standards for model years 2022–2025 in a future rulemaking.

In addition to the regulations applicable to cars and light-duty trucks described above, in 2011, the EPA and NHTSA announced fuel economy and GHG standards for medium- and heavy-duty trucks for model years 2014–2018. The standards for CO_2 emissions and fuel consumption are tailored to three main vehicle categories: combination tractors, heavy-duty pickup trucks and vans, and vocational vehicles. According to the U.S. EPA, this regulatory program will reduce GHG emissions and fuel consumption for the affected vehicles by 6% to 23% over the 2010 baselines.

In August 2016, the EPA and NHTSA announced the adoption of the phase two program related to the fuel economy and GHG standards for medium- and heavy-duty trucks. The phase two program will apply to vehicles with model year 2018–2027 for certain trailers, and model years 2021–2027 for semi-trucks, large pickup trucks, vans, and all types and sizes of buses and work trucks. The final standards are expected to lower CO_2 emissions by approximately 1.1 billion metric tons (MT) and reduce oil consumption by up to 2 billion barrels over the lifetime of the vehicles sold under the program (U.S. EPA and NHTSA, 2016).

In August 2018, the USEPA and NHTSA released a notice of proposed rulemaking called Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021-2026 Passenger Cars and Light Trucks (SAFE Vehicles Rule).

On September 27, 2019, the U.S. EPA and the NHTSA published the SAFE Vehicles Rule Part One: One National Program." (84 Fed. Reg. 51,310 (Sept. 27, 2019.) The Part One Rule revoked California's authority to set its own greenhouse gas emissions standards and set zero emission vehicle mandates in California. As a result of the loss of the zero emission vehicles (ZEV) sales requirements in California, there may be fewer ZEVs sold and thus additional gasoline-fueled vehicles sold in future years (CARB 2019b).

In April 2020, the U.S. EPA and NHTSA issued the SAFE Vehicles Rule for Model Years 2021-2026 Passenger Cars and Light Trucks (Final SAFE Rule) that relaxed federal greenhouse gas emissions and fuel economy standards. The Final SAFE Rule relaxed federal greenhouse gas emissions and Corporate Average Fuel Economy (CAFE) standards to increase in stringency at approximately 1.5 percent per year from model year (MY) 2020 levels over MYs 2021–2026. The previously established emission standards and related "augural" fuel economy standards would have achieved approximately 4 percent per year improvements through MY 2025. The

Final SAFE Rule affects both upstream (production and delivery) and downstream (tailpipe exhaust) CO_2 emissions (CARB 2020) and has been challenged by 23 states. The litigation is ongoing.

9.2.2 State and Regional

9.2.2.1 Assembly Bill 32 (California Global Warming Solutions Act) and Related GHG Goals

In September 2006, Governor Arnold Schwarzenegger signed AB 32, the California Climate Solutions Act of 2006. AB 32 establishes the caps on statewide greenhouse gas emissions proclaimed in Executive Order (EO) S-3-05 and established the timeline for meeting State GHG reduction targets. The deadline for meeting the 2020 reduction target was December 31, 2020.

As part of AB 32, CARB determined 1990 GHG emissions levels and projected a "business-as-usual" (BAU)[5] estimate for 2020, to determine the amount of GHG emission reductions that would need to be achieved. In 2007, CARB approved a statewide 1990 emissions level and corresponding 2020 GHG emissions limit of 427 million $MTCO_2e$ (CARB 2007). In 2008, CARB adopted its *Climate Change Scoping Plan*, which projects 2020 statewide GHG emissions levels of 596 million $MTCO_2e$ and identifies numerous measures (i.e., mandatory rules and regulations and voluntary measures) that will achieve at least 174 million $MTCO_2e$ of GHG reductions and bring statewide GHG emissions to 1990 levels by 2020 (CARB 2009).

EO B-30-15, 2030 Carbon Target and Adaptation, issued by Governor Brown in April 2015, set a target of reducing GHG emissions by 40 percent below 1990 levels in 2030. To achieve this ambitious target, Governor Brown identified five key goals for reducing GHG emissions in California through 2030:

- Increase renewable electricity to 50 percent.
- Double energy efficiency savings achieved in existing buildings and make heating fuels cleaner.
- Reduce petroleum use in cars and trucks by up to 50 percent.
- Reduce emissions of short-lived climate pollutants.
- Manage farms, rangelands, forests, and wetlands to increasingly store carbon.

By directing State agencies to take measures consistent with their existing authority to reduce GHG emissions, EO B-30-15 establishes coherence between the 2020 and 2050 GHG reduction goals set by AB 32 and seeks to align California with the scientifically established GHG emissions levels needed to limit global warming below two degrees Celsius.

To reinforce the goals established through EO B-30-15, Governor Brown signed SB 32 and AB 197 on September 8, 2016. SB 32 made the GHG reduction target (to reduce GHG emissions by 40 percent below 1990 levels by 2030) a requirement, as opposed to a goal. AB 197 gives the Legislature additional authority over CARB to ensure the most successful strategies for lowering emissions are implemented, and requires CARB to, "protect the State's most impacted and disadvantaged communities …[and] consider the social costs of the emissions of greenhouse gases."

[5]BAU is a term used to define emissions levels without considering reductions from future or existing programs or technologies.

9.2.2.2 Scoping Plan

The CARB Scoping Plan is the comprehensive plan primarily directed at identifying the measures necessary to reach the GHG reduction targets stipulated in AB 32. The key elements of the 2008 Scoping Plan were to expand and strengthen energy efficiency programs, achieve a statewide renewable energy mix of 33 percent, develop a cap-and-trade program with other partners (including seven states in the United States and four territories in Canada) in the Western Climate Initiative, establish transportation-related targets, and establish fees (CARB 2009). CARB estimated that implementation of these measures will achieve at least 174 million $MTCO_2e$ of reductions and reduce statewide GHG emissions to 1990 levels by 2020 (CARB 2009).

In a report prepared on September 23, 2010, CARB indicated 40 percent of the reduction measures identified in the Scoping Plan had been secured (CARB 2010). Although the cap-and-trade program began on January 1, 2012 (after CARB completed a series of activities dealing with the registration process, compliance cycle, and tracking system), covered entities did not have an emissions obligation until 2013. In August 2011, the Scoping Plan was reapproved by CARB with the program's environmental documentation.

On February 10, 2014, CARB released the public draft of the "First Update to the Scoping Plan." "The First Update" built upon the 2008 Scoping Plan with new strategies and recommendations, and identified opportunities to leverage existing and new funds to further drive GHG emission reductions through strategic planning and targeted low carbon investments (CARB 2014). "The First Update" defined CARB's climate change priorities over the next five years, and set the groundwork to reach post-2020 goals set forth in Executive Orders S-3-05 and B-16-12. It also highlighted California's progress toward meeting the 2020 GHG emission reduction goals defined in the 2008 Scoping Plan. "The First Update" evaluated how to align the State's long-term GHG reduction strategies with other State policy priorities for water, waste, natural resources, clean energy, transportation, and land use. "The First Update" to the Scoping Plan was approved by the Board on May 22, 2014.

The second update to the scoping plan, the 2017 Climate Change Scoping Plan update (CARB 2017), was adopted by CARB in December 2017. The primary objective for the 2017 Climate Change Scoping Plan is to identify the measures required to achieve the mid-term GHG reduction target for 2030 (i.e., reduce emissions by 40 percent below 1990 levels by 2030) established under EO B-30-15 and SB 32. The 2017 Climate Change Scoping Plan identifies an increased need for coordination among State, regional, and local governments to realize the potential for GHG emissions reductions that can be gained from local land use decisions. It notes that emissions reductions targets set by more than one hundred local jurisdictions in the state could result in emissions reductions of up to 45 million $MTCO_2e$ and 83 million $MTCO_2e$ by 2020 and 2050, respectively. To achieve these goals, the 2017 Scoping Plan Update includes a recommended plan-level efficiency threshold of six metric tons or less per capita by 2030 and no more than two metric tons per capita by 2050. The major elements of the 2017 Climate Change Scoping Plan framework include:

- Implementing and/or increasing the standards of the Mobile Source Strategy, which include increasing zero emission vehicle (ZEV) buses and trucks.
- Low Carbon Fuel Standard (LCFS), with an increased stringency (18 percent by 2030).

- Implementation of SB 350, which expands the Renewable Portfolio Standard (RPS) to 50 percent and doubles energy efficiency savings by 2030.
- California Sustainable Freight Action Plan, which improves freight system efficiency, utilizes near-zero emissions technology, and deployment of ZEV trucks.
- Implementing the proposed Short-Lived Climate Pollutant Strategy, which focuses on reducing CH_4 and hydrocarbon emissions by 40 percent and anthropogenic black carbon emissions by 50 percent by year 2030.
- Continued implementation of SB 375.
- Post-2020 Cap-and-Trade Program that includes declining caps.
- 20 percent reduction in GHG emissions from refineries by 2030.
- Development of a Natural and Working Lands Action Plan to secure California's land base as a net carbon sink.

9.2.2.3 Senate Bill 375 (Sustainable Communities and Climate Protection Act) and Plan Bay Area 2040

In January 2009, California SB 375 went into effect known as the Sustainable Communities and Climate Protection Act. The objective of SB 375 is to better integrate regional planning of transportation, land use, and housing to reduce greenhouse gas emissions and other air pollutants. SB 375 tasks CARB to set GHG reduction targets for each of California's 18 regional Metropolitan Planning Organizations (MPOs). Each MPO is required to prepare a Sustainable Communities Strategy (SCS) as part of their Regional Transportation Plan (RTP). The SCS is a growth strategy in combination with transportation policies that will show how the MPO will meet its GHG reduction target. If the SCS cannot meet the reduction goal, an Alternative Planning Strategy may be adopted that meets the goal through alternative development, infrastructure, and transportation measures or policies.

Plan Bay Area, initially adopted by the Association of Bay Area Governments (ABAG) and Metropolitan Transportation Commission (MTC) on July 18, 2013, is the integrated long-range transportation, land-use, and housing plan developed for the Bay Area pursuant to SB 375. The success of *Plan Bay Area* implementation is evaluated on thirteen different goals with corresponding performance targets. One of these goals, reducing per-capita CO_2 emissions from cars and light-duty trucks by 15 percent by 2035, is directly related to GHG emissions.[6, 7]

One of the most noteworthy aspects of *Plan Bay Area* is that the forecasted development pattern, also known as the preferred scenario, virtually accommodates all new development within the existing urbanized footprint of the Bay Area. Approximately 80 percent of new development anticipated in *Plan Bay Area* is located throughout nearly 200 different Priority Development Areas (PDAs). PDAs are transit-oriented, infill development opportunity areas nominated by jurisdictions in existing communities in areas where future growth would not

[6]Per the efficiency metrics established by CARB, *Plan Bay Area* is required to demonstrate that the regional plan is capable of reducing per capita passenger vehicle and light duty truck CO_2 emissions by seven percent by 2020 and 15 percent by 2035, as compared to the 2005 baseline. Per SB 375, these reductions are required to be demonstrated without taking into account Pavely, LCFS, and any other Scoping Plan provisions adopted since 2007 that are expected to further reduce CO_2 emissions and result in a decrease in total CO_2 emissions over time.

[7]On March 22, 2018, CARB updated the goals for reducing per-capita CO_2 emissions from cars and light-duty trucks. For MTC/ABAG, the 2035 goal was increased from 15 percent to 19 percent for 2035 (CARB 2018).

increase urban sprawl. It is important to emphasize that although PDAs have been identified in the regional plan, individual jurisdictions throughout the Bay Area are not required to constrain future land use designations and development to the preferred scenario described in *Plan Bay Area* (i.e., lead agencies retain the authority to approve land use designations and projects). Instead, the SCS must consider a local jurisdiction's General Plan.

An update to *Plan Bay Area*, titled *Plan Bay Area 2040*, was jointly approved by the ABAG Executive Board and by MTC on July 26, 2017. Unlike the 2013 version of *Plan Bay Area, Plan Bay Area 2040* is a limited and focused update that reevaluates projected household and employment growth in the Bay Area over the next 24 years. The success of *Plan Bay Area 2040* implementation is evaluated on the same 13 goals and performance targets as the 2013 version of *Plan Bay Area*. The 2017 update continues to provide a roadmap for accommodating expected growth in the Bay Area, and connecting it to a transportation investment strategy focused on moving the Bay Area toward key regional goals for the environment (e.g., state GHG reduction goals), economy, and social equity (ABAG/MTC 2017).

Plan Bay Area 2040 identifies two PDAs within the City, including the El Camino Real Focus Area and the Santa Clara Station Focus Area. In 2019, the City designated six PDAs: (1) Tasman East Specific Plan Area; (2) Lawrence Station Area Plan Area; (3) Patrick Henry Drive Specific Plan Area; (4) Freedom Circle Area; (5) Lawrence Station Focus Area Phase II; and (6) Related Santa Clara Project Area. These PDAs will be included in *Plan Bay Area 2050*, the next iteration of *Plan Bay Area*, which will be adopted in fall 2021.

On December 18, 2020, MTC/ABAG released the *Plan Bay Area 2050 Final Blueprint*, which includes 35 strategies demonstrating how the region can:

- Achieve the Bay Area's 19% GHG emissions reduction target, as set by CARB;
- Reduce overall housing and transportation costs for residents, especially for households with lower incomes;
- Increase the production and preservation of affordable housing;
- Create a more accessible and reliable transit network;
- Reduce the risk of displacement for people with lower incomes;
- Invest in parks and open spaces, particularly in historically disinvested communities;
- Increase resilience against wildfires and sea level rise; and
- Support a thriving economy with a more balanced regional pattern of jobs and housing.

9.2.2.4 Senate Bill 350 (Clean Energy & Pollution Reduction Act) and Senate Bill 100

SB 350 was signed into Law in September 2015 and establishes tiered increases to the RPS. The Bill requires 40 percent of the state's energy supply to come from renewable sources by 2024, 45 percent by 2027, and 50 percent by 2030. SB 350 also set a new goal to double the energy-efficiency savings in electricity and natural gas through energy efficiency and conservation measures.

The State's RPS program was further strengthened by the passage of SB 100 in 2018. SB 100 revised the State's RPS Program to require retail sellers of electricity to serve 50 percent and 60 percent of the total kilowatt-hours sold to retail end-use customers be served by renewable energy sources by 2026 and 2030, respectively, and requires 100 percent of all electricity supplied come from zero-carbon sources by 2045.

9.2.2.5 Assembly Bill 1493, Low Carbon Fuel Standard Regulation, and Advanced Clean Cars Program, EO B-48-18, and EO N-79-20

With the passage of AB 1493 (Pavley I) in 2002, California launched an innovative and pro-active approach for dealing with GHG emissions and climate change at the state level. AB 1493 requires CARB to develop and implement regulations to reduce automobile and light truck GHG emissions. These stricter emissions standards apply to automobiles and light trucks from 2009 through 2016. Although litigation was filed challenging these regulations and the U.S. EPA initially denied California's related request for a waiver, a waiver was granted. In 2012, the EPA issued a Final Rulemaking that sets even more stringent fuel economy and GHG emissions standards for model years 2017 through 2025 among light-duty vehicles.

In January 2012, CARB approved the Advanced Clean Cars (ACC) Program (formerly known as Pavley II) for model years 2017-2025. The components of the ACC program are the Low-Emission Vehicle (LEV) regulations and the ZEV regulation. The Program combines the control of smog, soot, and global warming gases with requirements for greater numbers of zero-emission vehicles into a single package of standards. By 2025, new automobiles under California's Advanced Clean Car program will emit 34 percent less global warming gases and 75 percent less smog-forming emissions.

CARB has begun the rulemaking process for strengthening the compliance target of the LCFS through the year 2030. For a new LCFS target, the preferred scenario in the *2017 Scoping Plan Update* identifies an 18 percent reduction in average transportation fuel carbon intensity, compared to a 2010 baseline, by 2030 as one of the primary measures for achieving the state's GHG 2030 target. Achieving the SB 32 reduction goals will require the use of a low carbon transportation fuels portfolio beyond the amount expected to result from the current compliance schedule (CARB 2017).

EO B-48-18, issued by Governor Brown in January 2018, establishes a target to have five million ZEVs on the road in California by 2030. This Executive Order is supported by the State's 2018 ZEV Action Plan Priorities Update, which expands upon the State's 2016 ZEV Action Plan. While the 2016 plan remains in effect, the 2018 update function as an addendum, highlighting the most important actions State agencies are taking in 2018 to implement the directives of Executive Order B-48-18.

EO N-79-20, issued by Governor Newsom in September 2020, set a goal that 100 percent of in-state sales of new passenger cars and trucks will be zero-emission by 2035. It also set a goal that 100 percent of medium- and heavy-duty vehicles in the state be zero-emission by 2045 for all operations where feasible and by 2035 for drayage trucks. In addition, this EO set a goal of to transition to 100 percent zero-emission off-road vehicles and equipment in the state by 2035 where feasible.

9.2.2.6 Executive Order B-30-15, Senate Bill 32 & Assembly Bill 197 (Statewide Interim GHG Targets)

California EO B-30-15 (April 29, 2015) set an "interim" statewide emission target to reduce greenhouse emissions to 40 percent below 1990 levels by 2030, and directed state agencies with jurisdiction over GHG emissions to implement measures pursuant to statutory authority to achieve this 2030 target and the 2050 target of 80 percent below 1990 levels. Specifically, the EO directed CARB to update the Scoping Plan to express this 2030 target in metric tons. To

achieve this ambitious target, Governor Brown identified five key goals for reducing GHG emissions in California through 2030:

- Increase the amount of renewable electricity provided state-wide to 50 percent.
- Double energy efficiency savings achieved in existing buildings and make heating fuels cleaner.
- Reduce petroleum use in cars and trucks by up to 50 percent.
- Reduce emissions of short-lived climate pollutants.
- Manage farms, rangelands, forests, and wetlands to increasingly store carbon.

AB 197 (September 8, 2016) and SB 32 (September 8, 2016) codified into statute the GHG emissions reduction targets of at least 40 percent below 1990 levels by 2030 as detailed in EO B-30-15. AB 197 also requires additional GHG emissions reporting that is broken down to sub-county levels and requires CARB to consider the social costs of emissions impacting disadvantaged communities.

9.2.2.7 Executive Order B-55-18

Governor Brown issued EO B-15-18 on September 10, 2018, which directs the State to achieve carbon neutrality as soon as possible, no later than 2045, and achieve and maintain net negative emissions thereafter.

9.2.2.8 Title 24 Energy Standards

The California Energy Commission (CEC) first adopted Energy Efficiency Standards for Residential and Nonresidential Buildings in 1978 in response to a legislative mandate to reduce energy consumption in the State. Although not originally intended to reduce GHG emissions, increased energy efficiency, and reduced consumption of electricity, natural gas, and other fuels would result in fewer GHG emissions from residential and nonresidential buildings subject to the standard. The standards are updated periodically to allow for the consideration and inclusion of new energy efficiency technologies and methods.

Part 11 of the Title 24 Building Standards Code is referred to as the California Green Building Standards Code (CALGreen Code). The purpose of the CALGreen Code is to "improve public health, safety and general welfare by enhancing the design and construction of buildings through the use of building concepts having a positive environmental impact and encouraging sustainable construction practices in the following categories: (1) planning and design; (2) energy efficiency; (3) water efficiency and conservation; (4) material conservation and resource efficiency; and (5) environmental air quality." The CALGreen Code is not intended to substitute or be identified as meeting the certification requirements of any green building program that is not established and adopted by the California Building Standards Commission (CBSC).

CALGreen contains both mandatory and voluntary measures. For non-residential land uses there are 39 mandatory measures including, but not limited to exterior light pollution reduction, wastewater reduction by 20 percent, and commissioning of projects over 10,000 square feet. Two tiers of voluntary measures apply to non-residential land uses, for a total of 36 additional elective measures.

California's Building Energy Efficiency Standards are updated on an approximately three-year cycle. The 2019 standards, adopted May 9, 2018, went into effect on January 1, 2020 and

improve upon existing standards, focusing on three key areas: proposing new requirements for installation of solar photovoltaics for newly constructed low-rise residential buildings; updating current ventilation and Indoor Air Quality (IAQ) requirements, and extending Title 24 Part 6 to apply to healthcare facilities. The 2019 standards also include several smaller improvements in energy efficiency. The 2022 standards are currently going through the rulemaking process and will improve on the 2019 standards.

9.2.2.9 Low Carbon Fuel Standard Regulation

CARB initially approved the LCFS regulation in 2009, identifying it as one of the nine discrete early action measures in the *2008 Scoping Plan* to reduce California's GHG emissions. The LCFS regulation defines a Carbon Intensity, or "CI," reduction target (or standard) for each year, which the rule refers to as the "compliance schedule." The LCFS regulation requires a reduction of at least 10 percent in the CI of California's transportation fuels by 2020 and maintains that target for all subsequent years.

In 2018, CARB approved amendments to the LCFS regulation, which included strengthening and smoothing the carbon intensity benchmarks through 2030 in-line with California's 2030 GHG emission reduction target enacted through SB 32, adding new crediting opportunities to promote zero emission vehicle adoption, alternative jet fuel, carbon capture and sequestration, and advanced technologies to achieve deep decarbonization in the transportation sector. Under the 2018 amendment, the LCFS regulation now requires a reduction of at least 20 percent in CI by 2030 and beyond.

9.2.3 Bay Area Air Quality Management District

9.2.3.1 Clean Air Plan

On April 19, 2017, the BAAQMD adopted the *2017 Clean Air Plan: Spare the Air, Cool the Climate* (2017 Clean Air Plan), which updates the adopted Bay Area *2010 Clean Air Plan*, and continues to provide the framework for assuring that the NAAQS and CAAQS are attained and maintained in the Bay Area (BAAQMD 2017b). In addition to addressing criteria air pollutant concentrations and public exposure to toxic air contaminants, the 2017 Clean Air Plan lays the groundwork for a long-term effort to reduce Bay Area GHG emissions 40 percent below 1990 levels by 2030 and 80 percent below 1990 levels by 2050, consistent with GHG reduction targets adopted by the State of California.

As opposed to focusing solely on the nearer 2030 GHG reduction target, the 2017 Clean Air Plan makes a concerted effort to imagine and plan for a successful and sustainable Bay Area in the year 2050. In 2050, the Bay area is envisioned as a region where:

- Energy efficient buildings are heated, cooled, and powered by renewable energy;
- The transportation network has been redeveloped with an emphasis on non-vehicular modes of transportation and mass-transit;
- The electricity grid is powered by 100 percent renewable energy; and
- Bay Area residents have adopted lower-carbon intensive lifestyles (e.g., purchasing low-carbon goods in addition to recycling and putting organic waste to productive use).

The 2017 Clean Air Plan includes a comprehensive, multipollutant control strategy that is broken up into 85 distinct measures and categorized based on the same economic sector

framework used by CARB for the AB 32 Scoping Plan Update.[8] The accumulation of all 85 control measures being implemented support the three overarching goals of the plan. These goals are:

- Attain all state and national air quality standards;
- Eliminate disparities among Bay Area communities in cancer health risk from toxic air contaminants; and
- Reduce Bay Area GHG emissions to 40 percent below 1990 levels by 2030 and 80 percent below 1990 levels by 2050.

9.2.4 City of Santa Clara

9.2.4.1 General Plan

The City of Santa Clara General Plan contains the following policies that affect GHG emissions and energy consumption / efficiency in the city:

- 5.3.1-P10: Provide opportunities for increased landscaping and trees in the community, including requirements for new development to provide street trees and a minimum 2:1 on- or off-site replacement for trees removed as part of the proposal to help increase the urban forest and minimize the heat island effect.

- 5.3.1-P11: Encourage new developments proposed within a reasonable distance of an existing or proposed recycled water distribution system to utilize recycled water for landscape irrigation, industrial processes, cooling and other appropriate uses to reduce water use consistent with the CAP.

- 5.3.1-P12: Encourage convenient pedestrian connections within new and existing developments.

- 5.3.1-P13: Support high density and intensity development within a quarter-mile of transit hubs and stations and along transit corridors.

- 5.3.1-P14: Encourage Transportation Demand Management strategies and the provision of bicycle and pedestrian amenities in all new development greater than 25 housing units or more than 10,000 non-residential square feet, and for City employees, in order to decrease use of the single-occupant automobile and reduce vehicle miles traveled, consistent with the CAP.

- 5.3.1-P22: Encourage conveniently located child care and other family support services in the community, except in areas designated for Light and Heavy Industrial Uses.

- 5.3.2-P2: Encourage higher-density residential development in transit and mixed-use areas and in other locations throughout the City where appropriate.

[8]The sectors included in the AB 32 Scoping Plan Update are: stationary (industrial) sources, transportation, energy, buildings, agriculture, natural and working lands, waste management, water, and super-GHG pollutants.

- 5.3.2-P4: Encourage indoor and outdoor private and common open space as part of all new residential developments, including clustering of units to maximize open space opportunities where appropriate.

- 5.3.3-P2: Promote the consolidation of retail uses at key locations in order to increase the synergy with existing businesses and attract new complementary establishments.

- 5.3.3-P6: Encourage neighborhood retail uses within a ten-minute walk of residential uses throughout the City.

- 5.3.3-P10: Encourage new grocery stores near residential neighborhoods to provide Santa Clara residents with access to fresh and healthy food options.

- Policy 5.3.4-P2: Encourage mixed-use development in proximity to employment centers and residential neighborhoods throughout the City.

- Policy 5.3.4-P11: Foster active, pedestrian-oriented uses at the ground level, such as retail shops, offices, restaurants with outdoor seating, public plazas or residential units with front stoops, in mixed-use development.

- Policy 5.3.4-P13: Encourage pedestrian linkages in mixed-use areas through measures such as enhanced lighting, curb bulb-outs, mid-block pedestrian crossings, pedestrian "refuge" areas in planted medians and pedestrian-oriented building frontages.

- Policy 5.3.4-P14: Provide a network of streets and pedestrian connections in large mixed-use developments.

- Policy 5.3.4-P15: Maximize opportunities to connect streets, bicycle facilities and pedestrian pathways to improve accessibility between mixed-use development and surrounding neighborhoods, parks, open spaces, transit and public amenities. Provide clear signage, high visibility, adequate lighting and special paving to enhance pedestrian and bicycle facilities.

- Policy 5.8.1-P1: Create accessible transportation networks system to meet the needs of all segments of the population, including youth, seniors, persons with disabilities and low-income households.

- Policy 5.8.1-P2: Link all City transportation networks, including pedestrian and bicycle circulation, to existing and planned regional networks.

- Policy 5.8.1-P4: Expand transportation options and improve alternate modes that reduce greenhouse gas emissions.

- Policy 5.8.2-P1: Require that new and retrofitted roadways implement "Full-Service Streets" standards, including minimal vehicular travel lane widths, pedestrian amenities, adequate sidewalks, street trees, bicycle facilities, transit facilities, lighting and signage where feasible.

- Policy 5.8.3-P7: Provide transit stops at safe, efficient and convenient locations to maximize ridership, including near employment centers, higher-density residential developments and Downtown.

- Policy 5.8.3-P8: Require new development to include transit stop amenities, such as pedestrian pathways to stops, benches, traveler information and shelters.

- Policy 5.8.3-P9: Require new development to incorporate reduced onsite parking and provide enhanced amenities, such as pedestrian links, benches and lighting, in order to encourage transit use and increase access to transit services.

- Policy 5.8.3-P10: Require new development to participate in public/private partnerships to provide new transit options between Santa Clara residences and businesses.

- Policy 5.8.4-P1: Provide a comprehensive, integrated bicycle and pedestrian network that is accessible for all community members.

- Policy 5.8.4-P2: Provide a system of pedestrian and bicycle friendly facilities that supports the use of alternative travel modes and connects to activity centers as well as residential, office and mixed-use developments.

- Policy 5.8.5-P1: Require new development to include transportation demand management site-design measures, including preferred carpool and vanpool parking, enhanced pedestrian access, bicycle storage and recreational facilities.

- Policy 5.8.5-P2: Require development to offer on-site services, such as ATMs, dry cleaning, exercise rooms, cafeterias and concierge services, to reduce daytime trips.

- Policy 5.8.5-P4: Encourage new development to participate in shuttle programs to access local transit services within the City, including buses, light rail, Bay Area Rapid Transit, Caltrain, Altamont Commuter Express Yellow Shuttle and Lawrence Caltrain Bowers/ Walsh Shuttle services.

- Policy 5.8.5-P5: Encourage transportation demand management programs that provide incentives for the use of alternative travel modes to reduce the use of single-occupant vehicles.

- Policy 5.8.5-P6: Encourage transportation demand management programs that include shared bicycle and autos for part-time use by employees and residents to reduce the need for personal vehicles.

- Policy 5.8.5-P7: Promote programs that reduce peak hour trips, such as flexible work hours, telecommuting, home-based businesses and off-site business centers, and encourage businesses to provide alternate, off-peak hours for operations.

- Policy 5.8.6-P1: Allow alternate parking standards for mixed-use development, development that meets specified transportation demand management criteria, and senior/group and affordable housing developments, as well as in the Downtown and areas within one-quarter mile of transit centers and stops.

- Policy 5.8.6-P3: Encourage flexible parking standards that meet business and resident needs as well as avoid an oversupply in order to promote transit ridership, bicycling and walking.

- Policy 5.8.6-P4: Encourage shared, consolidated and/or reduced parking in mixed-use centers and within one-quarter mile of transit centers and stops.

- Policy 5.8.6-P5: Allow alternative parking techniques, such as parking lifts, automated and tandem parking, in order to reduce the land area devoted to parking.

- Policy 5.9.1-P4: Provide connections between private and public open space through publicly accessible trails and pathways and by orienting open spaces to public streets.

- Policy 5.9.1-P9: Support access to local food sources by providing opportunities for community gardening and farmers' markets.

- Policy 5.9.1-P16: Encourage nonresidential development to contribute toward new park facilities to serve the needs of their employees.

- Policy 5.10.2-P1: Support alternative transportation modes and efficient parking mechanisms to improve air quality.

- Policy 5.10.2-P2: Encourage development patterns that reduce vehicle miles traveled and air pollution.

- Policy 5.10.2-P4: Encourage measures to reduce greenhouse gas emissions to reach 30 percent below 1990 levels by 2020.

- Policy 5.10.3-P1: Promote the use of renewable energy resources, conservation and recycling programs.

- Policy 5.10.3-P2: Transition away from using coal as an energy source to renewable resources by replacing coal in Silicon Valley Power's portfolio, exploring City owned property for renewable energy projects, developing solar projects, and incentivizing solar projects for residents and businesses, consistent with the CAP.

- Policy 5.10.3-P3: Maximize the efficient use of energy throughout the community by achieving adopted electricity efficiency targets and promoting natural gas efficiency, consistent with the CAP.

- Policy 5.10.3-P4: Encourage new development to incorporate sustainable building design, site planning and construction, including encouraging solar opportunities.

- Policy 5.10.3-P5: Reduce energy consumption through sustainable construction practices, materials and recycling.

- Policy 5.10.3-P6: Promote sustainable buildings and land planning for all new development, including programs that reduce energy and water consumption in new development.

- Policy 5.10.3-P7: Encourage installation of solar energy collection through solar hot water heaters and photovoltaic arrays.

- Policy 5.10.3-P8: Provide incentives for LEED certified, or equivalent development.

- Policy 5.10.3-P9: Incorporate criteria for sustainable building and solar access into the City's ordinances and regulations.

- Policy 5.10.3-P10: Maintain the City's level of service for high quality utilities and telecommunications infrastructure.

- Policy 5.10.3-P11: Continue innovative energy programs to develop cost effective alternative power sources and encourage conservation.

- Policy 5.10.3-P12: Work with Silicon Valley Power to implement adequate energy distribution facilities to meet the demand generated by new development.

- Policy 5.10.3-P14: Work with Pacific Gas and Electric to ensure an adequate supply of natural gas to meet the demand generated by new development.

- Policy 5.10.3-P15: Explore opportunities for alternative energy "fueling stations" and promote participation in shuttle services that use new technology vehicles to reduce greenhouse gas emissions.

9.2.4.2 Climate Action Plan

The Santa Clara Climate Action Plan (CAP) was adopted in December 2013 as General Plan Appendix 8.13. The CAP includes measures to reduce emissions by 23.4 percent below 2008 levels by 2020 and a series of measures to reduce emissions beyond. The following reduction strategies may be applicable to the proposed Focus Area Plan:

- Achieve City-adopted electricity efficiency targets to reduce community-wide electricity use by five percent through incentives, pilot projects, and rebate programs.
- Incentivize and facilitate the installation of 6 MW of customer-owned residential and nonresidential solar PV projects.
- Meet the water conservation goals presented in the 2010 Urban Water Management Plan to reduce per capita water use by 2020.
- Work with regional partners to increase solid waste diversion to 80% through increased recycling efforts, curbside food waste pickup, and construction and demolition waste programs.
- Support and facilitate a community-wide transition to electric outdoor lawn and garden equipment through outreach, coordination with BAAQMD, and outdoor electrical outlet requirements for new development.
- Require construction projects to comply with BAAQMD best management practices, including alternative-fueled vehicles and equipment.
- Require new development located in the city's transportation districts to implement a TDM program to reduce drive-alone trips.
- Revise parking standards for new multi-family residential and nonresidential development to allow that a minimum of one parking space, and a recommended level of 5% of all new parking spaces, be designated for electric vehicle charging.
- Create a tree-planting standard for new development and conduct a citywide tree inventory every five years to track progress of the requirements.
- Require new parking lots to be surfaced with low-albedo materials to reduce heat gain, provided it is consistent with the Building Code.

9.3 IMPACTS AND MITIGATION MEASURES

The BAAQMD's CEQA Air Quality Guidelines contain guidance on assessing and mitigating both project- and plan-level GHG impacts. Table 2-5 on page 2-7 of the CEQA Guidelines provides that planning documents other than General Plans (e.g., specific plans, congestion management plans) should use the BAAQMD's project-level GHG efficiency threshold of 4.6 $MTCO_2e$ per Service Population per year ($MTCO_2e$/SP/YR) (BAAQMD 2017a). The 4.6 $MTCO_2e$/SP/YR was developed for the year 2020, consistent with state-wide GHG emission reduction goals set forth under AB 32 and, therefore, does not directly address post-2020 GHG emissions.

This EIR compares estimated emissions for the Greystar General Plan Amendment / Project and buildout of the Freedom Circle Focus Area Plan against interpolated efficiency metrics of 2.76 $MTCO_2e$/SP/YR for the Year 2030 (Greystar Project buildout) and 1.84 $MTCO_2e$/SP/YR for the Year 2040 (Freedom Circle Focus Area Plan buildout) to help evaluate the significance of proposed Greystar Project's and Focus Area Plans' GHG emissions. The 2.76 $MTCO_2e$/SP/YR and 1.84 $MTCO_2e$/SP/YR efficiency metrics demonstrate substantial progress toward future GHG emission reduction goals at the state-level.[9] While the interpolated project-specific goals of 2.76 $MTCO_2e$/SP/YR for Year 2030 and 1.84 $MTCO_2e$/SP/YR for Year 2040 are helpful proxies for demonstrating substantial progress toward future state GHG emission reduction goals, it is also important that the proposed Greystar Project and Focus Area Plan be consistent with plans, policies, and regulations for the purposes of reducing GHG emissions, as the strategies / requirements contained in these documents also address GHG emission reduction goals through the region and state. Thus, in addition to demonstrating consistency with interpolated 2030 and 2040 project-specific efficiency metrics, this EIR also relies upon consistency with the following plans to determine the significance of the proposed Greystar Project's and Focus Area Plan's GHG emissions:

- CARB 2017 Climate Change Scoping Plan, including the 2017 Climate Change Scoping Plan's recommended interpolated-2030 per capita GHG efficiency metrics of 6 $MTCO_2e$ per capita per year;[10]

[9]AB 32 required the state to reduce its emissions to 1990 levels by 2020. SB 32 and EO S-3-05 further establish goals of reductions state-wide emissions 40 and 80 percent below 1990 levels by 2030 and 2050, respectively. The 2030 efficiency metric was derived by taking the efficiency metric for 2020, 4.6 $MTCO_2e$/SP/YR, and reducing it by 40 percent (consistent with SB 32), which results in a derived efficiency metric of 2.76 $MTCO_2e$/SP/YR for 2030 (4.6 $MTCO_2e$/SP/YR * (1 – 0.4) = 2.76 $MTCO_2e$/SP/YR). 2040 is the halfway point between 2030 and 2050; thus, half the reductions that need to occur between 2030 and 2050 should be achieved by 2040 (i.e., 60 percent below 1990 levels by 2040). Using the efficiency metric for 2020, 4.6 $MTCO_2e$/SP/YR and reducing it by 60 percent results in a derived efficiency metric of 1.84 $MTCO_2e$/SP/YR for 2040 (4.6 $MTCO_2e$/SP/YR * (1 – 0.6) = 1.84 $MTCO_2e$/SP/YR). The City is not adopting nor proposing to use 2.76 $MTCO_2e$/SP (2030) or 1.84 $MTCO_2e$/SP (2040) as a CEQA GHG threshold for general use; rather, it is only intended for use on this project as means to provide context for whether the project would generate GHG emissions that have the potential to have a direct or indirect significant effect on the environment.

[10]Since the Focus Area Plan consists primarily of non-residential development, it is not appropriate to combine the non-residential emissions with the residential emissions when evaluating efficiency based on this metric. Therefore, the CARB 2017 Scoping Plan per capita metric is only utilized for helping assess

- 2040 Plan Bay Area;
- 2017 BAAQMD Clean Air Plan; and
- City of Santa Clara 2013 Climate Action Plan.

9.3.1 Significance Criteria

Based on Appendix G to the State CEQA Guidelines,[11] a significant impact would occur if a proposed project would:

(a) Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment;

(b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs;

(c) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation; or

(d) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

9.3.2 Relevant Freedom Circle Focus Area Plan Components

The Freedom Circle Focus Area Plan includes the following goals and policies that would reduce potential GHG impacts associated with future development in the Plan Area (City of Santa Clara 2021).

- FC-G4: Reduce reliance on private vehicles and improve jobs/housing balance by locating amenities and jobs within walking distance to housing.
- FC-G6: Improve multi-modal transportation options and connections.
- FC-P11: Establish parking ratios that support transit, active transportation, and shared vehicle use.
- FC-P14: Provide new street, bicycle and pedestrian networks that break down large blocks and sites, accommodate multiple modes of travel, and maximize connections to activity hubs.
- FC-P16: Design and program the Plan Area and sites to encourage walking, bicycling and transit use.
- FC-P17: Minimize environmental impacts through sustainable building and infrastructure design, consistent with CALGreen and Santa Clara Climate Action Plan requirements.
- FC-P18: Redesign Mission College Boulevard, Freedom Circle, and Hichborn Drive to better balance space dedicated to vehicles, bicycle, and pedestrians.
- FC-P19: Maintain VTA bus transit service on Mission College Boulevard and improve transit stops and shelters.
- FC-P20: Design pedestrian and bicycle networks and infrastructure to facilitate access to transit stops on Great America Parkway, Mission College and Tasman Drive.
- FC-P21: Require developments to contribute to City vehicle miles travelled (VMT) goals and implement Transportation Demand Management (TDM programs).

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the significance of the Greystar Project's GHG emissions, using the 6 MTCO2e per capita per year threshold because of the project's buildout by 2030.

[11]CEQA Guidelines, Appendix G, items VI(a) and (b) and V(a) and (b).

- FC-P22: Require developers and property owners to coordinate with area employers and stakeholders to explore shared private transit systems and the formation of a Transit Management Authority (TMA) as part of the Specific Plan process.

9.3.3 Impacts and Mitigations

Impact 9-1: GHG Emissions and Plan Consistency – Freedom Circle Focus Area Plan. Implementation of the Freedom Circle Focus Area Plan could generate GHG emissions that have a significant effect on the environment and/or conflict with a plan, policy, or regulation adopted for the purposes of reducing GHG emissions. This represents a ***potentially significant impact*** (see criteria [a] and [b] in subsection 9.3.1, "Significance Criteria," above).

Global climate change is the result of GHG emissions worldwide; individual projects do not generate enough GHG emissions to influence global climate change. Thus, the analysis of GHG emissions is by nature a cumulative analysis focused on whether an individual project's contribution to global climate change is cumulatively considerable.

Future implementation of the proposed Focus Area Plan would result in construction and operational activities that would generate GHG emissions from the combustion of fuels used during construction, as well as the operational sources described in Section 5.1.5 (in Air Quality chapter 5 of this EIR) and Section 9.1.5.2 above. As described under Impact 5-3, there is uncertainty regarding the timing and methods of construction activities that would occur for future development projects. Construction activities would cease to emit GHG upon completion, unlike operational emissions that would be continuous year after year until the project is decommissioned. Construction emissions were not estimated for buildout of the proposed Focus Area Plan, because the quantity of construction emissions would be dependent on a number of factors, including the specific nature of development activities and the timeframes on which projects would be undertaken. Projects undertaken further in the future would be anticipated to benefit from cleaner technologies as compared to those that are currently available. In addition, the BAAQMD does not maintain thresholds of significance for assessing the significance of construction emissions at a plan-level.

Potential operational GHG emissions resulting from operation of the land uses proposed by the Focus Area Plan were estimated using CalEEMod, Version 2016.3.2. The modeling assumes Project growth consistent with the land use development intensities described in Impact 5-3. The modeling is based on default data assumptions contained in CalEEMod, with the project-specific modifications described under Impact 5-3, as well as the following adjustments to default model assumptions:

- **Mobile Sources.** CalEEMod does not estimate N_2O emissions from on-road vehicle travel or off-road construction sources. To account for this, CalEEMod emissions estimates were adjusted as follows:

  - N_2O emissions were estimated for the Focus Area Plan by comparing the ratio of CO_2 and N_2O emissions from the on-road vehicle sector contained in the State's most recent GHG inventory (CARB 2019). In 2017, statewide CO_2 and N_2O emissions estimates for

the on-road transportation sector were 152.4 and 0.011 million metric tons, respectively (N_2O emissions are therefore equal to 0.007% of CO_2 emissions for this sector).

- **Energy Use and Consumption:** In addition to natural gas usage, the proposed land uses in the Plan Area would generate indirect GHG emissions from electricity use. SVP provides electricity service in the City of Santa Clara. CalEEMod does not contain GHG intensity values for this electric service provider. As such, the default GHG default assumptions regarding energy use were adjusted as follows:

  - The GHG intensity value utilized in the 2040 modeling is based on an estimated SVP carbon emission factor that reflects SVP's compliance with SB 100, which requires 60% of the total kilowatt-hours sold to retail end-use customers be served by renewable energy sources by 2030 (125.62 pounds/megawatt-hour (lbs/MWh)).

  - Electricity generation emission factors for CH_4 (0.027 lbs/MWh) and N_2O (0.003 lbs/MWh) were obtained from the U.S. EPA's EGRID database for year 2018, the last year for which data was available at the time this EIR was prepared (U.S. EPA 2020).

- **Water/Wastewater:** Emissions from electricity used to supply water to land uses, and treat the resulting wastewater generated. As provided in the Water Supply Assessment prepared for the proposed Focus Area Plan, land uses proposed by the Focus Area Plan were estimated to consume approximately 257,416,2580 gallons of water indoors, and approximately 7,447,752 gallons of water outdoors.

The total unmitigated GHG emissions estimated to occur under projected 2040 growth conditions are shown below in Table 9-5 and compared against the potential GHG emissions that could exist in 2040 if the Focus Area Plan were not approved.[12]

[12]Although the California Environmental Quality Act (CEQA) generally requires an evaluation of impacts associated with project implementation against the conditions that exist at the time the Notice of Preparation (NOP) is published, CEQA Guidelines Section 15125(a)(2) allows a lead agency to, "…use projected future conditions (beyond the date of project operations) baseline as the sole baseline for analysis only if it demonstrates with substantial evidence that use of existing conditions would be either misleading or without informative value to decision makers and the public." Existing conditions GHG emissions for Year 2020 (i.e., at the time the NOP was released for this EIR) and Year 2040 (future conditions) have been provided in Section 9.1.5.2. As shown in Table 9-4 and described in Section 9.1.5.2, the existing land uses within the Plan Area would benefit from regulatory actions at the State level (i.e., vehicle and fuel efficiency standards and cleaner electricity), which would continue to reduce emissions over the next approximately 20 years, even if the Focus Area Plan is not approved or implemented. Therefore, to provide a conservative assessment of emissions associated with implementation of the proposed Focus Area Plan, GHG emissions associated with operation of the existing land uses in 2040 are compared against those proposed under the Focus Area Plan in 2040 to paint a more accurate picture of how the land uses proposed by the Focus Area Plan could change emissions in the Plan Area. This provides a more conservative assessment of emissions, because the emissions "gap" between existing land uses (future conditions 2040) and Focus Area Plan (2040) is greater than that compared to existing land uses (current conditions 2020) and Focus Area Plan (2040). Specifically, the Focus Area Plan's (2040) unmitigated emissions would result in an increase of 41,214 $MTCO_2e$/yr compared to existing land uses in 2040 and an increase of 33,008 $MTCO_2e$/yr compared to existing land uses under current 2020 GHG emissions conditions.

As shown in Table 9-5, implementation of the proposed Focus Area Plan would result in a net mass increase of approximately 41,214 $MTCO_2e$ under Year 2040 conditions; however, when compared on an efficiency basis, the proposed land uses would be approximately 35% more efficient than the existing land uses (i.e., 2.10 $MTCO_2e$/SP/YR under the Focus Area Plan compared to 3.26 $MTCO_2e$/SP/YR for existing land uses in 2040).

Table 9-5
UNMITIGATED FREEDOM CIRCLE FOCUS AREA PLAN GHG EMISSIONS ESTIMATES

Source	GHG Emissions ($MTCO_2e$ / Year)(A)		
	Existing Land Uses (2040)(B)	Focus Area Plan Land Uses (Build Out; 2040)	Net Change
Area	0.1	189.5	+189.5
Energy	7,843.7	15,897.6	+8,053.8
Mobile	9,763.3	39,979.1	+30,215.7
Waste	1,215.0	3,572.8	+2,357.8
Water	35.1	432.2	+397.1
Total GHG(C)	18,857.3	60,071.2	+41,214.0
Service Population (SP)(D)	5,781	28,602	+22,821
GHG Efficiency ($MTCO_2e$/SP)	3.26	2.10	-1.16
BAAQMD 2020 Threshold	--	4.60	--
Interpolated 2040 Project-Specific Goal	--	1.84	--
2020 Threshold / 2040 Goal Exceeded?	--	Yes	--

Source: MIG 2021 (see Appendix 25.2)
(A) These emissions estimates include emissions from the Greystar Project.
(B) See Table 9-4.
(C) Totals may not equal due to rounding.
(D) Service Population is defined as the sum of the number of residents and number of jobs supported by the Focus Area Plan (CAPCOA 2010).

There are a few potential activities and sources that could increase estimated Focus Area Plan GHG emissions above those presented in this EIR, including construction emissions and the operation of other, speculative land uses at this point, such as parking lots, parking garages, etc.; however, the preceding analysis represents a sound estimate of potential GHG emissions that could occur under operation of the land uses envisioned in the Focus Area Plan, based on information that is currently known and can be analyzed. As shown in Table 9-5, the proposed Focus Area Plan's unmitigated GHG emissions, on an efficiency basis (2.10 $MTCO_2e$/SP/YR), would exceed the derived project-specific GHG emissions efficiency goal of 1.84 $MTCO_2e$/SP/YR.[13]

[13] CEQA Statutes Section 21159.28 provides, in part, that for residential or mixed-use projects consistent with the land use designation, density, building intensity, and applicable policies in the SCS, and if previously adopted GHG mitigation measures from the SCS are incorporated in the project, then an EIR is not required to consider any project specific or cumulative impacts from cars and light-duty truck trips generated by the project on global warming or the regional transportation network. It is likely that the

Therefore, the City would implement Mitigation Measure 9-1A, which would require proposed residential and office land uses within the Freedom Circle Focus Plan Area to prepare and implement a Transportation Demand Management (TDM) plan to reduce vehicle miles traveled by 20 percent (compared to baseline conditions), and Mitigation Measure 9-1B, which would require new discretionary projects proposed within the Focus Plan Area to source all of their electricity from GHG-free sources. With regard to Mitigation Measure 9-1B, GHG-free electricity may either be generated on site (e.g., using photovoltaic systems), purchased through an option offered through Silicon Valley Power (i.e., Santa Clara Green Power), or any combination of options necessary to ensure that all electricity is supplied by GHG-free sources. Table 9-6, below, presents the proposed Freedom Circle Focus Area Plan's estimated GHG emissions after accounting for the implementation of Mitigation Measure 9-1A and Mitigation Measure 9-1B.

Table 9-6
MITIGATED FREEDOM CIRCLE FOCUS AREA PLAN GHG EMISSIONS ESTIMATES

Source	GHG Emissions ($MTCO_2e$ / Year)[A]		
	Existing Land Uses (2040)[B]	Focus Area Plan Land Uses (Build Out; 2040)	Net Change
Area	0.1	189.5	+189.5
Energy	7,843.7	8,919.1	+1,075.4
Mobile	9,763.3	35,851.2	+26,087.9
Waste	1,215.0	3,572.8	+2,357.8
Water	35.1	350.4	+315.3
Total GHG[C]	18,857.3	48,883.1	+30,025.8
Service Population (SP)[D]	5,781	28,602	+22,821
GHG Efficiency ($MTCO_2e$/SP)	3.26	1.71	-1.55
BAAQMD 2020 Threshold	--	--	4.60
Interpolated 2040 Project-Specific Goal	--	--	1.84
2020 Threshold / 2040 Goal Exceeded?	--	--	No

Source: MIG 2021 (see Appendix 25.2)
(A) These emissions estimates include emissions from the Greystar Project.
(B) See Table 9-4.
(C) Totals may not equal due to rounding.
(D) Service Population is defined as the sum of the number of residents and number of jobs supported by the Focus Area Plan (CAPCOA 2010).

As shown in Table 9-6, the proposed Freedom Circle Focus Area Plan's mitigated GHG emissions, on an efficiency basis, would be reduced to approximately 1.71 $MTCO_2e$/SP/YR, which is below the interpolated 2040 project-specific goal of 1.84 $MTCO_2e$/SP/YR.As described

project could be consistent with CEQA Statutes Section 21159.28 and not have to consider project specific or cumulative impacts from cars and light-duty truck trips generated by the project on global warming or the regional transportation network; however, no consistency analysis has been conducted to see if the proposed Focus Area Plan meets the criteria identified in CEQA Statutes Section 21159.28. Therefore, the analysis contained herein this EIR is considered conservative, because it analyzes the mobile source GHG emissions that it otherwise might have been able to properly disregard.

in Section 9.3.1 above, in addition to the project-specific goal of 1.84 $MTCO_2e/SP/YR$ for Year 2040, this EIR also utilizes compliance with the CARB 2017 Climate Change Scoping Plan, 2040 Plan Bay Area, 2017 BAAQMD Clean Air Plan, and City's 2013 Climate Action Plan to determine the significance of the proposed Focus Area Plan's GHG emissions. The Focus Area Plan's consistency with these documents is discussed below.

2017 CARB Climate Change Scoping Plan

As discussed under Section 9.2.2.2, the 2017 Climate Change Scoping Plan is CARB's second revision to the Scoping Plan, and primary document used to ensure state GHG reduction goals are met. The 2017 Climate Change Scoping Plan's primary objective is to identify the measures needed to achieve the 2030 reduction target established under Executive Order B-30-15 and SB 32. The major elements of the Scoping Plan are generally geared toward actions either CARB or other state entities will pursue, such as, but not limited to:

- Implementing and/or increasing the standards of the Mobile Source Strategy, which include increasing ZEV buses and trucks.
- Implementing the LCFS, with an increased stringency (18 percent by 2030);
- Implementation of SB 350, which expands the RPS to 50 percent and doubles energy efficiency savings; and
- Implementing the proposed Short-Lived Climate Pollutant Strategy, which focuses on reducing CH_4 and hydrocarbon emissions by 40 percent and anthropogenic black carbon emissions by 50 percent by the year 2030.
- Continued implementation of SB 375.

Although most of these measures would be implemented at the state level, some of the reductions would be realized at the local level. For example, regardless of actions taken by the City, GHG emissions generated through gasoline combustion in motor vehicles within the Plan Area would still produce fewer GHG emissions in 2030 and 2040 than they do now. Furthermore, as discussed below under "2040 Plan Bay Area", the proposed Plan Area will be incorporated into the next iteration of Plan Bay Area (i.e., Plan Bay Area 2050), and would further the goals of SB 375 by locating high-intensity development in proximity of transit amenities and reducing VMT. The land uses within the Plan Area would also inherently benefit from the generation and distribution of cleaner electricity throughout the region that will occur under regulatory requirements, such as SB 350 and SB 100, as well as Mitigation Measure 9-1B. The proposed Focus Area Plan would not conflict with or obstruct implementation of the 2017 Climate Change Scoping Plan.

2040 Plan Bay Area

As described in Section 9.2.2.4, Plan Bay Area 2040 is a long-range planning document developed by ABAG and MTC to reduce GHG emissions from land use and transportation. Plan Bay Area identifies PDAs as transit-oriented, infill development opportunity areas within existing communities. The Plan Area is not identified as a PDA in *Plan Bay Area 2040*; however, the proposed Focus Area Plan is found to be consistent with Plan Bay Area 2040 for the following reasons. First, the proposed Focus Area Plan consists of a transit oriented development that would concentrate high density residential and non-residential devleopment in proximity to regional transit amenities, namely VTA Routes 20, 57, and 59. Second, the proposed Focus Area Plan supports one of the SB 375 regulatory requirements of Plan Bay Area 2040, which is to reduce per capita GHG emissions by passenger vehicle and light duty truck CO_2 emissions by seven percent by 2020 and 15 percent by 2035, as compared to the 2005 baseline. As

identified in the Transportation Assessment prepared for the Focus Area Plan by Hexagon, the land uses proposed under implementation of the Focus Area Plan are anticipated to reduce trip generation by approximately 10 percent, when compared to default conditions (Hexagon 2021). Future projects implemented under the Focus Area Plan would also be subject to the City's TDM policy, which requires further reductions in VMT, the City's CAP, which sets forth specific VMT reduction requirements, and Mitigation Measure 9-1A, which requires all land uses within the Plan Area achieve a minimum reduction in VMT of 20 percent, compared to default conditions, with at least 10 percent of that VMT reduction coming from specific measures implemented by the project itself.[14] Finally, although not identified in Plan Bay Area 2040, the Freedom Circle Focus Area Plan Area has been identified as a proposed PDA in the upcoming Plan Bay Area 2050 (ABAG/MTC 2020). This affirms projects such as the Freedom Circle Focus Area Plan are the types of development envisioned for attaining the region's VMT reduction goals. Therefore, the proposed Focus Area Plan would not conflict with the goals of Plan Bay Area 2040.

BAAQMD 2017 Clean Air Plan

As described under Section 9.2.3.1, the 2017 Clean Air Plan is the BAAQMD document that lays the groundwork for a long-term effort to reduce Bay Area GHG emissions 40 percent below 1990 levels by 2030 and 80 percent below 1990 levels by 2050, consistent with GHG reduction targets adopted by the State of California. The 2017 Clean Air Plan analyzes GHG emissions from construction, mobile, and stationary source activities in its emissions inventories and sets forth 85 control strategies designed to reduce criteria air pollutant and GHG emissions. As described under Impact 5-1 (in EIR chapter 5, Air Quality), the proposed Focus Area Plan would be consistent with and not obstruct implementation of any of the control measures identified in the 2017 Clean Air Plan. In addition, as described in the preceding analysis, the proposed Focus Area Plan (after the incorporation of Mitigation Measure 9-1A and Mitigation Measure 9-1B) would result in GHG emissions that are less than the 2040-interpolated GHG/SP efficiency metric, and would be consistent with other plans at the state and regional level for the purposes of reducing GHG emission in 2030 and beyond. Thus, after the incorporation of Mitigation Measure 9-1A and Mitigation Measure 9-1B, the proposed Focus Area Plan would support the 2017 Clean Air Plan's goals of reducing emissions 40% 1990 levels by 2030, and would not conflict or obstruct implementation of the BAAQMD 2017 Clean Air Plan from a GHG perspective.

City of Santa Clara 2013 Climate Action Plan

The City's CAP, which was adopted in 2013, addressed GHG emissions within the City through the Year 2020. Since all elements of the proposed Focus Area Plan would become operational post-2020, the CAP is not necessarily applicable to the activities proposed on the Focus Area Plan. Nonetheless, the subsection "Beyond 2020" in Chapter 4 of the City's Climate Action Plan identified four measures to help further reduce GHG emissions in the City through the Year 2035. Table 9-7 below summarizes consistency with these measures.

[14]As discussed in Section 9.2.2.3, CARB increased the per capita VMT reduction goal to 19% after the release of Plan Bay Area 2040. The proposed Focus Area Plan would be required to implement Mitigation Measure 9-1A, which requires a 20% reduction in VMT. The proposed Focus Area Plan would be consistent with Plan Bay Area, which was designed to achieve a 15% reduction in per capita VMT, and future VMT reduction goals for the region, such as the 19% reduction in per capita VMT that Plan Bay Area 2050 will be designed to achieve.

As shown in Table 9-7, the proposed Focus Area Plan would be consistent with and/or not obstruct implementation of the four measures identified in the City's CAP for addressing post-2020 GHG emissions.

Conclusion

As shown above, future development in the Plan Area facilitated under implementation of the Focus Area Plan would result in emissions that are below an interpolated Service Population GHG efficiency metric (after the incorporation of Mitigation Measure 9-1A and Mitigation Measure 9-1B), and would not conflict, obstruct, or otherwise interfere with the implementation of a plan, policy, or regulation for the purposes of reducing GHG emissions. Thus, the proposed Focus Area Plan would result in a less-than-significant impact with mitigation with regard to GHG emissions (see criteria [a] and [b] in subsection 9.3.1, "Significance Criteria," above).

Table 9-7
CITY OF SANTA CLARA CLIMATE ACTION PLAN CONSISTENCY: FREEDOM CIRCLE FOCUS AREA PLAN

Climate Action Plan 2035 Reach Measure	Consistency
1.1: Coal-free by 2020	Consistent. The land uses proposed by the Focus Area Plan would source their electricity through SVP. SVP sourced approximately 75 percent of its electricity from GHG-free sources in 2017 and will likely continue to increase that percentage to comply with state RPS goals. In addition, land uses proposed under the Focus Area Plan would be required to comply with the current iteration of the CalGreen Code, which sets forth PV requirements.
1.3: Utility-installed Renewables	Consistent. The proposed Focus Area Plan would not inhibit or otherwise interfere with the City's goal of installing solar PV project. Future plans developed to facilitate the implementation of the Focus Area Plan (e.g., a subsequent Specific Plan) could identify additional, specific measures related to PV infrastructure.
2.1: Community Electricity Efficiency	Consistent. Future implementation of the proposed Focus Area Plan would result in the turnover of older, less-efficient land uses to newer structures built to the latest CalGreen Code standards (2019, at minimum). This would increase the efficiency of electricity consumed within the City.
2.4: Customer-installed Solar	Consistent. Land uses proposed under the Focus Area Plan would be required to comply with the current iteration of the CalGreen Code, which sets forth PV requirements. This would support the amount of customer-installed solar within the City and Plan Area.

Source: City of Santa Clara 2013.

Mitigation Measure 9-1A: See Mitigation Measure 5-3D.

Mitigation Measure 9-1B: Utilize GHG-Free Electricity. The City shall require new development projects occurring under implementation of the Freedom Circle Focus Area Plan to source 100% of their electricity from GHG-free sources. GHG-free electricity may come from on-site renewable electricity generation (e.g., photovoltaic systems), enrollment in a GHG-free electricity program (e.g., Silicon Valley Power's *Santa Clara Green Power* program), or any combination of measures that ensure electricity consumed by projects subject to discretionary approval come entirely from GHG-free sources, as determined by the City.

This impact would be ***less than significant with mitigation incorporated.***

Impact 9-2: GHG Emissions and Plan Consistency – Greystar General Plan Amendment. Implementation of the Greystar General Plan Amendment / Project would generate short-term GHG emissions during construction activities, and long-term GHG emissions during the operation of the land uses proposed by the Project. Construction activities would generate GHG emissions primarily from equipment fuel combustion. Once operational, the Greystar Project would generate GHG emissions from the area, energy, and mobile sources described under Impact 5-4, as well as the water and solid waste sources described under Impact 9-1.

Short-term, construction GHG emissions generated by development activities at the Greystar Project site were estimated using the same methodology described under Impact 5-4. In summary, emissions were quantified using project-specific development information provided by the Project Applicant, Greystar, as well as CARB on- and off-road emission factor databases (i.e., OFFROAD2017 and EMFAC2021).[15]

Long-term, operational emissions were also estimated for the Greystar Project using the same methodology described under Impact 5-4. In summary, emissions were estimated using default model assumption in CalEEMod version 2016.3.2 with project-specific modifications related to air quality emissions. The following project-specific modifications were also made with regard to GHG emissions:

- **Mobile Sources.** CalEEMod does not estimate N_2O emissions from on-road vehicle travel or off-road construction sources. To account for this, CalEEMod emissions estimates were adjusted as follows:

    - N_2O emissions were estimated for the Greystar Project by comparing the ratio of CO_2 and N_2O emissions from the on-road vehicle sector contained in the State's most recent GHG inventory (CARB 2019). In 2017, statewide CO_2 and N_2O emissions estimates for

[15]Whereas off-road construction CO_2 emissions were estimated using the same methodology described under Impact 5-4, OFFROAD2017 does not provide comparable information for CH_4 or N_2O. Therefore, to calculate emissions of CH_4 and N_2O, equipment fuel consumption (in the form of diesel) was calculated and multiplied through by EPA-recommended CH_4 and N_2O emissions factors (grams per gallon of diesel combusted) and converted to $MTCO_2e$ using IPCC 4AR GWP values for CH_4 (25) and N_2O (298). Please refer to Appendix 25.2 for detailed construction emissions assumptions and emissions estimates.

the on-road transportation sector were 152.4 and 0.011 million metric tons, respectively (N_2O emissions are therefore equal to 0.007% of CO_2 emissions for this sector).

- **Energy Use and Consumption:** In addition to natural gas usage, the land uses proposed by the Greystar Project would generate indirect GHG emissions from electricity use. SVP provides electricity service in the City of Santa Clara. CalEEMod does not contain GHG intensity values for this electric service provider. As such, the default GHG default assumptions regarding energy use were adjusted as follows:

  - The GHG intensity value utilized in the modeling is based on an estimated SVP carbon emission factor that reflects SVP's compliance with SB 100, which requires 60% of the total kilowatt-hours sold to retail end-use customers be served by renewable energy sources by 2030 (125.62 pounds/megawatt-hour (lbs/MWh)).

  - Electricity generation emission factors for CH_4 (0.027 lbs/MWh) and N_2O (0.003 lbs/MWh) were obtained from the U.S. EPA's EGRID database for year 2018, the last year for which data was available at the time this EIR was prepared (U.S. EPA 2020).

- **Water/Wastewater:** As provided in the Water Supply Assessment prepared for the proposed Focus Area Plan and Greystar Project, the land uses proposed by the Greystar Project were estimated to consume approximately 47,477,375 gallons of water.

The BAAQMD has not adopted a threshold of significance for construction-related GHG emissions. The BAAQMD's CEQA Air Quality Guidelines do, however, encourage lead agencies to quantify and disclose construction-related GHG emissions, determine the significance of these emissions, and incorporate BMPs to reduce construction-related GHG emissions. Accordingly, construction-related GHG emissions are amortized over the lifetime of the proposed Greystar Project (presumed to be a minimum of 30 years). This normalizes construction emissions so that they can be grouped with operational emissions and compared to appropriate thresholds, plans, etc.

Table 9-8 summarizes the GHG emissions that would be generated by the Greystar Project and compares the emissions against the BAAQMD 4.6 $MTCO_2e$/SP/YR efficiency metric for Year 2020 and project-specific GHG efficiency goal of 2.76 $MTCO_2e$/SP/YR for Year 2030.

Table 9-8
UNMITIGATED GREYSTAR PROJECT GHG EMISSIONS ESTIMATES

Source	GHG Emissions (Metric Tons per Year)			
	CO_2	CH_4	N_2O	Total MTCO2e
Construction				
Total Construction GHG	3,675.8	2.5	1.3	4,113.8
Construction 30-Year Average	--	--	--	*137.13*
Operational				
Area	56.0	<0.0(A)	<0.0(A)	56.6
Energy	1,016.2	0.1	<0.0(A)	1,025.6
Mobile	4,286.3	0.2	0.3	4,380.6
Waste	109.3	6.5	<0.0(A)	270.9
Water	29.7	1.6	<0.0(A)	79.4
Sub-Total Operational GHG(B)	5,497.5	8.3	0.4	5,813.1
Total GHG	--	--	--	5,950.3
Service Population (SP)(C)	**--**	**--**	**--**	2,444
GHG Efficiency ($MTCO_2e$/SP)	**--**	**--**	**--**	2.43
BAAQMD 2020 Threshold	--	--	**--**	4.60
Interpolated 2030 Project-Specific Goal	--	--	**--**	2.76
2020 Threshold / 2030 Goal Exceeded?	--	--	**--**	No

Source: MIG 2021 (see Appendix 25.2)
(A) <0.0 does not mean zero; rather, it means less than 0.05, but greater than zero.
(B) Totals may not equal due to rounding.
(C) Service Population is defined as the sum of the number of residents and number of jobs supported by the Focus Area Plan (CAPCOA 2010).

As shown in Table 9-8, the proposed Greystar Project's GHG emission efficiency would be approximately 2.43 $MTCO_2e$/SP/YR, which is below the BAAQMD 4.6 $MTCO_2e$/SP/YR efficiency metric for Year 2020 and project-specific GHG efficiency goal of 2.76 $MTCO_2e$/SP/YR for Year 2030. Furthermore, on a per capita basis (i.e., only taking into consideration the population supported by the Project), the GHG efficiency for the Greystar Project would be approximately 2.44 $MTCO_2e$ per capita per year, which is far below the 2017 Climate Change Scoping Plan's interpolated GHG per capita efficiency goal of 6 $MTCO_2e$ per capita per year.[16] Furthermore, it should be noted that these emission estimates do not reflect project compliance with Mitigation Measure 9-1A or Mitigation Measure 9-1B, which would further reduce project-level GHG emissions. Although the Greystar Project's emissions would be below the BAAQMD 2020 significance threshold and GHG efficiency goal for 2030, it's emissions would still contribute to a significant plan-level impact (see Impact 9-1) and therefore would be subject to the mitigation measures identified for the entire Focus Area Plan.

As described in Section 9.3.1 above, in addition to the project-specific goal of 2.76 $MTCO_2e$/SP/YR for Year 2030, this EIR also utilizes compliance with the CARB 2017 Climate

[16]Whereas the preceding analysis utilized Service Population as the metric for calculating the GHG efficiency of the land use, CARB's 2017 Climate Change Scoping Plan relies on an efficiency metric that is based on per capita (i.e., per population). Under Project conditions, the efficiency would be approximately 2.44 $MTCO_2e$ per capita (i.e., 5, 950.3 $MTCO_2e$ / 2,440 people = 2.43 $MTCO_2e$ per capita).

Change Scoping Plan, 2040 Plan Bay Area, 2017 BAAQMD Clean Air Plan, and City's 2013 Climate Action Plan to determine the significance of the proposed Greystar Project's GHG emissions.

2017 CARB Climate Change Scoping Plan

As discussed under Section 9.2.2.2, the 2017 Climate Change Scoping Plan is CARB's second revision to the Scoping Plan, and primary document used to ensure state GHG reduction goals are met. The 2017 Climate Change Scoping Plan's primary objective is to identify the measures needed to achieve the 2030 reduction target established under Executive Order B-30-15 and SB 32. The major elements of the Scoping Plan are generally geared toward actions either CARB or other state entities will pursue, such as, but not limited to:

- Implementing and/or increasing the standards of the Mobile Source Strategy, which include increasing ZEV buses and trucks.
- Implementing the LCFS, with an increased stringency (18 percent by 2030);
- Implementation of SB 350, which expands the RPS to 50 percent and doubles energy efficiency savings; and
- Implementing the proposed Short-Lived Climate Pollutant Strategy, which focuses on reducing CH_4 and hydrocarbon emissions by 40 percent and anthropogenic black carbon emissions by 50 percent by the year 2030.
- Continued implementation of SB 375

Although most of these measures would be implemented at the state level, some of the reductions would be realized at the local level. For example, regardless of actions taken by the City, GHG emissions generated through gasoline combustion in motor vehicles used by the land uses associated with the Greystar Project would still produce fewer GHG emissions in 2030 and 2040 than they do now. Furthermore, as discussed below under "2040 Plan Bay Area", the proposed Plan Area (and Greystar Project by association will be incorporated into the next iteration of Plan Bay Area (i.e., Plan Bay Area 2050), and would further the goals of SB 375 by locating high-intensity development in proximity of transit amenities and reducing VMT. The Greystar Project would also inherently benefit from the generation and distribution of cleaner electricity throughout the region that shall occur under regulatory requirements, such as SB 350 and SB 100. The proposed Greystar Project would not conflict with or obstruct implementation of the 2017 Climate Change Scoping Plan.

Plan Bay Area 2040

As described in Section 9.2.2.4, Plan Bay Area 2040 is a long-range planning document developed by ABAG and MTC to reduce GHG emissions from land use and transportation. Plan Bay Area identifies PDAs as transit-oriented, infill development opportunity areas within existing communities. One of the SB 375 regulatory requirements that is required of Plan Bay Area 2040 is that it identifies a land use strategy for reducing per capita GHG emissions by passenger vehicle and light duty truck CO_2 emissions by seven percent by 2020 and 15 percent by 2035, as compared to the 2005 baseline. Furthermore, the Greystar Project would be required to reduce project VMT by 20% as required by Mitigation Measure 9-1A, which would put its VMT reductions in line with those contained in Plan Bay Area 2040 and future regional VMT reduction goals that future iterations of the RTP/SCS will be required to achieve (e.g., Play Bay Area 2050). See additional clarification for how the Focus Area Plan (and the Greystar Project by association) would support and further the goals of SB 375 in footnote 15. Consistent with Mitigation Measure 9-1A and the City's 2013 Climate Action Plan, the Greystar Project is

required to develop a TDM plan that achieves a 20 percent reduction in VMT. In addition, as discussed under Impact 9-1, the Freedom Circle Focus Area Plan will be incorporated into Plan Bay Area 2050, indicating that projects such as that proposed by the Greystar Project are the exact type of project envisioned for meeting the region's VMT reduction goals. Therefore, based on the preceding analysis, the Greystar Project would be consistent with the goals of Plan Bay Area 2040.

BAAQMD 2017 Clean Air Plan

As described under Section 9.2.3.1, the 2017 Clean Air Plan is the BAAQMD document that lays the groundwork for a long-term effort to reduce Bay Area GHG emissions 40 percent below 1990 levels by 2030 and 80 percent below 1990 levels by 2050, consistent with GHG reduction targets adopted by the State of California. The 2017 Clean Air Plan analyzes GHG emissions from construction, mobile, and stationary source activities in its emissions inventories and sets forth 85 control strategies designed to reduce criteria air pollutant and GHG emissions. As described under Impact 5-2 (in EIR chapter 5, Air Quality), the proposed Greystar Project would be consistent with and not obstruct implementation of any of the control measures identified in the 2017 Clean Air Plan. In addition, as described in the preceding analysis, the proposed Greystar Project would result in GHG emissions that are less than the 2030-interpolated GHG/SP efficiency metric, and would be consistent with other plans at the state and regional level for the purposes of reducing GHG emission in 2030 and beyond. Thus, the proposed Greystar Project would support the 2017 Clean Air Plan's goals of reducing emissions 40% 1990 levels by 2030, and would not conflict or obstruct implementation of the BAAQMD 2017 Clean Air Plan from a GHG perspective.

City of Santa Clara 2013 Climate Action Plan

The City's CAP, which was adopted in 2013, addressed GHG emissions within the City through the Year 2020. Since the Greystar Project would become operational post-2020, the measures contained in the City's CAP are not necessarily applicable to the Greystar Project. Nonetheless, the subsection "Beyond 2020" in Chapter 4 of the City's CAP identified four measures to help further reduce GHG emissions in the City through the Year 2035. Table 9-9 below summarizes consistency with these measures.

As shown in Table 9-9, the proposed Greystar Project would be consistent with and/or not obstruct implementation of the four measures identified in the City's Climate Action Plan for addressing post-2020 GHG emissions.

Table 9-9
CITY OF SANTA CLARA CLIMATE ACTION PLAN CONSISTENCY: GREYSTAR PROJECT

Climate Action Plan 2035 Reach Measure	Consistency
1.1: Coal-free by 2020	Consistent. Greystar Project would source its electricity through SVP. As of January 1st of 2018, SVP completely divested from coal, eliminating coal from the City's energy mix. SVP sourced approximately 75 percent of its electricity from GHG-free sources in 2017 and will likely continue to increase that percentage to comply with state RPS goals. In addition, the Greystar Project would be constructed to the 2019 CalGreen Code, which sets forth PV requirements.
1.3: Utility-installed Renewables	Consistent. The proposed Greystar Project would not inhibit or otherwise interfere with the City's goal of installing solar PV project.
2.1: Community Electricity Efficiency	Consistent. The Greystar Project would be constructed to the 2019 CalGreen Code. The structures constructed under implementation of the Project would be far more efficient than other structures in the City, which were built to earlier versions of the CalGreen Code. In general, the Project would increase the efficiency of residential electricity consumption on a per capita basis in the city.
2.4: Customer-installed Solar	Consistent. The Greystar Project would be constructed to the 2019 CalGreen Code, which sets forth PV requirements (e.g., solar-ready) for high-rise residential developments.
Source: City of Santa Clara 2013.	

Conclusion

As shown above, the Greystar Project would result in emissions that are below an interpolated Service Population GHG efficiency metric, and would not conflict, obstruct, or otherwise interfere with the implementation of a plan, policy, or regulation for the purposes of reducing GHG emissions. Thus, the proposed Greystar Project would result in a less-than-significant impact with regard to GHG emissions and no mitigation is required (see criteria [a] and [b] in subsection 9.3.1, "Significance Criteria," above).

Mitigation 9-2. No significant impact has been identified; no mitigation is required.

Impact 9-3. Wasteful, Inefficient, or Unnecessary Consumption of Energy Resources – Freedom Circle Focus Area Plan. Implementation of the proposed Focus Area Plan would increase the demand for electricity and natural gas within the Plan Area and gasoline consumption in the region during construction and operation of new land use developments.

Electricity

Construction Use. Temporary electric power would be required at various construction sites throughout the Plan Area as growth occurs under implementation of the proposed Focus Area Plan. Electricity would be consumed by lighting and electronic equipment (e.g., computers) located in trailers used by construction crews, and by small, off-road equipment (e.g., compressors) used during construction activities. However, the electricity used for such

activities would be temporary and would have a negligible contribution to the overall energy consumption in the Plan Area.

Operational Use. Development facilitated under the proposed Focus Area Plan would require electricity for multiple uses, including, but not limited to: building heating and cooling, lighting, appliance use (e.g., washer, dryer, microwave), and other electronics (e.g., televisions).

As described in Section 9.1.6.1 above, CalEEMod was used to estimate emissions from energy consumed by the various land uses. Electricity use was estimated in CalEEMod by adjusting the CalEEMod default values to reflect compliance between the 2013 and 2016 Title 24 Building Code efficiencies for 2020 and a blend of old and new (2019) Title 24 Building Code efficiencies for 2040. Table 9-10 summarizes changes in electricity consumption that would occur over the next approximately 20 years of growth envisioned by the Focus Area Plan.

Table 9-10
ESTIMATED OPERATIONAL CHANGE IN ELECTRICITY CONSUMPTION (2020 VS 2040)

Metric	Electricity Consumption (kWh)		
	2020	2040	Change
Total Electricity Consumption[(A)]	49,355,030	120,960,555	+245%
Service Population (SP)	5,781	28,602	+495%
Electricity Consumption Efficiency (kWh/yr/SP)	8,537	4,229	-50%

Source: MIG 2021 (see Appendix 25.2).
(A) See Section 9.1.6.1.

As shown in Table 9-10, electricity consumption in the Plan Area in 2040 is expected to increase by approximately 71,605,525 kWh under Focus Area Plan buildout conditions, as compared to 2020 conditions; however, on an efficiency basis, electricity consumption is anticipated to decrease (i.e., become more efficient) by approximately 50 percent. Although growth would be occurring within the Plan Area under implementation of the proposed Focus Area Plan, new development and land use turn over would be required to comply with statewide mandatory energy requirements outlined in Title 24, Part 6, of the California Code of Regulations (the CalGreen Code), which would decrease estimated electricity consumption associated with new development in the Plan Area, compared to the land uses and development that currently exists.

Since land uses in the Plan Area would use electricity in a more efficient way than the current land uses do, it is not considered unnecessary, inefficient, or wasteful. Finally, the Focus Area Plan is responding to anticipated growth rather than inducing unplanned growth. Placing development for planned growth near transit would result in an efficient use of energy.

Natural Gas

Construction Use. Substantial natural gas consumption is not anticipated to occur during construction activities that would occur with Project implementation. Fuels used for construction would generally consist of diesel and gasoline, which are discussed in the next subsection. Potential natural gas use during construction activities associated with Focus Area Plan growth would not substantially contribute to overall energy consumption in the city, and would not be unnecessary, inefficient, or wasteful.

Operational Use. Natural gas consumption in the land uses proposed by the Focus Area Plan would be required for various purposes, such as building heating and cooling. CalEEMod was used to estimate natural gas consumption associated with growth in the City, as envisioned by the Focus Area Plan. Table 9-11 summarizes estimated changes in natural gas consumption over the next approximately 20 years of growth envisioned by the Focus Area Plan.

Table 9-11
ESTIMATED OPERATIONAL CHANGE IN NATURAL GAS CONSUMPTION (2020 VS 2040)

Metric	Natural Gas Consumption (kBtu)		
	2020	2040	Change
Total Natural Gas Consumption[(A)]	93,109,920	166,150,503	+178%
Service Population (SP)	5,781	28,602	+495%
Natural Gas Consumption Efficiency (kBtu/yr/SP)	16,106	5,809	-64%

Source: MIG 2021 (See Appendix 25.2)
(A) See Section 9.1.6.2.

Based on the demand calculations shown in Table 9-11, which assume the average energy development proposed within the Plan Area would meet a blend of old (2013/2016) and new (2019) Title 24 CalGreen efficiency requirements, natural gas consumption in the Plan Area in 2040 is expected to increase by approximately 73,040,583 kBtu under Focus Area Plan buildout conditions. However, on an efficiency basis, natural gas consumption is estimated to decrease (i.e., become more efficient) by approximately 64 percent.

Although growth would occur within the Plan Area over the next approximately 20 years, new development would be required to comply with statewide mandatory energy requirements outlined in Title 24, Part 6, of the California Code of Regulations (the CalGreen Code), which would decrease estimated natural gas consumption in new and/or retrofitted structures. Energy is a necessary component of building operation, and any natural gas consumption by proposed land uses in the Focus Area Plan would not be used in an unnecessary, inefficient, or wasteful manner and would be more efficient than under existing conditions.

Diesel and Gasoline Fuel

Construction Use. Diesel and gasoline fuels, also referred to as petroleum in this subsection, would be consumed during construction activities as development activities that occur within the Plan Area. Fuel use by construction equipment would be the primary energy resource consumed during development activities, and VMT associated with the transportation of construction materials (e.g., deliveries) and worker trips would also result in petroleum consumption. Whereas on-site, heavy-duty construction equipment and delivery trucks would predominantly use diesel fuel, construction workers would generally rely on gasoline-powered vehicles to travel to and from construction sites. State regulations such as the LCFS would reduce the carbon intensity of transportation-related fuels, and all construction projects would be required to comply with CARB's Airborne Toxic Control Measures, which restrict heavy-duty diesel vehicle idling to five minutes. Since petroleum use during construction would be temporary at each location and required to conduct development activities, it would not be unnecessary, wasteful, or inefficient.

Operational Use. Vehicle fuel consumption associated with operation of the land uses proposed under implementation of the Focus Area Plan would consume fuel in the form of petroleum (i.e., gasoline and diesel) and electricity over the next approximately 20 years. The trips that consume fuel would primarily be attributable to people traveling to or from the City for work, shopping, school, or other reasons. Using the adjusted trip generation described in under Impact 5-3 and default distances in CalEEMod, buildout of Focus Area Plan is estimated to generate approximately 139,837,795 annual VMT under unmitigated conditions and approximately 125,394,181 VMT under mitigated conditions. A comparison of VMT associated with current land uses in the Plan Area versus that which could occur under implementation of the Focus Area Plan is provided below in Table 9-12.

Table 9-12
ESTIMATED OPERATIONAL CHANGE in VMT (2020 VS 2040)

Metric	Vehicle Miles Traveled (VMT)		
	2020	**2040**	**Change**
UNMITIGATED			
Annual VMT(A)	33,852,062	139,837,795	+413%
Service Population (SP)	5,781	28,602	+495%
Average Daily Distance Driven (VMT/SP/day)	16.0	13.4	-17%
MITIGATED			
Annual VMT(A)	33,852,062	125,394,181	+370%
Service Population (SP)	5,781	28,602	+495%
Average Daily Distance Driven (VMT/SP/day)	16.0	12.0	-25%
Source: MIG 2021 (See Appendix 25.2) (A) See Section 9.1.6.3.			

As shown in Table 9-12, although the average annual VMT would increase as existing land uses in the Plan Area transition to those proposed by the Focus Area Plan, the average daily distance driven per SP would decrease under proposed conditions (both mitigated and unmitigated). This can also be correlated to a decrease in fuel consumption under Focus Area Plan conditions, too. As described under Impact 9-1 subsection “GHG Emissions and Plan Consistency”, the Focus Area Plan would be consistent with the overarching goals of Plan Bay Area 2040, which is to concentrate high density development in proximity to high-quality transit, thereby providing greater opportunities to reduce single-occupancy vehicle trips. Operation of the land uses proposed under implementation of the Focus Area Plan would not use transportation fuel in an unnecessary, wasteful, or inefficient manner. This impact would be less than significant (see criterion [c] in subsection 9.3.1, “Significance Criteria,” above).

Mitigation 9-3. No significant impact has been identified; no mitigation is required.

Impact 9-4. Wasteful, Inefficient, or Unnecessary Consumption of Energy Resources – Greystar General Plan Amendment. The Greystar Project would increase the demand for electricity, natural gas, and gasoline and diesel consumption in the region during construction and operation.

Electricity and Natural Gas

Construction Use. Temporary electric power would be required at the Greystar project site to power lighting and electronic equipment (e.g., computers) located in trailers used by construction crews, and by small, off-road equipment (e.g., compressors) used during construction activities. However, the electricity used for such activities would be temporary and would have a negligible contribution to the overall energy consumption at the site and regionally.

Substantial natural gas consumption is not anticipated to occur during Project construction activities. Fuels used for construction would generally consist of diesel and gasoline, which are discussed in the next subsection. Potential natural gas use during construction activities would not substantially contribute to overall energy consumption at the Project site / greater Santa Clara region, and would not be unnecessary, inefficient, or wasteful.

Operational Use. Once operational, the project would require electricity and natural gas for multiple uses, including, but not limited to building heating and cooling, lighting, appliance use (e.g., washer, dryer, microwave), and other electronics (e.g., televisions).

As discussed under Impact 9-2, CalEEMod was used to estimate project emissions from energy uses. Electricity and natural gas consumption were estimated in CalEEMod by adjusting the CalEEMod default values to reflect compliance with the 2019 Title 24 Building Code. Based on CalEEMod estimates, the land uses proposed by the Greystar Project are anticipated to consume approximately 9,744,626 kWh of electricity per year, and approximately 9,207,413 kBtu per year. Although all of this energy consumption would be new (the site is currently vacant), it would not be done in a wasteful, inefficient, or unnecessary way. The Greystar Project consists of high-density residential development, would be built to the latest CalGreen Code energy efficiency standards, and would be located near transit. The location of the project, as well as its design, are the types of developments sought for growing California in a sustainable manner.

Diesel and Gasoline Fuel

Construction Use. Diesel and gasoline fuels, also referred to as petroleum in this subsection, would be consumed during construction activities as development activities occur within the Plan Area. Fuel use by construction equipment would be the primary energy resource consumed during development activities, and VMT associated with the transportation of construction materials (e.g., deliveries) and worker trips would also result in petroleum consumption. Whereas on-site, heavy-duty construction equipment and delivery trucks would predominantly use diesel fuel, construction workers would generally rely on gasoline-powered vehicles to travel to and from construction sites. State regulations such as the LCFS would reduce the carbon intensity of transportation-related fuels, and all construction projects would be required to comply with CARB's Airborne Toxic Control Measures, which restrict heavy-duty diesel vehicle idling to five minutes. The operation of construction equipment would be a necessary component of developing the project. Therefore, it would not be unnecessary, wasteful, or inefficient.

Operational Use. Once operational, the proposed Greystar Project would consume gasoline from additional residents and employees traveling to and from the Project site. The Project has been designed to put community serving uses (e.g., a park and retail) within the Project boundaries. These Project design features increase the walkability / potential for outdoor enjoyment without traveling to an offsite location. Furthermore, the Project would be located in

proximity of VTA Routes 20, 57, and 59, allowing residents easier access to regional transit, which could reduce single-occupancy vehicle trips and associated fuel consumption. Although gasoline and diesel would still be consumed by vehicle trips associated with the Project's land uses, the overall design is intended to reduce single-occupancy vehicle trips. Therefore, the Project would not consume gasoline or diesel during the operational phase that is in a wasteful, inefficient, or unnecessary manner.

Mitigation 9-4. No significant impact has been identified; no mitigation is required.

Impact 9-5. Conflict with or Obstruct a State or Local Plan for Renewable Energy or Energy Efficiency – Freedom Circle Focus Area Plan. The Freedom Circle Focus Area Plan would not conflict with nor obstruct a state or local plan adopted for the purposes of increasing renewable energy or energy efficiency.

The Title 24 Building Code contains energy efficiency standards for residential and non-residential buildings. These standards address electricity and natural gas efficiency in lighting, water, heating, and air conditioning, as well as the effects of the building envelope (e.g., windows, doors, walls and rooves, etc.) on energy consumption. The latest update to these standards, codified in the 2019 Title 24 Building Code, requires the installation of solar panels on new residential development under three stories. The City would enforce the applicable Title 24 Building Code (currently 2019) during design review and project approval processes. The Focus Area Plan would also support the City's post-2020 Climate Action Plan measures, which support energy efficiency in the City (see Table 9-7).

As discussed above, the Focus Area Plan would support the State's goals of decreasing energy consumption for its residents, increase energy efficiency, and would not conflict with a state or local plan for renewable energy. This impact would be less than significant (see criterion [d] in subsection 9.3.1, "Significance Criteria," above).

Mitigation 9-5. No significant impact has been identified; no mitigation is required.

Impact 9-6. Conflict with or Obstruct a State or Local Plan for Renewable Energy or Energy Efficiency – Greystar General Plan Amendment. The Greystar General Plan Amendment / Project would not conflict with nor obstruct a state or local plan adopted for the purposes of increasing renewable energy or energy efficiency.

The Greystar Project would be designed to the latest applicable CalGreen Code standards (currently 2019), feature high density residential development, and be located in an area served by transit. These project features are consistent with many of the criteria the state and region are looking for when it comes to new residential development being constructed. Furthermore, as discussed under Impact 9-2, the Project would be consistent with applicable GHG plans, policies, and regulations, which are inherently tied to reducing energy consumption. This impact would be less than significant (see criterion [d] in subsection 9.3.1, "Significance Criteria," above).

Mitigation 9-6. No significant impact has been identified; no mitigation is required.

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Acronym, Symbol, Abbreviation	Description
°F	Degrees Fahrenheit
AB	Assembly Bill
ABAG	Association of Bay Area Governments
ACC	Advanced Clean Cars
BAAQMD	Bay Area Air Quality Management District
BAU	Business-As-Usual
BOE	Board of Equalization
CAFE	Corporate Average Fuel Economy
CalEEMod	California Emissions Estimator Model
CALGreen	California Green Building Standards Code
CAP	Climate Action Plan
CARB	California Air Resources Board
CBSC	California Building Standards Commission
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CFC	Chlorofluorocarbon
CH_4	Methane
CI	Carbon Intensity
CNRA	California Natural Resources Agency
CO_2	Carbon Dioxide
CO_2e	Carbon Dioxide Equivalent
EIR	Environmental Impact Report
EO	Executive Order
EV	Electric Vehicle
GHG	Greenhouse Gases
GWh	Gigawatt Hour
GWP	Global Warming Potential
HFC	Hydrofluorocarbon
IAQ	Indoor Air Quality
IPCC	Intergovernmental Panel on Climate Change
kBtu	kilo-British Thermal Units
kWh	kilo-Watt hour
LCFS	Low Carbon Fuel Standard
LEV	Low-Emission Vehicle
MPO	Metropolitan Planning Organization
MTC	Metropolitan Planning Commission
$MTCO_2e$	metric tons of CO_2 equivalents
MWh	Mega-Watt hour
MY	Model Year
N_2O	Nitrous Oxide
NHTSA	National Highway Traffic Safety Administration
NOP	Notice of Preparation
PDA	Priority Development Area
PFC	Perfluorocarbon
PG&E	Pacific Gas & Electric
ppm	parts per million

Acronym, Symbol, Abbreviation	Description
RFS	Renewable Fuel Standard
RPS	Renewable Portfolio Standard
RTP	Regional Transportation Plan
SAFE Vehicles Rule	Safer Affordable Fuel-Efficient Vehicles Rule
SB	Senate Bill
SCS	Sustainable Communities Strategy
SF_6	Sulfur Hexafluoride
SP	Service Population
TDM	Transportation Demand Management
U.N.	United Nations
UNFCC	United Nations Framework Convention on Climate Change
U.S.	United States
U.S. EIA	U.S. Energy Information Administration
U.S. EPA	United States Environmental Protection Agency
ZEV	Zero Emission Vehicle

10. HAZARDS AND HAZARDOUS MATERIALS

This EIR chapter describes hazards and hazardous materials implications of the proposed Freedom Circle Focus Area Plan/Greystar General Plan Amendment. The chapter addresses the specific hazards and hazardous materials impact concerns identified by the CEQA Guidelines--i.e., would development under the proposed Plan (including the Greystar project) create significant hazards to the public or the environment through the transport, use, or disposal of hazardous materials; through reasonably foreseeable upset or accident conditions; through hazardous emissions or handling hazardous material near a school; or through location on a government-identified hazardous materials site. The Guidelines also direct local agencies to examine whether a project would create a safety hazard related to an airport; interfere with an adopted emergency response plan; or create a wildland fire risk.[1]

The California Supreme Court decision (December 2015) in *California Building Industry Association v. Bay Area Air Quality Management District* ("*CBIA*") concluded, "[W]e hold that CEQA does not generally require an agency to consider the effects of existing environmental conditions on a proposed project's future users or residents. What CEQA does mandate…is an analysis of how a project might exacerbate existing environmental hazards." The environmental impact analysis in this section (and throughout the EIR) takes into consideration this Court decision. However, the *CBIA* case also identified two relevant exceptions to this general rule: (1) if the project would exacerbate existing environmental hazards (such as exposing hazardous waste that is currently buried), then that can be considered an impact of the project on the environment; and (2) potential noise and safety impacts on projects due to proximity to an airport must be analyzed.

10.1 SETTING

10.1.1 Hazardous Materials

(a) Cortese List Search. The Cortese List contains the provisions in California Government Code Section 65962.5, enacted to create a "list" (now a set of information resources) of hazardous materials sites in the State. The presence of a site on the Cortese List has bearing on local permitting processes and compliance with CEQA.[2] There are five data resources that

[1]CEQA Guidelines, appendix G, item IX (a through g).

[2]CalEPA, Cortese List Background and History, available at: https://calepa.ca.gov/sitecleanup/corteselist/Background/, accessed 4/1/20.

provide information regarding sites that meet the Cortese listing requirements.[1] A review of the Cortese List data resources conducted on April 1 and 2, 2020 identified two sites within the Plan Area, based on information from the Department of Toxic Substance's (DTSC) EnviroStor[2] database and the State Water Resources Control Board's (State Water Board) GeoTracker[3] database:

(1) Intel Freedom Circle, 3935 Freedom Circle. The Intel Freedom Circle site includes three parcels formerly used for agricultural purposes until the late-1970s. The site is under a DTSC voluntary cleanup program for soil contamination by agricultural chemicals (including arsenic and lead). Two of the parcels, Parcels 1 and 2, are the "Greystar Project Site" that is discussed in more detail in section (f), below; the third parcel, Parcel 3, has been occupied by Pedro's Restaurant since approximately 1980.

> *DTSC EnviroStor Status:* Certified/Operation & Maintenance (i.e., sites that have certified cleanups in place but require ongoing Operation and Maintenance activities to address contamination problems; institutional controls such as land use restrictions necessary to protect public health must be in place)
> *Project Type:* Voluntary Cleanup – Land Use Restrictions (i.e., sites with either confirmed or unconfirmed releases, and the project proponents have requested that DTSC oversee evaluation, investigation, and/or cleanup activities and have agreed to provide coverage for DTSC's costs).

(2) Fire Station #8, 2400 Agnew Road. The Santa Clara Fire Department Station #8 includes a former leaking underground storage tank (LUST) that was removed and site soils successfully remediated. The site was officially closed in 2000 and is on the Historical Cortese List.

> *State Water Board GeoTracker Status:* Completed – Case Closed (i.e., a closure letter or other formal closure decision document has been issued for the site)
> *Project Type:* LUST Cleanup Site (i.e., one or more underground storage tanks that leak petroleum and other hazardous substances into soil and groundwater, thereby posing a risk to drinking water quality and human health).

(b) Other Database Searches. The Plan Area may contain hazardous materials sites not listed in a Cortese List data resource. A review of the U.S. Environmental Protection Agency's

[1]Cortese List Data Resources (available at: https://calepa.ca.gov/sitecleanup/corteselist/): (1) the Department of Toxic Substance's (DTSC) EnviroStor database (Hazardous Waste and Substances Site List); (2) the State Water Resources Control Board (State Water Board) GeoTracker database (Leaking Underground Storage Tank Site List); (3) the State Water Board's list of solid waste disposal sites with waste constituents above hazardous waste levels outside the waste management unit; (4) list of active Cease and Desist Orders (CDO) and Cleanup and Abatement Orders (CAO) from the State Water Board; and (5) a DTSC list of hazardous waste facilities subject to corrective action pursuant to Section 25178.5 of the Health and Safety Code.

[2]EnviroStor is an on-line research and Geographic Information System tool that allows a search for information on investigation, cleanup, permitting, and/or corrective actions that are planned, being conducted, or have been completed under DTSC's oversight.

[3]GeoTracker is an on-line research tool similar to EnviroStor, but it collects information from different databases, such as State and local agency lists of Leaking Underground Storage Tanks (LUSTs) as well as permitted Underground Storage Tanks (USTs).

(EPA) CERCLIS[1] database indicated no active CERCLIS sites in the Plan Area. Figure 5.10-3, Hazardous Materials (2010), of the City of Santa Clara General Plan indicates the two sites discussed above (the Intel Freedom Circle site and Fire Station #8).[2] In addition, the General Plan EIR notes that U.S. 101, located about 30 feet south of the Plan Area, is used to transport hazardous materials within Santa Clara.[3]

(c) Santa Clara Fire Department. As the Certified Unified Program Agency (CUPA) for the City of Santa Clara, the Santa Clara Fire Department (SCFD) Hazardous Materials Division conducts inspections of hazardous waste generators within the City of Santa Clara and maintains a database of these generators (which are required to submit a "Hazardous Waste Generator Permit Application" when they move into the city or begin generating hazardous waste). The database includes current business status and other information related to state and/or EPA registration and reporting (e.g., California Environmental Reporting System, EPA ID number).[4] There is one business identified on this database and registered with the Fire Department for on-site hazardous materials (the Freedom Circle Storm Station/stormwater pump at 3905 Freedom Circle).

(d) Environmental Data Resources. A database search was conducted by Environmental Data Resources, Inc. (EDR Report, October 25, 2018)[5] to assist the City with assessing potential environmental risks in the Plan Area. The search reviewed available environmental records, following U.S. Environmental Protection Agency (EPA) and related environmental site assessment requirements. The EDR Report identified 99 environmental records associated with 42 sites located in the Plan Area, including the two sites identified in the Cortese List data resources. Table 10-1 lists the sites in the EDR Report. ***Inclusion in the table does not mean that the site is necessarily considered a hazard.*** In addition, the EDR Report listed 292 environmental records associated with 150 sites located outside of, but within one-quarter mile of, the Plan Area; these sites are not included in Table 10-1.

[1]CERCLIS is the acronym for the U.S. EPA's comprehensive environmental response, compensation, and liability information system. CERCLIS is the national database and management system that the EPA uses to track activities of hazardous waste sites considered for cleanup under the Comprehensive Environmental Response and Liability Act (CERCLA), which is commonly known as Superfund. Superfund sites are lands within the United States that have been contaminated by hazardous waste and identified by the EPA as candidates for remediation because they pose a risk to human health and/or the environment. U.S. EPA, CERCLIS search: http://www.epa.gov/enviro/cerclis-search; accessed 4/2/20.

[2]City of Santa Clara, 2010-2035 General Plan, November 16, 2010, p. 5-141.

[3]City of Santa Clara, Integrated Final Environmental Impact Report for the City of Santa Clara Draft 2010-2035 General Plan, Volume I EIR Text, January 2011, p. 400.

[4]Frederick Chun, Assistant Fire Marshal, City of Santa Clara Fire Department, email dated June 2, 2020, to Rebecca Bustos, Senior Planner, City of Santa Clara Community Development Department.

[5]Environmental Data Resources, Inc. (EDR), Freedom Circle Specific Plan, The EDR Radius Map Report with GeoCheck, Inquiry Number: 5465634.2s, October 25, 2018.

Table 10-1
THE EDR RADIUS MAP REPORT RESULTS FOR THE PLAN AREA

Site Name	**Address[1]**	**Database[2]**
Fire Station #8 (Santa Clara Fire Station #8)	**2400 Agnew Road**	CA CERS, CA FID UST, **CA HIST CORTESE**, CA HIST LUST, CA HIST UST, CA LUST, CA RGA LUST, CA SWEEPS LUST, FINDS
City of Santa Clara-- Freedom Circle Storm Station	3905 Freedom Circle	CA EMI, CA HAZNET, CA CERS, FINDS
Reflectivity	3910 Freedom Circle	FINDS
Loral Federal System	3920 Freedom Circle	CA HAZNET
Lockheed Martin Federal Systems	3920 Freedom Circle	CA HAZNET
Intel Corp	3925 Freedom Circle	CA HAZNET
Collinear, Inc. (Collinear Corp; Collinear, Corporation; Collinear Corporation	3930 Freedom Circle	CA CERS, CA CERS HAZ WASTE, CA CIWQS, CA EMI, CA HAZNET, FINDS
IPG Photonics – Silicon Valley Technical Center SV	3930 Freedom Circle	CA HAZNET
Intel Freedom Circle	**3935 Freedom Circle**	**CA ENVIROSTOR**, CA DEED, CA VCP, FINDS
Santa Clara Tower 1 (McCandless Towers Phase I)	3945 Freedom Circle	CA CERS, FINDS
Silicon Valley Branch	3945 Freedom Circle	FINDS, TSCA
The Shipley Company	3945 Freedom Circle	CA HAZNET
Freedom Circle LLC	3960 Freedom Circle	CA HAZNET
Santa Clara Tower 2 (McCandless Towers Two; Birks S McCandless, LLC)	3965 Freedom Circle	CA CERS, CA CIWQS, CA HAZ WASTE, FINDS
McAfee	3965 Freedom Circle	FINDS
Equity Office	3975 Freedom Circle	CA EMI, FINDS
Mission Towers (Mission Towers I, Carramerica)	3975 Freedom Circle	CA CIWQS, CA CERS, FINDS
Tishman Speier	3975 Freedom Circle	CA HAZNET
Sysco Corp	3975 Freedom Circle	CA HAZNET
Mission Towers I, Carramerica	3977 Freedom Circle	FINDS
SRI Mission Towers II LLC (SRI Mission Towers II LLC c/o Shorenstein Realty, Mission Towers 2)	3979 Freedom Circle	CA CERS, CA EMI, FINDS

Site Name	**Address[1]**	**Database[2]**
WHTS Freedom Circle II	3985 Freedom Circle	CA EMI
Silicon Valley CA-1	3990 Freedom Circle	CA HAZNET
Palo Alto Networks	4301 Great America Parkway	CA CERS, FINDS
Palo Alto Networks	4401 Great America Parkway	CA CERS, FINDS
Nortel Networks	4401 Great America Parkway	CA HAZNET
Bay Networks Inc	4401 Great America Parkway	CA HAZNET
Yahoo, Inc.	4401 Great America Parkway	FINDS
Abbott Laboratories/Abbott Hematology	4551 Great America Parkway	CA CERS, CA CERS HAZ WASTE, CA EMI, CA HAZNET, ECHO, FINDS, RCRA-LQG
4551 Great America Parkway	4551 Great America Parkway	CA CIWQS, CA NPDES
Yahoo Inc	4551 Great America Parkway	CA HAZNET
Nortel Networks	4551 Great America Parkway	FINDS
EMC Corporation	2421 Mission College Boulevard	CA CERS
Stanford Telecommunications (Stanford Telecommunications, Inc.)	2421 Mission College Boulevard	CA EMI, CA HAZNET, CA RGA LUST, CA SPILLS 90, ECHO, FINDS, RCRA-SQG
Data Domain	2421 Mission College Boulevard	FINDS
Nortel Networks (Nortel Networks, Inc.)	2431 Mission College Boulevard	CA CIWQS, FINDS
Broadcom Corporation	2431 Mission College Boulevard	CA HAZNET
Preferred Power Source	2451 Mission College Boulevard	CA EMI
Broadcom Corp	2451 Mission College Boulevard	CA EMI, FINDS
Genigraphics Santa Clara	2520 Mission College Boulevard	CA HAZNET
Fuji Photo Film, Inc.	2700 Mission College Boulevard	CA HAZNET
Santa Clara Marriott Hotel (Marriott Hotel; Marriott Hotel, Santa Clara)	2700 Mission College Boulevard	CA AST, CA CERS, CA CERS TANKS, CA EMI, CA HAZNET, CA FID UST, CA HIST UST, CA SWEEPS UST, ECHO, FINDS, RCRA-LQG, US AIRS

Bold = Cortese List sites (including Historical Cortese List sites).

SOURCE: Environmental Data Resources, Inc. (EDR), Freedom Circle Specific Plan, The EDR Radius Map Report with GeoCheck, Inquiry Number: 5465634.2s, October 25, 2018.

Notes:

[1]All addresses are in the Freedom Circle Focus Area Plan Area.

[2]*Databases (note that some of these include multiple listings for the same address):*
CA AST: A listing of aboveground storage tank petroleum storage tank locations.
CA CERS: The CalEPA Regulated Site Portal database combines data about environmentally regulated sites and facilities in California into a single database. It combines data from a variety of state and federal databases, and provides an overview of regulated activities across the spectrum of environmental programs for any given location in California. These activities include hazardous materials and waste, state and federal cleanups, impacted ground and surface waters, and toxic materials.
CA CERS TANKS: List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Aboveground Petroleum Storage and Underground Storage Tank regulatory programs.
CA CIWQS: The California Integrated Water Quality System (CIWQS) is a computer system used by the State and Regional Water Quality Control Boards to track information about places of environmental interest, manage permits and other orders, track inspections, and manage violations and enforcement activities.
CA CORTESE: The sites for the list are designated by the State Water Resource Control Board (pertaining to leaking underground storage tanks -- LUST), the Integrated Waste Board (pertaining to solid waste facilities/landfill sites -- SWF/LS), and the Department of Toxic Substances Control (pertaining to CalSites, a database formerly used to keep track of database of known and potential hazardous substance release sites, replaced by EnviroStor).
CA DEED: The use of recorded land use restrictions is one of the methods DTSC uses to protect the public from unsafe exposures to hazardous substances and wastes.
CA ENVIROSTOR: The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifies sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List [NPL]); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor replaced the former CalSites database and provides similar hazardous substance release site information, but also includes additional site information such as identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.
CA EMI: Toxics and criteria pollutant emissions data collected by CARB (California Air Resource Board) and local air pollution agencies.
CA FID UST: The Facility Inventory Database contains active and inactive underground storage tank locations. The source is the State Water Resource Control Board.
CA CERS HAZ WASTE: List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Hazardous Chemical Management, Hazardous Waste Onsite Treatment, Household Hazardous Waste Collection, Hazardous Waste Generator, and RCRA LQ HW Generator programs.
CA HAZNET: The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000-1,000,000 annually, representing approximately 350,000-500,000 shipments. Data from non-California manifests & continuation sheets are not included at the present time. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, & disposal method. The source is the Department of Toxic Substance Control. This database begins with calendar year 1993.
CA HIST CORTESE: The sites for the list are designated by the State Water Resource Control Board (pertaining to leaking underground storage tanks -- LUST), the Integrated Waste Board (pertaining to solid waste facilities/landfill sites -- SWF/LS), and the Department of Toxic Substances Control (pertaining to CALSITES, a database formerly used to keep track of database of known and potential hazardous substance release sites, replaced by EnviroStor). This listing is no longer updated by the state agency.

CA HIST LUST: A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.
CA HIST UST: Historical UST Registered Database.
CA LUST: Leaking Underground Storage Tank (LUST) Sites included in GeoTracker. GeoTracker is the Water Board's data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.
CA NPDES: A listing of NPDES permits, including stormwater.
CA RGA LUST: The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the State Water Resources Control Board in California.
CA SPILLS 90: Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.
CA SWEEPS UST: Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by SWRCB in the early 1990s. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.
CA VCP: Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC costs.
ECHO: ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.
FINDS: The Facility Index System contains both facility information and "pointers" to other sources of information that contain more detail, including: RCRIS; Permit Compliance System (PCS); Aerometric Information Retrieval System (AIRS); FATES (FIFRA [Federal Insecticide Fungicide Rodenticide Act] and TSCA Enforcement System, FTTS [FIFRA/TSCA Tracking System]; CERCLIS; DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes); Federal UIC (Underground Injection Control) Reporting System (FURS); Federal Reporting Data System (FRDS); Surface Impoundments (SIA); TSCA Chemicals in Commerce Information System (CICS); PADS; RCRA-J (medical waste transporters/disposers); TRIS; and TSCA. The source of this database is the U.S. EPA/NTIS.
RCRA-LQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites that generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.
RCRA-SQG: As described above, RCRAInfo is EPA's comprehensive information system, and includes selective information on sites that generate, transport, store, treat and/or dispose of RCRA-defined hazardous waste. Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.
TSCA: The Toxic Substances Control Act identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site. The U.S. Environmental Protection Agency has no current plan to update and/or re-issue this database.
US AIRS: The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

(e) Proximity to Schools. There are no schools in the Plan Area. However, Mission College is located about one-quarter mile west of the Plan Area boundary. None of the Cortese List sites within the Plan Area are located within one-quarter mile of Mission College, but nine of the sites listed in Table 10-1 are within one-quarter mile of Mission College.[1]

(f) Greystar Project Site--2015 Environmental Site Assessments. The Greystar project site, currently vacant, has been the subject of ongoing environmental evaluation and clean-up activities since purchase of the 3935 Freedom Circle property by Intel in 1997. The property was comprised of three parcels: Parcels 1 and 2 are the current Greystar project site, and Parcel 3 is currently occupied by Pedro's Restaurant. Intel sold the property in 2017.

Although this section discusses the Greystar project site in particular (Parcels 1 and 2), the voluntary cleanup agreement, including associated supporting plans, and the land use covenant (e.g., deed restriction) limiting future land uses agreed to by the California Department of Toxic Substances Control (DTSC) and Intel prior to the property sale, are still in effect for all three parcels. Therefore, any future development of Parcel 3 (the Pedro's Restaurant site) would be subject to a similar remediation/cleanup process as described below for the Greystar site.

In 2015, two environmental assessments of the Greystar project site (Parcels 1 and 2) were conducted: (1) Phase I Environmental Site Assessment, 3935 Freedom Circle – Parcels 1 and 2, Santa Clara, California; West Environmental Services & Technology, August 2015 (Phase I ESA); and (2) Phase II Environmental Site Assessment, 3935 Freedom Circle – Parcels 1 and 2, Santa Clara, California; West Environmental Services & Technology, October 2015 (Phase II ESA).[2]

Though the Phase I ESA and Phase II ESA focused their assessments on Parcels 1 and 2, they included review of previous studies and cleanup activities related to all three parcels since the 1997 property purchase by Intel; the 2003 Removal Action Workplan (RAW); details of the engineered cap required by the 2003 RAW; annual cap inspection provisions of the 2004 Operation and Maintenance Agreement and Operation and Maintenance Plan (O&M Plan; 2004); the 2004 Site (Soils) Management Plan; the 2004 Land Use Covenant; and related maintenance activities. These plans were prepared by Intel for DTSC as part of a Voluntary Cleanup Agreement (VCA) entered into between Intel and DTSC in 2000.[3] A Health-Based Risk Assessment was also prepared that determined potential risks to human health and the environment, including current and future land use at the site, and helped with development of guidelines for managing potential risks. The Removal Action Workplan was developed for remediating the contamination on the site and to identify and evaluate alternatives for achieving a safe environment; this is the plan that led to the decision for sealing the contaminated soils by

[1]Environmental Data Resources, Inc. (EDR), Freedom Circle Specific Plan, The EDR Radius Map Report with GeoCheck, Inquiry Number: 5465634.2s, October 25, 2018.

[2]These two Environmental Site Assessments are available online at: https://www.santaclaraca.gov/Home/Components/BusinessDirectory/BusinessDirectory/297/2495?npage=2.

[3]These and related documents pertaining to the remediation/cleanup activities for the project site (i.e., the former "Intel Freedom Circle Site") are available for public viewing at the State's DTSC EnviroStor website: https://www.envirostor.dtsc.ca.gov/public/profile_report.asp?global_id=43010028.

placing an engineered cap over them. The Operation and Maintenance Plan, stipulated by the Operation and Maintenance Agreement, provided the approach for maintaining the engineered cap until the cleanup goals have been met, modifications or other cleanup methods have been implemented to better achieve cleanup goals, or part or all of the site has been redeveloped, all subject to approval by DTSC. As noted above, a deed restriction was also executed to ensure protection of present or future human health or safety or the environment while site remediation under the VCA progressed. The Soil Management Plan was formulated to provide management practices related to work that affected site soils to ensure minimized exposure and risk. And the Site Health and Safety Plan was prepared to address control of exposure and potential exposure to soil contaminants with recommendations for physical and other safety hazards related to trenching, excavation, grading, in-filling, paving/re-paving, and installation fand repair of utility corridors. These plans, studies, and reports are still in effect, with the exception that the O&M Plan was updated in 2019 at the request of DTSC after the change in property ownership. The 2019 O&M Plan only covers Parcels 1 and 2 (referred to in the plan as Parcels A and B) because Parcel 3, the "Pedro's Restaurant" parcel, was sold in 2014 and therefore not part of the property transaction and not covered by the 2019 O&M Plan.

The Phase I ESA and Phase II ESA are summarized below.

(1) Phase I ESA. The Phase I ESA discussed conditions on the Greystar site and was conducted in conformance with industry standards (the American Society for Testing Materials Standard Practice E1527-13), including review of database and regulatory records searches and available site data (such as topographical, geological, and/or hydrological information), contacts with relevant public agencies and interviews with individuals, and a site reconnaissance. The Phase I ESA was prepared to identify recognized environmental conditions (RECs) at the site and adjoining properties related to the previous ownership and uses. As used in the Phase I ESA (p. 1), RECs are *"the presence or likely presence of any hazardous substance or petroleum products in, on or at the Site: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment."*

The Phase I ESA (Table 7-1) noted the following conditions related to potential environmental risks on the site:

- 3539 *[sic]* Freedom Circle, Parcels 1 and 2 (the Greystar project site)
  - *Presence of pesticides from historical agricultural use:* Based on the DTSC approvals of the Removal Action Workplan (RAW), Operations and Maintenance Plan (O&M Plan), and Site Management Plan (SMP),[1] and the presence of the engineered cap required by DTSC for the former Intel property (which included Parcels 1, 2, and 3), pesticides in site soil represent a controlled recognized environmental condition; and
  - *Presence of arsenic and lead from historical agricultural use:* Based on the DTSC approvals of the RAW, O&M Plan, and SMP, and the presence of the engineered cap, metals in site soil represent a controlled recognized environmental condition.

[1]To avoid confusion, the Phase I ESA refers to a Site Management Plan, however, the voluntary cleanup agreement between Intel Corporation and DTSC refers to a Soil Management Plan. The two plans describe similar site and soil procedures and differ only in name.

- 3935 Freedom Circle, Parcel 2 (southern portion of Greystar project site)
  Potential presence of petroleum hydrocarbons and hazardous substances in the soil stockpile: Based on the lack of soil data and information regarding the origin, the soil stockpile represents a suspect recognized environmental condition.

- 3935 Freedom Circle, Parcel 3 (adjacent to Greystar project site; occupied by Pedro's Restaurant)
  Presence of arsenic and lead from historical agricultural use: Based on the DTSC approvals of the RAW, O&M Plan, and SMP, and the presence of the engineered cap, arsenic and lead soil should not represent a recognized environmental condition to the site.

- U.S. Highway 101 (south of and adjacent to the Greystar project site)
  Presence of aerially deposited lead (ADL) along the southern border of the site: Based on the DTSC approvals of the RAW, O&M Plan, and SMP, and the presence of the engineered cap, ADL in site soil is co-present with arsenic and pesticides; therefore, represents a controlled recognized environmental condition.

- 2455, 2465, 2475, 2505, 2525, 2575 and 2585 Augustine Drive (less than 1/8-mile south of the Greystar project site)
  Potential for releases of hazardous substances to groundwater: Based on the investigation findings and concurrence from DTSC, releases to groundwater at the Augustine Drive properties do not represent a recognized environmental condition to the site.

The Phase I ESA noted that prior to the 1960s, the site was cultivated for agricultural purposes, principally orchards, as generally was the surrounding area. In the 1970s, the site was graded but otherwise not developed, although other development in the area was occurring in the late 1970s/early 1980s, such as the Santa Clara Business Park and Pedro's Restaurant to the west. During this general time, the route of Saratoga Creek was redirected, with the portion of the creek channel on the Greystar project site filled in. In 1997, the site was purchased by Intel. Between one and five feet of imported gravel and soil were placed on the Greystar portion (Parcels 1 and 2) for use as an overflow parking area and storage for temporary construction trailers associated with the Intel Corporation facility east of San Tomas Aquinas Creek.

Site investigations conducted in 1997 and 2001 identified the presence of pesticides from historical agricultural use (lead, arsenic, dieldrin, chlordane, DDT, and related products from DDT breakdown). In 2003, voluntary cleanup of the site was conducted under a DTSC-approved Removal Action Workplan (RAW). A portion of Greystar Parcel 1 and Parcel 2 were capped with a one-foot deep covering of soil and gravel in 2004 (the adjacent Parcel 3, with Pedro's Restaurant, was also capped at that time with asphalt paving and landscaping). Additional gravel was applied periodically as part of maintenance activities directed under the operation and maintenance agreement between Intel and DTSC. This was a necessary step toward DTSC certification of completion of remedial action on the site.

In addition, DTSC required a land use covenant (deed restriction) to limit the site to commercial/industrial use due to impacted soil remaining beneath the soil/gravel cap covering the majority of the site (and also beneath the asphalt parking lot and single-story building on the adjoining Pedro's Restaurant site). In 2004, a covenant restricting land use on all three parcels was entered into between Intel and DTSC ("2004 deed restriction"). The 2004 deed restriction stipulates that *"…the Property, as remediated, and subject to the restrictions of this Covenant,*

does not present an unacceptable threat to human safety or the environment if limited to commercial and industrial uses, automobile parking, open space, temporary construction trailer storage and similar uses." Restrictions on land uses prohibit hospital, public or private school (for persons under 21), day care center, food raising (e.g., cattle, food crops), or residential uses on the site. DTSC requires annual cap inspections. Also, a Soil Management Plan (May 10, 2004) was prepared, which identifies procedures for any activities that would disturb site soils on the property at or below one foot grade, such as excavation, grading, removal, trenching filling, earth movement, or mining.[1]

According to the Phase I ESA (pp. 5-6), *"Based on the findings, opinions and conclusions, additional investigations do not appear warranted to further characterize the Site conditions. However, future development of the Site would require future owners to enter into an operations and maintenance agreement (O&M agreement) with DTSC to maintain the engineered cap prior to and to the extent necessary, following development. The O&M agreement would also require applicable financial assurances be provided indicating that maintenance of the cap would be conducted."*

(2) Phase II ESA. The Phase II ESA discussed further evaluation of Greystar project site soils to characterize the extent of metals and organochlorine pesticides in soil beneath the engineered soil/gravel cap. A screening level assessment was performed to evaluate conditions of potential concern associated with proposed development of the site, including removal of soil to meet unrestricted use criteria. State and federal screening levels were used to identify potential risks to workers and future residences at the site. State screening levels were derived from the Total Threshold Limit Concentrations (TTLCs) and Soluble Threshold Limit Concentrations (STLCs) in the State code pertaining to hazardous wastes (California Code of Regulations Title 22). Federal screening levels were based on U.S. EPA Regional Screening Levels (RSLs). In addition, background arsenic concentrations were based on the levels at which removal of soil containing arsenic would address the presence of both lead and organochlorine pesticides for unrestricted site use, pursuant to the 2003 removal action workplan.

Approximately 120 soil samples were collected from 30 borings at depths between 1 and 10 feet below ground surface, and were analyzed for arsenic and lead (including soluble arsenic and lead), as well as other "Title 22" metals (barium, chromium, cobalt, etc.), soluble chromium, organochlorine pesticides, and soluble total DDT. Soil samples collected at nine of the 30 boring sites were tested for organochlorine pesticides (chlordane, dieldrin, 4,4-DDE, 4,4-DDD, and 4,4-DDT, and total DDT). The organochlorine pesticide results showed:

- none of the nine sites exceeded the U.S. EPA Agency Regional Screening Levels (RSLs) or Total Threshold Limit Concentration (TTLC) for chlordane;
- none of the nine sites exceeded the RSLs for dieldrin, but seven of the nine sites exceeded the TTLC for chlordane;
- two of the nine sites exceeded the RSLs for 4,4-DDE;
- none of the nine sites exceeded the RSLs for 4,4-DDD or 4,4-DDT; and

[1] Soil Management Plan for Intel Freedom Circle, Santa Clara, California, prepared for Intel Corporation by Weiss Associates, April 30, 2004, p. 6.

- five of the nine sites exceeded the RSLs for Total DDT.

The arsenic/lead and "Title 22" metals results showed:

- 29 of the 30 sites exceeded the U.S. EPA Agency Regional Screening Levels (RSLs) for subsurface (background) arsenic concentration, but none of the 30 sites exceeded the Total Threshold Limit Concentration (TTLC);

- 12 of the selected sites exceeded the Soluble Threshold Limit Concentration (STLC) for chromium, but did not exceed the RSLs or TTLC;

- 14 of the 30 sites exceeded the RSLs for lead, but did not exceed the TTLC; and

- none of the selected sites exceeded the RSLs for barium, cobalt, copper, mercury, nickel, vanadium, or zinc.

Three of the 30 boring sites were located on Parcel 1 (the northern part of the Greystar project site). Of these three sites, one exceeded the RSLs for dieldrin, one exceeded the STLC for chromium, one exceeded the RSLs for lead, and all three exceeded the subsurface background arsenic concentration (though none exceeded the RSLs for arsenic). The remaining 27 boring sites were located on Parcel 2 (the southern part of the Greystar project site), where the rest of the results summarized above occurred.

According to the Phase II ESA (p. 3), *"…approximately 37,000 cubic yards of soil containing arsenic, lead and organochlorine pesticides are present above residential screening levels."* In addition, the Phase II ESA (p. 17) determined:

- 12,000 cubic yards of cap material may be suitable for reuse;

- 16,000 cubic yards (or approximately 26,000 tons) of soil contain concentrations of lead and/or pesticides that would require management as California Hazardous Waste; and

- 21,000 cubic yards (or approximately 34,000 tons) of soil contain arsenic, lead and/or pesticides in concentrations that would require management as non-hazardous contaminated soil.

As noted by the DTSC, in responding to the Draft EIR Notice of Preparation: *"Additional cleanup activities would be required and the deed restriction would need to be amended or rescinded in order for the Intel Freedom Circle Site (Greystar site) to be considered suitable for residential use."*[1]

(g) Radon. According to the U.S. Environmental Protection Agency (EPA) Map of Radon Zones, Santa Clara County is in Zone 2, which means a "moderate" potential for human exposure to average indoor radon levels between 2 and 4 pCi/L (pico curies per liter). The map

[1]Eric Chodoroff, Project Manager, DTSC Site Mitigation and Restoration Program – Berkeley, email dated July 22, 2020, to John Davidson, Principal Planner, City of Santa Clara Community Development Department.

is intended to help governments and other organizations target risk reduction activities and resources. This rating applies to all of Santa Clara County and 33 other counties in the state (Map of Radon Zones in California based on EPA data, http://www.city-data.com/radon-zones/California/California.html, viewed 8/31/20). The California Department of Public Health (CDPH) Radon Program collects and maintains a digital database of radon test data for buildings throughout the state. Based on the CDPH database of tests results, the Plan Area is located in an area where 6.3 percent of 16 sites tested exceeded the U.S. EPA action level of 4.0 pCi/L or greater.

10.1.2 Airport Hazards

The Norman Y. Mineta San Jose International Airport (San Jose International Airport or "SJC") is located about 1.5 miles to the southeast of the Plan Area. The Santa Clara County Airport Land Use Commission's (ALUC) Comprehensive Land Use Plan (CLUP) for the San Jose International Airport establishes an Airport Influence Area (AIA), defined as "a feature-based boundary around the Airport within which all actions, regulations and permits must be evaluated by local agencies to determine how the Airport Comprehensive Land Use Plan [CLUP] policies may impact the proposed development."[1] Approximately 45 acres of the Plan Area (between Mission College Boulevard and California's Great America amusement park, and bounded by Great American Parkway on the west and the San Tomas Aquino Creek Trail on the east) are in the San Jose International Airport AIA. The rest of the Plan Area, south of Mission College Boulevard, including the Greystar project site, is not located within the AIA; however, the City of San Jose holds an Avigation Easement over much of the Plan area north of Mission College Boulevard, which provides for acceptance of specified elevation limits and aircraft overflight impacts.

The CLUP also establishes development standards related to noise, structure height, and safety that are applicable to development in areas surrounding the airport. The CLUP maps these areas to help evaluate land use compatibility in the vicinity of the airport. While the Plan Area is not located in a mapped safety or noise area, it is within the CLUP Height Restriction Area, which uses the Federal Aviation Administration's (FAA) Federal Aviation Regulations (FAR) Part 77 imaginary surfaces to delineate the area within which structures above a maximum structure height may constitute a safety hazard.

Federal Aviation Regulations, Part 77, "Objects Affecting Navigable Airspace" (commonly referred to as FAR Part 77) sets forth standards and review requirements for protecting the airspace for safe aircraft operation, particularly by restricting the height of proposed structures and minimizing other potential hazards to aircraft such as reflective surfaces, flashing lights, and electronic interference. These regulations require that the FAA be notified of certain proposed construction projects located within an extended zone defined by an imaginary slope radiating outward for several miles from an airport's runways, or which would otherwise stand at least 200 feet in height above ground.

See Figure 10.1 (Airport Influence Area). The FAR Part 77 airspace notification surface for the airport varies throughout the Plan Area, ranging from an approximate elevation of 90-95 feet above ground at the southeast corner to an approximate elevation of 145-150 feet at the

[1]Santa Clara County Airport Land Use Commission, Comprehensive Land Use Plan for the Norman Y. Mineta San Jose International Airport, adopted May 25, 2011 and amended November 16, 2016, p. 3-17.

northwest corner. Notification to the FAA would therefore be required for individual proposed structures that would exceed this airspace surface. FAA review and issuance of determinations that a proposed structure would not be a hazard to air navigation, and project compliance with any conditions set forth in such FAA determinations, would ensure that the structure would not be an air safety hazard.[1]

The proposed Greystar project would have maximum building elevations of up to approximately 100 feet, including the rooftop screening, and therefore would be required to notify the FAA as explained above.

CLUP Policy H-1 states that any structure, existing or proposed, that penetrates (i.e., is above the maximum structure height) the FAR Part 77 imaginary surfaces mapped in CLUP Figure 6 (p. 3-11) would be considered an incompatible use, barring a determination from the FAA that the proposed structure or object does not present a hazard to air navigation.[2]

Additional CLUP policies related to land use compatibility include Policy G-6, which prohibits uses within an AIA that may cause hazards to aircraft due to electrical interference, high intensity lighting, attraction of birds, and activities that produce smoke, dust, or glare, among others. Projects proposed in the Plan Area that are within the San Jose International Airport AIA would need to be referred to the ALUC for a consistency review with the San Jose International Airport CLUP.

10.1.3 Emergency Response

The Santa Clara Fire Department (SCFD) is responsible for emergency response in the City and, as part of the standard development review process, evaluates project site plans to determine if adequate access for emergency vehicles is provided. The City does not designate formal evacuation routes. Current site access, which would also provide for evacuation, is via Great America Parkway, Patrick Henry Drive (northwestern parcels), Mission College Boulevard, and Hichborn Drive on the west; on the east, access is provided via Mission College Boulevard and Agnew Road. Internal circulation is provided by Mission College Boulevard and Freedom Circle (a loop road). According to SCFD, emergency access to the general vicinity of the site is considered adequate.[3]

As discussed in chapter 17, Transportation, a new 26-foot-wide two-way private road is proposed around the perimeter of the Greystar project site, which would provide vehicular connections between parking garages in the Greystar project and Freedom Circle. No other new roads or modifications to existing roads in the Plan Area are currently proposed.

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[1]Cary Greene, Airport Planner, City of San Jose Airport Department, email dated July 13, 2020, to John Davidson, Principal Planner, City of Santa Clara Community Development Department.

[2]Comprehensive Land Use Plan for the Norman Y. Mineta San Jose International Airport, adopted May 25, 2011 and amended November 16, 2016.

[3]Jake Tomlin, Fire Marshal-Battalion Chief, City of Santa Clara Fire Department, email dated June 2, 2020, to Rebecca Bustos, Senior Planner, City of Santa Clara Community Development Department.

FIGURE 10.1: AIRPORT INFLUENCE AREA & AIRPORT HEIGHT RESTRICTIONS

Freedom Circle Focus Area Plan

- Study Area Parcel
- Greystar Project Site
- City Boundary
- Creeks/Water Bodies
- Airport Influence Area

Plan Area Intersections:
40- Great America Parkway & Patrick Henry Drive
41- Patrick Henry Drive & Old Ironside Drive

N

0 750 1,500 3,000 Feet

The City, in partnership with other cities and the County, participated in the development of the Santa Clara County Operational Area Hazard Mitigation Plan (Hazard Mitigation Plan) (October 2017), a multi-jurisdictional hazard mitigation plan tailored to the Santa Clara County Operational Area. The Hazard Mitigation Plan includes a dedicated annex for each planning partner; Annex L, the "City of Santa Clara Emergency Operations Plan," is the component specific to the City of Santa Clara.[1] The City of Santa Clara Emergency Operations Plan (EOP) describes the mitigation actions and strategies comprising the City's hazard mitigation plan and provides organizational guidance for City responses to emergency situations. The hazard mitigation plan categorizes actions by seven mitigation types (prevention, property protection, public education and awareness, natural resource protection, emergency services, structural projects, and climate resilience) that are or would be implemented before, during, or after a natural or man-made disaster from earthquake, severe weather, flood, dam and levee failure, drought, landslide, and wildfire.[2] The EOP also identifies the legal and regulatory standing available to the City for ensuring that these hazard mitigations are addressed, such as the City's General Plan, Climate Action Plan, and City Code; State building codes and Government and Civil Code statutes; Water Board and regional pollution prevention plans; and other related policy documents and plans. Each EIR topic chapter (under the "Regulatory Setting" section) identifies the plans and policies with which the Focus Area Plan and subsequent comprehensive planning study (such as a specific plan) would be required to comply, and chapter 19, Consistency with Adopted Plans and Policies, of this EIR also discusses the Plan's consistency with adopted local and regional plans.

In addition, the SCFD participates in the City's Community Emergency Response Team (CERT) program, which provides education and training to its volunteer members to assist in keeping families, homes, neighborhoods, and workplaces secure during a major disaster. Training includes basic response skills such as medical care, utility control, building damage assessment, fire suppression, and search and rescue operations.[3]

As discussed above, emergency access points in the Plan Area include Great America Parkway, Patrick Henry Drive, Mission College Boulevard, Hichborn Drive, and Agnew Road. Future individual projects would be required to comply with the California Fire Code and SCFD access standards.[4] Also, when responding to Code 3 service calls (e.g., "lights and sirens"), the Fire Department has transponders in their lights/sirens to activate traffic signals to red in all four directions.

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[1]Office of Emergency Services, County of Santa Clara & Santa Clara County Fire, Santa Clara County Operational Area Hazard Mitigation Plan, October 15, 2017.

[2]City of Santa Clara, Santa Clara County Operational Area Hazard Mitigation Plan; Volume 2 – City of Santa Clara Emergency Operations Plan (Annex L), October 15, 2017.

[3]City of Santa Clara, CERT (Community Emergency Response Team), available at: https://www.santaclaraca.gov/our-city/departments-a-f/fire-department/community-resources/cert-community-emergency-response-team, accessed 3/5/20.

[4]Carolyn McDowell, Management Analyst, City of Santa Clara Police Department, email dated June 11, 2020, to Rebecca Bustos, Senior Planner, City of Santa Clara Community Development Department; Jake Tomlin, Fire Marshal-Battalion Chief, City of Santa Clara Fire Department, email dated June 2, 2020, to Rebecca Bustos, Senior Planner, City of Santa Clara Community Development Department.

10.1.4 Wildfire Hazards

The City of Santa Clara is in a Local Responsibility Area (LRA) for wildland fire protection. As mapped by CAL FIRE,[1] the City is in a non-Very High Fire Hazard Severity Zone (VHFHSZ). In addition, the City has determined that it does not have terrain or vegetation conducive to wildfires.[2]

10.2 REGULATORY SETTING

10.2.1 Federal

U.S. Environmental Protection Agency. The U.S. Environmental Protection Agency (EPA) is the primary federal agency that regulates hazardous materials and waste. The agency is responsible for researching and setting national standards for a variety of environmental programs and delegates to states and Native American tribes the responsibility for issuing permits and for monitoring and enforcing compliance. EPA programs promote handling hazardous wastes safely, cleaning up contaminated land, and reducing waste volumes through such strategies as recycling. EPA Region 9 has authority in the Bay region for (1) regulating chemical and hazardous materials use, storage, treatment, handling, transport, and disposal practices; (2) protecting workers and the community (along with Cal/OSHA, see below); and (3) integrating the federal Clean Water Act and Clean Air Act into California legislation. Under the authority of RCRA, and in cooperation with State and tribal partners, the EPA Region 9 Waste Management and Superfund Divisions manage programs for site environmental assessment and cleanup, hazardous and solid waste management, and underground storage tanks.

U.S. Department of Transportation. The U.S. Department of Transportation (DOT) governs transportation of chemicals and hazardous materials under Title 49 of the Code of Federal Regulations (CFR). DOT stipulates the types of containers, labeling, and other restrictions to be used in the movement of such material on interstate highways. Under the Hazardous Materials Transportation Act and the Hazardous Materials Transportation Uniform Safety Act, State agencies that have primary responsibility for enforcing federal and State regulations and responding to hazardous materials transportation emergencies are the California Highway Patrol and the California Department of Transportation (Caltrans).

Federal Aviation Administration. The Federal Aviation Administration (FAA) provides regulations controlling land use in airport vicinities, as stipulated in Federal Aviation Regulations (FAR) Part 77, Safe, Efficient Use and Preservation of the Navigable Airspace. These regulations require that any proposed new construction or expansion of existing structures that would penetrate any of the FAR Part 77 based "imaginary" horizontal and sloping navigational surfaces for airports would be deemed incompatible unless specifically determined otherwise by the FAA. Projects that plan construction or alterations which may affect navigable airspace are required to file notice with the FAA.

[1]CAL FIRE, Very High Fire Hazard Severity Zones in LRA As Recommended by CAL FIRE, October 8, 2008.

[2]2010-2035 General Plan, November 16, 2010.

Occupational Safety and Health Administration. The Occupational Safety and Health Administration (OSHA) oversees administration of the Occupational Safety and Health Act, which requires specific training for hazardous materials handlers, provision of information to employees who may be exposed to hazardous materials, and acquisition of material safety data sheets (MSDS) from materials manufacturers. Material safety data sheets describe the risks and proper handling and procedures related to particular hazardous materials. Employee training must include response and remediation procedures for hazardous materials releases and exposures.

Resource Conservation and Recovery Act (RCRA) of 1976, as Amended by the Hazardous and Solid Waste Amendments of 1984. Federal hazardous waste laws are generally promulgated under the RCRA. Any business, institution, or other entity that generates hazardous waste is required to identify and track its hazardous waste from the point of generation until it is recycled, reused, or disposed. The Act also sets forth a framework for managing nonhazardous solid wastes.

Comprehensive Environmental Response, Compensation, and Liability Act and the Superfund Amendments and Reauthorization Act of 1986. Congress enacted the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly known as Superfund, on December 11, 1980. CERCLA established prohibitions and requirements concerning closed and abandoned hazardous waste sites, provided for liability of persons responsible for releases of hazardous waste at these sites, and established a trust fund to provide for cleanup when no responsible party could be identified.

Emergency Planning Community Right-to-Know Act. The Emergency Planning Community Right-to-Know Act (EPCRA), also known as Superfund Amendments and Reauthorization Act (SARA) Title III, was enacted in October 1986. This law requires any infrastructure at the State and local levels to plan for chemical emergencies. In California, SARA Title III is implemented through the California Accidental Release Program (CalARP). The State of California has delegated local oversight authority of the CalARP program to the County of Santa Clara.

National Response Framework. The 2019 National Response Framework, published by the Department of Homeland Security, is a guide to how the Nation responds to all types of disasters and emergencies. The Framework describes specific authorities and best practices for managing incidents that range from serious local to large-scale terrorist attacks or catastrophic natural disasters. In addition, the Framework describes the principles, roles, responsibilities, and coordinating structures for responding to an incident and further describes how response efforts integrate with those of the other mission areas.

10.2.2 State

California Environmental Protection Agency/Office of Emergency Services. The California Environmental Protection Agency (CalEPA) establishes regulations governing the use of hazardous materials in the State in order to restore, protect, and enhance the environment; and to ensure public health, environmental quality, and economic vitality. The Office of Emergency Services (OES) coordinates State and local agencies and resources for educating, planning, and warning citizens of hazardous materials and related emergencies, including organized response efforts in case of emergencies. CalEPA also oversees the unified hazardous waste and hazardous materials management regulatory program (Unified Program).

California Department of Transportation. The California Department of Transportation (Caltrans) manages more than 50,000 miles of California's highway and freeway lanes, provides inter-city rail services, permits more than 400 public-use airports and special-use hospital heliports, and works with local agencies. Caltrans is also the first responder for hazardous material spills and releases that occur on those highway and freeway lanes and inter-city rail services.

California Occupational Safety and Health Administration. The California Occupational Safety and Health Administration (Cal/OSHA) is responsible for promulgating and enforcing State health and safety standards and implementing federal OSHA laws. For example, Cal/OSHA's regulatory purview includes provisions to minimize the potential for release of asbestos and lead during construction and demolition activities.

California Health and Safety Code. California Health and Safety Code (H&SC) Division 20, Chapter 6.95, and Title 19 of the California Code of Regulations, Section 2650 et seq., set out the minimum requirements for business emergency plans and chemical inventory reporting. These regulations require businesses to provide emergency response plans and procedures, training program information, and a hazardous material chemical inventory disclosing hazardous materials stored, used, or handled on site. A business which uses hazardous materials or a mixture containing hazardous materials must establish and implement a business plan if the hazardous material is handled in certain quantities. California H&SC, Division 20, Chapter 6.8 also provides for entering into enforceable agreements for sites requiring corrective action to remove the threat of a hazardous substance release, or to determine the nature and extent of the release and prepare and implement a remedial action plan. The procedures for a variance or for removing or rescinding any easement, covenant, or similar restriction imposed on a property due to its hazardous substance status are specified in H&SC Sections 25233 and 25234.

California Department of Toxic Substances Control. The California Department of Toxic Substances Control (DTSC), which is a department of CalEPA, is authorized to carry out the federal RCRA hazardous waste program in California to protect people from exposure to hazardous wastes. The department regulates hazardous waste, cleans up existing contamination, and looks for ways to control and reduce the hazardous waste produced in California, primarily under the authority of RCRA and in accordance with the California Hazardous Waste Control Law (California H&SC Division 20, Chapter 6.5) and the Hazardous Waste Control Regulations (Title 22, California Code of Regulations [CCR], Divisions 4 and 4.5). Permitting, inspection, compliance, and corrective action programs ensure that people who manage hazardous waste follow federal and State requirements and other laws that affect hazardous waste specific to handling, storage, transportation, disposal, treatment, reduction, cleanup, and emergency planning.

State Water Resources Control Board. The State Water Resources Control Board (State Water Board) is authorized to implement the Local Oversight Program (LOP) for the abatement, and oversight of the abatement, by certified local agencies of unauthorized releases of hazardous substances from underground storage tanks (USTs), and maintains a system for storing and retrieving data pertaining to the remediation of unauthorized releases from USTs. The State Water Board is required to notify the appropriate Regional Water Quality Control Board before certifying, denying certification, or withdrawing certification of an agency.

San Francisco Regional Water Quality Control Board. One of nine regional boards in California, the San Francisco Bay Regional Water Quality Control Board (RWQCB): (1) protects surface and groundwater quality from toxic contamination and pollutants discharged or threatened to be discharged to the Waters of the State; (2) regulates public water systems; and (3) enforces the federal and State Safe Drinking Water acts through the Drinking Water Program. The RWQCB issues and enforces National Pollutant Discharge Elimination System (NPDES) permits and regulates leaking underground storage tanks (LUSTs) and other sources of groundwater contamination.

Standardized Emergency Management System Chapter 2, Division 2, Title 19 of the California Code of Regulations. The standardized Emergency Management System (SEMS) is intended to standardize responses to emergencies involving multiple jurisdictions or multiple agencies. SEMS requires that emergency response agencies use basic principles and components of emergency management, multi-agency or inter-agency coordination, the operational area concept, and established mutual aid systems. Local government must use SEMS in order to be eligible for State funding of response-related personnel costs.

California Disaster and Civil Defense Master Mutual Aid Plan. The California Disaster and Civil Defense Master Mutual Aid Plan outlines policies, procedures, and authorities for provision of emergency management personnel from unaffected jurisdictions to support affected jurisdictions during an emergency event, in accordance with the Master Mutual Aid Agreement. The Master Mutual Aid Agreement establishes that jurisdictions should voluntarily aid and assist each other in the event that a disaster should occur, by the interchange of services and facilities, including, but not limited to, fire, police, medical and health, communication, and transportation services and facilities.

State Emergency Plan. In 2009, the California State Emergency Plan was adopted to address the State's response to extraordinary emergency situations associated with natural disasters or human-caused emergencies. The State Emergency Plan describes the methods for carrying out emergency operations, the process for rendering mutual aid, the emergency services of governmental agencies, and how the public will be informed during an emergency or disaster. The Plan was updated in 2017.

California Department of Forestry and Fire Protection. The California Department of Forestry and Fire Protection (CAL FIRE) protects life and property through fire prevention engineering programs, law and code enforcement and education. CAL FIRE identifies areas within Local Responsibility Areas and recommends fire hazard severity zones; CAL FIRE designates fire hazard severity zones for areas within State Responsibility Areas. The Freedom Circle Focus Area Plan area is in a Local Responsibility Area and is not in a fire hazard zone.

10.2.3 Regional

Bay Area Air Quality Management District. The Bay Area Air Quality Management District (BAAQMD) regulates the demolition and renovation of buildings and structures that may contain asbestos, and the manufacture of materials known to contain asbestos. The BAAQMD is vested with authority to regulate airborne pollutants through both inspection and law enforcement, and is to be notified 10 days in advance of any proposed demolition or abatement work. BAAQMD regulations must always be followed when removing asbestos or demolishing buildings.

Santa Clara County Airport Land Use Commission. The Santa Clara County Airport Land Use Commission (ALUC) reviews proposals for general plans, specific plans, zoning ordinances, and land use development proposals in the vicinity of Norman Y. Mineta San Jose International Airport to ensure that future land uses in the surrounding area remain compatible with the realistically foreseeable, ultimate potential aircraft activity. This review is based on the Comprehensive Land Use Plan, Santa Clara County, Norman Y. Mineta San Jose International Airport, adopted May 25, 2011 (amended November 16, 2016). The Comprehensive Land Use Plan sets forth land use compatibility criteria, compatibility zones, development standards, and policies pertaining to noise, safety, airspace protection, and overflight standards, and establishes the planning boundaries that define height, tall structures, noise, and safety zones for policy implementation. The Land Use Plan also includes areas within which notification of airport proximity is required as part of real estate transactions.

10.2.4 City of Santa Clara

Santa Clara General Plan. The General Plan addresses protecting residents and businesses from natural and man-made hazards (including exposure to hazardous materials and remediation for existing and future development) and emergency planning and preparedness. Applicable General Plan policies include:

- Policy 5.3.5-P7: Require building heights to conform to the requirements of the Federal Aviation Administration, where applicable.
- Policy 5.3.5-P19: Restrict the use and storage of hazardous materials for industrial uses within 500 feet of existing residential uses.
- Policy 5.10.1-P10 Promote the reduction, recycling and safe disposal of household hazardous wastes through public education and awareness and through an increase in hazardous waste collection events.
- Policy 5.10.2-P3: Encourage implementation of technological advances that minimize public health hazards and reduce the generation of air pollutants.
- Policy 5.10.5-P1: Use the City's Local Hazard Mitigation Plan as the guide for emergency preparedness in Santa Clara.
- Policy 5.10.5-P22: Regulate development on sites with known or suspected contamination of soil and/or groundwater to ensure that construction workers, the public, future occupants and the environment are adequately protected from hazards associated with contamination, in accordance with applicable regulations.
- Policy 5.10.5-P23: Require appropriate clean-up and remediation of contaminated sites.
- Policy 5.10.5-P24: Protect City residents from the risks inherent in the transport, distribution, use and storage of hazardous materials.
- Policy 5.10.5-P25: Use Best Management Practices to control the transport of hazardous substances and to identify appropriate haul routes to minimize community exposure to potential hazards.

- Policy 5.10.5-P26: Survey pre-1980 buildings and abate any lead-based paint and asbestos prior to structural renovation and demolition, in compliance with all applicable regulations.

- Policy 5.10.5-P29: Continue to refer proposed projects located within the Airport Influence Area to the Airport Land Use Commission.

- Policy 5.10.5-P32: Encourage all new projects within the Airport Influence Area to dedicate an avigation easement.

- Policy 5.10.5-P33: Limit the height of structures in accordance with the Federal Aviation Administration Federal Aviation Regulations, FAR Part 77 criteria.

Santa Clara City Code. As provided in City Code chapter 15.60 (Municipal Fire and Environmental Code), the City assumes authority and responsibility within the city for the California Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (Unified Program), as established by Health and Safety Code, Division 20, Chapter 6.11, Section 25404 et seq., including administration and enforcement of six state-mandated hazardous materials management programs in the City and coordination with other agencies as appropriate, in compliance with State and federal law. The SCFD Fire Prevention/Hazardous Materials Division is the Certified Unified Program Agency (CUPA) for the City of Santa Clara, and is responsible for implementing programs related to Hazardous Materials Management Plans/Business Plans (HMBP), aboveground storage tanks and underground storage tanks, hazardous waste generators and on-site treatment of hazardous wastes, and the California Accidental Release Prevention Program (CalARP).

10.3 IMPACTS AND MITIGATION MEASURES

This section describes potential impacts related to hazards and hazardous materials that could result from Freedom Circle Focus Area Plan/Greystar General Plan Amendment implementation, and discusses components of the Plan that would avoid or reduce those potential impacts.

10.3.1 Significance Criteria

Based on the CEQA Guidelines,[1] implementation of the Freedom Circle Focus Area Plan/ Greystar General Plan Amendment would have a significant impact related to hazards and hazardous materials if it would:

(a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;

(b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;

[1]CEQA Guidelines, appendix G, items IX (a through g).

(c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;

(d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code § 65962.5 and, as a result, would create a significant hazard to the public or the environment;

(e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the Plan Area;

(f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; or

(g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires.

Regarding criterion (f), see section 10.1.3 (Emergency Response) above. Because future development would be required to comply with the plans and policies identified in the City's Hazard Mitigation Plan/Emergency Operations Plan, neither the Focus Area Plan (including the Greystar project) nor the comprehensive planning study required to allow development in the Plan Area would interfere with this plan. The impact would therefore be less-than-significant, and this issue is not discussed further in this chapter. EIR chapter 17 (Transportation, section 17.3.3 – Impacts and Mitigation Measures) discusses emergency access to and within the Plan Area.

Regarding criterion (g), and as described above in section 10.1.4 (Wildfire Hazards), the City of Santa Clara is in a Local Responsibility Area (LRA) for wildland fire protection. As mapped by CAL FIRE,[1] the city is in a non-Very High Fire Hazard Severity Zone (VHFHSZ). In addition, the City has determined that it does not have terrain or vegetation conducive to wildfires. The Plan Area is not within, adjacent to, or near any Extreme or High wildfire risk areas. No impact would result, and this issue is not discussed further in this chapter. Fire protection in the Plan Area is discussed in chapter 15 (Public Services) of this EIR.

10.3.2 Relevant Freedom Circle Focus Area Plan Components

Section 10.2 (Regulatory Setting), above, applies to Focus Area Plan implementation. Because adopted regulations and requirements are already in place, the Plan does not include components that directly address CEQA-defined hazards and hazardous materials.

10.3.3 Impacts and Mitigations

Impact 10-1: Project-Related Potential Impacts Due to Hazardous Materials Transport, Use, Storage, and Disposal—Plan Area. The proposed land uses anticipated to be permitted under the Focus Area Plan and the future comprehensive planning study (e.g., specific plan) are not expected to involve the routine transport, use, storage, or disposal of hazardous materials to the extent that a significant public or environmental hazard would occur. Operations in the Plan

[1]CAL FIRE, Very High Fire Hazard Severity Zones in LRA As Recommended by CAL FIRE, October 8, 2008.

Area would be expected to involve the occasional transport, use, storage, or disposal of common hazardous substances such as fuel, paint, and solvents. These normal activities would be subject to applicable local, State, and federal regulations. Construction of future project proposals under the comprehensive planning study (e.g., specific plan) would likely involve the intermittent transport, use, and disposal of potentially hazardous materials, including fuels and lubricants, paints, solvents, and other materials commonly used in construction and maintenance. During construction activities, any on-site hazardous materials that may be used, stored, or transported would also be subject to applicable local, State, and federal regulations that require standard protocols (as determined by the U.S. EPA, California Department of Health and Safety, Santa Clara County, and the City) for maintaining health and safety.

All land uses are subject to applicable provisions of the City's Municipal Code and would also be subject to the comprehensive planning study (e.g., specific plan), as well as the "Regulatory Setting" in section 10.2 above.

With implementation of adopted, standard procedures and regulations, the potential for associated hazardous materials impacts would be ***less-than-significant*** (see criterion [a] in subsection 10.3.1, "Significance Criteria," above).

Mitigation 10-1. No significant impact has been identified; no mitigation is required.

Impact 10-2: Project-Related Potential Impacts Due to Hazardous Materials Transport, Use, Storage, and Disposal—Greystar Project. The proposed Greystar project land use is not expected to involve the routine transport, use, storage, or disposal of hazardous materials to the extent that a significant public or environmental hazard would occur. Project operations may involve the occasional transport, use, storage, or disposal of common hazardous substances such as fuel, paint, and solvents (including standard household cleaning supplies such as those for use with the common areas, pools, spas, etc.); however, these normal activities would be subject to applicable local, State, and federal regulations. Construction of project buildings, the park, and related infrastructure (including the pedestrian path connecting to the San Tomas Aquino Creek Trail) would likely involve the intermittent transport, use, and disposal of potentially hazardous materials, including fuels and lubricants, paints, solvents, and other materials commonly used in construction and maintenance. During construction activities, any on-site hazardous materials that may be used, stored, or transported would also be subject to applicable local, State, and federal regulations that require standard protocols (as determined by the U.S. EPA, California Department of Health and Safety, Santa Clara County, and the City) for maintaining health and safety. (See Impact 10-4 below related to the site contamination clean-up currently being undertaken with DTSC supervision.)

Project land uses are subject to applicable provisions of the City's Municipal Code and would need to comply with the future comprehensive planning study (e.g., specific plan) provisions, as well as the "Regulatory Setting" in section 10.2 above.

With implementation of adopted, standard procedures and regulations, the potential for associated hazardous materials impacts would be ***less-than-significant*** (see criterion [a] in subsection 10.3.1, "Significance Criteria," above).

Mitigation 10-2. No significant impact has been identified; no mitigation is required.

Impact 10-3: Potential Exposure to Existing Hazardous Materials Contamination—Plan Area. There is always a possibility that new construction could encounter contamination and expose construction workers to existing spilled, leaked, or otherwise discharged hazardous materials or wastes (e.g., see Table 10-1 in the "Setting," above). Each project applicant in the Plan Area would be required to comply with all applicable, existing City-, County-, regional-, and State-mandated site assessment, remediation, removal, and disposal requirements for soil, surface water, and/or groundwater contamination, as described in the "Regulatory Setting" (section 10.2) above. Compliance with these established requirements would prevent exacerbation of existing contamination or accidental release, and ensure that this possible health and safety impact would be *less-than-significant.*

Typically, implementation of these standard procedures would involve the following steps. As explained above, these steps are consistent with standard procedures required as part of City-, County-, regional-, and State-mandated requirements. The steps are not considered additional mitigations required by this EIR because the steps are existing development standards applied uniformly to all applicable projects.

(a) Soil Contamination. In order to avoid or substantially reduce potential health hazards related to construction personnel or future occupant exposure to soil contamination, as well as to prevent accidental release to surrounding areas, project applicants would complete the following steps for each site proposed for disturbance as part of construction activity in the Plan Area:

Step 1. Investigate the site to determine whether it has a record of hazardous material discharge into soils, and if so, characterize the site according to the nature and extent of soil contamination that is present before development activities proceed at that site.

Step 2. Based on the proposed activities associated with the proposed project, determine the need for further investigation and/or remediation of the soils conditions on the contaminated site. For example, if the site is slated for commercial land use, such as retail, the majority of the site will be paved and there will be little or no contact with contaminated soil. Industrial cleanup levels would likely be applicable. If the slated development activity could involve human contact with soils, such as may be the case with residential use, then Step 3 should be completed. If no human contact is anticipated, then no further mitigation is necessary.

Step 3. If it is determined that extensive soil contact would accompany the intended use of the site, undertake a Phase II Environmental Assessment investigation, involving soil sampling at a minimum, at the expense of the project applicant, property owner, or responsible party. Should further investigation reveal high levels of hazardous materials in the site soils, mitigate health and safety risks according to City of Santa Clara and regulatory agency requirements. This would include site-specific health and safety plans prepared prior to undertaking any building or utility construction. Also, if buildings are situated over soils that are significantly contaminated, undertake measures to either remove the chemicals or prevent contaminants from entering and collecting within the building. If remediation of contaminated soil is infeasible, a deed restriction would be necessary to limit site use and eliminate unacceptable risks to health or the environment.

(b) Surface or Groundwater Contamination. In order to reduce potential health hazards due to construction personnel or future occupant exposure to surface water or groundwater

contamination, or accidental transmission to other properties, project applicants would complete the following steps for each site proposed for disturbance as part of construction activity in the Plan Area:

Step 1. Investigate the site to determine whether it has a record of hazardous material discharge into surface or groundwater, and if so, characterize the site according to the nature and extent of contamination that is present before development activities proceed at that site.

Step 2. Install drainage improvements in order to prevent transport and spreading of hazardous materials that may spill or accumulate on-site.

Step 3. If investigations indicate evidence of chemical/environmental hazards in site surface water and/or groundwater, then measures acceptable to the City and the other applicable regulatory agencies would be required to ensure the site is properly remediated prior to development activity.

Step 4. Inform construction personnel of the proximity to recognized contaminated sites and advise them of health and safety procedures to prevent exposure to hazardous chemicals in surface water/groundwater.

Implementation of these required, standard procedures would result in a ***less-than-significant impact*** associated with potential soil and surface/groundwater contamination. (see criterion [b] in subsection 10.3.1, "Significance Criteria," above).

Mitigation 10-3. No significant impact has been identified; no mitigation is required.

Impact 10-4: Potential Exposure to Existing Hazardous Materials Contamination—Greystar Project. As discussed in section 10.1.1(f), "Greystar Project Site--2015 Environmental Site Assessments," the Greystar project site has been the subject of environmental evaluation and cleanup activities since purchase of the property by Intel in 1997. Compliance with applicable, existing City-, County-, regional-, and State-mandated site assessment, remediation, removal, and disposal requirements for soil contamination has been an ongoing process. The project site is currently in the voluntary clean-up program administered by the California Department of Toxic Substances Control (DTSC), with a land use covenant (deed restriction) restricting most soil-disturbing activities[1] and prohibiting residential and other land uses.[2] Until the land use covenant is formally removed (terminated) or modified to allow development of the project site, no grading permit would be issued by the City.

The 2003 Removal Action Workplan (2003 RAW) prepared by Weiss Associates evaluated several options for managing the contaminated soils on the site, including excavation (e.g., onsite reuse of site soils, excavation and offsite disposal, complete excavation); an Engineered Cap and Institutional Controls (e.g., deed restriction, operation and management plan, soil

[1]As discussed in the Soil Management Plan, some limited soil-disturbing activities that would be allowed, with prior notice to DTSC, could include grading, in-filling, trenching, excavation, paving, or re-paving, contingent upon restoration of the engineered cap upon completion; these activities would also be restricted to within one foot to two feet below grade (depending on the particular location on the site).

[2]These would include use for a school, hospital, hospice, or daycare center.

management plan health and safety plan); and no remedial action. The 2003 RAW recommended the engineered Cap and Institutional Controls option, which was accepted by Intel and approved by DTCS,[1] and is currently in place.

For continued cleanup of the site, excavation of contaminated soil would include segregating and stockpiling the soil for an initial test to determine if any excavated soil would be clean enough for use as backfill. Then the remaining excavated soil would undergo waste characterization sampling to determine the proper method of disposal (i.e., disposed as non-hazardous, California waste, or RCRA[2] hazardous waste). The soil management plan includes procedures for stockpiling excavated soil to reduce potential stormwater runoff and prevent fugitive dust. And the health and safety plan outlines procedures and requirements for workers during excavation and similar activities to reduce health risk from possible exposure to contaminated soils.

Off-site transportation of hazardous waste, if necessary, would be determined based on the soil waste characterization. If hazardous waste, those soils would only be permitted at a Class I landfill, such as Kettleman Hills Hazardous Waste Facility, which is approximately 175 miles from the project site.[3] Otherwise, Class II landfills may accept "designated" and nonhazardous wastes. (Class III landfills may accept nonhazardous municipal wastes.) Off-site transportation would require a DTSC-registered hazardous materials transporter, and the transporter would be required to comply with the provisions set forth in Health & Safety Code and California Code Regulations (CCR), title 22 (administered by DTSC), in addition to other state (Caltrans) and federal (Department of Transportation, U.S. EPA) regulations. California requires transporters to meet standards related to possible discharge or spill of hazardous waste occurs during transport; record-keeping requirements (e.g., manifests); insurance; and specifications related to the vehicles, including use of covered containers for wastes that could be dispersed by wind.

Project site excavation of contaminated soils and off-site disposal activities would need to be approved by DTSC and coordinated with the Santa Clara Fire Department Fire Prevention & Hazardous Materials Division (CUPA), the State Water Resources Control Board, the Bay Area Air Quality Management District, and the Santa Clara County Department of Environmental Health.

These mandatory site remediation activities, as identified in the Removal Action Workplan and supporting plans, studies, and documents, in accordance with City of Santa Clara and other regulatory agency requirements pertaining to handling, transportation, and disposal of contaminated soils as discussed previously, would reduce potential exposure to existing hazardous materials contamination and prevent exacerbation of existing contamination or accidental release. In addition, as a standard regulatory protocol, the deed restriction would need to be amended or rescinded by DTSC in order for the Intel Freedom Circle Site (Greystar site) to be considered suitable for residential use. Implementation of these procedures and the

[1]Weiss Associates, "Final Removal Action Workplan for Intel Freedom Circle, Santa Clara, California," October 8, 2003; https://www.envirostor.dtsc.ca.gov/public/profile_report.asp?global_id=43010028, accessed 8/5/2020.

[2]RCRA = Resource Conservation and Recovery Act (see section 10.2.1, Regulatory Setting, for a description of this federal law).

[3]Potential impacts related to off-site truck hauling effects on air quality are discussed in chapter 5, Air Quality, of this EIR.

legally mandated requirement of amending or rescinding the deed restriction would result in a ***less-than-significant impact*** associated with potential soil and surface/groundwater contamination (see criterion [b] in subsection 10.3.1, "Significance Criteria," above).

Mitigation 10-4. No significant impact has been identified; no mitigation is required.

Impact 10-5: Project-Related Potential Asbestos and PCB Exposure—Plan Area. Removal or disturbance of asbestos-containing material (ACM) and/or transformers during alteration, renovation, or demolition of existing structures within the Plan Area could expose construction workers and the general public to friable asbestos and/or polychlorinated biphenyls (PCBs). Therefore, as a condition of alteration, renovation, or demolition permit approval for buildings within the Plan Area, the City requires the project applicant to coordinate with the Bay Area Air Quality Management District (BAAQMD) to determine if ACM and/or PCBs are present, in conformance with BAAQMD established protocols and consistent with the explanation below.

Ensuring proper identification and removal of ACM and PCBs requires each project applicant to complete the following steps. As explained above ("Project-Related Potential Exposure to Existing Hazardous Materials Contamination"), these steps are standard procedures required as part of City-, County-, regional-, and State-mandated requirements; the steps are not additional mitigations required by this EIR.

Step 1. Thoroughly survey the project site and existing structures for the presence of ACM and PCBs. The survey shall be performed by a person who is properly certified by the Occupational Safety and Health Administration (OSHA) and has taken and passed an Environmental Protection Agency (EPA) approved building inspector course.

Step 2. If building elements containing any amount of ACM or PCBs are present, prepare a written ACM/PCB Abatement Plan describing activities and procedures for removal, handling, and disposal of these building elements using the most appropriate procedures, work practices, and engineering controls.

Step 3. Provide the ACM and PCB survey findings, the written ACM/PCB Abatement Plan (if necessary), and notification of intent to demolish to the City, BAAQMD, and SCDRM at least ten days prior to commencement of demolition.

Step 4. Remove any on-site transformers prior to demolition of buildings.

Implementation of these required, standard procedures would result in a ***less-than-significant impact*** associated with potential ACM and PCB exposure (see criterion [b] in subsection 10.3.1, "Significance Criteria," above).

Mitigation 10-5. No significant impact has been identified; no mitigation is required.

Impact 10-6: Project-Related Potential Asbestos and PCB Exposure—Greystar Project. As discussed in section 10.1.1(f), "Greystar Project Site--2015 Environmental Site Assessments," the Greystar project site does not contain buildings requiring demolition; however, there is a "plexiglass" and metal frame bus shelter that would be removed. As discussed in Impact 10-5, the City would require the project, as a condition of demolition permit

approval, to coordinate with the Bay Area Air Quality Management District (BAAQMD) to determine if ACM and/or PCBs are present, in conformance with BAAQMD established protocols and consistent with the explanation above. Implementation of these procedures, to the satisfaction of the City and BAAQMD, would reduce impacts associated with potential ACM and PCB exposure to ***less than significant*** (see criterion [b] in subsection 10.3.1, "Significance Criteria," above).

Mitigation 10-6. No significant impact has been identified; no mitigation is required.

Impact 10-7: Project-Related Potential Lead-Based Paint Exposure—Plan Area. If lead-based paint is present and has delaminated (split into thin layers) or chipped from surfaces, airborne lead particles could be released during alteration, renovation, or demolition of existing structures within the Plan Area. California OSHA (CalOSHA) regulations would be applied, and each site-specific project would implement the following standard, mandatory procedures in accordance with those CalOSHA regulations:

- Notify the City's Building and Fire Safety Division prior to starting work, describing the nature, location, and schedule of the work;
- Post a sign at all work locations where lead containment is required, stating that lead-based paint abatement is in progress and public access is prohibited;
- Notify the tenant(s) where the lead-based paint abatement work will be performed on a residential property occupied by one or more tenants; and
- Notify the property owner when work on a residential project will disturb lead-based paint.

Lead abatement performance standards are included in the *Guidelines for Evaluation and Control of Lead-Based Paint Hazards* (U.S. Department of Housing and Urban Development). Accordingly, HEPA vacuums may be required for abrasive blasting, water blasting, scraping, or sanding. Burning, torching, and similar activities are prohibited. Following completion of lead-based paint abatement, all visible lead-based paint particles must be removed from the site.

The City may inspect lead-based paint abatement activities at any time during construction. These personnel are also responsible for addressing citizen complaints related to lead-based paint abatement activities and may issue a Notice of Violation, a Stop Work order, or a fine.

Implementation of these required, standard procedures would result in a ***less-than-significant impact*** associated with potential lead-based paint exposure (see criterion [b] in subsection 10.3.1, "Significance Criteria," above).

Mitigation 10-7. No significant impact has been identified; no mitigation is required.

Impact 10-8: Project-Related Potential Lead-Based Paint Exposure—Greystar Project. As discussed in section 10.1.1(f), "Greystar Project Site--2015 Environmental Site Assessments," the Greystar project site does not contain buildings requiring demolition; however, there is a "plexiglass" and metal frame bus shelter that would be removed. As discussed in Impact 10-7, if lead paint is present, then the project would be required to notify the City's Building and Fire

Safety Division prior to starting work, and would need to follow the CalOSHA protocols described above. Implementation of these procedures, to the satisfaction of the City would reduce impacts associated with potential lead-based paint exposure to ***less than significant*** (see criterion [b] in subsection 10.3.1, "Significance Criteria," above).

Mitigation 10-8. No significant impact has been identified; no mitigation is required.

Impact 10-9: Potential for Hazardous Materials Near Schools—Plan Area. See the impact discussions above. Mission College is located within one-quarter mile of the Plan Area and nine of the sites listed in Table 10-1 are within one-quarter mile of Mission College; however, the proposed land uses anticipated to be permitted under the Focus Area Plan and the future comprehensive planning study (e.g., specific plan) are not expected to involve the routine transport, use, storage, or disposal of hazardous materials to that extent that a significant public or environmental hazard would occur. In addition, as discussed in Impact 10-1 above, although future construction under the comprehensive planning study would be likely to involve the intermittent transport, use, storage, and disposal of potentially hazardous materials, including fuels and lubricants, paints, solvents, and other materials commonly used in construction and maintenance, these projects would be required to comply with applicable local, State, and federal regulations. Also, the regulatory requirements described above (section 10.2) would be implemented as applicable. Specific to schools, State regulations on the siting of hazardous materials facilities limit their location in proximity to schools; conversely, CEQA (section 21151.8, School Site Acquisition or Construction) and other State regulations impose restrictions on where new schools can be constructed. The impact of hazardous materials on schools would be ***less-than-significant*** (see criterion [c] in subsection 10.3.1, "Significance Criteria," above).

Mitigation 10-9. No significant impact has been identified; no mitigation is required.

Impact 10-10: Potential for Hazardous Materials Near Schools—Greystar Project. See the impact discussions above. There are no existing schools within one-quarter mile of the Greystar project site. The closest schools are Bracher and Hughes Elementary schools, both approximately 1.2 miles from the site. Therefore, hazardous materials impact on schools would be ***less-than-significant*** (see criterion [c] in subsection 10.3.1, "Significance Criteria," above).

Mitigation 10-10. No significant impact has been identified; no mitigation is required.

Impact 10-11: Protocols for Government Code Section 65962.5 Sites—Plan Area. The California Department of Toxic Substances Control (DTSC) maintains the EnviroStor database, which lists and includes data on hazardous materials sites compiled pursuant to Government Code section 65962.5 (Cortese List). Such sites are regulated by DTSC because hazardous materials investigations and/or cleanup actions are planned, active, or have been completed at these sites (see Table 10-1 under "Setting," above). A review of the Cortese List data resources conducted on April 1 and 2, 2020 indicated two sites in the Plan Area on the Cortese List data resources (see section 10.1.1, Hazardous Materials, above): Intel Freedom Circle, 3935 Freedom Circle, and Fire Station #8, 2400 Agnew Road.

For 3935 Freedom Circle (listed as including three parcels), two of the parcels now comprise the Greystar project site, which is discussed in more detail under Impact and Mitigation 10-4 above. The third parcel is currently occupied by Pedro's Restaurant (since approximately 1980), and as discussed above in section 10.1.1(f), "Greystar Project Site--2015 Environmental Site Assessments," is also subject to the voluntary clean-up agreement (including associated supporting plans) with a land use covenant (deed restriction) limiting future land uses on the Greystar project site. In the event a development proposal for the Pedro's Restaurant parcel is submitted, it would be required to comply with the regulatory protocols described in Impact 10-3 above, which would be administered by DTSC and other jurisdictional agencies (including the Santa Clara Fire Department) – in conformance with federal, State, regional, and local regulations (see "Regulatory Setting," above).

For 2400 Agnew Road, a former leaking underground storage tank (LUST) was removed and site soils successfully remediated; the site was officially closed in 2000 and is on the Historical Cortese List.

These site-specific regulatory protocols administered by DTSC and other jurisdictional agencies (including the Santa Clara Fire Department) – in conformance with federal, State, regional, and local regulations (see "Regulatory Setting," above) – are intended to ensure that hazardous materials sites, as compiled pursuant to Government Code Section 65962.5, if identified in the Plan Area, would not result in a significant hazard to the public or the environment. Regarding the two Cortese List sites in the Plan Area, the 3935 Freedom Circle site is evaluated in Impact 10-4 above and is undergoing a clean-up program, and the 2400 Agnew Road site has been fully cleaned up and requires no further action. Therefore, because no Cortese List hazardous sites are located in the Plan Area that have not been fully remediated or are not otherwise undergoing a clean-up program, risk of significant hazard to the public or environment from a Cortese List site would be ***less-than-significant*** (see criterion [d] in subsection 10.3.1, "Significance Criteria," above).

Mitigation 10-11. No significant impact has been identified; no mitigation is required.

Impact 10-12: Protocols for Government Code Section 65962.5 Sites—Greystar Project. As discussed in section 10.1.1(a), "Cortese List Search," the Greystar project site has been identified on the Cortese List data resources. The site-specific regulatory protocols discussed in Impact 10-4 would address the current contaminated soils situation and would be administered by DTSC and other jurisdictional agencies (including the Santa Clara Fire Department) in conformance with federal, State, regional, and local regulations (see "Regulatory Setting," above). These activities include segregating and stockpiling soil for an initial test to determine if any excavated soil would be clean enough for use as backfill; sampling and analysis of excavated soil for waste characterization to determine the proper disposal method; and transport off-site of contaminated soil requiring disposal. As discussed in Impact 10-4, a soil management plan has been prepared that includes procedures for stockpiling the excavated soil to reduce potential stormwater runoff and prevent fugitive dust; a health and safety plan has been prepared that outlines procedures and requirements for workers during excavation and similar activities to reduce health risk from possible exposure to contaminated soils; and for off-site transport of hazardous waste, if necessary, only DTSC-registered hazardous materials transporters would be permitted to transport contaminated soils, in compliance with Health & Safety Code and California Code Regulations (CCR), title 22 (administered by DTSC), and other state (Caltrans) and federal (Department of Transportation, U.S. EPA) regulations, which

include standards related to possible discharge or spill of hazardous waste occurs during transportation; record-keeping requirements (e.g., manifests); insurance; and specifications related to the vehicles, including use of covered containers for wastes that could be dispersed by wind.

Implementation of these site-specific regulatory protocols, to the satisfaction of the DTSC, the City, and other jurisdictional agencies, would ensure that the clean-up of this site would be completed prior to any project construction activities are allowed to commence. Therefore, because the project site is undergoing a DTSC-approved clean-up program, risk of significant hazard to the public or environment from a Cortese List site would be ***less-than-significant*** (see criterion [d] in subsection 10.3.1, "Significance Criteria," above).

Mitigation 10-12. No significant impact has been identified; no mitigation is required.

Impact 10-13: Consistency With San Jose Airport Comprehensive Land Use Plan—Plan Area. See section 10.1.2 (Airport Hazards) and section 10.2.3 ("Regional Regulatory Setting"), above. Approximately 45 acres of the Plan Area (between Mission College Boulevard and California's Great America amusement park, and bounded by Great American Parkway on the west and the San Tomas Aquino Creek Trail on the east) are in the San Jose International Airport AIA. The rest of the Plan Area, south of Mission College Boulevard, including the Greystar project site, is not located within the AIA.

The Airport Comprehensive Land Use Plan (CLUP) establishes development standards related to noise, structure height, and safety that are applicable to development in areas surrounding the airport. While the Plan Area is not located in a mapped safety or noise area, parts of the Plan Area are within the CLUP Height Restriction Area, which uses the Federal Aviation Administration's (FAA) Federal Aviation Regulations (FAR) Part 77 imaginary surfaces to delineate the area within which structures above a maximum structure height may constitute a safety hazard.

Federal Aviation Regulations, Part 77, "Objects Affecting Navigable Airspace" (commonly referred to as FAR Part 77) sets forth standards and review requirements for protecting the airspace for safe aircraft operation, particularly by restricting the height of proposed structures and minimizing other potential hazards to aircraft such as reflective surfaces, flashing lights, and electronic interference. These regulations require that the FAA be notified of certain proposed construction projects located within an extended zone defined by an imaginary slope radiating outward for several miles from an airport's runways, or which would otherwise stand at least 200 feet in height above ground.

CLUP Policy H-1 states that any structure, existing or proposed, that penetrates (i.e., is above the maximum structure height) the FAR Part 77 imaginary surfaces mapped in CLUP Figure 6 (p. 3-11) would be considered an incompatible use, barring a determination from the FAA that the proposed structure or object does not present a hazard to air navigation. For the parts of the Plan Area that require review for structure height, the maximum structure height allowable under the CLUP varies from approximately 90-95 feet above ground at the southeast corner of the Plan Area to an approximate elevation of 145-150 feet at the northwest corner of the Plan Area,

pending review of project plans by the FAA[1] and based on other factors besides height, such as flight direction and trajectory. Notification to the FAA would therefore be required for individual proposed structures that would exceed this airspace surface. FAA review and issuance of determinations that a proposed structure would not be a hazard to air navigation, and project compliance with any conditions set forth in such FAA determinations, would ensure that the structure would not be an air safety hazard.

Additional CLUP policies related to land use compatibility include Policy G-6, which prohibits uses within an AIA that may cause hazards to aircraft due to electrical interference, high intensity lighting, attraction of birds, and activities that produce smoke, dust, or glare, among others.[2] Projects proposed in the Plan Area that are within the San Jose International Airport AIA would need to be referred to the ALUC for a consistency review with the San Jose International Airport CLUP.

In addition, the City of San Jose holds an Avigation Easement over much of the Plan Area north of Mission College Boulevard, which provides for acceptance of specified elevation limits and aircraft overflight impacts. The ALUC typically asks for an avigation easement through the project clearance process, which a developer has to offer to the City of San Jose as a condition of approval.

Based on the discussion above and the adopted, standard protocols under the CLUP, this land use compatibility and safety impact is considered ***less-than-significant*** (see criterion [e] in subsection 10.3.1, "Significance Criteria," above).

Mitigation 10-13. No significant impact has been identified; no mitigation is required.

Impact 10-14: Consistency With San Jose Airport Comprehensive Land Use Plan—Greystar Project. See section 10.1.2 (Airport Hazards) and section 10.2.3 (Regional Regulatory Setting) above. The Greystar project site is not located within the San Jose International Airport AIA; however, as indicated on the project plans, building heights would be up to approximately 100 feet, and therefore would exceed the maximum structure height allowable under the CLUP for the southeast corner of the Plan Area, which is approximately 90 to 95 feet above ground. The Greystar project plans would be subject to review by the FAA and notification to the FAA would therefore be required for these proposed structures.[3]

FAA review and issuance of determinations that a proposed structure would not be a hazard to air navigation, and project compliance with any conditions set forth in such FAA determinations, would ensure that the structure would not be an air safety hazard.[4] Therefore, based on the adopted, standard protocols under the CLUP, this land use compatibility and safety impact

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[1]Cary Greene, Airport Planner, City of San Jose Airport Department, email dated July 13, 2020, to John Davidson, Principal Planner, City of Santa Clara Community Development Department.

[2]There are no Focus Area Plan or General Plan policies related to hazards such as bird safety and outdoor lighting for projects proposed within the San Jose International Airport AIA.

[3]Greene, July 13, 2020.

[4]Greene, July 13, 2020.

would be considered ***less-than-significant*** (see criterion [e] in subsection 10.3.1, "Significance Criteria," above).

Mitigation 10-14. No significant impact has been identified; no mitigation is required.

11. HYDROLOGY AND WATER QUALITY

This EIR chapter describes the hydrology and water quality implications of the proposed Freedom Circle Focus Area Plan/Greystar General Plan Amendment. The chapter addresses the specific hydrology and water quality impact concerns identified by the CEQA Guidelines--i.e., would development under the proposed Plan (and the Greystar project) violate water quality or waste discharge standards; degrade water quality; decrease groundwater supplies or interfere with groundwater recharge in a way that impedes sustainable groundwater management; alter drainage patterns; cause erosion or siltation; increase runoff to the extent that flooding occurs; contribute runoff that would exceed stormwater drainage capacity or provide pollutants; impede or redirect flood flows; release pollutants following a flood, tsunami, or seiche event; or conflict with or obstruct a water quality control plan or sustainable groundwater management plan.[1]

The California Supreme Court decision (December 2015) in *California Building Industry Association v. Bay Area Air Quality Management District* concluded, "[W]e hold that CEQA does not generally require an agency to consider the effects of existing environmental conditions on a proposed project's future users or residents. What CEQA does mandate…is an analysis of how a project might exacerbate existing environmental hazards." The environmental impact analysis in this section (for example, related to flooding), and throughout the EIR, takes into consideration this Court decision.

11.1 SETTING

11.1.1 Hydrologic Setting

The City of Santa Clara (City) is located in the San Francisco Bay Hydrologic Region. More specifically, the City is in Santa Clara Subbasin (Subbasin) of the larger Santa Clara Valley Groundwater Basin. The Subbasin is bounded on the west by the northwest-oriented Santa Cruz Mountains located south of the San Francisco Bay. The southernmost portion of the San Francisco Bay and the northern municipal boundaries of the City of Palo Alto and the City of Milpitas form the northern boundary of the Subbasin. The Diablo Range bounds the Subbasin to the east, and a groundwater divide near the town of Morgan Hill is the southern extent of the Subbasin. Several San Francisco Bay tributaries, including Coyote Creek, the Guadalupe River, and Los Gatos Creek drain the Santa Clara Valley to the north.[2]

For groundwater purposes, Santa Clara Valley Water District (Valley Water) divides the Subbasin into two groundwater management areas: the Santa Clara Plain and the Coyote Valley. The Santa Clara Plain management area is further divided into two hydrogeologic

[1]CEQA Guidelines, appendix G, items X (a through e).

[2]Department of Water Resources, California's Groundwater, Bulletin 118, Santa Clara Valley Groundwater Basin, Santa Clara Subbasin, February 27, 2004.

areas: the recharge (unconfined) and the confined areas. The principal hydrogeologic features of the Santa Clara Plain management area include Quaternary alluvial deposits of unconsolidated gravel, sand, silt, and clay that eroded from the Santa Cruz Mountains and the Diablo Range; Holocene (younger than 10,000 years-old) deposits from streams and Bay Mud along the San Francisco Bay overlay older Pleistocene (10,000 to 1.8 million years-old) deposits. In some areas of the Subbasin, the slightly to semi-consolidated alluvial deposits of the Santa Clara Formation underly the Pleistocene deposits. Impermeable bedrock underlies the alluvial sediments at varying depths. Groundwater supplies in the Subbasin are supplied both by natural recharge and through percolation ponds and stream beds.[1]

The Plan Area is located in the confined area of the Santa Clara Plain management area. Groundwater supplies in the confined area are laterally extensive, but vertically restricted by geologic units with low permeability; therefore, the confined area is not considered a groundwater recharge area. Average annual precipitation in the Subbasin ranges from about 15 inches in the valley to about 45 inches at the high points of the Santa Cruz Mountains.[2]

No creeks pass through the Plan Area; however, historical maps indicate that a portion of Saratoga Creek crossed the northern Greystar parcel from southwest to northeast, though during the 1970s, Saratoga Creek was rerouted upstream to connect with San Thomas Aquinas Creek. The creek channel on the site appears to be filled in.[3] San Tomas Aquino Creek, located about 65 feet east of the Plan Area, is separated from the Plan Area by a levee and the San Tomas Aquino/Saratoga Creek Trail, flows seasonally south-north in an earthen channel generally parallel to the Plan Area. In addition, Calabazas Creek is located approximately ½ mile west of the Plan Area, separated from the Plan Area by Mission College, parking lots, office buildings, landscaping, and other development. To the east is Guadalupe River (approximately 1.3 miles), which ultimately discharges into the lower South San Francisco Bay via Alviso Slough.[4]

11.1.2 Groundwater Conditions

The California Department of Water Resources (DWR) calculated the surface area of the Subbasin to be 153,600 acres.[5] Based on data collected from 2006-2015, groundwater in the Subbasin was determined to be of good quality and not requiring treatment beyond disinfection. Historical high groundwater pumping and land subsidence resulted in saltwater intrusion into shallow aquifers near the salt ponds and tidal creeks in the northern portion of the Subbasin; however, chloride concentrations detected in 2006-2015 monitoring were relatively low and confined to a small portion of the principal aquifer zone. Recent data specific to the Santa Clara

[1]Bulletin 118, February 27, 2004; Valley Water (Santa Clara Valley Water District) web site, https://www.valleywater.org/how-we-operate/about-valley-water, accessed 4/1/20.

[2]Santa Clara Valley Water District, 2016 Groundwater Management Plan, November 2016.

[3]West Associates, Inc., Phase I Environmental Site Assessment, 3935 Freedom Circle-Parcels 1 and 2, Santa Clara, California, August 2015, p. 3 and Table 7-1 p. 1.

[4]City of Santa Clara, Integrated Final Environmental Impact Report for the City of Santa Clara Draft 2010-2035 General Plan, Volume I EIR Text, January 2011.

[5]Bulletin 118, February 27, 2004.

Plain similarly show the groundwater is of good quality, and where detected, calcium, magnesium, and bicarbonate are the dominant dissolved constituents.[1]

Groundwater levels in the Subbasin have fluctuated over time, but have largely increased since the mid-1960s following the implementation of an artificial recharge program and overall decreases in pumping.[2] Prolonged drought conditions in the early 2010s resulted in lower groundwater levels, but groundwater levels recovered in 2015 and 2016 due to reduced community water use, retailer shifts to treated surface water, and increased managed recharge.[3]

In 2015, groundwater from the City of Santa Clara's wells supplied 65 percent of the City's drinking water supply. The remainder of its drinking water supply that year was from treated surface water with 21 percent obtained from the Santa Clara Valley Water District and 14 percent obtained from the San Francisco Public Utilities Commission Hetch-Hetchy system. Overall, groundwater from City wells represented 54.1 percent of City water sales in 2015. Imported water from SCVWD represented 17.5 percent of water sales, with imported water from the Hetch-Hetchy system representing 11.7 percent of water sales, and recycled water making up 16.7 percent of total water sales.[4]

Valley Water manages groundwater in Santa Clara County and is the Groundwater Sustainability Agency (GSA) for both the Santa Clara and the Llagas Subbasins under the Sustainable Groundwater Management Act (SGMA). The Santa Clara Subbasin has been designated a High Priority Groundwater Basin by the California Department of Water Resources.[5] Under the SGMA, preparation of a Groundwater Sustainability Plan (GSP) is required for medium and high priority groundwater basins. As an alternative to a GSP, SCVWD developed the 2016 Groundwater Management Plan for the Santa Clara and Llagas Subbasins (GWMP).[6] The GWMP establishes qualitative groundwater sustainability goals and strategies for managing water supply reliability, minimizing land subsidence, and protecting against saltwater intrusion. The Plan also incorporates quantitative outcome measures to gauge progress.

11.1.3 Water Quality

(a) Stormwater Runoff. During periods of rain, water can flush sediment and pollutants from urbanized areas into the storm drain system, where they are discharged directly to surface

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[1] 2016 Groundwater Management Plan, November 2016.

[2] Bulletin 118, February 27, 2004

[3] 2016 Groundwater Management Plan, November 2016.

[4] City of Santa Clara, 2015 Urban Water Management Plan, November 22, 2016.

[5] California Department of Water Resources, Groundwater Management Basin Prioritization web site, https://gis.water.ca.gov/app/bp-dashboard/final/, accessed 4/9/20.

[6] 2016 Groundwater Management Plan, November 2016. The 2016 GWMP was approved as an Alternative Plan by DWR on July 17, 2019 (DWR, Alternatives to Groundwater Sustainability Plans, https://water.ca.gov/Programs/Groundwater-Management/SGMA-Groundwater-Management/Alternatives, accessed 4/9/20).

waters. This urban runoff can contribute significant quantities of total suspended solids, heavy metals, petroleum hydrocarbons, and other pollutants to surface waters. The City of Santa Clara storm drain system includes curb inlets and pipelines underneath city streets. Curb inlets collect surface runoff water and convey it to underground pipelines, then to the City's channelized creeks, including Calabazas Creek and San Tomas Aquino Creek, where the runoff is ultimately discharged into San Francisco Bay.[1]

In the Plan Area, a series of storm drain pipes conveys stormwater to San Tomas Aquino Creek via outfalls: at the southern boundary near U.S. 101 and San Tomas Aquino Creek; near the intersection of Mission College Boulevard and San Tomas Aquino Creek at the Freedom Circle Storm Drain Pump Station; and near the intersection of Agnew Road and San Tomas Aquino Creek. Other smaller pipes collect stormwater from other parts of the Plan Area (the northwestern portion of Freedom Circle and Mission College Boulevard, the eastern side of Great America Parkway, and the Patrick Henry Drive cul-de-sac) and convey this stormwater north along Great America Parkway to the Westside Storm Drain Pump Station on Old Mountain View-Alviso Road and from there to the outfall at San Tomas Aquino Creek.[2]

The City of Santa Clara is a member of the Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP), which also includes the County of Santa Clara, the SCVWD (Valley Water), and other cities and towns in the Santa Clara Valley that discharge runoff into the San Francisco Bay. The SCVURPPP members are co-permittees of the San Francisco Bay Municipal Separate Storm Sewer System (MS4) National Pollution Discharge Elimination System (NPDES) permit and are required to implement measures to reduce the discharge of pollutants from construction sites, areas of new development, and areas of significant redevelopment. The City enforces stormwater runoff control measures during the development review and monitoring process. Stormwater runoff control measures required for compliance with the NPDES permit may include non-mechanical stormwater quality improvement techniques, such as grassy swales, bioretention, and detention in landscaping, or stormwater detention systems.[3] In addition, as required by the NPDES permit, cities and towns in the Santa Clara Valley are developing green stormwater infrastructure (GSI) plans to incorporate green stormwater infrastructure features into new and existing drainage infrastructure such as rights-of-way, including streets, storm drains, and parking lots.

Currently, there are no stormwater treatment facilities in the Plan Area. Proposed development or redevelopment, including the proposed Greystar project site, would need to be designed to meet stormwater requirements (i.e., NPDES "C.3" requirements, which could include source control, site design, and/or other stormwater treatment measures such as infiltration trenches, media filtration devices, pervious surface treatments, and/or bio-retention areas). Design and installation of stormwater treatment facilities would be required to meet the standards in the

[1] Integrated Final Environmental Impact Report for the City of Santa Clara Draft 2010-2035 General Plan, Volume I EIR Text, January 2011.

[2] BKF Engineers, "Draft Utility Narratives, Freedom Circle Specific Area Plan," prepared for the City of Santa Clara, March 1, 2019.

[3] California Regional Water Quality Control Board, San Francisco Bay Region, Municipal Regional Stormwater NPDES Permit, Order No. R2-2015-0049, NPDES Permit No. CAS612008, November 19, 2015; https://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/stormwater/Municipal/R2_2015_0049_amended.pdf, accessed 4/1/20.

SCVRUPPP C.3 Stormwater Handbook for their life. In addition, the City would require incorporation of Best Management Practices (BMPs) into construction plans and incorporation of post-construction water runoff measures into project plans in accordance with the City's Urban Runoff Pollution Prevention Program standards.

Chapter 18, Utilities and Service Systems, of this EIR describes proposed stormwater runoff and storm drainage facilities in the Plan Area.

(b) Nearby Water Bodies. Under the Federal Clean Water Act, the State Water Resources Control Board (SWRCB) is required to report on the condition of its surface water quality. Water bodies with pollutants that exceed protective water quality standards are placed on the State's 303(d) List of Water Quality Limited Segments (also known as the list of impaired water bodies). The list identifies the pollutant causing impairment and establishes a schedule for developing a control plan to address the impairment, called a Total Maximum Daily Load (TMDL). The TMDL serves as the means to attain and maintain water quality standards for the impaired water body. (TMDL is a calculation of the maximum amount of a pollutant that a water body can receive and still safely meet water quality standards.)

San Tomas Aquino Creek is classified on the State's 303(d) list under Category 4B for trash, which does not require a TMDL, but is currently being addressed by implementation of trash control provisions in the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries (ISWEBE) of California (through the San Francisco Bay MS4 NPDES permit).[1]

(c) Greystar Project Site Stormwater Runoff. The proposed Greystar project site is relatively flat and currently vacant (i.e., no development), and consists mainly of a grassy field with some asphalt pavement. The site is separated from San Tomas Aquino Creek by a levee and the San Tomas Aquino Creek Trail. Trail elevations vary along the project border and range between about three to nine feet higher than elevations on the site, except where the trail descends to pass underneath U.S. 101. There the trail elevations are lower than those on the site. There are no existing stormwater collection facilities on the project site; however, a 60-inch storm water main, which runs through a 35-foot storm drainage easement in the southern part of the Plan Area near U.S. 101, passes through the Greystar project site along its southern boundary and leads to an outfall near San Tomas Aquino Creek. This main collects runoff from drainage areas south of U.S. 101 but not from the Plan Area (see chapter 18, Utilities and Service Systems, of this EIR for more discussion of stormwater conveyance system in the Plan Area).

Development of the Greystar project site would result in creation of new impervious surface area, including building rooftops, pavement associated with a new perimeter access road for vehicles and delivery/parking operations, hardscape pathways throughout the site, and a new private road around the project site eastern and southern borders and part of the western border, which would replace the existing surface conditions.

[1]State Regional Water Quality Control Board, 2014 and 2016 California List of Water Quality Limited Segments--Category 4A and Category 4B, accessed 11/25/20; Final California 2014 and 2016 Integrated Report (303(d) List/305(b) Report), Supporting Information, Regional Board 2 – San Francisco Bay Region, San Tomas Aquinas Creek, https://www.waterboards.ca.gov/water_issues/programs/tmdl/2014_16state_ir_reports/01829.shtml#35041, accessed 11/25/20.

As discussed in chapter 3, Project Description, of the EIR, the project would include on-site stormwater treatment provisions to comply with Santa Clara Valley Urban Runoff Pollution Prevention Program requirements, including as applicable Low Impact Development (LID) practices and Best Management Practices (BMP). Stormwater treatment techniques would include a combination of site design and source control measures, plus use of bioretention and other treatment methods.

As shown on Figures 11.1A and 11.1B (Preliminary Project Stormwater Management Plan), the Greystar project site has been divided into 16 drainage management areas (DMAs) associated with the three buildings and the park:[1]

- Parcel 1 (Building A): located in the southernmost part of the site, DMAs A-1 through A-4 include a total approximate surface area of 177,793 square feet;

- Parcel 2 (Building B): located adjacent to and north of Parcel 1, DMAs B-1 through B-5 total include a total approximate surface area of 178,668 square feet;

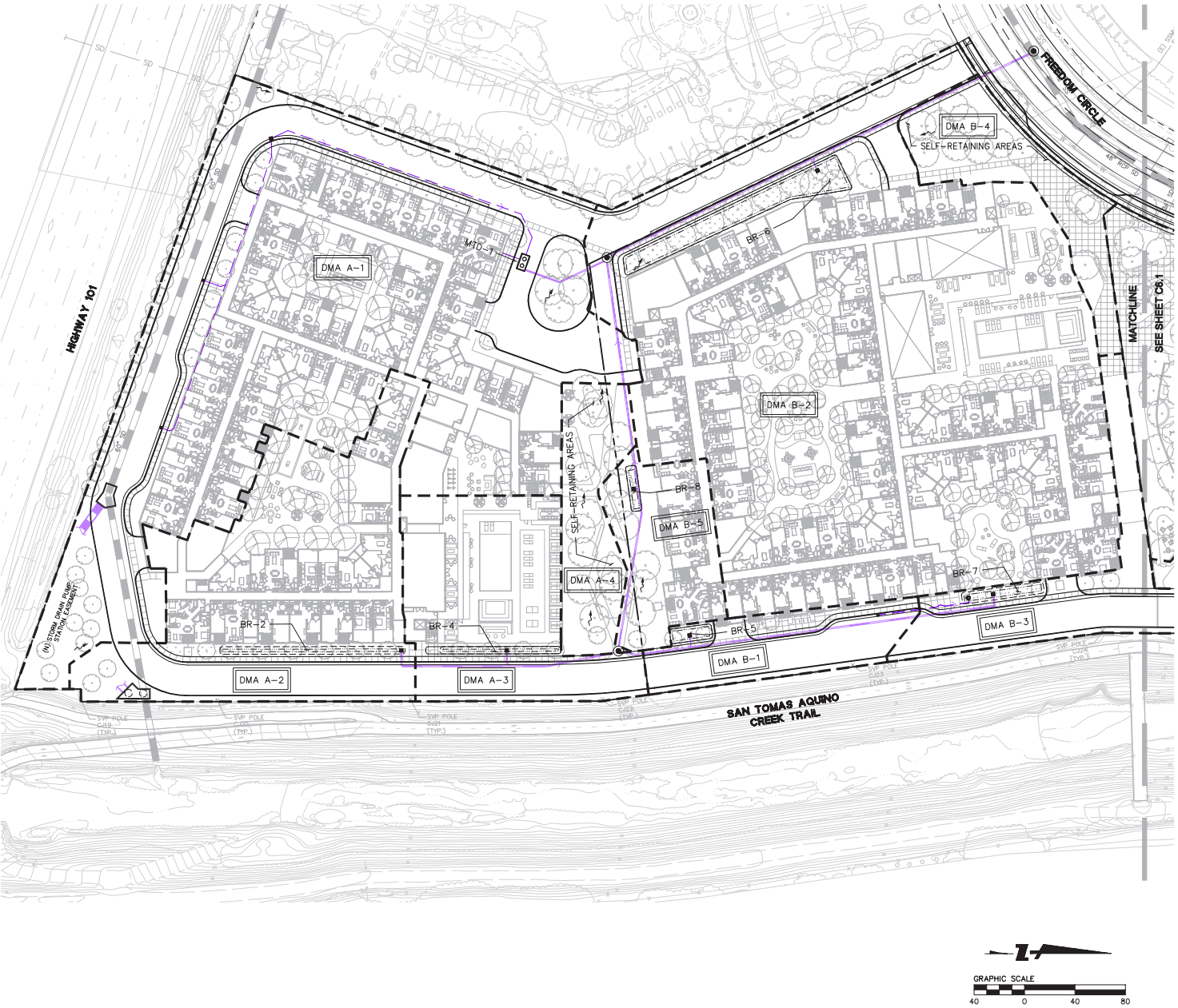
- Parcel 3 (Building C): located in the northernmost part of the site, DMAs C-1 through C-3 include a total approximate surface area of 136,837 square feet; and

- Parcel 4 (the two-acre park): between Parcel 2 and Parcel 3, DMAs D-1 through D-4 include a total approximate surface area of 87,718 square feet.

Table 11-1 shows pervious and impervious surface area and the proposed treatments for each of the drainage management areas. As indicated in the table, the Greystar project would create a total of approximately 382,653 square feet of new impervious surface area and approximately 198,373 square feet of new pervious surface area. To accommodate stormwater runoff, all but four of the 16 proposed drainage management areas would employ bioretention areas to collect and detain stormflow, which would provide time for filtering of pollutants through soil media and plant roots before release to the storm drain system. Two drainage areas (DMA A-1 and DMA C-1) would use a media treatment device, which would filter runoff through absorptive media designed to remove pollutants; this approach would be necessary because a bioretention area cannot be located within the City's storm drain easement.[2] And the other two drainage areas (DMA A-5A-4 and DMA B-4) would be "self-retaining" areas.

[1]The total number, final location, and individual design of the bioretention facilities and/or other treatment measures may change depending on final project design and hydrologic calculations, all of which would be reviewed and approved by the City.

[2]BKF Engineers, "Freedom Circle: Narrative Discussion of Low Impact Development Feasibility/ Infeasibility" (undated).

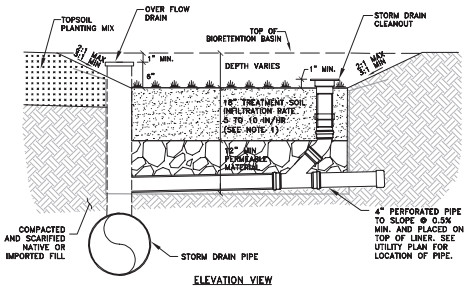


LEGEND

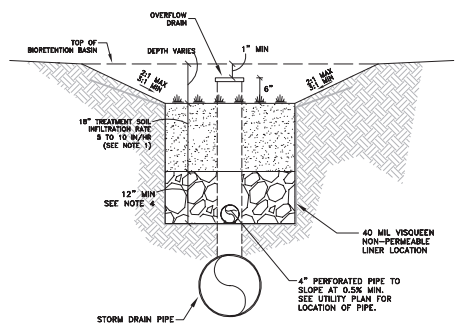
- PROPERTY LINE
- DRAINAGE MANAGEMENT BOUNDARY LINE
- STORM DRAIN LINE (UNTREATED)
- STORM DRAIN LINE (TREATED)
- BIORETENTION AREA
- LANDSCAPE DIRECTION OF FLOW
- MEDIA TREATMENT DEVICE
- STORM DRAIN BUBBLER
- STORM DRAIN MANHOLE
- STORM DRAIN OVERFLOW DRAIN

NOTES

1. SEE SHEET C6.1 FOR THE STORMWATER TREATMENT SUMMARY TABLE.



ELEVATION VIEW
(NTS)



SECTION VIEW
(NTS)

NOTE:

1. FOR TREATMENT SOIL SPECIFICATION, SEE APPENDIX C IN SCVURPPP C3 STORMWATER HANDBOOK.
2. BACKFILL BIORETENTION ONLY WITH PERMEABLE PLANTING MATERIAL AND DRAIN ROCK AS SPECIFIED IN THIS DETAIL. ABSOLUTELY NO NATIVE MATERIAL SHALL BE USED FOR BACKFILL. CONTRACTOR MUST COORDINATE WITH CIVIL ENGINEER PRIOR TO CONSTRUCTION.
3. RESULT FROM A PERCOLATION RATE SHALL BE GREATER THAN 5.0 IN/HR AND LESS THAN 10.0 IN/HR.
4. DRAIN ROCK TO BE CLASS 2 PERMEABLE MATERIAL PER CALTRANS STANDARD SPECIFICATIONS, SECTION 68-2.02F.

BIORETENTION BASIN DETAIL
NOT TO SCALE

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: Planning
: Urban Design
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: (510) 451 - 2850

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Santa Clara, California

Greystar
450 Sansome Street, Suite 200
San Francisco, California

Revisions:

No.	Description	Date

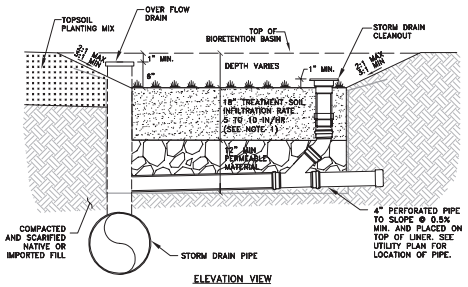
Sheet Title:
PRELIMINARY STORM WATER MANAGEMENT PLAN

Job No.: 20002
Date: 07/13/2021
Scale: AS SHOWN

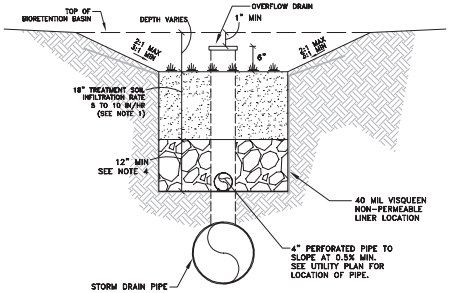
Sheet No:
C6.0

FIGURE 11.1A: PRELIMINARY PROJECT STORMWATER MANAGEMENT PLAN

Freedom Circle Focus Area Plan



ELEVATION VIEW
(NTS)



SECTION VIEW
(NTS)

NOTE:
1. FOR TREATMENT SOIL SPECIFICATION, SEE APPENDIX C IN SCVURPPP C3 STORMWATER HANDBOOK.
2. BACKFILL BIORETENTION ONLY WITH PERMEABLE PLANTING MATERIAL AND DRAIN ROCK AS SPECIFIED IN THIS DETAIL. ABSOLUTELY NO NATIVE MATERIAL SHALL BE USED FOR BACKFILL. CONTRACTOR MUST COORDINATE WITH CIVIL ENGINEER PRIOR TO CONSTRUCTION.
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4. DRAIN ROCK TO BE CLASS 2 PERMEABLE MATERIAL PER CALTRANS STANDARD SPECIFICATIONS, SECTION 68-2.02F.

BIORETENTION BASIN DETAIL

NOT TO SCALE

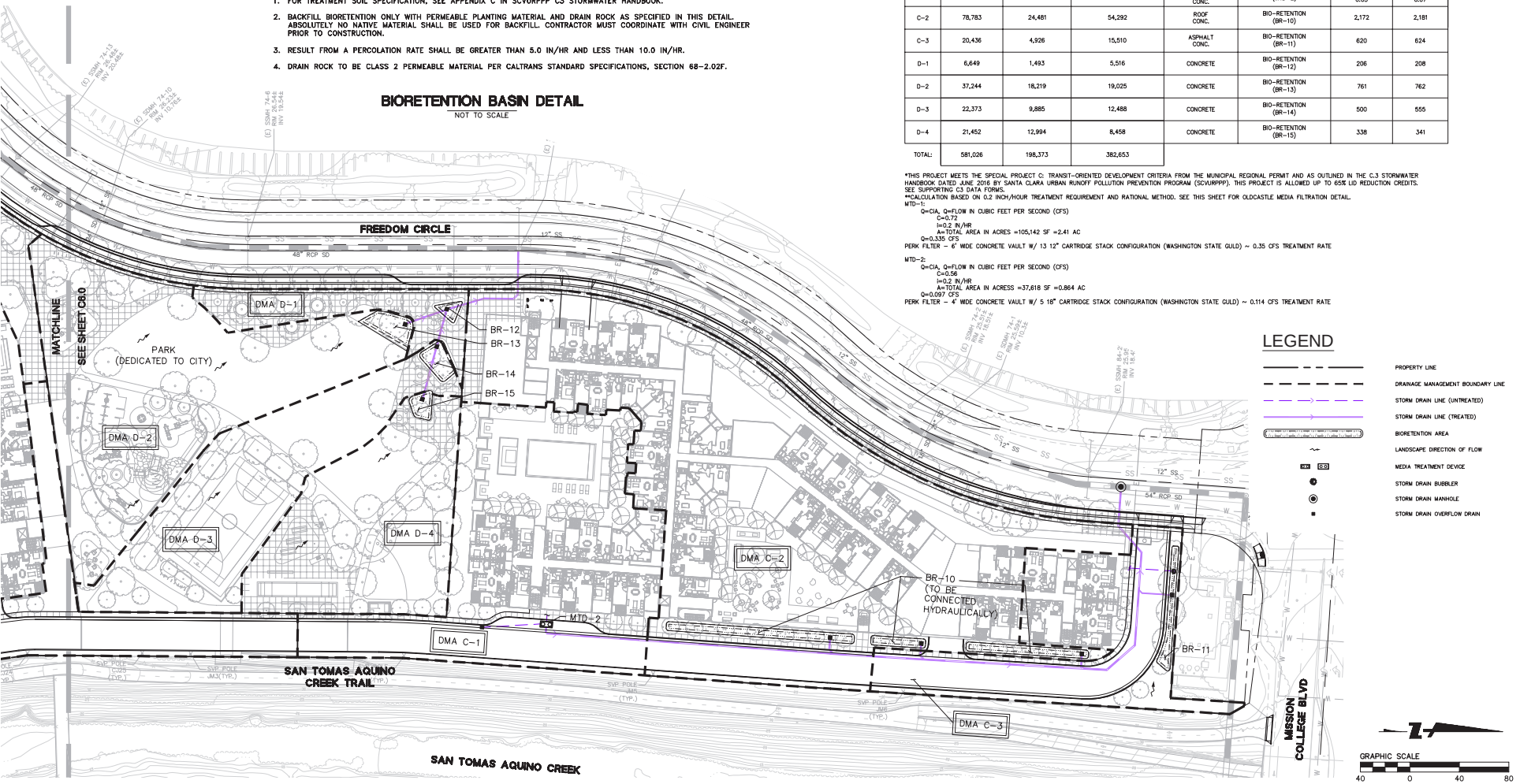
TREATMENT SUMMARY TABLE

DMA	TOTAL AREA SF	PERVIOUS SURFACE SF	IMPERVIOUS SURFACE SF	TYPE OF IMPERVIOUS SURFACE	TREATMENT MEASURE	LID SIZING: BIORETENTION = 4% RULE SELF RETAINING AREA = 2:1	
						REQUIRED (CFS)**	PROVIDED (CFS)
A-1	105,142	24,037	81,105	ROOF ASPHALT CONC.	MEDIA TREATMENT DEVICE* (MTD-1)	0.267	0.290
						REQUIRED (SF)	PROVIDED (SF)
A-2	40,100	11,879	28,221	ROOF ASPHALT CONC.	BIO-RETENTION (BR-2)	1,128	1,136
A-3	22,485	7,468	15,017	ROOF ASPHALT CONC.	BIO-RETENTION (BR-4)	601	622
A-4	10,066	7,053	3,023	CONC.	SELF-RETAINING AREAS	163	–
B-1	10,128	2,116	8,002	ROOF ASPHALT CONC.	BIO-RETENTION (BR-5)	320	387
B-2	126,528	42,707	83,821	ROOF ASPHALT CONC.	BIO-RETENTION (BR-6)	3,353	3,372
B-3	19,348	4,598	14,750	ASPHALT CONC.	BIO-RETENTION (BR-7)	590	591
B-4	11,347	6,777	4,230	ASPHALT CONC.	SELF-RETAINING AREAS	2,115	6,777
B-5	11,317	3,742	7,575	ASPHALT CONC.	BIO-RETENTION (BR-8)	303	303
C-1	37,618	15,998	21,620	ROOF ASPHALT CONC.	MEDIA TREATMENT DEVICE* (MTD-2)	REQUIRED (CFS)** 0.05	PROVIDED (CFS) 0.07
C-2	78,783	24,481	54,292	ROOF CONC.	BIO-RETENTION (BR-10)	2,172	2,181
C-3	20,436	4,926	15,510	ASPHALT CONC.	BIO-RETENTION (BR-11)	620	624
D-1	6,649	1,493	5,516	CONCRETE	BIO-RETENTION (BR-12)	206	208
D-2	37,244	18,219	19,025	CONCRETE	BIO-RETENTION (BR-13)	761	762
D-3	22,373	9,885	12,488	CONCRETE	BIO-RETENTION (BR-14)	500	555
D-4	21,452	12,994	8,458	CONCRETE	BIO-RETENTION (BR-15)	338	341
TOTAL:	581,026	198,373	382,653				

POTENTIAL POLLUTANTS:
- LITTER
- ANIMAL WASTE
- MOTOR OIL
- GASOLINE
- HYDROCARBONS
- HEAVY METALS
- PESTICIDES
- FERTILIZERS

*THIS PROJECT MEETS THE SPECIAL PROJECT C: TRANSIT-ORIENTED DEVELOPMENT CRITERIA FROM THE MUNICIPAL REGIONAL PERMIT AND AS OUTLINED IN THE C.3 STORMWATER HANDBOOK DATED JUNE 2016 BY SANTA CLARA URBAN RUNOFF POLLUTION PREVENTION PROGRAM (SCVURPPP). THIS PROJECT IS ALLOWED UP TO 65% LID REDUCTION CREDITS. SEE SUPPORTING C3 DATA FORMS.
**CALCULATION BASED ON 0.2 INCH/HOUR TREATMENT REQUIREMENT AND RATIONAL METHOD. SEE THIS SHEET FOR OLDCASTLE MEDIA FILTRATION DETAIL.
MTD-1:
Q=CiA, Q=FLOW IN CUBIC FEET PER SECOND (CFS)
C=0.72
I=0.2 IN/HR
A=TOTAL AREA IN ACRES =105,142 SF =2.41 AC
Q=0.335 CFS
PERK FILTER – 6' WIDE CONCRETE VAULT W/ 13 12" CARTRIDGE STACK CONFIGURATION (WASHINGTON STATE GULD) ~ 0.35 CFS TREATMENT RATE

MTD-2:
Q=CiA, Q=FLOW IN CUBIC FEET PER SECOND (CFS)
C=0.58
I=0.2 IN/HR
A=TOTAL AREA IN ACRESS =37,618 SF =0.864 AC
Q=0.097 CFS
PERK FILTER – 4' WIDE CONCRETE VAULT W/ 5 18" CARTRIDGE STACK CONFIGURATION (WASHINGTON STATE GULD) ~ 0.114 CFS TREATMENT RATE



LEGEND

- PROPERTY LINE
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- BIORETENTION AREA
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- MEDIA TREATMENT DEVICE
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- STORM DRAIN MANHOLE
- STORM DRAIN OVERFLOW DRAIN

GRAPHIC SCALE
40 0 40 80

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San Francisco, California

Revisions:

No.	Description	Date

Sheet Title:
PRELIMINARY STORM WATER MANAGEMENT PLAN

Job No. : 20002
Date: 07/13/2021
Scale: AS SHOWN

Sheet No:
C6.1

FIGURE 11.1B: PRELIMINARY PROJECT STORMWATER MANAGEMENT PLAN

Freedom Circle Focus Area Plan

Table 11-1
PROJECT IMPERVIOUS SURFACE AREA AND PROPOSED TREATMENT MEASURES

DMA No.	Total Area (SF)	Pervious Surface (SF)	Impervious Surface (SF)	Type of Impervious Surface	Proposed Treatment Measure
A-1	105,142	24,037	81,105	Roof, Asphalt, Concrete	Media Treatment Device (MTD-1)
A-2	40,100	11,879	28,221	Roof, Asphalt, Concrete	Bio-Retention (BR-2)
A-3	22,485	7,468	15,017	Roof, Asphalt, Concrete	Bio-Retention (BR-4)
A-4	10,066	7,053	3,023	Concrete	Self-Retaining Areas
B-1	10,128	2,116	8,002	Roof, Asphalt, Concrete	Bio-Retention (BR-5)
B-2	126,528	42,707	83,821	Roof, Asphalt, Concrete	Bio-Retention (BR-6)
B-3	19,348	4,598	14,750	Asphalt, Concrete	Bio-Retention (BR-7)
B-4	11,347	6,777	4,230	Asphalt, Concrete	Self-Retaining Areas
B-5	11,317	3,742	7,575	Asphalt, Concrete	Bio-Retention (BR-8)
C-1	37,618	15,998	21,620	Roof, Asphalt, Concrete	Media Treatment Device (MTD-2)
C-2	78,783	24,481	54,292	Roof, Concrete	Bio-Retention (BR-10)
C-3	20,436	4,926	15,510	Asphalt, Concrete	Bio-Retention (BR-11)
D-1	6,649	1,493	5,516	Concrete	Bio-Retention (BR-12)
D-2	37,244	18,219	19,025	Concrete	Bio-Retention (BR-13)
D-3	22,373	9,885	12,488	Concrete	Bio-Retention (BR-14)
D-4	21,452	12,994	8,458	Concrete	Bio-Retention (BR-15)
Total*	**581,026**	**198,373**	**382,653**		

SOURCE: Studio T Square, RHAA Landscape Architects, BKF Engineers August 11, 2021. .

*Total project site area (13.3 acres) = approx. 581,026 square feet.

DMA = Drainage Management Area

Note: See Figures 11.1A and 11.1B for locations of drainage management areas and proposed treatment measures.

11.1.4 Flooding and Flood Hazards

(a) Historic Flooding. Flooding in Santa Clara has historically occurred in areas adjacent to the streams and creeks, following extensive storm events. Valley Water is the local agency responsible for flood protection in Santa Clara County, and has conducted bank stabilization and sediment reduction activities in San Tomas Aquino Creek to increase flood protection.[1] A levee is between the Plan Area and the creek. The Greystar project site is located adjacent to the levee.

(b) FEMA Flood Maps. See Figure 11.2 (Flood Zones). The Federal Emergency Management Agency (FEMA) develops Flood Insurance Rate Maps (FIRMs) that determine flood risks in communities. These maps identify Special Flood Hazard Areas (SFHAs) that are subject to inundation by the 1% annual chance flood (e.g., 100-year flood event or base flood). According to FEMA, most of the Plan Area is located in Zone X ("Area with Reduced Flood Risk Due to Levee" – i.e., not in the 1% annual flood hazard zone). However, some parts of the Plan Area are located in a SFHA, and are identified as AH, AO, and AE.[2] Zone AO and Zone AH are defined as areas in "a 1% annual flood zone" with "flood depths of 1 to 3 feet" (base flood elevation[3] determined on the FIRM). Zone AE is defined as areas in "a 1% annual flood zone" (base flood elevation provided on the FIRM).

The descriptions below of the flood hazard zones are based on the FIRMs, which note that maps do "not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size" and that they "are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information." Therefore, the measured distances below may not be the precise boundaries of the flood hazard zones during an actual flood.

Flooding in Zone AO usually occurs as sheet flow on sloping terrain. Parts of the Plan Area that are designated as Zone AO (depth 1 foot) include a portion beginning in the northwest corner at Patrick Henry Drive and Great America Parkway that generally follows along the direction of Great America Parkway to Mission College Boulevard, with a small extension just beyond the intersection to the south. This Zone AO also follows Mission College Boulevard east until the intersection of Mission College Boulevard and Freedom Circle, and then extends west along Mission College Boulevard (about 300 feet short of the Mission College entrance) and east about along Mission College Boulevard to the intersection with Freedom Circle. At Freedom Circle the Zone AO extends another 95 feet approximately. In the event of a 1% annual flood, flowing flood waters may reach an average depth of 1 foot.

---

[1] Integrated Final Environmental Impact Report for the City of Santa Clara Draft 2010-2035 General Plan, Volume I EIR Text, January 2011.

[2] Federal Emergency Management Agency (FEMA), Flood Insurance Rate Map (FIRM), Santa Clara County, California, Map Number 06085C0063H, Panel 63 of 805, Effective Date May 18, 2009.

[3] "Base flood elevation" (BFE) is the computed elevation to which floodwater is anticipated to rise during the base flood (https://www.fema.gov/base-flood-elevation, accessed 4/9/20). The BFE is the regulatory requirement for the elevation or floodproofing of structures. The relationship between the BFE and a structure's elevation determines flood insurance premiums.

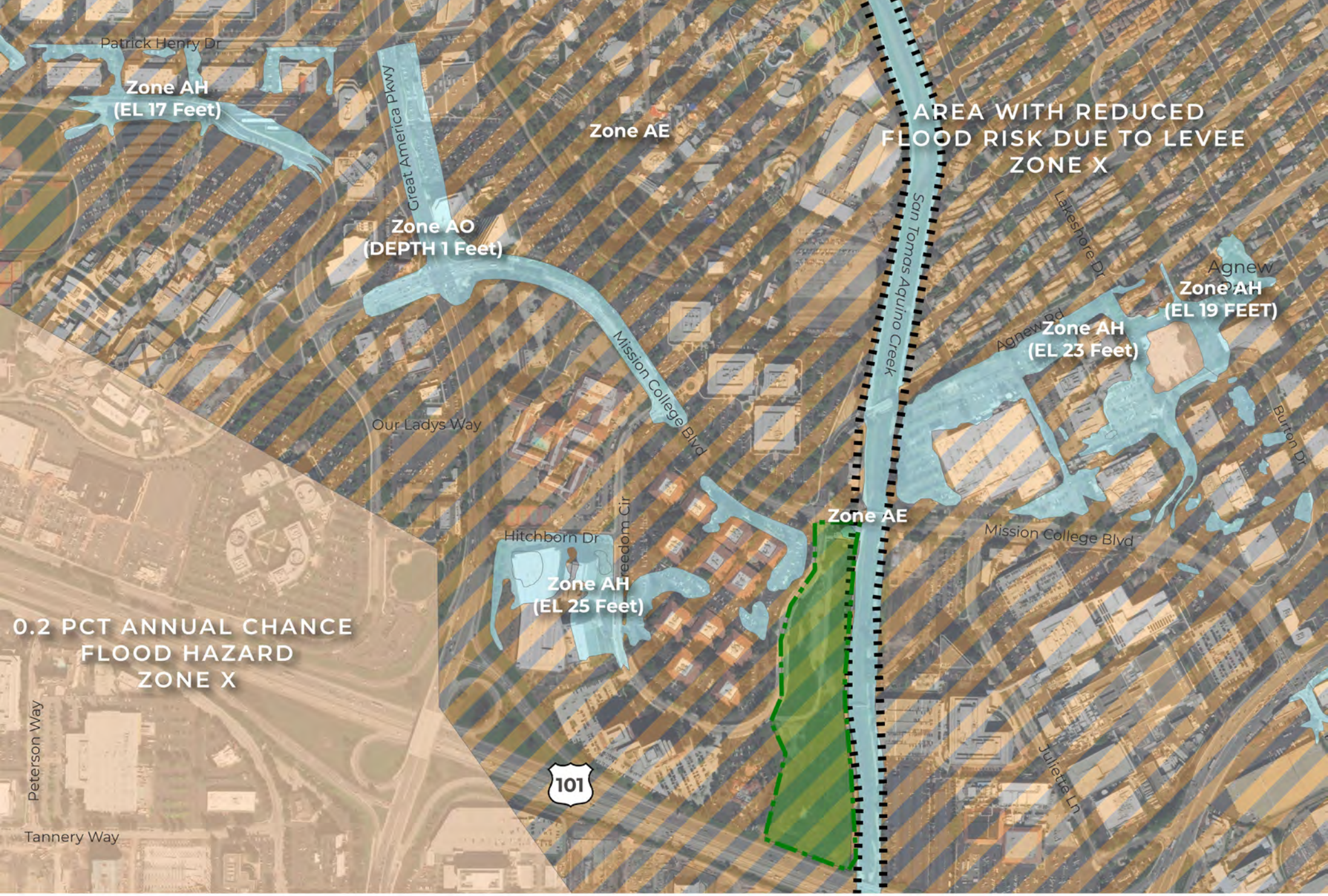

FIGURE 11.2: FLOOD ZONES

Freedom Circle Focus Area Plan

- Greystar Project Site

Special Flood Hazard Areas

- Without Base Flood Elevation (BFE) Zone A, V, A99
- With BFE or Depth Zone AE, AO, AH, VE, AR
- Regulatory Floodway

Other Areas of Flood Hazard

- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with Average depth less than one foot or with drainage areas of less than one square mile, Zone X
- Future Conditions 1% Annual Chance Flood Hazard, Zone X
- Area with Reduced Flood Risk due to Levee. See Notes, Zone X
- Area with Flood Risk due to Levee, Zone D

Other Areas

- NO SCREEN — Area of Minimal Flood Hazard, Zone X
- Effective LOMRs
- Area of Undetermined Flood Hazard , Zone D

General Structures

- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

N

0 750 1,500 Feet

Flooding in Zone AH results in the formation of ponds. Parts of the Plan Area that are designated as Zone AH (elevation 25 feet, which is the base flood elevation for these areas) include a portion along Hichborn Drive and parts of the parcels south of and adjacent to Hichborn Drive, plus an area extending across Freedom Circle and into a portion of the Santa Clara Park business center. Two other parts of Santa Clara Park are designated Zone AH: one part near Mission College Boulevard and the eastern side of Freedom Circle, and the other part farther south and near Freedom Circle (a "heart-shaped" area). In the event of a 1% annual flood, flood waters may pond in these areas to an elevation of 1 to 3 feet above the base flood elevation.

Part of the parcel where the Freedom Circle Storm Station is located, next to Mission College Boulevard and adjacent to the San Tomas Aquino Creek Trail, is designated as Zone AE (elevation 26 feet, which is the base flood elevation of San Tomas Aquino Creek at that location). In the event of a 1% annual flood, flood waters may reach the base flood elevation.

In addition, the proposed Greystar project site is designated Zone X ("Area with Reduced Flood Risk Due to Levee" – i.e., not in the 1% annual flood hazard zone).

(c) Seiches and Tsunamis. A seiche is a standing wave that oscillates in a body of water contained within a partially or completely enclosed basin. A seiche is initiated by an event within the basin, such as wind, surface or subsurface landslide, or earthquake. There are no bodies of water within the Plan Area or in vicinity that pose a hazard for seiche.

A tsunami is a series of waves generated in a body of water by a rapid disturbance (e.g., submarine seismic, volcanic, or landslide event) that vertically displaces water. Tsunamis affecting the Bay Area can result from offshore earthquakes within the Bay Area or from distant events. According to the California Emergency Management Agency, the California Geological Survey, and the University of Southern California, neither the Plan Area nor any portion of the City is located in a tsunami inundation area.[1]

11.2 REGULATORY SETTING

11.2.1 Federal

Clean Water Act. The Clean Water Act (CWA) is the primary federal law that governs and authorizes water quality control activities by the U.S. Environmental Protection Agency (EPA) and the states to protect the quality of the nation's surface waters, including lakes, rivers, aquifers, groundwater, and coastal areas. Under the CWA, the EPA sets national standards and effluent limitations, and delegates many regulatory responsibilities to the California State Water Resources Control Board (SWRCB). Section 303(d) of the CWA requires states to (1) develop a list of water bodies that do not meet water quality standards, (2) establish priority rankings for waters on the list, and (3) develop action plans, called Total Maximum Daily Loads (TMDLs), to improve water quality. The list of impaired water bodies is revised typically every two years. The CWA was amended in 1972 to provide that the discharge of pollutants to waters

[1]California Emergency Management Agency, the California Geological Survey, and the University of Southern California, https://www.conservation.ca.gov/cgs/Documents/Tsunami/Maps/Tsunami_Inundation_Milpitas_Quad_SantaClara.pdf, accessed 4/3/20.

of the United States from any point source is unlawful unless the discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) permit.

National Pollutant Discharge Elimination System. The National Pollutant Discharge Elimination System (NPDES) permit program was established by the CWA to regulate municipal and industrial discharges to surface waters of the United States, including discharges from municipal separate storm sewer systems (MS4s). Federal NPDES permit regulations have been established for broad categories of discharges, including point-source municipal waste discharges and urban stormwater runoff. NPDES permits identify effluent and receiving water limits on allowable concentrations and/or mass emissions of pollutants contained in the discharge; prohibitions on discharges not specifically allowed under the permit; and provisions that describe required actions by the discharger, including industrial pretreatment, pollution prevention, self-monitoring, and other activities.

Under the NPDES program, all facilities that discharge pollutants into waters of the United States are required to obtain an NPDES permit. Requirements for stormwater discharges are also regulated under this program. In California, the NPDES permit program is administered by the SWRCB through the nine Regional Water Quality Control Boards (RWQCBs). The City of Santa Clara is subject to the waste discharge requirements of the Municipal Regional Stormwater Permit (Order No. R2-2015-0049) and NPDES Permit No. CAS612008, issued on November 19, 2015. Santa Clara County, the Santa Clara Valley Water District (Valley Water), and eleven cities and two towns, including the City of Santa Clara, are co-permittees within Santa Clara County under the Permit, which covers a total of 76 co-permittees in the Bay Area.

U.S. Environmental Protection Agency. In 1990 the EPA published final regulations that establish stormwater permit application requirements. The regulations, also known as Phase I of the NPDES program, provide that discharges of stormwater to waters of the United States from construction projects that encompass five or more acres of soil disturbance are effectively prohibited unless the discharge complies with an NPDES permit. Phase II of the NPDES program expands the requirements by requiring operators of small Municipal Separate Storm Sewer Systems (MS4s) in urbanized areas and small construction sites to be covered under an NPDES permit, and to implement programs and practices to control polluted stormwater runoff.

National Flood Insurance Act of 1968 (as amended) and Flood Disaster Protection Act of 1973 (as amended). In response to increasing losses from flood hazards nationwide, the United States Congress passed the National Flood Insurance Act of 1968, which established the National Flood Insurance Program (NFIP). The 1968 Act provided for the availability of flood insurance within communities that were willing to adopt floodplain management programs to mitigate future flood losses. The Act also required the identification of all floodplain areas within the United States and the establishment of flood-risk zones within those floodplain areas.

As a result of the Hurricane Agnes flooding along the East coast in 1972, the 1968 Act was expanded by the Flood Disaster Protection Act of 1973, in part to increase the awareness of floodplain mapping needs throughout the country. The 1973 Act added the mandatory flood insurance purchase requirement for individuals, businesses, and others buying, building, or improving property located in identified areas of special flood hazards within participating communities as a prerequisite for receiving any type of direct or indirect federal financial assistance when the building or personal property is the subject of or security for such assistance. The Federal Insurance Administration of the Federal Emergency Management Agency (FEMA) administers the NFIP.

Federal Emergency Management Agency (FEMA). FEMA prepares Flood Insurance Rate Maps (FIRMs) that depict the spatial extent of Special Flood Hazard Areas (SFHAs) and other features related to flood risk assessment. FEMA is responsible for maintaining the FIRMs as new scientific and technical data concerning flood risks become available.

Federal Disaster Mitigation Act of 2000. The Disaster Mitigation Act of 2000 authorizes the Federal Emergency Management Agency (FEMA) to set mitigation planning requirements for state, local, and Indian Tribal governments as a condition of mitigation grant and disaster assistance, and requires close coordination of mitigation planning and implementation efforts between FEMA and jurisdictions.

11.2.2 State

Porter-Cologne Water Quality Control Act. The Porter-Cologne Act is the principal State law governing water quality regulation in California, and applies to surface waters, wetlands, and groundwater, as well as regulation of both point and nonpoint sources of pollution. The Porter-Cologne Act implements provisions of the CWA, such as the National Pollution Discharge Elimination System (NPDES) permitting program, through the State Water Resources Control Board and nine Regional Water Quality Control Boards, which issue permits for point source discharges.

The Porter-Cologne Water Quality Act also authorizes the SWRCB and RWQCBs to issue and enforce waste discharge requirements (WDRs), NPDES permits, Section 401 water quality certifications, or other approvals. Other State agencies with jurisdiction over water quality regulation in California include the California Department of Health Services (DHS) (for drinking water regulations), the California Department of Pesticide Regulation, and the Office of Environmental Health and Hazard Assessment (OEHHA).

State Water Resources Control Board. In California, the State Water Resources Control Board (SWRCB) has broad authority over water quality control issues. The SWRCB is responsible for developing statewide water quality policy and exercises the powers delegated to the State by the federal government under the CWA.

In addition to municipal and industrial activities, the SWRCB regulates construction activities that disturb one or more acres of land that could impact hydrologic resources. These activities must comply with the SWRCB Construction General Permit (CGP) (2009-0009-DWQ) as amended by 2010-0014-DWQ and 2012-006-DWQ, which requires that applicants demonstrate conformance with applicable best management practices (BMPs) and prepare a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP must contain a site map that shows the construction site perimeter; existing and proposed buildings, lots, roadways, stormwater collection, and discharge points; general topography both before and after construction; and drainage patterns across the project site. The SWPPP must also list BMPs that will be implemented to prevent soil erosion and discharge of other construction-related pollutants that could contaminate nearby water resources. Additionally, the SWPPP must contain a visual monitoring program, a chemical monitoring program for nonvisible pollutants if there is a failure of the BMPs, and a sediment monitoring plan if the site discharges directly to a water body listed on the 303(d) list for sediment.

State Department of Water Resources. The Department of Water Resources (DWR) is responsible for the management and regulation of water usage, including the delivery of water to two-thirds of California's population through the State Water Project, the nation's largest state-built water development and conveyance system. Working with other agencies and the public, DWR develops strategic goals, and near-term and long-term actions, to conserve, manage, develop, and sustain California's watersheds, water and groundwater resources, and management systems. In addition, DWR also works to prevent and respond to floods, droughts, and catastrophic events that would threaten public safety, water resources and management systems, the environment, and property. The State Water Resources Control Board and DWR are two state agencies responsible for implementing the Sustainable Groundwater Management Act.

Sustainable Groundwater Management Act. The Sustainable Groundwater Management Act was enacted in 2014 to provide for local governmental management of groundwater basins. The Act establishes minimum standards for sustainable groundwater management in order to halt overdraft conditions and bring basins into balanced levels of pumping and recharge, as well as avoid groundwater-storage reductions, seawater intrusion, water-quality degradation, land subsidence, and surface-water depletions. Groundwater basins classified as medium to high priority require preparation of groundwater sustainability plans by the local groundwater sustainability agency, formed with authority from the State to manage groundwater resources. Valley Water (Santa Clara Valley Water District) is the groundwater sustainability agency for Santa Clara County (including the City of Santa Clara) and has managed groundwater resources in the county since 1929.

12.2.3 Regional

San Francisco Regional Water Quality Control Board (Region 2). The San Francisco Regional Water Quality Control Board Region 2 (SFRWQCB) regulates stormwater quality under authority of both the Federal Clean Water Act and the Porter-Cologne Act. The SFRWQCB issues NPDES permits to dischargers of municipal and industrial stormwater runoff and operators of large construction sites. In coordination with permittees of the San Francisco Bay Municipal Regional Stormwater Permit, including the City of Santa Clara, SFRWQCB staff performs an annual performance review and evaluation of the County's stormwater management program and NPDES compliance activities. The SFRWQCB also protects groundwater through its regulatory and planning programs.

The San Francisco Bay Municipal Regional Stormwater NPDES Permit (MRP) (1) issues the Waste Discharge Requirements and National Pollutant Discharge Elimination System (NPDES) Permit for the discharge of stormwater runoff from the Municipal Separate Storm Sewer Systems (MS4s) of municipalities and local agencies in Bay Area counties, and (2) re-issued county-wide municipal stormwater permits as one Municipal Regional Stormwater NPDES Permit to regulate stormwater discharges from municipalities and local agencies in Alameda, Contra Costa, San Mateo, Santa Clara, and Solano counties. In addition, the NPDES permit requires cities and towns in the Santa Clara Valley to develop green stormwater infrastructure (GSI) plans that incorporate green stormwater infrastructure features into new and existing drainage infrastructure, such as rights-of-way, including streets, storm drains, and parking lots.

The City of Santa Clara has joined other cities and towns in the County to form the Santa Clara Valley Urban Runoff Pollution Prevention Program, which is a regulated waste discharger under the MRP (Order No. R2-2015-0049: NPDES Permit No. CAS612008). All new projects in the

Freedom Circle Focus Area Plan Area that create or replace 10,000 square feet or more of roofs or pavement (including new development such as the Greystar project, redevelopment, and commercial and industrial sites) would be covered under this permit, which mandates a low impact development (LID) approach. LID treatment measures include rainwater harvesting and re-use, infiltration, evapotranspiration, and bio-treatment. The square footage standard is lowered for auto service facilities, retail gasoline outlets, restaurants, and stand-alone uncovered parking lots, which are also covered under the MRP if they create or replace 5,000 square feet or more of roofs or pavement.

Association of Bay Area Governments (ABAG) Multi-Jurisdictional Local Hazard Mitigation Plan. The ABAG Multi-Jurisdictional Local Hazard Mitigation Plan ("Taming Natural Disasters") involves local agencies throughout its nine-county Bay Area jurisdiction, with an overall strategy to maintain and enhance disaster response of the region. The plan focuses on mitigation *before* rather than after disasters by: (1) identifying natural hazards faced by the community and region (e.g., earthquakes, flooding, severe weather), (2) assessing the community's and region's vulnerability to these hazards, and (3) identifying specific preventive actions that can be taken to reduce the risk from the hazards. The plan, which has been approved by FEMA and adopted by ABAG, fulfills the requirements of the Federal Disaster Mitigation Act of 2000. The City of Santa Clara adopted the Santa Clara County Annex to 2010 ABAG Local Hazard Mitigation Plan (December 2011), which was incorporated into the ABAG Plan and also approved by FEMA. Adoption of the Annex allows the City of Santa Clara to become eligible for State and federal disaster assistance. (The City's Local Hazard Mitigation Plan, Annex L of the Santa Clara County Operational Area Hazard Mitigation Plan, is discussed below under "City of Santa Clara Emergency Operations Plan.")

Valley Water (Santa Clara Valley Water District). Valley Water provides a safe and clean water supply for businesses and residents in the county, and also implements flood protection projects and programs to ensure the environmental health of streams and rivers. In addition, Valley Water plans for future water needs through capital improvement projects for the dams, reservoirs, pipelines, levees, pump stations, treatment plants, and recycled water facilities that form the water supply infrastructure. Valley Water also prepares and implements the Groundwater Management Plan (2016), which describes groundwater basin sustainability goals and the framework to achieve continued sustainable groundwater management. This Plan covers both the Santa Clara and Llagas subbasins.

Santa Clara Valley Urban Runoff Pollution Prevention Program. The Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP) is a countywide organization with the goal of maintaining the environmental health of Santa Clara Valley creeks and rivers, and ultimately San Francisco Bay, through pollution prevention, source control, monitoring and outreach programs aimed at reducing pollution in stormwater runoff. The City of Santa Clara is a member, along with the County of Santa Clara, Valley Water (SCVWD), and other cities and towns in the Santa Clara Valley that discharge runoff into the San Francisco Bay, all of which are regulated under the Bay Area Municipal Regional Stormwater NPDES Permit (MRP). In addition, as part of the MRP, the SCVURPPP developed the Santa Clara Basin Stormwater Resource Plan (SWRP) to help member agencies in identifying and prioritizing opportunities for stormwater capture and use and in planning green stormwater infrastructure projects.

12.2.4 City of Santa Clara

Santa Clara General Plan. The General Plan addresses stormwater runoff, water quality concerns, and flooding hazards in the city. Applicable General Plan policies include:

- Policy 5.10.5-P5: Regulate development, including remodeling or structural rehabilitation, to ensure adequate mitigation of safety hazards, including flooding, seismic, erosion, liquefaction and subsidence dangers.
- Policy 5.10.5-P11: Require that new development meet stormwater and water management requirements in conformance with State and regional regulations.
- Policy 5.10.5-P12: Continue to participate in the National Flood Insurance Program and encourage all property owners within flood hazard areas to carry flood insurance.
- Policy 5.10.5-P13: Require that development complies with the Flood Damage Protection Code.
- Policy 5.10.5-P15: Require new development to minimize paved and impervious surfaces and promote on-site Best Management Practices for infiltration and retention, including grassy swales, pervious pavement, covered retention areas, bioswales, and cisterns, to reduce urban water run-off.
- Policy 5.10.5-P16: Require new development to implement erosion and sedimentation control measures to maintain an operational drainage system, preserve drainage capacity and protect water quality.
- Policy 5.10.5-P17: Require that grading and other construction activities comply with the Association of Bay Area Governments' Manual of Standards for Erosion and Sediment Control Measures and with the California Stormwater Quality Association (CASQA), Stormwater Best Management Practice Handbook for Construction.
- Policy 5.10.5-P18: Implement the Santa Clara Valley Nonpoint Source Pollution Control Program, Santa Clara Valley Urban Runoff Pollution Prevention Program and the Urban Runoff Management Plan.
- Policy 5.10.5-P19: Limit development activities within riparian corridors to those necessary for improvement or maintenance of stream flow.
- Policy 5.10.5-P20: Maintain, upgrade and replace storm drains throughout the City to reduce potential flooding.
- Policy 5.10.5-P21: Require that storm drain infrastructure is adequate to serve all new development and is in place prior to occupancy.

Santa Clara City Code. City Code Chapter 13.20 (Storm Drains and Discharges) establishes regulations to prevent and control unauthorized discharges into watercourses in order to reduce pollutants from urban stormwater runoff, in compliance with the Federal Clean Water Act (CWA), applicable implementing regulations, the NPDES permit, and the Porter-Cologne Act. Regulations address, among other topics, use of best management practices (including

treatment requirements, operating procedures, and practices), restrictions on disposable food service ware and single-use carry-out plastic bags, and procedures for accidental or negligent discharge of prohibited substances, materials, or other wastes into any storm drain, storm sewer, natural outlet, or channel. Chapter 15.45 (Prevention of Flood Damage Code) establishes standards and regulations designed to protect human life and health, and minimize risks and damage, due to flooding in areas of special flood hazard, and includes measures to implement, such as restricting or prohibiting uses or construction, or requiring protection for uses vulnerable to floods.

City of Santa Clara Emergency Operations Plan. In 2017, the City of Santa Clara, in partnership with Santa Clara County, the County Fire Department, and all incorporated cities in the County, prepared a multi-jurisdictional hazard mitigation plan tailored to the Santa Clara County Operational Area (the Santa Clara County Operational Area Hazard Mitigation Plan). The Plan includes the City's Local Hazard Mitigation Plan (Annex L), which establishes mitigation actions and strategies specific to the City of Santa Clara. The Local Hazard Mitigation Plan includes actions related to property protection, public education and awareness, natural resource protection, emergency services, climate resilience, and other areas of concern that are or would be implemented before, during, or after a natural or man-made disaster to reduce the significance of impacts from earthquake, severe weather events, drought, landslide, and other emergency situations and/or disasters. In addition, the City maintains an Emergency Operations Center (EOC) to provide "response-ready" support (including serving as the coordination hub for emergency management activities) during large-scale emergencies or planned events. The EOC is staffed by all City departments.

City of Santa Clara Green Stormwater Infrastructure Plan. As part of the City's NPDES compliance, the Green Stormwater Infrastructure Plan was approved by the City in 2019 to provides a citywide strategy for identifying and evaluating green stormwater infrastructure (GSI) opportunities, including estimating impervious surface target areas to be redeveloped with GSI facilities and providing technical tools for tracking projects. The Plan also identified coordinating with private developers as a key element in implementing GSI when Focus Areas are developed, for instance by installing green infrastructure facilities in public rights-of-way such as street frontages along properties being developing, and also by installing GSI facilities in industrial areas as they are redeveloped. The Plan supports the City's requirement for future development projects to comply with the Municipal Regional Permit C.3 requirements.

11.3 IMPACTS AND MITIGATION MEASURES

This section describes potential impacts related to hydrology and water quality that could result from the Freedom Circle Focus Area Plan/Greystar General Plan Amendment, and discusses components of the Plan that would avoid or reduce those potential impacts.

Storm drainage *infrastructure* (e.g., physical improvements to collect and convey drainage) are detailed in chapter 18 (Utilities and Service Systems) of this EIR.

11.3.1 Significance Criteria

Based on the CEQA Guidelines,[1] implementation of the Freedom Circle Focus Area Plan/ Greystar General Plan Amendment would have a significant impact related to hydrology and water quality if it would:

(a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality;

(b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin;

(c) Substantially alter the existing drainage pattern of the Plan Area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

i) result in a substantial erosion or siltation within or outside the Plan Area;

ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding within or outside the Plan Area;

iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or

iv) impede or redirect flood flows;

(d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation;

(e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

Criterion (e), regarding stormwater infrastructure *capacity*, is discussed in chapter 18 (Utilities and Service Systems) of this EIR.

Regarding criterion (d): (1) the Plan Area is not near a lake and therefore would not experience a seiche (there are no published maps or information on seiche hazards in the Bay Area); (2) the Plan Area is not in a Tsunami Inundation Area as identified in Association of Bay Area Governments (see "Setting," above); and (3) the Plan Area is relatively level and would not be susceptible to mudflow. Therefore, criterion (d) is not discussed further in this EIR.

11.3.2 Relevant Freedom Circle Focus Area Plan Components

Section 11.2 (Regulatory Setting), above, applies to Focus Area Plan implementation. Because adopted regulations and requirements are already in place, the Plan does not include components that directly address CEQA-defined hydrology and water quality impacts.

[1]CEQA Guidelines, appendix G, items X (a through e).

11.3.3 Impacts and Mitigations

Impact 11-1: Construction Period and Post-Construction Water Quality Impacts—Plan Area. The Regional Water Quality Control Board (RWQCB) and City of Santa Clara water quality protection requirements and conditions applicable to implementation of the Focus Area Plan and the future, required comprehensive planning study (e.g., specific plan) are intended to reduce any potential construction period and post-construction water quality impacts to a *less-than-significant level*, consistent with federal and State water quality regulations and plans (see section 11.2, Regulatory Setting). Also see EIR chapter 18 (Utilities and Service Systems), subsection 18.3.3 (Impacts and Mitigations) under Project and Cumulative Need for Water, Wastewater, and Storm Drainage System Infrastructure, item (c) (Projected Storm Drainage Infrastructure Requirements).

Development facilitated by the Focus Area Plan and future, required comprehensive planning study (e.g., specific plan) would implement site-specific, mandated measures (uniformly applied development standards) to protect water quality, including but not limited to those measures required under the Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP) (see "Regulatory Setting," above).

Any project grading activities involving disturbance of more than one acre would require a Notice of Intent (NOI) and a National Pollution Discharge Elimination System (NPDES) permit from the San Francisco Bay Regional Water Quality Control Board (RWQCB, Region 2 for Santa Clara). The RWQCB administers the NPDES stormwater permitting program in the Bay Area, including the Municipal Regional Stormwater NPDES Permit and C.3 (stormwater compliance) Permit. Project owners submit a Notice of Intent (NOI) to the RWQCB to be covered by the General Construction Permit prior to the beginning of construction. The General Construction Permit requires the preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP). For a project entailing disturbance of more than one acre, the SWPPP must be prepared before construction begins, usually during the planning and design phases of a project, and must include specifications for Best Management Practices (BMPs) that would be implemented during project construction to control contamination of surface flows and the potential discharge of pollutants from commencement of construction through project completion. The SWPPP document itself remains on-site during construction. After completion of the project, the owners are required to submit a Notice of Termination to the RWQCB to indicate that construction is completed.

Also, depending on individual development proposals, grading permits would be required. For all grading permits, the City mandates site-specific measures (uniformly applied development standards) to be implemented during grading to minimize construction period erosion, including a site-specific erosion and sediment control plan subject to City review and approval. Erosion and sediment control plans typically show what BMPs are proposed to be used and where, and are customarily superimposed on a project grading plan. Because project sites and site conditions vary, the measures could include a combination of techniques such as erosion control blankets, fiber rolls, silt fences, storm drain inlet protection, and stabilized construction exit(s), and would generally address how to minimize active construction areas during the rainy season (i.e., stockpiling and protecting site soils), preservation of existing vegetation and revegetation of disturbed areas afterward, use of soil stabilization methods (soil binders, straw mulch, etc.), as well as sediment control measures (such as silt fences or straw wattles) to prevent residual silt runoff to storm drains or waterways.

The temporary use of hazardous materials (e.g., diesel fuel) and heavy equipment, which represent a secondary component of construction, could introduce materials that might be spilled in the Plan Area and subsequently washed into water bodies, such as Calabazas Creek, San Tomas Aquino Creek, and, ultimately, San Francisco Bay. These substances could have a direct, adverse effect on water quality in water bodies. Implementation of the standard, required NPDES, SCVURPPP, and City construction period measures to reduce the risk of construction period pollutants would reduce this risk to a *less-than-significant level*.

As noted above, individual development projects would be required to treat and detain stormwater runoff on a site-specific basis. Road resurfacing and sidewalk repair and/or replacement are exempt from the NPDES C.3 Permit requirements if the work is within the existing impervious area footprint. Where Plan-facilitated improvements include new roadway impervious surfaces outside existing impervious areas, the NPDES C.3 Permit requirements must be implemented.

Based on the above discussion, construction period water quality impacts resulting from implementation of the Focus Area Plan and the future, required comprehensive planning study (e.g., specific plan) would be ***less-than-significant*** (see criteria [a] and [c][iii] in subsection 11.3.1, "Significance Criteria," above).

Mitigation 11-1. No significant impact has been identified; no mitigation is required.

Impact 11-2: Construction Period and Post-Construction Water Quality Impacts—Greystar Project. The Regional Water Quality Control Board (RWQCB) and City of Santa Clara water quality protection requirements and conditions discussed above in Impact 11-1 would apply to the Greystar project. In addition, because project grading activities would involve disturbance of more than one acre, the project would be required to file a Notice of Intent (NOI) and obtain coverage under the State Water Board's Construction General Permit (Order No. 2009-0009-DWQ) prior to issuance of any building permit for grading or construction. As part of the NOI, the project would be required to prepare a stormwater pollution prevention plan (SWPPP), which would be subject to City review and approval before construction begins. Throughout construction, the project would be inspected once per month by the City during the wet season (October – April). The SWPPP document itself would remain on-site during construction. After completion of the project, the project would be required to submit a Notice of Termination to the RWQCB to indicate that construction is completed.

Prior to City issuance of building or grading permits, the applicant would be required to submit a Final Stormwater Management Plan for City review and approval, including an updated "C.3" Worksheet, and Best Management Practices (BMPs) and post-construction water runoff measures incorporated into construction plans in accordance with the City's Urban Runoff Pollution Prevention Program standards. The applicant proposes using the following BMPs, which shall be reviewed and approved by the Planning Division and the Building Inspection Division and incorporated into construction drawings and specifications: site design measures to minimize impervious surfaces and provide minimum-impact street or parking lot design, disconnected downspouts, other self-treating areas and self-retaining areas; source control measures such as a covered dumpster area that drains to the sanitary sewer, a sanitary sewer connection or accessible cleanout for swimming pools, spas, and/or fountains, landscaping that minimizes irrigation, runoff, pesticides, and fertilizers, maintenance activities such as pavement sweeping and catch basin cleaning, and storm drain labeling; bioretention areas; and other

treatment methods as appropriate such as media filters (i.e., sand, compost, or other proprietary media).[1]

The project would also be required to submit, for City review and approval, an erosion and sediment control plan, which shall include measures to: phase construction activity so that the amount of disturbed areas is limited and also allow for stabilizing these areas as quickly as possible; control on-site stormwater runoff to minimize soil erosion; protect soil stockpiles; protect storm drain inlets during soil-disturbing activities and maintain them throughout construction; establish perimeter controls to help prevent sediment from leaving the site; inspect and maintain these erosion and sediment control measures, including inspecting prior to predicted storm events and after, and perform maintenance as soon as problems are detected; prevent or minimize dust generation through use of water or other dust palliatives; establish and clearly identify stabilized construction exits (i.e., using crushed rock) for vehicles to enter and exit the site; and provide wash racks and a hose-down system to remove mud and debris from construction vehicles (with wash runoff diverted to a sediment trap or basin).

The temporary use of hazardous materials (e.g., diesel fuel) and heavy equipment could result in hazardous materials spilled in the Plan Area and subsequently washed into water bodies, such as Calabazas Creek, San Tomas Aquino Creek, and, ultimately, San Francisco Bay, which would have a direct, adverse effect on water quality in water bodies. Implementation of standard, required NPDES, SCVURPPP, and City construction period measures to reduce the risk of construction period pollutants would reduce this risk to a *less-than-significant level*.

Road resurfacing and sidewalk repair and/or replacement are exempt from the NPDES C.3 Permit requirements if the work is within the existing impervious area footprint; however, for project improvements, including impervious surfaces from new roadway outside of existing impervious areas, the NPDES C.3 Permit requirements must be implemented.

Based on the above discussion, construction period water quality impacts resulting from the Greystar project would be ***less-than-significant*** (see criteria [a] and [c][iii] in subsection 11.3.1, "Significance Criteria," above).

Mitigation 11-2. No significant impact has been identified; no mitigation is required.

Impact 11-3: Long-Term Water Quality Impacts from Project Operation—Plan Area. Long-term implementation of the Focus Area Plan and the future, required comprehensive planning study (e.g., specific plan) could result in contamination of Plan Area stormwater runoff with petroleum and other contaminants from motor vehicles. Future development facilitated by the Focus Area Plan and the future, required comprehensive planning study (e.g., specific plan) would be required to comply with RWQCB- and City-mandated post-construction, non-point source pollution control measures (uniformly applied development standards; also known as facilities and maintenance practices) that would ensure that such impacts would be reduced to a *less-than-significant level*.

Plan implementation could result in the deposition by motor vehicles of oil and other contaminants along Plan Area streets and in parking areas. Rainfall has the potential to wash

[1]Santa Clara Valley Urban Runoff Pollution Prevention Program "C.3 Data Form" for the Greystar Project, prepared by BKF Engineers (undated).

these contaminants into the municipal storm drainage system, potentially contaminating downstream waterways, in particular San Tomas Aquino Creek where stormwater runoff from the Plan Area is conveyed, although during major storm events with high levels of rainfall, storm drain networks can interact through overflow connections and surface flows. Such non-point pollution is typically controlled through a combination of source controls (generally through the use of infiltration devices, such as infiltration trenches or basins, which are designed to transmit runoff directly to subsurface soils and thereby prevent pollutants from entering the waterways).

Under the terms of the countywide Municipal Regional Stormwater NPDES Permit (MRP) that the City of Santa Clara is subject to, each development project must also implement post-construction measures to prevent or control pollutants in runoff (recommended measures are included in the Stormwater C.3 Guidebook), and identify a plan to inspect and maintain these measures. Project designs, subject to review and approval by the City, would be required to include the on-site collection of runoff from all parking facilities and its on-site treatment (oil/grease traps, filters, oil/water separators, or similar in-line filtration systems), and an associated periodic clean out/maintenance program that ensures acceptable trap efficiencies, specifies appropriate disposal procedures, and adequately reduces the risk that the traps become sinks for pollutants. A regular schedule of parking facility sweeping would also be required. In addition, source control features such as roofed trash enclosures would be required to keep pollutants from contacting stormwater. These mandated, uniformly applied stormwater treatment measures would also need to meet engineered sizing criteria approved by the City Engineer.

Permanent post-construction Best Management Practices (BMPs) are required for all new projects that create or replace between 2,500 and 10,000 square feet ("small projects") or more ("large projects") of roofs or pavement, including new development, redevelopment, and commercial and industrial sites. Permanent treatment BMPs can include, for example:

- rainwater harvesting and re-use,
- biofiltration swales,
- detention basins,
- bioretention areas, and
- flow-through planter boxes.

Low Impact Development (LID) features can be integrated with BMPs, control measures, and permit requirements. LID features reduce impervious surfaces and can include pervious pavements, landscape features, and green roofs. Parking stalls and plaza areas in the Plan Area would utilize pervious asphalt, pervious concrete, or permeable pavers. Medians would be landscaped to increase permeability. Landscaped open space also would contribute to reductions in impervious surfaces.

Given the existing level of urbanization in the Plan Area and the potential development assumed under the Focus Area Plan and the future, required comprehensive planning study (e.g., specific plan), BMPs would help address existing constraints. For example, bioretention planter areas may be used to treat roadway runoff, and flow-through planter boxes may be used to treat roof runoff. Or, depending on site-specific conditions and proposed plans, BMPs and LID features

could include those listed above (BMP: rainwater harvesting and re-use, etc.; LID: pervious pavement, landscape features, etc.) or a combination of these or other feasible and effective techniques. As part of the standard City development process, future project applicants would be required to submit, for City review and approval, a Santa Clara "C.3" data form, which would be used to determine whether C.3 requirements apply (i.e., projects meeting or exceeding the size threshold for impervious surfaces) and to identify which site design measures, pollutant source controls, and/or stormwater treatment measures are proposed to prevent runoff pollution.

During design, the Stormwater C.3 Guidebook shall be referenced for acceptable BMPs, design considerations, design criteria, and operation and maintenance information. In addition to the C.3 Guidebook, individual development proposals shall determine if drainage would discharge to a water body impacted by specific pollutants, as identified on the C.3 data form (see above), which would be required to demonstrate compliance with RWQCB requirements to reduce stormwater runoff water quality impacts to a less-than-significant level. The 303(d) List of Impacted Water Bodies, prepared and issued by the RWQCB, includes Calabazas and San Tomas Aquino creeks. The Municipal Regional Permit (MRP) provides more detailed information. Based on the discussion above, the effects of contaminated site runoff on water quality in the local (municipal) storm drainage system would represent a ***less-than-significant impact*** (see criterion [a] in subsection 11.3.1, "Significance Criteria," above).

Mitigation 11-3. No significant impact has been identified; no mitigation is required.

Impact 11-4: Long-Term Water Quality Impacts from Project Operation—Greystar Project. The Regional Water Quality Control Board (RWQCB) and City of Santa Clara water quality protection requirements and conditions discussed above in Impact 11-3 would apply to the Greystar project. According to the "C.3" Worksheet provided to the City by Greystar,[1] the project site is comprised of approximately 581,031 square feet (SF) of mostly pervious surface (vacant grass field with small amounts of remnant asphalt pavement). The project proposes to replace approximately 198,656 SF of this pervious surface with new landscaping and the remainder with approximately 382,375 SF of impervious surfaces (roofs, sidewalks, and streets).

Permanent post-construction Best Management Practices (BMPs) would be required for this new development. As shown earlier on Figure 11.1A and 11.1B (Preliminary Project Stormwater Management Plan), the project proposes use of bioretention areas to collect and detain stormflow throughout most of the project site, subject to review and approval by the City. The bioretention areas would allow time for pollutants to filter through soil media and plant roots before ultimate release into the storm drain system. A media treatment device would be used in the southern part of the Building A lot, which would filter stormwater runoff through absorptive media designed to remove pollutants. This measure would be necessary because bioretention areas cannot be located within City storm drain easements.[2] The other areas would be "self-retaining," with one in the paseo between Building A and Building B and the other in the

[1]Santa Clara Valley Urban Runoff Pollution Prevention Program "C.3 Data Form" for the Greystar Project, prepared by BKF Engineers (undated).

[2]BKF Engineers, "Freedom Circle: Narrative Discussion of Low Impact Development Feasibility/ Infeasibility" (undated).

northwest corner of the Building B lot. All stormwater control measures would be required to meet City and Water Board specifications and would be subject to City inspection and approval.

Stormwater treatment facilities must be designed and installed to achieve the site design measures throughout their life in accordance with the SCVRUPPP C.3 Stormwater Handbook (Chapter 6 and Appendix C) and shall be installed using biotreatment soil media that meet the minimum specifications as set forth in this Handbook.

As a uniformly applicable development standard, the City would also require the project to incorporate Low Impact Development (LID) practices, which could include reducing impervious surfaces and increasing use of pervious pavements, landscape features, and green roofs. Parking stalls and plaza areas on the project site could utilize pervious asphalt, pervious concrete, or permeable pavers. Increased landscaped open space areas would also contribute to reductions in impervious surfaces.[1]

The project would also include source control features such as roofed trash enclosures to keep pollutants from contacting stormwater. Interior floor drains and drains within trash enclosures would be required to be plumbed to the sanitary sewer system and not connected to the City's storm drain system. Decorative and recreational water features (e.g., fountains, pools, ponds) would also be required to connect to the sanitary sewer system only. These mandated, uniformly applied stormwater treatment measures would also need to meet engineered sizing criteria approved by the City Engineer.

Based on the discussion above, the effects of contaminated project site runoff on water quality in the local (municipal) storm drainage system would represent a ***less-than-significant impact*** (see criterion [a] in subsection 11.3.1, "Significance Criteria," above).

Mitigation 11-4. No significant impact has been identified; no mitigation is required.

Impact 11-5: Effects on Groundwater Recharge and Groundwater Management—Plan Area. Currently, the Focus Plan Area (with the exception of the vacant Greystar project site) is covered almost entirely with structures, surface parking (asphalt paving), and introduced landscaping. Future development facilitated by the Focus Area Plan and the future, required comprehensive planning study (e.g., specific plan) would be expected to incorporate new permeable areas in the Plan Area (as discussed in Impact 11-3) through application of LID techniques, introduction of new landscaped, open space, and park areas, and C.3 requirements and BMPs, in compliance with NPDES permit requirements. However, because it is uncertain how much new permeable area would be created from future individual development proposals until they are submitted and the size of the permeable areas are determined, and because the proposed Greystar project would increase impervious surface area on its individual project site, it is possible that the Focus Area Plan would result in a net increase in overall impervious surface area. However, because the Focus Area Plan (including the Greystar project) and the required comprehensive planning study would comply with established programs for controlling

[1]These City-mandated requirements are disclosed here for informational purposes because they are related to site hydrologic conditions. For a discussion of potential geologic and soils impacts and necessary project geotechnical design considerations related to preventing risks to below-grade walls from water infiltration near buildings, see section "8.1.4 Greystar Project Site-Specific Geotechnical Investigation—(g) Expansive Soils" in Chapter 8, Geology and Soils, of this EIR.

pollution (including stormwater management plans, Total Maximum Daily Load implementation plans, and construction site stormwater runoff and erosion and sediment controls), there would be no conflict with the San Francisco Bay Water Quality Control Plan (Basin Plan).[1]

In addition, as discussed in section 11.1.1 (Hydrologic Setting), the Plan Area would not conflict with or obstruct implementation of the 2016 Santa Clara Valley Water District Groundwater Management Plan because the Plan Area is not an area designated by Valley Water for groundwater recharge. Therefore, the impact on groundwater recharge and management would be ***less-than-significant*** (see criteria [b] and [e] in subsection 11.3.1, "Significance Criteria," above).

Mitigation 11-5. No significant impact has been identified; no mitigation is required.

Impact 11-6: Effects on Groundwater Recharge and Groundwater Management—Greystar Project. As discussed in Impact 11-4, the Greystar project would introduce new impervious surfaces (roofs, sidewalks, and streets) on approximately two-thirds of the currently vacant site. The project would also create permeable surfaces on the remaining one-third of the site, including new landscaped, open space, and park areas, and as shown on Figure 11.1A and 11.1B, 14 bioretention basins that would collect and detain runoff, one media treatment device to filter runoff (located in a City storm drain easement), and two "self-retaining" drainage areas. Project compliance with C.3 requirements and BMPs, including application of LID techniques, and the new landscaped, open space, and park areas, plus the bioretention and other drainage management areas would be expected to minimize the effects of runoff from impervious surfaces, in compliance with NPDES permit requirements. Therefore, the Greystar project would not conflict with the San Francisco Bay Water Quality Control Plan (Basin Plan).

As discussed in section 11.1.1 (Hydrologic Setting), the Plan Area is not an area designated by Valley Water for groundwater recharge. Therefore, the Greystar project would not conflict with or obstruct implementation of the 2016 Santa Clara Valley Water District Groundwater Management Plan because the impact on groundwater recharge and management would be ***less-than-significant*** (see criteria [b] and [e] in subsection 11.3.1, "Significance Criteria," above).

Mitigation 11-6. No significant impact has been identified; no mitigation is required.

Impact 11-7: Drainage Patterns and Risk of Flooding—Plan Area. Because the Plan Area is already covered with structures, paved surface parking, and introduced landscaping, development under the Focus Area Plan and the future, required comprehensive planning study (e.g., specific plan) would not significantly alter the total volume or rate of stormwater runoff into the existing municipal storm drain system (see EIR chapter 18, Utilities and Service Systems) or substantially alter drainage patterns, particularly because implementation of stormwater control

[1]As explained by the Water Board, "The Basin Plan fulfills the requirements of the Porter-Cologne Act that call for water quality control plans in California…establishes or indicates water quality standards applicable to waters of the Region, as required by the federal Clean Water Act…[and] establishes water quality attainment strategies, including total maximum daily loads (TMDLs) required by the Clean Water Act, for pollutants and water bodies where water quality standards are not currently met." (https://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/planningtmdls/basinplan/web/bp_ch1_print.html, accessed 8/6/21)

measures (as discussed above in Impact 11-3) would slow down the rate and reduce the volume of stormwater runoff, especially when compared to the existing hardscape areas. In addition, the Focus Area Plan proposes public parkland (which would typically include additional landscaped, open space, and park areas with pervious surfaces) and also proposes to minimize surface parking by requiring below-grade or structured parking facilities.

In order to understand flood risks, the Federal Emergency Management Agency (FEMA) publishes Flood Insurance Rate Maps (FIRMs) that determine level of risk for communities. These maps identify "Special Flood Hazard Areas" (SFHAs) that are subject to inundation by a 1% annual chance flood (e.g., a 100-year flood event). The currently mapped FEMA Flood Zones are shown on earlier Figure 11.1 and described in the section 11.1.4 (Flooding and Flood Hazards), which also explains that, according to FEMA, most of the Plan Area is located in Zone X ("Area with Reduced Flood Risk Due to Levee" – i.e., not in the 1% annual flood hazard zone).

The City applies uniformly applicable stormwater management regulations to avoid or reduce the potential for flood flow or drainage impacts of development, including erosion and siltation impacts, which provide for incorporating in projects one or a combination of BMPs such as rainwater harvesting and re-use, biofiltration swales, detention basins, bioretention areas, and flow-through planter boxes, and/or LID features such as use of pervious pavement, landscape features, and green roofs. The City's Flood Damage Prevention Code (City Code chapter 15.45) requires development in Special Flood Hazard Areas to meet City standards related to anchoring of structures, construction methods and materials, elevation of structures, and floodproofing (as applicable to reduce or eliminate flood damage). City erosion and sediment control plan requirements (discussed in Impact 11-1) would reduce the potential for erosion and/or sedimentation resulting from any changes in drainage patterns.

Also, for individual developments, the City requires a utility plan addressing, among other infrastructure components, the storm drain system (see chapter 18, Utilities and Service Systems, of this EIR). Practices include controlling the amount and timing of runoff from development sites (e.g., see the BMPs and LID features described above, which control runoff quantities as well as improve water quality) and raising the elevation of buildings or other flood protective measures as described above. Implementation of these development standards would be required as a condition of individual development project approval, prior to issuance of grading or building permits. Also, because development under the Focus Area Plan and future, required comprehensive planning study (e.g., specific plan) would be required to prevent increases in runoff flows from new development and redevelopment projects (e.g., comply with NPDES C.3 requirements), effects of the Focus Area Plan and required comprehensive planning study on existing drainage patterns would be less-than-significant.

Based on the above discussion, the impacts of drainage patterns and potential flooding are considered ***less-than-significant*** (see criteria [c][i], [c][ii], [c][iv], and [d] in subsection 11.3.1, "Significance Criteria," above).

Mitigation 11-7. No significant impact has been identified; no mitigation is required.

Impact 11-8: Drainage Patterns and Risk of Flooding—Greystar Project. The project site is currently vacant, and the proposed Greystar project would include approximately 382,375 square feet of new impervious surface area (roofs, sidewalks, streets), which could alter the

total volume or rate of stormwater runoff into the existing municipal storm drain system or alter drainage patterns. However, the Greystar project proposes implementation of stormwater control measures (such as those as discussed above in Impact 11-3), which would slow down the rate and reduce the volume of project stormwater runoff. The new landscaped, open space, and park areas (pervious surfaces) would total approximately one-third of the Greystar project site. Project stormwater and drainage design features would be subject to City review and approval, including final sizing criteria to avoid or reduce the potential for flood flow or drainage impacts of development, including erosion and siltation impacts.

Existing storm drain pipes run along Freedom Circle, adjacent to the project site. As a standard development requirement, the project has submitted a preliminary utility plan to the City, showing proposed pipe sizes, materials, lengths, slope, and locations for storm drains, sanitary sewer, and water. The project would be responsible for connections to City storm drains, per City approved plans and in compliance with City standards.

As shown on earlier Figure 11.1 and described in the section 11.1.4 (Flooding and Flood Hazards), according to FEMA the project site is located in Zone X ("Area with Reduced Flood Risk Due to Levee" – i.e., not in the 1% annual flood hazard zone) and is not in a Special Flood Hazard Area.

The City would require the project to prepare, for City review and approval, a complete storm drain study for the 10-year and 100-year storm events. In addition, City erosion and sediment control plan requirements (discussed in Impact 11-2) would reduce the potential for erosion and/or sedimentation resulting from any changes in drainage patterns.

Implementation of City development standards would be required as a conditions of project approval, prior to issuance of grading or building permits. Based on the above discussion, the impacts of drainage patterns and potential flooding are considered ***less-than-significant*** (see criteria [c][i], [c][ii], [c][iv], and [d] in subsection 11.3.1, "Significance Criteria," above).

Mitigation 11-8. No significant impact has been identified; no mitigation is required.

12. LAND USE AND PLANNING

This EIR chapter describes the potential land use and planning impacts of the proposed Freedom Circle Focus Area Plan/Greystar General Plan Amendment. The chapter addresses the land use concerns identified by the CEQA Guidelines--i.e., would development under the proposed Plan (including the Greystar project) physically divide a community or conflict with an applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

12.1 SETTING

Figures 3.1 through 3.4 in EIR chapter 3, Project Description, of this EIR show the Plan Area (including the Greystar project) in a regional and local context.

As discussed in chapter 3, Santa Clara is located near the southern part of San Francisco Bay, bordered by the cities of Sunnyvale and Cupertino to the west, San Jose to the south and east, and Milpitas to the northeast. Primary regional access is via Tasman Drive south of I-238 and Great America Parkway, which connects to U.S. 101. State Route 237 (SR 237) runs along the northern Santa Clara city border. U.S. 101 and SR 82 cross the city from west to east. Interstate 280 (I-280) crosses the southwestern corner of the city and then parallels the southern city border, connecting with I-880, SR 87, and U.S 101 in San Jose.

The Valley Transportation Authority (VTA) provides light rail service (Orange Line and Green Line) at the Old Ironsides Station on Tasman Drive at Old Ironsides Drive and the Great America Station on Tasman Drive at Convention Center. Both stations are about a half-mile north of the Plan Area; Old Ironsides Station is about a half-mile west of Levi's Stadium, and the Great America Station is about 640 feet west of the stadium. Bus service within Santa Clara is also provided by VTA. See chapter 17, Transportation, of this EIR for a description of circulation and transit.

Calabazas Creek is located along the western city limits. San Tomas Aquino and Saratoga Creeks are located mid-city. Guadalupe River is located in the east. All of these flow northward, extending past the northern city limits to wetlands at the southern part of San Francisco Bay.

(a) Planning Boundaries. The approximately 108-acre Plan Area is located in the northwestern part of the City and is generally bounded by Great America Parkway to the west, California's Great America amusement park to the north, San Tomas Aquino Creek to the east, and U.S. 101 to the south.

From Great America Parkway, the Plan Area boundary extends over a half-mile roughly south to the U.S. 101 offramp connection to Great America Parkway, then follows the offramp and U.S. 101 almost a half-mile to San Tomas Aquino Creek where it turns and heads north to Mission College Boulevard. The Plan Area boundary heads west about 200 hundred feet and turns onto

Agnew Road and heads north, splitting away from Agnew Road and extending to a California's Great America amusement park parking lot where it heads west, following the amusement park property line until reaching Patrick Henry Drive, which connects with Great America Parkway about 400 feet to the west.

(b) Existing Land Use. See Figure 12.1 (Existing Land Use). Except for the vacant Greystar project site located in the southeast portion of the Plan Area, the Plan Area is essentially built out and is in an area of the city primarily designated High Intensity Office/R&D with some Regional Commercial, with uses such as biotech and electronics, business offices, hotels, and various support services (such as car rental, UPS store, medical/dental, and restaurants).

According to the General Plan Land Use Diagram, approximately 83 percent of the Plan Area is currently designated High-Intensity Office/R&D (HDRD). The remainder, approximately 17 percent, is designated Regional Commercial (RC).[1] The HDRD classification is intended for medical facilities, data centers (and supporting on-site uses), and campus-like corporate/office developments with a maximum Floor Area Ratio (FAR) of 2.00. The RC classification is intended to accommodate commercial developments that serve both Santa Clara residents and the surrounding region, such as regional shopping centers, local-serving offices, medical facilities, and travel-related services such as hotels, gas stations, restaurants, convention centers, and amusement parks, among other uses, with a maximum Floor Area Ratio (FAR) of 0.60.[2]

Buildings cover about 23 percent of the Plan Area. All the privately owned lots in the Plan Area have areas greater than one acre. The Plan Area has a "superblock street layout" with ample surface parking that supports dependence on cars. The spatial separation between buildings is high, with significant building setbacks. Pedestrian linkages are limited.[3]

(c) Surrounding Land Uses. Land uses in the vicinity of the Plan Area include California's Great America amusement park (and parking lots) and the Towers @ Great America (with parking structure) to the north; commercial, office, religious, and other uses (hotel, restaurants) to the west along Great America Parkway, including research and development (R&D), light industrial (electronics and computer software development), and other uses around Patrick Henry Drive; office, residential, and retail uses to the south of U.S. 101 (Santa Clara Square); and office and R&D uses to the east past San Tomas Aquino Creek. In addition, Santa Clara Fire Department Station 8 is located at Mission College Boulevard and Agnew Road adjacent to the Plan Area boundary.

(d) Greystar Project Site. As discussed above, the Greystar project site, located in the southeast part of the Plan Area, is currently vacant. The site is designated by the General Plan for High Intensity Office/R&D use.

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[1]City of Santa Clara, "MapSantaClara," https://map.santaclaraca.gov/public/index.html?viewer=regional, accessed 9/4/20.

[2]City of Santa Clara 2010-2035 General Plan, "5.2.2 Land Use Classifications and Diagram."

[3]MIG, "Freedom Circle and Patrick Henry Drive Specific Plans Policy and Planning Context Report," December 2018.

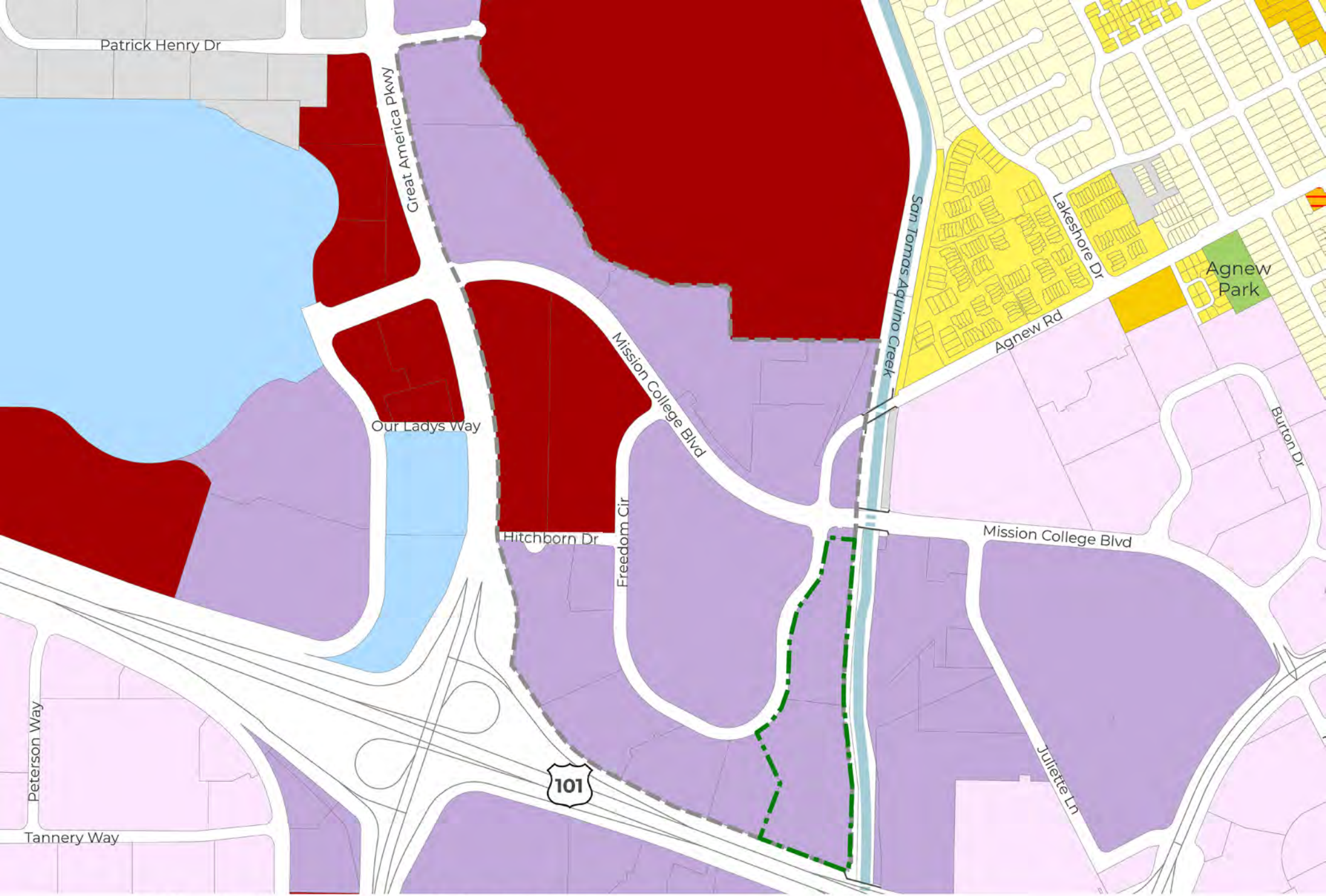

FIGURE 12.1: EXISTING LAND USE

Freedom Circle Focus Area Plan

- Study Area Parcel
- Greystar Project Site
- Creeks/Water Bodies
- High Density Residential
- Medium Density Residential
- Low Density Residential
- Very Low Density Residential
- Neighborhood Commercial
- Community Commercial
- Regional Commercial
- Neighborhood Mixed Use
- Regional Mixed Use
- Urban Center/Entertainment District
- Low Density Offce/R&D
- High Density Office/R&D
- Parks/Open Space
- Light Industrial
- Heavy Industrial

N

0 750 1,500 Feet

(e) Airport Compatibility Conflicts. As discussed in chapter 10, Hazards and Hazardous Materials, of this EIR, the Norman Y. Mineta San Jose International Airport (San Jose International Airport or "SJC") is located about 1.5 miles to the southeast of the Plan Area. The Santa Clara County Airport Land Use Commission's (ALUC) Comprehensive Land Use Plan (CLUP) for the San Jose International Airport establishes an Airport Influence Area (AIA), which is a boundary around the Airport within which Airport Comprehensive Land Use Plan (CLUP) policies may apply to proposed development.[1] As indicated on Figure 10.1 (Airport Influence Area) of chapter 10, approximately 45 acres of the Plan Area (between Mission College Boulevard and California's Great America amusement park, and bounded by Great American Parkway on the west and the San Tomas Aquino Creek Trail on the east) are in the San Jose International Airport AIA. Also, the City of San Jose holds an Avigation Easement over much of the area north of Mission College Boulevard, which provides for acceptance of specified elevation limits and aircraft overflight impacts.[2] The rest of the Plan Area, south of Mission College Boulevard, including the Greystar project site, is not located within the AIA.

In addition, the CLUP establishes development standards related to noise, structure height, and safety that are applicable to development in areas surrounding the airport and provides maps of these areas to help evaluate land use compatibility in the vicinity of the airport. While the Plan Area is not located in a mapped safety or noise area, it is within the CLUP Height Restriction Area, which uses the Federal Aviation Administration's (FAA) Federal Aviation Regulations (FAR) Part 77 imaginary surfaces to delineate the area within which structures above a maximum structure height may constitute a safety hazard, therefore requiring that the FAA be notified of certain proposed construction projects located within an extended zone defined by an imaginary slope radiating outward for several miles from an airport's runways, or which would otherwise stand at least 200 feet in height above ground.

The following CLUP policies would be applicable to the Plan Area and the proposed Greystar project:

- CLUP Policy G-5 requires, where legally allowed, dedication of an avigation easement to the City of San Jose to be offered as a condition of approval on all projects located within an Airport Influence Area, other than certain reconstruction projects defined in the CLUP.

- CLUP Policy G-6 prohibits uses within an AIA that may cause hazards to aircraft due to electrical interference, high intensity lighting, attraction of birds, and activities that produce smoke, dust, or glare, among others. Projects proposed in the Plan Area that are within the San Jose International Airport AIA would be referred to the ALUC for a consistency review with the San Jose International Airport CLUP.

- CLUP Policy G-7 requires all new exterior lighting or large video displays within the AIA be designed so as to create no interference with aircraft operations. Such lighting shall be constructed and located so that only the intended area is illuminated and off-site glare is fully controlled. The lighting shall be arrayed in such a manner that it cannot be mistaken for airport approach or runway lights by pilots.

[1]Santa Clara County Airport Land Use Commission, Comprehensive Land Use Plan for the Norman Y. Mineta San Jose International Airport, adopted May 25, 2011 and amended November 16, 2016, p. 3-17.

[2]Cary Greene, Airport Planner, City of San Jose Airport Department, email dated July 13, 2020, to John Davidson, Principal Planner, City of Santa Clara Community Development Department.

- CLUP Policy H-1 states that any structure, existing or proposed, that penetrates (i.e., is above the maximum structure height) the FAR Part 77 imaginary surfaces mapped in CLUP Figure 6 (CLUP p. 3-11) would be considered an incompatible use, barring a determination from the FAA that the proposed structure or object does not present a hazard to air navigation. The FAR Part 77 airspace notification surface for San Jose International Airport over the project site ranges from an approximate elevation of 90-95 feet above ground at the southeast corner of the Plan area to an approximate elevation of 145-150 feet at the northwest corner of the Plan area.[1]

- CLUP Policy H-2 requires any project that may exceed a FAR Part 77 surface to notify the Federal Aviation Administration (FAA), per FAR Part 77, Subpart B on FAA Form 7460-1, Notice of Proposed Construction or Alteration. (Notification to the FAA under FAR Part 77, Subpart B, is required even for certain proposed construction that does not exceed the height limits allowed by Subpart C of the FARs).

- CLUP Policy N-5 requires all property owners within the AIA who rent or lease their property for residential use to include a statement advising tenants living within a high noise area that the exterior noise level is predicted to be greater than 65 dB CNEL, consistent with current state law. (Note: As part of the real estate transfer process, residential property purchasers are to be informed if the property is in an Airport Influence Area and informed of the potential impacts resulting from the associated airport.)

- CLUP Policy N-6 requires that noise level compatibility standards for other types of land uses be applied in the same manner as for residential noise level criteria (CLUP Policy N-5).

- CLUP Policy O-1 requires all new projects within the AIA that are subject to discretionary review and approval to dedicate an avigation easement to the City of San Jose, in compliance with state law.

12.2 REGULATORY SETTING

12.2.1 Regional

Association of Bay Area Governments (ABAG) Plans and Policies. The Association of Bay Area Governments (ABAG) is the regional planning agency and council of governments for the nine-county San Francisco Bay Area responsible for addressing in a regional context such intraregional issues as land use, housing, environmental quality, and economic development. The following ABAG regional planning programs warrant consideration:

(1) Plan Bay Area 2040. The primary document and associated process used in implementing ABAG policies is Plan Bay Area 2040, adopted collectively by ABAG and the Metropolitan Transportation Commission (MTC) on July 26, 2017. Plan Bay Area 2040 states:

"Plan Bay Area 2040 neither funds specific transportation projects nor changes local land use policies. Importantly, individual jurisdictions retain all local land use authority. But Plan Bay

[1]Cary Greene, Airport Planner, City of San Jose Airport Department, email dated July 13, 2020, to John Davidson, Principal Planner, City of Santa Clara Community Development Department.

Area 2040 does set a roadmap for future transportation investments and identifies what it would take to accommodate expected growth." (page 26)

Plan Bay Area 2050, the update to Plan Bay Area 2040, was adopted on October 21, 2021 by the Metropolitan Transportation Commission and the Executive Board of the Association of Bay Area Governments. Plan Bay Area 2050 includes strategies for housing, transportation, economic vitality, and the environment in the Bay Area, with housing strategies for producing more than one million new permanently affordable homes by 2050, transit-fare reforms to reduce cost burdens for riders with low incomes, and paths to economic mobility through job training and a universal basic income. The Plan incorporates goals for a more equitable Bay Area and a focus on climate change. The Plan Bay Area 2050 strategies are substantially consistent with the overall goals and objectives of Plan Bay Area 2040 in meeting statewide greenhouse gas emissions reduction goals and providing adequate housing.

(2) FOCUS Program. The ABAG-led FOCUS program, established in 2007, was a regional development and conservation strategy – in partnership with the MTC and with support from the Bay Area Air Quality Management District (BAAQMD) and the Bay Conservation and Development Commission (BCDC) – that promoted a more compact land use pattern for the Bay Area and supported development of Plan Bay Area. Through the FOCUS program, regional agencies supported local government commitments to direct existing and future incentives toward Priority Development Areas (PDAs) and Priority Conservation Areas (PCAs), which are an integral part of Plan Bay Area 2040.

Santa Clara County Airport Land Use Commission. See section 12.1(e) above. The Santa Clara County Airport Land Use Commission (ALUC) reviews proposals for general plans, specific plans, zoning ordinances, and land use development proposals in the vicinity of Norman Y. Mineta San Jose International Airport to ensure that future land uses in the surrounding area remain compatible with the realistically foreseeable, ultimate potential aircraft activity. This review is based on the Comprehensive Land Use Plan, Santa Clara County, Norman Y. Mineta San Jose International Airport, adopted May 25, 2011 (amended November 16, 2016). The Comprehensive Land Use Plan sets forth land use compatibility criteria, compatibility zones, development standards, and policies pertaining to noise, safety, airspace protection, and overflight standards, and establishes the planning boundaries that define height, tall structures, noise, and safety zones for policy implementation. The Land Use Plan also includes areas within which notification of airport proximity is required as part of real estate transactions. In addition, the ALUC reviews all proposed amendments to the General Plans, Specific Plans, and zoning and building regulations that may affect land use in the AIA.

12.2.2 Local

Santa Clara General Plan. The General Plan addresses citywide needs and identifies objectives for maintaining land use balance and consistency throughout the City. Applicable General Plan land use policies include:

- Policy 5.3.1-P4: Encourage new development that meets the minimum intensities and densities specified in the land use classifications or as defined through applicable Focus Area, Neighborhood Compatibility or Historic Preservation policies of the General Plan.

- Policy 5.3.1-P5: Implement a range of development densities and intensities within General Plan land use classification requirements to provide diversity, use land efficiently and meet population and employment growth.

- Policy 5.3.1-P8: Work with property owners to improve or redevelop underutilized and vacant properties.

- Policy 5.3.1-P13: Support high density and intensity development within a quarter-mile of transit hubs and stations and along transit corridors.

- Policy 5.3.1-P22: Encourage conveniently located child care and other family support services in the community, except in areas designated for Light and Heavy Industrial Uses.

- Policy 5.3.1-P30: Resolve any conflicts between proposed development, plans or funding for improvements and the Land Use Diagrams, Transportation and Mobility Diagrams or text through a General Plan Amendment in order to evaluate the implications of the proposal as well as to ensure the required internal consistency for the Plan.

- Policy 5.3.4-P1: Transform underutilized commercial centers into new mixed-use destinations, consistent with applicable land use classifications.

- Policy 5.3.4-P2: Encourage mixed-use development in proximity to employment centers and residential neighborhoods throughout the City.

- Policy 5.3.4-P3: Prohibit single-use development in mixed-use classifications unless allowed under Focus Area or Neighborhood Compatibility Policies.

- Policy 5.3.4-P4: Require mixed-use development to meet the density and intensity specified in the land use classifications.

- Policy 5.3.4-P5: Encourage mixed-use development site planning and design to implement the elements illustrated in [General Plan] Figures 7.3-2 and 7.3-3, including street tree planting along all streets.

- Policy 5.3.4-P11: Foster active, pedestrian-oriented uses at the ground level, such as retail shops, offices, restaurants with outdoor seating, public plazas or residential units with front stoops, in mixed-use development.

- Policy 5.3.5-P6: Encourage innovative design of new office space to promote higher-intensity new development and on-site expansion of existing uses.

12.3 IMPACTS AND MITIGATION MEASURES

This section describes potential impacts related to land use and planning that could result from the Freedom Circle Focus Area Plan/ Greystar General Plan Amendment and discusses components of the Plan that would avoid or reduce those potential impacts.

12.3.1 Significance Criteria

Based on the CEQA Guidelines,[1] implementation of the Freedom Circle Focus Area Plan/ Greystar General Plan Amendment would have a significant impact related to land use and planning if it would:

(a) Physically divide an established community; or

(b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

12.3.2 Relevant Freedom Circle Focus Area Plan Components

The Focus Area Plan includes the following goals and policies relevant to the land use and planning significance criteria (see 12.3.1 above):

- **FC-G1**: Develop an urban-scale mixed-use activity center in North Santa Clara to support economic vitality while increasing residential options.
- **FC-G2:** Provide for a range of housing types and densities to accommodate future residents and to create diversity in building scale and typology.
- **FC-G3:** Create a complete neighborhood that provides easy access to day-to-day services and amenities for residents, employees and visitors.
- **FC-G4:** Reduce reliance on private vehicles and improve jobs/housing balance by locating amenities and jobs within walking distance to housing.
- **FC-G5:** Create a human-scaled public realm through inviting architecture and urban design.
- **FC-P1:** Allow for a range of housing density and development intensity throughout the plan area, consistent with the General Plan designations and overall buildout capacity.
- **FC-P2:** Co-locate commercial, recreational, and other active uses to create nodes of activity throughout the plan area.
- **FC-P3:** Require active street frontages and ground floor uses to create a pedestrian-friendly, cohesive urban environment.
- **FC-P4:** Provide public parkland and privately-owned public open space that is accessible to all residents, adequate to meet resident activity needs, and consistent with the General Plan requirements and other City regulations.
- **FC-P6:** Prioritize size, shape, and location of public parkland to ensure that amenities are usable, programmable, and flexible.

[1]CEQA Guidelines, appendix G, item XI (a and b).

- **FC-P7:** Encourage sensitive design and site planning to mitigate the scale and height of larger buildings through use of building massing, setbacks, façade articulation, fenestration, varied parapets and roof lines, and pedestrian-scaled architectural details.

- **FC-P8:** Provide appropriate transition between new development in the Focus Area and adjacent uses consistent with General Plan Transition Policies.

- **FC-P9:** Require that building facades and entrances directly face street frontages, with a high proportion of transparent windows facing the street for nonresidential uses.

- **FC-P14:** Provide new street, bicycle and pedestrian networks that break down large blocks and sites, accommodate multiple modes of travel, and maximize connections to activity hubs

- **FC-P15:** Develop design standards and guidelines to support active ground-floor environments, welcoming public spaces, and safe and comfortable sidewalks and pathways.

- **FC-P16:** Design and program the plan area and sites to encourage walking, bicycling and transit use.

- **FC-P18:** Redesign Mission College Boulevard, Freedom Circle, and Hichborn Drive to better balance space dedicated to vehicles, bicycle, and pedestrians.

The reader is encouraged to review the Focus Area Plan for more detail. Pursuant to section 15150 (Incorporation By Reference) of the CEQA Guidelines, the Freedom Circle Focus Area Plan is incorporated into this Draft EIR by reference. The Plan is available at:[1]

https://www.santaclaraca.gov/our-city/departments-a-f/community-development/planning-division/specific-plans/freedom-circle

12.3.3 Impacts and Mitigations

Impact 12-1: Project Effects on the Physical Arrangement of the Community—Plan Area. The analyses and findings in this EIR indicate that future development activity under the Freedom Circle Focus Area Plan would not disrupt or divide the physical arrangement of the community. The Plan Area is generally an internally focused collection of large, self-contained parcels (see aerials in EIR chapter 3, Project Description, and photos in EIR chapter 4, Aesthetics). Plan-facilitated development, subject to adoption of a future comprehensive plan (such as a specific plan), as identified in the Project Description (chapter 3) would occur within the Plan Area. Implementation of the Focus Area Plan and the future comprehensive plan would establish integrated physical and functional connections between Plan Area parcels and with the adjacent community.

The Focus Area Plan would provide a required foundation for a more comprehensive planning study (such as a specific plan) and, in concert with the Santa Clara General Plan, is intended to provide for the expansion of housing choices by encouraging compact, transit-accessible, pedestrian-oriented housing and office development in the Plan Area at densities and heights greater than currently developed.

[1]Due to Covid-19 restrictions, all City libraries and City Hall remain closed, and no hard copies of the EIR will be available.

The Focus Area Plan intends that land use provisions and development standards and guidelines would be established by the comprehensive planning study to encourage substantial beneficial land use effects in (1) revitalizing the Plan Area; (2) facilitating development where services and infrastructure can be most efficiently provided by promoting higher residential densities within or near existing employment and public transportation areas; and (3) promoting compact, transit-accessible, pedestrian-oriented development patterns and land use. Because this Focus Area Plan commits to these land use principles and policies characteristic of the Association of Bay Area Governments (ABAG) Plan Bay Area, the Focus Area Plan would represent a ***beneficial land use effect*** (see criterion [a] in subsection 12.3.1, "Significance Criteria," above).

Mitigation 12-1. The Freedom Circle Focus Area Plan would result in beneficial land use and planning effects. No mitigation pertaining to environmental impacts on the physical arrangement of the community is required.

Impact 12-2: Project Effects on the Physical Arrangement of the Community—Greystar Project. As described in EIR chapter 3, Project Description, the Freedom Circle Focus Area Plan proposes a General Plan Amendment to allow for General Plan Amendments and rezonings outside of existing Future Focus Areas in combination with the designation of new Future Focus Areas, which, assuming approval of the Freedom Circle General Plan Amendment, would allow for the Greystar project to be developed concurrently with the Freedom Circle Focus Area planning process. Because the Greystar project would be developed on a vacant, previously undeveloped parcel in a part of the Plan Area currently designated for high-intensity office/R&D development, the Greystar project proposes a General Plan Amendment to change this land use designation to allow high-density residential use, consistent with that envisioned by the Focus Area Plan and anticipated under the comprehensive planning study (e.g., specific plan) required to follow adoption of the Focus Area Plan. The Greystar project would convert an underutilized two-parcel area (see aerials in EIR chapter 3, Project Description, and photos in EIR chapter 4, Aesthetics) into a four-parcel residential area with a 2.0-acre public park. This development would expand housing choices by encouraging compact, transit-accessible, pedestrian-oriented housing and mixed-use (housing/retail) development at densities and heights greater than currently developed. The Greystar project is designed to ensure that this housing and mixed-use development takes advantage of conveniently located public transportation, shopping, employment, and other community facilities.

Because the Greystar project would revitalize part of the Focus Plan Area, provide for development where services and infrastructure can be efficiently provided by promoting higher residential densities within or near existing employment and public transportation areas, and promote compact, transit-accessible, pedestrian-oriented, mixed-use development patterns and land use, the Greystar project would represent a ***beneficial land use effect*** (see criterion [a] in subsection 12.3.1, "Significance Criteria," above).

Mitigation 12-2. The Greystar project would result in beneficial land use and planning effects. No mitigation pertaining to environmental impacts on the physical arrangement of the community is required.

Impact 12-3: Project Consistency with Land Use Plans, Policies, and Regulations Adopted for the Purpose of Avoiding or Mitigating Environmental Effects—Plan Area. CEQA requires environmental impacts to be analyzed compared to ***existing conditions on the ground***. The General Plan policies listed in each environmental topic chapter (e.g., Hazards and Hazardous Materials, Land Use, Noise, Public Services, Utilities) of this EIR apply to the proposed Focus Area Plan.

As noted in EIR chapter 3 (Project Description), the Focus Area Plan establishes basic project objectives (see chapter 3) and preliminary Plan Area goals that provide the foundation for the future, required comprehensive planning study (e.g., specific plan) to identify improvements, frameworks, standards, guidelines, and implementation actions to be adopted and consistently applied to future development throughout the Plan Area. The Plan is intended to ensure that housing and office development is conveniently located near public transportation, retail and services, employment, and open space and community facilities, both in the Plan Area and the surrounding community. Chapter 3 (Project Description) of this EIR summarizes the Focus Area Plan. The reader is encouraged to review the entire Plan.

As discussed in the EIR topic chapters, the Focus Area Plan is substantially consistent with adopted land use plans, policies, and regulations. The Plan includes goals and policies, consistent with the General Plan, that would direct the required comprehensive planning study, which must be prepared before development would be allowed in the Plan Area. Potential conflicts could remain, though, related to aesthetics, air quality, noise, and utilities and service systems:

- Aesthetics – potential conflicts. As a policy focused plan, the Focus Area Plan does not include design standards, and therefore, the Plan itself cannot ensure that future development in the Plan Area would be consistent with General Plan policies related to the visual environment.

- Air Quality – potential conflicts. As discussed in chapter 5, Air Quality, although the Focus Area Plan is generally consistent with the Clean Air Plan, projected growth under the Plan exceeds the growth assumed in the General Plan for this area. In addition, implementation of the Plan would result in a cumulatively considerable net increase in non-attainment criteria air pollutant emissions. Also, the Plan's construction emissions could be substantial and result in significant health impacts, which would represent another potential conflict.

- Noise – potential conflicts. Although the Focus Area Plan includes a policy in support of future development adopting TDMs, cumulative noise due to the amount of vehicle use estimated for Plan Area residents and employees would represent a potential conflict.

- Utilities and Service Systems - potential conflicts. As discussed in chapter 18, Utilities and Service Systems, the Focus Area Plan would contribute to cumulative sewer infrastructure impacts, which would represent a potential conflict.

The remaining environmental topic evaluations - biological resources (chapter 6), cultural and historic resources (chapter 7), geology and soils (chapter 8), greenhouse gas emissions and energy (chapter 9), hazards and hazardous materials (chapter 10), hydrology and water quality (chapter 11), land use (chapter 12), population and housing (chapter 14), public services (chapter 15), recreation (chapter 16), and transportation (chapter 17) - do not identify potential conflicts.

For a discussion of Focus Area Plan consistency with other adopted plans and policies, see chapter 19, Project Consistency with Local and Regional Plans, of this EIR.

The Freedom Circle Focus Area Plan would serve as a foundation for a comprehensive planning study (e.g., specific plan) to achieve a coordinated, connected environment within the Plan Area while increasing land use intensity through frameworks and unified, context-sensitive design standards and guidelines, which would result in the efficient use of existing resources and infrastructure. Though these would represent beneficial land use effects, they would not occur before implementation of the next step in the planning process. However, because Focus Area Plan vision is to create a dynamic, mixed-use district of residential developments and community amenities with a diverse range of employment uses to complement other North Santa Clara neighborhoods and provide pedestrian, bicycle and roadway connections to employment centers, transit stops, trails, and other destinations, and because the Focus Area Plan includes goals and policies to support this vision consistent with the General Plan, the Plan's impact on land use and planning is considered a ***less-than-significant impact*** (see criterion [b] in subsection 12.3.1, "Significance Criteria," above).

Mitigation 12-3. The Focus Area Plan would ultimately result in beneficial land use and planning effects, and no additional mitigation is required beyond those mitigation measures already identified in the environmental topic chapters of this EIR pertaining to project consistency with land use plans, policies, and regulations adopted for the purpose of avoiding or mitigating environmental effects.

Impact 12-4: Project Consistency with Land Use Plans, Policies, and Regulations Adopted for the Purpose of Avoiding or Mitigating Environmental Effects—Greystar Project. CEQA requires environmental impacts to be analyzed compared to ***existing conditions on the ground***. The Greystar project site is designated by the General Plan for High Intensity Office/R&D use; however, the proposed General Plan Amendment, if adopted, would allow high-density residential development with limited retail uses on the currently vacant project site. The General Plan policies listed in each environmental topic chapter (e.g., Hazards and Hazardous Materials, Land Use, Noise, Public Services, Utilities) of this EIR apply to the proposed Greystar project.

As discussed in the EIR topic chapters, the Greystar project would be substantially consistent with land use plans, policies, and regulations related to aesthetics (chapter 4), air quality (chapter 5), biological resources (chapter 6), cultural and historic resources (chapter 7), geology and soils (chapter 8), greenhouse gas emissions and energy (chapter 9), hazards and hazardous materials (chapter 10), hydrology and water quality (chapter 11), land use (chapter 12), noise (chapter 13), population and housing (chapter 14), public services (chapter 15), recreation (chapter 16), transportation (chapter 17), and utilities and service systems (chapter 18)—i.e., there are no identified potential conflicts.

For a discussion of Greystar project consistency with other adopted plans and policies, see chapter 19, Project Consistency with Local and Regional Plans, of this EIR.

The Greystar project would provide a high-density residential project in an area with limited residential development and generate a more cohesive community on a vacant and underutilized site. The Greystar project would bring together the remaining undeveloped piece

of the Plan Area into a coordinated, connected environment – while increasing land use intensity, maintaining a compatible land use pattern, and promoting a sense of place – which would be a beneficial effect on the area.

Therefore, the impact of the Greystar project on land use and planning is considered a ***beneficial land use effect*** (see criterion [b] in subsection 12.3.1, "Significance Criteria," above).

Mitigation 12-4. The Greystar project would result in beneficial land use and planning effects. No additional mitigation would be required pertaining to project consistency with land use plans, policies, and regulations adopted for the purpose of avoiding or mitigating environmental effects beyond those mitigation measures already identified in the environmental topic chapters of this EIR.

13. NOISE

This EIR chapter provides pertinent background information on the nature of sound and vibration transmission; describes the existing noise environment in and near the Freedom Circle Focus Area Plan/Greystar General Plan Amendment; summarizes applicable noise guidelines, standards, and regulations; and analyzes potential noise and vibration impacts associated with the Focus Area Plan. Unless otherwise noted, this analysis refers to the Freedom Circle Focus Area (Plan Area) as being inclusive of the Greystar properties and proposed development.

13.1 SETTING

13.1.1 Fundamentals of Environmental Acoustics

Noise is generally defined as unwanted sound and is widely recognized as a form of environmental degradation. Airborne sound is the rapid fluctuation of air pressure above and below atmospheric pressure. The frequency (pitch), amplitude (intensity or loudness), and duration of a sound all contribute to the effect on a listener, or receptor, and whether or not the receptor perceives the sound as "noisy" or annoying.

Pitch is the height or depth of a tone or sound and depends on the frequency of the vibrations by which it is produced. Sound frequency is expressed in terms of cycles per second, or Hertz (Hz). Humans generally hear sounds with frequencies between 20 and 20,000 Hz and perceive higher frequency sounds, or high pitch noise, as louder than low-frequency sound or sounds low in pitch. Sound intensity or loudness is a function of the amplitude of the pressure wave generated by a noise source combined with the reception characteristics of the human ear. Atmospheric factors and obstructions between the noise source and receptor also affect the loudness perceived by the receptor. Sound pressure levels are typically expressed on a logarithmic scale in terms of decibels (dB). A dB is a unit of measurement that indicates the relative amplitude (i.e., intensity or loudness) of a sound, with 0 dB corresponding roughly to the threshold of hearing for the healthy, unimpaired human ear.

Sound levels in decibels are calculated on a logarithmic basis. An increase of 10 dBs represents a ten-fold increase in acoustic energy, while 20 dBs is 100 times more intense, 30 dBs is 1,000 times more intense, and so on. In general, there is a relationship between the subjective noisiness or loudness of a sound and its intensity, with each 10 dB increase in sound level perceived as approximately a doubling of loudness. Due to the logarithmic basis, decibels cannot be directly added or subtracted together using common arithmetic operations:

$$50\ decibels + 50\ decibels \neq 100\ decibels$$

Instead, the combined sound level from two or more sources must be combined logarithmically. For example, if one noise source produces a sound power level of 50 dBA, two of the same sources would combine to produce 53 dB as shown below.

$$10 * 10\,log\left(10^{\left(\frac{50}{10}\right)} + 10^{\left(\frac{50}{10}\right)}\right) = 53\,decibels$$

In general, when one source is 10 dB higher than another source, the quieter source does not add to the sound levels produced by the louder source because the louder source contains ten times more sound energy than the quieter source.

13.1.2 Sound Characterization

Although humans generally can hear sounds with frequencies between 20 and 20,000 Hz, most of the sounds humans are normally exposed to do not consist of a single frequency, but rather a broad range of frequencies perceived differently by the human ear. In general, humans are most sensitive to the frequency range of 1,000–8,000 Hz and perceive sounds within that range better than sounds of the same amplitude in higher or lower frequencies. Instruments used to measure sound, therefore, include an electrical filter that enables the instrument's detectors to replicate human hearing. This filter, known as the "A-weighting" or "A-weighted sound level," filters low and very high frequencies, giving greater weight to the frequencies of sound to which the human ear is typically most sensitive. Most environmental measurements are reported in dBA, meaning decibels on the A-scale. See Table 13-1 for a list common noise sources and their A-weighted noise levels.

Sound levels are usually not steady and vary over time. Therefore, a method for describing either the average character of the sound or the statistical behavior of the variations over a period of time is necessary. The continuous equivalent noise level (L_{eq}) descriptor is used to represent the average character of the sound over a period of time. The L_{eq} represents the level of steady-state noise that would have the same acoustical energy as the time-varying noise measured over a given time period. L_{eq} is useful for evaluating shorter time periods over the course of a day. The most common L_{eq} averaging period is hourly, but L_{eq} can describe any series of noise events over a given time period.

Variable noise levels are the values that are exceeded for a portion of the measured time period. Thus, the L_{01}, L_{10}, L_{50}, and L_{90} descriptors represent the sound levels exceeded 1%, 10%, 50%, and 90% of the time the measurement was performed. The L_{90} value usually corresponds to the background sound level at the measurement location.

When considering environmental noise, it is important to account for the different responses people have to daytime and nighttime noise. In general, during the nighttime, background noise levels are generally quieter than during the daytime but also more noticeable due to the fact that household noise has decreased as people begin to retire and sleep. Noise exposure over the course of an entire day is described by the day/night average sound level, DNL (or L_{dn}), and the community noise equivalent level, or CNEL, descriptors. Both descriptors represent the 24-hour noise exposure in a community or area. For DNL, the 24-hour day is divided into a 15-hour daytime period (7 AM to 10 PM) and a 9-hour nighttime period (10 PM to 7 AM), and a 10 dB "penalty" is added to measure nighttime noise levels when calculating the 24-hour average noise level. For example, a 45 dBA nighttime sound level would contribute as much to the overall day-night average as a 55 dBA daytime sound level. The CNEL descriptor is similar to DNL, except that it includes an additional 5 dBA penalty for noise events that occur during the evening time period (7 PM to 10 PM). The artificial penalties imposed during DNL and CNEL calculations are intended to account for a receptor's increased sensitivity to noise levels during quieter nighttime periods.

Table 13-1
TYPICAL NOISE LEVELS

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	110	Rock Band
Jet flyover at 1,000 feet	105	
	100	
Gas lawn mower at 3 feet	95	
	90	
Diesel truck at 50 feet at 50 mph	85	Food blender at 3 feet
	80	Garbage disposal at 3 feet
Noise urban area, daytime	75	
Gas lawnmower, 100 feet	70	Vacuum cleaner at 10 feet
Commercial area	65	Normal speech at 3 feet
Heavy traffic at 300 feet	60	
	55	Large business office
Quiet urban daytime	50	Dishwasher next room
	45	
Quiet urban nighttime	40	Theater, large conference room
Quiet suburban nighttime	35	
	30	Library
Quite rural nighttime	25	Bedroom at night
	20	
	15	Broadcast/recording studio
	10	
	5	
Typical threshold of human hearing	0	Typical threshold of human hearing

Source: Caltrans, 2013

13.1.3 Sound Propagation

The energy contained in a sound pressure wave dissipates and is absorbed by the surrounding environment as the sound wave spreads out and travels away from the noise-generating source. The strength of the source is often characterized by its “sound power level.” Sound power level is independent of the distance a receiver is from the source and is a property of the source alone. Knowing the sound power level of an idealized source and its distance from a receiver, the sound pressure level at a specific point (e.g., a property line or a receiver) can be calculated based on geometrical spreading and attenuation (noise reduction) as a result of distance and environmental factors, such as ground cover (asphalt vs. grass or trees), atmospheric absorption, and shielding by terrain or barriers.

For an ideal “point” source of sound, such as mechanical equipment, the energy contained in a sound pressure wave dissipates and is absorbed by the surrounding environment as the sound wave spreads out in a spherical pattern and travels away from the point source. Theoretically, the sound level attenuates, or decreases, by 6 dB with each doubling of distance from the point

source. In contrast, a “line” source of sound, such as roadway traffic or a rail line, spreads out in a cylindrical pattern and theoretically attenuates by 3 dB with each doubling of distance from the line source; however, the sound level at a receptor location can be modified further by additional factors. The first is the presence of a reflecting plane such as the ground. For hard ground, a reflecting plane typically increases A-weighted sound pressure levels by 3 dB. If some of the reflected sound is absorbed by the surface, this increase will be less than 3 dB. Other factors affecting the predicted sound pressure level are often lumped together into a term called “excess attenuation.” Excess attenuation is the amount of additional attenuation that occurs beyond simple spherical or cylindrical spreading. For sound propagation outdoors, there is almost always excess attenuation, producing lower levels than what would be predicted by spherical or cylindrical spreading. Some examples include attenuation by sound absorption in air; attenuation by barriers; attenuation by rain, sleet, snow, or fog; attenuation by grass, shrubbery, and trees; and attenuation from shadow zones created by wind and temperature gradients. Under certain meteorological conditions, like fog and low-level clouds, some of these excess attenuation mechanisms are reduced or eliminated due to noise reflection.

13.1.4 Noise Effects

Nosie effects on human beings are generally categorized as:

- Subjective effects of annoyance, nuisance, and/or dissatisfaction
- Interference with activities such as speech, sleep, learning, or relaxing
- Physiological effects such as startling and hearing loss

Most environmental noise levels produce subjective or interference effects; physiological effects are usually limited to high noise environments such as industrial manufacturing facilities or airports.

Predicting the subjective and interference effects of noise is difficult due to the wide variation in individual thresholds of annoyance and past experiences with noise; however, an accepted method to determine a person’s subjective reaction to a new noise source is to compare it with the existing environment without the noise source, or the “ambient” noise environment. In general, the more a new noise source exceeds the ambient noise level, the more likely it is to be considered annoying and to disturb normal activities.

Under controlled conditions in an acoustical laboratory, the trained, healthy human ear is able to discern 1-dB changes in sound levels when exposed to steady, single-frequency (“pure-tone”) signals in the mid-frequency (1,000–8,000 Hz) range. In typical noisy environments, changes in noise of 1 to 2 dB are generally not perceptible. However, it is widely accepted that people are able to begin to detect sound level increases of 3 dB in typical noisy environments. Further, a 5 dB increase is generally perceived as a distinctly noticeable increase, and a 10 dB increase is generally perceived as a doubling of loudness that would almost certainly cause an adverse response from community noise receptors.

13.1.5 Groundborne Vibration and Noise

Vibration is the movement of particles within a medium or object such as the ground or a building. Vibration may be caused by natural phenomena (e.g., earthquakes, volcanic eruptions, sea waves, landslides) or humans (e.g., explosions, machinery, traffic, trains, construction

equipment). Vibration sources are usually characterized as continuous, such as factory machinery, or transient, such as explosions.

As is the case with airborne sound, groundborne vibrations may be described by amplitude and frequency; however, unlike airborne sound, there is no standard way of measuring and reporting amplitude. Vibration amplitudes can be expressed in terms of velocity (inches per second) or discussed in dB units in order to compress the range of numbers required to describe vibration. Vibration impacts to buildings are usually discussed in terms of peak particle velocity (PPV) in inches per second (in/sec). PPV represents the maximum instantaneous positive or negative peak of a vibration signal and is most appropriate for evaluating the potential for building damage. Vibration can impact people, structures, and sensitive equipment. The primary concern related to vibration and people is the potential to annoy those working and residing in the area. Vibration with high enough amplitudes can damage structures (such as crack plaster or destroy windows). Groundborne vibration can also disrupt the use of sensitive medical and scientific instruments, such as electron microscopes.

Common sources of vibration within communities include construction activities and railroads. Groundborne vibration generated by construction projects is usually highest during pile driving, rock blasting, soil compacting, jack hammering, and demolition-related activities. Next to pile driving, grading activity has the greatest potential for vibration impacts if large bulldozers, large trucks, or other heavy equipment are used.

Groundborne noise is noise generated by vibrating building surfaces such as floors, walls, and ceilings that radiate noise inside buildings subjected to an external source of vibration. The vibration level, the acoustic radiation of the vibrating element, and the acoustical absorption of the room are all factors that affect potential groundborne noise generation.

13.1.6 Existing Noise and Vibration Environment

The City's General Plan identifies the primary contributors to the City's noise environment are transportation sources, including vehicular traffic, railroads, and the San Jose Norman Y. Mineta International Airport. The General Plan identifies the quietest areas of the City as those being the furthest from major City streets, and the noisiest areas being under the airport flight patterns and immediately adjacent to freeways (e.g., U.S. 101), expressways (e.g., Lawrence Expressway), arterial roadways (e.g., Tasman Drive), and railways.

13.1.6.1 Measured Ambient Noise Levels

In September 2020, MIG conducted noise monitoring to evaluate the existing ambient noise conditions in the vicinity of the Plan Area (MIG, 2020; see Appendix 25.5). The ambient noise levels were digitally measured and stored using a sound level meter that meets American National Standards Institute requirements for a Type 1 integrating sound level meter. The sound meter was calibrated immediately before and after the monitoring period using a reference one-kilohertz (1kH) check frequency and 114 dB sound pressure level and found to be operating within normal parameters for sensitivity. Measurements were continuously collected over the sample period in 1-minute intervals. This interval was selected to capture short-term noise events and increases in noise levels above typical background conditions. Conditions during the monitoring were generally clear and sunny during the daytime, with a daily high of approximately 70 degrees Fahrenheit, and cool during the evening, with a low in the 50's. Winds were calm to mild, typically less than 10 miles per hour.

The ambient noise monitoring conducted for this EIR included one long-term (LT) and three short-term (ST) measurements at locations selected to:

- Provide direct observations of existing noise sources in and near the Plan Area;
- Determine ambient noise levels in and near the Plan Area; and
- Evaluate potential project noise levels at sensitive receptors near the Plan Area (see Section 13.1.8 below).

The ambient noise monitoring locations are shown in Appendix 25.5 and described below.

- Location LT-1 was on the southern boundary of the Plan Area, at the southwest corner of the Greystar project site, approximately 120 feet north of the centerline of U.S. 101. The ambient noise levels measured at LT-1 are considered representative of 24-hour noise exposure levels associated with traffic noise on U.S. 101.

- Location ST-1 was in the eastern part of the Plan Area, adjacent to Mission College Boulevard. The ambient noise levels measured at ST-1 are considered representative of the background daytime noise levels in the northern and eastern part of the Plan Area along Mission College Boulevard.

- Location ST-2 was in the center of the Plan Area, on Freedom Circle. The ambient noise levels measured at ST-2 are considered representative of background daytime noise levels in the center part of the Plan Area away from Mission College Boulevard and U.S. 101.

- Location ST-3 was in the northwestern part of the Plan Area, approximately 110 feet east of Great America Parkway and approximately 90 feet south of Mission College Boulevard. The ambient noise levels measured at location ST-3 are considered representative of background daytime noise levels in the western part of the Plan Area near Great America Parkway.

Based on observations made during the ambient noise monitoring, the existing noise environment in the Planning Area consists primarily of transportation noise sources (i.e., vehicles on Great America Parkway, Mission College Boulevard, and U.S. 101) and local commercial building operations. Table 13-2 and Table 13-3 summarize the results of the ambient noise monitoring conducted for this EIR. Refer to Appendix 25.5 for detailed ambient noise monitoring results.

Table 13-2
MEASURED LONG-TERM AMBIENT NOISE LEVELS (DBA) IN THE PLAN AREA

Day/ Site	Duration	L_{min}	L_{max}	Measured L_{eq} Range (dBA)(A)			CNEL
				Daytime (7 AM - 7 PM)	Evening (7 PM - 10 PM)	Nighttime (10 PM - 7 AM)	
Wednesday, September 16 to Thursday, September 17, 2020							
LT-1	24 Hours	42.3	88.2	73.5 – 75.8	71.1 – 72.7	66.0 – 75.7	78.6

Source: MIG, 2020 (see Appendix 25.5)
(A) Values are the lowest and highest measured average hourly values during the listed time period.

Table 13-3
MEASURED SHORT-TERM AMBIENT NOISE LEVELS (DBA) IN THE PLAN AREA

Day/ Site	Duration	L_{min}	L_{max}	Measured L_{eq} Range (dBA)(A)			
				Leq	L1.6	L50	L90
Wednesday, September 16, 2020 (10:10 AM to 10:30 AM)							
ST-1	20 Minutes	47.8	81.0	65.4 – 67.4	73.1 – 75.7	61.5 – 63.2	56.3 - 575
LT-1	20 Minutes	66.4	80.1	74.2	77.5 – 77.9	73.9	70.5 – 71.5
Wednesday, September 16, 2020 (10:50 AM to 11:10 AM)							
ST-2	20 Minutes	47.8	74.8	58.6 – 59.8	67.9 – 68.7	54.6 – 55.2	49.7 – 49.9
LT-1	20 Minutes	64.9	81.2	73.9 – 74.5	77.5 – 78.6	73.7 – 74.0	70.3 – 70.9
Wednesday, September 16, 2020 (11:22 AM to 11:42 AM)							
ST-3	20 Minutes	54.3	76.7	65.2 – 65.4	71.9 – 72.1	62.9 – 63.1	59.1 – 59.3
LT-1	20 Minutes	65.4	83.5	74.3 – 74.4	77.9 – 78.5	73.8 – 74.0	71.2

Source: MIG, 2020 (see Appendix 25.5)

(A) Values are the lowest and highest average ten-minute interval measured during the listed time period. Where only one value is listed the measured noise level was the same for each interval period.

As shown in Table 13-2 and Table 13-3, measured ambient noise levels in the Plan Area are highest near U.S. 101, Great America Parkway, and Mission College Boulevard (LT-1, ST-1, ST-3). Measured ambient noise levels away from roadways (ST-2) were typically 7 to 15 dBA lower than the noise levels measured near roadways.

Discussion on the Influence of Shelter in Place orders on Ambient Noise Monitoring

As shown in Table 13-2, the ambient noise level measured along U.S. 101 (LT-1) was 78.6 CNEL, while short-term noise levels measured along Great America Parkway (ST-3) and Mission College Boulevard (ST-1) were in the range of 65 to 67 dBA L_{eq}. Additional noise monitoring conducted less than 800 feet from the Plan Area's northern boundary for the Patrick Henry Drive Specific Plan EIR measured 67.2 CNEL approximately 85 feet of the centerline of Great America Parkway (City of Santa Clara, 2021, Table 13-2). These CNEL values reflect the actual environmental conditions present during the monitoring, and are slightly lower than the modeled 2009 traffic noise estimates (68 CNEL for Great America Parkway and 84 CNEL for U.S. 101, as estimated 100 feet from the roadway centerline) contained in the City's General Plan (City of Santa Clara, 2011, Table 4.14-4). It is probable that September 2020 traffic volumes on roadways near the Plan Area were below typical conditions due to State public health orders limiting gatherings, school openings, non-essential travel, and other activities intended to control the spread of COVID-19. These restrictions may have reduced traffic volumes on major highways by 20% to 40% in the second quarter of 2020 (Caltrans, 2020a, ITE, 2020, and U.C. Davis 2020). Furthermore, as of October 2020, data compiled by the Metropolitan Transportation Commission (MTC) indicates Bay Area regional estimates of vehicle miles travelled (VMT) and bridge crossings are approximately 18% and 22% lower than February 2020.

The California Department of Transportation (Caltrans) considers a doubling of total traffic volume to result in a three (3) dBA increase in traffic-related noise levels (Caltrans 2013).

Assuming traffic volumes could be at least approximately 18% higher would, therefore, result in an approximately 0.7 dBA change in measured noise levels, assuming vehicle traffic is the sole source of noise influencing a measurement and the vehicle fleet mix does not change substantially. For the purposes of this EIR analysis, however, no changes to measured ambient noise levels have been made.

Discussion of Great America Theme Park Operations on Ambient Noise Monitoring

The northern boundary of the Plan Area generally borders the Great America Theme Park; however, due to State and regional public health orders, the theme park was not in operation at the time ambient noise monitoring was conducted for this EIR.

In 2016, the City issued a Draft EIR for the Great America Theme Park Master Plan (SCH# 2016032036) (City of Santa Clara, 2016). The EIR included a noise assessment that measured short term (15 minutes) and long-term (8 days) noise levels on Patrick Henry Drive, along the northern boundary of the Plan Area, and on the Plan Area's north-central boundary, within approximately 500 feet of Mission College Boulevard.

- On Patrick Henry Drive, short-term noise levels were measured to be 61 dBA L_{eq} and included noise sources such as airplanes, roller coaster operations, rider screams, and local traffic. Long-term noise levels were measured to be 63 to 65 dBA DNL, with the difference in noise levels with and without theme park operations less than one dBA. The EIR concluded that the theme park did not affect noise levels at the Patrick Henry Drive monitoring location.

- On the Plan Area's north-central boundary, short-term noise levels were measured to be 67 dBA L_{eq} and included noise sources such as airplanes, roller coaster operations, and rider screams. Long-term noise levels were measured to be 65 to 69 dBA DNL, with DNL noise levels being approximately 3.2 dBA higher when the park was open compared to when it was closed. The EIR concluded that the theme park did affect noise levels at this monitoring location.

Due to the fact the ambient noise monitoring conducted for this EIR was located at least 700 feet away from the theme park boundary, the theme park is not considered to have the potential to appreciably affect the measured ambient noise levels in the Plan Area (i.e., the ambient noise levels measured for this EIR would not differ even if the theme park were operating); however, given the results of the 2016 noise monitoring conducted for the Great America Theme Park Master Plan EIR along the Plan Area's north-central boundary, noise levels in this area are assumed to have the potential to be as high as 69 DNL.

Discussion of Levi's Stadium Activities and Events on Ambient Noise Monitoring

The northern edge of the Plan Area is generally located at least 0.5 miles south of Levi's Stadium; however, there are no stadium parking lots located either within or directly adjacent to the Plan Area. There were no stadium events or activities taking place at the time the ambient noise monitoring was conducted for this EIR.

In 2009, the City issued a Draft EIR for the Levi's Stadium Project (SCH# 2016032036) that concluded stadium events would have significant noise impacts in the area around the stadium. Ongoing monitoring of noise levels during concerts at the stadium have measured hourly average noise levels between 54 to 60 dBA L_{eq} and maximum noise levels of 66 dBA L_{max} at a

location approximately 0.3 miles south of the stadium. Football games and other events tend to have higher measured L_{max} levels but lower hourly average noise levels than concerts (City of Santa Clara, 2017).

Given the results of the City's ongoing noise monitoring of Levi's Stadium event noise, and the fact that the Plan Area is located at least 0.5 miles away from the stadium, stadium events may be audible within the Plan Area but are not considered to have the potential to appreciably affect overall ambient noise levels in the Plan Area.

13.1.6.2 Existing and Future Baseline Modeled Traffic Noise Levels

Existing (Year 2019) traffic noise levels were computed using the U.S. Department of Transportation Federal Highway Administration's (FHWA) Traffic Noise Model (TNM), Version 2.5. The model uses traffic volume, vehicle mix, vehicle speed, roadway geometry, and other variables to compute 24-hour traffic noise levels at user-defined receptor distances from the roadway center. The TNM modeling conducted for this EIR incorporates worst-case assumptions about motor vehicle traffic and noise levels; specifically, calculations are based on "hard" site conditions and do not incorporate any natural or artificial shielding.

Peak hour traffic volume information was obtained from the Transportation Analysis prepared for the Focus Area Plan by Hexagon Transportation Consultants (Hexagon, 2021a and 2021b).[1] Traffic noise levels were estimated assuming that peak hour traffic volumes are equal to 10% of average daily traffic volumes and non-peak hour traffic is distributed equally throughout the daytime and nighttime. Traffic noise levels were estimated for typical daytime (consisting of peak and non-peak hour traffic volumes) and evening/nighttime (consisting of non-peak hour traffic volumes only) periods. Hourly traffic noise levels were then summed to derive the 24-hour CNEL along modeled roadway segments. The mix of automobiles (95%), medium (2%) and heavy duty trucks (1%), and motorcycles (2%) assigned to the roadway system was generated using the California Air Resources Board's (CARB) EMFAC2017 model, which contains vehicle population data by different geographic regions. Vehicles were assumed to travel the posted speed limit on each modeled roadway segment.

The Transportation Analysis prepared for the Focus Area Plan also includes an analysis of future traffic conditions that would occur in Year 2030 and 2040 based on other existing and approved projects near the Plan Area and continued implementation of the City's current General Plan at the land use development intensities permitted by the current General Plan.[2]

[1]Hexagon Transportation Consultants also prepared the Transportation Analysis for the Patrick Henry Drive Specific Plan, which is located 220 feet northwest of the Plan area, across Great America Parkway, and which was used to evaluate existing Year 2019 traffic noise levels in the City's Patrick Henry Drive Specific Plan Draft EIR (SCH 2019120515; Hexagon Transportation Consultants, 2021c, City of Santa Clara 2021). Since the existing Year 2019 traffic levels do not include either the Patrick Henry Drive Specific Plan or the Freedom Circle Focus Area Plan/Greystar General Plan Amendment, the traffic volumes on many modeled roadway segments were reviewed and found to be the same in both project's transportation analysis. As such, the Year 2019 traffic noise model results from the Patrick Henry Drive Specific Plan EIR are representative of Year 2019 traffic noise levels for the Freedom Circle Focus Area Plan/Greystar General Plan Amendment Draft EIR and are presented where appropriate in Appendix 25.5.

[2]The travel demand forecasting for the 2030 and 2040 scenarios without the Focus Area Plan are based on ABAG land use projections that are generally consistent with the City's General Plan except for

The future baseline Year 2030 and 2040 traffic noise levels were estimated using Caltrans' guidance for calculating changes in traffic noise levels due to increases or decreases in traffic volumes.[3]

Modeled traffic noise levels near the Plan Area are shown in Table 13-4A and 13-4B. Please refer to Appendix 25.5 for detailed information on existing and future baseline traffic noise modeling assumptions.

Table 13-4A
EXISTING (2019) AND FUTURE (2030) BASELINE TRAFFIC NOISE LEVELS

Road / Segment	**Year 2019**		**Year 2030**		**Net Change**	
	ADT	**CNEL**	**ADT**	**CNEL**	**ADT**	**CNEL**
Great America Parkway						
SR 237 EB Ramp to Great America Way	23,475	70.1	27,915	70.9	4,440	0.7
Great America Way to Old Mountain View Alviso Road	21,890	71.7	26,715	72.6	4,825	0.9
Old Mountain View Alviso Road to Bunker Hill Lane	18,050	71.0	29,800	73.2	11,750	2.2
Bunker Hill Lane to Tasman Drive	19,670	70.8	34,840	73.3	15,170	2.5
Tasman Drive to Old Glory Lane	24,690	72.2	36,135	73.9	11,445	1.6
Old Glory Lane to Patrick Henry Drive	26,745	72.7	37,165	74.1	10,420	1.4
Patrick Henry Drive to Mission College Boulevard	35,645	73.8	46,745	75.0	11,100	1.2
Mission College Boulevard to Bowers Ave / U.S. 101 NB Ramp	42,140	74.0	55,225	75.2	13,085	1.2
Mission College Boulevard						
Mission College Boulevard Loop to Great America Parkway	14,025	69.3	14,815	69.6	790	0.2
Great America Parkway to Marriot Driveway	20,090	70.9	23,455	71.6	3,365	0.7
Marriot Driveway to Freedom Circle West	19,185	70.3	22,555	71.0	3,370	0.7
Freedom Circle West to Freedom Circle East	15,335	70.0	17,755	70.6	2,420	0.6
Agnew Road / Freedom Circle East to Juliet Lane	14,730	69.6	15,825	69.9	1,095	0.3

certain projects were updated information may be available, such as the City's East Tasman Specific Plan. Within the Plan Area itself, the modeling assumes no change (2030) and marginal growth (2040) consistent with ABAG data and one specific development project at 4301 Great America Parkway (Hexagon, 2021). Refer to Appendix 25.5 for more information on travel demand forecasting model assumptions.

[3]Caltrans 2011, equations 2-9 and 2-10. This methodology assumes there would not be any substantial change in roadway geometry or fleet characteristics in Year 2030 or Year 2040 as compared to Year 2019 assumptions.

Juliette Lane to Burton Circle	18,870	70.8	19,425	71.0	555	0.1
Burton Circle to Montague Expressway	23,410	73.5	23,915	73.5	505	0.1
Agnew Rd/Freedom Circle East						
North of Mission College Boulevard	9,865	65.5	12,450	66.5	2,585	1.0
South of Mission College Boulevard	3,970	63.3	4,380	63.7	410	0.4
Montague Expressway						
U.S. 101 to Mission College Boulevard / Thomas Road	70,940	76.6	87,100	77.4	16,160	0.9
Mission College Boulevard / Thomas Road to Agnew Road / De La Cruz Boulevard	65,900	77.3	82,770	78.3	16,870	1.0
Agnew Road / De La Cruz Boulevard to Lick Mill Boulevard	62,435	77.0	78,655	77.9	16,220	1.0
Lick Mill Boulevard to North 1st Street	64,090	77.1	85,450	78.3	21,360	1.2
North 1st Street to Zanker Rd	53,690	76.2	73,545	77.6	19,855	1.4
Zanker Road to Trimble Road	37,605	75.1	52,870	76.5	15,265	1.5
Trimble Road to McCarthy Boulevard / O'Toole Avenue	55,380	76.5	73,215	77.7	17,835	1.2
North of McCarthy Boulevard / O'Toole Avenue	56,750	76.3	71,750	77.3	15,000	1.0
Source: MIG, 2021 (see Appendix 25.5)						

Table 13-4B
EXISTING (2019) AND FUTURE (2040) BASELINE TRAFFIC NOISE LEVELS

Road / Segment	**Year 2019**		**Year 2040**		**Net Change**	
	ADT	**CNEL**	**ADT**	**CNEL**	**ADT**	**CNEL**
Great America Parkway						
SR 237 EB Ramp to Great America Way	23,475	70.1	38,805	72.3	15,330	2.1
Great America Way to Old Mountain View Alviso Road	21,890	71.7	38,720	74.2	16,830	2.4
Old Mountain View Alviso Road to Bunker Hill Lane	18,050	71.0	45,020	75.0	26,970	4.0
Bunker Hill Lane to Tasman Drive	19,670	70.8	53,165	75.1	33,495	4.3
Tasman Drive to Old Glory Lane	24,690	72.2	42,597	74.6	17,907	2.3
Old Glory Lane to Patrick Henry Drive	26,745	72.7	70,438	76.9	43,693	4.2
Patrick Henry Drive to Mission College Boulevard	35,645	73.8	92,405	77.9	56,760	4.1
Mission College Boulevard to Bowers Ave / U.S. 101 NB Ramp	42,140	74.0	80,198	76.8	38,058	2.8

Mission College Boulevard						
Mission College Boulevard Loop to Great America Parkway	14,025	69.3	20,447	71.0	6,422	1.6
Great America Parkway to Marriot Driveway	20,090	70.9	33,635	73.1	13,545	2.2
Marriot Driveway to Freedom Circle West	19,185	70.3	33,627	72.7	14,442	2.4
Freedom Circle West to Freedom Circle East	15,335	70.0	28,581	72.7	13,246	2.7
Agnew Road / Freedom Circle East to Juliet Lane	14,730	69.6	26,092	72.0	11,362	2.5
Juliette Lane to Burton Circle	18,870	70.8	28,879	72.7	10,009	1.8
Burton Circle to Montague Expressway	23,410	73.5	30,636	74.6	7,226	1.1
Agnew Rd/Freedom Circle East						
North of Mission College Boulevard	9,865	65.5	13,370	66.7	3,505	1.3
South of Mission College Boulevard	3,970	63.3	5,167	64.5	1,197	1.1
Montague Expressway						
U.S. 101 to Mission College Boulevard / Thomas Road	70,940	76.6	98,562	78.0	27,622	1.4
Mission College Boulevard / Thomas Road to Agnew Road / De La Cruz Boulevard	65,900	77.3	93,407	78.8	27,507	1.5
Agnew Road / De La Cruz Boulevard to Lick Mill Boulevard	62,435	77.0	87,445	78.4	25,010	1.4
Lick Mill Boulevard to North 1st Street	64,090	77.1	102,000	79.1	37,910	2.0
North 1st Street to Zanker Rd	53,690	76.2	82,940	78.1	29,250	1.9
Zanker Road to Trimble Road	37,605	75.1	60,375	77.1	22,770	2.0
Trimble Road to McCarthy Boulevard / O'Toole Avenue	55,380	76.5	79,975	78.1	24,595	1.6
North of McCarthy Boulevard / O'Toole Avenue	56,750	76.3	74,140	77.4	17,390	1.2
Source: MIG, 2021 (see Appendix 25.5)						

The results of the traffic noise modeling indicate that existing and future baseline traffic noise levels near the Plan Area are highest along major roadways that provide access the Plan Area and vicinity, such as Great America Parkway, Montague Expressway, Lawrence Expressway, and Tasman Drive. In addition, traffic noise levels are expected to increase along Mission College Boulevard, Agnew Road/Freedom Circle, and other local roadways used to access the Plan Area and vicinity (see Appendix 25.5). Specifically, the modeling shows:

- Year 2019 traffic noise levels along Great America Parkway adjacent to the Plan Area (between Patrick Henry Drive and U.S. 101 ramps) are estimated to be approximately 74

CNEL at a distance of 100 feet from the center of the roadway. Commercial buildings are present along this segment of Great America Parkway. The estimated Year 2019 traffic noise levels are within the City's conditionally acceptable noise exposure level for commercial land uses contained in the existing General Plan (75 CNEL). Year 2030 and Year 2040 traffic noise levels are estimated to increase by approximately 1 to 4 dBA to up to 78 CNEL, a change from conditionally acceptable to unacceptable conditions for commercial land uses.

- Year 2019 traffic noise levels along Montague Expressway road segments closest to the Plan Area (between U.S. 101 ramps and Agnew Road / De La Cruz Boulevard) are estimated to be approximately 77 CNEL at a distance of 100 feet from the center of the roadway. Commercial, institutional, and residential buildings are present along this segment of Montague Expressway. The estimated Year 2019 traffic noise levels are above the City's unacceptable noise exposure level for residential (70 CNEL) and commercial land uses (75 CNEL) contained in the existing General Plan. Year 2030 and Year 2040 traffic noise levels are estimated to increase by approximately 1 to 2 dBA to up to 79 CNEL and remain above unacceptable noise exposure levels.

- Year 2019 traffic noise levels along Mission College Boulevard within the Plan Area (from Great America Parkway to Agnew Road / Freedom Circle) are estimated to be approximately 69 to 71 CNEL at a distance of 100 feet from the center of the roadway. Commercial buildings are present along this segment of Mission College Boulevard. The estimated Year 2019 traffic noise levels are within the City's conditionally acceptable noise exposure level for commercial land uses contained in the existing General Plan (75 CNEL). Year 2030 and Year 2040 traffic noise levels are estimated to increase by approximately 1 to 2 dBA to up to 73 CNEL and remain conditionally acceptable for commercial land uses.

- Year 2019 traffic noise levels along Freedom Circle East are estimated to be less than 65 CNEL at a distance of 100 feet from the center of the roadway. Commercial land uses are present along this segment of Freedom Circle. The estimated traffic noise levels are within the City's acceptable noise exposure level for commercial land uses contained in the existing General Plan (65 CNEL). Year 2030 and 2040 traffic noise levels are estimated to increase by approximately 1 dBA to approximately 64 CNEL and remain normally acceptable.

13.1.7 Rail and Airport Noise in the Plan Area

The Plan Area is located approximately 1.7 miles northwest of Norman Y. Mineta San Jose International Airport. The part of the Plan Area north of Mission College Boulevard and east of Great America Parkway lies within the San Jose International Airport influence area; however, the Plan Area borders, but is not located within, the 65 CNEL contour associated with San Jose International Airport (SCC ALUC 2016; Figure 5).

The Santa Clara Valley Transportation Authority operates a light rail line on Tasman Drive and the Old Ironsides Drive light rail station is located approximately 0.5 miles north of the Plan Area. The light rail system is not a substantial source of noise and does not materially affect the ambient noise environment in the Plan Area. There are no other rail lines near the Plan Area.

13.1.8 Noise-Sensitive Receptors

Noise-sensitive receptors are buildings or areas where unwanted sound or increases in sound may have an adverse effect on people or land uses. The City's General Plan Noise Element identifies that residences, motels and hotels, schools, libraries, churches, hospitals, nursing homes, auditoriums, natural areas, parks and outdoor recreation areas are generally more sensitive to noise than commercial and industrial establishments. In general, the existing noise-sensitive receptors within or near the Planning Area include:

- The San Tomas Aquino Creek Trail, located adjacent to and within approximately 50 feet or less of the Plan Area's eastern boundary;
- Our Lady of Peace Church and Shrine, located approximately 170 feet west of the Plan Area, across Great America Parkway; and
- Residential receptors at the Santa Clara Square Apartments (generally addressed at 3320 Montgomery Drive), approximately 770 feet southwest of the southern portion of the Plan Area, across U.S. 101.

In addition to these existing, noise-sensitive land uses, the Plan Area is located near one proposed development project that is under review by the City:

- The Patrick Henry Drive Specific Plan area is located approximately 220 feet northwest of the Plan Area, across Great America Parkway. This potential development project would involve a General Plan amendment to support high-density residential and non-residential retail and office land uses. If approved, this project would result in new residential uses adjacent to the Plan Area.

Finally, if approved, the Focus Area Plan would result in new, noise-sensitive residential land uses within Plan Area.

13.2 REGULATORY SETTING

13.2.1 Federal

13.2.1.1 Federal Transit Administration (FTA)

No federal regulations apply to noise or vibration from the proposed project, but the FTA's 2018 Transit Noise and Vibration Impact Assessment Manual document sets groundborne vibration annoyance criteria for general assessments. The criteria vary by the type of building being subjected to the vibrations, and the overall number of vibration events occurring each day. Category 1 buildings are considered buildings where vibration would interfere with operation, even at levels that are below human detection. These include buildings with sensitive equipment, such as research facilities and recording studios. Category 2 buildings include residential lands and buildings were people sleep, such as hotels and hospitals. Category 3 buildings consist of institutional land uses with primarily daytime uses. The FTA standards vary for "frequent" events (occurring more than 70 times per day, such as a rapid transit project), "occasional" events (occurring between 30 to 70 times per day), and "infrequent" events (occurring less than 30 times per day). The FTA's vibration annoyance criteria are summarized in Table 13-5.

13.2.2 State

13.2.2.1 California Building Standards Code

The California Building Standards Code is contained in Title 24 of the California Code of Regulations and consists of 11 different parts that sets forth various construction and building requirements. Part 2, California Building Code, Section 1207, Sound Transmission, establishes sound transmission standards for interior walls, partitions, and floor/ceiling assemblies. Specifically, Section 1207.4 establishes that interior noise levels attributable to exterior noise sources shall not exceed 45 dBA DNL or CNEL (as set by the local General Plan) in any habitable room.

Table 13-5
FTA GROUND-BORNE VIBRATION IMPACT CRITERIA FOR GENERAL ASSESSMENT

Vibration Land Use Category/Type	Frequent Events	Occasional Events	Infrequent Events
Category 1 – Buildings with sensitive equipment	65 VdB	65 VdB	65 VdB
Category 2 – Buildings where people normally sleep	72 VdB	75 VdB	80 VdB
Category 3 – Institutional land uses with primarily daytime use	75 VdB	78 VdB	83 VdB
Source: FTA 2018 Note: VdB = Velocity decibel			

13.2.2.2 California Green Building Standards Code

The California Green Building Standards Code is Part 11 to the California Building Standards Code. Chapter 5, Nonresidential Mandatory Standards, Section 5.507 establishes the following requirements for nonresidential development that may be applicable to the Project.

- Section 5.507.4.1.1 sets forth that buildings exposed to a noise level of 65 dBA L_{eq} (1-hour) during any hour of operation shall have exterior wall and roof-ceiling assemblies exposed to the noise source meeting a composting sound transmission class (STC) rating of at least 45 (or an outdoor indoor transmission class [OITC] of 35), with exterior windows of a minimum STC of 40.

- Section 5.507.4.2 sets forth that wall and roof assemblies for buildings exposed to a 65 dBA L_{eq} pursuant to Section 5.507.4.1.1 shall be constructed to provide an interior noise environment attributable to exterior sources that does not exceed 50 dBA L_{eq} in occupied areas during any hour of operation. This requirement shall be documented by an acoustical analysis documenting interior sound levels prepared by personnel approved by the architect or engineer of record.

13.2.2.3 Caltrans

Caltrans' Transportation and Construction Vibration Guidance Manual provides a summary of vibration human responses and structural damage criteria that have been reported by researchers, organizations, and governmental agencies (Caltrans, 2020b). These thresholds are summarized in Table 13-6 and Table 13-7.

Table 13-6
CALTRANS' VIBRATION THRESHOLD CRITERIA FOR BUILDING DAMAGE

Structural Integrity	Maximum PPV (in/sec)	
	Transient	Continuous
Historic and some older buildings	0.50	0.12 to 0.2
Older residential structures	0.50	0.30
New residential structures	1.00	0.50
Modern industrial and commercial structures	2.00	0.50
Source: Caltrans, 2020b		

Table 13-7
CALTRANS' VIBRATION THRESHOLD CRITERIA FOR HUMAN RESPONSE

Human Response	Maximum PPV (in/sec)	
	Transient	Continuous
Slightly perceptible	0.035	0.012
Distinctly perceptible	0.24	0.035
Strongly perceptible	0.90	0.10
Severe/Disturbing	2.0	0.7 (at 2 Hz) to 0.17 (at 20 Hz)
Very disturbing	--	3.6 (at 2 Hz) to 0.4 (at 20 Hz)
Source: Caltrans, 2020b		

13.2.3 Regional

13.2.3.1 Santa Clara County Airport Land Use Commission

The Santa Clara County Airport Land Use Commission (ALUC) reviews proposals for general plans, specific plans, zoning ordinances, and land use development proposals in the vicinity of Norman Y. Mineta San Jose International Airport to ensure that future land uses in the surrounding area remain compatible with the realistically foreseeable, ultimate potential aircraft activity at the airport. Their review is based on the Comprehensive Land Use Plan, Santa Clara County, Norman Y. Mineta San Jose International Airport, adopted May 25, 2011 (amended November 16, 2016). The Comprehensive Land Use Plan (CLUP) sets forth land use compatibility criteria, compatibility zones, development standards, and policies pertaining to noise, safety, airspace protection, and overflight standards, and establishes the planning boundaries that define height, tall structures, noise, and safety zones for policy implementation. The CLUP also includes areas within which notification of airport proximity is required as part of real estate transactions.

As described in Section 13.1.7, a part of the Plan Area is located within the San Jose International Airport influence area and may subject to review by the Santa Clara County Airport Land Use Commission to determine consistency with the CLUP's policies pertaining to height, safety, and overflight restrictions. Please refer to Chapter 10, Hazards and Hazardous Materials, for a discussion of these policies.

The Plan Area is not located within the CLUP's noise restricted area (defined as the area within the airport's 65 CNEL contour); however, the CLUP contains the following noise compatibility policy that would apply to future development projects within the Plan Area:

- **Policy N-5:** All property owners within the Airport Influence Area who rent or lease their property for residential use shall include in their rental/lease agreement with the tenant, a statement advising that they (the tenants) are living within a high noise area and the exterior noise level is predicted to be greater than 65 dB CNEL in a manner that is consistent with current state law including AB2776 (2002).

13.2.4 Local

13.2.4.1 City of Santa Clara General Plan

The City of Santa Clara's General Plan Noise Element contains standards, goals, and policies that address noise throughout the city. The General Plan Noise Element contains the following goals and policies applicable to the proposed Focus Area Plan:

- Goal 5.10.6-G3: Land use, development and design approvals that take noise levels into consideration.

- Policy 5.10.6-P1: Review all land use and development proposals for consistency with the General Plan compatibility standards and acceptable noise exposure levels defined on Table 5.10-1.

- Policy 5.10.6-P2: Incorporate noise attenuation measures for all projects that have noise exposure levels greater than General Plan "normally acceptable" levels, as defined on Table 5.10-1.

- Policy 5.10.6-P3: New development should include noise control techniques to reduce noise to acceptable levels, including site layout (setbacks, separation and shielding), building treatments (mechanical ventilation system, sound-rated windows, solid-core doors, and baffling) and structural measures (earthen berms and sound walls).

- Policy 5.10.6-P4: Encourage the control of noise at the source through site design, building design, landscaping, hours of operation, and other techniques.

- Policy 5.10.6-P5: Require noise-generating uses near residential neighborhoods to include solid walls and heavy landscaping along common property lines and to place compressors and mechanical equipment in sound-proof enclosures.

- Policy 5.10.6-P6: Discourage noise-sensitive uses, such as residences, hospitals, schools, libraries, and rest homes, from areas with high noise levels, and discourage high noise-generating uses from areas adjacent to sensitive uses.

- Policy 5.10.6-P8: Continue to encourage safe and compatible land uses within the Norman Y. Mineta International Airport Noise Restriction Area.

- Policy 5.10.6-P9: Work with the City of San José Norman Y. Mineta International Airport to implement mitigation from aircraft noise to the fullest extent possible.

- Policy 5.10.6-P11: Develop and include noise reduction measures with improvements and extensions of City streets.

The General Plan's noise and land use compatibility guidelines referenced in Policies 5.10.6-P1 and 5.10.6-P2 are summarized below in Table 13-8.

Table 13-8
GENERAL PLAN NOISE / LAND USE COMPATIBILITY GUIDELINES (CNEL)

Land Use	**50**	**55**	**60**	**65**	**70**	**75**	**80**	**85**
Residential								
Educational								
Recreational								
Commercial								
Industrial								
Open Space								
Key:								
	Compatible							
	Require design and insulation to reduce noise levels							
	Incompatible – avoid land use except when entirely indoors and an interior noise level of 45 DNL can be maintained.							
Source: City of Santa Clara, 2010, Table 8.14-1								

The City's General Plan also includes transition policies that apply to sites where new development is of a different land use classification and/or intensity to that of adjacent neighborhoods. These may apply to areas where residential uses abut retail, commercial, office, research and development, or industrial development.

- Policy 5.5.2-P3: Implement site design solutions, such as landscaping and increased building setbacks, to provide a buffer between non-residential and residential uses.
- Policy 5.5.2-P4: Provide adequate separation between incompatible land uses in order to minimize negative effects on surrounding existing and planned development.
- Policy 5.5.2-P11: Restrict loading, trash, and noise-generating activities to protect adjacent residential uses.
- Policy 5.5.2-P12: Screen loading and trash areas to preclude visibility from off-site and public streets.

13.2.4.2 City of Santa Clara Municipal Code

Chapter 9.10 of the City Code, Regulation of Noise and Vibration, establishes that certain noise or vibration levels are detrimental and contrary to the public health, welfare, and safety and that the City's residents require protection from unnecessary, excessive, and unreasonable noise or vibration from fixed sources in the community. Chapter 9.10 of the City Code, Article 1, Noise and Vibration from Fixed Sources, includes the following requirements that are relevant to the proposed Project:

- Section 9.10.030, Application of Regulations, sets forth that the City's noise and vibration regulations apply only to fixed noise, sound, or vibration sources and not mobile noise, sound, or vibration sources.

- Section 9.10.040, Noise or Sound Regulation, sets forth that is unlawful for any person to operate or cause to allow to be operated any fixed noise source that causes the noise level on any other property to exceed the maximum noise levels listed in Schedule A (reproduced below as Table 13-9).

Table 13-9
MUNICIPAL CODE SCHEDULE A EXTERIOR SOUND OR NOISE LIMITS

Receiving Zone Land Use Category	Time Period	Maximum Noise Level (dBA)
Category 1		
Single-family and duplex residential (R1, R2)	7:00 AM to 10:00 PM	55
	10:00PM to 7:00 AM	50
Category 2		
Multi-family residential, public space (R3,B)	7:00 AM to 10:00 PM	55
	10:00PM to 7:00 AM	50
Category 3		
Commercial, Office (C,O)	7:00 AM to 10:00 PM	65
	10:00PM to 7:00 AM	60
Category 4		
Light Industrial (ML, MP)	Anytime	70
Heavy Industrial (MH)	Anytime	75
Source: City of Santa Clara, 2020		

- Section 9.10.050, Vibration Regulation, sets forth that is unlawful for any person to operate or cause to allow to be operated any fixed vibration source that causes the vibration at the closest property line point to exceed the City's vibration perception threshold (0.01 inch/second over the range of one to 100 Hz per Code Section 9.10.020).

- Section 9.10.060, Noise, Sound, or Vibration Evaluation Criteria, sets forth that if measured ambient noise levels differ from those set forth in Municipal Code Schedule A (See Table 13-8), the allowable noise exposure standard shall be adjusted in five dBA increments in each category as appropriate to encompass or reflect said ambient noise level.

- Section 9.10.070, Exceptions, sets forth that the City's noise and vibration regulations do not apply to construction activities which occur during allowed hours, as specified in City Code Section 9.10.230.

Chapter 9.10 of the City Code, Article 2, Off-Street Operation of Certain Construction Sites, includes the following requirements that are relevant to the proposed Project:

- Section 9.10.210, Purpose, sets forth that certain construction-related operations in close proximity to residential properties can, if left unregulated, cause excessive and annoying noise, dust, fumes potentially injurious to persons and properties in residential neighborhoods.

- Section 9.10.230, Regulation, sets forth that no person shall engage or authorize others to engage in construction activities, including delivery of construction materials, within three hundred (300) feet of any residentially zoned property except within the hours of 7 AM to 6 PM, Monday through Friday, and 9 AM to 6 PM on Saturday. Construction is not permitted within 300 feet of residentially zoned properties on holidays or Sundays.

13.3 IMPACTS AND MITIGATION MEASURES

This section evaluates potential noise and vibration impacts that could occur under implementation of the Freedom Circle Focus Area Plan/Greystar General Plan Amendment.

13.3.1 Significance Criteria

Based on Appendix G to the State CEQA Guidelines, a significant impact would occur if a proposed project would:

(a) Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;

(b) Generate excessive groundborne vibration or groundborne noise levels; or

(c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels.

With regard to criteria (a), the proposed project would result in a significant construction and/or operational noise impact if it would:

- Violate the allowable construction time periods set forth in Municipal Code Section 9.10.230;

- Generate hourly average construction noise levels at sensitive receptor locations that exceed 60 dBA L_{eq}, are at least 5 dBA above documented ambient noise levels at the sensitive receptor location, and last more than one year in duration;

- Generate hourly average construction noise levels at commercial receptor locations that exceed 70 dBA L_{eq}, are at least 5 dBA above documented ambient noise levels at the commercial receptor location, and last more than one year in duration;

- Generate operational noise levels that exceed the General Plan Noise Element compatibility standards summarized in Table 13-8;

- Generate operational noise levels that exceed the fixed source noise standards in Municipal Code Section 9.10.040 (summarized in Table 13-9); or

- Generate operational traffic noise levels that increase ambient noise levels at off-site locations by:

- 5 dBA or more where the ambient noise level would remain either normally or conditionally acceptable;
- 3 dBA or more where the existing ambient noise level changes from normally or conditionally acceptable to normally unacceptable; or
- 1 dBA or more where the existing ambient noise level is already normally unacceptable.

With regard to criterion (b), the proposed project would result in a significant construction and/or operational vibration impact if it would:

- Generate construction-related vibration levels that exceed FTA annoyance criteria (see Table 13-5);

- Generate construction-related vibration levels that exceed Caltrans' guidance for potential building damage (see Table 13-6); or

- Generate vibration levels that exceed the City Code vibration perception threshold for vibration from fixed sources set forth in Municipal Code Section 9.10.050.

With regard to criterion (c), the proposed project would expose people living or working in the Plan Area to excessive airport-related noise levels if it would conflict with the CLUP prepared for Norman Y. Mineta San Jose International Airport.

13.3.2 Relevant Freedom Circle Focus Area Plan Components

The Freedom Circle Focus Plan includes the following goals and policies that would reduce potential noise impacts associated with future development in the Plan Area (City of Santa Clara, 2021).

- FC-G3: Create a complete neighborhood that provides easy access to day-to-day services and amenities for residents, employees, and visitors.
- FC-G4: Reduce reliance on private vehicles and improve jobs/housing balance by locating amenities and jobs within walking distance to housing.
- FC-G6: Improve multi-modal transportation options and connections.
- FC-P1: Allow for a range of housing density and development intensity throughout the Plan Area, consistent with the General Plan designations and overall buildout capacity.
- FC-P3: Require active street frontages and ground floor uses to create a pedestrian-friendly, cohesive urban environment.
- FC-P7: Encourage sensitive design and site planning to mitigate the scale and height of larger buildings through use of building massing, setbacks, façade articulation, fenestration, varied parapets and roof lines, and pedestrian-scaled architectural details.
- FC-P8: Provide appropriate transition between new development in the Focus Area and adjacent uses consistent with General Plan Transition Policies.
- FC-P9: Require that building facades and entrances directly face street frontages, with a high proportion of transparent windows facing the street for nonresidential uses.
- FC-P10: Minimize surface parking by requiring below-grade or structured parking facilities with active uses along street frontages.
- FC-P11: Establish parking ratios that support transit, active transportation and shared vehicle use.
- FC-P12: Encourage shared parking between uses and parcels, including the shared use of existing structures.

- FC-P14: Provide new street, bicycle and pedestrian networks that break down large blocks and sites, accommodate multiple modes of travel, and maximize connections to activity hubs.
- FC-P15: Develop design standards and guidelines to support active ground-floor environments, welcoming public spaces, and safe and comfortable sidewalks and pathways.
- FC-P16: Design and program the Plan Area and sites to encourage walking, bicycling, and transit use.
- FC-P17: Minimize environmental impacts through sustainable building and infrastructure design, consistent with CALGreen and Santa Clara Climate Action Plan requirements.
- FC-P18: Redesign Mission College Boulevard, Freedom Circle, and Hichborn Drive to better balance space dedicated to vehicles, bicycle, and pedestrians.
- FC-P19: Maintain VTA bus transit service on Mission College Boulevard and improve transit stops and shelters.
- FC-P20: Design pedestrian and bicycle networks and infrastructure to facilitate access to transit stops on Great America Parkway, Mission College and Tasman Drive.
- FC-P21: Require developments to contribute to City vehicle miles travelled (VMT) goals and implement Transportation Demand Management (TDM programs).
- FC-P22: Require developers and property owners to coordinate with area employers and stakeholders to explore shared private transit systems and the formation of a Transit Management Authority (TMA) as part of the Focus Area Plan process.

13.3.3 Impacts and Mitigations

Impact 13-1: Temporary Construction Noise Levels – Freedom Circle Focus Area Plan. The implementation of the Freedom Circle Focus Area Plan could result in construction and development activities in the Plan Area that generate noise levels above City standards and/or otherwise result in a substantial, temporary increase in ambient noise levels in the vicinity of the Plan Area. This represents a ***potentially significant impact*** (see criterion [a] in subsection 13.3.1, "Significance Criteria," above).

As shown in Table 3-2, Anticipated Development, the Focus Area Plan could result in up to 3,600 high density residential dwelling units, 2,000,000 square feet of non-residential office space, 2,000 square feet of retail space, and at least 2.0 acres of park open spaces.[4] This development would replace existing surface parking and building space (including office, business park, and other commercial uses) present in the Plan Area. With the exception of the Greystar project, which is evaluated further below, the City has not received any specific development application for a project within the Plan Area; the timing and nature of specific development projects within the Plan Area is unknown and subject to future market and other conditions that the City cannot control. Since project-specific information is not available at this time, potential construction-related noise impacts can only be evaluated based on the typical construction activities associated with residential, commercial, and retail development. Potential construction source noise and vibration levels were developed based on methodologies, reference noise levels, and equipment usage and other operating factors documented and contained in the FHWA Construction Noise Handbook (FHWA, 2010), Federal Transit

[4]As described in Section 3.5.1, the Focus Area Plan would not entitle development in the Plan Area. The anticipated development assumptions are inclusive of the Greystar project development and are assumed to be maximum development scenarios.

Administration's (FTA) Transit Noise and Vibration Impact Assessment document (FTA, 2018), and Caltrans' Transportation and Construction Vibration Guidance Manual (Caltrans, 2020b). Reference levels are noise emissions for specific equipment or activity types that are well documented and for which their usage is common practice in the field of acoustics.

Construction activities associated with potential development projects could include: staging, demolition, site preparation (e.g., land clearing), fine and mass grading, utility trenching, foundation work (e.g., excavation, pouring concrete pads, drilling for piers), material deliveries (requiring travel along City roads), building construction (e.g., framing, concrete pouring, welding), paving, coating application, and site finishing work. Construction activities may also include roadway (e.g., driveway connections) and infrastructure improvements. In general, construction activities would involve the use of worker vehicles, delivery trucks, dump trucks, and heavy-duty construction equipment such as (but not limited to) backhoes, tractors, loaders, graders, excavators, rollers, cranes, material lifts, generators, and air compressors. These types of construction activities would generate noise and vibration from the following sources:

- Heavy equipment operations at different work areas. Some heavy equipment would consist of mobile equipment such as a loader and excavator that would move around work areas; other equipment would consist of stationary equipment (e.g., cranes or material hoists/lifts) that would generally operate in a fixed location until work activities are complete. Heavy equipment generates noise from engine operation, mechanical systems, and components (e.g., fans, gears, propulsion of wheels or tracks), and other sources such as back-up alarms. Mobile equipment generally operates at different loads, or power outputs, and produces higher or lower noise levels depending on the operating load. Stationary equipment generally operates at a steady power output that produces a constant noise level.

- Vehicle trips, including worker, vendor, and haul truck trips. These trips are likely to primarily occur on Tasman Drive, Great America Parkway, Patrick Henry Drive, and Old Ironsides Drive.

Table 13-10, Potential Construction Equipment Noise Levels, indicates the anticipated noise levels of construction equipment at difference distances from equipment work areas.

Table 13-10
TYPICAL CONSTRUCTION EQUIPMENT NOISE LEVELS

Equipment	Noise Level at 50 feet (L_{max})[A]	Usage Factor[B]	Calculated Average Noise Levels (L_{eq})[C]					
			50 feet	100 feet	200 feet	400 feet	500 feet	700 feet
Auger Drill Rig	85	0.2	78	72	66	60	58	55
Backhoe	80	0.4	76	70	64	58	56	53
Boring Jack Power Unit	80	0.5	77	71	65	59	57	54
Bulldozer	85	0.4	81	75	69	63	61	58
Compact roller	80	0.2	73	67	61	55	53	50
Compressor	80	0.4	76	70	64	58	56	53
Concrete Mixer	85	0.4	81	75	69	63	61	58
Crane	85	0.16	77	71	65	59	57	54

Equipment	Noise Level at 50 feet (L_{max})[A]	Usage Factor[B]	Calculated Average Noise Levels (L_{eq})[C]					
			50 feet	100 feet	200 feet	400 feet	500 feet	700 feet
Delivery Truck	84	0.4	80	74	68	62	60	57
Excavator	85	0.4	81	75	69	63	61	58
Front End Loader	80	0.4	76	70	64	58	56	53
Generator	82	0.5	79	73	67	61	59	56
Horizontal Boring Jack	80	0.25	74	68	62	56	54	51
Impact Hammer/Pile Driver	101	0.2	88	82	76	70	68	65
Vibratory Hammer/Pile Driver	101	0.2	94	88	82	76	74	71
Man Lift	85	0.2	78	72	66	60	58	55
Paver	85	0.5	82	76	70	64	62	59
Pneumatic tools	85	0.5	82	76	70	64	62	59
Pumps	77	0.5	74	68	62	56	54	51
Roller	85	0.2	78	72	66	60	58	55
Scraper	85	0.4	81	75	69	63	61	58
Tractor	84	0.4	80	74	68	62	60	57
Vacuum Truck	85	0.4	81	75	69	63	61	58

Sources: Caltrans 2013, FHWA, 2010, and MIG (see Appendix 25.5).

(A) L_{max} noise levels based on manufacturer's specifications.

(B) Usage factor refers to the amount of time the equipment produces noise over the time period.

(C) Estimate does not account for any atmospheric or ground attenuation factors. Calculated noise levels based on Caltrans 2013: L_{eq} (hourly) = L_{max} at 50 feet – 20log (D/50) + 10log (UF), where: L_{max} = reference L_{max} from manufacturer or other source; D = distance of interest; UF = usage fraction or fraction of time period of interest equipment is in use.

Construction noise impacts generally occur when construction activities occur in areas immediately adjoining noise sensitive land uses, during noise sensitive times of the day, or when construction durations last over extended periods of time. Construction activities associated with the proposed project would occur in multiple phases and may last several years in total. The closest that construction activities could occur to nearby sensitive receptors located outside the Plan Area would be:

- Adjacent to and within approximately 50 feet or less of the San Tomas Aquino Creek;
- Approximately 170 feet from the Our Lady of Peace Church and Shrine (located west of the Plan Area, across Great America Parkway); and
- Approximately 770 feet from the closest residential area on Augustine Drive (located south of the Plan Area, across U.S. 101).

Although the Plan Area boundary is located approximately 170 feet and 770 feet from sensitive institutional and residential land uses, the vast majority of the Plan Area is located more than 1,000 feet from these sensitive land uses and, therefore, construction activities in the interior of the Plan Area would have no potential to impact these sensitive land uses.

In addition to the existing, noise-sensitive land uses described above, the Patrick Henry Specific Plan Area is located approximately 220 feet northwest of the Plan Area. Finally, existing

commercial (e.g., Marriot Hotel at 2700 Mission College Boulevard) and future noise sensitive land uses envisioned by the Focus Area Plan (e.g., residential dwelling units) could be located near construction work areas within the Plan Area.

The City's General Plan Noise Element generally focuses on protecting Santa Clara citizens from noise intrusion, and the City's Municipal Code limits construction activities to the hours of 7 AM to 6 PM, Monday to Friday, and 9 AM to 6 PM on Saturday (Municipal Code Section 9.10.230). Although the General Plan and Municipal Code do not establish a specific, numeric noise standard (e.g., 90 dB, L_{eq}), the City has historically considered construction activities to result in a significant noise impact on residential land uses if the activities generate noise levels that are above 60 dBA L_{eq} and exceed the ambient noise environment by at least 5 dBA L_{eq} for more than one year. Similarly, the City has historically considered construction activities to result in a significant noise impact on commercial land uses if the activities generate noise levels that are above 70 dBA L_{eq} and exceed the ambient noise environment by at least 5 dBA L_{eq} for more than one year.

With regard to construction noise, demolition, site preparation, and grading phases typically result in the highest temporary noise levels due to the use of heavy-duty equipment such as dozers, excavators, graders, loaders, scrapers, and trucks. The use of specialized equipment such as impact or vibratory pile drivers can also generate high noise levels during initial foundation work stages. As shown in Table 13-10, the worst-case L_{eq} and L_{max} noise levels associated with the operation of a dozer, excavator, scraper, etc., are predicted to be approximately 82 and 85 dBA, respectively, at a distance of 50 feet from the equipment operating area. At an active construction site, it is not uncommon for two or more pieces of construction equipment to operate at the same time and in close proximity. The concurrent operation of two or more pieces of construction equipment would result in noise levels of approximately 85 to 88 dBA at a distance of 50 feet from equipment operating areas.[5] The magnitude of each individual future project's temporary and periodic increase in ambient noise levels would be dependent upon a number of project-specific factors that are not known at this time, including: the amount and type of equipment being used; the distance between the area where equipment is being operated and the location of the specific land use, receptor, etc., where noise levels are being evaluated; the time of day construction activities are occurring; the presence or absence of any walls, buildings, or other barriers that may absorb or reflect sound waves, the total duration of the construction activities, and the existing ambient noise levels near construction areas.

For example, a noise level of 88 dBA L_{max} would be similar to typical L_{max} levels measured near the southern boundary of the Planning Area (LT-1), but sustained L_{eq} levels of 85 dBA would be approximately 11 dBA above daytime ambient conditions near the southern boundary of the Planning Area (see Table 13-2 and 13-3). The same noise levels would be approximately 10 to 25 dBA above ambient L_{max} and L_{eq} noise levels measured near the interior (ST-2) and eastern and western boundaries of the Plan Area (ST-1 and ST-3, respectively).Typically, sustained construction noise levels of 80 to 85 dBA or higher would require the implementation of construction noise control practices such as staging area restrictions (e.g., siting staging areas away from sensitive receptors), equipment controls (e.g., covered engines and use of electrical

[5]As shown in Table 13-10, a single bulldozer provides a sound level of 87 dBA L_{eq} at a distance of 25 feet; when two identical sound levels are combined, the noise level increases to 90 dBA L_{eq} and when three identical sound levels are combined, the noise level increases to 91 dBA L_{eq}. These estimates assume no shielding or other noise control measures are in place at or near the work areas.

hook-ups instead of generators), and/or the installation of temporary noise barriers of sufficient height, size (length or width), and density to achieve targeted noise reductions.

In general, as shown in Table 13-10, typical construction equipment activities could exceed the City's significance thresholds at residential and commercial land uses within 400 feet and 200 feet of work areas, respectively, assuming the construction activity would last for more than one year (which may or may not be the case depending on the project). The use of pile driving equipment, if necessary, could exceed residential and commercial thresholds at distances of 500 and 400 feet, respectively.[6] While all projects in the Planning Area would be subject to the permissible construction hours established by the Municipal Code, construction activities could result in temporary increases in noise levels above ambient conditions of 10 to 25 dBs or more during permissible time frames, which would be perceived by noise-sensitive land uses as doubling or quadrupling of loudness, respectively. This is considered a potentially significant impact.

The implementation of Mitigation Measure 13-1 would reduce construction noise levels associated with future development in the Plan Area through a combination of notification/disclosure, permissible work times, equipment noise controls, and construction activity management measures designed to ensure residential and commercial construction noise thresholds are not exceeded. Mitigation Measure 13-1 prohibits construction activities during certain times and requires equipment noise suppression devices (e.g., mufflers, engine covers, etc.), temporary shielding of stationary noise sources, and the use of temporary barriers during construction phases that usually involve the largest, loudest, and highest number of construction equipment (e.g., grading). In combination, these measures are expected to reduce potential construction noise levels by 15 to 25 dBA and result in less than significant construction noise levels. If necessary, additional noise control measures necessary to meet the City's construction noise thresholds would be developed through the preparation of the project-specific noise study required by Mitigation Measure 13-1 that considers project-specific construction characteristics, noise levels, and receptor locations. Therefore, this impact would be *less than significant* with mitigation.

[6]There are no existing sensitive residential land uses closer than approximately 700 feet of the Plan Area. Therefore, plan-related construction activities would not impact any existing noise-sensitive residential land uses in the vicinity of the Plan Area. Over time, Plan-related construction activities could impact new residential land uses built in the Plan Area.

Mitigation 13-1: Reduce Potential Freedom Circle Focus Area Plan Construction Noise Levels. To reduce potential noise levels from Focus Area Plan related construction activities, the City shall ensure future development projects within the Plan Area:

1) Notify Residential and Commercial Land Uses of Planned Construction Activities. This notice shall be provided at least one week prior to the start of any construction activities, describe the noise control measures to be implemented by the Project, and include the name and phone number of the designated contact for the Applicant/project representative and the City of Santa Clara responsible for handling construction-related noise complaints (per Section 8). This notice shall be provided to: A) The owner/occupants of residential dwelling units within 500 feet of construction work areas; and B) The owner/occupants of commercial buildings (including institutional buildings) within 200 feet of construction work areas or within 400 feet of construction work areas if pile driving equipment will be used.

2) Notify San Tomas Aquino Creek Trail Users of Construction Activities. Prior to the start of construction activities within 500 feet of the San Tomas Aquino Creek Trail, signs shall be posted along the trail warning of potential temporary elevated noise levels during construction. Signs shall be posted within 250 feet of impacted trail segments (i.e., portions of the trail within 500 feet of a work area) and shall remain posted throughout the duration of all substantial noise generating construction activities (typically demolition, grading, and initial foundation installation activities).

3) Restrict Work Hours. All construction-related work activities, including material deliveries, shall be subject to the requirements of City Municipal Code Section 9.10.230. Construction activities, including deliveries, shall occur only during the hours of 7:00 AM to 6:00 PM, Monday through Friday, and 9 AM to 6 PM on Saturday, unless otherwise authorized by City permit. The applicant/project representative and/or its contractor shall post a sign at all entrances to the construction site informing contractors, subcontractors, construction workers, etc. of this requirement.

4) Control Construction Traffic and Site Access. Construction traffic, including soil and debris hauling, shall follow City-designated truck routes and shall avoid routes (including local roads in the Plan Area) that contain residential dwelling units to the maximum extent feasible given specific project location and access needs.

5) Construction Equipment Selection, Use, and Noise Control Measures. The following measures shall apply to construction equipment used in the Plan Area: A) To the extent feasible, contractors shall use the smallest size equipment capable of safely completing work activities; B) Construction staging shall occur as far away

(continued)

Mitigation 13-1 (continued):

from residential and commercial land uses as possible; C) All stationary noise-generating equipment such as pumps, compressors, and welding machines shall be shielded and located as far from sensitive receptor locations as practical. Shielding may consist of existing vacant structures or a three- or four-sided enclosure provide the structure/barrier breaks the line of sight between the equipment and the receptor and provides for proper ventilation and equipment operations; D) Heavy equipment engines shall be equipped with standard noise suppression devices such as mufflers, engine covers, and engine/mechanical isolators, mounts, etc. These devices shall be maintained in accordance with manufacturer's recommendations during active construction activities; E) Pneumatic tools shall include a noise suppression device on the compressed air exhaust; F) The applicant/project representative and/or their contractor shall connect to existing electrical service at the site to avoid the use of stationary power generators (if feasible); G) No radios or other amplified sound devices shall be audible beyond the property line of the construction site.

6) Implement Construction Activity Noise Control Measures: The following measures shall apply to construction activities in the Plan Area: A) Demolition: Activities shall be sequenced to take advantage of existing shielding/noise reduction provided by existing buildings or parts of buildings and methods that minimize noise and vibration, such as sawing concrete blocks, prohibiting on-site hydraulic breakers, crushing, or other pulverization activities, shall be employed to the maximum extent feasible; B) Demolition Site Preparation, Grading, and Foundation Work: During all demolition, site preparation, grading, and structure foundation work activities within 500 feet of a residential dwelling unit or 400 feet of a commercial building (including institutional buildings), a physical noise barrier capable of achieving the construction noise level standards set forth in Section 7 below shall, if required pursuant to Section 7, be installed and maintained around the site perimeter to the maximum extent feasible given site constraints and access requirements. Potential barrier options capable of reducing construction noise levels could include, but are not limited to: i) A concrete, wood, or other barrier installed at-grade (or mounted to structures located at-grade, such as a K-Rail), and consisting of a solid material (i.e., free of openings or gaps other than weep holes) of sufficient height (determined pursuant to Section 7) that has a minimum rated transmission loss value of 20 dB; ii) Commercially available acoustic panels or other products such as acoustic barrier blankets that have a minimum sound transmission class (STC) or transmission loss value of 20 dB; iii) any combination of noise barriers and commercial products capable of achieving required construction noise reductions during demolition, site preparation, grading, and structure foundation work activities; iv) The noise barrier may be removed following the completion of building foundation work (i.e., it is not necessary once framing and typical vertical building construction

(continued)

Mitigation 13-1 (continued):

begins provided no other grading, foundation, etc. work is still occurring on-site); and C) Pile Driving: If pile driving activities are required within 500 feet of a residential dwelling unit or 400 feet of a commercial building, the piles shall be pre-drilled with an auger to minimize pile driving equipment run times.

7) Prepare Project-Specific Construction Noise Evaluation. Prior to the start of any specific construction project lasting 12 months or more, the City shall review and approve a project-specific construction noise evaluation prepared by a qualified acoustical consultant that: A) Identifies the planned project construction sequence and equipment usage; B) Identifies typical hourly average construction noise levels for project construction equipment; C) Compares hourly average construction noise levels to ambient noise levels at residential and commercial land uses near work areas (ambient noise levels may be newly measured or presumed to be consistent with those levels shown in Table 13-2 and 13-3 of the Freedom Circle Focus Area Plan/Greystar General Plan Amendment Draft Environmental Impact Report (EIR); and D) Identifies construction noise control measures incorporated into the project that ensure: i) activities do not generate noise levels that are above 60 dBA L_{eq} at a residential dwelling unit and exceed the ambient noise environment by at least 5 dBA Leq for more than one year; and ii) activities do not generate noise levels that are above 70 dBA Leq at a commercial property (including institutional land uses) and exceed the ambient noise environment by at least 5 dBA Leq for more than one year. Such measures may include but are not limited to: a) The requirements of Sections 4, 5, 6, and 8; b) Additional project and/or equipment-specific enclosures, barriers, shrouds, or other noise suppression methods. The use of noise control blankets on building facades shall be considered only if noise complaints are not resolvable with other means or methods.

8) Prepare a Construction Noise Complaint Plan. The Construction Noise Complaint Plan shall: A) Identify the name and/or title and contact information (including phone number and email) for a designated project and City representative responsible for addressing construction-related noise issues; B) Includes procedures describing how the designated project representative will receive, respond, and resolve construction noise complaints; C) At a minimum, upon receipt of a noise complaint, the project representative shall notify the City contact, identify the noise source generating the complaint, determine the cause of the complaint, and take steps to resolve the complaint; D) The elements of the Construction Noise Complaint Plan may be included in the project-specific noise evaluation prepared to satisfy Section 7 or as a separate document.

(continued)

Mitigation 13-1 (continued):

9) Owner/Occupant Disclosure: The City shall require future occupants/tenants in the Plan Area receive disclosure that properties in the Plan Area may be subject to elevated construction noise levels from development in the Plan Area. This disclosure shall be provided as part of the mortgage, lease, sub-lease, and/or other contractual real-estate transaction associated with the subject property.

With implementation of these measures, this impact would be ***less than significant*** (see criterion [a] in subsection 13.3.1, "Significance Criteria," above).

Impact 13-2: Temporary Construction Noise Levels – Greystar General Plan Amendment. The Greystar project could result in construction and development activities in the Plan Area that generate noise levels above City standards and/or otherwise result in a substantial, temporary increase in ambient noise levels in the vicinity of the Plan Area. This represents a ***potentially significant impact*** (see criterion [a] in subsection 13.3.1, "Significance Criteria," above).

As shown in Table 3-1, Greystar Project – Residential Unit and Parking Breakdown, and Table 3-2, Anticipated Development, the Greystar project could result in three residential buildings (Buildings A, B, and C) with a total of 1,075 high-density residential dwelling units in an undeveloped area along the eastern boundary of the Plan Area. The Greystar project would also include 2,000 square feet of retail space, parking facilities (as part of each residential building), and a 2-acre park.

Greystar project construction activities would generally include the same types of construction phases as described under Impact 13-1 (e.g., clearing and grubbing; mass excavation; structural concrete work, structural framing / rough in and site work / landscaping). These activities would generate noise and vibration from the same sources as described under Impact 13-1, including heavy equipment operations and vehicle trips. In total, construction of the Greystar Project is anticipated to last approximately 48 months, beginning in July 2022 and concluding in June 2026, and require the net off-haul of approximately 71,500 cubic yards of soil. All hauling activities associated with the Greystar Project are anticipated to occur within the first half-year of construction. The specific types of heavy-duty, off-road equipment would vary between the construction phases, depending on the types of activities being undertaken, but would require the use of backhoes, graders, excavators, mini excavators, scrapers, bulldozers, cranes, telehandlers (e.g., Gradalls), and tractors / loaders. Vendor deliveries, consisting of concrete, lumber, rebar, and other sorts of building materials, would occur on a continuous basis throughout the duration of construction activities. Please see Appendix 25.2 for a full breakdown of heavy-duty equipment operating characteristics, as well as worker, vendor, and hauling trips.

Due to similar equipment types the construction noise levels listed in Table 13-10, Potential Construction Equipment Noise Levels, are considered representative of the noise levels that would be produced by Greystar project construction activities; however, construction of the Greystar project is not anticipated to require pile driving activities. Construction activities

associated with the Greystar project would occur in multiple phases and last several years in total. The closest that construction activities could occur to residential and commercial receptors located outside the Greystar project site would be:

- San Tomas Aquino Creek Trail: The San Tomas Aquino Creek Trail is generally located within 50 feet or less of the eastern boundary of the Greystar project site. Based on the ambient noise monitoring conducted for this EIR (see Section 13.1.6.1), daytime ambient noise levels along this portion of the San Tomas Aquino Creek Trail are assumed to be at least 67 dBA L_{eq} within 500 feet of the centerline of U.S. 101, at least 65 dBA Leq within 850 feet of the centerline of U.S. 101, at least 63 dBA within 1,500 feet of the centerline of U.S. 101, and up to 65 dBA L_{eq} within 2,000 feet of the centerline of U.S. 101 (or within 500 feet of the centerline of Mission College Boulevard. As shown in Table 13-10 and discussed under Impact 13-1, the concurrent operation of two or more pieces of construction equipment such as a dozer, excavator, scraper, etc. would result in noise levels of approximately 85 dBA L_{eq} and 88 dBA L_{max} at a distance of 50 feet from equipment operating areas. [7] A noise level of 88 dBA L_{max} would be similar to typical L_{max} levels measured near U.S. 101, but sustained L_{eq} levels of 85 dBA would be approximately 11 dBA above daytime ambient conditions near the southern boundary of the Greystar project site. The same noise levels would be approximately 7 to 20 dBA above ambient L_{max} and L_{eq} noise levels measured near Mission College Boulevard. In general, Greystar construction activities within approximately 200 feet of the creek trail could generate noise levels that exceed 70 dBA L_{eq} and are at least 5 dBA above existing ambient noise levels; however, since trail users actively move along the trail, construction activities would not impact any specific receptor for a period of 12 months or more. In addition, construction activities would not generate noise levels that cause physical harm to a receptor (i.e., at a level that would cause hearing loss or permanent hearing damage). Such physiological effects occur when the human ear is subjected to extremely high short-term noise levels (i.e., 140 dBA from an explosion) or from a prolonged exposure to high noise environments. For example, to protect workers from noise-induced hearing loss, the U.S. Occupational Safety and Health Administration (OSHA) limits worker noise exposure to 90 dBA as averaged over an 8-hour period (29 CFR 1910.95). However, trail users would not experience such impacts. Potential construction noise levels are, therefore, considered a nuisance to trail users but not a significant impact.

- Commercial Land Use Adjacent to the Site's Southwestern Boundary: The commercial property (Pedro's Restaurant and Cantina) adjacent to the site's southwestern boundary is located approximately 120 to 630 feet from the centerline of U.S. 101. Based on the ambient noise monitoring conducted for this EIR (LT-1, see Table 13-2), the daytime ambient noise levels in the vicinity of this building are assumed 66 to 73 dBA L_{eq}. As shown in Table 13-10, Greystar project construction activities within approximately 100 feet of this commercial property could exceed 70 dBA Leq, be at least 5 dBA above the existing ambient noise level, and last 12 months or more. This is considered a potentially significant impact.

- Other Commercial Land Uses: Other commercial properties are generally located within 80 to 100 feet or more of the Greystar project site's eastern and western boundaries. These

[7] As shown in Table 13-10, a single bulldozer provides a sound level of 81 dBA L_{eq} at a distance of 50 feet; when two identical sound levels are combined, the noise level increases to 84 dBA L_{eq} and when three identical sound levels are combined, the noise level increases to 85 dBA L_{eq}. These estimates assume no shielding or other noise control measures are in place at or near the work areas.

properties consist of large parking lots with minimal exterior use areas. Based on the ambient noise monitoring conducted for this EIR (see Section 13.1.6.1), the daytime ambient noise levels at the commercial land uses located west of the Greystar project site boundary (across Freedom Circle) are approximately 59 dBA L_{eq}; the daytime ambient noise levels at the commercial land uses east of the Greystar project site (across the San Tomas Aquino Creek Trail) are approximately 63 to 73 dBA L_{eq}. As shown in Table 13-10, Greystar project construction activities within approximately 150 feet of the commercial properties to the west of the Greystar site could generate noise levels that exceed 70 dBA L_{eq}, be at least 5 dBA above the existing ambient noise level, and last 12 months or more. Similarly, Greystar project construction activities within approximately 150 feet of the commercial properties to the east of the Greystar site and San Tomas Aquino Creek Trail that are located between 850 feet and 1,500 feet from the centerline of U.S. 101 could generate noise levels that exceed 70 dBA L_{eq}, be at least 5 dBA above the existing ambient noise level, and last 12 months or more. This is also considered a potentially significant impact.

- Residential land uses: The closest residential land uses are located on Augustine Drive, approximately 770 feet south of the Plan Area, across U.S. 101. Potential construction noise levels at this distance would be less than 60 dBA L_{eq} and, therefore, would be less than significant.

In addition to the existing land uses described above, the phased nature of the Greystar development may result in new residential units near construction work areas within the Greystar project site. Future noise sensitive land uses envisioned by the Focus Area Plan throughout the remainder of the Plan Area (e.g., residential dwelling units) are not anticipated to be developed prior to the conclusion of Greystar construction activities.

The implementation of Mitigation Measure 13-2 would reduce construction noise levels associated with Greystar project construction activities through a combination of notification/disclosure, permissible work times, equipment noise controls, and construction activity management measures designed to ensure commercial construction noise thresholds are not exceeded. Mitigation Measure 13-2 prohibits construction activities during certain times and requires equipment noise suppression devices (e.g., mufflers, engine covers, etc.), temporary shielding of stationary noise sources, and the use of temporary barriers during construction phases that usually involve the largest, loudest, and highest number of construction equipment (e.g., grading). In combination, these measures are expected to reduce potential construction noise levels by 15 to 25 dBA and result in construction noise at nearby commercial receptors that is less than 70 dBA and/or less than 5 dBA above the existing ambient noise environment. Therefore, this impact would be *less than significant* with mitigation.

Mitigation 13-2: Reduce Greystar Project Construction Noise Levels. To reduce potential noise levels from Greystar Project construction activities, the City shall ensure the Applicant:

1) Notify Residential and Commercial Land Uses of Planned Construction Activities. See Freedom Circle Focus Area Plan/Greystar General Plan Amendment Draft Environmental Impact Report (EIR) Mitigation Measure 13-1, Section 1.

2) Notify San Tomas Aquino Creek Trail Users of Construction Activities. See Freedom Circle Focus Area Plan/Greystar General Plan Amendment Draft EIR Mitigation Measure 13-1, Section 2.

3) Restrict Work Hours. See Freedom Circle Focus Area Plan/Greystar General Plan Amendment Draft EIR Mitigation Measure 13-1, Section 3.

4) Control Construction Traffic and Site Access. See Freedom Circle Focus Area Plan/Greystar General Plan Amendment Draft EIR Mitigation Measure 13-1, Section 4.

5) Construction Equipment Selection, Use, and Noise Control Measures. See Freedom Circle Focus Area Plan/Greystar General Plan Amendment Draft EIR Mitigation Measure 13-1, Section 5.

6) Implement Construction Activity Noise Control Measures: See Freedom Circle Focus Area Plan/Greystar General Plan Amendment Draft EIR Mitigation Measure 13-1, Section. The project will not require pile driving and, therefore, pile driving control measures identified in Mitigation Measure 13-1, Section 6 C) are not applicable. See below for noise barrier mitigation requirements per Mitigation Measure 13-1, Section 6 B).

7) Prepare Project-Specific Construction Noise Evaluation. Not applicable. The construction noise analysis presented in the Freedom Circle Focus Area Plan/Greystar General Plan Amendment Draft Environmental Impact Report constitutes the Project-specific construction noise evaluation per Mitigation Measure 13-1, Section 7.

8) Prepare a Construction Noise Complaint Plan. See Freedom Circle Focus Area Plan/Greystar General Plan Amendment Draft EIR Mitigation Measure 13-1, Section 8.

9) Owner/Occupant Disclosure: See Freedom Circle Focus Area Plan/Greystar General Plan Amendment Draft EIR Mitigation Measure 13-1, Section 9.

(continued)

Mitigation 13-2 (continued):

Per Mitigation Measure 13-1, Section 6 B), the following noise barriers shall be installed and maintained around the perimeter of active work areas: A) For all demolition, site preparation, grading, and foundation work within 100 feet of the commercial property (Pedro's Restaurant and Cantina) that borders the site's southwest perimeter: i) a 6-foot-tall barrier shall be installed starting at Freedom Circle and extending south along the property boundary to the site's southern property line (approximately 640 linear feet). B) For all demolition, site preparation, grading, and foundation work within 150 feet of commercial properties across Freedom Circle: i) a 6-foot-tall barrier shall be provided along the length of the property line that fronts Freedom Circle, excepting construction access points as needed (approximately 1,130 linear feet). C) Noise barriers shall consist of ½" plywood or any other material weighing 4 pounds per square foot or more or having a minimum documented transmission loss value of 20 dBA. The barriers may be erected on temporary retaining walls or temporary K-rails or other solid structures (which shall be considered as part of the total height of the barrier). Boards shall be staggered one over two, or joints otherwise fastened and sealed, to prevent sound transmission through joints. There shall be no openings or gaps in the barrier. The barrier shall be regularly inspected (e.g., weekly) and maintained during construction activities (e.g., warped or cracked boards shall be replaced upon discovery). D) The noise barrier may be removed following the completion of building foundation work within the distances specific above (i.e., it is not necessary once framing and typical vertical building construction begins provided no other grading, foundation, etc. work is still occurring on-site).

With implementation of these measures, this impact would be ***less than significant*** (see criterion [a] in subsection 13.3.1, "Significance Criteria," above).

Impact 13-3: Temporary Construction Vibration Levels – Freedom Circle Focus Area Plan. The implementation of the Freedom Circle Focus Area Plan could result in construction and development activities in the Plan Area that generate vibration levels above City standards and/or otherwise result excessive ground-borne vibration levels. This represents a ***potentially significant impact*** (see criterion [b] in subsection 13.3.1, "Significance Criteria," above).

Construction activities have the potential to result in varying degrees of ground vibration, depending on the specific construction equipment used and activities involved. Vibration generated by construction equipment spreads through the ground and diminishes with increases in distance. The effects of ground vibration may be imperceptible at low levels, result in low rumbling sounds and detectable vibrations at moderate levels, and can disturb human activities such as sleep and vibration sensitive equipment at high levels. Ground vibration can also potentially damage the foundations and exteriors of existing structures even if it does not

result in a negative human response. Pile drivers and other pieces of high impact construction equipment are generally the primary cause of construction-related vibration impacts. The use of such equipment is generally limited to sites where there are extensive layers of very hard materials (e.g., compacted soils, bedrock) that must be loosened and/or penetrated to achieve grading and foundation design requirements. The need for such methods is usually determined through site-specific geotechnical investigations that identify the subsurface materials within the grading envelope, along with foundation design recommendations and the construction methods needed to safely permit development of a site.

As indicated under Impact 13-1, with the exception of the Greystar project that is evaluated under Impact 13-4 below, the timing and nature of specific development projects within the Plan Area is unknown and, therefore, potential short-term construction-related vibration impacts can only be evaluated based on the typical construction activities associated with residential, commercial, and retail development. Potential construction equipment and activity vibration levels were developed based on methodologies, reference noise levels, and equipment usage and other operating factors documented and contained in the FTA's Transit Noise and Vibration Impact Assessment document and Caltrans' Transportation and Construction Vibration Guidance Manual (FTA 2018 and Caltrans 2020).

Construction vibration impacts generally occur when construction activities occur in close proximity to buildings and vibration-sensitive areas, during evening or nighttime hours, or when construction activities last extended periods of time. Construction activities associated with the proposed project would occur in multiple phases and may last several years in total, with full development of the Plan Area anticipated to occur by 2040. In general, construction activities in the Plan Area would not be located near residential or commercial buildings or structures because the Plan Area is bordered by Patrick Henry Drive and Great America Park to the north, San Tomas Aquino Creek Trail to the east, U.S. 101 to the south, and Great America Parkway to the west. None of these land uses are sensitive to ground-borne vibration, and there are no residential building facades within 700 feet of the Plan Area; however, existing commercial land uses within the Plan Area and future land uses envisioned by the Focus Area Plan (e.g., residential dwelling units and commercial buildings) could be located near construction work areas within the Plan Area and affected by construction vibration.

The ground-borne vibration levels generated by the type of equipment that would be used to construct the proposed project are shown in Table 13-11.

As shown in Table 13-11, specific vibration levels associated with typical construction equipment are highly dependent on the type of equipment used. For structural damage, the use of typical equipment during construction activities (e.g., bulldozer, jack hammer, trucks etc.) would produce PPV levels up to 0.042 in/sec at 50 feet. These PPV values are well below Caltrans' guidelines standards for potential structural damage for the types of buildings in and adjacent to the Plan Area, which consist of modern commercial and industrial structures (0.5 PPV for continuous vibration sources; see Table 13-6). Similarly, the use of specific vibration-generating equipment such as a vibratory roller or pile driver would not exceed Caltrans' structural damage criteria for modern commercial and industrial structures unless impact hammers are used within approximately 30 feet of any building.

For human annoyance and interference responses, the use of typical equipment (e.g., bulldozer, jack hammer, trucks, etc.) during construction could produce vibration levels that exceed FTA annoyance criteria for residential land uses (72 VdB for frequent events, see Table

13-5), as well as Caltrans' slightly perceptible vibration detection threshold (0.12 PPV, see Table 13-7), at distances up to 150 feet from work areas. The use of typical equipment would exceed FTA annoyance criteria for institutional land uses (75 VdB for frequent events, see Table 13-5), at distances up to 75 feet from construction work areas. Since Caltrans' vibration detection thresholds are not dependent on land use, there is no change in the distance (150 feet from work areas) at which vibration from typical equipment could be slightly perceptible to commercial land use receptors.

Table 13-11
TYPICAL CONSTRUCTION EQUIPMENT VIBRATION LEVELS

Equipment	Peak Particle Velocity (in/sec) (A)				Velocity Decibels (VdB)(B)			
	50 feet	100 feet	200 feet	400 feet	50 feet	100 feet	200 feet	400 feet
Small bulldozer	0.001	0.001	0.000	0.000	49.0	39.9	30.9	21.9
Jackhammer	0.016	0.008	0.004	0.002	70.0	60.9	51.9	42.9
Loaded truck	0.035	0.017	0.008	0.004	77.0	67.9	58.9	49.9
Large bulldozer	0.042	0.019	0.009	0.004	78.0	68.9	59.9	50.9
Auger Drill Rig	0.042	0.019	0.009	0.004	78.0	68.9	59.9	50.9
Vibratory Roller	0.098	0.046	0.021	0.010	85.0	75.9	66.9	57.9
Pile Driver (Sonic, Typical)	0.079	0.037	0.017	0.008	84.0	74.9	65.9	56.9
Pile Driver (Impact, Typical)	0.300	0.140	0.065	0.031	95.0	85.9	76.9	67.9

Sources: Caltrans, 2020b and FTA, 2018

(A) Estimated PPV calculated as: PPV(D)=PPV(ref)*(25/D)^1.1 where PPV(D)= Estimated PPV at distance; PPVref= Reference PPV at 25 ft; D= Distance from equipment to receiver; and n= ground attenuation rate (1.1 for dense compacted hard soils).

(B) Values for 25 feet are reference values contained in Caltrans 2020 and FTA 2018. Estimated Lv calculated as: Lv(D)=Lv(25 feet)-30Log(D/25) where Lv(D)= estimated velocity level in decibels at distance, Lv(25 feet)= RMS velocity amplitude at 25 f; and D= distance from equipment to receiver. All distances are lateral distances and do not consider changes in topography.

For specific vibration-generating equipment such as a vibratory roller or pile driver, vibrations could be perceptible at greater distances (generally up to 400 feet from work areas); the use of impact hammers would have the potential to produce groundborne vibrations that may be perceptible at distances approximately 400 feet from work areas. It is noted that, as required by Mitigation 13-1 (Reduce Construction Noise Levels), construction activities would be limited to daytime hours only and, therefore, potential construction-induced vibrations would not have the potential to be perceptible and annoy residential or commercial receptors during the more sensitive nighttime period.

The above vibration estimates represent potential vibration levels based on typical equipment operations and assume there is no change in elevation between work areas and receptor locations and no change in subsurface conditions that may affect vibration transmission through soil media and structures. As discussed above, the potential for structural damage to buildings

is limited to instances of pile driving activities within approximately 30 feet of a building; however, construction-related groundborne vibrations have the potential to be perceptible at buildings within approximately 150 feet of typical construction work areas and 400 feet of construction work areas involving impact hammer equipment.

Although unlikely to occur, the potential for building structural damage is considered a potentially significant impact. With regards to annoyance, although typical construction activities may generate perceptible ground-borne vibration levels at structures within approximately 150 feet of work areas, these levels would not be excessive because they would be intermittent (not occur every day), limited in duration (equipment would move throughout work areas and not operate in the same location for a prolonged amount of time), occur during the daytime only (when receptors would not be sleeping and, therefore, are considered less sensitive to vibration levels). For these reasons, the proposed project's typical construction activities would have a less than significant impact on human annoyance and responses; however, pile driving and other specific vibration-generating equipment could result in excessive ground-borne vibration levels to human receptors if not adequately mitigated (i.e., exceeding Caltran's strongly perceptible thresholds of 0.10 in/sec).

The implementation of Mitigation Measure 13-3 would ensure future construction activities in the Plan Area do not result in significant structural damage or other excessively annoying vibration levels through a combination of combination of notification/disclosure, permissible work times, equipment vibration controls, and construction activity management measures designed to limit and reduce construction equipment vibration levels. This impact would be *less than significant* with mitigation.

According to the FTA, ground-borne noise that may accompany building vibration is usually perceptible only inside buildings and typically is only an issue at locations with subway or tunnel operations where there is no airborne noise path or for buildings with substantial sound insulation such as a recording studio (FTA, 2018). These conditions do not exist in the project area. Therefore, the proposed project's construction activities would have a less than significant impact from ground-borne noise.

Mitigation 13-3: Reduce Potential Freedom Circle Focus Area Plan Construction Vibration Levels. To reduce potential vibration-related structural damage and other excessive vibration levels from Focus Area Plan related construction activities, the City shall ensure future development projects within the Plan Area:

1) Notify Residential and Commercial Land Uses of Planned Construction Activities. See Freedom Circle Focus Area Plan/Greystar General Plan Amendment Draft Environmental Impact Report (EIR) Mitigation Measure 13-1, Section 1.

2) Restrict Work Hours. See Freedom Circle Focus Area Plan/Greystar General Plan Amendment Draft EIR Mitigation Measure 13-1, Section 2.

(continued)

Mitigation 13-3 (continued):

3) Prohibit Vibratory Equipment. The use of large vibratory rollers, vibratory/impact hammers, and other potential large vibration-generating equipment (e.g., hydraulic breakers/hoe rams) shall be prohibited within 100 feet of any residential building façade and 50 feet of any commercial building façade during construction activities. Plate compactors and compactor rollers are acceptable, and deep foundation piers or caissons shall be auger drilled.

4) Prepare Project-Specific Construction Vibration Evaluation Plan. If it is not feasible to prohibit vibratory equipment per Section 3) due to site- or project-specific conditions or design considerations, the City shall review and approve a project-specific construction vibration evaluation that: A) Identifies the project's planned vibration-generating construction activities (e.g., demolition, pile driving, vibratory compaction); B) Identifies the potential project-specific vibration levels (given project-specific equipment and soil conditions, if known) at specific building locations that may be impacted by the vibration-generating work activities (generally buildings within 50 feet of the work area); C) Identifies the vibration control measures incorporated into the project that ensure equipment and work activities would not damage buildings or result in vibrations that exceed Caltrans' strongly perceptible vibration detection threshold for peak particle velocity (PPV) of 0.1 inches/second (in/sec). Such measures may include, but are not limited to: i) the requirements of Sections 1, 2, and 3; ii) the use of vibration monitoring to measure actual vibration levels; iii) the use of photo monitoring or other records to document building conditions prior to, during, and after construction activities; and iv) the use of other measures such as trenches or wave barriers; D) Identifies the name (or title) and contact information (including phone number and email) of the Contractor and City-representatives responsible for addressing construction vibration-related issues; and E) Includes procedures describing how the construction contractor will receive, respond, and resolve to construction vibration complaints. At a minimum, upon receipt of a vibration complaint, the Contractor and/or City representative described in the first condition D) above shall identify the vibration source generating the complaint, determine the cause of the complaint, and take steps to resolve the complaint by reducing ground-borne vibration levels to peak particle velocity levels that do not exceed accepted guidance or thresholds for structural damage that are best applicable to potentially impacted buildings (e.g., see Freedom Circle Focus Area Plan/Greystar General Plan Amendment Draft EIR Table 13-6) and Caltrans' strongly perceptible vibration detection threshold (PPV of 0.1 in/sec, see Freedom Circle Focus Area Plan/Greystar General Plan Amendment Draft EIR Table 13-7).

With implementation of these measures, this impact would be ***less than significant*** (see criterion [b] in subsection 13.3.1, "Significance Criteria," above).

Impact 13-4: Temporary Construction Vibration Levels – Greystar General Plan Amendment. The Greystar project could result in construction and development activities in the Plan Area that generate vibration levels above City standards and/or otherwise result excessive ground-borne vibration levels. This represents a ***potentially significant impact*** (see criterion [b] in subsection 13.3.1, "Significance Criteria," above).

Greystar project construction activities would generally include the same types of construction phases as described under Impact 13-1 (e.g., clearing and grubbing; mass excavation; structural concrete work, structural framing / rough in and site work / landscaping). These activities would generate noise and vibration from the same sources as described under Impact 13-2, including heavy equipment operations and vehicle trips; however, the Greystar project would not require pile driving activities. Due to the use of similar equipment types, the construction vibration levels listed in Table 13-11, Typical Construction Equipment Noise Levels, are considered representative of the vibration levels that would be produced by Greystar project construction activities. Construction activities associated with the Greystar project would occur in multiple phases and last several years in total. The closest that construction activities could occur to residential and commercial receptors located outside the Greystar project site would be:

- San Tomas Aquino Creek Trail: The San Tomas Aquino Creek Trail is generally located within 50 feet of the eastern boundary of the Greystar project site; however, trail users are not considered sensitive to ground-borne vibration levels because trail users are actively walking, jogging, or otherwise moving along the trail and would not be exposed to prolonged vibrations from construction activities.

- Commercial Building Adjacent to the Site's Southwestern Boundary: The commercial building (Pedro's Restaurant and Cantina) adjacent to the site's southwestern boundary is located approximately 85 feet from the site's southwestern boundary. As shown in Table 13-11, typical construction equipment within approximately 100 feet of this commercial building could generate vibration levels of approximately 0.019 in/sec or 68.9 VdB. These vibration levels are just above Caltrans' "slightly perceptible" human vibration perception threshold (0.12 in/sec) but below the FTA's human annoyance threshold for institutional land uses with primarily daytime uses (75 VdB). Typical construction equipment vibration levels at 100 feet (0.019 in/sec) would also be well below Caltrans' guidelines for potential structural damage to modern commercial and industrial buildings (0.5 in/sec; see Table 13-6). For these reasons, the use of typical construction equipment at the Greystar site would not generate excessive ground-borne vibration levels. The use of specific vibration-generating equipment such as a vibratory roller within 100 feet of the adjacent commercial building could generate vibrations up to 0.046 in/sec and 75.9 VdB. These vibration levels are above Caltrans "distinctly perceptible" human vibration perception threshold (0.035 in/sec) and slightly exceed the FTA's human annoyance threshold for institutional land uses with primarily daytime uses (75 VdB). Vibratory roller vibration levels at 100 feet (0.046 in/sec) would be below Caltrans' guidelines for potential structural damage to modern commercial and industrial buildings (0.5 in/sec; see Table 13-6). The use of a vibratory roller could generate vibrations that may be slightly perceptible at the adjacent building when operated within approximately 400 feet of the building, or approximately 315 feet of the site's property line. This is considered a potentially significant impact.

- Other Commercial and Industrial Buildings: Other commercial buildings to the east and west of the Greystar site are located at least 150 feet from the site boundary. The use of a vibratory roller could generate vibrations that may be slightly perceptible when operated within approximately 400 feet of these buildings, or approximately 250 feet of the site's property line. This is considered a potentially significant impact.

- The City's stormwater pump station borders the Greystar property to the north. This facility is generally unoccupied and, therefore, consideration of human annoyance to construction-induced vibrations is not necessary. The use of a vibratory roller within 50 feet of this building could generate vibration levels up to 0.098 in/sec, which is well below Caltrans' guidelines for potential structural damage to modern commercial and industrial buildings (0.5 in/sec; see Table 13-6). For this reason, the Greystar construction activities would not generate excessive ground-borne vibration levels at the pump station. This impact would be less than significant.

- Residential land uses: The closest residential land uses are located on Augustine Drive, approximately 770 feet south of the Plan Area, across U.S. 101. Potential construction vibration levels at this distance would not be noticeable. This impact would be less than significant.

The future vibration sensitive land uses envisioned by the Focus Area Plan throughout the remainder of the Plan Area (e.g., residential dwelling units) are not anticipated to be developed prior to the conclusion of Greystar construction activities.

The implementation of Mitigation Measure 13-4, which among other things would prohibit the kinds of vibratory rollers that may otherwise exceed perceptible levels at commercial uses as described above, would ensure Greystar project construction activities do not result in significant structural damage or other excessively annoying vibration levels through a combination of notification/disclosure, permissible work times, equipment vibration controls, and construction activity management measures designed to limit and reduce construction equipment vibration levels. This impact would be *less than significant* with mitigation.

Mitigation 13-4: Reduce Greystar Project Construction Vibration Levels. To reduce potential vibration-related structural damage and other excessive vibration levels from Greystar project construction activities, the City shall require the Applicant:

1) Notify Residential and Commercial Land Uses of Planned Construction Activities. See Freedom Circle Focus Area Plan/Greystar General Plan Amendment Draft Environmental Impact Report (EIR) Mitigation Measure 13-1, Section 1.

2) Restrict Work Hours. See Freedom Circle Focus Area Plan/Greystar General Plan Amendment Draft EIR Mitigation Measure 13-1, Section 2.

3) Prohibit Vibratory Equipment. See Freedom Circle Focus Area Plan/Greystar General Plan Amendment Draft EIR Mitigation Measure 13-3, Section 3.

4) Prepare Project-Specific Construction Vibration Evaluation Plan. See Freedom Circle Focus Area Plan/Greystar General Plan Amendment Draft EIR Mitigation Measure 13-1, Section 3. Mitigation Measure 13-3, Section 4 A) – C) are not applicable because the construction vibration analysis presented in the Freedom Circle Focus Area Plan/Greystar General Plan Amendment Draft EIR constitutes the Project-specific construction vibration evaluation per Mitigation Measure 13-3, Section 4.

With implementation of these measures, this impact would be ***less than significant*** (see criterion [b] in subsection 13.3.1, "Significance Criteria," above).

Impact 13-5: On-site Noise Levels from Focus Area Plan Development. The implementation of the Freedom Circle Focus Area Plan could result in new residential, office, and other land uses that generate noise from on-site equipment, activities, or other operations in excess of applicable City standards. This represents a ***potentially significant impact*** (see criterion [a] in subsection 13.3.1, "Significance Criteria," above).

The implementation of the Freedom Circle Focus Area Plan could replace existing office, business park, and other non-residential land uses currently located in the Plan Area. These existing land uses generate noise from vehicle parking activities, garbage collection activities, landscaping activities, stationary mechanical equipment (e.g., pumps, heating, ventilation, and air conditioning (HVAC) units), and other office and commercial activities (deliveries, building maintenance, etc.). The new land uses identified in the Focus Area Plan would involve similar noise generating sources and activities as the existing land uses; however, the amount of mechanical equipment, the frequency of landscaping and garbage collection activities, and the intensity of parking and, potentially, truck / van loading and unloading activities would likely increase due to the very high-density residential, very high-density mixed use, high-intensity

office/research and development, and regional commercial land uses envisioned by the Focus Area Plan.

Currently, the Plan Area is primarily directly bordered by major roadways (Great America Parkway, U.S. 101), recreational facilities (Great America Park), and open space (San Tomas Aquino Creek Trail). The City's General Plan establishes 65 CNEL and 75 CNEL as normally acceptable and conditionally acceptable noise limits for recreational land uses. The City's General Plan also establishes 85 CNEL as the normally acceptable limit for open space uses. The City's Municipal Code (see Table 13-9) establish permissible exterior noise limits for public spaces of 55 dBA from 7 AM to 10 PM and 50 dBA from 10 PM to 7 AM.[8] Commercial lands are located to the north and east of the Plan Area, across Patrick Henry Drive and Great America Parkway, respectively, as well as the west of the Plan Area, across the San Tomas Aquino Creek Trail. The City's Municipal Code (see Table 13-9) establishes permissible exterior noise limits for commercial land uses of 65 dBA L_{max} during the daytime (7 AM to 7 PM) and 60 dBA L_{max} during the nighttime (10 PM to 7 AM), and the City's General Plan establishes 65 CNEL and 75 CNEL as the normally and conditionally acceptable noise limits for this land use type, respectively.

While the Plan Area is not currently directly bordered by residential development, the proposed Patrick Henry Drive Specific Plan, which directly borders the Plan Area to the northeast, could result in future residential receptors near the Plan Area. Finally, as development in the Plan Area proceeds over time, new residential and other sensitive land uses in the Plan Area could be affected by noise-generating sources and activities from Plan Area development.

Although the proposed Focus Area Plan could increase the amount of noise sources and noise-generating activities compared to existing conditions, the project would have a limited potential to generate significant on-site noise levels for the following reasons:

- In general, residential land uses (including the proposed high-density residential land uses) are not a substantial noise-generating land use type because:
  - They do not involve substantial noise-generating activities during the nighttime;
  - Mechanical equipment associated with elevators, residential amenities such as pools, and other building systems are typically enclosed within the closets, sheds, or equipment rooms; and
  - HVAC equipment is typically screened from public view by landscaping, fences, or walls and, therefore, shielded from adjacent property lines.

- The Plan Area would support recreational and open space lands as future development occurs (which typically generate less noise than office or commercial lands).

- The potential office and regional commercial land uses, which may consist of office/commercial developments with commercial-grade HVAC equipment, back-up generators, or other mechanical equipment, would be located along the northern, western, and southern edges of the Plan Area (which border Great America Park, Great America Parkway, and U.S. 101, respectively) and would have little to no potential to impact off-site receptors due to the nature of the adjacent land uses (e.g., recreational theme park) or presence of intervening roadways.

[8] Per Municipal Code Section 9.10.020(k), the term "public space" is defined as any real property or structures thereon which are owned or controlled by a governmental entity.

- The proposed high-density, mixed-use land uses, which would permit residential development with retail, flex, or other uses, would support an active street environment, and primarily provide local-serving retail and neighborhood services and amenities to meet the day-to-day needs of residents. These mixed-use areas would be located on the interior of the Plan Area (along local roads) and would be unlikely to require substantial loading or unloading facilities or large, stationary sources of equipment.

- The Focus Area Plan includes goals and policies for sensitive design and site planning including building setbacks (FC-P7) and reducing parking activity noise (FC-P10).

- The City's General Plan establishes procedures and standards to protect noise sensitive land uses from noise intrusion (see Section 13.2.4.1) and the City's Municipal Code establishes specific numeric standards for residential, commercial, and public space lands that are not to be exceed by stationary equipment (see Section 13.2.4.2).

As explained above, the proposed Focus Area Plan is considered to have a limited potential to include on-site sources or activities that could generate noise levels that exceed City standards or otherwise substantially increase existing ambient noise levels; however since project-specific information is not available at this time (excepting the Greystar project that is evaluated below), the potential exists for future development projects to include noise-generating equipment or involve noise generating activities that could exceed the City's standards or otherwise substantially exceed the ambient noise environment if not adequately mitigated. The implementation of Mitigation Measure 13-5 would require development projects in the Plan Area to include site design, noise attenuation, and/or other noise control measures to ensure project-specific fixed noise source levels do not exceed City standards. This impact would be less than significant with mitigation.

Mitigation 13-5: Control Fixed and Other On-site Noise-Generating Sources and Activities in the Freedom Circle Area Plan. To ensure on-site, operations-related equipment and activities associated with the Focus Area Plan do not generate noise levels that exceed City standards or otherwise result in a substantial permanent increase in ambient noise levels, future development projects shall submit a project-specific operational noise analysis to the City for review and approval prior to the issuance of the first building permit for the project, or as otherwise determined by the City. The noise analysis shall be prepared by a qualified acoustical consultant and shall identify all major fixed machinery and equipment, non-residential truck docks/dedicated loading zones, waste collection areas, and above ground parking garages included in the final project design/site plan. The noise analysis shall also document how project noise sources and activities will comply with the exterior sound limits established in Municipal Code Section 9.10.040, Schedule A and the noise compatibility guidelines in General Plan Table 8.14-1. Fixed machinery and equipment may include, but is not limited to, pumps, fans (including air intake or exhaust fans in parking garages), compressors, air conditioners, generators, and refrigeration equipment. The control of noise from such equipment may be accomplished by selecting quiet equipment types, siting machinery and equipment inside buildings, within an enclosure (e.g., equipment cabinet or mechanical closets, or behind a parapet wall or other barrier/shielding. Truck docks/dedicated loading zones consist of a loading dock or other dedicated area for the regular loading and unloading of retail, commercial, or other non-residential goods from delivery trucks. The control of noise from such truck docks/loading areas, waste collection areas, and parking garages may be accomplished by placing such areas away from sensitive land uses, restricting activities or operating hours for certain areas, or other design means.

With implementation of these measures, this impact would be ***less than significant***.

Impact 13-6: On-site Noise Levels from Greystar Project. The implementation of the Greystar project could result in new residential, park, and retail land uses that could generate noise from on-site equipment, activities, or other operations in excess of applicable City standards. This represents a ***potentially significant impact*** (see criterion [a] in subsection 13.3.1, “Significance Criteria,” above).

Once constructed, the proposed Greystar project would generate noise levels from increased parking activities, stationary sources of equipment such as HVAC equipment, and use of the proposed residential, park, and retail facilities. The potential noise levels generated by these activities and equipment are described below.

Parking Garage Noise

Noise sources associated with proposed parking garages at Buildings A, B, and C (e.g., car horns, doors slamming, cars starting, etc.) would be intermittent. Of the three buildings, Building

B would have the largest parking capacity (536 spaces). Potential increases in noise resulting from the new parking garage were quantified using the following equations contained in the FTA's Transit Noise and Vibration Impact Assessment manual (FTA 2018).

$$\mathbf{Leq(h) = SEL_{ref} + C_N - 36.5}$$

and

$$\mathbf{C_N = 10 \times \log(N_A / 1{,}000)}$$

Where:

Leq(h)	=	Hourly Leq at 50 feet
SEL_{ref}	=	Source Reference Level at 50 feet
C_N	=	Volume Adjustment (SEL_{ref} is based on 1,000 cars in peak activity hour)
N_A	=	Number of Automobiles per Hour

To calculate the L_{eq} and CNEL at 50 feet from the parking garage, hourly noise levels were first calculated throughout the day using the equations above, where, according to the FTA, the SEL_{ref} for parking garages is 92 dBA. The AM peak hour calculations accounted for 151 hourly trips, the PM peak hour (calculations accounted for 187 hourly trips, and the remaining 1,961 trips were divided evenly throughout the remaining 22 hours in the day (i.e., approximately 89 average trips her hour). This methodology is considered conservative (i.e., likely to overestimate CNEL) since it likely overestimates activity at the parking garage from the hours of 10:00 PM to 7:00 AM, when a 10 dBA penalty is applied to the hourly noise levels used to calculate the CNEL.

The results of the calculation indicate the parking garage would result in a worst-case hourly L_{eq} value of 49.1 dBA (during the PM peak hour activity) and a CNEL of 52.8, which is more than 10 dBA lower than the ambient noise level measured assumed to occur near the center of the site (63 dBA L_{eq} / 69.5 CNEL approximately 1,000 feet from the U.S. 101 centerline). In general, when two noise levels are 10 dB or more apart, the lower value does not contribute significantly (less than 0.5 dB) to the total noise level. Thus, potential noise levels from the Greystar parking garage would not exceed any receiving land use noise standard contained in Municipal Code Section 9.10.040 and would not result in a substantial increase in ambient noise levels in the vicinity of the Project.

In addition to the typical noise generated from standard operation of the parking garage, fresh air supply fans and exhaust fans would be required to provide ventilation throughout the garage. Clean air would be channeled into the garage through intake supply fans located in the garage's basement or first floor levels. Air from the would then be vented from the structure via exhaust fans. Unlike the supply fans, the exhaust fans would be constructed approximately 10 feet above grade. The Applicant has not yet selected a specific make or model for these intake and exhaust fan systems; however, such fans could produce noise levels as high as 85 dBA at a distance of 25 feet. Given the purpose of the fans is to help circulate air within the lower levels of the garage, it is anticipated one or more of the fans would operate most if not all hours of the day. A sound performance level of 85 dBA at 25 feet could exceed the residential, commercial, and/or public space receiving land use noise limits set by Municipal Code Section 9.10.040 and potentially result in a substantial increase in ambient noise levels in the vicinity of the project unless the intake and exhaust fan systems are enclosed or otherwise equipped with acoustic

controls to abate noise generated from these sources. Since specific information pertaining to the level of noise control is unknown at this time, the noise impacts associated with operation of parking garage supply and exhaust fans are considered a potentially significant and require the implementation of Mitigation Measure 13-6, which requires the Applicant to conduct an acoustical study demonstrating parking structure design and acoustical controls would not exceed Municipal Code standards or otherwise result in a substantial increase in noise levels. This impact would be *less than significant* with mitigation.

Mechanical Equipment

Mechanical equipment associated with the Greystar project would include pool equipment (e.g., pumps), elevators, and HVAC units. Pool and elevator equipment would be contained within mechanical rooms, and the HVAC systems necessary to cool and ventilate residential units would be rooftop systems and contained behind a parapet wall that would block direct sound upwards. For this reason, the mechanical equipment associated with the proposed Greystar project would not generate noise levels that exceed receiving land use noise standards in Municipal Code Section 9.10.040 nor result in a substantial increase in ambient noise levels in the vicinity of the Project.

Other Operational Noise Sources

The Greystar project would include a small potential retail space, ground level and rooftop recreational spaces, resident amenities such as a pet spa and fitness center, and refuse collection services.

The potential 2,000 square-foot ground level retail space included in Building B would be a project-serving retail establishment that would not involve substantial commercial operations, including loading or unloading activities. This use is not considered to be a substantial noise-generating land use or involve the operation of substantial of noise generating equipment.

The Project's recreational spaces and amenities would provide residents areas to recreate and socialize. Amenity spaces such as the pet spa and fitness center would be indoor spaces that would not generate substantial noise levels. Exterior residential use and amenity areas such as courtyards and pools would generally be located on the interior of the site/buildings or on upper building floors such that these facilities would not have the potential to generate a substantial increase in noise levels in the immediate area. The proposed public park would provide passive recreation and athletic facilities (e.g., multi-use athletic court, bocce ball area) and a dog park. These facilities would primarily serve the Greystar project and the Plan Area and, therefore, would be limited in their use. These facilities would not have the potential to generate a substantial increase in noise levels in the immediate area.

Refuse collection services would occur via the proposed perimeter/fire access road. Specifically, trash staging areas for bin rollout and garbage truck loading would be located on the south side of Building A and on the east sides of Building B and Building C. The proposed park would also have a separate trash enclosure located on the east side of the park, next to the perimeter road. Refuse collection would occur via a front-end load truck, which typically has a larger capacity than a side or rear-loaded truck. In general, trash collection services generate noise from sources similar to most motor vehicles and trucks, including the engine (fans), exhaust, and mechanical bumping, grinding, and squeaking of parts and gears. Trash trucks also generate noise from the operation of the front-end loader (tines hitting bins), hydraulic systems (to lift and

lower the bins over the truck cab and compact garbage), and the dropping of garbage into the truck. Refuse collection activities are not subject to the receiving land use noise standards in Municipal Code Section 9.10.040; however, Municipal Code Section 8.25.110 a) specifies that refuse collection shall not occur after 6:00 P.M. or prior to 7:00 A.M. at or adjacent to properties zoned for residential use and Municipal Code Section 8.25.110 b) specifies that all collections shall be made as quietly as possible and all unnecessarily noisy trucks or equipment for refuse collection services are prohibited. For these reasons, the limited and intermittent waste loading and unloading activities that would occur on the project's perimeter road would not generate noise levels that exceed receiving land use noise standards in Municipal Code Section 9.10.040 nor result in a substantial increase in ambient noise levels in the vicinity of the Project.

Mitigation 13-6: Control Greystar Project Parking Garage Ventilation System Noise Levels. To ensure potential parking garage ventilation systems do not generate noise levels that exceed City standards or otherwise result in a substantial permanent increase in ambient noise levels, the City shall require the Applicant to prepare an acoustical study that identifies the final type, location, and sound power level of all parking garage ventilation systems. The study shall also document how project noise sources and activities will comply with the exterior sound limits established in Municipal Code Section 9.10.040, Schedule A. The control of noise from ventilation systems may be accomplished by selecting quiet equipment types, siting machinery and equipment inside buildings, within an enclosure (e.g., equipment cabinet or mechanical closets), the installation of louvres or baffles, or other design means.

With implementation of these measures, this impact would be ***less than significant***.

Impact 13-7: Increases in Traffic Noise Levels – Freedom Circle Focus Area Plan. The implementation of the Freedom Circle Focus Area Plan could generate vehicle trips that substantially increase existing and future No Project traffic noise levels and/or exceed City noise and land use compatibility standards. This represents a ***potentially significant impact*** (see criterion [a] in subsection 13.3.1, "Significance Criteria," above).

The Focus Area Plan would have the potential to change the existing amounts and types of land uses within the Plan Area. These potential land use changes would increase residents and employees within the City and lead to an increase in vehicle trips and traffic-related noise levels that could pose land use compatibility issues and/or otherwise represent a substantial permanent increase in traffic noise levels on roadways used to access the Plan Area.

Although the Focus Area Plan does not authorize any specific development project or increase in existing vehicular traffic levels (excepting the Greystar project that is evaluated below), the City has contracted with a qualified transportation engineering firm to prepare estimates of the potential total net increase in trips associated with the land use changes contained in the proposed Focus Area Plan (Hexagon Transportation Consultants, 2021; see EIR Chapter 17, Transportation). The vehicle trip estimates prepared for the Plan provide a sufficient level of

detail to generally evaluate the potential future increases in traffic-related noise levels associated with full development of the Plan Area by 2040.

Year 2040 traffic noise levels with full development of the Plan Area were computed using the same methodology (TNM Version 2.5, Caltrans' guidance) and data sources used to calculate existing (Year 2019) and future baseline Year 2040 traffic noise levels (see Section 13.1.6.2) except that build-out traffic levels resulting from full implementation of the Focus Area Plan were obtained from the traffic consultant and used to evaluate traffic noise levels. It is noted that full development of the Focus Area Plan by 2040 includes traffic generated by the Greystar project that is also evaluated separately under Impact 13-8. The 2040 vehicle mix was generated using the CARB's EMFAC2017 model and determined to be same as under existing conditions.

The change in ADT and traffic noise levels that would occur with full development of the Focus Area Plan in Year 2040 are shown in Table 13-12.[9] Please refer to Appendix 25.5 for detailed traffic noise modeling results.

Table 13-12
COMPARISON OF 2040 TRAFFIC NOISE LEVELS WITH AND WITHOUT THE FOCUS AREA PLAN

Road / Segment	**Year 2040 Without Focus Area Plan**		**Year 2040 With Focus Area Plan**		**Net Change**	
	ADT	**CNEL**	**ADT**	**CNEL**	**ADT**	**CNEL**
Great America Parkway						
SR 237 EB Ramp to Great America Way	38,805	72.3	41,415	72.6	2,610	0.3
Great America Way to Old Mountain View Alviso Road	38,720	74.2	42,365	74.5	3,645	0.4

[9]Table 13-12 compares Year 2040 traffic volumes with and without full development of the Focus Area Plan where potentially significant impacts would occur. A comparison of Year 2040 traffic volumes with and without the Focus Area Plan, as well as a comparison of Year 2040 traffic volumes with full development of the Focus Area Plan to Year 2019 traffic volumes is presented in Appendix 25.5. The analysis of Year 2040 traffic noise levels with the Focus Area Plan to Year 2019 traffic noise levels indicates the Focus Area Plan could result in additional significant traffic noise impacts on Lawrence Expressway, Patrick Henry Drive, Old Ironsides Drive, Great America Parkway, Bowers Avenue, San Tomas Expressway, Tasman Drive, Lafayette Street, Central Expressway, Montague Expressway, Kifer Road, Monroe Street, Benton Street, Homestead Avenue, and Pruneridge Avenue (beyond the traffic noise impacts shown in Table 13-12); however, it is improbable that these physical change would actually occur because: 1) Focus Area Plan buildout is not anticipated to occur until 2040; and 2) Traffic volumes on these roadways would increase over time without the approval of the Focus Area Plan (as evidenced by the increase in Year 2019 to Year 2040 traffic and traffic noise levels on these roadways shown in Table 13-4A). In addition, as discussed in Chapter 5, Air Quality, and shown in Table 5-13, the Focus Area Plan is estimated to result in up to 70,250 weekday trips. This number of vehicle trips would not be added to the roadway system for many years after the Focus Area Plan is approved (if approved at all). The comparison of Year 2040 traffic noise levels with the Focus Area Plan to Year 2019 traffic noise levels without the Focus Area Plan is, therefore, not considered to be valuable information that meaningfully informs the analysis of the physical change in traffic noise levels that could occur if the Focus Area Plan is approved. Accordingly, this EIR focuses on the Focus Area Plan's project- and cumulative-level contribution to the physical change in Year 2040 traffic noise levels.

Old Mountain View Alviso Road to Bunker Hill Lane	45,020	*75.0*	47,605	*75.2*	2,585	0.2
Bunker Hill Lane to Tasman Drive	53,165	*75.1*	53,864	*75.2*	699	0.0
Tasman Drive to Old Glory Lane	42,597	74.6	44,010	74.7	1,413	0.1
Old Glory Lane to Patrick Henry Drive	70,438	*76.9*	72,904	*77.0*	2,466	0.1
Patrick Henry Drive to Mission College Boulevard	92,405	*77.9*	95,727	*78.1*	3,322	0.2
Mission College Boulevard to Bowers Ave / U.S. 101 NB Ramp	80,198	*76.8*	86,412	*77.1*	6,214	0.3
Mission College Boulevard						
Mission College Boulevard Loop to Great America Parkway	20,447	71.0	21,504	71.2	1,057	0.2
Great America Parkway to Marriot Driveway	33,635	73.1	41,467	74.0	7,832	0.9
Marriot Driveway to Freedom Circle West	33,627	72.7	38,820	73.3	5,193	0.6
Freedom Circle West to Freedom Circle East	28,581	72.7	28,315	72.6	-266	-0.1
Agnew Road / Freedom Circle East to Juliet Lane	26,092	72.0	29,785	72.6	3,693	0.5
Juliette Lane to Burton Circle	28,879	72.7	28,865	72.6	-14	-0.1
Burton Circle to Montague Expressway	30,636	74.6	33,412	74.9	2,776	0.4
Agnew Rd/Freedom Circle						
North of Mission College Boulevard	13,370	66.7	18,240	68.1	4,870	1.4
South of Mission College Boulevard	5,167	64.5	22,400	*70.8*	17,233	***6.3***
Montague Expressway						
U.S. 101 to Mission College Boulevard / Thomas Road	98,562	*78.0*	104,227	*78.2*	5,665	0.3
Mission College Boulevard / Thomas Road to Agnew Road / De La Cruz Boulevard	93,407	*78.8*	88,800	*78.6*	-4,607	-0.2
Agnew Road / De La Cruz Boulevard to Lick Mill Boulevard	87,445	*78.4*	85,445	*78.3*	-2,000	-0.1
Lick Mill Boulevard to North 1st Street	102,000	*79.1*	101,640	*79.1*	-360	0.0
North 1st Street to Zanker Rd	82,940	*78.1*	80,715	*78.0*	-2,225	-0.1
Zanker Road to Trimble Road	60,375	*77.1*	59,105	*77.0*	-1,270	-0.1
Trimble Road to McCarthy Boulevard / O'Toole Avenue	79,975	*78.1*	78,150	*78.0*	-1,825	-0.1
North of McCarthy Boulevard / O'Toole Avenue	74,140	*77.4*	72,200	*77.3*	-1,940	-0.1

Source: MIG, 2021 (see Appendix 25.5)

(A) *Italicized* text indicates the CNEL is above the City's normally or conditionally acceptable exterior noise compatibility threshold for the land uses that are directly adjacent to the modeled roadway segment (see Table 13-8).

(B) **Bold** text indicates the net increase in CNEL exceeds the significance criteria enumerated in Section 13.3.1. and thus represents a potentially significant impact (generally equal to or greater than a 1.0 increase in areas where noise levels are already normally unacceptable).

The results of the traffic noise modeling indicate that existing traffic noise levels in the vicinity of the Focus Area Plan would continue to be highest along major travel corridors such as Lawrence Expressway, Great America Parkway, Montague Expressway, and Tasman Drive; however, the Focus Area Plan would not significantly contribute to changes in traffic noise levels along these major traffic corridors. Traffic noise levels would also increase on local roadways that travel to and throughout the Plan Area, including Mission College Boulevard and Freedom Circle (west and east):

- Traffic noise levels along Mission College Boulevard within the Plan Area (from Great America Parkway to Agnew Road / Freedom Circle) are estimated to be approximately 69 to 71 CNEL under existing 2019 conditions and 71 to 73 CNEL under future baseline 2040 conditions. These noise levels are considered conditionally acceptable for the commercial land uses that border this segment of Mission College Boulevard. With full development under the Focus Area Plan, traffic noise levels are estimated to increase to approximately 74 CNEL between Great America Parkway and the Marriot Driveway and remain approximately 71 to 73 CNEL along other segments within the Plan Area. While these noise levels would remain conditionally acceptable for the existing commercial land uses, they would be normally unacceptable for future residential land uses planned along Mission College Boulevard (70 CNEL). The Focus Area Plan would not increase noise levels by 1.0 decibel or more to these normally unacceptable noise levels and, therefore, would not result in a significant project-or cumulative-level change in traffic noise levels along Mission College Boulevard.

- Traffic noise levels along Freedom Circle are estimated to be up to 63 CNEL under existing 2019 conditions and 64 CNEL under future baseline 2040 conditions. These noise levels are considered acceptable for the commercial land uses that currently border Freedom Circle. With full development of the Focus Area Plan, traffic noise levels are estimated to increase to approximately 71 CNEL. In addition, land uses along Freedom Circle may transition from commercial to residential development by 2040 under the Focus Area Plan. Traffic noise levels of 71 CNEL would be considered conditionally acceptable for commercial land uses but normally unacceptable for residential land uses. Without the Greystar project, the Focus Area Plan would still result in traffic noise levels of 70 CNEL, which is the normally unacceptable threshold for residential land uses. The Focus Area Plan, therefore, would increase noise levels by 5.0 decibels or more at commercial land uses that would be subject to conditionally acceptable noise levels, and by 1.0 decibel or more at residential land uses that could be subject to normally unacceptable noise levels. This is considered a substantial increase in noise on a project and cumulative basis, both with and without the Greystar project.

The City's General Plan establishes the overall goal and intent of the City to protect residents from excessive noise by requiring the City to review the location of new noise-sensitive land uses, locate such land uses away from major noise sources, and ensure new land uses meet the City's noise standards (see Section 13.2.4.1) through evaluation and design considerations; however, these policies would not protect existing land uses from increases in vehicle traffic that would occur with and without the project. There are currently no sensitive residential land uses in the Plan Area, and the installation of physical barriers to reduce traffic noise levels at commercial land uses along Freedom Circle is not necessary because these land uses do not include sensitive outdoor areas that require mitigation.

The City's General Plan and Climate Action Plan include measures to reduce vehicle miles travelled from development projects, and the proposed Focus Area Plan and EIR Mitigation Measure AQ 5-3B require individual development projects to achieve 20% reduction in VMT, which would reduce vehicle trips and lower traffic-related noise levels; however, the specific roadway segments where this mitigation would reduce vehicle trips and traffic-related noise is not known and, therefore, no noise reduction has been taken for VMT and trip reduction measures required by the Focus Area Plan and Mitigation Measure 5-3B. Since a reduction in vehicle trips on specific, impacted roadway segments cannot be guaranteed, and future traffic noise levels would increase by 5 dB or more at commercial land uses and 1 dB or more at future residential land uses where noise levels would normally unacceptable, this impact would remain ***significant and unavoidable***.

Mitigation 13-7. No feasible mitigation is available.

Impact 13-8: Increases in Traffic Noise Levels – Greystar Project. The Greystar project would result in a new residential land use in the Plan Area that would add vehicle trips to the local roadway system. Year 2030 traffic noise levels with the Greystar project were computed using the same methodology (TNM Version 2.5, Caltrans' guidance) and data sources used to calculate existing (Year 2019) and future baseline Year 2030 traffic noise levels (see Section 13.1.6.2) except that traffic levels resulting from full implementation of the Greystar project were obtained from the traffic consultant and used to evaluate traffic noise levels. The 2030 vehicle mix was generated using the CARB's EMFAC2017 model and determined to be same as under existing conditions. The change in ADT and traffic noise levels that would occur with full development of the Greystar project by Year 2030 are shown in Table 13-13.[10] Please refer to Appendix 25.5 for detailed traffic noise modeling results.

[10]Table 13-13 compares Year 2030 traffic volumes with and without the Greystar project where potentially significant impacts could occur. A comparison of Year 2030 traffic volumes with and without the Greystar project, as well as a comparison of Year 2030 traffic volumes with the Greystar project to Year 2019 traffic volumes is presented in Appendix 25.5. The analysis of Year 2030 traffic noise levels with the Greystar project to Year 2019 traffic noise levels indicates the Greystar project could result in additional significant traffic noise impacts on Lawrence Expressway, Lafayette Street, Central Expressway, Montague Expressway, Kifer Road, Benton Street, and Pruneridge Avenue (beyond the traffic noise impacts shown in Table 13-13); however, it is improbable that these physical change would actually occur because: 1) Greystar project buildout is not anticipated to occur until 2026; and 2) Traffic volumes on these roadways would increase over time without the approval of the Greystar project (as evidenced by the increase in Year 2019 to Year 2030 traffic and traffic noise levels shown in Table 13-4B). In addition, as shown in Table 13-13, these changes would cease to be significant when 2030 traffic noise levels with and without the Greystar project are compared. This implies that at some point between

Table 13-13
COMPARISON OF 2030 TRAFFIC NOISE LEVELS WITH AND WITHOUT THE GREYSTAR PROJECT

Road / Segment	**Year 2030 Without Greystar Project**		**Year 2030 With Greystar Project**		**Net Change**	
	ADT	**CNEL**	**ADT**	**CNEL**	**ADT**	**CNEL**
Great America Parkway						
SR 237 EB Ramp to Great America Way	27,915	70.9	27,915	70.9	0	0.0
Great America Way to Old Mountain View Alviso Road	26,715	72.6	26,560	72.6	-155	0.0
Old Mountain View Alviso Road to Bunker Hill Lane	29,800	73.2	29,655	73.2	-145	0.0
Bunker Hill Lane to Tasman Drive	34,840	73.3	34,908	73.3	68	0.0
Tasman Drive to Old Glory Lane	36,135	73.9	36,171	73.9	36	0.0
Old Glory Lane to Patrick Henry Drive	37,165	74.1	37,120	74.1	-45	0.0
Patrick Henry Drive to Mission College Boulevard	46,745	*75.0*	46,670	*75.0*	-75	0.0
Mission College Boulevard to Bowers Ave / U.S. 101 NB Ramp	55,225	*75.2*	55,603	*75.2*	378	0.0
Mission College Boulevard						
Mission College Boulevard Loop to Great America Parkway	14,815	69.6	15,218	69.7	403	0.1
Great America Parkway to Marriot Driveway	23,455	71.6	24,324	71.8	869	0.2
Marriot Driveway to Freedom Circle West	22,555	71.0	23,325	71.2	770	0.1
Freedom Circle West to Freedom Circle East	17,755	70.6	18,574	70.8	819	0.2
Agnew Road / Freedom Circle East to Juliet Lane	15,825	69.9	17,255	70.2	1,430	0.4
Juliette Lane to Burton Circle	19,425	71.0	20,845	71.3	1,420	0.3

2019 and 2030 background traffic volumes increase to the point where the Greystar project does not result in a substantial adverse change to the environment. Finally, as discussed in Chapter 5, Air Quality, and shown in Appendix 25.2, the Greystar project is estimated to result in up to 5,727 weekday trips. This number of vehicle trips would not be added to the roadway system until Summer 2026 at earlies (if the project begins construction by January 2022). The comparison of Year 2030 traffic noise levels with the Greystar project to Year 2019 traffic noise levels without the Greystar project is, therefore, not considered to be valuable information that meaningfully informs the analysis of the physical change in traffic noise levels that could occur if the Focus Area Plan is approved. Accordingly, this EIR focuses on the Greystar project- and cumulative-level contribution to the physical change in Year 2030 and Year 2040 traffic noise levels.

Burton Circle to Montague Expressway	23,915	73.5	25,093	73.8	1,178	0.2
Agnew Rd/Freedom Circle						
North of Mission College Boulevard	12,450	66.5	12,590	66.5	140	0.0
South of Mission College Boulevard	4,380	63.7	8,222	66.5	3,842	2.8
Montague Expressway						
U.S. 101 to Mission College Boulevard / Thomas Road	87,100	*77.4*	87,693	*77.5*	593	0.0
Mission College Boulevard / Thomas Road to Agnew Road / De La Cruz Boulevard	82,770	*78.3*	82,991	*78.3*	221	0.0
Agnew Road / De La Cruz Boulevard to Lick Mill Boulevard	78,655	*77.9*	78,880	*78.0*	225	0.0
Lick Mill Boulevard to North 1st Street	85,450	*78.3*	85,785	*78.3*	335	0.0
North 1st Street to Zanker Rd	73,545	*77.6*	73,745	*77.6*	200	0.0
Zanker Road to Trimble Road	52,870	*76.5*	52,845	*76.5*	-25	0.0
Trimble Road to McCarthy Boulevard / O'Toole Avenue	73,215	*77.7*	73,020	*77.7*	-195	0.0
North of McCarthy Boulevard / O'Toole Avenue	71,750	*77.3*	71,590	*77.3*	-160	0.0

Source: MIG, 2021 (see Appendix 25.5)

(A) *Italicized* text indicates the CNEL is above the City's normally or conditionally acceptable exterior noise compatibility threshold for the land uses that are directly adjacent to the modeled roadway segment (see Table 13-8).

(B) **Bold** text indicates the net increase in CNEL exceeds the significance criteria enumerated in Section 13.3.1. and thus represents a potentially significant impact (generally equal to or greater than a 1.0 increase in areas where noise levels are already normally unacceptable).

The results of the traffic noise modeling indicate that existing traffic noise levels in the vicinity of the Greystar project would continue to be highest along major travel corridors such as Lawrence Expressway, Great America Parkway, Montague Expressway, and Tasman Drive; however, the Focus Area Plan would not significantly contribute to changes in traffic noise levels along these major traffic corridors. Traffic noise levels would also increase on local roadways that travel to and throughout the Plan Area, including Mission College Boulevard and Freedom Circle (west and east):

- Traffic noise levels along Mission College Boulevard within the Plan Area (from Great America Parkway to Agnew Road / Freedom Circle) are estimated to be approximately 69 to 71 CNEL under existing 2019 conditions and 70 to 72 CNEL under future baseline 2030 conditions. These noise levels are considered conditionally acceptable for the commercial land uses that border this segment of Mission College Boulevard. With the Greystar project, traffic noise levels are estimated to increase to approximately 72 CNEL between Great America Parkway and the Marriot Driveway and remain approximately 70 to 71 CNEL along other segments within the Plan Area. While these noise levels would remain conditionally acceptable for the existing commercial land uses, they would be normally unacceptable for future residential land uses planned along Mission College Boulevard (70 CNEL). The Greystar project would not increase noise levels by 1.0 decibel or more to these normally

unacceptable noise levels and, therefore, would not result in a significant project-or cumulative-level change in traffic noise levels along Mission College Boulevard.

- Traffic noise levels along Freedom Circle are estimated to be up to 63 CNEL under existing 2019 conditions and 64 CNEL under future baseline 2030 conditions. These noise levels are considered acceptable for the commercial land uses that currently border Freedom Circle. With the Greystar project, traffic noise levels are estimated to increase by 2.8 dB to approximately 67 CNEL. Traffic noise levels of 67 CNEL would be considered conditionally acceptable for commercial and residential land uses. The Greystar project would not increase traffic noise levels by 5.0 dB or more where noise levels would remain conditionally acceptable and, therefore, would not result in a significant project- or cumulative-level change in traffic noise levels along Mission College Boulevard.[11]

As described above, the proposed Greystar project would not result in a significant change in traffic noise levels on roadways used to access the site, Plan Area, or Plan Area vicinity. It is noted the City's General Plan and Climate Action Plan include measures to reduce vehicle miles travelled from development projects, and EIR Mitigation Measure AQ 5-3B require individual development projects to achieve 20% reduction in VMT, which would reduce vehicle trips and lower traffic-related noise levels; however, the specific roadway segments where this mitigation would reduce vehicle trips and traffic-related noise is not known and, therefore, no noise reduction has been taken for VMT and trip reduction measures required by Mitigation Measure 5-3B. This represents a ***less-than-significant impact*** (see criterion [a] in subsection 13.3.1, "Significance Criteria," above).

Mitigation 13-8. No significant impact has been identified; no mitigation is required.

Impact 13-9: Operational Vibrations – Freedom Circle Focus Area Plan. The Plan Area does not currently include any substantial vibration generating equipment. The Focus Area Plan would add a mix of residential, mixed-use, flex, and/or office land uses to the Plan Area over time, reaching full development by 2040. These new land uses could involve machinery and equipment such as pumps, compressors, generators, and other fixed equipment that produce vibrations; however, this equipment would not generate vibration levels that could exceed the City's vibration perception threshold of 0.01 in/sec PPV (see Section 13.2.4.2). As discussed under Impact 13-3, even large construction equipment such as a bulldozer does not generate a vibration level above 0.01 in/sec at distance of approximately 150 feet. Potential pumps, generators, and other typical equipment would be securely mounted and not large enough to generate substantial vibrations beyond the immediate vicinity of the equipment. The Focus Area Plan does not propose or support any large vibration-inducing equipment or land use activities and would not result in excessive ground-borne vibration levels. This represents a ***less-than-significant impact*** (see criterion [b] in subsection 13.3.1, "Significance Criteria," above).

Mitigation 13-9. No significant impact has been identified; no mitigation is required.

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[11]As discussed under Impact 13-8, the Focus Area Plan would increase noise levels on Freedom Circle by 5.5 dBA without the Greystar project and 6.3 dBA with the Greystar project. Since the Greystar project would not contribute more than 1.0 decibel to cumulative Year 2040 traffic noise levels along Freedom Circle, the project would not result in a cumulative year 2040 impact independent of the Focus Area Plan's cumulative impact.

Impact 13-10: Operational Vibrations – Greystar Project. The Greystar project site does not currently include any substantial vibration generating equipment. The City's storm water pump station is located adjacent to the site's northern property boundary; however, this pump station is enclosed within a building and does not generate substantial vibration levels. The Greystar project would add a residential and project-serving retail land uses to the project site that would involve the use of machinery and equipment such as gates, pumps, and ventilation systems; however, this equipment would not generate vibration levels that could exceed the City's vibration perception threshold of 0.01 in/sec PPV (see Section 13.2.4.2) because all such equipment would be setback from project property lines, securely mounted, and not large enough to generate substantial vibrations beyond the immediate vicinity of the equipment. The Greystar project, therefore, does not propose or support any large vibration-inducing equipment or land use activities and would not result in excessive ground-borne vibration levels. This represents a ***less-than-significant impact*** (see criterion [b] in subsection 13.3.1, "Significance Criteria," above).

Mitigation 13-10. No significant impact has been identified; no mitigation is required.

Impact 13-11: Exposure to Airport-Related Noise – Freedom Circle Focus Area Plan and Greystar Project. The San Jose International Airport CLUP establishes the 65 CNEL contour as the noise restriction area for residential land uses, and the City's General Plan (Policy 5.10.6-P8) encourages safe and compatible land uses within the airport's noise restriction area. As described in Section 13.1.7, the part of the Plan Area north of Mission College Boulevard and east of Great America Parkway lies within the San Jose International Airport influence area; however, the Plan Area is not located within the 65 CNEL contour associated with San Jose International Airport (SCC ALUC 2016; Figure 5). Accordingly, future development within the Plan Area, including the Greystar project, would not be subjected to excessive airport-related noise levels.

Consistent with the CLUP (Policy N-5), future owners in the Plan Area that own property in the airport influence area and who rent or lease property for residential use will be required to include a disclosure in the rental/lease agreement with the tenant that the property is within a high noise area associated with airport operations and may be exposed to airport-related noise levels greater than 65 CNEL.

The Plan Area, including the Greystar project site, is not located within two miles of a private airstrip or related facility.

The Focus Area Plan would not expose people living or working in the Plan Area to excessive airport-related noise levels. This impact is considered a ***less-than-significant impact*** (see criterion [c] in subsection 13.3.1, "Significance Criteria," above).

Mitigation 13-11. No significant impact has been identified; no mitigation is required.

Other Disclosures and Planning Considerations (Potential Impacts of the Environment on the Project). The California Supreme Court in *California Building Industry Association v. Bay Area Air Quality Management District*, 62 Cal.4th 369 (2015) ruled that CEQA review is focused on a project's impact on the environment "and not the environment's impact on the project." Per this ruling, a Lead Agency is not required to analyze how existing conditions might impact a

project's existing or future population except where specifically required by CEQA; however, a Lead Agency may elect to disclose information relevant to a project even if it not is considered an impact under CEQA. Furthermore, the City's Municipal Code and General Plan Noise Element set noise standards for receiving land uses which require evaluation for consistency and compliance even if such evaluation is not required by CEQA to be identified as a physical impact of the project.

This section discusses the existing noise environment and the degree to which the existing environment is compatible and consistent with City goals, policies, and standards for the Plan Area's noise environment.

General Plan Noise and Land Use Compatibility

Existing noise exposure levels in the Plan Area vary from south (near U.S. 101) to north (near Mission College Boulevard and Great America Parkway) and from west (near Great America Parkway) to east (near San Tomas Aquinas Creek Trail). In the south, near U.S. 101, ambient noise levels exceed 70 CNEL within 875 feet of the centerline of U.S. 101 (assuming there is no intervening building or other structure to block noise levels). In the north, near Mission College Boulevard and Great America Park, ambient noise levels range from approximately 65 to 69 CNEL, and traffic noise modeling indicates future traffic noise levels could reach as high as 74 CNEL within 100 feet of the road centerline. In the west, near Great America Parkway, ambient noise levels were measured to be 67.2 CNEL, and traffic noise modeling indicates future traffic noise levels could reach as high as 76.8 to 77.9 CNEL within 100 feet of the road center. In the east, near the San Tomas Aquinas Creek Trail, ambient noise levels vary depending on the proximity to U.S. 101, Mission College Boulevard, and Great America Park, but would generally range from approximately 79 CNEL (near U.S. 101) to 65 CNEL (away from roadways) to 69 CNEL (near Great America Park) . Finally, the entire Plan Area would be subject to airport-related noise levels between 55 to 64 CNEL.

The City's General Plan establishes 70 CNEL as the conditionally acceptable noise limit for residential land uses and 75 CNEL as the conditionally acceptable noise limit for commercial and recreational land uses (see Table 13-9). General Plan Policy 5.10.6-P1 requires the City to review land use and development projects for consistency with these standards, and policies 5.10.6-P2 and -P3 require the incorporation of noise attenuation measures and noise control techniques where noise exposure levels are greater than normally acceptable levels. In addition, the California Building Standards Code (see Section 13.2.2.1) establishes that interior noise levels attributable to exterior noise sources shall not exceed 45 CNEL (as established by the local General Plan) for residential developments. The California Green Building Standards Code also establishes additional standards for interior noise levels (50 dBA L_{eq}) that may apply too if a building is located within a 65 CNEL noise contour of an airport, freeway, railroad, industrial source, etc. or otherwise exposed to a noise level of 65 dBA on an hourly L_{eq} basis, which would be the case for projects near U.S. 101, such as the Greystar project, and would likely be the case for projects near Great America Parkway.

Based on the current Focus Area Plan development framework and land use plan, potential residential, commercial, and recreational land uses that front or are within approximately 500 feet of the centerline of Great America Parkway or 875 feet of the centerline of U.S. 101 (with a clear line of site to these roadways) could be potentially exposed to unacceptable noise levels above 70 CNEL (for residential land uses) and 75 CNEL (for commercial and recreational land uses) unless site and building design features are incorporated into the project to reduce noise exposure in outdoor areas. Therefore, future land uses in this part of the Plan Area would

require the incorporation of specific site design (e.g., setbacks), noise control (e.g., barriers or berms to block noise), and/or building attenuation measures (e.g., specific exterior wall assemblies, windows and doors with high STC ratings, etc.) to ensure interior noise levels meet applicable building code standards. Such measures may also be required to ensure exterior noise levels are generally suitable or compatible with planned exterior use areas (residential or commercial common areas, exterior recreational facilities, etc.). Based on existing and potential future CNEL values measured in and modeled for the Plan Area, between approximately 2 and 9 dBA of exterior noise attenuation may be needed to meet the conditionally acceptable noise levels for commercial and residential land uses, respectively, at exterior use areas such as open space, exterior recreational areas, and private yards and patios. Furthermore, exterior wall and ceiling assemblies may need to have a combined STC value of up to 34 dBA to achieve required indoor noise levels (45 CNEL).

- Greystar Project: Ambient noise monitoring location LT-1 measured 78.6 CNEL at 120 feet from the centerline of U.S. 101. The current preliminary site plan for the Greystar project shows the southern façade of Building A would be located at least 165 feet from the centerline of U.S. 101 (Greystar, 2020) . At this distance, the ground level exterior façade would be exposed to noise levels of 77.2 CNEL. The preliminary site plan does not show any common or public open space lands along the southern portion of the Greystar site and the primary use of the first and second floors in Building A is parking, which is not noise sensitive; however, corner residential units are located on the first and second floors of Building A, and the third floor of Building A would also include residential units that front U.S. 101. In general, any proposed residential unit that is oriented towards and has a direct line of sight to U.S. 101 would be subject to exterior noise levels above 65 CNEL, including the southern, western, and eastern facades of Building A and the western façade of Building B. In addition, residential units in Building C that front either Mission College Boulevard or Freedom Circle would also be exposed to exterior façade noise levels of approximately 70 to 71 CNEL. The Greystar project would, therefore, require the incorporation of specific site design (e.g., greater setbacks), noise control (e.g., barriers or berms to block noise from U.S. 101), and/or building attenuation measures (e.g., specific exterior wall assemblies, windows and doors with high STC ratings, etc.) to ensure interior noise levels meet applicable building code standards. Based on ambient noise levels conducted for this EIR, the level of exterior-to-interior noise reduction needed to meet a 45 CNEL interior noise level in residential units in Building A is estimated to be 34 dBA for the southern façade, 31 dBA for the western façade, and 28 dBA for the eastern façade. In addition, the level of exterior-to-interior noise reduction needed to meet a 45 CNEL interior noise level in residential units in Building B is estimated to be 27 dBA for the western façade. Finally, up to 26 dBA of exterior to interior noise attenuation is needed to a 45 CNEL interior noise level in Building C residential units that front Mission College Boulevard and Freedom Circle.

Projects located between Mission College Boulevard and Great America Park could be potentially exposed to noise levels above 65 CNEL but below the City's unacceptable noise level of 70 CNEL (for residential land uses) and 75 CNEL (commercial and recreational land uses). Although projects in this area would not be exposed to unacceptable noise levels, they may still require specific site design and noise control measures to comply with land use compatibility standards and interior noise requirements.

Projects located along the interior of Freedom Circle (i.e., that do not directly front Freedom Circle) would be unlikely to require special site design or noise control measures unless ambient noise levels were to substantially increase in the Plan Area as a result of development or other factors that are not foreseen at this time.

The actual level of exterior noise and exterior to interior noise attenuation required for each individual future development project will depend on factors such as the distance from major noise sources such as Great America Parkway and U.S. 101, updated traffic noise modeling results or ambient noise measurements that capture actual development patterns over time, and the presence of any intervening shielding or other attenuating factors that may reduce noise levels in specific parts of the Plan Area.

To ensure future activities in the Plan Area are compatible with the Plan Area's ambient noise environment and consistent with the City's General Plan noise standards, the following Condition of Approval NOI-1 shall apply to the Focus Area Plan and future developments in the Plan Area, including the Greystar project.

Condition of Approval NOI-1: Prepare Final Acoustical Analysis. Future development projects shall submit a project-specific acoustical analysis to the City for review and approval prior to the issuance of the first building permit for the project, or as otherwise determined by the City. The analysis shall be prepared by a qualified acoustical consultant, based on the final design of the project, and identify:

1) Exterior noise levels at all property lines, building facades, and public or common open space, recreation, and/or other exterior use area boundaries.

2) Final site and building design measures that would attenuate noise in public open space and recreational lands to 65 CNEL or less, if feasible, but not more than 75 CNEL. This may be achieved by locating such areas away from major roadways or providing setbacks for facilities adjacent to major roadways (e.g., orienting parking and other support areas closer to roadways.)

3) Final site and building design measures that would attenuate noise to no more than 70 CNEL and 75 CNEL at common residential and commercial exterior use areas, respectively (this does not include private balconies).

4) Final site and building design measures that would achieve exterior to interior noise reduction levels necessary to meet a 45 CNEL interior noise level for residential and other sensitive land uses and a 50 dBA hourly L_{eq} noise level for offices, retail, and other less sensitive indoor spaces (when in operation). Such standards are to be achieved with a windows closed condition. The specific attenuation measures necessary for the project will depend on the specific project location, ambient noise levels, and project design. Potential noise insulation design features that may be required to achieve interior noise levels include sound barriers, enhanced exterior wall, ceiling, and roof assemblies with above average sound transmission class or outdoor/indoor transmission class values, enhanced insulation methods (acoustical caulking, louvered vents, etc.).

Condition of Approval NOI-1 would ensure future development projects in the Plan Area, including the Greystar project, are designed and constructed in a manner that is compatible with the existing ambient noise environment and consistent with State noise requirements and City goals, policies, and standards for the types of land uses proposed for the Plan Area.

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List of Acronyms, Abbreviations, and Symbols	
Acronym / Abbreviation	**Full Phrase or Description**
ALUC	Airport Land Use Commission
CalEEMod	California Emission Estimator Model
CALGreen	California Green Building Standards Code
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CLUP	Comprehensive Land Use Plan
CNEL	Community Noise Equivalent Level
D	Distance
dB	Decibel (unweighted)
dBA	Decibels, A-Weighted
DNL / L_{dn}	Day-Night Noise Level
FHWA	Federal Highway Works Administration
FTA	Federal Transit Administration
HUD	U.S. Department of Housing and Urban Development

List of Acronyms, Abbreviations, and Symbols	
Acronym / Abbreviation	**Full Phrase or Description**
HVAC	Heating, Ventilation, and Air Conditioning
Hz	Hertz
In/sec	Inches per Second
kH	Kilohertz
L_{eq}	Average / Equivalent Noise Level
L_{max}	Maximum Noise Level
L_{min}	Minimum Noise Level
LT	Long-term
MTC	Metropolitan Transportation Commission
OITC	Outside-Indoor Transmission Class
OPR	Office of Planning and Research
Pa	Pascals
PRC	Public Resources Code
PPV	Peak Particle Velocity (inches/second)
SCC	Santa Clara County
SR	State Route
ST	Short-term
STC	Sound Transmission Class
TNM	Traffic Noise Model
UF	Usage Factor
VdB	Velocity Decibels
VMT	Vehicle Miles Travelled
§	Section
%	Percent

14. POPULATION AND HOUSING

This EIR chapter describes population and housing implications of the proposed Freedom Circle Focus Area Plan/Greystar General Plan Amendment. The chapter addresses the specific population and housing impact concerns identified by the CEQA Guidelines--i.e., would development under the proposed Plan (including the Greystar project) induce substantial population growth, displace substantial numbers of existing housing, or displace substantial numbers of people.[1]

14.1 SETTING

14.1.1 Population

In 2018, the population in Santa Clara was approximately 7 percent of the total population in the County, making it the third largest jurisdiction by population after San Jose and Sunnyvale. As shown in Table 14-1, the population increased from 116,468 to 129,604 between 2010 and 2018, an increase of 11.3 percent, or 1.3 percent per year. In comparison, the County grew by 9.8 percent, or 1.2 percent per year.[2] According to the Association of Bay Area Governments (ABAG), Santa Clara's population is expected to growth to 159,500 by 2040, a 37.7 percent increase over the 30-year period from 2010 to 2040. (See Table 14-2 in section 14.1.2.)

14.1.2 Housing

(a) Housing Issues. The City of Santa Clara updated its housing element in 2014. The 2015-2023 Housing Element covers the 2015 to 2023 planning period outlined in the City's 2010-2035 General Plan. The Housing Element focuses on promoting residential infill development and addressing the City's housing needs, while also meeting State housing requirements. The following items of concern were identified at a Community Workshop/Planning Commission Study Session for the 2015-2023 Housing Element:[3]

- The high percentage of renters in Santa Clara [City] as compared to the County and Bay Area;
- Housing types the City should encourage during the upcoming planning period;
- High cost of rental housing as compared to ownership throughout the Bay Area;

[1]CEQA Guidelines, appendix G, item XIV (a and b).

[2]Economic & Planning Systems, memorandum to City of Santa Clara, February 4, 2019.

[3]City of Santa Clara, 2015-2023 City of Santa Clara Housing Element, December 2014.

Table 14-1
POPULATION GROWTH TRENDS IN SANTA CLARA COUNTY

Jurisdictions in Santa Clara County	2010	2018	2010-2018		
			Total	Total %	Annual %
San Jose	945,942	1,051,316	105,374	11.1%	1.3%
Sunnyvale	140,081	153,389	13,308	9.5%	1.1%
Santa Clara (City)	**116,468**	**129,604**	**13,136**	**11.3%**	**1.3%**
Mountain View	74,066	81,527	7,461	10.1%	1.2%
Milpitas	66,790	74,865	8,075	12.1%	1.4%
Palo Alto	64,403	69,721	5,318	8.3%	1.0%
Other	373,892	396,176	22,284	6.0%	0.7%
Santa Clara County Total	**1,781,642**	**1,956,598**	**174,956**	**9.8%**	**1.2%**
SOURCE: Department of Finance; Economic & Planning Systems, February 2019.					

- The HCD streamlined review process and how each section of the document will be updated;
- Densities appropriate to encourage more affordable housing;
- How the City has performed as compared to the 2007-2014 needs allocation;
- Effective tools to encourage lower income housing (i.e., overlays, specific plans, impact fees); and
- The need for senior housing to allow lower income residents to age in place.[1]

(b) Jobs/Housing Balance. A city's jobs-housing balance is an indicator of fiscal, social, and environmental health. It is expressed as a ratio of the number of jobs to the number of households, and shows whether a jurisdiction has a surplus or deficit of jobs relative to its population and housing supply. A jobs-housing balance greater than 1.0 could result in a shortage of affordable housing, with workers unable to reside near their place of employment and therefore having to commute from more distant areas where affordable housing is available. Data from ABAG indicates the City's jobs-housing ratio in 2010 was 1.19 (which means that the City had 1.19 jobs for every household). In 2010, Santa Clara County had an estimated ratio of 1.30. These ratios for the City and County indicate that both jurisdictions are "job-rich"—i.e., they have more jobs than households.[2] ABAG projects that by 2040, the City will have an estimated 170,575 jobs and 57,010 households.[3] Using this data, the City's projected 2040 jobs-housing ratio would be 3.0 jobs for every household (170,575 jobs divided by 57,010 households).

[1]Ibid, pp. 8.12-11 – 8.12-12.

[2]City of Santa Clara, 2010-2035 General Plan, November 2010.

[3]ABAG, Projections 2040 By Jurisdiction (available at http://projections.planbayarea.org/), 2018.

As indicated in Table 14-2, in 2010 there were approximately 44,925 housing units in the City of Santa Clara, according to ABAG. ABAG expects the number of housing units in the City to increase by about 29.5 percent between 2010 and 2040, reaching a projected total of 58,190 housing units by 2040.

Table 14-2
ESTIMATED POPULATION AND HOUSING GROWTH, 2010-2040 – SANTA CLARA (CITYWIDE)

	2010	2020	2035	2040	Percent Change 2010-2040
Total population (residents)	115,845	131,655	151,715	159,500	+37.7
Total households	43,020	48,555	54,855	57,010	+32.5
Persons per household	2.64	2.66	2.71	2.73	+3.4
Housing units	44,925	50,505	55,720	58,190	+29.5

SOURCE: ABAG, Projections 2040 By Jurisdiction (available at http://projections.planbayarea.org/), 2018.

(c) Affordable Housing. The City would require at least 15 percent of residential units in the Plan Area (including the Greystar project) to be allocated toward housing people earning at or below 80 percent of the area median income (AMI). Currently, in the Plan Area as a whole, there is no housing nor are there any residents (except for hotel guests).

14.1.3 Greystar Project Site Population and Housing Characteristics

As discussed in chapter 3, Project Description, of this EIR, the Greystar project site is currently vacant, contains no housing units, and has no resident population.

14.2 REGULATORY SETTING

14.2.1 State

California Housing Accountability Act. The California Housing Accountability Act, enacted in 2017, ensures that local governments may not reject housing development projects (including emergency shelters) that contribute to meeting or exceeding its share of the regional housing need or otherwise make housing projects infeasible.

Housing Density Bonus Law. The California Government Code (sections 65915 through 65918) provides for an increase in the amount of housing allowed under a given land use designation or zoning ordinance (i.e., a “density bonus”) and other incentives or concessions (such as waivers or reductions of development standards) in exchange for building affordable housing or donating land for the building of affordable housing, including senior housing.

Senate Bill 35 (Affordable Housing; Streamlining). Senate Bill 35, as amended, provides for streamlined, ministerial approval (i.e., not subject to a conditional use permit) of housing development proposals to facilitate and expedite the approval and construction of affordable housing. Applicable housing development proposals must meet standards related to multi-family residential use, urban location, inclusion of below-market rate units, and consistency with objective zoning standards and objective design review standards in effect at the time the proposal is submitted.

14.2.2 City of Santa Clara

Santa Clara General Plan. The General Plan addresses housing needs and strategy in the city primarily in its Housing Element; however, the Land Use element contains the following applicable policies:

- Policy 5.3.2-P2: Encourage higher-density residential development in transit and mixed-use areas and in other locations throughout the City where appropriate.
- Policy 5.3.2-P8 Require new residential development to comply with applicable regulations for the provision of affordable housing.
- Policy 5.3.2-P9 Encourage senior and group residential facilities, and affordable housing developments near neighborhood retail, support services and transit facilities.
- Policy 5.3.2-P10 Create opportunities for affordable housing and housing to support special needs populations, including Extremely Low Income households.

City of Santa Clara General Plan Housing Element. Chapter 8.12 of the General Plan (the 2015-2023 Housing Element) sets forth the City's "plan for an adequate variety of safe, appropriate and well-built housing for all residents of Santa Clara." The anticipated need for housing is identified in the City's "Housing Needs Assessment," which is based on data from the U.S. Census, the Association of Bay Area Governments (ABAG), and various online real estate resources. The Housing Element also identifies vacant and underutilized land that has potential for higher density residential or mixed-use development to meet the City's housing needs. (A discussion of the "Regional Housing Needs Allocation" follows below.) Applicable Housing Element goals and policies include:

- Goal B. Manage growth in the City by designating suitable vacant or underutilized sites for new residential development and ensuring compatibility with community goals and existing neighborhoods.
- Policy B-2: Encourage the building of higher density housing on appropriate vacant or underutilized sites.
- Policy B-4: Promote compatibility between neighborhoods while respecting differences in neighborhood character.
- Policy B-5: Work towards the mitigation of jobs/housing ratio impacts created by developments with significant employment.

- Policy B-6: Encourage higher density residential development in transit-oriented and mixed use areas where appropriate.

Santa Clara City Code. City Code Chapter 17.40 and Chapter 18.78 pertain to affordable housing within the city, including offering density bonuses and flexible zoning standards. These sections are intended to implement the General Plan Housing Element to meet the City's housing needs and provide additional incentives, consistent with State Government Code section 65915.

Chapter 17.40 - Citywide Affordable Housing Requirements. This City Code chapter requires development projects to submit a plan demonstrating how the project will comply with City affordable housing requirements, including a breakdown by income category for each affordable unit, design specifications, construction schedule, access to amenities and recreation, etc. The plan is required to meet City standards for the types of housing that qualify as well as the income requirements for prospective buyers or renters. Projects of ten or more units must provide at least fifteen percent (15%) of the units at affordable housing costs.

Chapter 18.78 - Residential Density Bonus Standards. This City Code chapter establishes incentives to encourage the production of quality housing for lower income and senior citizen segments of the community, the provision of day care centers, or the donation of land to the City to assist the City in fulfilling its affordable housing goals. One incentive is a density bonus, which allows a developer under certain conditions to build more units than the maximum allowed by the property's land use designation. Another incentive is waiver or reduction of development standards, as legally permitted.

City of Santa Clara Housing & Community Services Division. The City's Housing & Community Services Division is responsible for identifying affordable housing development opportunities in the city and administering the City's inclusionary housing program, which requires that a percentage of new development units be dedicated to low and moderate-income residents. The Division also provides assistance to first-time home buyers with a "below market purchase" program.

14.2.3 Regional Housing Needs Allocation

The State of California requires every city and county to accommodate its fair share of regional growth through a process called the Regional Housing Needs Allocation (RHNA). The Association of Bay Area Governments (ABAG) administers the RHNA process in the San Francisco Bay Area. ABAG allocates housing needs to each of the nine counties and 100+ cities in the region, identifying the number of units that must be accommodated in each of four income categories. Upon receiving its RHNA from ABAG, each local government must update the Housing Element of its General Plan to show how it plans to meet the housing needs in its community.[1]

Table 14-3 shows the current RHNA assignment for the City of Santa Clara for the period from 2015 to 2023. As the table shows, the RHNA assignment calls for the City to provide for development of a total of 4,093 housing units during the 2015-2023 period, consisting of 1,050

[1]Association of Bay Area Governments (ABAG), Regional Housing Need Plan, San Francisco Bay Area: 2015–2023, July 2013.

Table 14-3
REGIONAL HOUSING NEEDS ALLOCATION (RHNA) FOR SANTA CLARA, 2015-2023

Income Category[1]	Number of Housing Units
Very Low Income	1,050
Low Income	695
Moderate Income	755
Above Moderate Income	1,593
Total:	**4,093**

SOURCE: ABAG, Regional Housing Need Plan, San Francisco Bay Area: 2015–2023 (viewed at https://abag.ca.gov/sites/default/files/2015-2023_rhna_allocations.pdf), July 2013, pp. 21, 26.

[1] Income categories are defined as follows:
Very low income = up to 50 percent of area median income
Low income = between 51 and 80 percent of area median income
Moderate income = between 81 and 120 percent of area median income
Above moderate income = above 120 percent of area median income

units for very low-income households, 695 units for low-income households, 755 units for moderate-income households, and 1,593 units for above-moderate-income households.

The 2015-2023 Housing Element states the City plans to meet the current RHNA needs allocation through the redevelopment of existing underutilized sites, including ones that contain functioning industrial, residential, and commercial sites, due to a lack of vacant land and relatively high value of new development in the City. The 2015-2023 Housing Element includes a residential sites analysis that identifies three focus areas from the 2010-2035 General Plan appropriate to accommodate the development of housing for the four income categories in the RHNA allocation. These focus areas and the number of housing units they can accommodate are: Tasman East Focus Area - 1,676 units; Lawrence Station Focus Area - 2,127 units; and El Camino Real Focus Area - 2,274 units. The 2015-2023 Housing Element states the City can accommodate the 2015-2023 RHNA assignment shown in Table 14-3 through redevelopment of these three focus areas.[1] Currently, the City is not on track to meet its RHNA this cycle for affordable (very-low, low, and moderate income) units, although it is meeting the standard for above-moderate-income units.[2]

14.3 IMPACTS AND MITIGATION MEASURES

This section describes potential impacts related to population and housing that could result from the Freedom Circle Focus Area Plan/Greystar General Plan Amendment.

[1] 2015-2023 City of Santa Clara Housing Element, December 2014, pp. 8.12-99, 8.12-103, 8.12-107, and 8.12-123.

[2] City of Santa Clara Planning Department, 12/30/20.

14.3.1 Significance Criteria

Based on the CEQA Guidelines,[1] implementation of the Freedom Circle Focus Area Plan/ Greystar General Plan Amendment would have a significant impact related to population and housing if it would:

(a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure), or

(b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.

14.3.2 Relevant Freedom Circle Focus Area Plan Components

The Focus Area Plan includes the following goal and policies relevant to the population and housing significance criteria (see 14.3.1 above):

- **FC-G2:** Provide for a range of housing types and densities to accommodate future residents and to create diversity in building scale and typology.
- **FC-P1:** Allow for a range of housing density and development intensity throughout the plan area, consistent with the General Plan designations and overall buildout capacity.
- **FC-P13:** Establish affordable housing requirements for residential and residential mixed-use developments that support regional growth goals, City policy, and local need.

14.3.3 Impacts and Mitigations

This section describes potential impacts on population and housing that could ultimately result from the Freedom Circle Focus Area Plan/Greystar General Plan Amendment. Related to the significance criteria above, it is noted that the Plan is a preliminary step in the planning process for the Focus Area; a long-term plan (a comprehensive plan such as a specific plan) would be required by the General Plan and would guide expected growth in the Plan Area through approximately 2040. However, while the Plan is not a specific development project and the potential development capacity in the Plan Area may or may not occur, based on market conditions, the Greystar General Plan Amendment is a specific development project. This EIR evaluates potential impacts based on the potential development assumptions of the Plan, consistent with the conservative approach encouraged by CEQA, and on the specific Greystar General Plan Amendment project proposal.

Impact 14-1: Effects on Population Growth—Plan Area. Based on the forecasted development assumptions for the proposed Focus Area Plan (see chapter 3, Project Description, of this EIR), the Plan is anticipated ultimately to result in up to the following new development in the Plan Area:

- 3,600 residential units,
- 2,000,000 square feet (sq. ft.) of new office space, and
- 2,000 sq. ft. of new retail space.

[1]CEQA Guidelines, appendix G, item XIV (a and b).

Both the Freedom Circle Focus Area Plan and this EIR assume these numbers represent the maximum future anticipated development; however, these numbers may be refined further during preparation of the comprehensive planning study (e.g., specific plan) that is required as part of the General Plan-identified process for "future focus areas" and would allow for responsible growth while ensuring quality City services are maintained for existing and future residents and businesses through establishment of the necessary infrastructure, amenities, and services.[1] The residential growth anticipated under Focus Area Plan would help to address the balance between housing and jobs in the city (i.e., the shortage of affordable housing discussed in section 14.1.2), as identified in the General Plan ("5.2.1 Effects of Land Use Changes and Projected Development").

The Focus Area Plan and EIR are preliminary planning documents to provide clarification of potentials for development in the Plan Area and could change during preparation of the required more comprehensive planning study called for in the General Plan (see chapter 1, Introduction, of this EIR). As such, development parameters for the Plan Area could change and, if so, would then be re-evaluated.

This Focus Area Plan assumes an average of 2.27 persons per new household (pph) in the Plan Area, based on demographic and economic research prepared for the Plan.[2] Using this factor, Plan implementation could accommodate up to approximately 8,172 new residents in the Plan Area by the year 2040 (the estimated Plan buildout horizon).[3]

As described throughout this EIR (e.g., chapter 3 - Project Description; chapter 17 - Transportation; chapter 18 - Utilities and Service Systems), Plan implementation would extend roads and infrastructure into an undeveloped portion of the Plan Area (the Greystar project site), but would not induce substantial population growth beyond the Plan Area boundaries. Rather, Plan implementation would facilitate residential, commercial, and community growth within a mixed-use Plan Area identified as being desirable for adding a mix of residential and commercial due to access to existing and future transit, and for redeveloping existing sites from lower to higher intensity uses, as provided for in the Santa Clara General Plan. Therefore, this impact is considered ***less-than-significant*** (see criterion [a] in subsection 14.3.1, "Significance Criteria," above).

Mitigation 14-1. No significant impact has been identified; no mitigation is required.

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[1]As noted in the General Plan, potential development for areas north of U.S. 101 is anticipated to include greater intensification than under existing land use designations, with some areas expected to propose expansion from their allowed uses. The three General Plan phases (Phase I, Phase II, Phase III) were designed to provide opportunities to refine strategies and objectives as the City assesses new needs and conditions through an iterative planning process, such as the comprehensive planning process required prior to development approval in a future focus area, as is the case with this Focus Area Plan. In particular, the General Plan ("1.2.3 Plan Phases") identified the area along the Great America Parkway for development of new residential neighborhoods in conjunction with appropriate retail, parks, open space, and other public uses as a long-range initiative in Phase III.

[2]U.S. Census American Community 2015-2019 Summary Survey Tables B25032 and B25033 for the City of Santa Clara.

[3]3,600 residential units x 2.27 persons per household = 8,172.

Impact 14-2: Effects on Population Growth—Greystar Project. As discussed in chapter 3, Project Description, of this EIR, the Greystar project proposal includes 1,075 multi-family residential units (in three seven-story buildings), 2,000 square feet (sq. ft.) of new retail space, and a two-acre public park. Using an average of 2.27 persons per new household (pph), as explained in Impact 14-1, the Greystar project could accommodate up to approximately 2,440 new residents by buildout (estimated 2025).[1]

The Greystar project would provide new residential and commercial development in an infill area identified as being desirable for developing housing in a pedestrian-friendly environment served by transit, and would develop an unutilized site with high intensity uses, as provided for in the Santa Clara General Plan. Therefore, this impact is considered ***less-than-significant*** (see criterion [a] in subsection 14.3.1, "Significance Criteria," above).

Mitigation 14-2. No significant impact has been identified; no mitigation is required.

Impact 14-3: Population and Housing Displacement Effects—Plan Area. As of April 2021, there is no housing in the Plan Area, and the Focus Area Plan would not displace any residents or housing. The Freedom Circle Focus Area Plan is a long-term plan laying the groundwork for a future comprehensive planning study (e.g., specific plan) that would include frameworks and design standards and guidelines for future long-range development, including residential development. Under the current Focus Area Plan, no individual development proposals are being considered (with the exception of the concurrent Greystar project application); however, because there is no existing housing in the Plan Area, the Focus Area Plan would have ***no impact*** related to the displacement of housing or population (see criterion [b] in subsection 14.3.1, "Significance Criteria," above).

Mitigation 14-3. No significant impact has been identified; no mitigation is required.

Impact 14-4: Population and Housing Displacement Effects—Greystar Project. As of April 2021, the Greystar project site is vacant and contains no housing. Therefore, because there is no existing housing on the Greystar project site, and the Greystar project proposes to construct 1,075 residential units, the Greystar project would have ***no impact*** related to the displacement of housing or population (see criterion [b] in subsection 14.3.1, "Significance Criteria," above).

Mitigation 14-4. No significant impact has been identified; no mitigation is required.

Impact 14-5: Temporary Employment Impacts—Plan Area. No construction jobs would result directly from adoption of the Focus Area Plan because a comprehensive planning study (such as a specific plan) would be required before development in the Plan Area would be authorized; however, development in the Plan Area could ultimately result from adoption of the comprehensive planning study, and future construction jobs would be likely. Such construction jobs would be created over the timeframe of development and would by nature be temporary. It would be anticipated that an adequate construction work force would continue to exist within commute distance of the Plan Area when future development would be likely to commence; a

[1] 1,075 residential units x 2.27 persons per household = 2440.25, or 2,440.

substantial increase in population due to eventual project construction would be considered highly unlikely. The actual number of construction jobs ultimately facilitated as a result of the Focus Area Plan and the comprehensive planning study would depend on the construction dollars spent and the construction schedules. These variables cannot be accurately quantified at this time. Nevertheless, these project-generated employment opportunities would represent a beneficial temporary economic effect of future development in the Plan Area. In itself, any population growth associated with construction activity ultimately resulting from the Focus Area Plan and comprehensive planning study would represent a ***less-than-significant environmental impact*** (see criterion [a] in subsection 14.3.1, "Significance Criteria," above).

Mitigation 14-5. No significant environmental impact has been identified; no mitigation is required.

Impact 14-6: Temporary Employment Impacts—Greystar Project. Temporary construction jobs would be created during the Greystar project construction period, estimated at approximately 48 months. It is anticipated that an adequate construction work force will continue to exist within commute distance of the Greystar project site, thereby making a substantial increase in population due to project construction unlikely. The actual number of construction jobs facilitated by the Greystar project would depend on the construction dollars spent and the construction schedules; however, additional temporary employee growth on site could result in up to 600 construction workers over the projected 48-month construction period, varying between 100 and 600 workers, depending on phase and activity.[1] This temporary increase in worker population would generate demand for services, but the increase would be temporary in duration. It is reasonable to assume that most of the construction jobs would be filled by workers currently residing in the Bay Area region, and therefore this temporary increase would not be considered either substantial or unplanned population growth, and therefore this temporary increase in population would not in itself constitute a significant adverse environmental impact.[2] To the extent that it would result in secondary environmental impacts (e.g., air quality, greenhouse gas emissions, noise, traffic), those impacts would be temporary and are addressed by topic in the various sections of this EIR. The project-generated employment opportunities would represent a beneficial temporary economic effect of the Greystar project. In itself, any population growth associated with construction activity resulting from the Greystar project would represent a ***less-than-significant environmental impact*** (see criterion [a] in subsection 14.3.1, "Significance Criteria," above).

Mitigation 14-6. No significant environmental impact has been identified; no mitigation is required.

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[1]See EIR Appendix 25.2, Supplemental Air Quality/GHG Information, "Sheet 5: Worker and Vendor Mobile Source Emissions, Table 5-1: Number of Workers per Phase w/ Duration," for workforce estimates.

[2]CEQA Guidelines section 15126.2(e) states that an EIR shall: *"Discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment….It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment."*

15. PUBLIC SERVICES

This EIR chapter describes existing conditions for fire protection and emergency medical service, police protection, public schools, public parks, and other public facilities in the Plan Area (including the Greystar project). The chapter addresses the public service impact concerns identified by the CEQA Guidelines--i.e., would significant environmental impacts result from the construction of new or physically altered government facilities proposed or required as part of the Plan (including the Greystar project).[1]

15.1 SETTING

15.1.1 Fire Protection and Emergency Medical Service

(a) Existing Fire Protection in Plan Area. The Santa Clara Fire Department (SCFD) has ten fire stations (one of which temporarily closed in March 2020 and is scheduled for replacement and relocation), with eight fire engines, two ladder trucks, one rescue unit, two ambulances, one hazardous materials unit, and one command vehicle. When fully staffed, SCFD consists of 167 full-time equivalent (FTE) personnel and has a daily staffing target of 40 personnel distributed among the stations.[2] SCFD deploys Advanced Life Support (ALS) emergency medical services from all stations; each fire engine and fire truck is staffed with at least one paramedic. All Field Operations personnel are certified Emergency Medical Technicians (EMT) as a minimum level of training.[3]

The Plan Area would be served by Station 8, which is located at 2400 Agnew Road. Secondary responding stations to the area would be Station 6, located at 888 Agnew Road, Station 9, located at 3011 Corvin Drive, and Station 5 located at 1912 Bowers Avenue.

The Greystar project site is located in the southeast portion of the Plan Area and would also be served by Station 8, which is about 300 feet north of the project site, across Mission College Boulevard on Agnew Road. Station 5 is within 1-1/2 miles of the project site. Station 9 is within 2 miles of the project site (depending on the route).

[1]CEQA Guidelines, appendix G, item XV (a).

[2]Information updated by Deputy Fire Chief Jeremy Ray on 6/12/2021. Originally from Jake Tomlin, Fire Marshal-Battalion Chief, City of Santa Clara Fire Department, email dated June 2, 2020, to Rebecca Bustos, Senior Planner, City of Santa Clara Community Development Department; City of Santa Clara Fire Department, https://www.santaclaraca.gov/our-city/departments-a-f/fire-department/about-us,https://www.santaclaraca.gov/our-city/departments-a-f/fire-department/about-us accessed 3/26/20; City of Santa Clara Fire Department Annual Report 2019.

[3]City of Santa Clara Fire Department Annual Report 2019, https://www.santaclaraca.gov/home/showpublisheddocument/70024/637365472373030000, accessed 6/12/2021

(b) Existing Fire Response Times. Santa Clara General Plan Policy 5.9.3-P4 establishes a Fire Department response time goal of maintaining a City-wide average of three minutes for fire emergency service calls.[1] After preparation of the current General Plan, the SCFD changed its method for reporting response times to be consistent with the National Fire Protection Association, which uses percent goals.[2] The Fire Department has a target benchmark (90th percentile) response time of seven minutes for arrival of the first unit to the scene (including time for alarm handling and dispatch, turnout time, and travel time).[3] In 2019, SCFD responded to 236 fire calls, 6,745 medical emergency calls, 1,129 alarm activation calls, 829 service calls, 35 hazardous materials calls, and 25 technical rescue calls. From 2014-2017, residential fires comprised about 62 percent of all structural fires in the city (183 residential fires out of a total of 296 structural fires); in 2017, residential fires comprised about 66 percent of all structural fires (37 of 56 fires).[4] The SCFD response time for structural fire calls was 5 minutes and 7 seconds (or less) 90 percent of the time, and for emergency medical calls was 5 minutes and 11 seconds (or less) 90 percent of the time.[5]

(c) Other Services. Additional programs and services provided by SCFD include rescue operations, community risk reduction, domestic preparedness planning and response, and fire investigation.[6] Rescue operations can involve the use of axes, sledgehammers, and pry bars, but more technical rescue operations can include extrications from elevators or vehicles, rope rescues, and trench or other confined space rescues. Community risk reduction includes fire and life safety education programs, active code enforcement, and inspection programs to prevent fires. Domestic preparedness planning and response programs include the Community Emergency Response Team program, designed to help Santa Clara citizens be self-sufficient after a major disaster. In addition to fire investigations, SCFD conducted more than 13,000 plan reviews and operational permit and construction inspections in 2019.[7]

(d) Emergency Services Plan. The Office of Emergency Services is located with SCFD Administration at Station 1 (777 Benton Street). Training includes exercises and workshops to prepare for earthquakes and other community-wide emergency needs. SCFD is the primary point of contact for the City of Santa Clara Emergency Operations Plan/Hazard Mitigation Plan.

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[1]City of Santa Clara, 2010-2035 General Plan, November 16, 2010.

[2]Use of percent goals is described in "NFPA 1710 – Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments," which is the industry recognized standard for the organization and deployment of career fire departments.

[3]J. Tomlin, email dated June 2, 2020, to R. Bustos.

[4]Santa Clara Fire Department, Community Risk Assessment & Standards of Cover, March 2018, p. 74.

[5]City of Santa Clara, City of Santa Clara Fire Department Annual Report 2019, https://www.santaclaraca.gov/home/showdocument?id=70024, accessed 12/15/20.

[6]Santa Clara Fire Department, Strategic Plan 2017-2021, https://www.santaclaraca.gov/home/showdocument?id=57822, accessed 3/26/20.

[7]City of Santa Clara Fire Department Annual Report 2019.

The Emergency Operations Plan includes actions for mitigating impacts from natural and man-made disasters, such as earthquakes, severe weather, floods, dam and levee failure, drought, landslides, and wildfires. (See chapter 10, Hazards and Hazardous Materials, of this EIR, for a discussion of the Emergency Operations Plan/Hazard Mitigation Plan.)

In addition, as discussed above, the Community Emergency Response Team (CERT) program provides training for basic disaster response until public emergency responders can arrive.[1] Santa Clara firefighters provide training to participants in neighborhoods and workplaces for the CERT program, including medical care, utility control, building damage assessment, fire suppression, and search and rescue operations.

15.1.2 Police Protection

(a) Existing Police Services. The Santa Clara Police Department (SCPD) is located at 601 El Camino Real. The Northside Substation, at 3992 Rivermark Parkway, is a satellite facility open Tuesday through Thursday.[2] SCPD is organized into four divisions: (1) the Field Operations Division, which responds to the majority of calls for service and is comprised of patrol teams, a motorcycle traffic unit, hit-and-run investigators, and parking control and abandonment vehicle abatement personnel; (2) the Investigations Division, which conducts the majority of follow-up investigations (especially major crimes) and also includes the Records Unit; (3) the Special Operations Division, which acts as liaison between the City and agencies for special events such as parades, festivals, and visits from dignitaries, and also provides special security support; and (4) the Administrative Services Division, which consists of the Chief's Office, the Property and Evidence Unit, the Communications Dispatch Center, and the Community Services Unit, and is also responsible for programs such as Neighborhood Watch, Crime Prevention, Permits and School Services (such as the Drug Abuse Resistance Education or "D.A.R.E." program in cooperation with the school district, parents, and the community, School Resource Officers and Crossing Guards, etc.).[3]

(b) Staffing and Equipment. For the 2019-2020 fiscal year, SCPD staff includes 239 full-time equivalent personnel (159 sworn and 80 civilian professionals). Based on Census population data, this generally corresponds to a ratio of 1.22 officers per 1,000 residents and 0.61 civilian professionals per 1,000 residents, though the actual ratio fluctuates over the year due to changes in the number of fully trained employees and/or vacancies or injuries, as well as temporary or intermittent population increases from "event" days such as Levi's Stadium events and festivals. The SCPD has nearly 200 "as-needed" employees to support operations (crossing guards, and per diem special event and other support), approximately 21 police reserves, and about 45 community volunteers, explorers, cadets, and chaplains. The SCPD notes that additional staffing resources (e.g., new civilian and sworn staffing) have not matched

[1]City of Santa Clara, CERT (Community Emergency Response Team), https://www.santaclaraca.gov/our-city/departments-a-f/fire-department/community-resources/cert-community-emergency-response-team, accessed 3/26/20.

[2]Carolyn McDowell, Management Analyst, City of Santa Clara Police Department, email dated June 11, 2020, to Rebecca Bustos, Senior Planner, City of Santa Clara Community Development Department.

[3]Santa Clara Police Department Divisions, https://www.santaclaraca.gov/our-city/departments-g-z/police-department/about-us/divisions, accessed 3/17/20.

development in the city in recent years,[1] and has recently undergone a study that indicated possible benefits from modifications in staffing organization and shifting of responsibilities.[2]

SCPD operations are broken into six beats, with one patrol officer assigned to each beat per shift, operating with four shifts a day. Beats 1 through 5 are south of U.S. 101. Beat 6 covers the entire city area north of U.S. 101 (plus the area between the Central Expressway and U.S. 101).

The Plan Area is in Beat 6. The Greystar project site is also in Beat 6.

The SCPD has a vehicle fleet that includes 41 marked patrol vehicles, 41 unmarked vehicles, 11 motorcycle and 3 motorcycle trainers, 15 conventional bicycles, and 38 other (support) vehicles.[3]

(c) Existing Police Response. Santa Clara General Plan Policy 5.9.3-P3 establishes a response time goal of maintaining a City-wide average of three minutes for 90 percent of police emergency calls.[4] Although response times to specific locations are typically not measured by SCPD, average response times for priority one calls are collected. In fiscal year 2018-2019, the average response time for priority one service calls regardless of location was four minutes and sixteen seconds after dispatch.[5] In 2019, of the 179,736 total calls to the Communications Center, 44,323 resulted in police calls for service and 3,630 arrests (3,502 adults, 128 juveniles). The total number of reported crimes (including violent and property felony crimes) in the city in 2019 was 5,513.[6]

15.1.3 Public Schools

(a) Existing School Facilities. The Plan Area (including the Greystar project) is in the Santa Clara Unified School District (SCUSD). The SCUSD is comprised of 28 schools, six of which are located north of U.S. 101: four elementary schools (Don Callejon, George Mayne, Kathryn Hughes, Montague), one middle school (Don Callejon), and one high school (Mission Early College). Schools likely serving students in the Plan Area (including the Greystar project) are Kathryn Hughes Elementary School at 4949 Calle De Escuela (capacity approximately 475), the future Dolores Huerta Middle School at 3556 Zanker Road in San Jose (capacity approximately 800 students; planned opening in 2021), and the future Kathleen MacDonald High School at

[1]C. McDowell, email dated June 11, 2020, to R. Bustos.

[2]Center for Public Safety Management, Police Operations and Data Analysis Report, Santa Clara, California, November 2015.

[3]City of Santa Clara, Santa Clara Police Department Fact Sheet, Available at: https://www.santaclaraca.gov/our-city/departments-g-z/police-department/about-us/fact-sheet, accessed 3/26/20; C. McDowell, email dated June 11, 2020, to R. Bustos.

[4]City of Santa Clara, 2010-2035 General Plan, November 16, 2010.

[5]C. McDowell, email dated June 11, 2020, to R. Bustos.

[6]City of Santa Clara, Santa Clara Police Department Fact Sheet.

3588 Zanker Road in San Jose (capacity approximately 1,500 students; planned opening in 2022).[1]

Current (2019) and projected (2020-2022) resident students[2] for schools north of U.S. 101 are shown in Table 15-1.

(b) School Capacity and Development-Related Enrollment. Table 15-2 shows existing 2019/2020 SCUSD facilities capacity by grade level. SCUSD elementary and middle schools overall have sufficient capacity for their current (2019/2020) enrollment (though Don Callejon Middle School enrollment exceeded its capacity by approximately 77 students), but SCUSD high school enrollment exceeds total capacity for all high school facilities by approximately 586 students.[3]

Table 15-3 shows student generation factors (rates) used by the SCUSD to determine school facility needs throughout its service area. Student generation rates are based on a calculation of the number of students per residential unit at a particular moment in time, so these rates can vary over time, as reflected in number of enrolled students and their respective grade levels, along with the number of residential units within the SCUSD.

Based on these rates, student generation from future development in the Plan Area (up to 3,600 residential units, which includes the units proposed under the Greystar project; approximately 15 percent of all units would be below market rate units as discussed in chapter 14, Population and Housing, of this EIR) would total up to 394 new students in the SCUSD over the course of Plan implementation, of which approximately 118 new students would be attributable to the Greystar project. See Table 15-3 for student generation rate breakdowns. Compared to the total current (2019) SCUSD enrollment of 15,241,[4] this potential total increase in students would represent approximately 2.6 percent of SCUSD enrollment.[5]

[1]Michal Healy, Director, Facility Development and Planning, Santa Clara Unified School District, memo dated May 21, 2020, to John Davidson, Principal Planner, City of Santa Clara Community Development Department.

[2]"Resident students" refer to students whose residence in the district makes them eligible to attend district schools, as opposed to the actual number of students enrolled, who may come from out-of-district areas.

[3]Cooperative Strategies, "Residential and Commercial/Industrial Development School Fee Justification School Fee Justification Study—Santa Clara Unified School District," February 26, 2020, p. 10; Enrollment Projections Consultants, letter to Santa Clara Unified School District Superintendent and Board, re: enrollment forecast update, February 24, 2020.

[4]Enrollment Projections Consultants, February 24, 2020, p. 3.

[5]394 ÷ 15,241 = 0.0258, or approximately 0.026 (with rounding).

Table 15-1
CURRENT AND PROJECTED RESIDENT STUDENTS: SCUSD SCHOOLS NORTH OF U.S. 101, 2019-2022

	2019[1]	**2020**	**2021[2]**	**2022**	**Capacity**
ELEMENTARY SCHOOL[3]					
Don Callejon	511	494	458	437	576
George Mayne (in Alviso)	580	580	339	355	480
Kathryn Hughes	477	477	347	355	475
Montague	407	408	268	247	423
Abram Agnew (opening Aug 2021)	--	--	585	685	600
MIDDLE SCHOOL					
Don Callejon (6–8)	450	445	200	197	297
Dolores Huerta (opening Aug 2021)	--	--	685	667	800
HIGH SCHOOL					
Mission Early College (10-11)	101	N/A	N/A	N/A	N/A
Kathleen MacDonald (opening Aug 2022)	--	--	--	1,227	1,500

SOURCE: Enrollment Projections Consultants, February 24, 2020; Cooperative Strategies, February 26, 2020; Santa Clara Unified School District, May 21, 2020; Agnews East School Campus Facilities Expansion Draft Supplemental EIR, Santa Clara Unified School District, January 2019.

Notes:

[1] Actual number of resident students in 2019; projected number of resident students in 2020-2022.
[2] Boundary realignment in 2021 could result in changes in resident student numbers for some schools.
[3] Elementary school numbers for grades 1-5 (i.e., excludes Transitional Kindergarten, "TK," students).

N/A = data not available

Bold means schools identified as likely to serve future Freedom Circle Focus Area Plan area and Greystar project resident students.

Table 15-2
EXISTING SCUSD SCHOOL FACILITY CAPACITY, 2019-2020

School Level	**Facilities Capacity**	**Student Enrollment**	**Excess Capacity/ (Shortage)**
Elementary School (Grades K-5)	8,080	7,590	490
Middle School (Grades 6-8)	3,567	3,224	343
High School (Grades 9-12)	3,857	4,443	(586)
Total	15,504	15,257	247
SOURCE: Cooperative Strategies, February 26, 2020.			

Table 15-3
SANTA CLARA UNIFIED SCHOOL DISTRICT (SCUSD) STUDENT GENERATION RATES

Dwelling Type	**Student Generation Rate**
Multi-Family Dwellings—Apartments, Condominiums	0.03
Single Family Detached Homes, Townhouses	0.11
Below Market Rate—Apartments, Condominiums, Townhouses	0.56
SOURCE: Santa Clara Unified School District, May 21, 2020.	

Specific to the Greystar project development, student generation resulting from the project residential units, of which approximately 15 percent would be below market rate units as discussed in chapter 14, Population and Housing, would total up to 118 new students in the SCUSD, a potential increase in students representing less than one percent of SCUSD Specific to the Greystar project development, student generation resulting from the project residential units, of which approximately 15 percent would be below market rate units as discussed in chapter 14, Population and Housing, would total up to 118 new students in the SCUSD, a potential increase in students representing less than one percent of SCUSD enrollment, and approximately 30 percent of total student generation from future development in the Plan Area.[1]

The SCUSD is responsible for levying impact fees on new development. Each school district in the state analyzes the relationships between enrollment projections and facility needs to formulate school impact fees. New residential and commercial development in the Plan Area (including the Greystar project) would be required to pay the State-authorized school impact fees approved by the SCUSD. Pursuant to section 65995(3)(h) of the California Government Code (Senate Bill 50, chaptered August 27, 1998), the payment of statutory school impact fees *"...is deemed to be full and complete mitigation of the impacts of any legislative or adjudicative*

[1]118 ÷ 15,241 = 0.0077, or approximately 0.008 (with rounding); 118 ÷ 394 = 0.299, or approximately 0.3 (with rounding).

act, or both, involving, but not limited to, the planning, use, or development of real property, or any change in governmental organization or reorganization...".

15.1.4 Parks

Santa Clara City Code Chapter 17.35 requires new residential developments to provide developed park and recreational land and/or pay a fee in lieu of parkland dedication, at the City's discretion, and pursuant to the State of California Quimby Act (Quimby) and/or the Mitigation Fee Act (MFA) to help mitigate the impacts of the new resident demand on existing parkland and recreational facilities. The City is meeting the standard of 3 acres per 1,000 residents per the Quimby provisions of the City Code and 2.60 acres per 1,000 residents per the MFA provisions of the City Code with regard to neighborhood parks.

The Santa Clara Parks and Recreation Department (Department) provides parks and recreational services in the City. The department is responsible for maintaining and programming the various parks and recreation facilities and works cooperatively with public agencies in coordinating all recreational activities within the City. Overall, as of May 2021, the Department maintains and operates Central Park, a 45.04-acre community park (45.04 acres improved and Central Park North 34.93 acres unimproved, resulting in 79.97 acres), 30 neighborhood parks (124.517 acres improved and 6.132 acres unimproved resulting in 130.649 acres), 13 mini parks (2.59 acres improved and 3.189 acres unimproved resulting in 5.779 acres), public open space (16.13 acres improved and 40.08 acres unimproved resulting in 56.21 acres), recreational facilities (23.898 acres improved and excluding the Santa Clara Golf and Tennis Club/BMX track), recreational trails (7.59 acres improved and 0.20 acres unimproved resulting in 7.79 acres), and joint use facilities (48.588 acres) throughout the City totaling approximately 268.354 improved acres and 84.531 unimproved acres. Community parks are over fifteen acres, neighborhood parks are one to fifteen acres and mini parks are typically less than one acre in size.

In addition, the Greystar project site, located in the southeast portion of the Plan Area, is currently vacant and does not contain parks or recreational facilities. (The Plan Area also does not contain parks or recreational facilities.) A 2-acre park is proposed to be dedicated to the City as a part of their development project.

See chapter 16, Recreation, of this EIR, for a discussion of other City recreational facilities.

Also, the General Plan notes that, *"Ideally, parks should be located within a ten-minute walking distance* [approximately ½ mile] *from residential areas and be provided near employment centers."*[1] Projects in this Plan Area would be proposed where no neighborhood park currently exists. The closest neighborhood parks are more than1 mile from the project and farther than a 10-minute walk.

[1]City of Santa Clara, 2010-2035 General Plan, November 16, 2010.

15.1.5 Other Public Facilities

(a) Libraries.[1] The Central Park Library, at 2635 Homestead Road, was constructed in 1967, expanded in 1980, and reconstructed and expanded to over 80,000 square feet in 2004. It houses most of the City Library's collection. The library has group study rooms, large community rooms, over 100 public computers and a computer training facility, a café and bookstore, a genealogy and local history collection, and a children's garden.

The Northside Branch Library, at 695 Moreland Way, opened in August 2014. The library is a stand-alone 15,000-square-foot building with a community room, small group study areas, and a technology center.

The Mission Branch Library, at 1098 Lexington Street, opened in 1955 and was remodeled in 1999-2000. It is a full-service library and the headquarters of Read Santa Clara, the adult and family literacy program of the Santa Clara City Library system.

(b) Other Public Facilities.[2] The Santa Clara Parks and Recreation Department (Department) provides parks and recreational services in the City. The department is responsible for maintaining and programming the various parks and recreation facilities and works cooperatively with public agencies in coordinating all recreational activities within the City. Overall, as of May 2021, the Department maintains and operates Central Park, a 45.04-acre community park (45.04 acres improved and Central Park North 34.93 acres unimproved, resulting in 79.97 acres), 30 neighborhood parks (124.517 acres improved and 6.132 acres unimproved resulting in 130.649 acres), 13 mini parks (2.59 acres improved and 3.189 acres unimproved resulting in 5.779 acres), public open space (16.13 acres improved and 40.08 acres unimproved resulting in 56.21 acres), recreational facilities (23.898 acres improved and excluding the Santa Clara Golf and Tennis Club/BMX track), recreational trails (7.59 acres improved and 0.20 acres unimproved resulting in 7.79 acres), and joint use facilities (48.588 acres) throughout the City totaling approximately 268.354 improved acres and 84.531 unimproved acres. Community parks are over fifteen acres, neighborhood parks are one to fifteen acres and mini parks are typically less than one acre in size.

15.2 REGULATORY SETTING

15.2.1 Fire Protection and Emergency Medical Service

15.2.1.1 Federal

Federal Emergency Management Agency. As part of the U.S. Department of Homeland Security, the Federal Emergency Management Agency (FEMA) helps communities nationwide prepare for, respond to, and recover from natural and manmade disasters. FEMA helps implement hazard mitigation practices to create safer communities, promote rapid recovery from

[1]Santa Clara City Library, Locations and Hours, https://www.sclibrary.org/about-us/locations-and-hours, accessed 3/17/20; City of Santa Clara, General Plan 2010-2035, November 16, 2010; City of Santa Clara, Santa Clara City Library History, https://www.sclibrary.org/home/showdocument?id=1460.

[2]City of Santa Clara, Community Centers, https://www.santaclaraca.gov/our-city/departments-g-z/parks-recreation/community-centers, accessed 3/17/20; City of Santa Clara Parks & Recreation Department, Activity Guide, Spring/Summer 2020.

floods and other disasters, and reduce the financial impact at the federal, tribal, state, and local levels. FEMA leads the effort to manage federal response and recovery efforts following any presidential disaster declaration. FEMA also initiates proactive mitigation activities, trains first responders, and manages the National Flood Insurance Program and the U.S. Fire Administration.

Occupational Safety and Health Administration Regulations. The Occupational Safety and Health Administration (OSHA), under the U.S. Department of Labor, sets and enforces workplace standards, and provides training, outreach, education, and assistance.

15.2.1.2 State

California Governor's Office of Emergency Services (Cal OES). Cal OES serves as the lead State agency for emergency management in California. Cal OES coordinates the State response to major emergencies in support of local government. It is also responsible for collecting, verifying, and evaluating information about the emergency, facilitating communication with local government, and providing affected jurisdictions with additional resources when necessary. Cal OES may task State agencies to perform work outside their day-to-day and statutory responsibilities. Local jurisdictions first use their own resources and, as they are exhausted, obtain more from neighboring cities and special districts, the county in which they are located, and other counties throughout the state through the Statewide Mutual Aid System.

California Fire Code (Title 24, Part 9, California Code of Regulations). The California Fire Code is based on the International Fire Code, with necessary California amendments. This code prescribes regulations consistent with nationally recognized good practices for the safeguarding, to a reasonable degree, of life and property from the hazards of fire and explosion. It also addresses: (1) dangerous conditions arising from the storage, handling, and use of hazardous materials and devices; (2) conditions hazardous to life or property in the use or occupancy of buildings or premises; and (3) provisions to assist emergency response personnel.

California Building Standards Code. The 2019 California Building Code (CBC) became effective January 1, 2020, including Part 9 of Title 24, the California Fire Code.

California Code of Regulations, Title 19. Title 19, Division 2, chapters one through six of the California Code of Regulations, establishes regulations related to emergency response and preparedness.

California Health and Safety Code (Sections 13000 et seq.). This code establishes State fire regulations, including regulations for building standards (also set forth in the California Building Code), fire protection and notification systems, fire protection devices such as extinguishers and smoke alarms, high-rise building and child care facility standards, and fire suppression training.

15.2.1.3 Local

Santa Clara General Plan. The General Plan addresses fire protection/emergency medical service objectives with the following policies:

- Policy 5.9.3-P2: Provide police and fire services that respond to community goals for a safe and secure environment for people and property.

- Policy 5.9.3-P4: Maintain a City-wide average three minute response time for fire emergency service calls.

- Policy 5.9.3-P5: Maintain emergency traffic preemption controls for traffic signals.

- Policy 5.9.3-P6: Maintain the fire and hazardous materials mutual aid agreements with surrounding jurisdictions.

Santa Clara City Code. City Code Chapter 15.60 (Municipal Fire and Environmental Code) sets forth Fire Department regulations related to fire prevention, building code standards (including fire flow), permits, fire access standards, and fire protection systems in buildings (e.g., automatic fire extinguishing/sprinkler systems, fire alarms).

15.2.2 Police Protection

15.2.2.1 Local

Santa Clara General Plan. The General Plan addresses police service objectives with the following policies:

- Policy 5.9.3-P2: Provide police and fire services that respond to community goals for a safe and secure environment for people and property.

- Policy 5.9.3-P3: Maintain a City-wide average three-minute response time for 90 percent of police emergency service calls.

Santa Clara City Code. City Code Chapter 2.80 (Police Department) sets forth the Santa Clara Police Department organization and operational divisions. The Department administers adopted regulations within its jurisdiction.

15.2.3 Public Schools

15.2.3.1 State

California Code of Regulations. The California Code of Regulations, Title 5, Education Code, governs all aspects of education within the state.

California Government Code. Section 65995 of the California Government Code provides for school facility financing and the mitigation of impacts on the need for school facilities from land use approvals by establishing statutory fees that may be levied or imposed in connection with, or made a condition of, any land use approval, to be used for the construction or reconstruction of school facilities.

15.2.3.2 Local

Santa Clara General Plan. Applicable General Plan policies addressing citywide educational facility needs include:

- Policy 5.3.1-P21: Allow Public/Quasi Public uses, including places of assembly such as places of worship, schools, emergency shelters and convalescent homes, in all General Plan designations, provided that access is from a Collector or larger roadway, and that they are compatible with planned uses on neighboring properties and other applicable General Plan policies. Such uses not associated with government operations are prohibited in areas designated Light Industrial or Heavy Industrial, and in areas designated High or Low Intensity Office/Research and Development outside the Exception Area.

- Policy 5.8.4-P15: Work with school districts to implement a "Safe Routes to Schools" program to encourage children to walk to school.

- Policy 5.9.2-P5: Coordinate with Santa Clara Unified School District, Santa Clara University and Mission College to develop mutually supportive long range plans for school facilities.

- Policy 5.9.2-P7: Support efforts by school districts to maintain, improve and expand educational facilities and services, to meet the demands of new development.

- Policy 5.9.2-P8: Cooperate with local school districts in collecting fees for development projects as required by State regulations.

15.2.4 Parks

15.2.4.1 State

Quimby Act (1975). The Quimby Act (California Government Code Section 66477) was approved by the California legislature to set aside parkland and open space for recreational purposes. It provides provisions for the dedication of parkland and/or payment of fees due in lieu of parkland dedication to help mitigate the impacts from new residential developments. This legislation was initiated in 1980's in response to California's increased rate of urbanization and the need to preserve open space and provide parks and recreation facilities for California's growing communities. The Quimby Act authorizes local governments to establish ordinances requiring developers of new residential subdivisions to dedicate parkland, pay a fee in-lieu of parkland dedication, or perform a combination of the two at the discretion of the City.

Mitigation Fee Act. In 1989, the State Legislature passed Assembly Bill 1600 (AB1600), adding Section 66000 et seq. to the California Government Code (the "Mitigation Fee Act"), which sets forth requirements for local agencies to follow if they collect fees from developers to defray the cost of the construction of public facilities related to development projects. These legal requirements are frequently referred to as "AB 1600 requirements." Each local agency imposing such development impact fees must prepare an annual report providing specific information about these fees (i.e., a "nexus study") that shows the proper connection of the fees to the project and how accounting and reporting for the fees collected are regulated.

15.2.4.2 Local

Santa Clara General Plan. The General Plan policies and existing regulations and programs would ensure that the development of parkland within the City would not have an adverse physical effect on the existing environment. In addition, the increased demand associated with an increase in population would not significantly accelerate the deterioration of existing facilities. Applicable General Plan policies include:

- Policy 5.5.1-P17: Allow new parks and open space uses under any General Plan Land Use classification, except in areas designated as Light Industrial or Heavy Industrial, provided that the use is compatible with planned uses on neighboring properties, consistent with other applicable General Plan policies.

- Policy 5.9.1-P1: Develop additional parkland in the City so that it is integrated into neighborhoods and meets the standards for size, amenities and location to serve residents and employees.

- Policy 5.9.1-P2: Develop new parks to serve the needs of the surrounding community based on the criteria defined on Table 5.9-1.

- Policy 5.9.1-P3: Provide trails along creeks and other rights-of-way to link parks, open spaces, bicycle facilities and transit services with residential neighborhoods and employment centers.

- Policy 5.9.1-P4: Provide connections between private and public open space through publicly accessible trails and pathways and by orienting open spaces to public streets.

- Policy 5.9.1-P5: Encourage public visibility for all parks, trails and open spaces.

- Policy 5.9.1-P6: Support construction of trails within the City of Santa Clara that connect to the Bay Trail, the Saratoga/San Tomas Aquino Creek and the Guadalupe River trails.

- Policy 5.9.1-P7: Allow new parks in the general locations shown on the Land Use Diagram in all General Plan designations, except in areas designated for Light and Heavy Industrial uses.

- Policy 5.9.1-P14: Encourage publicly accessible open space in new development.

- Policy 5.9.1-P15: Provide opportunities for private maintenance of publicly accessible open space and trails.

- Policy 5.9.1-P16: Encourage non-residential development to contribute toward new park facilities to serve the needs of their employees.

- Policy 5.9.1-P17: Foster site design for new development so that building height and massing do not overshadow new parks and plazas.

- Policy 5.9.1-P18: Promote open space and recreation facilities in large-scale developments in order to meet a portion of the demand for parks generated by new development.

- Policy 5.9.1-P20: Promote the continuation of a parks per population ratio of 2.4 per 1,000 residents and explore the potential to increase the ratio to 3.0, based on the Parks and Recreation Needs Assessment (Parks Master Plan), referenced in Plan Prerequisite 5.1.1-P24.

Santa Clara City Code. Santa Clara City Code Chapter 17.35 requires new residential developments to provide developed park and recreational land and/or pay a fee in lieu of

parkland dedication, at the City's discretion, and pursuant to the State of California Quimby Act (Quimby) and/or the Mitigation Fee Act (MFA) to help mitigate the impacts of the new resident demand on existing parkland and recreational facilities. The City is meeting the standard of 3 acres per 1,000 residents per the Quimby provisions of the City Code and 2.60 acres per 1,000 residents per the MFA provisions of the City Code with regard to neighborhood parks.

15.2.5 Other Public Facilities

15.2.5.1 Local

Santa Clara General Plan. The General Plan addresses other community facility needs, and the objectives necessary for achieving citywide needs. Applicable General Plan policies include:

- Policy 5.9.2-P1: Provide a diverse range of community, art, cultural and recreational facilities to meet the varying needs of residents in the City, including youth and seniors.
- Policy 5.9.2-P2: Periodically evaluate library services and facilities in order to respond to changing community demands.
- Policy 5.9.2-P3: Provide library services that are accessible and of adequate size to serve community residents, particularly for Future Focus Areas, north of the Caltrain corridor.

Santa Clara City Code. City Code Chapter 2.90 (Library Department) sets forth the organization and operational duties for the City Librarian and the various department divisions. The Department is charged with maintaining programs, services, and collections related to the community's informational, cultural, educational, technical, and entertainment interests.

15.3 IMPACTS AND MITIGATION MEASURES

This section describes potential impacts related to public services that could result from the Freedom Circle Focus Area Plan/Greystar General Plan Amendment, and discusses components of the Plan that would avoid or reduce those potential impacts. The section also recommends any mitigation measures needed to reduce remaining significant impacts.

15.3.1 Significance Criteria

Based on the CEQA Guidelines,[1] implementation of the Freedom Circle Focus Area Plan/ Greystar General Plan Amendment would have a significant impact related to public services if it would:

(a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:

[1]CEQA Guidelines, appendix G, items XV (a).

- fire protection,
- police protection,
- schools,
- parks, or
- other public facilities.

15.3.2 Relevant Freedom Circle Focus Area Plan Components

The Focus Area Plan includes the following goal and policies relevant to the public services significance criteria (see 15.3.1 above):

- **FC-G7:** Enhance connectivity to the San Tomas Aquino Creek trail.

- **FC-P2:** Co-locate commercial, recreational, and other active uses to create nodes of activity throughout the plan area.

- **FC-P4:** Provide public parkland and privately-owned public open space that is accessible to all residents, adequate to meet resident activity needs, and consistent with the General Plan requirements and other City regulations.

- **FC-P5:** Require the dedication of public parkland, or payment of in-lieu fees, for residential development, consistent with the City's Parkland Dedication Ordinance.

- **FC-P6:** Prioritize size, shape, and location of public parkland to ensure that amenities are usable, programmable, and flexible.

15.3.3 Impacts and Mitigations

Impact 15-1: Increase in Fire Protection/Emergency Medical Service (EMS) Demands—Plan Area. The Santa Clara Fire Department (SCFD) would provide first response services to the Freedom Circle Focus Area Plan Area. The Santa Clara General Plan defines the SCFD response time goal of a citywide average three-minute response time for fire emergency service calls. The average response time for medical calls in 2019 was 5 minutes and 11 seconds or less, 90 percent of the time, and for fire calls was in 5 minutes and 7 seconds or less, 90 percent of the time. In 90 percent of all high-level emergency calls, response time in 2018-2019 averaged five minutes and 38 seconds.[1] However, as discussed above in section 15.1.1, after preparation of the current General Plan, the SCFD changed its method for reporting response times to be consistent with the National Fire Protection Association (NFPA). The NFPA uses percent goals ("percentiles"), which account for differences between how the General Plan response time goals were determined (an "average" response time) and the current SCFD percent goals.[2] As also discussed above in section 15.1.1, the SCFD in 2019 responded to 236

[1]City of Santa Clara 2010-2035 General Plan; City of Santa Clara Fire Department Annual Report 2019, https://www.santaclaraca.gov/home/showdocument?id=70024, accessed 12/15/20; City of Santa Clara Adopted Biennial Operating Budget, 2019-2020/2020-2021, p. 426.

[2]Use of percent goals is described in "NFPA 1710 – Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments," which is the industry recognized standard for the organization and deployment of career fire departments.

fire calls, 6,745 medical emergency calls, 1,129 alarm activation calls, 829 service calls, 35 hazardous materials calls, and 25 technical rescue calls. Residential fires between 2014-2017 comprised about 62 percent of all structural fires (183 residential fires out of a total of 296 structural fires); in 2017, residential fires comprised about 66 percent of all structural fires (37 of 56 fires).[1]

Based on the 2020 city population, estimated at 129,104,[2] and the 2020/21 fiscal year SCFD budgeted staffing of 132 firefighters (full time equivalent; FTE),[3] the firefighter to population ratio is approximately 1.0 firefighter per 1,000 population, which, according to the SCFD, is the City's standard.[4]

With a potential buildout of up to 3,600 new residential units, the city's population would increase; however, since the current land uses in the Plan Area do not contain any residences but do contain existing employees, this analysis uses "service population" to account for both residents and employees served within the Plan Area. Accounting for the existing employee population in the Plan Area, the net "service population" increase under the Focus Area Plan would be approximately 22,821. Using the City's firefighter staffing standard (1.0 firefighter per 1,000 population), population growth resulting from Focus Area Plan buildout would require approximately 23 additional firefighters (full-time equivalent; FTE) at buildout.[5]

However, it is important to keep in mind that this buildout number is comprised of two stages of development: the Greystar project (discussed below), which if approved would be constructed first, and later (about 2035-2040) the remainder of Plan Area, which would be subject to a future comprehensive planning study. The "service population" increase in the Plan area without the Greystar project (i.e., buildout population for the remainder of the Plan Area) would be approximately 20,377. Using the City's firefighter staff standard described above, this portion of

[1]Santa Clara Fire Department, Community Risk Assessment & Standards of Cover, March 2018, p. 74.

[2]California Department of Finance, "E-5 Population and Housing Estimates for Cities, Counties, and the State, 2011-2020 with 2010 Census Benchmark," http://www.dof.ca.gov/Forecasting/Demographics/Estimates/e-5/, accessed 8/14/20.

[3]City of Santa Clara Fire Department, 12/22/20.

[4]132 ÷ (129,104 ÷ 1,000) = 1.022, or approximately 1.0; City of Santa Clara, 1/27/21.

[5]This service population was obtained from EIR Chapter 5, Air Quality, which also used data from transportation modeling provided by Hexagon during preparation of their analysis, and is based on the following resident and employment:

- Existing service population for the Plan Area = 5,781 (existing employees)
- Net Service population increase = 8,172 residents (3,600 DUs @2.27 pph) + 20,430 projected employees (from Transportation model) = 28,602; minus 5,781 (existing employees) = 22,821
- 22,828 population ÷ 1,000 x 1.00 = 22,828, or approximately 23.

Plan Area population growth (not including the Greystar project) would require approximately 20 additional firefighters at buildout.[1]

The increase in demand for SCFD services resulting from buildout in the Focus Area Plan would be expected to generate additional calls for fire protection and suppression/EMS assistance that would require additional staff in order to maintain acceptable service ratios or response times.

Demand for additional fire protection/EMS personnel or equipment resulting from Focus Area Plan implementation (e.g., for higher buildings than allowed under current zoning) would be funded by established annual City General Fund budget review and allocation. In addition, General Plan Policy 5.1.1-P8 calls for an analysis of public services as a part of the development of specific plans for future focus areas. Therefore, because it is the City's policy to reassess SCFD resources available in the vicinity of the Plan Area to ensure adequate capacity for providing fire and emergency services as part of the required comprehensive planning study (e.g.., specific plan), rather than as part of this more preliminary stage, potential future needs for a new fire station or expansion of an existing fire station facility would be speculative at this time, as would options to ensure adequate funds would be available for such facilities required by development in the Plan Area. However, it would be anticipated that new development projects under the Focus Area Plan and required comprehensive planning study would be required to pay their share of the costs associated with provision of any facilities through project-specific conditions of approval, and the City would continuously monitor new development approvals to ensure adequate timing of funding for fire/EMS service.

Individual project proposals are subject to review and approval by the SCFD, based on uniformly applied standards and regulations. As part of the standard development review process for each individual project proposal, the project applicant must demonstrate compliance with Santa Clara City Code Chapter 15.60 (Municipal Fire and Environmental Code), the California Fire Code, and all other applicable regulations. Among other fire protection/EMS requirements, the project must provide adequate emergency water supply (fire flow), storage, and conveyance facilities, as well as unobstructed and adequate access for fire protection equipment and personnel. Without City approval of fire protection/EMS provisions, the project would not receive a building permit or occupancy permit, depending on the specific fire protection issue that needs to be addressed (e.g., emergency access provisions, hydrant pressure, fire alarm and smoke detector adequacy).

The Freedom Circle Focus Area Plan does not propose new or expanded fire protection/EMS facilities, the construction of which would cause significant environmental impacts, nor does the City anticipate the need for a new facility because of the proximity and adequacy of Fire Station 8 to provide fire service and the future assessment of resources needed as part of the required comprehensive planning study for the Plan Area, as discussed above. Therefore, based on the above uniformly applied fire protection/EMS standards and regulations, the proximity of existing fire stations, and the City's commitment to providing adequate fire/EMS service, Focus Area Plan impacts on fire protection/EMS demands are considered ***less-than-significant*** (see criterion [a] in subsection 15.3.1, "Significance Criteria," above).

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[1]This Plan Area service population calculation without the Greystar project is based on the following:

- Existing service population for the Plan Area = 5,781 (existing employees)
- Service population = 8,172 residents + 20,430 employees = 28,602; minus 5,781 (existing employees) = 22,821, minus Greystar service population (2,444; see below) = 20,377
- 20,377 population ÷ 1,000 x 1.00 = 20.377, or approximately 20.

Mitigation 15-1. No significant impact has been identified; no mitigation is required.

Impact 15-2: Impacts on Fire Protection/Emergency Medical Service (EMS) Demands--Greystar Project. The Greystar project proposes to construct approximately 1,075 new residential units and 2,000 square feet of retail, which upon buildout could increase the city's population by approximately 2,444. Because the Greystar site is vacant and there are no existing employees to consider in the population calculation, the 2,444 would also be the project's "service population," and would represent approximately 11 percent of the total potential population increase resulting from buildout in the Plan Area.[1] Using the staff to population ratio of 1.0 FTE per 1,000 population, population growth resulting from the Greystar project would require approximately 2 additional SCFD employees to maintain the current 2020 staffing ratio, which would represent approximately 9 percent of the additional SCFD employee need resulting from Plan buildout based on residential population increase.[2]

The increase in demand for SCFD services resulting from the Greystar project would likely generate additional calls for fire protection and suppression/EMS assistance and would possibly need additional staff in order to maintain acceptable service ratios or response times; however, Fire Station 8 would have sufficient capacity to provide additional fire service.

Also, as discussed above, fire protection/EMS personnel and equipment would be funded by established annual City General Fund budget review and allocation. The Greystar project does not propose new or expanded fire protection/EMS facilities, the construction of which would cause significant environmental impacts, but the project would be responsible for contributing its fair share of costs related to increased service resources (e.g., equipment).

Based on the uniformly applied fire protection/EMS standards and regulations discussed above, as well as the proximity Fire Station 8, impacts on fire protection/EMS demands resulting from the Greystar project are considered ***less-than-significant*** (see criterion [a] in subsection 15.3.1, "Significance Criteria," above).

Mitigation 15-2. No significant impact has been identified; no mitigation is required.

Impact 15-3: Increase in Police Service Demands—Plan Area. The Santa Clara Police Department (SCPD) would provide police services to the Plan Area. The General Plan states the SCPD response time goal is to maintain an average three-minute response time for 90

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[1] 2,444 (Greystar-related population) ÷ 22,821 (total Plan Area population less existing employees) = 0.107, or approximately 11 percent (with rounding).

[2] This Greystar population calculation is based on the following resident and employment:

- Existing service population for the Greystar project site = 0 (site is vacant; no existing employees)
- 2,440 residents (1,075 DU @ 2.27 pph) + 4 employees (for the 2,000 SF retail) = 2,444
- 2,444 population ÷ 1,000 x 1.00 = 2.444, or approximately 2.
- 2 (Greystar fire FTE) ÷ 22 (total Plan fire FTE for entire Plan Area including Greystar) = .091, or about 9 percent.

percent of police emergency service calls. In 2020, the average response time for priority one service calls (from dispatch to first officer arrival) was two minutes and eight seconds.[1]

According to the SCPD, based on Census population data and City budget information, the SCPD is currently allocated 1.22 officers per 1,000 residents and 0.61 civilian professionals per 1,000 residents[2] and would not want these allocations to fall below the current ratio (and in fact would prefer to enhance these ratios).

According to City Police Department calculations, the potential buildout of 3,600 new residential units could result in an increase in local population of 8,280 new residents (based on Police Department planning estimates assuming 2.3 persons per unit).[3] However, since the current land uses in the Plan Area do not contain any residences but do contain existing employees, this analysis uses "service population" to account for both residents and employees served within the Plan Area. Based on a pre-pandemic ratio of 1.83 police personnel (1.22 sworn personnel plus 0.61 civilian personnel) per 1,000 residents,[4] the increased population from Plan Area buildout would require approximately 42 SCPD employees to maintain the current staffing ratio.[5] The SCPD has stated that the Police Department building is at capacity (parking, locker room, work spaces, etc.).[6] The SCPD has determined that new or reconfigured space will be needed as SCPD staff grows, and the feasibility for expansion of the Police Department building, if any, would need to be evaluated by a professional design consultant who would assess the existing building/footprint and SCPD space needs.[7] The SCPD also noted that the

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[1]City of Santa Clara, Santa Clara Police Department Fact Sheet, https://www.santaclaraca.gov/our-city/departments-g-z/police-department/about-us/fact-sheet, accessed 7/17/21.

[2]The actual ratio varies depending on the number of fully trained and uninjured employees.

[3]This EIR uses a limited range of persons-per-unit ratios, consistent with the particular ratios incorporated by individual City departments when making calculations.

[4]The 1.83 police personnel per 1,000 residents figure is based on SCPD pre-pandemic service levels and represents a staffing standard the SCPD does not recommend dropping under. Due to recent City budget reductions, the current SCPD staff allocation would translate to 1.13 officers per 1,000 residents and 0.52 civilian professionals per 1,000 residents (1.65 police personnel per 1,000 residents). It is also important to note, according to SCPD, that since 2016, SCPD staffing resources have not matched development in the City. (Carolyn McDowell, Management Analyst, City of Santa Clara Police Department, email dated June 17, 2021, to Rebecca Bustos, Senior Planner, City of Santa Clara Community Development Department.)

[5]This service population is based employment figures from the "service population" estimate provided in chapter 5, Air Quality (to account for existing employees in the Plan Area) and resident population figures based on the SCPD "persons per household" (pph) factor, as follows:

- Existing service population for the Plan Area = 5,781 (existing employees)
- Service population = 8,280 residents (3,600 DUs @ 2.3 persons per unit) + 20,430 projected new employees = 28,710; minus 5,781 (existing employees) = 22,929
- 22,929 population ÷ 1,000 = 22.929, or approximately 23, x 1.83 per 1,000 population = 42.09, or approximately 42.

[6]C. McDowell, email dated June 11, 2020, to R. Bustos.

[7]Carolyn McDowell, Management Analyst, City of Santa Clara Police Department, email dated June 17, 2021, to Rebecca Bustos, Senior Planner, City of Santa Clara Community Development Department.

planning and building process for a new or expanded facility can be lengthy and costly, and that currently there are no expansion plans for the Police Building.[1] Projected SCPD staffing needs for Specific Plan development have been determined based on full plan build-out, which would occur over a 20-year period. Therefore, the City has determined that reconfiguration of existing facility space for additional workforce would be the near-term approach. As development occurs, if reconfiguration is not feasible or is insufficient, then additional analysis would need to be undertaken at the time to consider possible options for expansion or a new facility; however, because no determination on an expanded or new facility has been made or proposed, nor have any plans or sites been identified, any further analysis at this time would be speculative.[2]

General Plan Policy 5.1.1-P8 calls for an analysis of public services as a part of the development of specific plans for future focus areas. Therefore, because it is the City's policy to reassess SCPD resources available in the vicinity of the Plan Area to ensure adequate capacity for providing police services as part of the future, required comprehensive planning study (e.g., specific plan), rather than at this more preliminary stage, potential future needs for a new police building or expansion of an existing police building would be speculative at this time, as would options to ensure adequate funds would be available for such facilities required by development in the Plan Area.

Individual project proposals under the Focus Area Plan would be subject to review and approval by the SCPD, based on uniformly applied standards and regulations. As part of the standard development review process for each individual project proposal, the SCPD would determine the ability of the department to provide services and would make project-specific recommendations in order to maintain acceptable levels of service. Without City approval of police service provisions, the project would not receive a building permit or occupancy permit, depending on the specific police protection/security issue (e.g., security lighting, parking area security provisions, public visibility/defensible space -"eyes on the street" or, in the case of new parks and plazas, "eyes on the park").[3]

The Freedom Circle Focus Area Plan does not propose new or expanded police facilities, the construction of which would cause significant environmental impacts, and any decision whether to build a new facility or expand an existing facility would be the responsibility of the City Council. Although more vehicle traffic from anticipated development in the city could occur (with an associated increase in service calls due to traffic-related enforcement and accident investigations and potentially increased service call response times) and additional staff would be anticipated, the SCPD has not identified at this time the need for a new or expanded police facility. If, as development proceeds in the Plan Area and vicinity, the City determines the need for a new police station or expansion of an existing facility, any additional facilities would be subject to their own CEQA determination--i.e., a CEQA checklist and/or any additional CEQA

[1]Carolyn McDowell, Management Analyst, City of Santa Clara Police Department, email dated May 24, 2021, to Rebecca Bustos, Senior Planner, City of Santa Clara Community Development Department.

[2]Rebecca Bustos, Senior Planner, City of Santa Clara Community Development Department, email dated June 24, 2021, to MIG.

[3]"Eyes on the street" is a concept derived from defensible space, which is a model for residential environments in which urban design, architecture, and site planning are used to enable residents to maintain views of, and collectively use, a site's public areas in order to indirectly inhibit the potential for crime. (Newman, Oscar. Defensible Space: Crime Prevention Through Urban Design, 1973.)

documentation, if deemed necessary, such as an Addendum to the certified EIR for the future comprehensive planning study (e.g., specific plan), and/or amendment to the Focus Area Plan.

In assessing the additional population anticipated from development under the Focus Area Plan, the SCPD has identified management measures to help minimize the effects, including (1) a new patrol staffing model (e.g., shifts, log-on schedule) that would allow for more officers within each beat (i.e., adjustments to shift timing could provide more balance in personnel levels that better reflect operational demands and allow more personnel to be available for patrol); (2) "civilianizing" select positions or redistributing job functions to another Department to free up officers from "desk" jobs (i.e., sworn officers who are responsible for duties that don't require the expertise of a sworn officer could be replaced by appropriately trained civilians, thus allowing the reassignment of the sworn officer); and (3) creating development impact fees to support the City's infrastructure[1] (funding mechanisms would be assumed part of the required comprehensive planning [specific plan]). Demand for additional police personnel or equipment resulting from Freedom Circle Focus Area Plan implementation (e.g., to account for an increased residential population) would be funded by established annual City General Fund budget review and allocation. Any potential future need for a separate development impact fee for police services is a policy issue under the purview of the City Council. Under CEQA, the impacts on police service demands would therefore be considered ***less-than-significant*** (see criterion [a] in subsection 15.3.1, "Significance Criteria," above).

Focus Area Plan buildout and its contribution to *cumulative needs for police facilities* is discussed in chapter 20, CEQA-Mandated Sections.

Mitigation 15-3. No significant impact has been identified; no mitigation is required.

Impact 15-4: Impacts on Police Service Demands--Greystar Project. The Greystar project proposes to construct approximately 1,075 new residential units and 2,000 square feet of retail. According to City Police Department calculations, this could result in an increase in local population of 2,473 new residents (based on Police Department planning estimates assuming 2.3 persons per unit).[2], which upon buildout could increase the city's population by approximately 2,477, including the additional employees generated by the project.[3] Because the Greystar site is vacant and there are no existing employees to consider in the population calculation, the 2,477 would also be the project's "service population," and would represent approximately 11 percent of the total potential population increase resulting from buildout in the Plan Area.[4] Using the ratio of 1.83 police personnel (1.22 plus 0.61) per 1,000 residents, the increased population from the Greystar project would require approximately 5 SCPD employees to maintain the current staffing ratio, which would represent approximately 12 percent of the

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[1]C. McDowell, email dated June 11, 2020, to R. Bustos.

[2]This EIR uses a limited range of persons-per-unit ratios, consistent with the particular ratios incorporated by individual City departments when making calculations.

[3]1,075 DUs x 2.3 persons per household/unit = 2,472.5, or 2,473, plus an estimate new employee population of 4 = 2,477.

[4]2,477 (Greystar-related population) ÷ 22,929 (total Plan Area population less existing employees) = 0.108, or approximately 11 percent (with rounding).

additional SCPD employee need resulting from Plan buildout based on residential population increase.[1]

The Greystar project does not propose new or expanded police facilities, the construction of which would cause significant environmental impacts. Although more vehicle traffic from the Greystar project could occur (with an associated increase in service calls due to traffic-related enforcement and accident investigations, and potentially increased service call response times), the City has determined that reconfiguration of existing facility space for additional workforce would be the approach to space management needs, and that given the small increase in staffing needs associated with the Greystar project, it would have a less-than-significant impact.[2] Demand for additional police personnel or equipment resulting from the Greystar project (e.g., to account for an increased residential or worker population) would be funded by established annual City General Fund budget review and allocation. Any potential future need for a separate development impact fee for police services is a policy issue under the purview of the City Council and outside the scope of this EIR. Under CEQA, impacts on police service demands resulting from the Greystar project are considered ***less-than-significant*** (see criterion [a] in subsection 15.3.1, "Significance Criteria," above).

Mitigation 15-4. No significant impact has been identified; no mitigation is required.

Impact 15-5: Impacts on Public Schools—Plan Area. The Plan Area is in the Santa Clara Unified School District (SCUSD). At full net residential development capacity, Plan implementation could result in up to approximately 3,600 net new residences, all multi-family (including the Greystar project). According to the SCUSD student generation rates for multi-family units (see Table 15-3), these residences would generate up to approximately 394 new students in the district schools, incrementally over the Plan timeframe.

Although impacts on individual school facilities would depend on the timing of development and associated occupancy rates, the SCUSD anticipates that the new Dolores Huerta Middle School would likely open at capacity. The SCUSD also anticipates that enrollment growth associated with development in the Lawrence Station Area Plan would fill both Cabrillo Middle and Peterson Middle schools. While the student population at Hughes Elementary would be expected to drop after the opening of Abram Agnew Elementary School (planned for 2021), which may add some capacity, it is possible that by the time any new units are developed under the Freedom Circle Focus Area Plan (including the Greystar project), Hughes Elementary could be at capacity due to reasonably foreseeable development.[3]

Therefore, SCUSD has requested that a new elementary school be located in or near the Freedom Circle Focus Area Plan Area to serve students anticipated from Plan buildout. The

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[1] 1,075 units x 2.3 persons per unit = 2,473 population + 4 (new employees), ÷ 1,000 x 1.83 = 4.5, or approximately 5; 5 ÷ 42 = 0.119, or approx. 12 percent.

[2] Rebecca Bustos, Senior Planner, City of Santa Clara Community Development Department, email dated June 24, 2021, to MIG.

[3] Michal Healy, Director, Facility Development and Planning, Santa Clara Unified School District, memo dated May 21, 2020, to John Davidson, Principal Planner, City of Santa Clara Community Development Department.

SCUSD has determined that to address future student needs for the area north of U.S. 101, one new elementary school at a minimum and potentially two new elementary schools would be necessary. In addition, because the Plan Area is too far from existing schools to allow for safe walking or biking to school, students would likely need to arrive by car or bus. If a new elementary school was constructed in the Plan Area, then students would be able to walk or bike to school. The City and SCUSD collaborate on "Safe Routes to Schools" projects and have completed many large capital improvements to the routes students take to school.[1] In addition, one new middle school would be necessary during the next 15 to 25 years.[2]

New or physically altered school facilities determined necessary by the SCUSD to accommodate students generated by future development under the Focus Area Plan could cause significant environmental impacts; however, any School District proposal for a new school would be subject to its own evaluation under the California Environmental Quality Act (CEQA), which would be expected to involve an evaluation of environmental impact topics similar to that provided in this EIR. If a school site is ultimately determined to be located in the Plan Area, then the impact and mitigation analysis already conducted for this EIR would apply, plus any additional evaluation requirements as stipulated by State codes (e.g., Education Code, California Code of Regulations, Public Resources Code) and California Department of Education policies.

If a school site is identified outside of the Plan Area, then depending on the location and characteristics, construction the school facility could cause environmental impacts; however, the location, timing, nature, extent, and severity of any potential environmental impacts cannot be predicted or evaluated at this time because no new schools have been proposed. However, an environmental review of a facility outside of the Plan Area would typically cover the same topics as discussed in this EIR, such as construction period dust control and air emissions, ground-disturbance impacts on special status species and potential tree removal, impacts on potentially historic structures and/or cultural resources, erosion control measures and building code design standards, GHG- and energy-reducing measures applicable to construction equipment; construction-period hazardous materials use and transport protocols and consideration of potential hazardous waste sites, storm water runoff provisions, and construction-period noise control, among others, though specific impacts and mitigations would possibly vary based on differences in setting.

The Freedom Circle Focus Area Plan does not propose new or expanded school facilities. Although the potential increase of 394 new students would be expected to occur over the course of Plan implementation, the SCUSD typically plans ahead (10 to 20 years) in order to ensure that school sites are purchased and school facilities are planned and constructed in accordance with the City's General Plan and the State Department of Education.

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[1]M. Healy, memo dated May 21, 2020, to J. Davidson.

[2]M. Healy, memo dated May 21, 2020, to J. Davidson. This recommendation from the SCUSD is similar to a recommendation made with respect to the Patrick Henry Drive Specific Plan (Michal Healy, Director, Facility Development and Planning, Santa Clara Unified School District, memo dated May 21, 2020, to Rebecca Bustos, Senior Planner, City of Santa Clara Community Development Department) regarding the potential impacts of the Patrick Henry Drive Specific Plan on SCUSD school facilities. It is important to note that the SCUSD is recommending a total of one to two new elementary schools and potentially one new middle school to serve students from both plans, and not one to two elementary schools and one middle school for each plan.

The SCUSD is responsible for levying impact fees on new development. The residential and commercial development in the Plan Area (including the Greystar project) would be required to pay the State-authorized school impact fees approved by the SCUSD. Pursuant to section 65995(3)(h) of the California Government Code (Senate Bill 50, chaptered August 27, 1998), the payment of statutory school impact fees *"...is deemed to be full and complete mitigation of the impacts of any legislative or adjudicative act, or both, involving, but not limited to, the planning, use, or development of real property, or any change in governmental organization or reorganization...."* Therefore, subsequent to payment of statutory fees, school impacts would be considered ***less-than-significant*** (see criterion [a] in subsection 15.3.1, "Significance Criteria," above).

Mitigation 15-5. No significant impact has been identified; no mitigation is required.

Impact 15-6: Impacts on Public Schools--Greystar Project. The Greystar project proposes up to approximately 1,075 new residences, all multi-family. According to the SCUSD student generation rates for multi-family units (see Table 15-3), these residences would generate up to approximately 118 new students in the district schools. As discussed above in Impact 15-5, the SCUSD has determined that to address future student needs for the area north of U.S. 101, including the Greystar project, one new elementary school at a minimum and potentially two new elementary schools would be necessary. In addition, one new middle school would be necessary during the next 15 to 25 years.[1]

SCUSD has requested that a new elementary school be located in or near the Plan Area to serve students anticipated from Plan buildout, including the Greystar project. In addition, although the Greystar project is too far from existing schools to allow for convenient walking or biking to school, the Focus Area Plan (which includes Greystar) provides goals and policies that would facilitate clear and safe pedestrian circulation, and any new school plans would evaluate the need for walking, bicycling, and transit facilities for students in the Greystar area.

New or physically altered school facilities determined necessary by the SCUSD to accommodate students generated by the Greystar project and other projected growth in the city north of U.S. 101 could cause significant environmental impacts; however, any School District proposal for a new school would be subject to its own evaluation under the California Environmental Quality Act (CEQA).

The SCUSD is responsible for levying impact fees on new development. The residential and commercial development proposed by the Greystar project would be required to pay the State-authorized school impact fees approved by the SCUSD. Pursuant to section 65995(3)(h) of the

[1]Michal Healy, Director, Facility Development and Planning, Santa Clara Unified School District, memo dated May 21, 2020, to John Davidson, Principal Planner, City of Santa Clara Community Development Department. In addition, it is important to note that this recommendation from the SCUSD is similar to a recommendation made with respect to the Patrick Henry Drive Specific Plan (Michal Healy, Director, Facility Development and Planning, Santa Clara Unified School District, memo dated May 21, 2020, to Rebecca Bustos, Senior Planner, City of Santa Clara Community Development Department) regarding the potential impacts of the Patrick Henry Drive Specific Plan on SCUSD school facilities, and that the SCUSD is recommending a total of one to two new elementary schools and potentially one new middle school to serve students from both plans, and not one to two elementary schools and one middle school for each plan.

California Government Code (Senate Bill 50, chaptered August 27, 1998), the payment of statutory school impact fees *"...is deemed to be full and complete mitigation of the impacts of any legislative or adjudicative act, or both, involving, but not limited to, the planning, use, or development of real property, or any change in governmental organization or reorganization...."* Therefore, subsequent to payment of statutory fees, school impacts would be considered ***less-than-significant*** (see criterion [a] in subsection 15.3.1, "Significance Criteria," above).

Mitigation 15-6. No significant impact has been identified; no mitigation is required.

Impact 15-7: Impacts on Parks and Recreational Facilities—Plan Area. Implementation of the proposed projects totaling up to 3,600 units would contribute to an increase in demand for parkland because the proposed projects would potentially add an additional 8,640 residents (U.S. Census Bureau, 2017 American Community Survey, Tables B25024 and B25033 per the August 27, 2019 Park and Recreation Facilities Development Impact Fee Update Study) to the City. The increased population associated with the proposed project would contribute to the overuse of existing parks that would potentially lead to physical deterioration of park facilities and overcrowding. In addition, the proposed projects would require the City to add more parkland to the City's inventory in order to continue to meet the City's minimum parkland standard of 2.60 acres of parkland per 1,000 residents for Mitigation Fee Act (non-subdivided projects) and 3.0 acres of parkland per 1,000 residents for new subdivision under the Quimby Act.

Based on the City's minimum standards, the proposed projects combined would be estimated to require a total of 22.5 to 25.9-acres of parkland to serve the increased population. The projects in this area will include dedicated parkland, public open spaces, private open spaces, and amenities. The Parks and Recreation Department would apply credit for eligible park, recreation, and open spaces against the parkland dedication requirement. These credits would not be enough to satisfy the City's parkland dedication requirement. Therefore, to address the park needs of the proposed projects, avoid over use of existing parks, and avoid a deficiency of parkland acreage in the City, the proposed projects would be required to also pay park in-lieu fees per City Code (Chapter 17.35) to provide for the balance of the necessary parkland to serve the increased population.

The City ensures a project meets its dedication requirements through the development review process. Parkland, as required, must be included as part of a project's "land use plan" with the location identified on the project property. A project that does not comply with the parkland dedication requirement would not be approved. In addition, the City requires that parkland be improved (i.e., "turn-key") and dedicated to the City prior to issuance of a Certificate of Occupancy. Therefore, mandatory, future development of public parks in the Plan Area plus individual project payment of City adopted park in-lieu fees and/or dedication of parkland to the City in fee title and free of encumbrances would ensure that impacts on parks and recreational facilities would be ***less-than-significant*** (see criterion [a] in subsection 15.3.1, "Significance Criteria," above).

Mitigation 15-7. No significant impact has been identified; no mitigation is required. See "Construction Period Impacts" below.

Impact 15-8: Impacts on Parks and Recreational Facilities--Greystar Project. The Greystar project proposes a maximum residential development of 1,075 new units. Implementation of this project would contribute to an increase in demand for parkland because the proposed project would potentially add an additional 2,580 residents to the City (based on 2.4 person per unit using the U.S. Census Bureau, 2017 American Community Survey, Tables B25024 and B25033 per the August 27, 2019 Park and Recreation Facilities Development Impact Fee Update Study). These residents would be expected to increase demand for parks and recreational facilities. To continue meeting the City's minimum standard of 2.60 acres per 1,000 residents per the Mitigation Fee Act (MFA) and 3.0 acres per 1,000 residents per the Quimby Act, the City would require developed parkland totaling approximately between 6.7 and 7.7 acres.[1]

The Greystar project proposes to develop a 2.0-acre public park on site (see chapter 3, Project Description), which would be improved (i.e., "turn-key) and dedicated to the City as discussed in Impact 15-7. Although this park would increase the amount of parkland available in the Plan Area, it would not meet City requirements for new parkland based on the number of residential units proposed by the Greystar project. The new Greystar residential development would be subject to the City's Park and Recreational Land Ordinance and would be required to pay a park fee in-lieu of the balance of the project's parkland dedication requirement.

Development and dedication of the two-acre public park and payment of the in-lieu fee for the balance of the project's parkland dedication requirement would be ***less-than-significant*** (see criterion [a] in subsection 15.3.1, "Significance Criteria," above).

Mitigation 15-8. No significant impact has been identified; no mitigation is required. See "Construction Period Impacts" below.

Impact 15-9: Impacts on Other Public Facilities—Plan Area. The Focus Area Plan-facilitated increase in residential, commercial, and public activity in the Plan Area (including the Greystar project), and associated job creation and increase in business activity, would result in a corresponding incremental increase in demand for other public, municipal services. The Focus Area Plan does not propose new or expanded public facilities, although the future, required comprehensive planning study (e.g., specific plan) may, when developed, include a public facilities component with discussion of funding options (including approaches and policies for both one-time and ongoing costs of public infrastructure and related improvements). Any future public facility proposal resulting from Focus Area Plan-facilitated development would therefore be speculative at this time and would be subject to its own evaluation under the California Environmental Quality Act (CEQA) when a specific proposal was brought forward. If the site would be located in the Plan Area, then construction would be required to follow the mitigation measures already identified elsewhere in this EIR (chapters 5 [Air Quality], 6 [Biological Resources], 7 [Cultural and Historical Resources], etc.), and review would be limited to ensuring consistency with the provisions of this EIR (see below for construction period impacts), because the same impacts identified in this EIR would be anticipated for such a future facility constructed in the Plan Area, barring an unusual or unforeseen circumstance. However, if the site of a future facility would be located outside the Plan Area, then a new environmental review would need to be conducted for that facility. Such an environmental review would

[1]These calculations are as follows: for the 2.6 acres per 1,000 residents standard, 2,580 residents ÷ 1,000 x 2.6 = 6.7; for the 3.0 acres per 1,000 residents standard, 2,580 residents ÷ 1,000 x 3.0 = 7.7.

typically cover the same topics that are discussed in this EIR, such as construction period dust control and air emissions, ground-disturbance impacts on special status species and potential tree removal, impacts on potentially historic structures and/or cultural resources, erosion control measures and building code design standards, GHG- and energy-reducing measures applicable to construction equipment; construction-period hazardous materials use and transport protocols and consideration of potential hazardous waste sites, storm water runoff provisions, and construction-period noise control, among others. The specific impacts from such a project outside the Plan Area and any necessary mitigations would be difficult to ascertain without the details of project location, design, and programming. As discussed in EIR Chapter 1, Introduction, the City could rely on this EIR in evaluating and acting on subsequent, parcel-specific development proposals in the Plan Area, to the extent that such future reliance on this EIR is permitted by CEQA and the CEQA Guidelines. Any future facility located outside the Plan Area would require its own environmental review (distinct from this EIR). Any speculation on the impacts of such a future public facility outside the Plan Area would be uninformed and misleading; therefore, consistent with program-level CEQA requirements (CEQA Guidelines Section 15168), the impact is considered ***less-than-significant*** (see criterion [a] in subsection 15.3.1, "Significance Criteria," above).

Mitigation 15-9. No significant impact has been identified; no mitigation is required.

Impact 15-10: Impacts on Other Public Facilities—Greystar Project. The Greystar project would result in an increase in population and associated job creation and increased business activity, which could result in a corresponding incremental increase in demand for other public, municipal services. The Greystar project does not propose new or expanded public facilities, and the City has not conditioned the project approval on provision of public facilities. As discussed in Impact 15-9, mitigation measures identified in this EIR would apply, as appropriate, to such a proposal (see below for construction period impacts) within the Plan Area. Also, as discussed in EIR Chapter 1, Introduction, the City could rely on this EIR in evaluating and acting on subsequent, parcel-specific development proposals (including public facilities) in the Plan Area, to the extent that such future reliance on this EIR is permitted by CEQA and the CEQA Guidelines. Therefore, at this time, the impact is considered ***less-than-significant*** (see criterion [a] in subsection 15.3.1, "Significance Criteria," above).

Mitigation 15-10. No significant impact has been identified; no mitigation is required.

Impact 15-11: Construction Period Impacts—Plan Area. The construction of open spaces, public parks, and recreational and other public facilities due to the Focus Area Plan and/or the Greystar project would be temporary and would occur within either existing public rights-of-way or on City property, a project development site, or private property subject to a municipal easement. Construction period air emissions (dust), noise, and traffic interruption typically associated with parks and recreational facilities construction would be reduced through mandatory, uniformly applied City of Santa Clara construction standards and regulations, as well as mitigations already identified elsewhere in this EIR, which analyzes both operational and construction impacts. For instance, see EIR chapters 5 (Air Quality) for construction period dust control and air emissions reduction measures; 6 (Biological Resources) for ground-disturbance impacts on special status species and potential tree removal; 7 (Cultural and Historical Resources) for impacts on potentially historic structures and/or cultural resources; 8 (Geology and Soils) for erosion control measures and building code design standards; 9 (Greenhouse

Gas Emissions/Energy) for GHG- and energy-reducing measures applicable to construction equipment; 10 (Hazards and Hazardous Materials) for potential construction-period hazardous materials use and transport and for potential hazardous waste sites; 11 (Hydrology and Water Quality) for construction-period storm water runoff provisions; and 13 (Noise) for construction-period noise control. No additional significant environmental impact is anticipated with such construction activity beyond those impacts and mitigations already identified in EIR chapters 5 and 13 (see criterion [a] in subsection 15.3.1, "Significance Criteria," above).

Mitigation 15-11. No significant impact has been identified; no mitigation is required.

Impact 15-12: Construction Period Impacts—Greystar Project. See Impact 15-11 above. The construction period for the 2.0-acre park on the Greystar project site would be temporary. Construction period impacts have been analyzed throughout this EIR, and no additional mitigations would be required beyond the mitigations already identified (see criterion [a] in subsection 15.3.1, "Significance Criteria," above).

Mitigation 15-12. No significant impact has been identified; no mitigation is required.

16. RECREATION

This EIR chapter describes existing conditions for recreational facilities in the Freedom Circle Focus Area Plan Area (including the Greystar project site). The chapter addresses the recreation impact concerns identified by the CEQA Guidelines--i.e., would the project result in substantial physical deterioration of a park or recreational facility, or would the project include recreational facilities or require construction or expansion of recreational facilities that might have an adverse physical effect on the environment.[1] This EIR chapter has been prepared in collaboration with the City's Parks & Recreation Department and is closely coordinated with the "parks" sections of chapter 15 (Public Services). The reader is encouraged to review these chapters together.

16.1 SETTING

16.1.1 Existing Parks and Recreational Facilities

The Santa Clara Parks and Recreation Department (Department) provides parks and recreational services in the City. The department is responsible for maintaining and programming the various parks and recreation facilities and works cooperatively with public agencies in coordinating all recreational activities within the City. Overall, as of May 2021, the Department maintains and operates Central Park, a 45.04-acre community park (45.04 acres improved and Central Park North 34.93 acres unimproved, resulting in 79.97 acres), 30 neighborhood parks (124.517 acres improved and 6.132 acres unimproved resulting in 130.649 acres), 13 mini parks (2.59 acres improved and 3.189 acres unimproved resulting in 5.779 acres), public open space (16.13 acres improved and 40.08 acres unimproved resulting in 56.21 acres), recreational facilities (23.898 acres improved and excluding the Santa Clara Golf and Tennis Club/BMX track), recreational trails (7.59 acres improved and 0.20 acres unimproved resulting in 7.79 acres), and joint use facilities (48.588 acres) throughout the City totaling approximately 268.354 improved acres and 84.531 unimproved acres. Community parks are over fifteen acres, neighborhood parks are one to fifteen acres and mini parks are typically less than one acre in size.

As discussed in chapter 12, Land Use and Planning, of this EIR, the Plan Area is in an area of the city primarily designated High Intensity Office/R&D (with some Regional Commercial), with commercial uses such as biotech and electronics, business offices, hotels, and various support services (car rental, UPS store, medical/dental, restaurants). The Plan Area does not currently contain public parks or recreational facilities. In addition, the Greystar project site, located in the southeast portion of the Plan Area, is currently vacant and does not contain parks or recreational facilities. A 2.0-acre park is proposed to be dedicated to the City as a part of their development project.

[1] CEQA Guidelines, appendix G, items XVI(a and b).

The nearest City recreational facility to the Plan Area is Youth Soccer Park, about .70 miles east of the Plan Area (by straight line; travel distance via roads would be longer because of the need to cross San Tomas Aquino Creek). The nearest City parks are Agnew Park, which is within a "ten minute walk" from the Plan Area (by straight line; travel distance via roads would be slightly longer because of the need to cross San Tomas Aquino Creek but only a little more than ½ mile), and Fuller Street Park, located at 61 Fuller Street, less than ½ mile east from the Plan Area.

16.1.2 Regional Park and Recreational Facilities

The closest regional recreational facility is Baylands Park, about 1.25 miles northwest of the Plan Area and adjacent to SR 237. Baylands Park is a Santa Clara County Park operated by the City of Sunnyvale. The park offers biking and hiking opportunities and picnic and play areas. The park has over 105 acres of wetlands protected as a preserve. In addition, the Baylands Park Trail connects to the San Francisco Bay Trail.

There are no other regional facilities in the immediate vicinity of the Plan Area.

16.1.3 Bicycle and Pedestrian Facilities

(a) Bicycle Facilities. The City of Santa Clara General Plan classifies the City's bicycle infrastructure, according to Caltrans standards, by the following types of facilities:

- **Bicycle Paths and Trails (Class I):** Bicycle paths and trails are paved facilities designated for bicycle use that are physically separated from roadways by space or a physical barrier. These paths often accommodate pedestrians and include creek trails within the City.

- **Bicycle Lanes (Class II):** These facilities are lanes on the outside edge of roadways reserved for the exclusive use of bicycles, and are designated with special signage and pavement markings.

- **Bicycle Routes (Class III):** Roadways recommended for bicycle use and often connecting to bicycle lanes and bicycle paths are defined as bicycle routes. Routes are designated with signs only and may not include additional pavement width.

- **Bicycle Routes (Class IV):** These bikeways are on-street bicycle facilities that are physically separated from motor vehicle traffic by a barrier or vertical element such as curbs, bollards, or vehicle parking aisles, and can allow for one- or two-way travel on one or both sides of the roadway.

The City has a bicycle network of approximately 70 miles, including about 11 miles of Class I shared-use (pedestrian and bicycle) paths, 34 miles of Class II striped lanes on city streets (bicycle-only), and 25 miles of Class III routes where bicycles share an un-striped travel lane with motor vehicles. The General Plan does not include Class IV bicycle facilities (separated bikeway), and there are no Class IV bikeways in Santa Clara, although the City of Santa Clara Bicycle Plan Update 2018 makes recommendations for including approximately 19.2 miles of Class IV separated bikeways to the City's bicycle network.

The San Tomas Aquino Creek bike path and pedestrian trail is adjacent to the eastern boundary of the Plan Area. The trail connects to the San Francisco Bay Trail in the north, less than two miles away. There are marked bike lanes along most of Great America Parkway on the Plan Area's western boundary, and also bike lanes along most of Mission College Boulevard in the Plan Area. There are no marked bike lanes in the Plan Area on Patrick Henry Drive, Hichborn Drive, Freedom Circle, or Agnew Road.[1] The City of Santa Clara Bicycle Master Plan Update includes in its list of proposed projects a Class IV separated bikeway on Great America Parkway/Bowers Avenue and portions of Mission College Boulevard and a Class II bike lane on Mission College Boulevard between Great America Parkway and the Marriott hotel entrance.[2]

(b) Pedestrian Facilities. Santa Clara has over 550 miles of sidewalks, with almost half in residential areas. In those residential areas, most of the sidewalks are on both sides of the street. About one-fifth (18 percent) of City streets lack any kind of sidewalk, especially on the eastern side of the city and in some of the industrialized and office-use areas.[3] As discussed in chapter 12, Land Use and Planning, of this EIR, pedestrian linkages in the Plan Area are limited.

Pedestrian pathways differ from traditional sidewalks in that they are off-street walkways dedicated for pedestrians and typically are located mid-block through development, public space, or parks, and provide connections between buildings or through parks or public space.

Trails are also typically off-street routes and in Santa Clara follow existing creeks and riverbeds, such as the San Tomas Aquino/Saratoga Creek Trail and Guadalupe River Trail. As discussed in the General Plan, public and quasi-public rights-of-way (including Valley Water, school district, and other public agency and public utility lands) could provide opportunities for other trails and/or connections between off-street routes in the City.

Also, as mentioned above, Class I bicycle paths are shared-use facilities; i.e., also accommodate pedestrian use.

In addition, the City is currently preparing the *Creek Trail Network Expansion Master Plan (Trail Master Plan),* which addresses the Saratoga Creek, Hetch Hetchy, and Calabazas Creek corridors, including possible locations for accessing the Calabazas Creek Trail where the proposed Hetch-Hetchy Trail would intersect the Calabazas Creek Trail.

16.2 REGULATORY SETTING

16.2.1 State

Quimby Act (1975). The Quimby Act was approved by the California legislature to set aside parkland and/or payment of fees due in lieu of parkland dedication to help mitigate the impacts

[1]The San Tomas Aquino Creek bike and pedestrian trail connects with a bike path at Agnew Road, just outside of the Plan Area.

[2]City of Santa Clara, Bicycle Plan Update 2018, Appendix C.

[3]City of Santa Clara, Pedestrian Master Plan 2019, p. 4.

from new residential developments. This legislation was initiated in response to California's increased rate of urbanization and the need to preserve open space and provide parks and recreation facilities for California's growing communities. The Quimby Act authorizes local governments to establish ordinances requiring developers of new residential subdivisions to dedicate parkland, pay a fee in-lieu of parkland dedication, or perform a combination of the two at the discretion of the City.

Mitigation Fee Act. In 1989, the State Legislature passed Assembly Bill 1600 (AB1600), adding Section 66000 et seq. to the California Government Code (the "Mitigation Fee Act"), which sets forth requirements for local agencies to follow if they collect fees from developers to defray the cost of the construction of public facilities related to development projects. These legal requirements are frequently referred to as "AB 1600 requirements." Each local agency imposing such development impact fees must prepare an annual report providing specific information about these fees (i.e., a "nexus study") that shows the proper connection of the fees to the project and how accounting and reporting for the fees collected are regulated.

16.2.2 Regional/Local

Santa Clara County Parks 2018 Strategic Plan. The County Parks Strategic Plan identifies and prioritizes current and future outdoor recreation values and needs, and provide, protect, and preserve regional parklands and trails. Plan goals and strategies include collaboration with partner agencies, such as city park and recreation departments, but also promote the County's role in regional open space access and preservation as well as outdoor recreation opportunities.

Santa Clara Countywide Bicycle Plan. Developed by the Santa Clara Valley Transportation Authority, the Countywide Bicycle Plan establishes a vision for the future of bicycling throughout Santa Clara County and promotes connectivity among the cities and other County areas, including regionally significant bicycle projects and programs such as bicycle "superhighways," connections across barriers (e.g., freeways, waterways, railways), and education, barrier, and safety.

Santa Clara General Plan. The General Plan addresses citywide recreational needs and the objectives necessary to achieve them. Applicable General Plan goals and policies include:

- Goal 5.9.1-G1: Ample facilities for physical activities that promote community health.
- Goal 5.9.1-G2: Parks, trails and open space located within a ten-minute walk to residential neighborhoods and employment centers.
- Goal 5.9.1-G3: New parks, open space and recreation provided with new development so that existing facilities are not overburdened.
- Goal 5.9.1-G4: Park, trail and open space facilities that are accessible and provide connections to destination points and activity centers within the City.
- Goal 5.9.2-G2: Appropriate arts, cultural, recreational, schools and other community facilities in concert with new development.

- Policy 5.1.1-P15: Prior to 2023, update the Bicycle and Pedestrian Master Plan to support the City's vision for improving walkability and pedestrian safety, including identification of potential funding opportunities for implementation.

- Policy 5.5.1-P17: Allow new parks and open space uses under any General Plan Land Use classification, except in areas designated as Light Industrial or Heavy Industrial, provided that the use is compatible with planned uses on neighboring properties, consistent with other applicable General Plan policies.

- Policy 5.5.2-P9: Improve pedestrian amenities, including sidewalks and bicycle paths, to promote neighborhood compatibility.

- Policy 5.8.4-P6: Require new development to connect individual sites with existing and planned bicycle and pedestrian facilities, as well as with on-site and neighborhood amenities/services, to promote alternate modes of transportation.

- Policy 5.8.4-P7: Require new development to provide sidewalks, street trees and lighting on both sides of all streets in accordance with City standards, including new developments in employment areas.

- Policy 5.8.4-P8: Require new development and public facilities to provide improvements, such as sidewalks, landscaping and bicycling facilities, to promote pedestrian and bicycle use.

- Policy 5.9.1-P1: Develop additional parkland in the City so that it is integrated into neighborhoods and meets the standards for size, amenities and location to serve residents and employees.

- Policy 5.9.1-P2: Develop new parks to serve the needs of the surrounding community based on the criteria defined on Table 5.9-1.

- Policy 5.9.1-P3: Provide trails along creeks and other rights-of-way to link parks, open spaces, bicycle facilities and transit services with residential neighborhoods and employment centers.

- Policy 5.9.1-P4: Provide connections between private and public open space through publicly accessible trails and pathways and by orienting open spaces to public streets.

- Policy 5.9.1-P5: Encourage public visibility for all parks, trails and open spaces.

- Policy 5.9.1-P6: Support construction of trails within the City of Santa Clara that connect to the Bay Trail, the Saratoga/San Tomas Aquino Creek and the Guadalupe River trails.

- Policy 5.9.1-P7: Allow new parks in the general locations shown on the Land Use Diagram in all General Plan designations, except in areas designated for Light and Heavy Industrial uses.

- Policy 5.9.1-P14: Encourage publicly accessible open space in new development.

- Policy 5.9.1-P16: Encourage non-residential development to contribute toward new park facilities to serve the needs of their employees.

- Policy 5.9.1-P17: Foster site design for new development so that building height and massing do not overshadow new parks and plazas.

- Policy 5.9.1-P18: Promote open space and recreation facilities in large-scale developments in order to meet a portion of the demand for parks generated by new development.

- Policy 5.9.2-P1: Provide a diverse range of community, art, cultural and recreational facilities to meet the varying needs of residents in the City, including youth and seniors.

Santa Clara City Code. City Code Chapter 17.35 (Park and Recreational Land) establishes requirements for new residential development to provide developed park and recreational facilities and/or pay a fee in lieu of such dedication, at the discretion of the City.

City of Santa Clara Bicycle Plan Update 2018. The Bicycle Plan Update establishes the city's long-term vision for improving bicycling in Santa Clara and recommends policies, programs, and projects to develop a comprehensive bicycling network with access to transit, schools, and other destinations, as well as address the design of accessible facilities. The Plan also focuses on improving corridors and intersections to promote safety, connectivity, and comfort, plus providing amenities at "end-of-trip" destinations (such as short- and long-term bike parking, and lockers, showers, and repair stations). In addition, the Plan addresses the need for wayfinding and guide signs and other information and education programs that promote bicycling and walking as fun and efficient modes of transportation and recreation.

City of Santa Clara Pedestrian Master Plan 2019. The Pedestrian Master Plan establishes the framework for how the city can achieve its vision of being a walkable community and create safe, comfortable, accessible, and enjoyable walking opportunities for residents. The Plan identifies improvements to the pedestrian network, including designation of "Priority Pedestrian Zones" across the city (zones with the highest potential for increasing walkability), roadway crossings, traffic signals, and other environment enhancements such as shade structures and enclosures, benches, and trees and planters, that would make walking in Santa Clara safer and more comfortable. In addition, lighting on sidewalks and paths, bus stop amenities, improvements to navigation (wayfinding), opportunities for physical activity along routes, and building connectedness and destination accessibility are prioritized.

16.3 IMPACTS AND MITIGATION MEASURES

16.3.1 Significance Criteria

Based on the CEQA Guidelines,[1] implementation of the Freedom Circle Focus Area Plan/ Greystar General Plan Amendment would have a significant impact related to recreation if it would:

[1]CEQA Guidelines, appendix G, items XVI(a and b).

(a) Result in an increased use of existing neighborhood or regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated; or

(b) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

16.3.2 Relevant Freedom Circle Focus Area Plan Components

Please see section 15.3.2, of the same title, in EIR chapter 15 (Public Services) for Focus Area Plan goals and policies relevant to the evaluation of impacts on recreation.

16.3.3 Impacts and Mitigations

Impact 16-1: Impacts on Parks and Recreational Facilities—Plan Area. Implementation of the proposed projects totaling up to 3,600 units would contribute to an increase in demand for parkland because the proposed projects would potentially add an additional 8,640 residents (U.S. Census Bureau, 2017 American Community Survey, Tables B25024 and B25033 per the August 27, 2019 Park and Recreation Facilities Development Impact Fee Update Study) to the City. The increased population associated with the proposed project could contribute to the overuse of existing parks that would potentially lead to physical deterioration of park facilities and overcrowding. In addition, the proposed projects would require the City to add more parkland to the City's inventory in order to continue to meet the City's minimum parkland standard of 2.60 acres of parkland per 1,000 residents for Mitigation Fee Act (non-subdivided projects) and 3.0 acres of parkland per 1,000 residents for new subdivision under the Quimby Act.

Based on the City's minimum standards, the proposed projects combined would be estimated to require a total of 22.5 to 25.9-acres of parkland to serve the increased population. The projects in this area will include dedicated parkland, public open spaces, private open spaces, and amenities. The Parks and Recreation Department would apply credit for eligible park, recreation, and open spaces against the parkland dedication requirement, including the 2.0-acre park proposed for the Greystar project (see Impact 16-2). These credits would not be enough to satisfy the City's parkland dedication requirement. Therefore, to address the park needs of the proposed projects, avoid overuse of existing parks, and avoid a deficiency of parkland acreage in the City, the proposed projects would be required to also pay park in-lieu fees per City Code (Chapter 17.35) to provide for the balance of the necessary parkland to serve the increased population.

The City ensures a project meets its dedication requirements through the development review process. Parkland, as required, must be included as part of a project's "land use plan" with the location identified on the project property. A project that does not comply with the parkland dedication requirement would not be approved. In addition, the City requires that parkland be improved (i.e., "turn-key") and dedicated in fee title to the City prior to issuance of a Certificate of Occupancy. Therefore, mandatory, future development of public parks in the Plan Area plus individual project payment of City adopted park in-lieu fees and/or dedication of parkland to the City in fee title and free of encumbrances would ensure that impacts on parks and recreational facilities would be ***less-than-significant*** (see criterion [a] in subsection 16.3.1, "Significance Criteria," above).

Mitigation 16-1. No significant impact has been identified; no mitigation is required. See "Construction Period Impacts" below.

Impact 16-2: Impacts on Parks and Recreational Facilities—Greystar Project. The Greystar project proposes a maximum residential development of 1,075 new units. Implementation of this project would contribute to an increase in demand for parkland because the proposed project would potentially add an additional 2,580 residents to the City (based on 2.4 persons per unit using the U.S. Census Bureau, 2017 American Community Survey, Tables B25024 and B25033 per the August 27, 2019 Park and Recreation Facilities Development Impact Fee Update Study). These residents would be expected to increase demand for parks and recreational facilities. As discussed in Impact 16-1 above, this increase in the use could result in substantial physical deterioration of existing parks and recreational facilities.[1] The Greystar project proposes to develop a 2.0-acre park on site (see chapter 3, Project Description). However, as discussed under Impact 15-8 in Chapter 15, Public Services, of this EIR, to continue meeting the 2.60 acres per 1,000 residents Mitigation Fee Act (MFA) standard and the 3.0 acres per 1,000 residents Quimby Act standard, the City would require developed parkland totaling approximately between 6.7 and 7.7 acres.[2] The City may impose an additional parkland dedication requirement, a fee in lieu of such dedication, or a combination of the two pursuant to the California Quimby Act (Quimby) and/or Mitigation Fee Act (MFA). Therefore, future development project payment of City adopted in-lieu park fees and/or dedication of parkland would ensure that impacts to parks and recreational facilities would be ***less-than-significant*** (see criterion [a] in subsection 16.3.1, "Significance Criteria," above).

Mitigation 16-2. No significant impact has been identified; no mitigation is required. See "Construction Period Impacts" below.

Impact 16-3: Construction Period Impacts—Plan Area. The construction impacts of parks and recreational facilities due to the Focus Area Plan and/or the Greystar project would be considered temporary and would occur within either existing public rights-of-way or on City property, a project development site, or private property subject to a municipal easement. Construction period air emissions (dust), noise, and traffic interruption typically associated with parks and recreational facilities construction would be reduced through mandatory, uniformly applied City of Santa Clara construction standards and regulations, as well as mitigations already identified elsewhere in this EIR, which analyzes both operational and construction impacts. For instance, see EIR chapters 5 (Air Quality) for construction period dust control and air emissions reduction measures; 6 (Biological Resources) for ground-disturbance impacts on special status species and potential tree removal; 7 (Cultural and Historical Resources) for impacts on potentially historic structures and/or cultural resources; 8 (Geology and Soils) for erosion control measures and building code design standards; 9 (Greenhouse Gas Emissions/Energy) for GHG- and energy-reducing measures applicable to construction equipment; 10 (Hazards and Hazardous Materials) for potential construction-period hazardous

[1]G. Saporito, email dated May 29, 2020, to R. Bustos.

[2]These calculations are as follows: for the 2.6 acres per 1,000 residents standard, 2,580 residents ÷ 1,000 x 2.6 = 6.7; for the 3.0 acres per 1,000 residents standard, 2,580 residents ÷ 1,000 x 3.0 = 7.7.

materials use and transport and for potential hazardous waste sites; 11 (Hydrology and Water Quality) for construction-period storm water runoff provisions; and 13 (Noise) for construction-period noise control. No additional significant environmental impact is anticipated with such construction activity beyond those impacts and mitigations already identified in this EIR (see criterion [b] in subsection 16.3.1, "Significance Criteria," above).

Mitigation 16-3. No significant impact has been identified; no mitigation is required.

Impact 16-4: Construction Period Impacts—Greystar Project. See Impact 16-3 above. The construction impacts of the 2.0-acre park on the Greystar project site would be temporary. Construction period impacts have been analyzed throughout this EIR, and no additional mitigations would be required beyond the mitigations already identified (see criterion [b] in subsection 16.3.1, "Significance Criteria," above).

Mitigation 16-4. No significant impact has been identified; no mitigation is required.

17. TRANSPORTATION

This EIR chapter addresses the transportation implications of the Freedom Circle Focus Area Plan/Greystar General Plan Amendment on public transit, pedestrians, bicyclists, and autos relevant to CEQA requirements. The chapter identifies potential impacts of the Focus Area Plan (including the Greystar project) and recommends mitigation measures for identified significant impacts. The Freedom Circle Focus Area Plan/Greystar General Plan Amendment and EIR transportation consultants, Hexagon Transportation Consultants, Inc., conducted the technical analysis for this EIR chapter.

17.1 SETTING

17.1.1 Focus Area Plan Area and Proposed Development

As described in chapter 3, Project Description, of this EIR, the Freedom Circle Focus Area Plan Area[1] encompasses approximately 108 acres in an area of northern Santa Clara with several moderate-intensity office and industrial parks accompanied by surface parking. The Plan Area is bounded by San Tomas Aquino Creek to the east, Great America Parkway to the west, California's Great America amusement park to the north, and U.S. 101 to the south.

A local transportation analysis prepared by Hexagon[2] evaluated the eventual anticipated Focus Area Plan, subject to a future, required, comprehensive planning study, of 2,500 additional dwelling units (i.e., beyond those anticipated in the Greystar project described below; total for Plan Area including Greystar equals 3,600 dwelling units), and 2 million square feet (SF) of additional office space beyond that allowed under the current High Intensity Office General Plan land use designation.[3] The Focus Area Plan assumes that existing roadways and vehicle connections from Great America Parkway and Mission College Boulevard would be maintained.

[1]The words "Focus Area Plan," "Focus Plan Area," and "Plan Area" as used in this chapter all refer to the Freedom Circle Focus Area Plan and its corresponding Plan Area.

[2]Hexagon Transportation Consultants, Inc., "Freedom Circle Focus Area Plan and Greystar General Plan Amendment Transportation Analysis," prepared for MIG, Inc., September 24, 2021. The Hexagon Traffic Analysis (with appendices) is on file with the City of Santa Clara; the Hexagon report is also included as Appendix 25.6 of this EIR.

[3]As discussed in Chapter 3, Project Description, Table 3-2, the total amount of development that could ultimately be built in the Focus Area Plan Area, including remaining buildout allowed under current General Plan land use designations but unbuilt plus current development plus the additional 2,000,000 SF proposed by the Focus Area Plan, would be approximately 5,369,000 SF (3,369,000 SF of development allowed but unbuilt plus existing development, plus 2,000,000 SF of additional development proposed by the Focus Area Plan).

The Greystar project evaluated in the Hexagon traffic analysis included 1,100 residential units[1] and 2,000 square feet (SF) of retail uses on-site.

17.1.2 Greystar Project Site and Proposed Development

The Greystar General Plan Amendment[2] proposes construction of a new mixed-use project comprised of 1,075 residential units and parking in three 7-story buildings, plus a 2.0-acre park (with a connection to the San Tomas Aquino Creek Trail) and up to 2,000 square feet of neighborhood-serving retail. The project site is two existing parcels located between Freedom Circle and San Tomas Aquino Creek, in the southeastern part of the Plan Area next to U.S. 101. The General Plan land use designation for the project would be changed from High Intensity Office (maximum floor area ratio [FAR] of 2.0) to Very High Density Residential (51-100 dwelling units/acre). The Greystar project would have direct vehicular access via three proposed driveways on Freedom Circle.

17.1.3 Scope of Traffic Analysis

The Hexagon traffic analysis was prepared to satisfy the requirements of the City of Santa Clara, the Congestion Management Program (CMP) of the Santa Clara Valley Transportation Authority (VTA), and the California Environmental Quality Act (CEQA). The City of Santa Clara and the VTA both require using the intersection levels of service (LOS) analysis methodology for operational analysis, and a separate LOS study was prepared.[3] However, as of July 1, 2020, LOS is no longer allowed to be used in traffic impact analysis for CEQA review purposes. (Public Resources Code section 21099, subdivision (b)(2).) Instead, CEQA requires analysis of project vehicle miles traveled (VMT), pursuant to Senate Bill 743 (SB 743). CEQA Guidelines section 15064.3 (Determining the Significance of Transportation Impacts) provides the framework for the CEQA transportation impact analysis included in this chapter.

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[1]The current project description includes 1,075 dwelling units; however, when the modeling for the traffic analysis was conducted, it was based on an earlier project description with 1,100 dwelling units. Therefore, the analysis is conservative because it overstates the trips associated with the proposed project, though not substantially.

[2]The words “project,” “project site,” “Greystar project,” “Greystar site,” and “Greystar project site” and as used in this chapter all refer to the Greystar residential/mixed-use project and its corresponding site.

[3]Hexagon noted that the transportation analysis was based on existing conditions as of 2018/2019, prior to the recent reductions in traffic volumes and transit services due to the shelter in place orders that went into effect in March 2020. As a result, during preparation of the analysis, traffic volumes were a fraction of what they were prior to the pandemic; in addition, transit providers are operating on reduced schedules. Though difficult to anticipate when traffic conditions will return to pre-pandemic levels, the current reductions in traffic volumes and transit services would be considered temporary. Because the Freedom Circle Focus Area Plan is anticipated to be implemented over many years, the transportation analysis was based on pre-Covid conditions, and future year traffic forecasts reflect assumptions regarding land use developments and transportation improvements developed in 2019 without modifications, reflecting the potential long-range economic effects of the current pandemic. Thus, this transportation analysis would be considered a conservative evaluation of the project’s effects since the growth in traffic volumes described in this report may not occur until after the Focus Area Plan horizon year (2040) evaluated in this report.

In addition to VMT, the traffic analysis addressed other CEQA transportation-related issues, including hazards, emergency access, and impacts on bicycle, pedestrian, and transit facilities, plus potential conflicts with any adopted program, plan, ordinance or policy addressing the circulation system (including transit, roadway, bicycle and pedestrian facilities). These are also discussed in this chapter.

17.1.4 Existing Transportation Network

This subsection describes transportation facilities in and near the Plan Area, including the roadway network and pedestrian, bicycle, and transit facilities. Figure 17.1 through Figure 17.4 show roadways, pedestrian facilities, bike paths, and transit routes in the Plan Area and vicinity.

(a) Roadway Network. Regional access to the project area is provided via U.S. 101 and State Route (SR) 237.

U.S. 101 is an eight-lane freeway with three mixed-flow lanes and one high-occupancy vehicle (HOV) lane in each direction in the vicinity of the site. It extends north through San Francisco and south through Gilroy. Regional access to the project site is provided via its interchanges with Great America Parkway and Lawrence Expressway.

SR 237 is a four-lane to six-lane freeway within the vicinity of the site that extends west to El Camino Real and east to I-880 in Milpitas. East of Mathilda Avenue, SR 237 has two mixed-flow lanes and one HOV lane in each direction. West of Mathilda Avenue, SR 237 has two mixed-flow lanes in each direction. SR 237 provides access to the site via its interchanges at Great America Parkway and Lawrence Expressway.

Major roadways serving the Focus Plan Area include Lawrence Expressway, Montague Expressway, Great America Parkway, Bowers Avenue, Mission College Boulevard, and Tasman Drive. Local roads serving the Focus Plan Area include Freedom Circle, Hichborn Drive, and Agnew Road.

Lawrence Expressway is a north-south, eight-lane expressway with a raised median and a posted speed limit of 50 mph. It begins at Saratoga Avenue in the south, crosses through Sunnyvale, and extends northward where it transitions into Caribbean Drive at SR 237. HOV lanes are present on Lawrence Expressway between Stevens Creek Boulevard and Arques Avenue. Lawrence Expressway connects with U.S. 101 and SR 237 via full-access freeway interchanges. Lawrence Expressway includes sidewalks along both sides on most segments and crosswalks at signalized intersections. There are no bike lanes on Lawrence Expressway, but bikes are allowed to ride on the shoulders.

Montague Expressway is an east-west expressway that begins at U.S. 101 and extends northeastward to Milpitas where it transitions into Landess Avenue at I-680. Full interchanges are located at I-680, I-880, and U.S. 101. Montague Expressway transitions to San Tomas Expressway at U.S. 101. West of McCarthy Boulevard, Montague Expressway has carpool lanes (i.e., HOV lanes). The HOV lane designation is in effect in both directions of travel during the AM and PM peak commute hours. During other times, the lane is open to all users.

FIGURE 17.1: ACTIVE TRANSPORTATION

Freedom Circle Focus Area Plan

- Study Area
- Greystar Project
- Creeks/Water Bodies
- High-Intensity Office / R&D
- Very High-Density Residential
- Very High-Density Mixed-Use
- Regional Commercial
- Parks / Open Space
- Public / Quasi Public
- Bike/Ped Connection
- Node
- Gateway
- Primary Vehicular Circulation
- Local Vehicular Connection
- San Tomas Aquino Creek Trail
- Class II Bike Lane
- New Traffic Signal

N

0 750 1,500 Feet

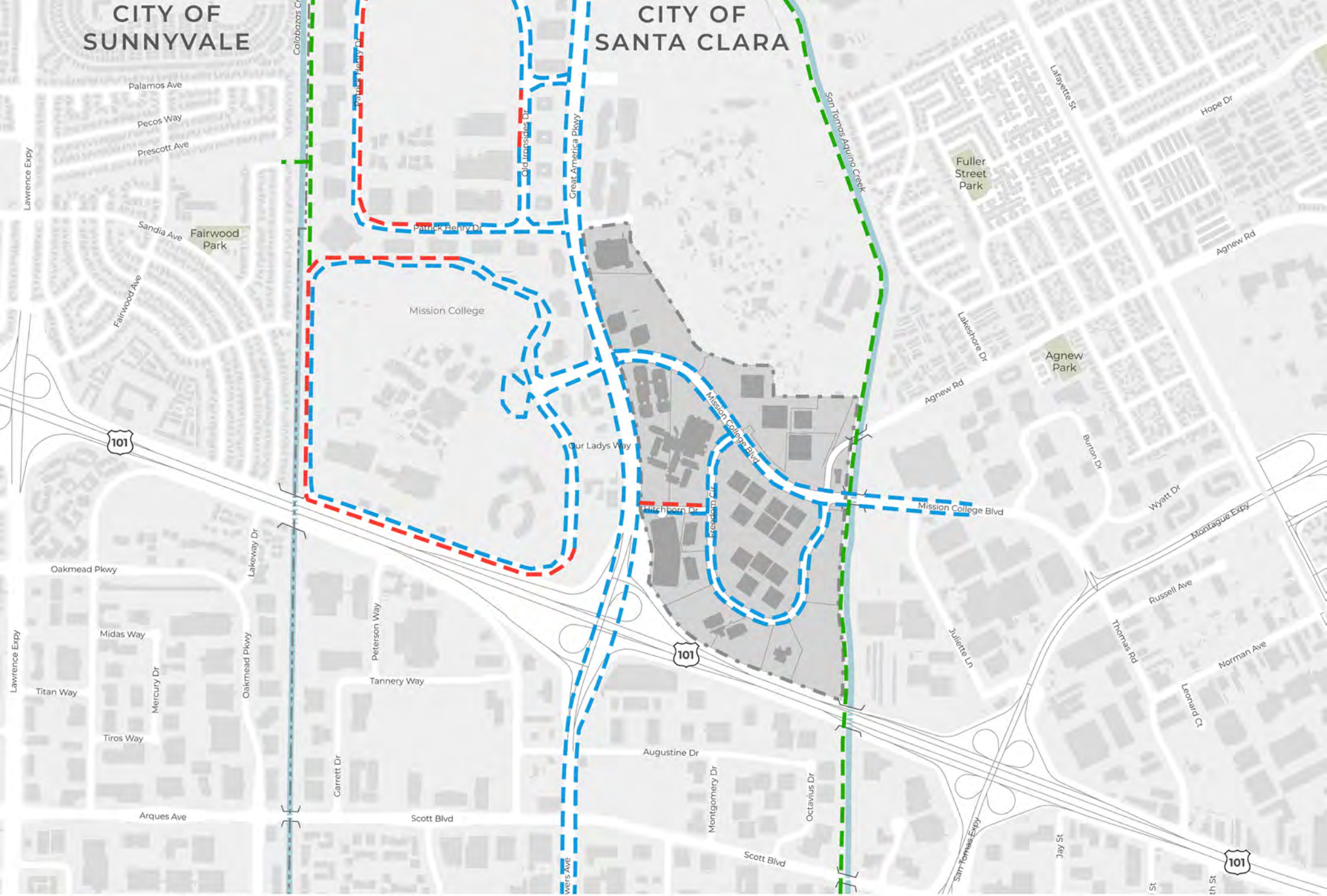


FIGURE 17.2: EXISTING PEDESTRIAN FACILITIES

Freedom Circle Focus Area Plan

- Study Area Parcel
- City Boundary
- Park/Open Space
- Creeks/Water Bodies
- Existing Sidewalk
- Missing Sidewalk
- Multi-use Path

N

0 750 1,500 3,000 Feet

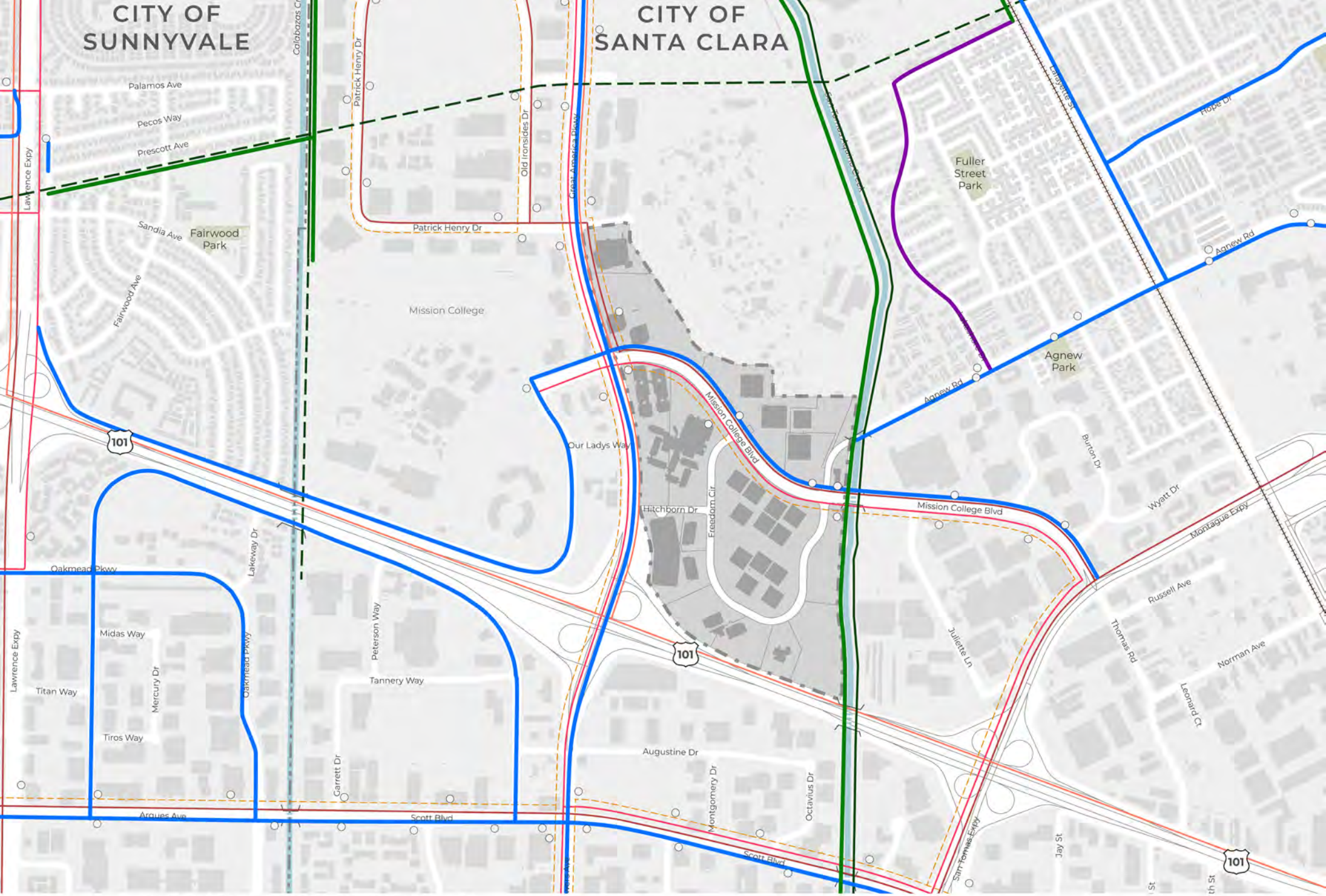


FIGURE 17.3: EXISTING BICYCLE FACILITIES

Freedom Circle Focus Area Plan

- Study Area Parcel
- City Boundary
- Park/Open Space
- Creeks/Water Bodies
- Local Bus Route
- Limited Bus Route
- Express Bus Route
- Bus Stop
- ACE Shuttle
- Class I - Paved Bike Lane
- Class II - On-Street Bike Lane
- Class III - Shared Bike Lane
- Trail
- Proposed Trail

N

0 750 1,500 3,000 Feet

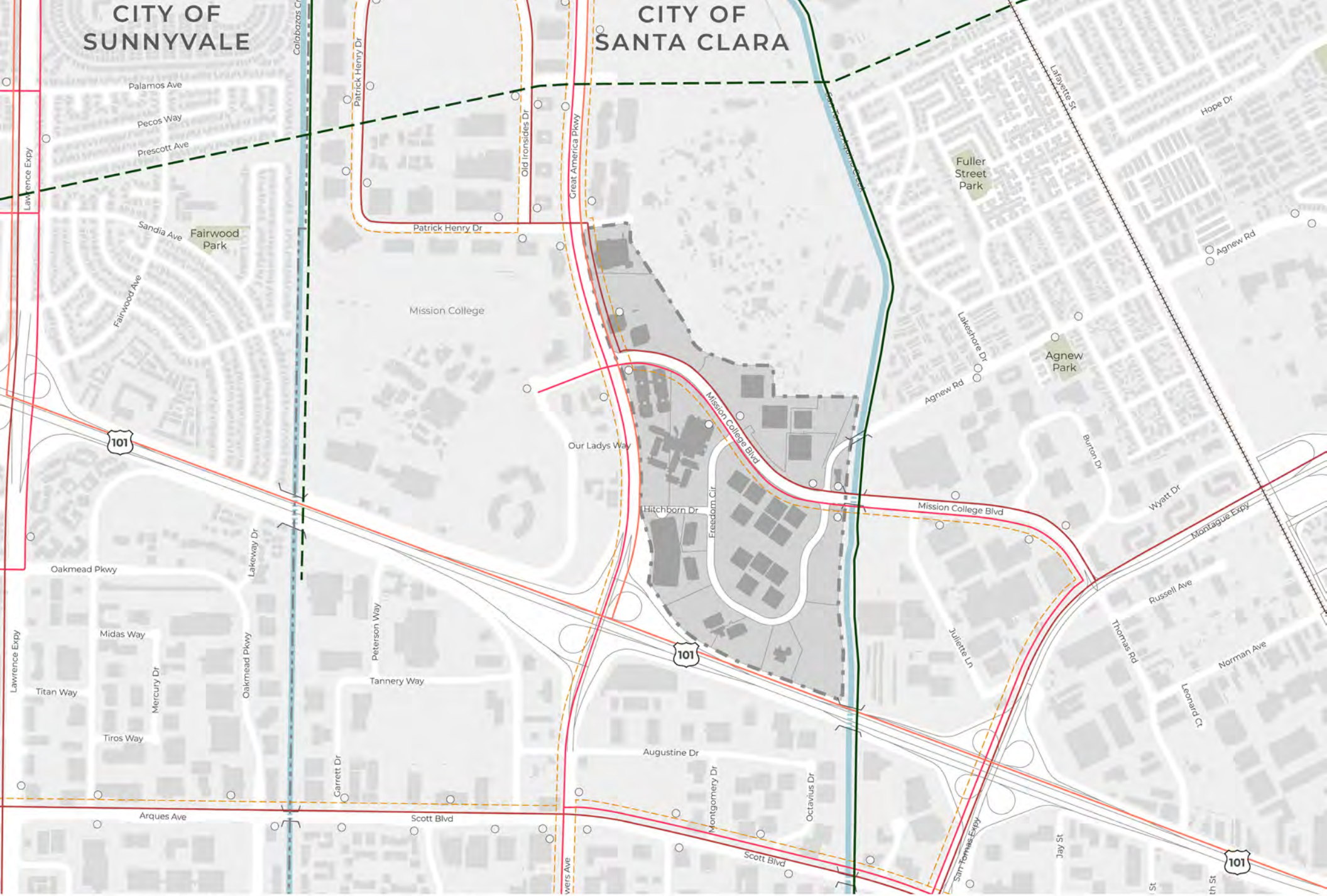


FIGURE 17.4: EXISTING TRANSIT SERVICES

Freedom Circle Focus Area Plan

- Study Area Parcel
- City Boundary
- Park/Open Space
- Creeks/Water Bodies
- Local Bus Route
- Limited Bus Route
- Express Bus Route
- Bus Stop
- ACE Shuttle
- Trail
- Proposed Trail

N

0 750 1,500 3,000 Feet

Central Expressway is a six-lane east-west expressway that begins at De La Cruz Boulevard and extends westward to San Antonio Road where it transitions into Alma Street in Mountain View. East of San Tomas Expressway, Central Expressway has HOV lanes. It has a posted speed limit of 50 miles per hour (mph).

Great America Parkway is a north-south thoroughfare that begins at U.S. 101 and extends northward to SR 237. Full interchanges are located at both U.S. 101 and SR 237. Great America Parkway is primarily a six-lane roadway with a raised median and a posted speed limit of 40 mph. There is an additional northbound lane between Tasman Drive and U.S. 101. Bike lanes are present along both directions of the roadway and on-street parking is not permitted. There are sidewalks on both sides of the street for the whole length of the roadway. Great America Parkway serves the west boundary of the Focus Plan Area and provides direct access to and from the northern portion of the Plan Area (north of Mission College Boulevard) and indirect access to the southern portion of the Plan Area via its intersections with Mission College Boulevard and Hichborn Drive.

Bowers Avenue is a six-lane north-south street north of Kifer Road, and a four-lane street south of Kifer Road. It transitions from Great America Parkway north of U.S. 101 and extends southerly to El Camino Real, where it transitions to Kiely Boulevard. Bowers Avenue has a speed limit of 35 mph. Bike lanes exist along most of Bowers Avenue except between Central Expressway and Kifer Road.

Tasman Drive is an east-west, two-lane to four-lane roadway with a posted speed limit of 40 mph in the project vicinity. Tasman Drive begins at Morse Avenue in the west and extends east past I-880 and transitions into Great Mall Parkway. The VTA Light Rail tracks are present in the middle of Tasman Drive east of Fair Oaks Avenue. Tasman Drive includes sidewalks along most segments and crosswalks at signalized intersections. Bike routes or lanes are provided.

Mission College Boulevard to the west of Great America Parkway is a loop road circumnavigating Mission College and the Mercado Shopping Center. The eastern portion of Mission College Boulevard is a four-lane east-west thoroughfare, running between Great America Parkway and Montague Expressway. Mission College Boulevard runs through the Focus Area and provides direct access to and from the Focus Area and the Greystar project site.

Patrick Henry Drive is a two-lane roadway with a center two-way left-turn lane that runs between Tasman Drive and Great America Parkway. The speed limit on Patrick Henry Drive is 25 mph. Between Great America Parkway and Old Ironsides Drive, sidewalks are available on both sides of Patrick Henry Drive. West of Old Ironsides Drive, sidewalks are available on the west and south sides of the roadway and only a small section on the north side of the road. Patrick Henry Drive serves as the north boundary of the Freedom Circle Focus Plan Area and provides direct access to and from the northernmost parcels of the Plan Area.

Freedom Circle is a two-lane semicircular loop road with center two-way left-turn lane that circumnavigates an area south of Mission College Boulevard. In the west, Freedom Circle intersects with Mission College Boulevard approximately 1,500 feet east of Great America Parkway. It connects to Mission College Boulevard again approximately 0.2 mile to the east, directly opposite Agnew Road, and provides direct access to and from the Greystar project site.

The speed limit on Freedom Circle is 25 mph. On-street parking is prohibited. Sidewalks are available on both sides of the roadway.

Hichborn Drive extends from Great America Parkway to Freedom Circle between the Marriott Hotel site and the Mission Towers office campus. The eastern portion of the street (east of the Mission Towers parking garage driveway) allows two-way traffic flow, while the western portion of the street is limited to one-way (eastbound) flow. Thus, the Great America/Hichborn intersection serves as an inbound only access point for the Freedom Circle Focus Plan Area. On-street parking is permitted on both sides of the street and a sidewalk is available along the south side of the street.

Agnew Road is a two-lane roadway that runs in east-west direction and extends from Mission College Boulevard to its intersection with Montague Expressway. Agnew Road runs along the east boundary of the Focus Plan Area and provides direct access to the parcel at the northeast corner of the Plan Area. West of Lafayette Street, the speed limit on Agnew Road is 25 mph. Between Lafayette Street and Montague Expressway, the speed limit on Agnew Road is 35 mph. Sidewalks are available on both sides of the roadway in the vicinity of the Plan Area.

(b) Pedestrian Facilities. Pedestrian facilities consist of sidewalks, crosswalks, and pedestrian signals at signalized intersections. In the Plan Area or immediate vicinity, sidewalks and separated pedestrian walkways are provided on the following roadways:

- Both sides of Patrick Henry Drive between Great America Parkway and Old Ironsides Drive;
- South and west sides of Patrick Henry Drive between Old Ironsides Drive and Democracy Way;
- Both sides of Patrick Henry Drive between Democracy Way and Tasman Drive;
- North side of Patrick Henry Drive for a small section west of Old Ironsides Drive;
- Both sides of Mission College Boulevard;
- One or both sides of the Mission College Boulevard Loop (some missing sidewalk on the Mission College campus);
- Both sides of Great America Parkway;
- Both sides of Tasman Drive;
- Both sides of Freedom Circle;
- South side of Hichborn Drive; and
- Both sides of Agnew Road.

Crosswalks are provided at the following intersections in the Plan Area or immediate vicinity:

- Great America Parkway and Patrick Henry Drive;
- Great America Parkway and Mission College Boulevard;
- Mission College Boulevard and Marriott Driveway;
- Mission College Boulevard and Freedom Circle;
- Mission College Boulevard and Agnew Road/Freedom Circle; and
- Freedom Circle and Hichborn Drive.

All crosswalks at signalized intersections include pedestrian signal heads and push buttons. However, at some intersections the existing pedestrian transition does not comply with Americans with Disabilities Act (ADA) guidelines.

In addition, pedestrians are permitted to use the shared-use paths, such as the San Tomas Aquino Creek Trail, which is immediately adjacent to the eastern edge of the Plan Area, as well as other trails described below.

(c) Bicycle Facilities. Bicycle facilities that exist in the vicinity of the Plan Area include multi-use trails/paths (Class I bikeway), striped bike lanes (Class II bikeway), and shared bike routes (Class III bikeway).

Class I Trail or Path is an off-street path with exclusive right-of-way for non-motorized transportation used for commuting as well as recreation.

The San Tomas Aquino Creek trail extends from Sunnyvale Baylands Park, north of SR 237, southward to San Tomas Expressway, where it connects to a bike path along the west side of San Tomas Expressway north of Cabrillo Avenue and extends southward to Homestead Road. The trail runs along the eastern edge of the Freedom Circle Focus Plan Area and connects to bike lanes on Great America Parkway, Tasman Drive, and Mission College Boulevard.

The Calabazas Creek Trail connects Mountain View-Alviso Road to Mission College and passes near Levi's Stadium. This trail can be accessed via Tasman Drive or Mission College Boulevard. A pedestrian/bike bridge connects the Calabazas Creek Trail with the John W. Christian Greenbelt near the northwestern corner of the proposed Patrick Henry Drive Specific Plan Area.

The John W. Christian Greenbelt is a shared-use path that extends from the Calabazas Creek Trail westward into Sunnyvale to Blazingwood Drive near the Lawrence Expressway/Lakehaven Drive/Sandia Avenue intersection.

The Guadalupe River Trail is located approximately two miles east of the Plan Area. The northern segment of this trail begins at Gold Street in Alviso and connects to the SR 237 Bikeway. Continuing south, the trail passes beneath most roadways, including SR 237, U.S. 101, and I-880, and connects to downtown San José. The trail can be accessed via the bike lanes on Tasman Drive, via a pathway from Lick Mill Boulevard through Thamien Park, and from Montague Expressway.

The Baylands Park Trail is located north of the Plan Area and runs from the Baylands Park in Sunnyvale parallel to SR 237. It serves as the northern trailhead for some of the South Bay's major “north-to-south” trails, including the Calabazas Creek Trail, San Tomas Aquino Creek Trail, and Guadalupe River Trail.

Class II Bike Lanes are lanes on roadways designated for use by bicycles with special lane markings. Within a one-mile radius of the Plan Area, striped bike lanes are present along the following roadway segments:

- Great America Parkway, south of Great America Way (except for a small segment just north and south of Mission College Boulevard);

- Tasman Drive, east of Patrick Henry Drive and west of Calabazas Creek Trail;
- Mission College Boulevard, from Montague Expressway to west of Great America Parkway at Marriott Driveway;
- Mission College Boulevard Loop south of the intersection at Mission College Boulevard;
- Bowers Avenue, from Chromite Drive extending onto Great America Parkway;
- Lafayette Street, from Gold Street Connector to Agnew Road;
- Old Mountain View-Alviso/Lawrence Station Road, from Elko Drive to Great America Parkway;
- Agnew Road, from San Tomas Aquino Creek Trail to Montague Expressway;
- Elko Drive, from Reamwood Avenue to Lawrence Expressway;
- Reamwood Avenue, from Tasman Drive to Elko Drive;
- Scott Boulevard, from Monroe Street to Arques Avenue;
- Lakeside Drive, from Scott Boulevard to Arques Avenue;
- Oakmead Parkway, from Central Expressway to Lawrence Expressway;
- Octavius Drive, from Scott Boulevard to Montgomery Drive;
- Hope Drive, from Lafayette Street to Lick Mill Boulevard;
- N. First Street, from Liberty Street to Charcot Avenue; and
- River Oaks Parkway, from Guadalupe River Trail to Montague Expressway.

Class III Bike Routes are streets designated for bike travel and shared with motor vehicles. Within a one-mile radius of the Plan Area, bike routes are present along the following roadway segment:

- Great America Way, from Great America Parkway to Lafayette Street.
- Lakeshore Drive, from Agnew Road to Gianera Street

Bicycles are also permitted on Central Expressway, Lawrence Expressway, and Montague Expressway. However, due to high speeds and traffic volumes, the expressways are recommended for use only by bicyclists of intermediate to advanced skills.

(d) Transit Facilities. Existing transit services serving the Plan Area are provided by the VTA, the San Joaquin Regional Rail Commission (SJRRC), and the Capitol Corridor Joint Powers Authority. The following discussion of the project accessibility via transit is based on transit service as of March 2021, and reflects the temporary reductions in transit service that have been implemented in response to the COVID-19 pandemic.

The VTA provides scheduled bus and light rail transit (LRT) routes through Santa Clara County. In the vicinity of the Plan Area, VTA provides rapid and local bus services as well as LRT service. VTA bus service near the Plan Area is provided along Tasman Drive, Great America Parkway, Lawrence Expressway, Mission College Boulevard, and Agnew Road. The closest VTA bus stops are located on Great America Parkway and Mission College Boulevard. VTA LRT service includes the Mountain View-Alum Rock (Orange) LRT line and the Winchester-Old Ironsides (Green) LRT line, which run along Tasman Drive in the project vicinity. Old Ironsides and Great America Stations are the LRT stops nearest the Plan Area.

The SJRRC manages the Altamont Corridor Express (ACE) commuter rail service between the Central Valley and Silicon Valley with a shuttle that connects the Plan Area to the Great America Transit Station. There are several bus stops served by an ACE shuttle along Great America Parkway and Mission College Boulevard in the immediate vicinity of the Plan Area.

The Capitol Corridor Joint Powers Authority also operates passenger train service (Amtrak) between San José and Sacramento and the foothills of the Sierra Nevada with stops at the Great America Transit Station.

Although not within walking distance of the Plan Area, commuters to the Plan Area also use Caltrain, which provides commuter rail service from San Francisco in the north through San Mateo County to Santa Clara County in the south. Commuters to the Plan Area can access the Sunnyvale Caltrain Station, which is located approximately four miles from the Plan Area, via VTA bus route 20. Although Caltrain shuttles that previously provided service to the Santa Clara (Lawrence) Caltrain Station have been suspended until further notice, Plan Area residents and workers would be able to cycle to the Santa Clara (Lawrence) Caltrain Station approximately 2.5 miles away via the bike lanes on Great America Parkway/Bowers Avenue and Kifer Road.

Transit services within walking distance (½ mile) of the Plan Area are described below:[1]

- Mountain View-Alum Rock (Orange) LRT line provides service with headways of 20 minutes during peak hours between Mountain View station and Alum Rock station.
- Winchester-Old Ironsides (Green) LRT line provides service with headways of 20 minutes during peak hours between Winchester Station and Old Ironsides Station.
- VTA Route 20 is a local route, which provides service with headways of 30 minutes during peak hours and 60 minutes during non-peak hours between Milpitas BART station and Sunnyvale Transit Center via Agnew Road and Mission College Boulevard near the Plan Area.
- VTA Route 55 is a local route, which provides service with headways of 30 minutes between Old Ironsides Station and De Anza College via Tasman Drive and Lawrence Expressway near the Plan Area.
- VTA Route 57 is a rapid route, which provides service with headways of 20 minutes between Old Ironsides Station and West Valley College via Great America Parkway near the Plan Area.
- VTA Route 59 is a local route, which provides service with headways of 30 minutes between Valley Fair and Baypointe station via Mission College Boulevard and Great America Parkway near the Plan Area.

17.2 REGULATORY SETTING

17.2.1 State

California Department of Transportation. The California Department of Transportation (Caltrans) is responsible for planning, designing, constructing, operating, and maintaining all

[1]According to the Hexagon report (p. 23), the VTA confirmed plans to resume frequent network service in October 2021, with Routes 20 and 57 to return to the headways in use prior to the Covid-19 pandemic.

State-owned roadways in Santa Clara County. Federal highway standards are implemented in California by Caltrans. Any improvements or modifications to the State highway system within the City of Santa Clara need to be approved by Caltrans. The City of Santa Clara does not have the jurisdictional authority to unilaterally make improvements to the State highway system.

17.2.2 Regional

Santa Clara Valley Transportation Authority Congestion Management Plan. The Santa Clara Valley Transportation Authority (VTA) provides sustainable, accessible, community-focused transportation options in the Santa Clara region. The VTA is also the county's congestion management agency, responsible for countywide and regional transportation planning and programming, such as developing, implementing, and monitoring the Congestion Management Plan (which links transportation and land use planning within Santa Clara County); design and construction of specific highway, pedestrian, and bicycle improvement projects; transit planning, construction, and service; and promotion of transit oriented development.

17.2.3 Local

Santa Clara General Plan. The General Plan addresses citywide transportation and circulation needs (including transit provisions and facilities for pedestrians and bicyclists) and the objectives necessary to achieve them. Applicable General Plan goals and policies include:

- Policy 5.3.1-P13: Support high density and intensity development within a quarter-mile of transit hubs and stations and along transit corridors.

- Policy 5.3.1-P14: Encourage Transportation Demand Management strategies and the provision of bicycle and pedestrian amenities in all new development greater than 25 housing units or more than 10,000 non-residential square feet, and for City employees, in order to decrease use of the single-occupant automobile and reduce vehicle miles traveled, consistent with the [Climate Action Plan] CAP.

- Policy 5.3.1-P16: Consolidate curb cuts with new development on arterial roadways to minimize pedestrian/vehicle conflicts at driveway locations and improve traffic flow.

- Policy 5.5.2-P9: Improve pedestrian amenities, including sidewalks and bicycle paths, to promote neighborhood compatibility.

- Goal 5.8.1-G2: Transportation networks that provide a safe, efficient, convenient and integrated system to move people and goods.

- Goal 5.8.1-G3: Transportation networks that promote a reduction in the use of personal vehicles and vehicle miles traveled.

- Policy 5.8.1-P1: Create accessible transportation network systems to meet the needs of all segments of the population, including youth, seniors, persons with disabilities and low-income households.

- Policy 5.8.1-P2: Link all City transportation networks, including pedestrian and bicycle circulation, to existing and planned regional networks.

- Goal 5.8.2-G3: A roadway network designed to accommodate alternate transportation modes in addition to vehicles.

- Policy 5.8.2-P12: Coordinate transportation planning with emergency service providers to ensure continued emergency service operations and services.

- Policy 5.8.4-P6: Require new development to connect individual sites with existing and planned bicycle and pedestrian facilities, as well as with on-site and neighborhood amenities/services, to promote alternate modes of transportation.

- Policy 5.8.4-P8: Require new development and public facilities to provide improvements, such as sidewalks, landscaping and bicycling facilities, to promote pedestrian and bicycle use.

- Goal 5.8.5-G1: Transportation demand management programs for all new development in order to decrease vehicle miles traveled and single occupant vehicle use.

- Policy 5.8.5-P2: Require development to offer on-site services, such as ATMs, dry cleaning, exercise rooms, cafeterias and concierge services, to reduce daytime trips.

- Policy 5.8.5-P3: Encourage all new development to provide on-site bicycle facilities and pedestrian circulation.

- Policy 5.8.5-P4: Encourage new development to participate in shuttle programs to access local transit services within the City, including buses, light rail, Bay Area Rapid Transit, Caltrain, Altamont Commuter Express Yellow Shuttle and Lawrence Caltrain Bowers/Walsh Shuttle services.

- Policy 5.8.5-P5: Encourage transportation demand management programs that provide incentives for the use of alternative travel modes to reduce the use of single-occupant vehicles.

- Policy 5.8.5-P6: Encourage transportation demand management programs that include shared bicycle and autos for part-time use by employees and residents to reduce the need for personal vehicles.

- Policy 5.8.5-P7: Promote programs that reduce peak hour trips, such as flexible work hours, telecommuting, home-based businesses and off-site business centers, and encourage businesses to provide alternate, off-peak hours for operations.

- Policy 5.8.5-P9: Promote transportation demand management programs that provide education, information and coordination to connect residents and employees with alternate transportation opportunities.

- Policy 5.9.1-P4: Provide connections between private and public open space through publicly accessible trails and pathways and by orienting open spaces to public streets.

- Policy 5.9.3-P5: Maintain emergency traffic preemption controls for traffic signals.

City of Santa Clara Bicycle Plan Update 2018. The Bicycle Plan Update establishes the city's long-term vision for improving bicycling in Santa Clara and recommends policies, programs, and projects to develop a comprehensive bicycling network with access to transit, schools, and other destinations, as well as address the design of accessible facilities. The Plan also focuses on improving corridors and intersections to promote safety, connectivity, and comfort, plus providing amenities at "end-of-trip" destinations (such as short- and long-term bike parking, and lockers, showers, and repair stations).

City of Santa Clara Pedestrian Master Plan 2019. The Pedestrian Master Plan establishes the framework for how the city can achieve its vision of being a walkable community and create safe, comfortable, accessible, and enjoyable walking opportunities for residents. The Plan identifies improvements to the pedestrian network, including designation of "Priority Pedestrian Zones" across the city (zones with the highest potential for increasing walkability), roadway crossings, traffic signals, and other environment enhancements such as shade structures and enclosures, benches, and trees and planters, that would make walking in Santa Clara safer and more comfortable. In addition, lighting on sidewalks and paths, bus stop amenities, improvements to navigation (wayfinding), opportunities for physical activity along routes, and building connectedness and destination accessibility are prioritized.

City of Santa Clara Transportation Analysis Policy. The "Transportation Analysis Policy," approved by the City Council on June 23, 2020, establishes the use of vehicle miles traveled (VMT) as the methodology for environmental review of proposed projects, developments, land use plans, and transportation projects in the City of Santa Clara. The Policy sets forth screening criteria to determine if specific types of developments (such as infill developments, small projects, and/or transit supportive projects near major transit corridors) would be presumed to have a less-than-significant impact on VMT—i.e., criteria for exempting certain types of projects from VMT analysis. The Policy aligns the City's transportation analysis methodology with State goals, pursuant to Senate Bill 743, and City General Plan policy. The policy also formalizes the Transportation Operational Analysis (TOA) requirement outside of CEQA.

City of Santa Clara Complete Streets Policy. The City Council approved a "Complete Streets Policy" on August 21, 2018 to create, preserve, and maintain streets that provide safe, comfortable, and convenient travel ("complete streets"), including streets, roads, highways, bridges, and other portions of the City's transportation system. The complete streets principles include forming a comprehensive and integrated transportation network that promotes safe, equitable, and convenient travel for all users (pedestrians, bicyclists, persons with disabilities, motorists, movers of commercial goods, users and operators of public transportation, seniors, children, youth, and families), while preserving flexibility, recognizing community context, and using the latest and best design guidelines and standards.

17.3 IMPACTS AND MITIGATION MEASURES

17.3.1 Significance Criteria

Based on the CEQA Guidelines,[1] implementation of the Freedom Circle Focus Area Plan/ Greystar General Plan Amendment would have a significant impact related to transportation if it would:

(a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadways, bicycle and pedestrian facilities;

(b) Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b);

(c) Substantially increase hazards due to geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment); or

(d) Result in inadequate emergency access.

17.3.2 Relevant Freedom Circle Focus Area Plan Components

The Focus Area Plan includes the following goals and policies relevant to the transportation significance criteria (see 17.3.1 above):

- **FC-G4:** Reduce reliance on private vehicles and improve jobs/housing balance by locating amenities and jobs within walking distance to housing.
- **FC-G6:** Improve multi-modal transportation options and connections.
- **FC-G7:** Enhance connectivity to the San Tomas Aquino Creek trail.
- **FC-P3:** Require active street frontages and ground floor uses to create a pedestrian-friendly, cohesive urban environment.
- **FC-P10:** Minimize surface parking by requiring below-grade or structured parking facilities with active uses along street frontages.
- **FC-P11**: Establish parking ratios that support transit, active transportation and shared vehicle use.
- **FC-P12:** Encourage shared parking between uses and parcels, including the shared use of existing structures.
- **FC-P14:** Provide new street, bicycle and pedestrian networks that break down large blocks and sites, accommodate multiple modes of travel, and maximize connections to activity hubs.

[1] CEQA Guidelines, appendix G, items XVII (a) through (d).

- **FC-P16:** Design and program the plan area and sites to encourage walking, bicycling and transit use.

- **FC-P18:** Redesign Mission College Boulevard, Freedom Circle, and Hichborn Drive to better balance space dedicated to vehicles, bicycle, and pedestrians.

- **FC-P19:** Maintain VTA bus transit service on Mission College Boulevard and improve transit stops and shelters.

- **FC-P20:** Design pedestrian and bicycle networks and infrastructure to facilitate access to transit stops on Great America Parkway, Mission College and Tasman Drive.

- **FC-P21:** Require developments to contribute to City vehicle miles travelled (VMT) goals and implement Transportation Demand Management (TDM programs).

- **FC-P22:** Require developers and property owners to coordinate with area employers and stakeholders to explore shared private transit systems and the formation of a Transit Management Authority (TMA) as part of the Specific Plan process.

17.3.3 Impacts and Mitigation Measures

Impact 17-1: Conflict With Adopted Policies, Plans, or Programs Regarding Roadways—Plan Area. The Freedom Circle Focus Area Plan includes goals and policies that provide a foundation for the future, required comprehensive planning study (e.g., specific plan), which would incorporate enforceable standards and guidelines necessary to implement the vision of the Plan. The following discusses these Focus Area Plan goals and policies in relation to General Plan policies regarding transportation (see section 17.2, Regulatory Setting):

- Policy 5.3.1-P13: Support high density and intensity development within a quarter-mile of transit hubs and stations and along transit corridors.

  No conflict. Although the Focus Area Plan geographically is not within a quarter-mile from the Old Ironsides or Great America Parkway LRT stations (both transit stations are Major Transit Stops), Great America Parkway, a high-quality transit corridor, runs along the western Plan Area border. In addition, Mission College Boulevard, which bisects the Plan Area, is also a high-quality transit corridor.

- Policy 5.3.1-P14: Encourage Transportation Demand Management strategies and the provision of bicycle and pedestrian amenities in all new development greater than 25 housing units or more than 10,000 non-residential square feet, and for City employees, in order to decrease use of the single-occupant automobile and reduce vehicle miles traveled, consistent with the [Climate Action Plan] CAP.

  No conflict. The Focus Area Plan contains a policy related to future developments contributing to City VMT goals and implementing Transportation Demand Management (TDM) programs (e.g., Policy FC-P21). In addition, the Focus Area Plan contains a policy addressing the design of pedestrian and bicycle networks, which would be supportive of bike and pedestrian amenities (e.g., Policy FC-P20). These policies would provide direction for the future, required comprehensive planning study to include project

TDM requirements and pedestrian and bicycle amenities, consistent with this General Plan policy.

- Policy 5.3.1-P16: Consolidate curb cuts with new development on arterial roadways to minimize pedestrian/vehicle conflicts at driveway locations and improve traffic flow.

  No conflict. The Focus Area Plan contains policies related to creating a pedestrian-friendly environment with safe sidewalks and pathways (e.g., Policies FC-P14, FC-P15, FC-P16, FC-P18, and FC-P20). These policies would provide direction for the required comprehensive planning study to include standards and/or guidelines for safe sidewalk and pathway design, consistent with this General Plan policy.

- Policy 5.5.2-P9: Improve pedestrian amenities, including sidewalks and bicycle paths, to promote neighborhood compatibility.

  No conflict. The Focus Area Plan contains goals and policies related to improved pedestrian and bicycle connections and links to neighborhoods (e.g., Goals FC-G3 and FC-G6 and Policies FC-P14, FC-P15, FC-P16, FC-P18, and FC-P20). These goals and policies would provide direction for the required comprehensive planning study to include standards and/or guidelines with requirements for pedestrian and bicyclist amenities, consistent with this General Plan policy.

- Goal 5.8.1-G2: Transportation networks that provide a safe, efficient, convenient and integrated system to move people and goods.

  No conflict. The Focus Area Plan contains goals and policies related to connectivity and circulation for a mix of travel modes, including walking, cycling, driving, and transit (e.g., Goals FC-G3 and FC-G6 and Policies FC-P14, FC-P15, FC-P16, FC-P18, and FC-P20). These goals and policies would provide direction for the required comprehensive planning study to include standards and/or guidelines supportive of transportation networks, consistent with this General Plan policy.

- Goal 5.8.1-G3: Transportation networks that promote a reduction in the use of personal vehicles and vehicle miles traveled.

  No conflict. The Focus Area Plan contains goals and policies related to circulation for a mix of travel modes, including walking, cycling, driving, and transit, and would also promote Transportation Demand Management (TDM) strategies and goals for individual development projects to reduce personal vehicle use and vehicle miles traveled (e.g., Goals FC-G3, FC-G4, and FC-G6 and Policies FC-P14, FC-P15, FC-P16, FC-P18, FC-P20, and FC-P21). These goals and policies would provide direction for the required comprehensive planning study to include standards and/or guidelines to help reduce vehicle trips and VMT, consistent with this General Plan policy.

- Policy 5.8.1-P1: Create accessible transportation network systems to meet the needs of all segments of the population, including youth, seniors, persons with disabilities and low-income households.

No conflict. The Focus Area Plan contains goals and policies related to connectivity and circulation for a mix of travel modes, including walking, cycling, driving, and transit (e.g., Goals FC-G3, FC-G4, and FC-G6 and Policies FC-P14, FC-P15, FC-P16, FC-P18, and FC-P20). These goals and policies would provide direction for the required comprehensive planning study to include standards and/or guidelines supportive of the needs of all transportation system users, consistent with this General Plan policy.

- Policy 5.8.1-P2: Link all City transportation networks, including pedestrian and bicycle circulation, to existing and planned regional networks.

  No conflict. The Focus Area Plan contains a goal and policies related to circulation for a mix of travel modes, including walking, cycling, driving, and facilitating access to transit stops , which would support connections to all forms of transportation in the vicinity of the Plan Area, including pedestrian and bicycle facilities, local and regional roadways, and transit (e.g., Goal FC-G3 and Policies FC-P14, FC-P16, and FC-P20). This goal and these policies would provide direction for the required comprehensive planning study to include standards and/or guidelines providing for transportation network linkages, consistent with this General Plan policy.

- Goal 5.8.2-G3: A roadway network designed to accommodate alternate transportation modes in addition to vehicles.

  No conflict. The Focus Area Plan contains a goal and policies related to new street, bicycle and pedestrian networks that would accommodate multiple modes of travel (e.g., Goal FC-G6 and Policies FC-P14, FC-P18, and FC-P20). This goal and these policies would provide direction for the required comprehensive planning study to include standards and/or guidelines supportive of multi-modal transportation options, consistent with this General Plan policy.

- Policy 5.8.2-P12: Coordinate transportation planning with emergency service providers to ensure continued emergency service operations and services.

  No conflict. The Focus Area Plan does not include any goals or policies directly related to emergency service operations; however, approval of the required comprehensive planning study (e.g., specific plan) and, when appropriate, future proposed development would include review of circulation provisions by City planning and emergency service provider staff.

- Policy 5.8.4-P6: Require new development to connect individual sites with existing and planned bicycle and pedestrian facilities, as well as with on-site and neighborhood amenities/services, to promote alternate modes of transportation.

  No conflict. The Focus Area Plan contains goals and policies related to connectivity and circulation for a mix of travel modes, including walking, cycling, driving, and transit (e.g., Goals FC-G3 and FC-G6 and Policies FC-P14, FC-P15, FC-P16, FC-P18, and FC-P20). These goals and policies would provide direction for the required comprehensive planning study to include standards and/or guidelines with requirements for pedestrian and bicyclist connections, consistent with this General Plan policy.

- Policy 5.8.4-P8: Require new development and public facilities to provide improvements, such as sidewalks, landscaping and bicycling facilities, to promote pedestrian and bicycle use.

  No conflict. The Focus Area Plan contains goals and policies related to connectivity and circulation for a mix of travel modes, including walking, cycling, driving, and transit (e.g., Goals FC-G5 and FC-G6 and Policies FC-P14, FC-P15, FC-P16, FC-P18, and FC-P20). These goals and policies would provide direction for the required comprehensive planning study to include standards and/or guidelines for improvements for pedestrians and bicyclists, consistent with the General Plan.

- Goal 5.8.5-G1: Transportation demand management programs for all new development in order to decrease vehicle miles traveled and single occupant vehicle use.

  No conflict. The Focus Area Plan contains policies related to Transportation Demand Management strategies for individual development projects and to reducing personal vehicle use and vehicle miles traveled (e.g., Policies FC-P11 and FC-P21). These policies would provide direction for the required comprehensive planning study to include project TDM strategy requirements, consistent with this General Plan policy.

- Policy 5.8.5-P2: Require development to offer on-site services, such as ATMs, dry cleaning, exercise rooms, cafeterias and concierge services, to reduce daytime trips.

  No conflict. The Focus Area Plan contains goals and policies related to providing easy access to day-to-day services and amenities for residents, employees, and visitors (e.g., Goals FC-G3 and FC-G4 and Policies FC-P15 and FC-P16). These goals and policies would provide direction for the required comprehensive planning study to include standards and/or guidelines for provision of on-site services and amenities, consistent with this General Plan policy.

- Policy 5.8.5-P3: Encourage all new development to provide on-site bicycle facilities and pedestrian circulation.

  No conflict. The Focus Area Plan contains goals and policies related to connectivity and circulation for a mix of travel modes, including walking, cycling, driving, and transit (e.g., Goals FC-G3 and FC-G6 and Policies FC-P14, FC-P15, FC-P16, FC-P18, and FC-P20). These goals and policies would provide direction for the required comprehensive planning study to include standards and/or guidelines for bicycle and pedestrian facilities, consistent with this General Plan policy.

- Policy 5.8.5-P4: Encourage new development to participate in shuttle programs to access local transit services within the City, including buses, light rail, Bay Area Rapid Transit, Caltrain, Altamont Commuter Express Yellow Shuttle and Lawrence Caltrain Bowers/Walsh Shuttle services.

  No conflict. The Focus Area Plan contains policies related to transit and shared transit (e.g., Policies FC-P16, FC-P19, FC-P20, and FC-P22). These policies would provide direction for the required comprehensive planning study to include standards and/or guidelines for supporting local transit service, consistent with this General Plan policy.

- Policy 5.8.5-P5: Encourage transportation demand management programs that provide incentives for the use of alternative travel modes to reduce the use of single-occupant vehicles.

  No conflict. The Focus Area Plan contains goals and policies related to Transportation Demand Management strategies for individual development projects and to reducing personal vehicle use and vehicle miles traveled (e.g., Goals FC-G4 and FC-G6 and Policies FC-P11, FC-P16, FC-P18, FC-P19, FC-P20, and FC-P21). These goals and policies would provide direction for the required comprehensive planning study to include project TDM strategy requirements with provisions for multi-modal transportation options, consistent with this General Plan policy.

- Policy 5.8.5-P6: Encourage transportation demand management programs that include shared bicycle and autos for part-time use by employees and residents to reduce the need for personal vehicles.

  No conflict. The Focus Area Plan contains goals and policies related to Transportation Demand Management strategies for individual development projects and to reducing personal vehicle use and vehicle miles traveled (e.g., Goals FC-G3, FC-G4, and FC-G6 and Policies FC-P11 and FC-P21). These goals and policies would provide direction for the required comprehensive planning study to include project TDM strategy requirements with bicycle- and vehicle-sharing provisions, consistent with this General Plan policy.

- Policy 5.8.5-P7: Promote programs that reduce peak hour trips, such as flexible work hours, telecommuting, home-based businesses and off-site business centers, and encourage businesses to provide alternate, off-peak hours for operations.

  No conflict. The Focus Area Plan contains goals and policies related to Transportation Demand Management strategies for individual development projects and to reducing personal vehicle use and vehicle miles traveled (e.g., Goals FC-G3 and FC-G4 and Policies FC-P3 and FC-P21). These goals and policies would provide direction for the required comprehensive planning study to include standards and/or guidelines to help reduce vehicle trips, consistent with this General Plan policy.

- Policy 5.8.5-P9: Promote transportation demand management programs that provide education, information and coordination to connect residents and employees with alternate transportation opportunities.

  No conflict. The Focus Area Plan contains a goal and policy related to Transportation Demand Management strategies for individual development projects and to reducing personal vehicle use and vehicle miles traveled (e.g., Goal FC-G6 and Policy FC-P21). This goal and policy would provide direction for the required comprehensive planning study to include project TDM strategy requirements and transportation alternatives, consistent with this General Plan policy.

- Policy 5.9.1-P4: Provide connections between private and public open space through publicly accessible trails and pathways and by orienting open spaces to public streets.

No conflict. The Focus Area Plan contains a goal and a policy related to open space and accessibility (e.g., Goal FC-G7 and Policy FC-P4). This goal and policy would provide direction for the required comprehensive planning study to include standards and/or guidelines for pedestrian and bicycle pathway connections, consistent with this General Plan policy.

- Policy 5.9.3-P5: Maintain emergency traffic preemption controls for traffic signals.

  No conflict. The Focus Area Plan does not include any goals or policies directly related to emergency traffic control; however, approval of the required comprehensive planning study (e.g., specific plan) and, when appropriate, future proposed development would include review by City planning and emergency service provider staff of adequate emergency services that do not conflict with City emergency traffic controls.

Because the Focus Area Plan provides the direction for the transportation standards and guidelines to be incorporated in the future, required comprehensive planning study (e.g., specific plan), the Focus Area Plan is considered substantially consistent with the applicable City of Santa Clara General Plan goals and policies related to transportation. The impact would be ***less-than-significant*** (see criterion [a] in subsection 17.3.1, "Significance Criteria," above).

Mitigation 17-1. No impact has been identified; no mitigation is required.

Impact 17-2: Conflict With Adopted Policies, Plans, or Programs Regarding Roadways—Greystar Project. The Greystar project would be substantially consistent with General Plan policies regarding transportation (see section 17.2, Regulatory Setting):

- Policy 5.3.1-P13: Support high density and intensity development within a quarter-mile of transit hubs and stations and along transit corridors.

  No conflict. The Greystar project is not within a quarter-mile from Old Ironsides or Great America Parkway LRT stations (both transit stations are Major Transit Stops); however, the project is a high density development within a quarter-mile of Mission College Boulevard (a high-quality transit corridor), which intersects with Great America Parkway (also a high-quality transit corridor), about a half-mile from the project site.

- Policy 5.3.1-P14: Encourage Transportation Demand Management strategies and the provision of bicycle and pedestrian amenities in all new development greater than 25 housing units or more than 10,000 non-residential square feet, and for City employees, in order to decrease use of the single-occupant automobile and reduce vehicle miles traveled, consistent with the [Climate Action Plan] CAP.

  No conflict. The Greystar project would be required to implement a Transportation Demand Management program, plus the project includes provisions to decrease use of single-occupant automobiles and to increase opportunities for pedestrian- and bicycle-friendly features on the site; in addition, the project's proximity to transit would encourage residents, workers, and visitors to use non-automobile travel modes.

- Policy 5.3.1-P16: Consolidate curb cuts with new development on arterial roadways to minimize pedestrian/vehicle conflicts at driveway locations and improve traffic flow.

  No conflict. The Greystar project design provides for improvements along the Freedom Circle roadway that incorporate features for non-automotive modes of travel (i.e., are pedestrian and bicycle "friendly"); final project designs will be required to comply with existing City roadway design standards, and therefore would not result in a conflict.

- Policy 5.5.2-P9: Improve pedestrian amenities, including sidewalks and bicycle paths, to promote neighborhood compatibility.

  No conflict. The Greystar project includes amenities for pedestrians and bicyclists, including pathways through the project site, the connector to the San Tomas Aquino Creek Trail, bicycle parking, courtyards, and the 2.0-acre public park.

- Goal 5.8.1-G2: Transportation networks that provide a safe, efficient, convenient and integrated system to move people and goods.

  No conflict. The Greystar project supports the area's transportation network by locating high-density residential development in proximity to transit.

- Goal 5.8.1-G3: Transportation networks that promote a reduction in the use of personal vehicles and vehicle miles traveled.

  No conflict. The Greystar project would facilitate use of transit and a reduction in personal vehicle use and vehicle miles traveled because of its high-density design and location near transit.

- Policy 5.8.1-P1: Create accessible transportation network systems to meet the needs of all segments of the population, including youth, seniors, persons with disabilities and low-income households.

  No conflict. The Greystar project would support transportation accessibility by its location near transit including accessibility for low-income households (the Greystar would include affordable housing as required by City policy, currently at least 15 percent per City Code section 17.40.090).

- Policy 5.8.1-P2: Link all City transportation networks, including pedestrian and bicycle circulation, to existing and planned regional networks.

  No conflict. The Greystar project would support City transportation networks by providing pedestrian amenities (including sidewalk improvements and new pathways) and a bicycle lane along Freedom Circle adjacent to the project site.

- Goal 5.8.2-G3: A roadway network designed to accommodate alternate transportation modes in addition to vehicles.

  No conflict. The Greystar project would support alternative modes of transportation (such as bicycles).

- Policy 5.8.2-P12: Coordinate transportation planning with emergency service providers to ensure continued emergency service operations and services.

  No conflict. As part of its development review process, the Greystar project is coordinating with and will continue to coordinate with emergency service providers, whose review of project plans (including approval authority) would ensure efficient emergency service operations and services for the project site.

- Policy 5.8.4-P6: Require new development to connect individual sites with existing and planned bicycle and pedestrian facilities, as well as with on-site and neighborhood amenities/services, to promote alternate modes of transportation.

  No conflict. The Greystar project would provide pedestrian connections throughout the project site and would provide other pedestrian and bicycle amenities (i.e., sidewalk improvements, new pathways, a possible bike shop, a bicycle lane along Freedom Circle adjacent to the project site, which would connect with the existing bike lane on Mission College Boulevard, and a new connection to the existing Class I San Tomas Aquino Creek Trail).

- Policy 5.8.4-P8: Require new development and public facilities to provide improvements, such as sidewalks, landscaping and bicycling facilities, to promote pedestrian and bicycle use.

  No conflict. The Greystar project would provide sidewalk improvements, landscaping, and a bicycle lane along Freedom Circle adjacent to the project site.

- Goal 5.8.5-G1: Transportation demand management programs for all new development in order to decrease vehicle miles traveled and single occupant vehicle use.

  No conflict. The Greystar project would be required to implement a Transportation Demand Management program, plus the project includes provisions to decrease use of single-occupant automobiles by increasing opportunities for pedestrian- and bicycle-friendly features on the site. In addition, the project's proximity to transit would encourage residents, workers, and visitors to use non-automobile travel modes.

- Policy 5.8.5-P2: Require development to offer on-site services, such as ATMs, dry cleaning, exercise rooms, cafeterias and concierge services, to reduce daytime trips.

  No conflict. The Greystar project includes on-site retail (2,000 square feet), plus a potential use (bicycle shop) would help serve residents and promote bicycle use. In addition, the project includes other on-site amenities for residents (e.g., courtyards, pools, and spas), which would facilitate a reduction in daytime trips to other similar facilities off-site.

- Policy 5.8.5-P3: Encourage all new development to provide on-site bicycle facilities and pedestrian circulation.

No conflict. The Greystar project would provide bicycle facilities (a possible bike shop, a bicycle lane along Freedom Circle adjacent to the project site, bicycle parking and storage on-site) and pedestrian connections throughout the project site.

- Policy 5.8.5-P4: Encourage new development to participate in shuttle programs to access local transit services within the City, including buses, light rail, Bay Area Rapid Transit, Caltrain, Altamont Commuter Express Yellow Shuttle and Lawrence Caltrain Bowers/Walsh Shuttle services.

  No conflict. The Greystar project would facilitate use of transit because of its high-density design and location near transit.

- Policy 5.8.5-P5: Encourage transportation demand management programs that provide incentives for the use of alternative travel modes to reduce the use of single-occupant vehicles.

  No conflict. The Greystar project would be required to implement a Transportation Demand Management program, plus the project includes provisions to decrease use of single-occupant automobiles by increasing opportunities for pedestrian- and bicycle-friendly features on the site. In addition, the project's proximity to transit would encourage residents, workers, and visitors to use non-automobile travel modes.

- Policy 5.8.5-P6: Encourage transportation demand management programs that include shared bicycle and autos for part-time use by employees and residents to reduce the need for personal vehicles.

  No conflict. The Greystar project would be required to submit a Transportation Demand Management program, plus the project includes provisions to decrease use of single-occupant automobiles by increasing opportunities for pedestrian- and bicycle-friendly features on the site. In addition, the project's proximity to transit would encourage residents, workers, and visitors to use non-automobile travel modes.

- Policy 5.8.5-P7: Promote programs that reduce peak hour trips, such as flexible work hours, telecommuting, home-based businesses and off-site business centers, and encourage businesses to provide alternate, off-peak hours for operations.

  No conflict. The Greystar project includes provisions for decreased use of single-occupant automobiles (bicycle and pedestrian amenities, proximity to transit), which would support reduced peak hour trips. The project would also be required to implement a Transportation Demand Management program.

- Policy 5.8.5-P9: Promote transportation demand management programs that provide education, information and coordination to connect residents and employees with alternate transportation opportunities.

  No conflict. The Greystar project would be required to implement a Transportation Demand Management program, the project includes provisions for decreased use of single-occupant automobiles (bicycle and pedestrian amenities, proximity to transit),

which would encourage residents, workers, and visitors to use non-automobile travel modes.

- Policy 5.9.1-P4: Provide connections between private and public open space through publicly accessible trails and pathways and by orienting open spaces to public streets.

  No conflict. The Greystar project includes pathways through the project site, a connector to the San Tomas Aquino Creek Trail, and courtyards; in addition, the 2.0-acre public park is oriented toward Freedom Circle.

- Policy 5.9.3-P5: Maintain emergency traffic preemption controls for traffic signals.

  No conflict. The Greystar project, through the development review process, would coordinate with emergency service providers and would not conflict with City emergency traffic controls.

Therefore, as explained in the foregoing discussion, the Greystar project would be consistent with elements such as high density/intensity development near transit; decreased use of the single-occupant automobiles; reduced vehicle miles traveled; improved pedestrian amenities; accommodating and promoting alternative modes of transportation; improving sidewalks, landscaping, and bicycling facilities to promote pedestrian and bicycle use; connecting private and public open space through publicly accessible trails and pathways; and orienting open spaces to public streets. Therefore, because the project would not substantially conflict with General Plan transportation policies, this impact would be ***less-than-significant*** (see criterion [a] in subsection 17.3.1, "Significance Criteria," above).

Mitigation 17-2. No significant impact has been identified; no mitigation is required.

Conflict With Adopted Policies, Plans, or Programs Regarding Public Transit, Bicycle, or Pedestrian Facilities—Plan Area. The Focus Area Plan would establish the foundation for goals, policies, standards, and guidelines that would be anticipated to be incorporated in the future, required comprehensive planning study (e.g., specific plan) that would be purposely consistent with the City's General Plan and other relevant plans and programs. Potential conflicts with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities (including possible decreases in the performance or safety of such facilities) are discussed in more detail below.

Impact 17-3: Impacts on Transit Related to Conflicts with Adopted Policies, Plans, or Programs—Plan Area. Existing transit service for the Plan Area includes an ACE shuttle and three VTA routes along Great America Parkway and/or Mission College Boulevard (though service is currently limited due to COVID-19). Bus stops are currently located within the Plan Area on Great America Parkway and Mission College Boulevard, with additional bus stops nearby outside of the Plan Area on Great America Parkway (across the street) and Mission College Boulevard (near Juliette Lane). Several bus stops in the Plan Area are also served by an ACE shuttle (along Great America Parkway and Mission College Boulevard) as well as in the immediate vicinity of the Plan Area.

The Plan Area is about one-mile southeast of the Old Ironsides light rail station on Tasman Drive. The Focus Area is not served by a Caltrain shuttle; however, VTA Route 20 connects to the Sunnyvale Caltrain station, and light rail connects to the Mountain View Caltrain station, though both connections are indirect. Currently, the VTA's "New Transit Service Plan" update (2021)[1] has been put on hold while the VTA focuses on increasing service frequency, where possible, for specific routes experiencing the most crowding due to the six-foot passenger distance mandate. However, the Focus Area Plan would not interfere or conflict with these VTA transit facilities and would be consistent with VTA Transit Service Guidelines, which guide VTA service planning, including route determination, service levels, and capacity (ridership coverage).[2] Table 17-1 shows transit delay in the Focus Area Plan (including the Greystar Project).

Table 17-1
TRANSIT VEHICLE DELAY IN FOCUS PLAN AREA

			Projected Change in Transit Vehicle Delay (sec/veh)			
			With Focus Area Plan Buildout		**With Greystar Project Buildout**	
Route	**Streets**	**Direction**	**AM**	**PM**	**AM**	**PM**
20	Arques Ave./Scott Blvd., Bowers Ave./Great America Pkwy, Mission College Blvd., Agnew Rd., Montague Expwy	Eastbound	61.9	523.7	15.0	11.8
		Westbound	97.2	561.1	-26.6	-2.1
55	Lawrence Expwy, Tasman Dr.	Northbound	18.2	0.6	-0.1	-0.3
		Southbound	0.0	26.5	0.0	0.0
57	Bowers Ave./Great America Pkwy, Mission College Blvd., Tasman Dr., Patrick Henry Dr., Old Ironsides Dr.	Northbound	32.9	38.4	-5.8	0.7
		Southbound	7.6	16.1	-2.4	0.5
59	Scott Blvd., San Tomas Expwy, Mission College Blvd., Great America Pkwy, Old Ironsides Dr.	Northbound	944.2	317.8	-2.9	17.2
		Southbound	53.5	341.4	10.5	-38.6
ACE Yellow	Bowers Ave., Scott Blvd., San Tomas Expwy, Mission College Blvd., Great America Pkwy, Tasman Dr.	Outbound	74.0	--	6.7	--
		Inbound	--	259.5	--	7.6

SOURCE: Hexagon Transportation Consultants, September 2021.

Note: Project increase in transit delay based on a comparison of background vs. background plus project intersection delays calculated in TRAFFIX.

As shown in the table, traffic associated with buildout of the Focus Area Plan would increase transit vehicle delay for bus routes 55 and 57 by less than 40 seconds. For bus routes 20, 59,

[1]The VTA has temporarily put its Transit Service Plan update on pause while it focuses on improving service to routes experiencing the most serious overcrowding. (VTA website: https://www.vta.org/blog/vta-shifts-focus-transit-service-plan-urgent-issue-passenger-pass-ups, accessed 4/20/21.)

[2]According to VTA's "Transit Service Guidelines" (Revised September 2019), route frequency is determined by demand and policy, with higher ridership demand warranting more frequent bus service (p. 10); in addition, the Guidelines note that high-density land uses that are transit-supportive generate higher ridership (p. 3). VTA's focus on "ridership-oriented service" (p. 2) depends on three elements: attractive transit service, dense and transit-supportive land uses, and pedestrian-oriented street design (p. 3). The Focus Area Plan would support the second and third elements (the first one, "attractive transit service," is dependent on VTA policy).

and the ACE Yellow shuttle, the buildout of the Focus Area Plan would cause transit vehicle delay to increase by roughly 1 to 16 minutes. With the exception of the ACE Yellow route, which currently has a total travel time of roughly 25 minutes from end to end, the other routes shown would have total end-to-end travel times of between 40 and 65 minutes. In addition, the required 10 percent TDM trip reduction and the recommended roadway and multimodal improvements would serve to reduce transit vehicle delay. It is important to note that the VTA has not established policies or significance criteria related to transit vehicle delay.

Because the Focus Area Plan is, by definition, policy oriented, the Plan does not propose any direct transit improvements, but transit support is included in Focus Area Plan Policy FC-19 ("Maintain VTA bus transit service on Mission College Boulevard and improve transit stops and shelters") and Policy FC-P20 ("Design pedestrian and bicycle networks and infrastructure to facilitate access to transit stops on Great America Parkway, Mission College and Tasman Drive"). Therefore, because the Focus Area Plan would not interfere or conflict with existing or planned transit facilities, this impact would be ***less-than-significant*** (see criterion [a] in subsection 17.3.1, "Significance Criteria," above).

Mitigation 17-3. No significant impact has been identified; no mitigation is required.

Impact 17-4: Impacts on Bicycle Facilities—Plan Area. The Plan Area is located near many existing bicycle facilities, including trails along San Tomas Aquino Creek and Calabazas Creek, and bike lanes on Great America Parkway, Mission College Boulevard, and other streets. Future Plan Area residents would be able to ride to work using bike lanes and bike trail connections to surrounding employment areas. Existing employment zones to the north of the Plan Area would be accessible via bike lanes on Great America Parkway or via the San Tomas Aquino Creek Trail. Bike lanes on Tasman Drive would provide a route to other employment opportunities planned as part of the Related Santa Clara development. These bike lanes could also be used to reach the North San José employment area, and the Guadalupe River trail could be used to reach downtown San José. Employment areas south of the project site would be reached via the San Tomas Aquino Creek Trail or bike lanes on Great America Parkway/Bowers Avenue.

Because the Focus Area Plan is, by definition, policy oriented, the Plan does not propose any specific bicycle facility improvements at this time; however, the Focus Area Plan anticipates future improvements related to bicycle facilities (Focus Area Plan Policy FC-P14: "Provide new street, bicycle and pedestrian networks that break down large blocks and sites, accommodate multiple modes of travel, and maximize connections to activity hubs which would increase the number of connection points that could facilitate emergency access" and Policy FC-P18: "Redesign Mission College Boulevard, Freedom Circle, and Hitchborn Drive to better balance space dedicated to vehicles, bicycle, and pedestrians" such as Class II bike paths). Because the Focus Area Plan would not interfere or conflict with existing and planned bicycle facilities, this impact would be ***less-than-significant*** (see criterion [a] in subsection 17.3.1, "Significance Criteria," above).

Mitigation 17-4. No significant impact has been identified; no mitigation is required.

Impact 17-5: Impacts on Pedestrian Facilities—Plan Area. Because the Focus Area Plan is, by definition, policy oriented, the Plan does not propose any specific pedestrian improvements at this time; however, the Focus Area Plan anticipates future improvements related to pedestrian facilities (Focus Area Plan Policy FC-P14: "Provide new street, bicycle and pedestrian networks that break down large blocks and sites, accommodate multiple modes of travel, and maximize connections to activity hubs which would increase the number of connection points that could facilitate emergency access" and Policy FC-P18: "Redesign Mission College Boulevard, Freedom Circle, and Hitchborn Drive to better balance space dedicated to vehicles, bicycle, and pedestrians" such as wider sidewalks). The Plan Area currently comprises very large parcels that create excessive walking distances between properties. As described earlier in the setting (section 17.1), Plan Area streets mostly all have sidewalk facilities. However, the Focus Area Plan also includes Policy FC-P15: "Develop design standards and guidelines to support active ground-floor environments, welcoming public spaces, and safe and comfortable sidewalks and pathways," which would support improvements to pedestrian facilities such as wider sidewalks.

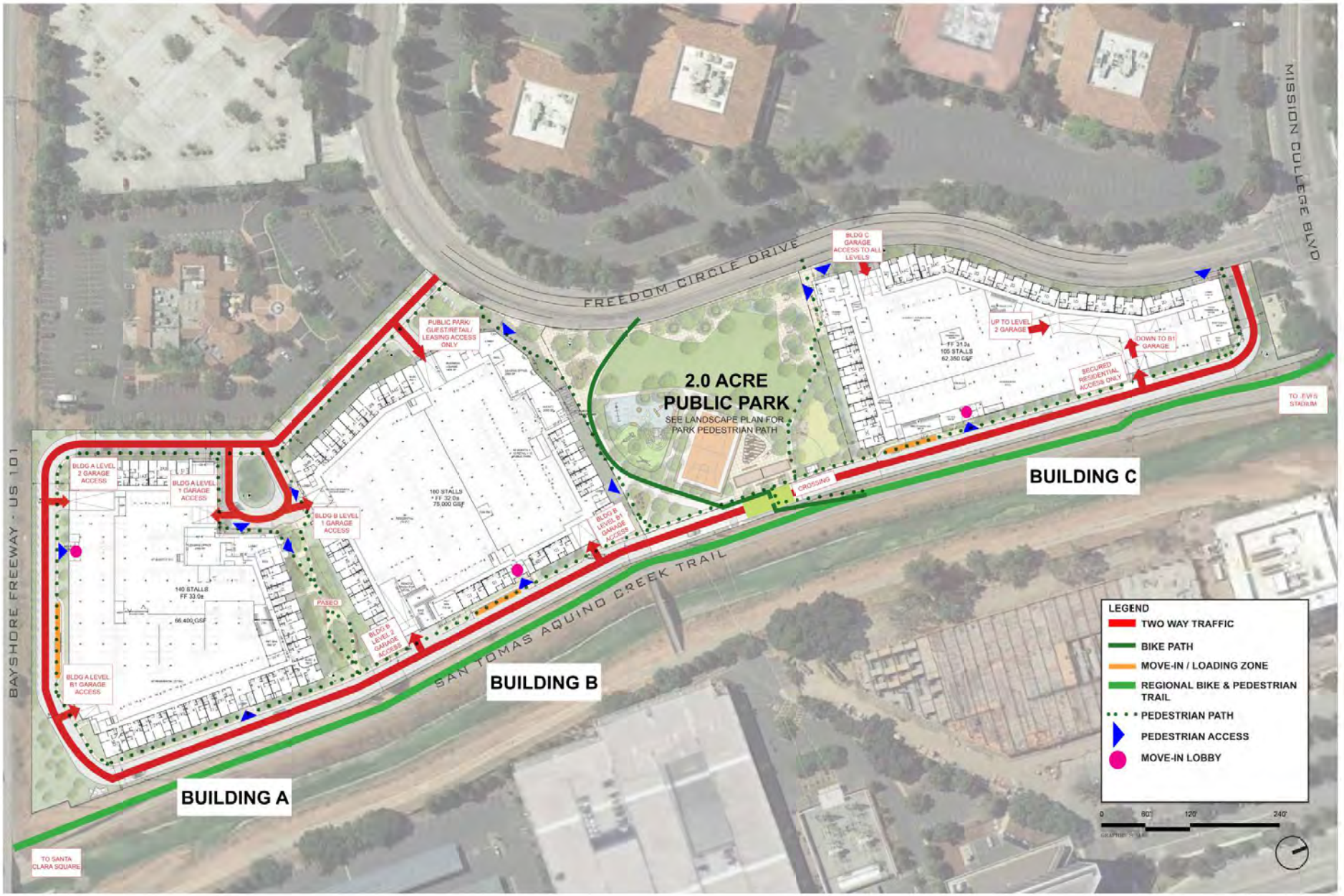
Currently the only trail connection to the San Tomas Aquino Creek Trail is located at Mission College Boulevard; however, as discussed below in Impact 17-8, the Greystar project proposes to construct a trail that would provide a connection between Freedom Circle and the San Tomas Aquino Creek Trail.

Because the Focus Area Plan would not interfere or conflict with existing and planned pedestrian facilities, this impact would be ***less-than-significant*** (see criterion [a] in subsection 17.3.1, "Significance Criteria," above).

Mitigation 17-5. No significant impact has been identified; no mitigation is required.

Conflict With Adopted Policies, Plans, or Programs Regarding Public Transit, Bicycle, or Pedestrian Facilities—Greystar Project. The Greystar project would construct localized facilities to serve the project site transportation needs and connect with the surrounding transportation network. Figure 17.5 shows the proposed Greystar project circulation. Potential conflicts with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities (including possible decreases in the performance or safety of such facilities) are discussed in more detail below.

Impact 17-6: Impacts on Transit Related to Conflicts with Adopted Policies, Plans, or Programs—Greystar Project. The Greystar project does not propose any improvements to existing transit facilities near the project site; however, the project would not interfere or conflict with existing transit facilities-- bus stops located within ½ mile of the project site on Mission College Boulevard (with VTA Route 20 connecting to the Sunnyvale Caltrain station, and service by an ACE shuttle) and on Agnew Road. The project would add additional bicycle and pedestrian improvements that would provide for better access to transit facilities near the project site. In addition, transit support is included in Focus Area Plan Policy FC-19 ("Maintain VTA bus transit service on Mission College Boulevard and improve transit stops and shelters") and Policy FC-P20 ("Design pedestrian and bicycle networks and infrastructure to facilitate access to transit stops on Great America Parkway, Mission College and Tasman Drive") and therefore would be supported by the Greystar project.



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Revisions:
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Sheet Title:
SITE CIRCULATION PLAN

Job No. 20002
Date: 6/11/2021
Scale: 1" = 60'-0"

Sheet No:
A-030

FIGURE 17.5: GREYSTAR PROJECT SITE CIRCULATION PLAN

As discussed above in Impact 17-3, the Hexagon transportation analysis includes a transit delay evaluation for the Focus Area Plan and the Greystar Project (see Table 17-1): Traffic associated with buildout of the Greystar Project would increase transit vehicle delay for bus routes 20, 55, 57, and 59 and the ACE Yellow shuttle by less than 18 seconds. In addition, the required 10 percent TDM trip reduction and the recommended roadway and multimodal improvements would serve to reduce transit vehicle delay. It is important to note that the VTA has not established policies or significance criteria related to transit vehicle delay. Therefore, this impact would be ***less-than-significant*** (see criterion [a] in subsection 17.3.1, "Significance Criteria," above).

Mitigation 17-6. No significant impact has been identified; no mitigation is required.

Impact 17-7: Impacts on Bicycle Facilities—Greystar Project. The Greystar project proposes including a new trail connection on the east side of the project site, which would allow pedestrians and bicycles access to the San Tomas Aquino Creek Trail. In addition, the project would construct an 8-foot Class II bike lane along the Freedom Circle side of the project, which would provide additional bicycle facilities. These proposed bicycle facilities would help connect the project site with other existing bicycle facilities, including the San Tomas Aquino Creek Trail and bike lanes on Mission College Boulevard, and would provide a link in the bicycle network.

The proposed Greystar project bicycle facilities, on and near the project site, would provide safer conditions for bicyclists relative to existing conditions, consistent with the City's General Plan and the Bicycle Master Plan Update 2018; this would be a ***beneficial effect*** (see criterion [a] in subsection 17.3.1, "Significance Criteria," above).

Mitigation 17-7. No significant impact has been identified; no mitigation is required.

Impact 17-8: Impacts on Pedestrian Facilities—Greystar Project. The Greystar project proposes several new pedestrian facilities on and adjacent to the project site, including the new trail connection between the two pedestrian paths on either side of the 2.0-acre park and the San Tomas Aquino Creek Trail, and a new wider (seven feet) sidewalk on Freedom Circle along the project frontage. The proposed Greystar pedestrian facilities, on and near the project site, would provide safer conditions for pedestrians relative to existing conditions, consistent with the City's General Plan and the City of Santa Clara Pedestrian Master Plan 2019; this would be a ***beneficial effect*** (see criterion [a] in subsection 17.3.1, "Significance Criteria," above).

Mitigation 17-8. No significant impact has been identified; no mitigation is required.

Impact 17-9: Impacts Related to Vehicle Miles Traveled—Plan Area. Traffic impacts under CEQA have traditionally been assessed based on increases in intersection delay measured by Level of Service (LOS). However, in 2013, Governor Brown signed Senate Bill 743, which directed the State Office of Planning and Research (OPR) to develop new California Environmental Quality Act (CEQA) guidelines to replace LOS with another measure for evaluating transportation impacts under CEQA. OPR recommended using Vehicle Miles Traveled (VMT), which measures the amount of vehicle trip making and trip length and is a

direct measurement of greenhouse gas emissions.[1] In December 2018, the California Natural Resources Agency certified and adopted the CEQA Guidelines update and VMT approach. CEQA Guidelines section 15064.3 (Determining the Significance of Transportation Impacts) provides the framework for CEQA transportation analyses.

The City of Santa Clara recently adopted a VMT Transportation Analysis Policy for Environmental Review,[2] which constitutes the City transportation policy, to align with State law and define City transportation analysis requirements for CEQA review purposes. The Policy sets forth screening criteria for certain types of development that are presumed to have a less-than-significant impact on VMT due to their characteristics, such as infill development, small projects, and/or transit supportive projects near major transit corridors. The Freedom Circle Focus Area Plan qualifies as a transit supportive project because it meets the criteria established by the City related to proximity to transit, density, multimodal transportation networks, transit-oriented design elements, parking, and affordable housing, as discussed below.

Proximity to Transit. Transit supportive projects must be located within ½ mile of an existing Major Transit Stop or an existing transit stop along a High-Quality Transit Corridor, as those terms are defined by Public Resources Code sections 21064.3 and 21155. A "Major Transit Stop" is defined as a site containing any of the following: (a) an existing rail or bus rapid transit station; (b) the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods; or (3) a major transit stop that is included in Plan Bay Area 2040 (Pub. Res. Code §§ 21064.3, 21155(b)). A "High-Quality Transit Corridor" is defined as a corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours. (Pub. Res. Code § 21155(b).

VTA provides the frequent bus service via Route 57, which runs along Great America Parkway. In addition, VTA provides local bus service via Route 20 and Route 59, which run along Great America Parkway and Mission College Boulevard. Prior to the COVID-19 pandemic, both Route 57 and Route 20 had headways of 15-minutes during the peak commute periods. Since the pandemic is temporary and the VTA has confirmed that 15-minute headways on these routes will resume again on October 11, 2021, pre-pandemic headways were used to define "High-Quality Transit Corridor." Thus, both Great America Parkway and Mission College Boulevard have fixed-route bus service with service intervals of 15 minutes or less during the AM and PM peak commute periods and are considered High-Quality Transit Corridors. There are three Route 20/59 bus stops near the Freedom Circle Focus area along Mission College Boulevard at Great America Parkway, Freedom Circle, and Agnew Street. All of the parcels within the Freedom Circle Focus area, including the Greystar site, are either within ½ mile of the nearest Route 57 bus stop or the Route 20/59 bus stops. A map showing these transit facilities and a

[1] A reduction in VMT would promote (1) the reduction of greenhouse gas emissions, (2) the development of multimodal transportation networks, and (3) a diversity of land uses that reduces the reliance on individual vehicles.

[2] City of Santa Clara, Resolution No. 20-8861, "A Resolution of the City of Santa Clara, California to Amend Resolution 5713 to Adopt a Transportation Analysis Policy to Comply with the California Environmental Quality Act Pursuant to State Senate Bill 743 (2013) and CEQA Guidelines Section 15064.3," adopted June 23, 2020. The Transportation Analysis Policy is also included in Appendix 25.6 of this EIR.

full description of other nearby transit services are discussed earlier in this Chapter (see "(d) Transit Facilities" under section "17.1.4 Existing Transportation Network" and corresponding Figure 17-4).

Density. For office/R&D projects, transit supportive projects must have a minimum floor area ratio (FAR) of 0.75. Similarly, residential projects must have a minimum density of 35 dwelling units per acre (DU/ac). The office development allowed in the Freedom Circle Focus Plan Area would equate to an FAR of approximately 1.4. The proposed residential density within the Plan Area, including the Greystar site, would be over 90 du/ac (3,600 DUs/39.1 acres). Development densities proposed on the Greystar site and the remainder of the Freedom Circle Focus Area would meet the minimum requirements to be considered a transit supportive project.

Multimodal Transportation Networks. City Policy requires that transit supportive projects promote multimodal transportation networks. The Focus Area Plan would establish the foundation for providing balanced, multimodal internal circulation as well as convenient access to nearby destinations and transit stations that would be anticipated to be incorporated in the future, required comprehensive planning study (e.g., specific plan). The Focus Area Plan includes the following planning and design themes that support safe, active, and sustainable travel options for residents, workers and visitors:

- Maintain existing street hierarchy and provide streetscape alterations to promote pedestrian friendly design to increase pedestrian comfort and safety.
- Expand pedestrian pathways, internal streets, and create new linkages between neighborhoods to improve circulation, connect people to destinations both within and outside of the plan area, and provide a sense of openness in residential areas.
- Retrofit auto-oriented streets to accommodate all travel modes, and develop finer grained streets that are comfortable, inviting, safe, and accessible for all users.
- Build on existing physical assets and enhance connectivity to the San Tomas Aquino Creek trail.
- Provide pedestrian and bicycle routes to transit stops located along major thoroughfares.

Transit-Oriented Design Elements. Transit supportive projects would be required to include transit-oriented design elements. The Freedom Circle Focus Area Plan would establish the foundation for ensuring a pedestrian-oriented, mixed-use district that is walkable with convenient connections to high-quality transit; this foundation would be used to formulate the future, required comprehensive planning study (e.g., specific plan), which would incorporate the following or similar urban design principles to ensure the Focus Area Plan is a transit-oriented development:

- Include a lively mix of core community uses and neighborhood serving retail that provide a broad array of services for residents, workers, and visitors.
- Reduce reliance on private vehicles and improve jobs/housing balance by locating amenities and jobs within walking distance to housing.
- Develop standards and guidelines to enhance overall livability of the area.
- Activate street frontages and ground floor uses to create a cohesive, integrated, environment.

Parking. Transit supportive projects may not include more parking for use by residents, customers, or employees than required by the City Code. No development applications have

been submitted for consideration (other than the Greystar proposal), and the proposed on-site parking supply is not known for other potential projects in the Plan Area. The Focus Area Plan would be required to comply with parking standards in the City Code. Future development proposals would undergo City review, and any applications proposing excess parking would not qualify as transit supportive, and would then be subject to separate evaluation of their potential impacts on VMT, unless the parking provisions are refined consistent with the City Code.

Affordable Housing. Affordable housing has been shown to generate fewer vehicle miles traveled per capita than market rate housing. City VMT Policy states that transit supportive projects must not replace affordable residential units with fewer affordable units. In addition, any replacement units are required to maintain the same level of affordability. Currently, the Plan Area does not contain any residential dwelling units. The Focus Area Plan proposes 15 percent of the proposed residential dwelling units to be affordable to those earning less than 80 percent of the Area Median Income (AMI). Therefore, the Focus Area Plan would ***add*** new affordable dwelling units and not result in a loss of affordable units.

The previous City-identified topics related to "transit-supportive" projects are discussed further in the policy evaluation above—i.e., proximity to transit, proposed density in the Plan Area, features to strengthen multimodal connections, transit-oriented design elements, requirements for parking, and affordable housing policies. The proximity to transit and the projected reduction in trips associated with mixed-use developments (where both the origin and destination are in the development and therefore do not create "off-site" or "external" trips) would generally result in residents generating fewer single-occupancy vehicle trips than for residents in projects that are not "transit-supportive." In addition, the Focus Area Plan would establish the foundation for goals, policies, standards, and guidelines that would be anticipated to be incorporated in the required comprehensive planning study (specific plan) and would help align implementation of the Focus Area Plan with these transit-supportive features (e.g., Focus Area Plan Goals FC-G3, FC-G4, FC-G5, and FC-G6 and Policies FC-P3, FC-P11, FC-P14, FC-P15, FC-P16, FC-P18, FC-P19, FC-P20, FC-P21, and FC-P22), including transportation demand management (TDM) measures. The following are example TDM measures that could be considered: providing both short- and long-term bicycle parking in convenient, secure and prominent locations in each building; providing information about transit options and passes; distributing transportation news and commuter alerts; and providing information to residents (through links to appropriate websites, apps and other resources like "511"); and assisting with rideshare matching, which would also reduce single-occupancy vehicle trips and VMT.

As discussed in Chapter 9, Greenhouse Gas Emissions and Energy, of this EIR, implementation of Mitigation Measure 9-1A would require proposed residential and office land uses within the Freedom Circle Focus Plan Area (including the Greystar project) to prepare and implement a Transportation Demand Management (TDM) plan to reduce vehicle miles traveled by 20 percent (compared to baseline conditions), with at least 10 percent of that VMT reduction coming from specific measures implemented by the project itself (such as transit subsidies, telecommuting options, etc.).

Therefore, because the Freedom Circle Focus Area Plan qualifies as a transit supportive project (per State guidance[1] and City VMT Policy), the Focus Area Plan impact on VMT would be ***less-than-significant*** (see criterion [b] in subsection 17.3.1, "Significance Criteria," above).

Mitigation 17-9. No impact has been identified; no mitigation is required.

Impact 17-10: Impacts Related to Vehicle Miles Traveled—Greystar Project. As discussed above in Impact 17-9, traffic impacts under CEQA are now evaluated based on Vehicle Miles Traveled (VMT), and projects in the City of Santa Clara with certain development characteristics are presumed to have a less-than-significant impact on VMT (such as infill development, small projects, and/or transit supportive projects near major transit corridors).

The Greystar project would qualify as a transit supportive project because it meets all of the City's criteria, as discussed below.

Proximity to Transit. There are three Route 20/59 bus stops near the Greystar project site along Mission College Boulevard at Great America Parkway, Freedom Circle, and Agnew Street. As discussed in Impact 17-9, Mission College Boulevard is considered a "High-Quality Transit Corridor." The Greystar project would be within ½ mile of the nearest Route 20/59 bus stops, and therefore would meet the proximity to transit requirements to be considered a transit supportive project.

Density. Residential projects must have a minimum density of 35 dwelling units per acre (DUs/ac). The proposed residential density on the Greystar site would be over 80 DUs/ac (1,075 DUs/13.3 acres), which would exceed the minimum density requirement of 35 DU/ac; therefore, the Greystar project would meet the minimum density requirements to be considered a transit supportive project.

Multimodal Transportation Networks. The Greystar project plans include new pedestrian pathways throughout the project site that would connect buildings and the public park, and connect people to destinations both within and outside of the project. In addition, the project would include on-site bike storage and repair stations to encourage bicycle use. The project would also include a Class II bike lane along the Freedom Circle segment adjacent to the project site. The project also proposes a trail connection to the San Tomas Aquino Creek trail. As well, the project site is supported by pedestrian and bicycle routes to nearby transit stops. Therefore, the Greystar project would meet the multimodal transportation requirements to be considered a transit supportive project.

Transit-Oriented Design Elements. The Greystar project would include project-serving retail for residents, would support reduced reliance on private vehicles (the project includes resident and guest bicycle parking), and would improve jobs/housing balance by its proximity to transit and employment centers. Therefore, the Greystar project would meet the transit-oriented design element requirements to be considered a transit supportive project.

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[1]State of California, Office of Planning and Research, "Technical Advisory on Evaluating Transportation Impacts in CEQA", December 2018.

Affordable Housing. City VMT Policy states that transit supportive projects must not replace affordable residential units with fewer affordable units. In addition, any replacement units are required to maintain the same level of affordability. Currently, the Greystar project site does not contain any residential dwelling units. Additionally, the Greystar project would be required to allocate at least 15 percent of its proposed residential dwelling units as affordable units for those earning less than 80 percent of the Area Median Income (AMI). Therefore, the Greystar project would meet the affordable housing requirement to be considered a transit supportive project.

Parking. The Greystar project would provide 1,383 residential parking spaces and 8 retail parking spaces, in compliance with City parking requirements, and would be consistent with the City Code.[1]

In addition, as discussed in Chapter 9, Greenhouse Gas Emissions and Energy, of this EIR, implementation of Mitigation Measure 9-1A would require proposed residential and office land uses on the Greystar project site to prepare and implement a Transportation Demand Management (TDM) plan to reduce vehicle miles traveled by 20 percent (compared to baseline conditions), with at least 10 percent of that VMT reduction coming from specific measures implemented by the project itself (such as transit subsidies, telecommuting options, etc.).

Therefore, because the Greystar project qualifies as a transit supportive project (per State guidance[2] and City VMT Policy), the Greystar project impact on VMT would be ***less-than-significant*** (see criterion [b] in subsection 17.3.1, "Significance Criteria," above).

Impact 17-11: Hazards Due to Design Features or Incompatible Uses—Plan Area. As a policy oriented plan, the Focus Area Plan does not propose specific internal roadway network improvements; however, the Focus Area Plan anticipates future internal roadway improvements (Plan Policy FC-P14: "Provide new street, bicycle and pedestrian networks that break down large blocks and sites, accommodate multiple modes of travel, and maximize connections to activity hubs which would increase the number of connection points that could facilitate emergency access"). When detailed site plans for future development projects are submitted, project-related roadway designs would be subject to City review, which would ensure adequacy of circulation patterns and safety standards; reduce potential conflicts between vehicles, pedestrians, bicyclists, and buses; and remove potential hazards due to design features (i.e., insufficient sightlines or distances) or incompatible uses. Therefore, this impact would be ***less-than-significant*** (see criterion [c] in subsection 17.3.1, "Significance Criteria," above).

Mitigation 17-11. No significant impact has been identified; no mitigation is required.

Impact 17-12: Hazards Due to Design Features or Incompatible Uses—Greystar Project. Project design features have been reviewed by the City Traffic Division and determined to

[1]City Code Section 18.23. Although the current Greystar project plans indicate 10 retail parking spaces, the Greystar applicant has agreed to reduce the number of retail parking spaces from 10 to 8 (via a Condition of Approval) to comply with City parking requirements (John Davidson, Principal Planner, City of Santa Clara, email dated October 14, 2021, to MIG).

[2]State of California, Office of Planning and Research, "Technical Advisory on Evaluating Transportation Impacts in CEQA", December 2018.

provide adequate driveway widths and drive aisle widths with sufficient sight lines for entry and exit from driveways, including redesign of the northern perimeter road to be right-in/right-out only where it intersects with Mission College Boulevard. Therefore, the project would comply with all driveway and related parking and other design standards, and this impact would be ***less-than-significant*** (see criterion [c] in subsection 17.3.1, "Significance Criteria," above).

Mitigation 17-12. No significant impact has been identified; no mitigation is required.

Impact 17-13: Emergency Access—Plan Area. Existing access to the Plan Area for emergency vehicles is via connections to Patrick Henry Drive, Mission College Boulevard, and Hichborn Drive from Great America Parkway in the west, and to Freedom Circle from Mission College Boulevard as well as from Agnew Road in the east. These connections would remain. As a policy oriented plan, the Focus Area Plan does not propose any specific internal roadway network improvements; however, the Focus Area Plan anticipates future internal roadway improvements (Plan Policy FC-P14: "Provide new street, bicycle and pedestrian networks that break down large blocks and sites, accommodate multiple modes of travel, and maximize connections to activity hubs which would increase the number of connection points that could facilitate emergency access"). When detailed site plans are required to be submitted, street designs would be subject to City review to ensure the adequacy of circulation patterns and compliance with City emergency vehicle access standards, such as requiring that alleys have a minimum width of 25 feet to allow for emergency vehicles and connecting "dead end" street sections (i.e., cul-de-sacs) with multi-modal paths that would allow emergency vehicles. City review of future driveway and drive aisle design would ensure compliance with City emergency vehicle access requirements. Therefore, this impact would be ***less-than-significant*** (see criterion [d] in subsection 17.3.1, "Significance Criteria," above).

Mitigation 17-13. No significant impact has been identified; no mitigation is required.

Impact 17-14: Emergency Access—Greystar Project. Existing access to the project site for emergency vehicles is via connections to Freedom Circle from Mission College Boulevard (both "west" and "east"—Freedom Circle is a "loop" road). These connections would remain. The Greystar project proposes to construct a new two-way private "perimeter road," which would connect to Freedom Circle and provide emergency vehicle access around the entire project site. The final design of the perimeter road would be subject to City review. The Fire Department would require roadways to have a "minimum" width of 20 feet for fire engines and a "minimum" width of 26 feet roadways for aerial apparatus. Project plans indicate that the perimeter road would be 26 feet wide, increasing to 34 feet at the three trash staging areas (one for each building; on the south side of Building A, and on the east side of Building B and Building C). As an informational note for disclosure purposes, according to the Hexagon transportation analysis for the project, the 26-foot width for the perimeter road would not provide sufficient room for emergency vehicles to turn around, and with the current design, emergency vehicles would need to enter from the northern driveway and exit from the southern driveway.[1] However, City review of construction drawings would ensure compliance with City emergency vehicle access

[1]Hexagon Transportation Consultants, Inc., "Freedom Circle Focus Area Plan and Greystar General Plan Amendment Transportation Analysis," prepared for MIG, Inc., September 24, 2021, p. 147.

requirements. Therefore, this impact would be ***less-than-significant*** (see criterion [d] in subsection 17.3.1, "Significance Criteria," above).

Mitigation 17-14. No significant impact has been identified; no mitigation is required.

18. UTILITIES AND SERVICE SYSTEMS

This EIR chapter describes public utility and service system implications of the proposed Freedom Circle Focus Area Plan/Greystar General Plan Amendment. This analysis provides a programmatic review of the existing utility and service systems servicing the Freedom Circle Focus Area Plan (including the Greystar project), identifies existing limitations, and recommends improvements. The chapter addresses the utility and service system issues identified by the CEQA Guidelines--i.e., would development under the proposed Plan and the Greystar project: result in the construction of water, wastewater treatment, storm water drainage, electric power, natural gas, or telecommunications facilities which would cause significant environmental impacts; have an insufficient water supply; have insufficient wastewater treatment capacity or landfill capacity; or not comply with solid waste regulations.[1]

18.1 SETTING

18.1.1 Water

(a) Existing Domestic Water Supply. The City of Santa Clara Water & Sewer Utilities Department provides water service to the city, an area of approximately 19.3 square miles, with over 97 percent of its land area developed primarily in a low density, suburban form. The City's water supplies come from four sources: treated water from Valley Water (Santa Clara Valley Water District), treated water from the San Francisco Public Utilities Commission (SFPUC), local groundwater from City-owned wells, and recycled water from South Bay Water Recycling (SBWR). The City's potable water supply comes from treated water (Valley Water and SFPUC) and City groundwater wells. Recycled water is used only for landscape irrigation and some industrial uses.[2]

Groundwater makes up about 65 percent of the City's potable water supply via 26 City-owned wells, which, as discussed in chapter 11, Hydrology and Water Quality, of this EIR, obtain water from the Santa Clara Subbasin. Valley Water estimates the storage capacity of the Santa Clara Subbasin to be 350,000 acre-feet. Historically, high groundwater pumping and land subsidence have resulted in saltwater intrusion into aquifers in the northern portion of the Subbasin near salt ponds and tidal creeks; however, the Subbasin's groundwater is typically of good quality and does not require treatment beyond disinfection. The City monitors groundwater levels and meters the groundwater pumping. SFPUC water makes up approximately 14 percent of the City's potable water supply. Valley Water makes up approximately 21 percent of the City's potable water supply. In 2015, the City's total potable water supply was approximately 17,621 acre-feet.[3]

[1]CEQA Guidelines, appendix G, item XIX (a through e).

[2]City of Santa Clara, 2015 Urban Water Management Plan, November 22, 2016.

[3]2015 UWMP.

The City of Santa Clara's 2015 Urban Water Management Plan (UWMP), adopted in 2016, provides estimated future water demands used in regional water supply planning efforts coordinated with the City's wholesale providers. The 2015 UWMP also addresses water supply, water quality, and system (infrastructure) reliability through the year 2040.[1] According to the 2015 UWMP, the Plan Area is located in an area of the city that receives a blend of potable water from City wells and treated surface water from SFPUC.

In 2015, the City Water & Sewer Utilities Department had an average potable water demand of 16.8 million gallons per day (mgd), with residential uses consuming approximately 50 percent (single family and multi-family residential uses are split 50-50, or 25 percent each). Commercial uses consumed approximately 32 percent, with remaining water use going to industrial, institutional, and municipal uses. The City implements a variety of demand management measures to conserve water and promote water conservation, including addressing leaks and flaws in the distribution system, providing public information and school education on water conservation, implementing conservation pricing, and setting metering and commodity rates, among others. Valley Water and SFPUC also implement demand management measures.[2]

According to the 2015 UWMP, total City water supplies in 2015 would cover expected water shortages in dry years through 2040. The City participates in the Water Shortage Allocation Plan, an agreement between the City, San Francisco, and 27 other Bay Area Water Supply and Conservation Agency members, which provides for the City to receive up to 22 percent of its usual water supply from SFPUC during system wide shortages. Depending on whether the City maintains its water supply contract with the SFPUC, the City anticipates the need to rely on regional drought allocations to cover water shortages after 2040 for a single-year drought scenario and after 2035 for a multi-year drought scenario. The City "Water Shortage Contingency Plan" outlines four water condition stages and their respective water use reductions: Stage 1 – 10 percent advisory reduction; Stage 2 – 20 percent voluntary reduction; Stage 3 – 40 percent mandatory reduction; and Stage 4 – 50 percent emergency curtailment.

(b) Freedom Circle Focus Area Plan Water Supply. A Water Supply Assessment (WSA) for the Freedom Circle Focus Area (including the Greystar project) was prepared by the City (April 7, 2021)[3] pursuant to State Senate Bill (SB) 610, SB 221, and CEQA, which require projects proposing more than 500 dwelling units to describe the project's (i.e., Focus Area Plan's/Greystar project's) water demand over a 20-year period, identify the sources of water available to meet the demand, and include an assessment of whether those water supplies are, or will be, sufficient to meet the demand for water associated with the proposed Focus Area Plan and the required comprehensive planning study (e.g., specific plan) in addition to the demand of existing customers and other planned future development. The WSA is required to follow a similar water supply scenario analysis as the UWMP: normal year, single dry year, and multiple dry years. In addition, if the WSA concludes that water supplies are or will be

[1]At the time of the NOP for this EIR, the City was in the process of updating the 2015 UWMP and anticipated approving a 2020 UWMP update in 2021. On June 22, 2021, the City Council approved the 2020 UWMP, which provided the state-required estimates of future water demands, water supply, water quality, and system (infrastructure) reliability. However, the water supply and demand analysis in this EIR chapter was based on the then-current 2015 UWMP.

[2]2015 UWMP.

[3]The "Freedom Circle Focus Area Water Supply Assessment" is subject to review and approval by the City Council; however, the draft analysis and conclusions have been included herein for CEQA purposes.

insufficient, then it must describe any plans for acquiring additional water supplies and the measures being undertaken to acquire and develop those supplies.

The WSA provided an overview of the City's current and projected water supply and demand through 2040, including the Plan Area with and without the Focus Area Plan and Greystar project development (to cover both the Focus Area Plan and the individual Greystar project proposal). Projections also included water demand for projects assessed since the adoption of the 2015 UWMP as well as previous water supply assessments for projects that were accounted for in the 2015 UWMP but have yet to be completed. The WSA considered potential changes in future water supplies based on potential loss of SFPUC water after 2028 and analyzed single and multiple dry year scenarios with and without SFPUC water.

According to the WSA, based on parcel information, existing water use in the Plan Area is approximately 64.2 acre-feet per year (AF/year).

(c) Greystar Project Water Supply. As discussed in section 18.1.1(b), the WSA for the Freedom Circle Focus Area Plan also included Greystar project site water demand over a 20-year period, sources of water available to meet the demand, and assessment of whether those water supplies are, or will be, sufficient to meet the demand for water associated with the proposed Greystar project.

According to the WSA, the Greystar project site currently uses no water (i.e., water use is 0 acre-feet per year).

(d) Water Delivery Infrastructure in the Plan Area. The City's water system consists of 335 miles of distribution mains, seven storage tanks with a total storage capacity of 28.8 million gallons, 26 groundwater wells, and 3 booster pump stations. Domestic water mains in and near the Plan Area were installed in the 1970s and 1990s. At the 4551 Great America Parkway parcel ("Abbott Laboratories") in the northwestern part of the Plan Area, two 12-inch PVC mains (installed in 1992) connect to the 12-inch asbestos cement (AC) Great America Parkway main; one runs along the Patrick Henry Drive cul-de-sac (the cul-de-sac terminates in the east at the California Great America amusement park property line), and the other runs along the southern border of the 4551 Great America Parkway parcel. In addition, an 8-inch AC main runs along a public utility easement (PUE) in the eastern part of that parcel. A 12-inch AC main (1975) on Great America Parkway runs south along the Plan Area's western boundary from Patrick Henry Drive to Hichborn Drive, connecting to 12-inch AC mains at Mission College Boulevard and Hichborn Drive. At Mission College Boulevard, a 12-inch AC main (1977) runs west-east from Great America Parkway to the Plan Area eastern boundary near San Tomas Aquino Creek (where a water pressure zone boundary is located) and along the way connects to the 12-inch Freedom Circle AC main at the two points where Freedom Circle intersects with Mission College Boulevard. (The 12-inch Freedom Circle main loops around the circle.) Along Agnew Road north of Mission College Boulevard, a 12-inch AC main (1975) continues northeast beyond the Plan Area, with an 8-inch AC main (1974) that splits off and heads north beyond the Plan Area and into the California Great America amusement park property.

(e) Water Delivery Infrastructure—Greystar Project Site. There are no existing water delivery facilities on the project site; however, as discussed above, adjacent to the project site, a 12-inch AC water main runs through Freedom Circle, connecting to the main on Mission College Boulevard.

(f) Recycled Water Supply and Delivery Infrastructure in the Plan Area. The City receives recycled water from South Bay Water Recycling (SBWR), a recycled water wholesaler. SBWR's recycled water system consists of over 150 miles of pipelines, five pump stations, and a total storage capacity of ten million gallons. SBWR's recycled water is treated at the San Jose-Santa Clara Regional Wastewater Facility and transported to City customers through 33 miles of recycled water pipelines located within City limits. Use of recycled water offsets the use of potable sources. City customers use recycled water for landscape irrigation and some industrial uses. Recycled water composes about 17 percent of the City's total water supply.[1]

In the Plan Area, a 12-inch PVC recycled water main (1998) runs west-east along Mission College Boulevard from Great America Parkway to the Plan Area eastern boundary near San Tomas Aquino Creek. At the eastern intersection of Mission College Boulevard and Freedom Circle, there is a "tee" connection. In addition, an 8-inch PVC main runs north along Great America Parkway from Patrick Henry Drive near the western Plan Area border, though currently there are no connections to the Plan Area.

(g) Recycled Water Infrastructure—Greystar Project Site. There are no existing recycle water delivery facilities on the project site, and as discussed above, the closest recycled water line is the 12-inch PVC recycled water main on Mission College Boulevard, which has a "tee" connection at the eastern intersection of Mission College Boulevard and Freedom Circle.

(h) Fire Flow. Water flow tests are performed for new developments. The City requires that developers provide on-site fire protection and allow a municipal hydrant(s) to be located in the public right-of-way. Final sizing of water lines would be subject to hydraulic modeling analysis based on final land plans, building types, water demands, fire flow requirement, and phasing, to establish final, actual line sizes in each street, in accordance with the California Fire Code. If a water distribution or storage infrastructure deficiency is identified, any water system upgrades would be required at the developer's expense, as determined and approved by the City.

18.1.2 Wastewater

(a) Wastewater Collection and Treatment. The City's Water & Sewer Utilities Department provides wastewater collection for the City, with approximately 270 miles of sewer pipelines and seven sewage pump stations. Wastewater from the City, along with wastewater from the Cupertino Sanitary District, is conveyed to the San Jose/Santa Clara Regional Wastewater Facility for treatment and disposal. The City's Sanitary Sewer Master Plan Update (April 2016)[2] addresses management, operation, and maintenance of the sanitary sewer system in compliance with the Water Board's Statewide General Waste Discharge Requirements for Sanitary Sewer Systems. The Sewer Master Plan evaluated potential capacity deficiencies and backups in the existing sewer system and identified areas likely to experience these conditions with future (2035) flows. The Sewer Master Plan recommended several pipe upgrades and lift station pump adjustments.

[1]City of San Jose, Recycled Water https://www.sanjoseca.gov/your-government/environment/water-utilities/recycled-water, accessed 3/18/20.

[2]City of Santa Clara, Sanitary Sewer Master Plan Update Final Report, April 2016.

(b) Existing Wastewater Infrastructure in the Plan Area. The existing sanitary sewer system in the Plan Area consists of 12-inch vitrified clay pipe (VCP) mains on Freedom Circle, with one 12-inch VCP along the eastern part of Freedom Circle (adjacent to the Greystar property) running north and connecting to the 12-inch VCP main on Mission College Boulevard, and another 12-inch VCP main (also adjacent to the Greystar property) rounding along the southern curve of Freedom Circle before heading north along Freedom Circle and connecting to the 12-inch VCP main on Mission College Boulevard. This 12-inch main on Mission College Boulevard runs from Freedom Circle/Agnew Road east to west; at Great America Parkway, the 12-inch main transitions to a 15-inch VCP main and connects to a 36-inch main west of Great America Parkway. This 36-inch main ultimately runs along Great America Parkway near Patrick Henry Drive and flows north to the Tasman Lift Station. At the 4551 Great America Parkway parcel ("Abbott Laboratories") in the northwestern part of the Plan Area, an 18-inch VCP main along the Patrick Henry Drive cul-de-sac (the cul-de-sac terminates in the east at the California Great America amusement park property line) runs from east to west and connects to the 36-inch VCP main on Great America Parkway. In addition, a 15-inch VCP main runs north along a public utility easement (PUE) in the eastern part of that parcel and connects to the 18-inch main on Patrick Henry Drive at the cul-de-sac.

(c) Existing Wastewater Infrastructure—Greystar Project Site. There are no existing wastewater facilities on the project site; however, as discussed above, there are 12-inch vitrified clay pipe (VCP) mains on Freedom Circle, with one 12-inch VCP along the eastern part of Freedom Circle (adjacent to the Greystar property) running north and connecting to the 12-inch VCP main on Mission College Boulevard.

18.1.3 Storm Drainage

(a) Local Topography and Drainage. The Plan Area is generally flat with surface elevations ranging from 20 to 30 feet above mean sea level (MSL) and a slope of less than one percent. Overall, the Plan Area slopes downward from south to north. The Plan Area drains to San Tomas Aquino Creek through a network of storm water drainage pipes, ranging in size from 12 inches to 72 inches in diameter, that ultimately convey storm water to one of four outfalls.

(b) Rainfall and Runoff. Average annual precipitation in the Plan Area and the Santa Clara Subbasin ranges from about 15 inches in the valley to about 45 inches in the Santa Cruz Mountains. Average rainfall in the City is about 14.5 inches per year, with most of it occurring during winter, and almost all of it occurring as rainfall. The Plan Area is located in the San Tomas Aquino Creek drainage area, which covers approximately 7.3 square miles. The 2015 Storm Drain Master Plan identified several areas that experience frequent flooding and recommended improvements along a portion of Mission College Boulevard near the Marriott Hotel entry road (replacement of approximately 375 feet of 27-inch main), and installation of a new pump station in the southeastern part of the Plan Area (in the southeastern part of the Greystar project site near U.S. 101).[1] According to the 2015 plan, both were determined to be low priority improvement projects. (For a discussion of the "100-year" flood, see chapter 11, Hydrology and Water Quality, of this EIR.)

(c) Existing Storm Drainage Infrastructure in the Plan Area. Storm drain pipes in the Plan Area drain to San Tomas Aquino Creek at four outfalls and include a 60-inch main that runs through a 35-foot storm drainage easement near the southern boundary of the Plan Area near

[1]City of Santa Clara, Storm Drain Master Plan, December 2015.

U.S. 101 (a portion of which is along the southern boundary of the Greystar project site) and leads to an outfall near the creek. This main collects runoff from drainage areas south of U.S. 101 (but not from the Plan Area). South of Hichborn Drive, a 24-inch main initial heads south along Freedom Circle and wraps around Freedom Circle, transitioning to 30-inch, 36-inch, 42-inch, 48-inch, and 54-inch mains before connecting to a 54-inch main on Mission College Boulevard that leads to the Freedom Circle Storm Drain Pump Station and the outfall at San Tomas Aquino Creek. Along Agnew Road north of Mission College Boulevard, three mains (12-inch, 15-inch, and 18-inch) collect runoff from the small area near the intersection of Agnew Road and San Tomas Aquino Creek and lead to an outfall at the creek. The remainder of the Plan Area is drained by: (1) a 15-inch main heading west along Mission College Boulevard that transitions to 18-inch, 27-inch, 30-inch, 33-inch, and 42-inch mains before connecting to the 54-inch main flowing north along Great America Parkway; (2) a 12-inch main at Hichborn Drive that connects to a 15-inch main at Freedom Circle and runs north along Freedom Circle, transitioning to 18-inch and 27-inch mains before connecting to the 27-inch main at Freedom Circle and Mission College Boulevard and from there continuing west toward Great America Parkway; and (3) several mains in the northwestern part of the Plan Area that include three mains (two 15-inch and one 30-inch) connecting the 4301-4401 Great America Parkway parcel to the 66-inch main on Great America Parkway, a 15-inch main connecting the 4551 Great America Parkway to the 66-inch main on Great America Parkway, and an 18-inch main at the Patrick Henry Drive cul-de-sac (the cul-de-sac terminates in the east at the California Great America amusement park property line) that transitions to a 30-inch main heading west along Patrick Henry Drive and connecting to the 72-inch main on Great America Parkway. The storm water main along Great America Parkway leads to the Westside Storm Drain Pump Station on Old Mountain View-Alviso Road and the outfall at San Tomas Aquino Creek. Santa Clara's storm drain system relies heavily on pump stations to move runoff from pipe networks to creeks, which flow to San Francisco Bay.

(d) Existing Storm Drainage Infrastructure—Greystar Project Site. There are no existing stormwater collection facilities on the project site; however, as discussed above, a 60-inch storm water main, which runs through a 35-foot storm drainage easement near the southern part of the southern boundary of the project site and leads to an outfall near San Tomas Aquino Creek. In addition, as noted in subsection (c), an existing 48-inch storm drain pipe is located in Freedom Circle, adjacent to the Greystar project site, transitioning to a 54-inch storm drain at the City's Freedom Circle Storm Drain Pump Station.

18.1.4 Solid Waste Disposal and Recycling

The City has non-exclusive solid waste hauling franchise agreements with 12 haulers, including Mission Trail Waste Systems, for garbage hauling and recycling services to businesses in properties zoned Industrial. The City has an exclusive solid waste hauling franchise agreement with Mission Trail Waste Systems for garbage hauling services in commercial, institutional, residential, and Planned Development areas, and with GreenWaste Recovery, Inc. for multi-family residential development. Recology South Bay provides recyclables hauling services to City areas zoned commercial, industrial, and residential.[1] Development projects would be

[1]Santa Clara County, City of Santa 2020-2021 Garbage and Recycling Services Fact Sheet, https://www.recyclestuff.org/Guides/Santa_Clara.pdf; Public Works Department Environmental Programs, https://www.santaclaraca.gov/our-city/departments-g-z/public-works/environmental-programs/commercial-and-industrial-garbage-recycling, both accessed 4/15/21.

required to submit to the City, for review and approval, a Waste Management Plan. Food establishments would be required to install pre-treatment devices and tallow bins; tallow bins would be required to be placed within a trash enclosure when possible. If an enclosure cannot accommodate the tallow bin(s), a separate dedicated enclosure with drainage to the sanitary sewer system would be required.

Construction and demolition debris is taken to the Zanker Road Resource Recovery Operation, a transfer/processing facility, which has a throughput of 1,300 tons per day.[1] The City requires projects involving construction, demolition, or renovation of 5,000 square feet or more to recycle or divert at least 65 percent of materials (per City Code Section 8.25.285). Development projects would be required to submit a Construction and Demolition Debris Recycling Report to the City, for review and approval.

Solid waste and recycling materials under non-exclusive agreements are taken to the hauler's designated location. Solid waste under the exclusive agreement is currently taken to the Mission Trail Transfer Station in Santa Clara, which has a maximum permitted throughput and capacity of 375 tons per day.[2] Solid waste from the Mission Trail Transfer Station is taken to the Newby Island Sanitary Landfill in Milpitas, which has a throughput of 4,000 tons per day and a remaining capacity of 21,200,000 cubic yards (with a cease operation date of 1/1/41).[3] In 2019, the City disposed of nearly 75 percent of its solid waste at Newby Island Sanitary Landfill.[4]

All exclusive solid waste and recycling (which would include land uses designated for Planned Development, such as future development in the Plan Area) is taken to the GreenWaste Recovery Facility in San Jose.[5] The GreenWaste Recovery Facility has a throughput of 3,500 tons per day.[6] Solid waste from the GreenWaste Recovery Facility is taken to the Newby Island Sanitary Landfill in Milpitas.[7]

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[1]CalRecycle, SWIS Facility/Site Activity Details, Zanker Road Resource Recovery Operations (Zanker Solid Waste Landfill), https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/1367?siteID=3392, accessed 4/15/21.

[2]CalRecycle, https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/1382?siteID=3405, accessed 4/15/21.

[3]CalRecycle, https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/1362?siteID=3388, accessed 4/15/21.

[4]CalRecycle, Jurisdiction Disposal and Alternative Daily Cover (ADC) Tons by Facility, https://www2.calrecycle.ca.gov/LGCentral/DisposalReporting/Destination/DisposalByFacility, accessed 4/15/21. Tons disposed at Newby Island Sanitary Landfill (113,256) ÷ total tons disposed (151,174) = 74.9 percent.

[5]Rinta Perkins, Compliance Manager, City of Santa Clara Public Works Department, email dated May 22, 2020, to Rebecca Bustos, Senior Planner, City of Santa Clara Community Development Department.

[6]CalRecycle, https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/1379?siteID=3402, accessed 4/15/21.

[7]Emily Hanson, GreenWaste Recovery, voicemail message 8/19/20.

Some forms of household hazardous waste (HHW)—used motor oil and oil filters, compact fluorescent light bulbs, and household batteries—can be collected as part of regular curbside service. The Santa Clara County Household Hazardous Waste Program also allows county residents to drop off other types of HHW, with both disposal services by appointment and during special drop-off events held each year. In addition, at "environmental days," sponsored by Recology twice a year, city residents may dispose of E-waste (computers, monitors, printers, etc.), universal waste (batteries, cell phones, compact fluorescent light bulbs, and fluorescent tubes) at the Recology San Jose facility.[1]

In the vicinity of the Plan Area, medicine kiosks accepting expired or unwanted medicines include the Mission College Police Department (3000 Mission College Boulevard), the Santa Clara Police Department Northside Substation (3992 Rivermark Plaza), and Sunnyvale Fire Station #6 (1282 N. Lawrence Station Road). In the vicinity of the Plan Area, sharps kiosks accepting hypodermic and intravenous needles, lancets, and other related sharply pointed or edged devices that can puncture or cut skin include the Santa Clara Police Department Northside Substation (3992 Rivermark Plaza) and Kaiser Permanente (1263 East Arques Avenue, Sunnyvale). In addition, some local drug stores also accept medicines and sharps for disposal. Also, medicine and sharps mail-back services are available.[2]

18.1.5 Other Utilities (Electrical, Natural Gas, Telecommunications)

Electrical service to the Plan Area is currently provided by Silicon Valley Power (SVP), which is owned by the City. As of January 1, 2018, SVP completely divested from coal, eliminating coal from the City's energy mix. SVP now buys only renewable or GHG free power.[3]

Natural gas service to the Plan Area is currently provided by Pacific Gas and Electric Company (PG&E). A PG&E gas main runs east-west from around Lafayette Street, passing along the northern boundary of California's Great America amusement park, to Great America Parkway. From there, the gas main continues west, eventually crossing Calabazas Creek and heading into the City of Sunnyvale.

Telecommunications services (phone, cable) are provided by AT&T and Comcast; major cell phone service providers include AT&T, Verizon, and T-Mobile.

[1]City of Santa Clara, Residential Garbage & Recycling, https://www.santaclaraca.gov/our-city/departments-g-z/public-works/environmental-programs/residential-garbage-recycling, accessed 4/15/21.

[2]Santa Clara County Med-Project, Convenient Locations, https://med-project.org/locations/santa-clara/convenient-locations/, accessed 4/15/21.

[3]Silicon Valley Power, "Commitment to Renewable Energy," https://www.siliconvalleypower.com/sustainability/commitment-to-renewable-energy, accessed 8/30/21.

18.2 REGULATORY SETTING

18.2.1 Water

18.2.1.1 Federal

U.S. Environmental Protection Agency. The U.S. Environmental Protection Agency (EPA) is responsible for developing and enforcing regulations that implement environmental laws enacted by Congress. EPA is responsible for researching and setting national standards for a variety of environmental programs, including the Safe Drinking Water Act (SDWA), passed in 1974 and since amended, which is the federal law that protects public drinking water supplies throughout the nation. Under the SDWA, EPA sets standards for drinking water quality and with its partners implements various technical and financial programs to ensure drinking water safety.

18.2.1.2 State

California Safe Drinking Water Act. The California Safe Drinking Water Act (SDWA) was enacted by the California State Legislature in 1976 (amended), to enforce the federal SDWA and ensure that the state's drinking water standards are at least as stringent as U.S. EPA standards.

California Water Code. The California Water Code is the governing law for all aspects of water management in California, including recycled water. In addition, California Code of Regulations, Title 17, Division 1 and Title 22, Division 4, provides technical standards for water quality, as further defined by the California Regional Water Quality Control Board.

Water Conservation Act of 2009. Also known as Senate Bill (SB) 7x7, the Water Conservation Act of 2009 established a comprehensive package of water conservation legislation. In general, the Act requires a 20 percent reduction in per capita urban water use by 2020. The Act also requires urban water users to develop consistent water use targets and to use those targets in their urban water management plans (UWMPs).

Senate Bills 610 and 221, Water Supply Assessment and Verification. Senate Bills (SB) 610 and 221 amended State law to improve the link between the information on water supply availability and certain land use decisions made by cities and counties. Both statutes require detailed information regarding water availability (water supply assessment or WSA) to be provided to city and county decision-makers prior to approval of specified large (greater than 500 dwelling units) development projects. Both statutes require this detailed information to be included in the administrative record. Under SB 610, WSAs must be furnished to local governments for inclusion in any environmental document for certain projects as defined in Water Code section 10912, subject to the California Environmental Quality Act (CEQA). Under SB 221, approval by a city or county of certain residential subdivisions requires an affirmative written verification of sufficient water supply.

Consistent with Water Code sections 10910-10912, the Freedom Circle Focus Area Plan is subject to WSA requirements because Plan implementation at full net development (3,600 new residential units plus 2,002,000 square feet of non-residential uses), including the proposed Greystar project, would demand an amount of water greater than the amount of water required by a 500 dwelling unit project. A WSA for the Freedom Circle Focus Area Plan (including the

Greystar project) has been prepared (January 15, 2021) and is included in the appendix of this EIR. Also, consistent with Water Code sections 10910-10912, the Greystar project is subject to WSA requirements because project development (1,075 new residential units plus 2,000 square feet of non-residential uses) would demand an amount of water greater than the amount of water required by a 500 dwelling unit project. As noted, the WSA for the Freedom Circle Focus Area Plan also includes the assessment for the Greystar project.

Urban Water Management Planning Act. In 1983 the California Legislature enacted the Urban Water Management Planning Act (Water Code sections 10610–10656). The Act states that every urban water supplier that provides water to 3,000 or more customers, or that provides over 3,000 acre-feet (af) annually, should make every effort to ensure the appropriate level of reliability in its water service sufficient to meet the needs of its various categories of customers during normal, dry, and multiple dry years. The Act requires that urban water suppliers adopt an urban water management plan (UWMP) at least once every five years and submit it to the Department of Water Resources. Noncompliant urban water suppliers are ineligible to receive funding pursuant to Division 24 or Division 26 of the California Water Code, or receive drought assistance from the State, until the UWMP is submitted and deemed complete pursuant to the Urban Water Management Planning Act.

California Department of Water Resources. The California Department of Water Resources is responsible, in cooperation with other agencies, for managing the water resources of the state. Most important is the operation of the State Water Project, which supplies water to public water systems that serve the majority of state residents. The Department is also responsible for developing the California Water Plan, which serves as a guide to the development and management of the state's water resources.

State Water Resources Control Board. The State Water Resources Control Board (SWRCB) oversees public water systems, and has oversight of water recycling projects, issuance of water treatment permits, and certification of drinking water treatment and distribution operators. In addition, through the Drinking Water Programs, the SWRCB regulates public water systems and enforces the federal and State Safe Drinking Water acts, including performing field inspections, reviewing plans and specifications for new facilities, taking enforcement actions for non-compliance with laws and regulations, reviewing water quality monitoring results, and supporting and promoting water system security.

18.2.2.3 Regional/Local

Valley Water (Santa Clara Valley Water District). Valley Water provides a safe and clean water supply for businesses and residents in the county, and also implements flood protection projects and programs to ensure the environmental health of streams and rivers. Valley Water prepares and adopts an Urban Water Management Plan (UWMP) as a planning tool for its water supply service area. The current UWMP provides an overview of the water supply system, water resources planning, the water shortage contingency plan, water demand, wastewater, recycled water, and water conservation. Valley Water is a wholesale water supplier and groundwater basin manager and also provides assistance to urban and agricultural water conservation programs. As the groundwater management agency for the County, Valley Water adopted a Groundwater Management Plan in 2016 to provide for replenishing groundwater, reducing groundwater demands, and monitoring groundwater to protect against contamination.

City of Santa Clara 2015 Urban Water Management Plan. The City adopted a UWMP in 2016 in compliance with State law.[1] The UWMP addresses water supplies (current and long-term), future water needs, conservation, and resource management programs to ensure adequate supplies are available to meet existing and future water demand. The UWMP, which was prepared in coordination with the City's two treated water wholesalers (San Francisco Public Utilities Commission and Valley Water) and with neighboring cities and water retailers, must be prepared every five years and submitted to the Department of Water Resources (DWR). See section 18.1.1 (Water) above.

Santa Clara General Plan. The General Plan addresses citywide water needs and the objectives necessary to achieve them. Applicable General Plan goals and policies include:

- Goal 5.10.4-G1: A reliable, safe supply of potable water adequate to meet present and future needs.
- Goal 5.10.4-G2: High water quality maintained throughout the City.
- Goal 5.10.4-G3: A reduction in the demand and consumption of water resources.
- Policy 5.10.4-P1: Promote water conservation through development standards, building requirements, landscape design guidelines, education, compliance with the State Water Conservation Landscaping Ordinance, incentives, and other applicable City-wide policies and programs.
- Policy 5.10.4-P2: Expand water conservation and reuse efforts throughout the City in order to meet the conservation goals in the City's adopted Urban Water Management Plan and CAP to reduce per capita water use by 2020.
- Policy 5.10.4-P3: Promote water conservation, recycled water use and sufficient water importation to ensure an adequate water supply.
- Policy 5.10.4-P4: Require an adequate water supply and water quality for all new development.
- Policy 5.10.4-P5: Prohibit new development that would reduce water quality below acceptable State and local standards.
- Policy 5.10.4-P6: Maximize the use of recycled water for construction, maintenance, irrigation and other appropriate applications.
- Policy 5.10.4-P7: Require installation of native and low-water-consumption plant species when landscaping new development and public spaces to reduce water usage.

[1]As discussed above in section 18.1.1, Setting—Water, the City approved the 2020 UWMP on June 22, 2021. The 2020 UWMP provides an updated discussion of water supplies (current and long-term), future water needs, conservation, and resource management programs (similar to the 2015 UWMP), plus an expanded discussion of drought risk assessment and related water shortage contingency planning. However, for preparation of this EIR, the 2015 UWMP was used to describe the physical environmental conditions that existed at the time the NOP was published (June 26, 2020), as required by CEQA Guidelines section 15125(a)(1).

- Policy 5.10.4-P8: Require all new development within a reasonable distance of existing or proposed recycled water distribution systems to connect to the system for landscape irrigation.

- Policy 5.10.4-P12: Encourage diversion of run-off from downspouts, and replacement of hardscapes to landscaped areas and permeable surfaces.

Santa Clara City Code. City Code Chapter 13.15 (Water) establishes regulations related to providing water to the city, including water conservation, best management practices, use of recycled water, and other matters related to the City's water supply and distribution system. Section 13.15.150 pertains to City recycled water regulations. Section 13.15.160 establishes the purpose and intent of regulation of recycled water service and use. Section 13.15.180 and Section 18.88.030 set forth the City's landscape water efficiency regulations, consistent with the California Water Conservation in Landscaping Act. Section 18.88.030 establishes water management practices that promote efficient use of water for projects that require a landscape permit.

Santa Clara Water & Sewer Utilities Department Development and Construction Requirements. The Water & Sewer Utilities Department applies general conditions to individual development proposals, many of which directly and proactively address environmental issues relevant to this CEQA EIR analysis, such as:

- new water service requests, review, and processing must include plans, for review and approval by the City, that show all existing and proposed utilities;

- developers must resolve any conflicts that occur with proposed water facilities; and

- minimum clearances from City water facilities to other underground systems, sanitary sewer facilities (mains, laterals, etc.), recycled water facilities, and trees must be provided.

In addition, developers are required to conduct a "development impact analysis" and carry out any capital improvements as recommended by the study. Also, residential and non-residential development are required to use water-conserving plumbing fixtures and fittings, and to comply with the City Water Service and Use Rules and Regulations, Item No. 24, or the California Model Water Efficient Landscape Ordinance (MWELO), whichever is more stringent.

18.2.2 Wastewater

18.2.2.1 Federal

U.S. Environmental Protection Agency. The U.S. Environmental Protection Agency (EPA) Office of Wastewater Management (OWM) supports the Federal Water Pollution Control Act (Clean Water Act, CWA) by promoting effective and responsible water use, treatment, disposal, and management, and by encouraging the protection and restoration of watersheds. The OWM is responsible for directing the National Pollutant Discharge Elimination System (NPDES) permit, pretreatment, and municipal bio-solids management (including beneficial use) programs under the CWA. The OWM is also home to the Clean Water State Revolving Fund that provides communities a permanent, independent source of low-cost financing for a wide range of water quality infrastructure projects.

Clean Water Act. The CWA is the cornerstone of surface water quality protection in the United States. The statute employs a variety of regulatory and non-regulatory tools to sharply reduce direct pollutant discharges into waterways, finance municipal wastewater treatment facilities, and manage polluted runoff.

18.2.2.2 State

State Water Resources Control Board. The SWRCB, in coordination with nine RWQCBs, performs functions related to water quality, including issuance and oversight of wastewater discharge permits (e.g., NPDES), other programs regulating stormwater runoff, and underground and above-ground storage tanks. The RWQCB requires all wastewater collection and disposal providers to prepare a Sewer System Management Plan (SSMP) according to the Statewide General Order Waste Discharge Requirements for Sanitary Sewer Systems.

California Code of Regulations. Title 17 (drinking water supplies) and Title 22 (recycled water, including standards and uses of disinfected tertiary water) regulate water distribution and water quality. Regulation of reclaimed water is governed by the nine RWQCBs and the California Department of Public Health (CDPH).

18.2.2.3 Local

Santa Clara Public Works Department General Development Conditions. The Public Works department applies general conditions to individual development proposals, many of which directly and proactively address environmental issues relevant to this CEQA EIR analysis, such as:

- Projects must include provide design calculations for sanitary sewer systems.
- Sanitary sewer hydraulic model runs, as required by the City, must demonstrate capacity in the existing sanitary sewer system, and required upgrades to the sewer system will be at developer's expense.

Santa Clara General Plan. The General Plan addresses citywide wastewater disposal needs and the objectives necessary to achieve them. Applicable General Plan goals and policies include:

- Goal 5.10.1-G4: Adequate wastewater treatment and conveyance capacities.
- Policy 5.10.1-P6: Require adequate wastewater treatment and sewer conveyance capacity for all new development.

Santa Clara City Code. City Code Chapter 13.10 (Sewers) establishes City regulations relating to the disposal of sanitary sewage into the City's sanitary sewer system in such manner as to protect the City and its personnel; preserve and protect the health, safety, and property of the public; and protect the environmental health of San Francisco Bay.

18.2.3 Storm Drainage

Storm drainage *infrastructure* is the topic covered in this EIR chapter and not stormwater *quality* and *flooding*. The Regulatory Setting relevant to stormwater quality and flooding is included in chapter 11 (Hydrology and Water Quality) of this EIR.

18.2.3.1 Local

Santa Clara General Plan. The General Plan addresses citywide storm drainage needs and the objectives necessary to achieve them. Applicable General Plan goals and policies include:

- Policy 5.10.5-P11: Require that new development meet stormwater and water management requirements in conformance with State and regional regulations.
- Policy 5.10.5-P20: Maintain, upgrade and replace storm drains throughout the City to reduce potential flooding.
- Policy 5.10.5-P21: Require that storm drain infrastructure is adequate to serve all new development and is in place prior to occupancy.

Santa Clara Water Public Works and Building Divisions. The Public Works and Building divisions apply general conditions to individual development proposals, many of which directly and proactively address environmental issues relevant to this CEQA EIR analysis, such as:

- Applicants must receive pre-construction verification of Stormwater Control Plan (SWCP), including sizing calculations, plan sheets, etc.
- Projects must receive third party certification from SCVURPPP's list of pre-qualified consultants verifying the proper installation of all stormwater treatment measures in accordance with approved plans.
- The property owner/manager or HOA (Homeowners' Association) is responsible for the maintenance of stormwater treatment measures.
- Grading and drainage plans must show proposed grades and all storm sewer lines and inlets.
- Storm drain pipe systems shall be designed to convey the 10-year event flow, and if near storm drain pump stations shall be designed to convey the 100-year event flow (as determined by the Director of Public Works/City Engineer).

18.2.4 Solid Waste Disposal and Recycling

18.2.4.1 Federal

Title 40 of the Code of Federal Regulations. Title 40 of the Code of Federal Regulations (CFR), Part 258 (Criteria for Municipal Solid Waste Landfills) contains regulations for municipal solid waste landfills and requires states to implement their own permitting programs incorporating the federal landfill criteria related to location, operation, design, groundwater monitoring, and closure of landfills. The federal regulations establish minimum national criteria

under the Resource Conservation and Recovery Act (RCRA) for all municipal solid waste landfill (MSWLF) units and under the Clean Water Act for municipal solid waste landfills that are used to dispose of sewage sludge.

18.2.4.2 State

California Department of Resources Recycling and Recovery (CalRecycle). CalRecycle oversees, manages, and monitors waste generated in California. It provides limited grants and loans to help California cities, counties, businesses, and organizations meet the State waste reduction, reuse, and recycling goals. It also provides funds to clean up solid waste disposal sites and co-disposal sites, including facilities that accept hazardous waste substances and non-hazardous waste. CalRecycle develops, manages, and enforces waste disposal and recycling regulations, including AB 939, SB 1016, and AB 341.

Assembly Bill 939. Assembly Bill 939 (AB 939) (Public Resources Code 41780, 41780.01) requires cities and counties to prepare integrated waste management plans (IWMPs) and to divert 50 percent of solid waste from landfills beginning in calendar year 2000, and 75 percent of solid waste by the year 2020, and each year thereafter. AB 939 also requires cities and counties to prepare Source Reduction and Recycling Elements (SRRE) as part of the IWMP. These elements are designed to develop recycling services to achieve diversion goals, stimulate local recycling in manufacturing, and stimulate the purchase of recycled products.

Senate Bill 1016. Senate Bill (SB) 1016 requires that the 50 percent solid waste diversion requirement established by AB 939 be expressed in pounds per person per day. SB 1016 changed the CalRecycle review process for each municipality's IWMP. The CalRecycle Board reviews a jurisdiction's per person disposal rate compliance in accordance with a specified schedule. Beginning January 1, 2018, the Board required review of a jurisdiction's source reduction and recycling element and hazardous waste element every two years.

Assembly Bill 341. Assembly Bill 341 (AB 341) sets forth the requirements for the State of California's mandatory commercial recycling program. AB 341 requires a business that generates four cubic yards or more of commercial solid waste per week or is a multi-family residential dwelling of five units or more, to arrange for recycling services. Local governments are required to implement a commercial solid waste recycling program that consists of education, outreach, and monitoring of businesses, and requires that these jurisdictions report the progress achieved in implementing its commercial recycling program to CalRecycle.

Short-Lived Climate Pollutant Reduction Strategy. The California Air Resources Board prepared and approved the Short-Lived Climate Pollutant Reduction Strategy (SLCP Strategy) as an integral part of the 2017 Climate Change Scoping Plan to reduce emissions of methane, hydrofluorocarbon gases, and anthropogenic black carbon by 2030 throughout a variety of economic sectors in the state. As required by State Senate Bill 1383 (2016), the SLCP Strategy requires a reduction in landfill organic waste disposal of 50 percent below 2014 levels by 2020 and 75 percent by 2025. (See chapter 9, Greenhouse Gas Emissions and Energy, of this EIR for more discussion of the 2017 Climate Change Scoping Plan.)

18.2.4.3 Local

Santa Clara Source Reduction and Recycling Element. The City's Source Reduction and Recycling Element (SRRE) was prepared for inclusion in the County Integrated Waste

Management Plan. This SRRE was prepared in accordance with California Integrated Waste Management Board regulations to divert 25 percent of the City's solid waste by 1995, 50 percent by year 2000, and 75 percent by year 2020, and annually thereafter, in order to reduce waste going into landfills.

Santa Clara General Plan. The General Plan addresses citywide solid waste disposal and recycling needs and the objectives necessary to achieve them. Applicable General Plan goals and policies include:

- Goal 5.10.1-G3: Adequate solid waste disposal capacity through effective programs for recycling and composting.
- Policy 5.10.1-P7: Encourage the use of local recycling facilities to divert waste from landfills.
- Policy 5.10.1-P8: Increase to 80 percent reduction for solid waste tonnage by 2020, or as consistent with the CAP.
- Policy 5.10.1-P9: Encourage curbside recycling and composting of organic and yard waste.
- Policy 5.10.1-P10: Promote the reduction, recycling and safe disposal of household hazardous wastes through public education and awareness and through an increase in hazardous waste collection events.

Santa Clara City Code. City Code Chapter 8.25 (Accumulation, Transportation and Disposal of Solid Waste) establishes City regulations relating to the storage, accumulation, collection, and disposal of solid waste, and includes provisions for recycling (both residential and commercial) and disposal/recycling of construction and demolition waste.

18.2.5 Other Utilities (Electrical, Natural Gas, Telecommunications)

18.2.5.1 State

California Public Utilities Commission. The California Public Utilities Commission (CPUC) serves the public interest by protecting consumers and ensuring the provision of safe, reliable utility service and infrastructure at just and reasonable rates, with a commitment to environmental enhancement and a healthy California economy. CPUC regulates utility services (i.e., investor-owned electric and natural gas utilities operating in California), and oversees a number of energy-related initiatives designed to benefit consumers, the environment, and the economy. In addition, CPUC administers Renewables Portfolio Standard rules for California's retail sellers of electricity (including publicly owned utilities, investor-owned utilities, electric service providers, and community choice aggregators).

Senate Bill 350 (Clean Energy & Pollution Reduction Act) and Senate Bill 100. SB 350 was signed into Law in September 2015 and establishes tiered increases to the Renewables Portfolio Standard (RPS). The Bill requires 40 percent of the state's energy supply to come from renewable sources by 2024, 45 percent by 2027, and 50 percent by 2030. SB 350 also set a new goal to double the energy-efficiency savings in electricity and natural gas through energy efficiency and conservation measures. The State's RPS program was further strengthened by the passage of SB 100 in 2018. SB 100 revised the State's RPS Program to require retail sellers of electricity to serve 50 percent and 60 percent of the total kilowatt-hours sold to retail

end-use customers be served by renewable energy sources by 2026 and 2030, respectively, and requires 100 percent of all electricity supplied come from zero-carbon sources by 2045.

18.2.5.2 Local

Santa Clara General Plan. The General Plan contains the following policies that apply to other utility infrastructure in the city:

- Policy 5.10.3-P1: Promote the use of renewable energy resources, conservation and recycling programs.
- Policy 5.10.3-P2: Transition away from using coal as an energy source to renewable resources by replacing coal in Silicon Valley Power's portfolio, exploring City owned property for renewable energy projects, developing solar projects, and incentivizing solar projects for residents and businesses, consistent with the CAP.[1]
- Policy 5.10.3-P3. Maximize the efficient use of energy throughout the community by achieving adopted electricity efficiency targets and promoting natural gas efficiency, consistent with the CAP.
- Policy 5.10.3-P10: Maintain the City's level of service for high quality utilities and telecommunications infrastructure.
- Policy 5.10.3-P11: Continue innovative energy programs to develop cost effective alternative power sources and encourage conservation.
- Policy 5.10.3-P12: Work with Silicon Valley Power to implement adequate energy distribution facilities to meet the demand generated by new development.
- Policy 5.10.3-P14: Work with Pacific Gas and Electric to ensure an adequate supply of natural gas to meet the demand generated by new development.

Santa Clara Climate Action Plan. The Santa Clara Climate Action Plan (CAP), adopted in December 2013 as General Plan Appendix 8.13, includes a variety of strategies designed to reduce the carbon emissions associated with land use and activities in the city with a focus on energy efficiency, renewable energy, and other energy-related uses. (See chapter 9, Greenhouse Gas Emissions and Energy, of this EIR for more discussion of the CAP and Specific Plan energy consumption.)

Santa Clara City Code. City Code Chapter 17.05 (Subdivisions) establishes City regulations relating to the provision of adequate utilities, among other items, and includes requirements for undergrounding of utility infrastructure, unless exempted by Public Utilities Commission Regulations or otherwise by the City.

2018 Silicon Valley Power Integrated Resource Plan. Silicon Valley Power's Integrated Resource Plan (IRP) was prepared in response to the Clean Energy and Pollution Reduction Act of 2015 (California Senate Bill 350; SB 350) to establish a detailed plan for SVP to meet

[1]As of January 1, 2018, Silicon Valley Power completely divested from coal, eliminating coal from the City's energy mix

peak and energy needs in a safe, reliable, cost-effective, and environmentally responsible manner over the next 20 years (2019 through 2038). The IRP aims to meet State goals set forth in SB 350 and SB 100 by increasing the procurement of energy from renewable electricity sources and reducing GHG emissions consistent with the targets set forth by the California Air Resources Board (CARB).

18.3 IMPACTS AND MITIGATION MEASURES

This section describes potential impacts related to utilities and service systems that could result from the Freedom Circle Focus Area Plan/Greystar General Plan Amendment and discusses components of the Plan that would avoid or reduce those potential impacts. The utility infrastructure improvements recommended below include the result of technical analysis prepared by Woodard & Curran during the Focus Area Plan planning process.

Water quality and risk of flooding (distinguished from drainage utility *infrastructure*) are detailed in chapter 11 (Hydrology and Water Quality) of this EIR.

18.3.1 Significance Criteria

Based on the CEQA Guidelines,[1] implementation of the Freedom Circle Focus Area Plan/ Greystar General Plan Amendment would result in a significant impact related to utilities and service systems as described below. Would the project:

(a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects;

(b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years;

(c) Result in a determination by the waste water treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments;

(d) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals; or

(e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste.

It should be noted that the need for new utility infrastructure in itself is not a significant impact under CEQA unless the *construction* of the infrastructure causes significant impacts on the environment, including the wasteful use of energy. Impacts of new utility infrastructure are considered in the topical sections of this EIR where construction impacts would require mitigation (e.g., air quality, biological resources, hydrology and water quality, noise).

[1] CEQA Guidelines, appendix G, item XIX (a through e).

18.3.2 Relevant Focus Area Plan Components

Section 18.2 (Regulatory Setting), above, applies to Focus Area Plan implementation. Because adopted regulations and requirements are already in place, the Plan does not include components that directly address CEQA-defined utilities and service systems impacts.

18.3.3 Impacts and Mitigations[1]

Project and Cumulative Water Supply Impacts--Overview. Implementation of the Focus Area Plan and the future, required comprehensive planning study (e.g., specific plan), including the Greystar project, would require additional potable water over existing demand. Water service in the Plan Area is provided by the City Water & Sewer Utilities Department. Each individual development project in the Plan Area would be obligated to comply with City Water & Sewer Utilities Department regulations governing water service and the schedule of rates and charges.

As noted under the "Regulatory Setting" above, the City of Santa Clara's 2015 Urban Water Management Plan (UWMP) addresses water supply, conservation, and long-term resource management programs up to the year 2040, based on the City's currently adopted General Plan.

Table 18-1 shows water demand estimates comparing existing (baseline) conditions with potential land use changes under the Focus Area Plan, including the Greystar project.

As shown in Table 18-1, proposed development would increase water demand above existing water demand in the Plan Area, which is approximately 64.2 acre-feet per year (AFY). As indicated in the table, increased water demand for Focus Plan development (including the Greystar project) would be approximately 748.3 AFY.

Water demand increases would depend on development activity phasing. Table 18-2 shows estimated phasing of project development under the Freedom Circle Focus Area Plan and water demand increases to align with the following phases identified in the City's Urban Water Management Plan: 2020-2024, 2025-2029, 2030-2034, and 2035-2040. The phasing was estimated conservatively for the WSA to evaluate water demand over time. The Focus Area Plan does not mandate development limits according to these timeframes; however, water demand under the Focus Area Plan (including the Greystar project) over these time periods has been distributed to align the UWMP time periods with the anticipated phasing of the Focus Area Plan, as described in chapter 3, Project Description, of this EIR (although variations could occur, depending on market conditions and individual developer interest). In addition, as discussed in chapter 3, Project Description, the Greystar project is projected to be developed between 2020-2024, with no remaining development in the Plan Area anticipated to occur prior to 2035-2040, subject to a comprehensive planning study (such as a specific plan).

[1]Although discussion of cumulative impacts is provided in chapter 20, CEQA-Mandated Sections, of this EIR, the analysis of utilities and service systems impacts, due to their inherently cumulative nature and related City-wide capital improvement planning implications, includes the cumulative analysis in the following section. Also, as used in this analysis, "project" and "cumulative" impacts, unless otherwise specifically noted, refer to the "project" impacts of the Focus Area Plan and Greystar project versus the "cumulative" impacts of the Focus Area Plan and Greystar project.

Table 18-1
EXISTING AND ESTIMATED ANNUAL WATER DEMAND IN FOCUS PLAN AREA (INCLUDING GREYSTAR PROJECT)

	Size	Gallons per Day	Acre-Feet per Year
Residential	3,600 DU	435,600.0	487.9
Retail	110,000 SF	100.0	0.1
Office	2,995,000 SF	269,550.0	301.7
Irrigation/landscaping	264,997 SF	20,404.8	22.8
(Minus existing development)		*(57,351.4)*	*(64.2)*
Total Annual Increase		**668,303.4**	**748.3**

SOURCE: Freedom Circle Focus Area Water Supply Assessment, April 7, 2021.

Notes:
DU = dwelling unit
SF = square feet

Table 18-2
FOCUS AREA PLAN DEVELOPMENT—WATER DEMAND INCREASE BY PHASE (ACRE-FEET PER YEAR)

	2020-2024	2025-2029	2030-2034	2035-2040
Residential	149.1	0.0	0.0	338.8
Retail	0.1	0.0	0.0	0.0
Office	0.0	0.0	0.0	301.7
Irrigation/landscaping	1.9	0.0	0.0	20.9
(Minus existing development)	0.0	0.0	0.0	(64.2)
Increase per phase	**151.1**	**0.0**	**0.0**	**597.2**

SOURCE: Freedom Circle Focus Area Water Supply Assessment, April 7, 2021.

The 2015 UWMP identified sufficient water supplies to meet projected City water demand through 2040 but did not include the Freedom Circle Focus Area Plan (including the Greystar project) because the Focus Area Plan and Greystar project were not proposed until after preparation of the 2015 UWMP.

Table 18-3 shows only the changes in projected water demand by user category (i.e., Single Family, Multi-Family, Commercial, Industrial, Institutional, and Municipal) to match the use categories used in the 2015 UWMP (again, only including water demand identified in the 2015 UWMP). These were based on future water demand projections that take into consideration potential reductions in average consumption (based on water conservation programs) and natural replacement of less water efficient processes with more efficient processes. The basic methodology of the water model breaks down water usage into an average consumption per account type. The future water demand projections then adjust the future average consumption per water account factor, which is used for calculating total water demand for each user type during the designated time periods (i.e., residential demand with projected number of housing units, and industrial/commercial demand with projected number of jobs). Table 18-3 shows how water demand in the City is projected to change through 2040, the final year evaluated in the 2015 UWMP (positive numbers mean an increase in demand; negative numbers mean a

decrease in demand). Table 18-3 is based on tables from the WSA (and the WSA in turn uses data compiled in the 2015 UWMP).

Table 18-3
PROJECTED CHANGES IN WATER DEMANDS--2015 UWMP (ACRE-FEET/YEAR)

	2015-2019	2020-2024	2025-2029	2030-2034	2035-2040
Single Family	1,773.6	393.9	84.7	62.1	25.4
Multi-Family	1,558.8	494.5	212.2	204.3	175.0
Commercial	1,861.4	538.6	179.2	223.8	174.3
Industrial	379.1	148.5	29.3	27.6	13.3
Institutional	250.0	83.1	41.7	40.0	35.8
Municipal	188.9	59.7	29.9	28.7	25.6
Recycled Water	1,717.0	1,000.0	400.0	400.0	400.0
Losses	-99.8[1]	89.7	30.1	30.6	23.4
TOTAL	7,083.0	2,808.0	1,007.1	1,017.1	872.8

SOURCE: Freedom Circle Focus Area Water Supply Assessment, April 7, 2021.

Note:
Positive numbers mean an increase in demand; negative numbers mean a decrease in demand.

[1] Negative losses for 2015-2019 are due to anticipated reductions in water loss due to system improvements (including increased monitoring of water loss).

The 5-year increments in the table are used to be consistent with the time periods analyzed in the 2015 UWMP and allow for comparison with projected water demand for projects approved after the 2015 UWMP but not including the Focus Area Plan (Table 18-4) and with projected water demand for projects approved after the 2015 UWMP and including the Focus Area Plan (Table 18-5).[1]

Table 18-4 shows proposed water demand for projects evaluated after the 2015 UWMP was adopted (such as the El Camino Real Specific Plan and Tasman East Specific Plan, to name two examples), and are included in WSA appendix A, and also includes WSAs for projects that were incorporated into the 2015 UWMP but not yet completed—this essentially provides an update to the projected water demand in the 2015 UWMP; however, Table 18-4 includes the Patrick Henry Drive Specific Plan (currently under review) but does not include the Freedom Circle Focus Area Plan/Greystar Project. Therefore, the WSA included a table that shows proposed water demand for projects evaluated after the 2015 UWMP was adopted plus the water demand proposed for the Specific Plan (Table 18-5).

Table 18-5 shows water demand anticipated for development under the Focus Area Plan (including the Greystar project), with the same land use categories as Table 18-3. Numbers highlighted in yellow indicate water demand increases to which anticipated Focus Area Plan development contribute, compared to Table 18-4, and reflect when Focus Area Plan (including the Greystar project) development is anticipated to occur.

[1]The complete Freedom Circle Focus Area Plan Water Supply Assessment, including all tables and calculations, is provided in EIR Appendix 25.3, “Water Supply Assessment,” of this EIR.

Table 18-4
CHANGES IN WATER DEMAND AFTER 2015 UWMP—WITHOUT FREEDOM CIRCLE FOCUS AREA PLAN AND WITHOUT GREYSTAR PROJECT (ACRE-FEET/YEAR)

	2015-2019	2020-2024	2025-2029	2030-2034	2035-2040
Single Family	-0-	-0-	-0-	-0-	-0-
Multi-Family	644.6	1,176.9	524.0	1,048.5	1,171.6
Commercial	1,050.6	479.6	676.4	95.2	(8.9)
Industrial	-0-	(35.7)	-0-	-0-	-0-
Institutional	39.9	-0-	-0-	-0-	23.7
Municipal	(311.3)	11.8	-0-	11.4	10.8
Total	1,423.8	1,631.6	1,200.4	1,155.1	1,197.2
SOURCE: Freedom Circle Focus Area Water Supply Assessment, April 7, 2021.					

Table 18-5
CHANGES IN WATER DEMAND AFTER 2015 UWMP—WITH FREEDOM CIRCLE FOCUS AREA PLAN AND WITH GREYSTAR PROJECT (ACRE-FEET/YEAR)

	2015-2019	2020-2024	2025-2029	2030-2034	2035-2040
Single Family	-0-	-0-	-0-	-0-	-0-
Multi-Family	644.6	1,326.0	524.0	1,048.5	1,510.4
Commercial	1,050.60	478.7	676.4	95.2	228.6
Industrial	-0-	(35.7)	-0-	-0-	-0-
Institutional	39.9	-0-	-0-	-0-	23.7
Municipal	(311.3)	13.7	-0-	11.4	31.7
Total	1,423.8	1,782.7	1,200.4	1,155.1	1,794.4
SOURCE: Freedom Circle Focus Area Water Supply Assessment, April 7, 2021. *Note:* Yellow highlighting indicates Focus Area Plan development water demand increases compared to water demand without Focus Area Plan development (see Table 18-4); i.e., a greater increase in demand.					

The WSA prepared by the Santa Clara Water & Sewer Utilities Department for the Freedom Circle Focus Area Plan (see EIR appendix 25.3) compared the total water demand by time period in Table 18-5 with the total water demand by time period in Table 18-3 (i.e., the water demand for projects evaluated after the 2015 UWMP was adopted plus the water demand proposed for the Focus Area Plan plus the Greystar project (Table 18-5) versus projected 2015 UWMP water demand (Table 18-3), for which adequate supplies were determined in the 2015 UWMP). The WSA concludes that the Focus Area Plan (including the Greystar project) would add more projected water demand when combined with the City's 2015 UWMP projected growth water demands and would exceed the growth projections identified in Table 18-3 by 921.6 AFY during the 2035-2040 period.[1] Values without parentheses indicate that the "updated" demand (i.e., includes post-2015 UWMP projects plus Focus Area Plan development) is projected to exceed demand from the 2015 UWMP growth projections. The City concluded that water supplies would be sufficient to provide service for the Focus Area plan in a normal or single-dry year scenario; however, a supply shortfall of approximately 213.4AF/yr could potentially result in the second year of a multi-year drought scenario beginning in 2035.

[1]Table 18-5 total for 2035-2040 minus Table 18-3 total for 2035-2040 (1,794.4 - 872.8 = 921.6).

This conclusion was based on the City assumption, derived from the historical pattern of water contracts with SFPUC, that SFPUC water supplies would be extended beyond 2028; if SFPUC water no longer is available (for instance, no contract extension), then the City would need to use the resources described below (i.e., pumping additional groundwater, more recycled water, increased water conservation).

Projected future water supply projects discussed in the 2015 UWMP include projects with SFPUC and Valley Water such as indirect and direct potable reuse and intertie projects with San Jose and with Santa Clara (an intertie is a pipeline interconnection that would permit passage of water between two or more systems). The City also continues discussions with the SFPUC and Bay Area Water Supply and Conservation Agency (BAWSCA) representatives about related water projects, including SFPUC's Alternative Water Supply Planning Program, which SFPUC has initiated to ensure that it can meet its retail and wholesale customer water needs, address projected dry years shortages, and limit possible rationing. This program, though, is in early planning stages.

City plans to construct two new groundwater wells could produce up to an estimated 3,226 to 4,032 acre-feet/year of additional water. In addition, the City has seven water pipeline interties with neighboring agencies that can be used for emergency water transfers.

However, because the City cannot guarantee that these anticipated future water sources will be available, the City currently plans to meet future water demand through the following:

- pumping additional groundwater,
- reliance on more recycled water, and
- increased water conservation.

Groundwater. The City does not currently use as much groundwater as it did during its historic peak for groundwater production (23,048 acre-feet in FY1986/87). For example, in the five years preceding the 2015 UWMP, City groundwater volume pumped ranged from 11,450 AF in 2015 to 14,958 AF in 2012. In addition, because of existing Valley Water programs to "bank" water locally (e.g., store surplus water in groundwater basins), part of the overall county water supply can be carried over from wet years to dry years, which helps protect against drought or emergency outages. Local water supply is recharged into the groundwater basin through natural stream channels, canals, or in-stream and off-stream ponds. With these groundwater management techniques, groundwater remains a primary source of City water.

The environmental consequences of expanding use of City groundwater would be carefully monitored, although it is important to consider that during the 1986-1987 peak groundwater production year, the groundwater basin was not approaching overdraft. In addition, as discussed in chapter 11, Hydrology and Water Quality, of this EIR, the Santa Clara Valley groundwater basin is not considered overdrafted by the Department of Water Resources nor is it adjudicated. As the Groundwater Sustainability Agency (GSA) for both the Santa Clara and the Llagas Subbasins, under the Sustainable Groundwater Management Act (SGMA), Valley Water monitors the basin for local subsidence and works with the various area water retailers to

prevent subsidence and overdraft of the basin.[1] Therefore, expanded use of City groundwater would not be expected to result in significant environmental impacts.

Recycled Water. Existing City recycling water systems, operating since 1989, include approximately 33 miles of recycled water pipelines within the city limits. According to the 2015 UWMP, based on sites already utilizing recycled water and projected demands of projects currently in the permitting process to use recycled water (as of preparation of the 2015 UWMP), future recycled water use in the City of Santa Clara could grow to nearly 6,900 acre-feet per year (AFY) in 2040. Though the maximum possible amount of recycled water that could be used for the Plan Area has not been estimated, recycled water use would replace potable water use, thereby reducing Focus Plan demand on potable water supplies. However, it should be noted that for conservative water supply assessment purposes, all water demands in the WSA were calculated using potable water demand.

The environmental consequences of using recycled water would not be considered significant because the City already has a recycled water distribution system in place throughout the city (including a recycled water line along Mission College Boulevard). New development along the recycled water distribution system would be required to use recycled water for approved irrigation and industrial uses. Connecting to recycled water mains would be generally similar to connecting to the City's potable water system. Construction effects would typically be temporary and would occur within either existing public rights-of-way, City property, a project development site, or private property subject to a municipal easement. The types of environmental impacts considered would include construction period air emissions (dust), noise, and traffic interruption typically associated with utility infrastructure construction and would be reduced through mandatory City of Santa Clara construction mitigation procedures and/or other mitigations determined by the City for an individual project—for example, projects in the Plan Area would be required to apply the mitigations in this EIR (e.g., see chapters 5 [Air Quality] and 13 [Noise] of this EIR).

Conservation. Conservation measures could result in water demand reductions of up to 3,298 AFY.[2] According to the Freedom Circle Focus Area Plan WSA (and consistent with the 2015 UWMP), water conservation measures were projected to remain unchanged during a multiple dry year event in order to provide a conservative water assessment—i.e., did not include use of mandatory conservation measures, such as those that could be required during a multiple year drought like prohibitions on outdoor use (such as irrigation, car washing, and washing down pavement) or water rationing. Generally, water conservation measures result in reduced potable water demand. For example, in 2020, the City achieved a 15.3 percent reduction in water use compared to water use prior to the 2013 drought.

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[1]For additional details on groundwater management, the 2016 Groundwater Management Plan for the Santa Clara and Llagas Subbasins (GWMP) describes Valley Water's groundwater sustainability goals, and the strategies, programs, and activities that support those goals. The GWMP can be accessed here: https://s3.us-west-2.amazonaws.com/assets.valleywater.org/2016%20Groundwater%20Management%20Plan.pdf.

[2]As explained in the April 7, 2021 "Freedom Circle Focus Area Water Supply Assessment" (p. 15): "In 2020, the City achieved a 15.3% reduction in water use compared to water use prior to the most recent drought (2013). This reduction equates to 3,298 AF of water conserved in the absence of additional water conservation measures" because "mandatory conservation measures and increased recycled water usage would be expected to reduce potable water demand."

The environmental consequences of increasing conservation measures would not be considered significant because conservation measures typically rely on voluntary changes in use or behavior (modifying or restricting water use), replacing older appliances with more water-efficient appliances (i.e., clothes washers, dishwashers, toilets, etc.), and programs to encourage drought-tolerant landscaping on private property and on City properties. These types of activities, and the more stringent mandatory conservation measures, do not involve physical construction of water conveyance or other infrastructure that would require ground-disturbing activity and its attendant environmental effects, as discussed above (i.e., construction-period impacts), and therefore are not considered to have significant adverse environmental effects.

These resources (pumping of additional groundwater, reliance on more recycled water, and increased water conservation) would also be available to the Focus Area Plan.

Therefore, the City determined that adequate water supplies would be available to meet the water demands for the Freedom Circle Focus Area Plan (including the Greystar project), even during single and multiple dry year conditions although, as discussed in the WSA, additional conservation programs or other resources (such as increased groundwater pumping or additional use of recycled water as applicable) may be necessary, as detailed in both in the Focus Area Plan WSA and the 2015 UWMP.

However, the growth projected for the Focus Area Plan exceeds the growth projections in both the current General Plan and the 2015 UWMP, which would result in a conflict with General Plan policies related to ensuring adequate water capacity.

Impact 18-1: Focus Area Plan Inconsistency with General Plan and UWMP Growth Projections. The WSA prepared for the proposed Focus Area Plan includes development in the Plan Area that has not been identified in the General Plan (i.e., exceeds the General Plan land use projections for 2035, the General Plan horizon year), and therefore, because the 2015 Urban Water Management Plan (UWMP) was based on General Plan buildout projections, this WSA is inconsistent with General Plan and UWMP buildout projections. Until the Focus Area Plan development exceeding General Plan growth projections is included in the General Plan and the UWMP (i.e., the 2020 UWMP), the Focus Area Plan is inconsistent with the General Plan/Urban Water Management Plan, and this inconsistency would represent a ***potentially significant project and cumulative impact*** (see criterion [b] in subsection 18.3.1, "Significance Criteria," above).

Approval of the Freedom Circle Focus Area Plan and the required comprehensive planning study (specific plan) would include adoption of a General Plan amendment to incorporate the Focus Area Plan into the General Plan's growth projections. In addition, the recently adopted 2020 UWMP did not include Focus Area Plan development in its growth projections. Until the General Plan is amended to include Focus Area Plan development, its anticipated growth would exceed the current General Plan growth projections for the Plan Area and would not be consistent with the City's prerequisite policy, prior to implementation of General Plan Phase III, of "undertak[ing] a comprehensive assessment of water…demand and facilities in order to ensure adequate capacity and funding to implement the necessary improvements to support development in the next phase" (General Plan Goal 5.1.1-P3). Therefore, to ensure

consistency with General Plan and UWMP policies related to ensuring adequate water supplies for future, projected development, future project applications under the Focus Area Plan would need confirmation that the City-identified water supplies, as discussed previously, would be adequate to serve each project, in compliance with State law.

In addition, SB 221, adopted by the State in 2001, prohibits a city or county from approving a tentative subdivision map or parcel map, or a development agreement including land subdivision, of more than 500 units unless there is written verification that a sufficient and reliable water supply will be available prior to completion of the project. However, the Focus Area Plan would not entitle any specific development application, so while an adequate, specific water supply must still be verified for individual, future project applications, the City in the Freedom Circle Focus Area Plan WSA has identified that water supplies would be available and has estimated water demand in compliance with State law.

A project-specific, confirmation of water supply (e.g., written verification from the City that sufficient water supply is available for the project) would need to be completed in connection with the City's approval of any tentative map or development agreement for the Freedom Circle Focus Area Plan (regardless of the 500-unit or equivalent threshold under SB 221 and SB 610), when the individual project details have been more definitively established. This subsequent confirmation/verification would include any pertinent updates to the citywide water supply situation and would also include progress on City plans for expanding its recycled water program plus City requirements for implementing additional "best management practices" (BMPs) related to recycled water use and/or water conservation.

Mitigation 18-1. Prior to City approval of any tentative map or development agreement for a proposed, individual project, the City of Santa Clara Water & Sewer Utilities Department shall review individual project details to confirm that water supplies are adequate for each individual project. Such confirmation shall include an updated description of the citywide water supply situation (including any plans for pumping additional groundwater) at that future time, reflecting any progress on City plans for expanding its recycled water program and any City requirements for implementing additional "best management practices" (BMPs) related to recycled water use and/or water conservation. These City actions would ensure a continual monitoring of citywide water supply throughout implementation of the Focus Area Plan and required comprehensive planning study (specific plan). Incorporation of measures to reduce water demand and, if necessary, identification of alternative water sources to offset project supply shortages would reduce this impact to a ***less-than-significant level***.

As part of a project-specific, subsequent, confirmation of water supply, the City may require individual projects proposed under the Focus Area Plan and required comprehensive planning study (specific plan) to incorporate additional measures to offset possible water supply shortages, such as (1) payment of water supply or capacity fees, (2) use of additional water efficiency standards, and/or (3) establishment of annual water budgets. Alternative water supplies shall be utilized to the maximum extent possible, including recycled water, rainwater/stormwater capture and reuse, greywater reuse, reclaiming of onsite wastewater or other water supplies.

Impact 18-2: Greystar Project Inconsistency with General Plan and UWMP Growth Projections. The WSA prepared for the proposed Focus Area Plan includes the required water supply analysis for the Greystar project. The Greystar project request for an amendment to the General Plan would change the land use designation of the project site to allow residential development, which would resolve the General Plan inconsistency. The Freedom Circle Focus Area Plan WSA concluded that sufficient water supplies exist to serve the Greystar project for both a normal year or a single-dry year and that alternative sources exist for projected shortfalls occurring during a multi-year drought scenario. Confirmation of water supply would be provided by the WSA, prepared by the City of Santa Clara in its role as the water service provider, in conjunction with the City's "Master Geographic Letter," which provides verification and assurance of the City's ability and commitment to serve Greystar project water needs.[1] Therefore, this would be a ***less-than-significant project and cumulative impact*** (see criterion [b] in subsection 18.3.1, "Significance Criteria," above).

Mitigation 18-2. No significant impact has been identified; no mitigation is required.

Impact 18-3: Project and Cumulative Need for Water, Wastewater, and Storm Drainage System Infrastructure—Plan Area.[2] Over the course of development under the Freedom Circle Focus Area Plan and future, required comprehensive planning study, water, wastewater, and storm drainage infrastructure systems in the Plan Area would be expected to require some improvements to accommodate new development facilitated by the Focus Area Plan and required comprehensive planning study (e.g., specific plan), including the upgrading of deficiencies. (Specific improvements and upgrades required by the Greystar project are discussed separately below.) Due to the preliminary nature of the Focus Area Plan, an infrastructure element has not been developed, though it would be included as part of the required comprehensive planning study and would provide more details on Plan Area needs, based on consultation with City engineers and the results of hydraulic modeling as determined necessary by the City.

(a) Projected Water Infrastructure Needs—Plan Area. No internal Plan Area street circulation has been identified at this preliminary point, so no analysis of potential distribution mains for new streets can be provided; however, it would be reasonable to anticipate that new distribution mains, if determined necessary, would need to be 8-inch or 12-inch diameter pipes, based on current City of Santa Clara Water & Sewer Utilities Department standards. Any upgrading in existing pipe sizes would need to be determined after hydraulic modeling, based on final land plans, building types, water demands, fire flow requirements, and phasing, as individual projects are proposed.

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[1]The "Master Geographic Letter" is a State-authorized mechanism allowing local agencies to verify compliance with locally administered laws and ordinances (such as availability of potable water, flood control requirements, etc.) without requiring separate clearance letters in connection with each project map approved. City of Santa Clara, Master Geographic Letter renewal request, March 24, 2021.

[2]Although discussion of cumulative impacts is provided in chapter 20, CEQA-Mandated Sections, of this EIR, the analysis of utilities and service systems impacts, due to their inherently cumulative nature and related City-wide capital improvement planning implications, includes the cumulative analysis in the following section. Also, as used in this analysis, "project" and "cumulative" impacts, unless otherwise specifically noted, refer to the "project" impacts of the Focus Area Plan versus the "cumulative" impacts of the Focus Area Plan.

Most existing water mains within the Plan Area are asbestos-cement (AC) and would need to be upgraded and replaced with standard ductile iron pipe (DIP). Given the age and material of the water infrastructure in the Plan Area (most AC pipes installed between 1974-1979; one 12-inch PVC main, installed in 1992, runs along the Patrick Henry Drive cul-de-sac), water mains that would otherwise remain due to their location within a proposed street would need to be upgraded to DIP to comply with current City of Santa Clara Water & Sewer Utilities Department standards. Developers would need to perform individual hydraulic modeling to determine whether existing pipes would require upsizing and replacing the AC pipe with DIP.

Although the existing recycled water infrastructure in the Plan Area is not expected to require upgrades due to age or materials based on current City of Santa Clara Water & Sewer Utilities Department standards (the 12-inch PVC main running along Mission College Boulevard was installed in 1998), individual project applicants in the Plan Area would need to perform a hydraulic modeling analysis to evaluate what, if any, upgrades in pipes or pipe sizes would be necessary to meet any projected recycled water capacity needs. Also, per City Code Section 13.15.160, each development shall connect to recycled water (RCW) for non-potable water needs. A new recycled water main (the size to be determined) shall be installed along Freedom Circle Drive as part of the Focus Area Plan. At the minimum, each development would need to have RCW infrastructure along their property frontage.

In addition, as new development proposals are brought forward, sizing of particular water mains would need to be evaluated to ensure prescribed fire flows can be met, which may result in resizing needs. All sizing of pipelines would need to be determined based on project-specific modeling of the system and would rely on water use parameters of the specific development proposal.

Cumulative water infrastructure needs for reasonably foreseeable development in the vicinity of the Focus Area Plan (identified in the WSA Appendix A project list[1]) may also require their own improvement programs that could involve upgrading of pipes to increase size or modernize materials; however, these types of improvements are typically project-specific, and impacts are related to construction period effects (e.g., dust, noise, traffic), which are minimized through application of standard construction period mitigations similar to those described in the previous chapters of this EIR. Because of the short-term nature of this type of water infrastructure construction and the geographic spread of the development, cumulative impacts related to water infrastructure needs would be *less than significant*.

(b) Projected Wastewater Generation and Infrastructure Needs—Plan Area. The 2016 Sewer Master Plan determined that existing wastewater flows for the City in 2015 totaled 14.9 million gallons per day (mgd) under average dry weather flow (ADWF) conditions and 21.6 mgd under peak dry weather flow (PDWF) conditions, with an increase to 22.4 mgd on “game days” at Levi’s Stadium (to account for additional flow). Existing peak wet weather flow (PWWF) conditions totaled 39.6 mgd. Santa Clara sewer connections accounted for the majority of these

[1]Projects in the WSA Appendix A include the Patrick Henry Drive Specific Plan, El Camino Real Specific Plan, Tasman East Specific Plan, Gateway Crossings, Lawrence Station Area Plan (Phases I through III), Santa Clara Square Apartments, City Place (various parcels and phases), Santa Clara Square, and other office, commercial, and institutional projects, among others, that have either been recently built or are projected to be constructed within the next five to 20 years.

totals, with the Cupertino Sanitary District contributing between approximately 24 percent to 32 percent.

Using hydraulic modeling to estimate future flows, the 2016 Sewer Master Plan determined that future wastewater flows for the City in 2035 would total 34.4 mgd under ADWF conditions and 46.8 mgd under PDWF conditions (increasing to 47.7 mgd for "game days"). PWWF conditions were estimated to total 59.4 mgd. Similar to the existing flow conditions, Santa Clara sewer connections would be expected to account for the majority of these estimated future flow totals, with the Cupertino Sanitary District estimated to contribute between approximately 20 percent to 26 percent.

The hydraulic model evaluated potential capacity deficiencies and backups in the existing sewer system and identified areas currently experiencing surcharge due to "throttle" conditions (where peak flow exceeds pipe capacity), surcharge due to backwater from a downstream throttle condition, and related violations of City capacity criteria including system components likely to experience these conditions with future (2035) flows. The 2016 Sewer Master Plan recommended solutions to address these conditions, including several pipe upgrades and lift station pump adjustments.

Currently, wastewater flows from the Plan Area are conveyed northeast to the Northside and Rabello pump stations, and from there pumped to the San Jose/Santa Clara Regional Wastewater Facility for treatment and disposal. Table 18-6 shows existing flows and future flow estimates for the Northside and Rabello pump stations, as analyzed in the 2016 Sewer Master Plan.

Sanitary sewer system capacity for development in the Plan Area was evaluated by Woodard & Curran,[1] using the City's sanitary sewer hydraulic model, which includes improvements programmed in the 2016 Sewer Master Plan. Then, existing system capacity for the Plan Area was compared with projected wastewater generated by only the Greystar project and for anticipated Focus Area Plan development plus the Greystar project. The WC Technical Memorandum based Focus Area Plan wastewater generation on 2035 sewer system base loads (recently updated for the 2016 Sewer Master Plan) and also included: (1) updated development assumptions consistent with the City's 2035 General Plan; (2) projected loads for additional development approved between 2009 and completion of the 2016 Sewer Master Plan; and (3) other developments that have been evaluated since completion of the 2016 Master Plan. In addition to the wastewater flows generated within the City's service area, the City also receives flow from the Cupertino Sanitary District (CuSD), which were factored into the model but capped at the contractual maximum peak wet weather flow (PWWF) discharge of 13.8 mgd.

[1]Woodard & Curran, Technical Memorandum re: "Sanitary Sewer Capacity Evaluation for Proposed Freedom Circle Focus Area and Greystar General Plan Amendment (APN 104-40-019, 020, 021, 030, 031, 034, 035, 036, 038; APN 104-41-031, 032, 043, 044; APN 104-42-020, 021)," prepared for Evelyn Liang, City of Santa Clara, February 17, 2021, and included as Appendix 25.4 of this EIR. (Referred to herein as "WC Technical Memo.")

Table 18-6
NORTHSIDE AND RABELLO PUMP STATIONS—FLOW ESTIMATES[1]

Existing ADWF[2] (mgd)	Existing PDWF[2] (mgd)	Existing PWWF[3] (mgd)	Future ADWF[2] (mgd)	Future PDWF[2] (mgd)	Future PWWF[3,4] (mgd)	Combined Rated Firm Capacities[5]
10.2	15.2/16.0	27.9	24.6	33.5/34.4	41.0	46.1

SOURCE: City of Santa Clara 2016 Sewer Master Plan; Schaaf & Wheeler, November 19, 2020.

[1] Assumes that capital improvement projects recommended in the 2016 Sewer Master Plan relieve capacity deficiencies identified in the plan.
[2] The ADWF value and the first value shown for PDWF include typical non-game day flow from Levi's Stadium; the second value shown for PDWF includes a peak game day flow from Levi's Stadium.
[3] Calculated for a 10-year design storm; assumes non-game day flow from Levi's Stadium.
[4] Assumes peak wet weather flow from the Cupertino Sanitary District (CuSD) would not increase above its contractual maximum flow of 13.8 mgd.
[5] Schaaf & Wheeler conducted a firm capacity study of the Rabello and Northside pump stations (November 19, 2020) and calculated their respective capacities at 26.4 mgd (Rabello) and 19.7 mgd (Northside), for an updated combined rated firm capacity of 46.1 mgd.

Notes:
ADWF = average dry weather flow
PDWF = peak dry weather flow
PWWF = peak wet weather flow
mgd = million gallons per day

Existing wastewater flows in the Plan Area were estimated at approximately 0.111 mgd. As indicated in Table 18-7, projected wastewater generation from only the Greystar project would be 0.17 mgd (0.1702 rounded down to 0.17); projected wastewater generation from assumed Focus Area Plan buildout plus the Greystar project would be approximately 0.755 mgd (0.7552 rounded down to 0.755). In addition, potential wastewater generation for development with remaining entitled but unused wastewater generation would be approximately 0.109 mgd (for remaining allowable development in the Plan Area), which would total approximately 0.864 mgd for the Focus Area Plan plus remaining allowable development plus the Greystar project. According to Woodard & Curran, depending on specific entitlement flows and potential future development intentions, estimated future increase in wastewater generation in the Plan Area would be projected to total 1.063 mgd, which provides a conservative "maximum" wastewater total.

According to the results of the hydraulic model, the WC Technical Memo determined that existing sanitary sewer infrastructure (including the 2016 Sewer Master Plan improvements) would be sufficient to handle future flows in the Plan Area without Focus Area Plan (or Greystar) development (for the 12-inch Freedom Circle and 12-inch Mission College Boulevard sewer lines), though the downstream 15-inch sewer on Mission College Boulevard at the west Plan Area boundary would experience backwater surcharge conditions caused by the hydraulic grade line in the Great America Parkway East trunk. In addition, some surcharge would be expected due to throttle conditions (i.e., peak flow exceeding full pipe capacity) downstream of the Tasman Drive connection, but the surcharge would not be expected to exceed the City's deficiency criteria.

Table 18-7
ESTIMATED FUTURE DAILY WASTEWATER GENERATION IN PLAN AREA

Phase	Generation factor	Res'l	Retail	Office	Totals (mgd)
Existing Plan Area plus Greystar					***0.280***
1,100 DU	154 gpd/DU	0.17 mgd			0.170
2,000 SF retail	0.1 gpd/SF		0.0002 mgd		0.0002
Existing Plan Area buildings					0.111
Plan Area Buildout plus Greystar					***1.063[1]***
3,600 DU	154 gpd/DU	0.555 mgd			0.555
2,000,000 SF office	0.1 gpd/SF			0.2 mgd	0.2
1,089,000 SF remaining allowable development[2]	0.1 gpd/SF			0.1089 mgd	0.1089
2,000 SF retail	0.1 gpd/SF		0.020 mgd		0.0002
Subtotal					0.8641

SOURCE: Woodard & Curran, February 17, 2021, adapted by MIG, Inc.

[1] Totals may not add up because total Plan Area buildout flows were based on demolition plans and entitlement flow information provided by the City; in some cases, total buildout flow was projected to equal the proposed development flow, but for parcels with existing uses that are anticipated to remain, the total buildout flow was projected to be the entitlement flow for the parcel, which may not be reached.
[2] Buildings remaining in Plan Area with no plans for demolition (1,140,000 SF) plus remaining allowable buildout in the Plan Area = 2,229,000 SF; minus 1,140,000 SF (no demo buildings) = 1,089,000 SF remaining allowable development.

Notes:
Res'l = Residential
DU = dwelling unit
SF = square foot, square feet
gpd = gallons per day
mgd = million gallons per day

With development of the Greystar project only, the hydraulic model calculated that future flows would not result in surcharge conditions in the downstream 12-inch Freedom Circle and 12-inch Mission College Boulevard sewers; however, the downstream 15-inch sewer on Mission College Boulevard would experience backwater surcharge conditions caused by the hydraulic grade line in the Great America Parkway East trunk, as with future flows without any development (discussed above). No other surcharge conditions were identified that exceeded the City's deficiency criteria.

For development under the Focus Area Plan including the Greystar project, the hydraulic model calculated that, future flows would result in surcharge due to backwater and throttled conditions in the 12-inch Mission College Boulevard sewer that would exceed the City's deficiency criteria (the throttled segments would be downstream of the connection to the Freedom Circle sewer).

In addition, the downstream 15-inch sewer on Mission College Boulevard would again experience backwater surcharge conditions caused by the hydraulic grade line in the Great America Parkway East trunk. The hydraulic model also identified other potential surcharge conditions along segments of the Great America Parkway trunk line, with one segment along the East trunk that would be throttle surcharged but would not exceed the City's deficiency criteria, and other segments along the West trunk that would be surcharged due to throttle conditions, though one of these segments would exceed the City's deficiency criteria by 1 foot above pipe crown.

Based on the wastewater hydraulic model, the Woodard & Curran technical memo recommends the following sanitary sewer infrastructure improvements, which would be incorporated in the infrastructure program for Plan Area, when the City determines such a program is necessary based on development proposals, and be funded by fair-share contributions of new development in the Plan Area, including the Greystar project:

- Buildout of the Plan Area (including the Greystar project) would result in capacity deficiencies along the 12-inch Mission College Boulevard sewer, and approximately 1,460 linear feet on this sewer line (generally from the western intersection of Mission College Boulevard and Freedom Circle to the intersection of Mission College Boulevard and Great American Parkway) would need to be upsized from 12-inch to 15-inch pipe, per the City's sizing criteria for new sewer facilities, assuming the slope of the existing sewers is maintained. In addition, during the planning and design stages of this work, a unified standard street section must be used to accommodate all Public Utilities.

The Technical Memo also made the following observations for City consideration:

(1) The Great America Parkway East trunk hydraulic grade line would still affect flows from the existing 15-inch Mission Boulevard sewer; while it would be possible to reduce the effects by raising the crown of the 15-inch Mission Boulevard sewer to match the crown of the East trunk, this would result in a slope reduction of the 15-inch Mission Boulevard sewer that could affect its full pipe capacity (although it would still be adequate). If the City determined to implement this "crown matching" improvement, an additional 420 linear feet of sewer pipe improvements would be required.

(2) The City should re-evaluate the Great America Parkway West trunk surcharge issue (where the segment's surcharge level is one foot above pipe crown) as part of a plan for future capacity improvements on this sewer line (the modeled exceedance over City deficiency standards is within the model's range of error and may not provide sufficiently accurate information at this time).

Finally, anticipated peak wet weather flow (PWWF) without Focus Area Plan/Greystar project development, estimated at 45.3 mgd, would not exceed the current combined Rabello and Northside pump station rated capacities of 46.1 mgd (26.4 mgd and 19.7 mgd, respectively). With Focus Area Plan/Greystar project development, PWWF would increase by approximately 1 mgd (46.3 mgd with Focus Area Plan/Greystar project development compared to 45.3 mgd without) and would exceed the pump station rated capacities. Pump station capacity values for the Northside and Rabello pump stations were recently confirmed by Schaaf & Wheeler in

March 2021, at the request of the City to refine wastewater planning efforts.[1] Total pumping capacity (February 2021) of the Northside and Rabello Pump Stations is 46.1 mgd, however, the estimated 2035 General Plan PWWF flows were also updated, with a new total of 46.34 mgd. This total includes all other specific plan/focus area plans as of February 2021, and thus accounts for reasonably foreseeable development affecting these pump stations. According to Public Works, the difference between the revised PWWF flows and pump station capacity is 0.24 mgd (approximately 0.5 percent of the total pump station capacity) and is less than the 0.5 mgd accuracy limit (tolerance factor), so no capacity improvements to the Northside or Rabello pump stations would be necessary at this time.[2]

Therefore, although Focus Area Plan/Greystar project development future flows would not require pump station capacity improvements at this time, they would contribute to a cumulative condition and would therefore be considered a *significant cumulative impact* (see Impact and Mitigation Measure 18-5 below). The WC Technical Memo recommends that the City plan for future pump station capacity improvements. Because these future pump station capacity improvements, if pursued, would serve future development in the area, including anticipated but not yet approved proposals such as the Kylli development and the Patrick Henry Drive Specific Plan as well as other development north of US 101 (as considered in the SW Technical Memo), the City would require individual development projects, including the development under the Freedom Circle Focus Area Plan (such as the Greystar project), to provide a fair share contribution toward pump station facility improvements.

(c) Projected Storm Drainage Infrastructure Requirements—Plan Area. Water quality and potential flooding are discussed in chapter 11, Hydrology and Water Quality, of this EIR. This section evaluates storm drainage infrastructure improvement needs (e.g., new pipelines) for the proposed Freedom Circle Focus Area Plan.

The 2015 Storm Drain Master Plan identified several areas that experience frequent flooding and recommended improvements along a portion of Mission College Boulevard near the Marriott Hotel entry road (replacement of approximately 375 feet of 27-inch main), and installation of a new pump station in the southeastern part of the Plan Area (in the southeastern part of the Greystar project site near U.S. 101).[3] According to the 2015 plan, both were determined to be low priority improvement projects.

These improvement projects were identified to address existing conditions within the Plan Area and are not a result of the proposed Focus Area Plan. No storm drainage improvements have been determined necessary due to Focus Area Plan buildout at this time, and no impact has been identified. However, potential storm drainage infrastructure effects of development associated with the future, required comprehensive planning study (e.g., specific plan) would be evaluated at the time the comprehensive plan is prepared. In general, storm drainage systems

[1]Schaaf & Wheeler, "Memorandum re: Northside and Rabello Pump Station Firm Capacity Evaluation," prepared for Evelyn Liang, City of Santa Clara, March 16, 2021, and included as Appendix 25.4 of this EIR. (Referred to herein as "SW Technical Memo.")

[2]Gustavo Gomez, Principal Engineer (AN), City of Santa Clara Public Works Department, email dated June 29, 2021, to Rebecca Bustos, Senior Planner, City of Santa Clara Community Development Department.

[3]City of Santa Clara, Storm Drain Master Plan, December 2015.

are generally not provided on a regional basis, and as discussed in the City's General Plan EIR, the City's contribution to cumulative regional impacts associated with storm water drainage systems would be less than significant.[1]

Conclusion—Plan Area. The utility (water, wastewater, storm drainage) infrastructure recommendations described above are based on projected utility demands. If the projected utility demands change as a result of preparation of the future, required comprehensive planning study (e.g., specific plan), revisions to the assumed Plan Area development, revisions to City or jurisdictional agency standards or design criteria, then the utility system modifications identified above would need to be revised accordingly so that the modifications are adequate to meet the revised utility demands.

The construction of Plan-related utility infrastructure would be expected to be temporary and would occur within either existing public rights-of-way, City property, a project development site, or private property subject to a municipal easement. Construction impacts have been evaluated as part of this Focus Area Plan CEQA analysis, and construction period air emissions (dust), noise, and traffic interruption typically associated with utility infrastructure construction would be reduced through mandatory City of Santa Clara construction protocols and mitigations (e.g., see chapters 5 [Air Quality] and 13 [Noise] of this EIR), as they would apply to other development under the Focus Area Plan and required comprehensive planning study (e.g., specific plan). No additional significant environmental impact beyond those already identified in this EIR would be anticipated with such construction activity.

Based on the above analysis, the Plan's construction and operational impacts on water, wastewater, and storm drainage infrastructure would be ***less-than-significant*** (see criteria [a] and [c] in subsection 18.3.1, "Significance Criteria," above).

Mitigation 18-3. No significant impact has been identified; no mitigation is required.

Impact 18-4: Project and Cumulative Need for Water, Wastewater, and Storm Drainage System Infrastructure—Greystar Project.[2] Development of the Greystar project would be expected to require construction of improvements and upgrades to City water, wastewater, and storm drainage systems.

(a) Projected Water Infrastructure Needs—Greystar Project. Preliminary utility plans submitted by the Greystar project indicate locations of new domestic and recycled water pipelines that are proposed to be installed on the project site and to connect to the existing City water infrastructure on Freedom Circle. These plans would be subject to final City review and approval as project plans are finalized, based on results from the City's hydraulic modeling

[1]City of Santa Clara, Integrated Final Environmental Impact Report for the City of Santa Clara Draft 2010-2035 General Plan, Volume I EIR Text, January 2011.

[2]Although discussion of cumulative impacts is provided in chapter 20, CEQA-Mandated Sections, of this EIR, the analysis of utilities and service systems impacts, due to their inherently cumulative nature and related City-wide capital improvement planning implications, includes the cumulative analysis in the following section.

program.[1] Any deficiencies in the existing potable water distribution or storage infrastructure would be the responsibility of the developer to upgrade, as determined and approved by the City, and at the developer's expense.

(b) Projected Wastewater Generation and Infrastructure Needs—Greystar Project. BKF Engineers prepared a preliminary estimate of Greystar project wastewater generation using City wastewater flow factors.[2] Based on the project's proposed 1,075 residential units and 2,300 square feet of retail space, BKF estimated that the project would generate approximately 165,550 gallons per day (gpd) for residential and 345 gpd for retail, for a total project wastewater generation of 165,895 gpd. This estimated wastewater for residential development is slightly less than the estimate in the Woodard & Curran technical memo because of refinements to the Greystar project (1,075 DUs versus 1,100 DUs). The BKF estimate for retail is slightly more than Woodard & Curran because of a different retail generation factor (0.15 gpd per square foot for BKF versus 0.10 gpd per square foot for Woodard & Curran) and a slightly higher retail square footage (2,300 square feet for BKF as opposed to 2,000 square feet for Woodard & Curran). The results, however, are substantially similar (BKF project total = 0.166 mgd versus Woodard & Curran project total = 0.170 mgd). The Woodard & Curran estimate would provide for a more conservative assessment.

As discussed above in subsection (b) of Impact 18-3, and shown in Table 18-7, the Greystar project would increase the existing wastewater flow entering the City's sewer mains along Freedom Circle and thereon to Mission College Boulevard and the Great America Parkway trunk line to over twice the existing flow.[3] Although the Woodard & Curran technical memo regarding Plan Area sewer infrastructure capacity did not identify the need for improvements to the sewer pipes on Freedom Circle, because these pipes connect to the sewer main on Mission College Boulevard, Greystar project wastewater would contribute to the need for future sewer improvements.

(c) Projected Storm Drainage Infrastructure Requirements—Greystar Project. As a condition of Greystar project approval, dedication of an easement at the southeast corner of the project site (where U.S. 101 and San Tomas Aquino Creek intersect) would be required to allow installation of a new storm drain pump station; however, this requirement is not the result of an identified project storm water impact. Project-related storm water, as discussed in chapter 11, Hydrology and Water Quality, of this EIR, would be required to meet storm water requirements (i.e., NPDES "C.3" standards in the SCVRUPPP C.3 Storm water Handbook and also City Urban Runoff Pollution Prevention Program standards). As discussed in EIR chapter 11, the Greystar project proposes to construct 17 drainage management facilities, including 14

[1]The Water & Utilities Department is requiring the Greystar applicant to fund a hydraulic flow analysis.

[2]154 gallons per day (gpd) per dwelling unit (apartment); 0.15 gpd per square foot (retail). From "Table 2-1: Base Wastewater Flow Unit Flow Factors," City of Santa Clara, Sanitary Sewer Master Plan Update Final Report, April 2016, p. 2-4.

[3]Existing wastewater flow without Greystar = 0.111 mgd; Greystar project estimated wastewater = 0.170 mgd.

bioretention areas, two self-retaining areas, and one media treatment device, all located on the project site.[1]

Conclusion—Greystar Project. The construction of Greystar project-related utility infrastructure would be temporary and would occur within either existing public rights-of-way, City property, the Greystar project site, or Greystar property subject to a municipal easement. Construction impacts have been evaluated as part of this Focus Area Plan CEQA analysis, and construction period air emissions (dust), noise, and traffic interruption typically associated with utility infrastructure construction would be reduced through mandatory City of Santa Clara construction protocols and mitigations as discussed in other chapters of this EIR (e.g., see chapters 5 [Air Quality] and 13 [Noise] of this EIR), as they would apply to other development under the Focus Area Plan. No additional significant environmental impact beyond those already identified in this EIR would be anticipated with such construction activity.

Based on the above analysis, the Greystar project's construction and operational impacts on water, wastewater, and storm drainage infrastructure would be ***less-than-significant*** (see criteria [a] and [c] in subsection 18.3.1, "Significance Criteria," above).

Mitigation 18-4. No significant impact has been identified; no mitigation is required.

Impact 18-5: Cumulative Wastewater Pump Station Capacity Impacts—Plan Area. As noted in the Woodard & Curran technical memo conducted for the Focus Area Plan (and discussed above), future wastewater generated by anticipated development in the Focus Area Plan Area is projected to exceed the current combined wastewater capacity of the Northside and Rabello pump stations (46.1 mgd) by 0.2 mgd (for a total of 46.3 mgd), which represents a *cumulative wastewater impact*. Therefore, the proposed Freedom Circle Focus Area Plan contribution to cumulative pump station capacity at the Northside and Rabello pump stations would be a ***significant cumulative impact*** (see criterion [a] in subsection 18.3.1, "Significance Criteria," above).

[1]The total number, final location, and individual design of the bioretention facilities and/or other treatment measures may change depending on final project design and hydrologic calculations, all of which would be reviewed and approved by the City.

Mitigation 18-5. The City shall require individual projects implemented under the Freedom Circle Focus Area Plan (and the future, required comprehensive planning study – e.g., specific plan) to make a fair-share contribution to the wastewater pump station improvements necessary to accommodate cumulative development in Santa Clara. The fair-share contributions for future projects developed under the Focus Area Plan and required comprehensive planning study shall be determined based on a detailed wastewater pump station engineering study prepared by the City and each project's percent of wastewater contribution to cumulative flow capacity needs above the current pump capacity. This mitigation would provide funding for wastewater pump station upgrades, which would reduce the Plan's contribution to the cumulative impact to a ***less-than-significant level.*** The City would be required to plan and construct the improvements. Because the timing of these improvements cannot be guaranteed or estimated at this time (spring 2021), the combined wastewater capacity of the two pump stations could be exceeded by development proposals already under consideration. Therefore, the City shall continually monitor pump station capacity in order to coordinate the pump station improvements with development proposals. Until pump station capacity improvements adequate to accommodate the incremental increases in wastewater flows are completed, the City shall delay individual project building permits. In addition, as a standard condition of approval, each individual project would need to provide sanitary sewer information to the City, and no project would be approved by the City until the City determines that sufficient sewer capacity exists. Implementation of this mitigation measure would reduce Plan cumulative wastewater pump capacity impacts to a ***less-than-significant level***.

Necessary pump station upgrades could include additional wet well and pumping capacity and/or force main improvements. The timing of pump station improvements is not currently known. A detailed engineering study would be necessary to determine the extent and details of pump station capacity upgrades, and the City would ultimately be responsible for coordinating the capacity upgrades. Proposed developments (including those under the Freedom Circle Focus Area Plan and the future, required comprehensive planning study) would be responsible for funding their fair-share contribution to the upgrades. Also, although this EIR assumes that the proposed improvements could be accommodated on the existing pump station sites and/or within existing City rights-of-way, the upgrade project(s) would be subject to an environmental review and determination under CEQA.

Impact 18-6: Cumulative Wastewater Pump Station Capacity Impacts—Greystar Project. As noted in the Woodard & Curran technical memo conducted for the Focus Area Plan (and discussed above), future wastewater generated by the Greystar project would be approximately 0.170 mgd, which would result in an updated total flow to pump stations of 45.407 mgd and would not exceed the current combined wastewater capacity of the Northside and Rabello pump stations (46.1 mgd). The Greystar wastewater contribution would represent less than four percent of the current combined wastewater capacity and less than four percent of the total flow to the pump stations; therefore, the proposed Greystar project would not contribute considerably to a cumulative pump station capacity impact at the Northside and Rabello pump

stations, and this would be a ***less-than-significant impact*** (see criterion [a] in subsection 18.3.1, "Significance Criteria," above).

Mitigation 18-6. No significant impact has been identified; no mitigation is required.

Impact 18-7: Wastewater Treatment Capacity Impacts—Plan Area. Wastewater from the City of Santa Clara, with some flow from the Cupertino Sanitary District (CuSD), is conveyed to the San Jose-Santa Clara Regional Wastewater Facility (RWF) for treatment before the treated water is discharged into the South San Francisco Bay or recycled for other uses. The RWF has a Water Board/NPDES treatment capacity limit of 167 million gallons per day (mgd). Approximately 35 mgd of RWF treatment capacity is allocated to other wastewater agencies by agreement. The cities of San Jose and Santa Clara share the remaining treatment capacity. In 2020, the treatment capacity allotment for Santa Clara was approximately 25.147 mgd, and the City had approximately 9.606 mgd of unused treatment capacity remaining.[1]

According to the Woodard & Curran technical memo prepared for the Focus Area Plan, wastewater generation from Focus Area Plan development (including the Greystar project) is projected to total approximately 1.063 mgd, which would not exceed the City's remaining capacity allocation of 9.606 mgd. Moreover, that 9.606 mgd of capacity is only the City's current share; the RWF currently has a total excess flow capacity of approximately 65 mgd. The total flow capacity at the RWF is 167 mgd, and the joint owners (Santa Clara and San José) have agreements with several tributary agencies, which have capacity rights of approximately 35 mgd. Pursuant to Section V.B.3 of the 1983 agreements with the tributary agencies, Santa Clara can purchase additional capacity from those tributary agencies, in the unlikely event that the City's current excess capacity of 9.606 mgd was insufficient.

Therefore, Focus Area Plan development (including the Greystar project) would have a ***less-than-significant impact*** on wastewater treatment facility capacity (see criterion [c] in subsection 18.3.1, "Significance Criteria," above).

Mitigation 18-7. No significant impact has been identified; no mitigation is required.

Impact 18-8: Wastewater Treatment Capacity Impacts—Greystar Project. As discussed in Impact 18-7, wastewater generation from Focus Plan development including the Greystar project is projected to total approximately 1.063 mgd, which would not exceed the City's remaining capacity allocation of 9.606 mgd. The Greystar project is forecasted to account for approximately 0.170 mgd. Therefore, the Greystar project would have a ***less-than-significant impact*** on wastewater treatment facility capacity (see criterion [c] in subsection 18.3.1, "Significance Criteria," above).

Mitigation 18-8. No significant impact has been identified; no mitigation is required.

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[1]"City of San Jose Environmental Services Department, San Jose - Santa Clara Regional Wastewater Facility Tributary Agencies' Estimated Available Plant Capacity – 2020, December 2020" (https://www.sanjoseca.gov/Home/ShowDocument?id=68283, accessed 2/24/21).

Impact 18-9: Impacts on Solid Waste Disposal and Recycling Service—Plan Area. Solid waste in the Plan Area is under an exclusive agreement with Mission Trail Waste Systems and is currently taken to the Mission Trail Transfer Station in Santa Clara for processing. From there it goes to the Newby Island Sanitary Landfill in Milpitas. Construction and demolition debris is currently taken to the Zanker Road Resource Recovery Operation. Recology South Bay provides recyclables hauling services to City areas zoned commercial, industrial, and residential. All exclusive solid waste and recycling in the Plan Area will be collected by GreenWaste Recovery and taken to the GreenWaste Recovery Facility in San Jose for processing, and from there would be taken to the Newby Island Sanitary Landfill (see "Setting," above). The City has an agreement with GreenWaste Recovery that would provide the City with disposal capacity through June 30, 2036.

The Newby Island Sanitary Landfill has an estimated remaining capacity of nearly 21,200,000 cubic yards (with a cease operation date of January 1, 2041). The Zanker Road Resource Recovery Operation, which is a transfer/processing facility, has a throughput of 1,300 tons per day. Government regulations stipulate the process through which landfills apply for permit extensions, so that regional solid waste disposal and recycling service can continue over time (i.e., beyond the Freedom Circle Focus Area Plan's 2040 horizon year). Any expansion of those waste disposal and recycling facilities, or development of new facilities, would be subject to its own CEQA requirements.

The City's Solid Waste ordinance (No. 1948; City Code 8.25) stipulates solid waste and recycling requirements for garbage, recycling and organic services, construction & demolition debris recycling, solid waste management best management practices, service increases, and enforcement. In addition, the City's Development Guidelines for Solid Waste Service ("Solid Waste Guidelines") require for new and redevelopment projects to demonstrate their ability to manage, monitor trash/recycling materials generated to City's specifications.

The Guidelines specify solid waste generation rates for residential development: *"Multi-family residential garbage level of service must be calculated at a rate of no less than 32 gallons per week per unit (roughly 1 cubic yard per every 6 units)."* The Guidelines also specify solid waste generation rates for commercial, office, and other non-residential development: *"Office/ Commercial: 3 cubic yards per 20,000 square feet; Retail (including food stores): 3 cubic yards per 8,000 square feet; Restaurants and food service: 3 cubic yards per 2,000 square feet."*

New non-residential development projects must submit a solid waste management plan to the Department of Public Works. The plan would be required to include a site plan with all proposed solid waste container locations, enclosure locations, and street and alley widths, and would need to comply with the Solid Waste Guidelines.

As noted above, the City's Solid Waste ordinance dictates the level of garbage, recycling and organic services, construction & demolition debris recycling, best management practices for solid waste management, enforcement and the ability to increase service as needed at the owner's expense. The City of Santa Clara has Solid Waste guidelines for new and redevelopment projects. Projects must demonstrate their ability to manage, monitor trash/recycling materials generated to City's specifications.[1] In addition, projects would be

[1]R. Perkins, email dated May 22, 2020, to R. Bustos.

required to comply with the Solid Waste Ordinance and prepare a solid waste management plan to accomplish necessary waste reduction goals.

Based on City solid waste generation rates, development under the Focus Area Plan (including the Greystar project) would be anticipated to generate approximately 46,852 cubic yards of solid waste per year,[1] with about two-thirds of the waste generated by residential use. This would represent approximately 0.2 percent of remaining capacity at the Newby Island Landfill.[2]

Because Freedom Circle Focus Area Plan implementation would not be expected to generate an inordinate amount of solid waste for its size (i.e., a rate inconsistent with adopted plans, policies, and regulations) either during demolition/construction activities or operation due to project compliance with the Solid Waste Ordinance, and would be served by solid waste disposal and recycling facilities with sufficient capacities to accommodate the Plan's demolition/construction debris and solid waste disposal needs, the Plan's effect on solid waste and recycling services would represent a ***less-than-significant impact*** (see criteria [d] and [e] in subsection 18.3.1, "Significance Criteria," above).

Mitigation 18-9. No significant impact has been identified; no mitigation is required.

Impact 18-10: Impacts on Solid Waste Disposal and Recycling Service—Greystar Project. Solid waste generation resulting from the Greystar project (proposed 1,075 dwelling units and 2,000 square feet of retail space) would contribute approximately 20 percent of the total Focus Area Plan solid waste generation.[3] As discussed under Impact 18-9, the Solid Waste guidelines call for new and redevelopment projects to demonstrate their ability to manage, monitor trash/recycling materials generated to City's specifications, and require projects to comply with the Solid Waste Ordinance by preparing a solid waste management plan to accomplish necessary waste reduction goals. Please see also the discussion above regarding sufficient landfill and processing capacity to accommodate Focus Area Plan waste, including the Greystar project. As a condition of project approval, the City would require that the Greystar project submit for City review and approval a Waste Management Plan (the applicant has provided a draft plan for preliminary review). In addition, the City would require the applicant to prepare a Construction and Demolition Debris Recycling Report through the City's online tracking tool.

Because the Greystar project would not be expected to generate an inordinate amount of solid waste for its size (i.e., a rate inconsistent with adopted plans, policies, and regulations) either

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[1] 3,600 DUs, 2,000,000 SF Office, and 2,000 SF Retail Uses: 3,600 DU @ 1 CY/week per 6 DU; 3,600 DU ÷ 6 DU = 600 x 1 CY = 600 CY/week (for residential); plus 2,000,000 SF office @ 3 CY/week per 20,000 SF; 2,000,000 SF ÷ 20,000 SF = 100 x 3 CY = 300 CY/week (for office); plus 2,000 SF retail @ 3 CY/week per 8,000 SF; 2,000 SF ÷ 8,000 SF = 0.75 CY/week (for retail), = 900.75 CY/week, rounded up = 901 CY/week total, or 46,852 CY annual solid waste.

[2] 46,852 CY ÷ 21,200,000 CY (landfill) = 0.22 percent, rounded down = 0.2 percent.

[3] 1,075 DUs and 2,000 SF Retail Uses: 1,075 DUs @ 1 CY/week per 6 DU; 1,075 DU ÷ 6 DU = ~179.2 x 1 CY = ~179.2 CY/week (for residential); plus 2,000 SF retail @ 3 CY/week per 8,000 SF; 2,000 SF ÷ 8,000 SF = 0.25 x 3 CY = 0.75 CY/week (for retail), = 179.2+.75= 179.95, rounded up = ~180 CY/week total, or 9,360 CY annual solid waste. 9,360 CY ÷ 46,852 CY = 19.97 percent, rounded up = 20 percent.

during demolition/construction activities or operation, and would be served by solid waste disposal and recycling facilities with sufficient capacities to accommodate project demolition/ construction debris and solid waste disposal needs, the Greystar project's effect on solid waste and recycling services would represent a ***less-than-significant impact*** (see criteria [d] and [e] in subsection 18.3.1, "Significance Criteria," above).

Mitigation 18-10. No significant impact has been identified; no mitigation is required.

Impact 18-11: Electricity, Natural Gas, and Telecommunications Infrastructure—Plan Area. The Focus Area Plan is designed as a preliminary planning document. A future comprehensive planning study would be required, per the General Plan, to refine development assumptions. Plan Area needs for electricity, natural gas, and telecommunications infrastructure improvements are generally discussed below:

(a) Electrical System Infrastructure Needs. Silicon Valley Power (SVP) owns and operates the electric service within the City of Santa Clara. Electric power distribution facilities in the City limits include approximately 27 miles of 60 kV power lines, approximately 500 miles of 12 kV distribution lines (of which approximately 64 percent are underground), and 27 substations. For the Plan Area, SVP has identified the need for a new substation (the proposed Freedom Circle Junction Substation) to ensure adequacy of the distribution system capacity to serve Plan Area needs.[1] Transmission and distribution system improvements would be determined during preparation of substation plans, as well as cost and cost sharing mechanisms, which would need to be analyzed with the required comprehensive planning study (specific plan). The City has determined that an interconnection study would need to be prepared for the Plan Area.

Peripheral facilities (i.e., circuit conduit bank or banks and related electrical improvements such as switches and transformers would be necessary) could be required but would need to be assessed with each individual project application. Developers would be required to provide underground easements for installation of substructures, as required by City Code section 17.15.210 (transformers, switches, and similar equipment would be above grade).

Future project applicants would be responsible for their pro rata share of funding for offsite facilities, based on plans and cost estimates as they are developed (which would be a component of an implementation plan as part of the required comprehensive planning study).

Electrical system improvements in the Plan Area would be expected to occur within either existing public rights-of-way or on City property, a project development site, or private property subject to a municipal easement and would be required to comply with mitigation measures already identified in this EIR.

(b) Natural Gas Infrastructure Needs. Pacific Gas and Electric Company (PG&E) owns and operates the gas service within the City of Santa Clara, including the Plan Area. A gas main runs east-west from around Lafayette Street, passing along the northern boundary of California's Great America amusement park, to Great America Parkway. From there, the gas main continues west, eventually crossing Calabazas Creek and heading into the City of Sunnyvale. Gas service lines are currently located throughout most of the Plan Area.

[1] "Final 2018 Integrated Resource Plan, Silicon Valley Power," prepared by Black & Veatch, November 12, 2018.

Gas mains could be subject to upgrading to comply with current PG&E standards, which would occur during development of future individual projects. Any pipeline upgrades or connections to new buildings would be expected to occur within either existing public rights-of-way or on City property, a project development site, or private property subject to a municipal easement and would be required to comply with mitigation measures already identified in this EIR.

(c) Telecommunications Infrastructure Needs. AT&T and Xfinity (Comcast) currently provide communications and cable/internet infrastructure to the Plan Area, with cell phone service available from several of the larger providers (e.g., AT&T, Verizon, T-Mobile). In addition, a "small cell antenna" initiative is being proposed by telecommunication carriers in coordination with Silicon Valley Power to provide more capacity in congested areas and improve service in areas where more traditional cell phone towers can't reach. (These smaller antennas can be attached discreetly to street light poles.) Individual project applicants would be responsible for coordinating communications and cable/internet connections with AT&T and Xfinity (Comcast), which would be expected to occur within either existing public rights-of-way or on City property, a project development site, or private property subject to a municipal easement anticipated to be provided for by existing lines and would be required to comply with mitigation measures already identified in this EIR.

(d) Construction Period Impacts--Electricity, Natural Gas, and Telecommunications Infrastructure. Construction period effects associated with potential electrical, natural gas, and telecommunication line upgrades and/or connections to buildings (such as air emissions/dust, noise, and traffic interruption) would be temporary and would be reduced through mandatory, uniformly applied City of Santa Clara construction standards and regulations, and by mitigations already identified elsewhere in this EIR--for instance, see EIR chapters 5 (Air Quality) for construction period dust control and air emissions reduction measures; 6 (Biological Resources) for ground-disturbance impacts on special status species and potential tree removal; 7 (Cultural and Historical Resources) for impacts on potentially historic structures and/or cultural resources; 8 (Geology and Soils) for erosion control measures and building code design standards; 9 (Greenhouse Gas Emissions/Energy) for GHG- and energy-reducing measures applicable to construction equipment; 10 (Hazards and Hazardous Materials) for potential construction-period hazardous materials use and transport and for potential hazardous waste sites; 11 (Hydrology and Water Quality) for construction-period storm water runoff provisions; and 13 (Noise) for construction-period noise control. No additional significant environmental impacts would be anticipated with this construction activity beyond those impacts already identified in this EIR.

Construction period effects associated with potential electrical, natural gas, and telecommunication line upgrades and/or additional facilities outside of the Plan Area would also be expected to occur within either existing public rights-of-way or on City property, or private property subject to a municipal easement and would be temporary. Construction period effects associated with these improvements (such as air emissions/dust, noise, and traffic interruption) would be reduced through mandatory, uniformly applied City of Santa Clara construction standards and regulations. These off-site projects would be subject to their own individual CEQA review, which would be expected to involve an evaluation of environmental impact topics similar to that provided in this EIR. Because no plans have been finalized nor sites identified for these potential additional electrical system improvements, any further analysis would be speculative.

Because construction of electrical system, natural gas, and telecommunications improvements in the Plan Area would be required to comply with uniformly applied City of Santa Clara construction standards and regulations and the mitigations already identified elsewhere in this EIR, the construction period impacts associated with these improvements would represent a ***less-than-significant impact*** (see criterion [a] in subsection 18.3.1, "Significance Criteria," above).

Mitigation 18-11. No significant impact has been identified; no mitigation is required.

Impact 18-12: Electricity, Natural Gas, and Telecommunications Infrastructure—Greystar Project. Greystar project for electricity, natural gas, and telecommunications infrastructure improvements are discussed below:

(a) Electrical System Infrastructure Needs. The project preliminary utility plans show proposed locations for SVP distribution equipment, such as switch vaults, transformer pads, and easements for underground electrical lines, as required of by City Code section 17.15.210.

As discussed above for the Plan Area, SVP has identified the need for a new substation (the proposed Freedom Circle Junction Substation). In addition, the City has determined the need for an interconnection study to be prepared for the Plan Area. The Greystar project would need to contribute its pro rata share of funding for electrical facilities, based on plans and cost estimates as they are developed.

Project site electrical system improvements would occur within either existing public rights-of-way or on City property, the project development site, or private property subject to a municipal easement and would be required to comply with mitigation measures already identified in this EIR.

(b) Natural Gas Infrastructure Needs. As discussed above, PG&E owns and operates the gas service within the City of Santa Clara, including the Plan Area. Project connections to gas mains would be expected to occur within either existing public rights-of-way or on City property, a project development site, or private property subject to a municipal easement and would be required to comply with the construction period mitigation measures already identified in this EIR.

(c) Telecommunications Infrastructure Needs. As discussed above, AT&T and Xfinity (Comcast) currently provide communications and cable/internet infrastructure to the Plan Area, with cell phone service available from several of the larger providers (e.g., AT&T, Verizon, T-Mobile). The Greystar project applicants would be responsible for coordinating communications and cable/internet connections with AT&T and Xfinity (Comcast), which would be expected to occur within either existing public rights-of-way or on City property, a project development site, or private property subject to a municipal easement anticipated to be provided for by existing lines and would be required to comply with mitigation measures already identified in this EIR.

(d) Construction Period Impacts--Electricity, Natural Gas, and Telecommunications Infrastructure. The construction of Greystar project-related utility infrastructure would be temporary and would occur within either existing public rights-of-way, City property, the Greystar project site, or Greystar property subject to a municipal easement. Construction impacts have been evaluated as part of this Focus Area Plan CEQA analysis, and construction period air

emissions (dust), noise, and traffic interruption typically associated with utility infrastructure construction would be reduced through mandatory City of Santa Clara construction protocols and mitigations as discussed in other chapters of this EIR (e.g., see chapters 5 [Air Quality] and 13 [Noise] of this EIR), as they would apply to other development under the Focus Area Plan. No additional significant environmental impact beyond those already identified in this EIR would be anticipated with such construction activity.

Construction period effects associated with potential off-site electrical, natural gas, and telecommunication line upgrades and/or additional facilities determined necessary for the Greystar project would also be expected to occur within either existing public rights-of-way or on City property, or private property subject to a municipal easement and would be temporary. Construction period effects associated with these improvements (such as air emissions/dust, noise, and traffic interruption) would be reduced through mandatory, uniformly applied City of Santa Clara construction standards and regulations. These off-site projects would be subject to their own individual CEQA review, which would be expected to involve an evaluation of environmental impact topics similar to that provided in this EIR.

Because construction of electrical system, natural gas, and telecommunications improvements for the Greystar project would be required to comply with uniformly applied City of Santa Clara construction standards and regulations and the mitigations already identified elsewhere in this EIR, the construction period impacts associated with these improvements would represent a ***less-than-significant impact*** (see criterion [a] in subsection 18.3.1, "Significance Criteria," above).

Mitigation 18-12. No significant impact has been identified; no mitigation is required.

19. PROJECT CONSISTENCY WITH LOCAL AND REGIONAL PLANS

Section 15125(d) of the California Environmental Quality Act (CEQA) Guidelines requires EIRs to "...discuss any inconsistencies between the proposed project and applicable general plans, specific plans and regional plans." The Freedom Circle Focus Area Plan/Greystar General Plan Amendment would be generally consistent with local and regional plans, as discussed in this chapter.

19.1 LOCAL PLANS

19.1.1 Project Consistency with Relevant General Plan Policies

The proposed Freedom Circle Focus Area Plan is substantially consistent with applicable policies of the City of Santa Clara 2010-2035 General Plan.[1] Because the Focus Area Plan is intentionally policy-oriented, it establishes policies rather than specific development standards. Therefore, several policies in the Focus Area Plan as currently formulated would not specifically further the implementation of General Plan policies due to lack of specificity. As required by the General Plan, the future, required comprehensive planning study will need to be tailored to the General Plan and provide more detailed standards and guidelines for consistent implementation.

The Greystar project, as well, would be substantially consistent with General Plan policies, including as amended to accommodate the project. Each EIR chapter (e.g., Land Use and Planning, Transportation) provides relevant identified General Plan policies that are applicable to the Freedom Circle Focus Area Plan/Greystar General Plan Amendment (see the “Regulatory Framework” section in each chapter).

The Freedom Circle Focus Area Plan is a “focus area plan,” which is one of several policy and regulatory tools used by the City of Santa Clara to implement the City’s 2010-2035 General Plan. A focus area plan provides a foundation for the future comprehensive, detailed planning study (or “comprehensive plan,” such as a specific plan), which needs to be adopted prior to allowing development in the Plan Area. A focus area plan provides a preliminary analysis of land use, utilities, streets, services, parks, and other public facilities as part of a coordinated planning process established to determine new infrastructure and service needs adequate to support future development, and to plan for timing of development appropriate to sustain environmental quality.

[1]Two General Plan appendices, Appendix 8.12 (Housing Element) and Appendix 8.13 (Climate Action Plan), include additional policies and objectives that are discussed in more detail below under section 19.1.3.

More detailed policies, standards, guidelines, and implementation actions for the Plan Area would be forthcoming when the future comprehensive planning study (such as a specific plan[1]) is prepared by the City, as required by the General Plan prior to development within the Plan Area.[2] Under State law, the term "substantially consistent" allows for potential inconsistencies among the multitude of policies within general plans themselves, as well as unforeseen policy issues that can be rectified through the City development review and decision-making processes.

In practical terms and consistent with the General Plan, the Freedom Circle Focus Area Plan is not intended to be an "implementation plan" and purposely does not include the detailed tools needed to achieve specific community desires for the Plan Area—tools such as design standards and guidelines, economic and fee incentives, etc. However, the Focus Area Plan process requires conformance with applicable General Plan policies and builds the groundwork for future implementation of the Plan. Although the Focus Area Plan policies may not provide enough specificity to guarantee consistency with General Plan policies, the intent of the Focus Area Plan is to conform to all applicable General Plan Policies—the preparation of a comprehensive planning study (specific plan) would be the vehicle to ensure General Plan consistency for future development proposals because that planning study/specific plan would include more specific standards and guidelines.

Within the Focus Plan Area, the Greystar proposal is for an individual project. The Greystar project, as described in more detail in chapter 3 (Project Description) of this EIR, is also required to be consistent with the General Plan and Focus Area Plan.

Chapter 3 also summarizes the basic project objectives of both the Focus Area Plan and the Greystar project. The reader is encouraged to review the entire Focus Area Plan and Greystar project materials at:[3]

https://www.santaclaraca.gov/our-city/departments-a-f/community-development/planning-division/specific-plans/freedom-circle
and
https://www.santaclaraca.gov/Home/Components/BusinessDirectory/BusinessDirectory/297/2495?npage=2

19.1.2 Freedom Circle Focus Area Plan/Greystar General Plan Amendment Land Use Designations

(a) Focus Area Plan. As discussed in the EIR topic chapters, the Focus Area Plan is substantially consistent with adopted land use plans, policies, and regulations. In a few particular instances, the Plan itself (as a policy document) cannot assure that future development would not conflict with General Plan policies. For instance, the Focus Area Plan does not set height standards in the Plan Area; instead, the Focus Area plan includes a policy

[1]If the City decides to prepare a "specific plan," then provisions of State law regarding specific plans would require that specific plan document to be substantially consistent with the 2010-2035 General Plan.

[2]The Greystar project applicant has submitted an application seeking a General Plan amendment to allow development of their property concurrent with the Focus Area planning process.

[3]Due to Covid-19 restrictions, all City libraries and City Hall remain closed, and no hard copies of the EIR will be available.

that would *"[e]ncourage sensitive design and site planning to mitigate the scale and height of larger buildings…"* The required, future comprehensive planning study would incorporate more prescriptive standards, and future development applications would be required to comply with them.

The Focus Area Plan is intended to implement the basic project objectives (see chapter 3, Project Description, of this EIR) to develop urban-scale mixed-uses, provide housing for future residents, create diversity in building scale and typology, create complete neighborhoods, reduce reliance on private vehicles, improve jobs/housing balance, create a human-scaled public realm, improve transportation options and connections including connectivity to the San Tomas Aquino Creek trail.

As part of the Focus Area Plan approval, the City would adopt General Plan amendments and zoning changes as necessary to ensure consistency between the Freedom Circle Focus Area Plan and the City of Santa Clara 2010-2035 General Plan and current zoning code (i.e., at the time of the Freedom Circle Focus Area Plan/Greystar General Plan Amendment approval, Zone Change and Zoning Text Amendments would be adopted by ordinance, and the entire Plan Area would be subject to General Plan amendments that incorporate the Plan Area's buildout potential in the overall City buildout projections).

New development throughout the Plan Area would include a combination of residential and office use. Parks, open space, and recreation goals and policies in the Freedom Circle Focus Area Plan/Greystar General Plan Amendment (see EIR chapter 15, Public Services, and chapter 16, Recreation) would promote new park and open space areas in the Plan Area.

(b) Greystar Project. The Greystar project site proposes a General Plan Amendment that, if adopted, would allow high-density residential development with limited retail uses on the vacant project site, currently designated for High Intensity Office/R&D use by the General Plan. As discussed in the EIR topic chapters, the Greystar project would be substantially consistent with land use plans, policies, and regulations, though a few potential conflicts could remain.

The Greystar project would serve to provide high-intensity multi-family housing (with some retail) in an urban district in the employment-rich northern part of Santa Clara and would help address the City's and State's housing shortage. The Greystar project is purposely designed to achieve and maintain a cohesive, compatible land use pattern and sense of place in the southeastern part of the Plan Area, as well as provide smooth transitions with adjacent neighborhoods and areas.

19.1.3 Project Consistency with Other Adopted Local Plans

The Freedom Circle Focus Area Plan and the Greystar project would be subject to the following City of Santa Clara adopted plans:

City of Santa Clara General Plan Appendix 8.13: Climate Action Plan. The City of Santa Clara Climate Action Plan (CAP) was adopted in December 2013 as General Plan Appendix 8.13. The CAP includes measures to reduce emissions by 23.4 percent below 2008 levels by 2020 and a series of measures to reduce emissions beyond. Reduction strategies applicable to the proposed Freedom Circle Focus Area Plan/Greystar General Plan Amendment include, but are not limited to, achieving City-adopted electricity efficiency targets to reduce electricity use by five percent through incentives, pilot projects, and rebate programs; incentivizing and facilitating

installation of 6 MW of customer-owned residential and nonresidential solar PV projects; meeting the water conservation goals presented in the Urban Water Management Plan to reduce per capita water use by 2020; and a citywide tree-planting goal of 2,500.

Focus Area Plan Consistency: As further discussed in chapter 9, Greenhouse Gas Emissions and Energy, of this EIR, the Focus Area Plan would be consistent with the Climate Action Plan because electricity for the Plan Area would be provided through Silicon Valley Power (SVP), which now buys only renewable or GHG free power.[1] In addition, development under the Freedom Circle Focus Area Plan would result in replacement of older, less-energy-efficient structures with newer structures that would comply with the CALGreen Code and thereby increase energy efficiency. The Focus Area Plan would not inhibit or otherwise interfere with the City's goal of installing solar PV projects, and proposed new development in the Plan Area would be required to be "solar-ready" (i.e., able to accommodate solar energy systems on rooftops, parking structure top decks, and similar flat surfaces).

Greystar Project Consistency: As further discussed in chapter 9, Greenhouse Gas Emissions and Energy, of this EIR, the Greystar project would be consistent with the Climate Action Plan because electricity for the Plan Area would be provided through Silicon Valley Power (SVP), which now buys only renewable or GHG free power. The proposed Greystar residential buildings would be new structures that comply with the CALGreen Code and thereby increase energy efficiency. Also, the Greystar project provide spaces for electrical vehicle (EV) parking.

City of Santa Clara 2015 Urban Water Management Plan. The City adopted an Urban Water Management Plan (UWMP) in 2016 in compliance with State law. The UWMP addresses water supplies (current and long-term), future water needs, conservation, and resource management programs to ensure adequate supplies are available to meet existing and future water demand. The UWMP, which was prepared in coordination with the City's two treated water wholesalers (San Francisco Public Utilities Commission and Valley Water) and with neighboring cities and water retailers, must be prepared every five years and submitted to the Department of Water Resources (DWR).

Focus Area Plan Consistency: The Freedom Circle Focus Area Plan (including the Greystar project) was not included in the City's 2015 UWMP because preparation of the UWMP occurred prior to initiation of the Focus Area Plan and the Greystar project. Therefore, a water supply assessment (WSA) for the Freedom Circle Focus Area Plan/Greystar General Plan Amendment, per California Water Code Section 10910, was prepared, which provides the mandated discussion of water supplies available during a 20-year period to meet the projected water demand of both the Focus Area Plan and the Greystar project. In addition, although the City prepared an update to the 2015 UWMP (the 2020 UWMP was approved by the City Council on June 22, 2021), the 2015 UWMP was used for preparation of this EIR.[2] The 2020 UWMP used 2019 ABAG data population and employment projection data

[1]Silicon Valley Power, "Commitment to Renewable Energy," https://www.siliconvalleypower.com/sustainability/commitment-to-renewable-energy, accessed 8/30/21.

[2]As discussed in EIR Chapter 18, Utilities and Service Systems (in section 18.1.1, Setting—Water), the 2015 UWMP describes the physical environmental conditions that existed at the time the NOP was published (June 26, 2020), as required by CEQA Guidelines section 15125(a)(1).

in its models, which did not include the Freedom Circle Focus Area Plan/Greystar General Plan Amendment.

Greystar Project Consistency: As discussed above, the Greystar project was proposed after the City completed its 2015 UWMP. The Greystar project was included in the WSA prepared for the Freedom Circle Focus Area Plan/Greystar General Plan Amendment. As noted above, the 2020 UWMP, which used 2019 ABAG data population and employment projection data in its models, did not include the Greystar project.

Santa Clara City Code. Relevant to trees, the Santa Clara City Code (Section 12.35.020) requires a written permit from the superintendent of streets prior to the alteration or removal of any tree, plant or shrub planted or growing in the streets or public places of the City (including trenching activities around or alongside any tree, plant or shrub with the intent of cutting the roots or otherwise causing damage).

Focus Area Plan Consistency: As further discussed in chapter 6, Biological Resources, of this EIR, the Freedom Circle Focus Area Plan would be consistent with Santa Clara City Code provisions for street trees because any project plans that propose to alter or remove any trees, plants, or shrubs along streets or public portions in the Plan Area would need a written permit from the superintendent of streets authorizing the work, as required by the City Code.

Greystar Project Consistency: The Greystar project would be consistent with Santa Clara City Code provisions, for the project does not propose to alter or remove any trees (there are no trees on-site, and the area is regularly disced as part of the maintenance plan to protect the "cap" over contaminated site soil; i.e., no roots are allowed to intrude into the "cap"). With respect to trees, plants, or shrubs growing in public places where trenching may occur, the project would be required to obtain the necessary permits; City review of project utility plans would ensure compliance with this code provision.

City of Santa Clara Green Stormwater Infrastructure Plan. As part of the City's NPDES compliance, the Green Stormwater Infrastructure Plan was approved by the City in 2019 to provide a citywide strategy for identifying and evaluating green stormwater infrastructure (GSI) opportunities, including estimating impervious surface target areas to be redeveloped with GSI facilities and providing technical tools for tracking projects. The Plan also identified coordinating with private developers as a key element in implementing GSI when Focus Areas are developed, for instance by installing green infrastructure facilities in public rights-of-way such as street frontages along properties being developed, and also by installing GSI facilities in industrial areas as they are redeveloped. The Plan supports the City's requirement for future development projects to comply with the Municipal Regional Permit C.3 requirements.

Focus Area Plan Consistency: As discussed in chapter 11, Hydrology and Water Quality, of this EIR, the Freedom Circle Focus Area Plan would be consistent with the GSI because the City would coordinate with private property developers to install stormwater planters in pedestrian zones and incorporate bioretention areas between parking spaces and in curb extensions (bulbouts), greenways, and parkland.

Greystar Project Consistency: The Greystar project would be consistent with the GSI because it would include green infrastructure facilities in public rights-of-way such as street frontages along properties being developing, as desired by the City and in compliance with

GSI standards. As discussed in chapter 11, Hydrology and Water Quality, of this EIR, the project stormwater plan would include 198,373 square feet of permeable surfaces in 12 bio-retention areas.

City of Santa Clara General Plan Appendix 8.12: Housing Element. Chapter 8.12 of the General Plan, the 2015-2023 Housing Element, sets forth the City's "plan for an adequate variety of safe, appropriate, and well-built housing for all residents of Santa Clara." The anticipated need for housing is identified in the City's "Housing Needs Assessment," which is based on data from the U.S. Census, the Association of Bay Area Governments (ABAG), and various online real estate resources. The Housing Element also identifies vacant and underutilized land that has potential for higher density residential or mixed-use development to meet the City's housing needs.

Focus Area Plan Consistency: As discussed further in chapter 14, Population and Housing, of this EIR, the Freedom Circle Focus Area Plan would be consistent with the 2015-2023 Housing Element because it would provide for building higher density housing in an underutilized transit-oriented area, which would help mitigate the City's jobs/housing ratio imbalance. In addition, the Focus Area Plan includes policies supporting appropriate transition between new development in the Focus Plan Area and adjacent uses, consistent with General Plan Transition Policies.

Greystar Project Consistency: As further discussed in chapter 14, Population and Housing, the Greystar project would be consistent with the 2015-2023 Housing Element because it would construct high-density housing on a vacant site with transit connectivity, and would thereby help mitigate the City's jobs/housing ratio imbalance.

City of Santa Clara Transportation Analysis Policy. The "Transportation Analysis Policy," approved by the City Council on June 23, 2020, establishes the use of vehicle miles traveled (VMT) as the methodology for environmental review of proposed projects, developments, land use plans, and transportation projects in the City of Santa Clara. The Policy sets forth screening criteria to determine if specific types of developments (such as infill developments, small projects, and/or transit supportive projects near major transit corridors) would be presumed to have a less-than-significant impact on VMT—i.e., criteria for exempting certain types of projects from VMT analysis. The Policy aligns the City's transportation analysis methodology with State goals, pursuant to Senate Bill 743, and City General Plan policy. The policy also formalizes the Transportation Operational Analysis (TOA) requirement outside of CEQA.

Focus Area Plan Consistency: As further discussed in chapter 17, Transportation, the Freedom Circle Focus Area Plan would be consistent with the City's Transportation Analysis Policy because it has been classified a "transit-supportive project," based on meeting City criteria related to proximity to transit (the Plan Area is within ½ mile of two existing transit stops along a State-defined "high-quality transit corridor"); a minimum floor area ratio (FAR) of 0.75 for non-residential development and minimum development density of 35 dwelling units per acre (DU/ac) for residential development (the Plan would have an estimated FAR of approximately 1.4 for non-residential development and a proposed residential density of over 90 DU/ac); promotion of multimodal transportation networks (the Plan supports pedestrian friendly design to increase pedestrian comfort and safety; expanding pedestrian pathways and internal streets; creating new neighborhood linkages; retrofitting auto-oriented streets for all travel modes; enhancing connectivity to the San Tomas Aquino Creek trail;

and providing pedestrian and bicycle routes to transit stops located along major thoroughfares); transit-oriented design elements (the Plan would establish the foundation for a pedestrian-oriented, mixed-use district that is walkable with convenient connections to high-quality transit); compliance with City parking requirements (the Plan would not allow surplus parking); and affordable housing objectives (the Plan would not replace affordable residential units with fewer affordable units).

Greystar Project Consistency: As further discussed in chapter 17, Transportation, the Greystar project would be consistent with the City's Transportation Analysis Policy because it has been classified a "transit-supportive project," based on meeting City criteria related to proximity to transit (the project is within ½ mile of three existing transit stops along a State-defined "high-quality transit corridor"); a minimum development density of 35 dwelling units per acre (DU/ac) for residential development (the project would have a residential density of over 80 DU/ac); promotion of multimodal transportation networks (project plans include new pedestrian pathways to connect buildings with the on-site public park and connect people to destinations both within and outside of the project); encourage bicycle use and support it with on-site bike storage and repair stations; construct a Class II bike lane along the Freedom Circle segment adjacent to the project site; and establish a trail connection to the San Tomas Aquino Creek trail; transit-oriented design elements (project plans include project-serving retail for residents, and would also support reduced reliance on private vehicles and improve jobs/housing balance by proximity to transit and employment centers); compliance with City parking requirements (project parking would be consistent with City Code requirements—i.e., no surplus parking); and affordable housing objectives (the project is committed to meeting City affordable housing objectives).

City of Santa Clara Complete Streets Policy. The City Council approved a "Complete Streets Policy" on August 21, 2018 to create, preserve, and maintain streets that provide safe, comfortable, and convenient travel ("complete streets"), including streets, roads, highways, bridges, and other portions of the City's transportation system. The complete streets principles include forming a comprehensive and integrated transportation network that promotes safe, equitable, and convenient travel for all users (pedestrians, bicyclists, persons with disabilities, motorists, movers of commercial goods, users and operators of public transportation, seniors, children, youth, and families), while preserving flexibility, recognizing community context, and using the latest and best design guidelines and standards.

Focus Area Plan Consistency: As further discussed in chapter 17, Transportation, the Freedom Circle Focus Area Plan would be consistent with the City's "Complete Streets Policy" because it would promote pedestrian friendly design to increase pedestrian comfort and safety, including expanding pedestrian pathways and internal streets, creating new neighborhood linkages, and retrofitting auto-oriented streets for all travel modes. In addition, the Plan would enhance connectivity to the San Tomas Aquino Creek trail and provide pedestrian and bicycle routes to transit stops located along major thoroughfares.

Greystar Project Consistency: As further discussed in chapter 17, Transportation, the Greystar project would be consistent with the City's "Complete Streets Policy" because it includes new pedestrian pathways to connect buildings with the on-site public park and connect people to destinations both within and outside of the project; encourages bicycle use and supports it with on-site bike storage and repair stations; would construct a Class II bike lane along the Freedom Circle segment adjacent to the project site; would establish a

trail connection to the San Tomas Aquino Creek trail; and includes design elements to increase pedestrian comfort and safety.

City of Santa Clara Bicycle Plan Update 2018. The Bicycle Plan Update establishes the city's long-term vision for improving bicycling in Santa Clara and recommends policies, programs, and projects to develop a comprehensive bicycling network with access to transit, schools, and other destinations, as well as addresses the design of accessible facilities. The Plan also focuses on improving corridors and intersections to promote safety, connectivity, and comfort, plus providing amenities at "end-of-trip" destinations (such as short- and long-term bike parking, and lockers, showers, and repair stations).

Focus Area Plan Consistency: The Freedom Circle Focus Area Plan would be consistent with the City's Bicycle Plan Update because it includes policies that support new bicycle networks as well as designs and programs to encourage bicycling, including redesign of Mission College Boulevard, Freedom Circle, and Hichborn Drive to provide better balance in the space dedicated to vehicles, bicycles, and pedestrians. The Focus Area Plan would also support the design of pedestrian and bicycle networks and infrastructure to facilitate access to transit stops on Great America Parkway, Mission College Boulevard, and Tasman Drive.

Greystar Project Consistency: As further discussed in chapter 17, Transportation, the Greystar project would be consistent with the City's Bicycle Plan Update because it would include a new trail connection for pedestrians and bicycles to access the San Tomas Aquino Creek Trail. In addition, the project would construct an 8-foot Class II bike lane along the project side (east side) of Freedom Circle, which would provide additional bicycle facilities.

City of Santa Clara Pedestrian Master Plan 2019. The Pedestrian Master Plan establishes the framework for how the city can achieve its vision of being a walkable community and create safe, comfortable, accessible, and enjoyable walking opportunities for residents. The Plan identifies improvements to the pedestrian network, including designation of "Priority Pedestrian Zones" across the city (zones with the highest potential for increasing walkability), roadway crossings, traffic signals, and other environment enhancements such as shade structures and enclosures, benches, and trees and planters, that would make walking in Santa Clara safer and more comfortable. In addition, lighting on sidewalks and paths, bus stop amenities, improvements to navigation (wayfinding), opportunities for physical activity along routes, and building connectedness and destination accessibility are prioritized.

Focus Area Plan Consistency: The Freedom Circle Focus Area Plan would be consistent with the City's Pedestrian Master Plan because it includes policies that support pedestrian networks as well as designs and programs to encourage walking, including redesign of Mission College Boulevard, Freedom Circle, and Hichborn Drive to provide better balance in the space dedicated to vehicles, bicycles, and pedestrians. The Focus Area Plan also supports the design of pedestrian and bicycle networks and infrastructure to facilitate access to transit stops on Great America Parkway, Mission College Boulevard, and Tasman Drive. Also, the Focus Area Plan supports design standards and guidelines to promoting safe and comfortable sidewalks and pathways.

Greystar Project Consistency: As further discussed in chapter 17, Transportation, the Greystar project would be consistent with the City's Pedestrian Master Plan because it would include an on-site, 2.0-acre public park (with two pedestrian paths crossing it), a

private courtyard (paseo) between two of the residential buildings (with an intertwined pedestrian path running through it), courtyards and other amenities such as a new, wider (seven feet) sidewalk on Freedom Circle along the project frontage, sidewalk improvements, and the connection to the San Tomas Aquino Creek Trail.

19.2 REGIONAL PLANS

The Freedom Circle Focus Area Plan/Greystar General Plan Amendment would be subject to the adopted plans and regulations of the following regional agencies:

Bay Area Air Quality Management District (BAAQMD). The BAAQMD is the agency primarily responsible for maintaining air quality and regulating emissions of criteria and toxic air pollutants within the San Francisco Bay Area Air Basin (SFBAAB). The BAAQMD carries out this responsibility by preparing, adopting, and implementing plans, regulations, and rules that are designed to achieve attainment of state and national air quality standards.

Focus Area Plan and Greystar project consistency with these plans, regulations, and rules is discussed below.

BAAQMD Regulations. The BAAQMD regulates the demolition and renovation of buildings and structures that may contain asbestos, and the manufacture of materials known to contain asbestos. The BAAQMD is vested with authority to regulate airborne pollutants through both inspection and law enforcement and is to be notified 10 days in advance of any proposed demolition or abatement work. BAAQMD regulations must always be followed when removing asbestos or demolishing buildings.

Focus Area Plan Consistency: As discussed in chapter 5, Air Quality, of this EIR, the Freedom Circle Focus Area Plan would be consistent with BAAQMD regulations because review and permitting of projects under the Focus Area Plan would require use of Best Available Control Technology to achieve no net increase in nonattainment pollutants; reduce risk from toxic air contaminants; limit visible particulate matter emissions; limit NOx and CO emissions from stationary internal gas combustion engines; and control asbestos emissions during demolition.

Greystar Project Consistency: As further discussed in chapter 5, Air Quality, and chapter 10, Hazards and Hazardous Materials, the Greystar project would be consistent with BAAQMD regulations because it would comply with review and permitting procedures during project development, such as for potential asbestos removal and excavation and removal of contaminated soils.

Bay Area Clean Air Plan (CAP). On April 29, 2017, the BAAQMD adopted its *Spare the Air-Cool the Climate 2017 Clean Air Plan* (Clean Air Plan). The 2017 Clean Air Plan updates the most recent Bay Area ozone plan, the 2010 Clean Air Plan, in fulfillment of state ozone planning requirements. The Plan focuses on the three following goals:

- Attain all state and national air quality standards;
- Eliminate disparities among Bay Area communities in cancer health risk from toxic air contaminants; and

- Reduce Bay Area GHG emissions to 40 percent below 1990 levels by 2030, and 80 percent below 1990 levels by 2050.

The plan includes 85 distinct control measures to help the region reduce air pollutants and has a long-term strategic vision which forecasts what a clean air Bay Area will look like in the year 2050. The control measures aggressively target the largest source of GHG, ozone pollutants, and particulate matter emissions – transportation. The 2017 plan includes more incentives for electric vehicle infrastructure, off-road electrification projects such as Caltrain and shore power at ports, and reducing emissions from trucks, school buses, marine vessels, locomotives, and off-road equipment.

Focus Area Plan Consistency: As discussed in chapter 5, Air Quality, of this EIR, the Freedom Circle Focus Area Plan would be consistent with the CAP because its transit-supportive policies would be expected to: (1) reduce VMT and trips due to its proximity to transit and its high density, mixed-use development design; (2) promote multimodal transportation, transit subsidies, carpool incentives, bicycling incentives, carshare memberships, and/or vanpools; (3) provide connections to regional and local transit; (4) provide amenities and improve safety for pedestrians; (5) limit parking; (6) support ZEV and Plug-in Electric Vehicles design standards for future charging stations; (7) comply with CALGreen sustainable building requirements; (8) provide use of shading of pedestrian areas and climate-appropriate landscaping and ground cover to reduce the "heat island" effect; (9) require trees to be planted along greenways and roadways; and (10) provide recycling and composting facilities.

Greystar Project Consistency: As further discussed in chapter 5, Air Quality, of this EIR, the Greystar project would be consistent with the CAP because it would: (1) reduce VMT and trips due to its proximity to transit and its high density development design; (2) provide amenities and improve safety for pedestrians and bicyclists; (3) support ZEV and Plug-in Electric Vehicles design standards for future charging stations; (4) comply with CALGreen sustainable building requirements; (5) provide shading of pedestrian areas and climate-appropriate landscaping and ground cover to reduce the "heat island" effect; (6) plant trees along greenways and roadways; and (7) provide recycling and composting facilities.

Planning Healthy Places. In May 2016, the BAAQMD released *Planning Health Places*, a guidebook that provides important air quality and public health information that is intended to assist local government in addressing and minimizing potential air quality issues. The BAAQMD intends that the information and recommendations in the guidebook be incorporated into city or county General Plans, neighborhood or specific plans, land use development ordinances, or into single projects. *Planning Healthy Places* recommends three primary strategies: (1) reduce or prevent emissions from pollution source(s) when possible; (2) implement best management practices where appropriate to reduce exposure to harmful pollutants; and (3) perform a more detailed study of an area when necessary.

Recommended best practices for reducing emissions of local air pollution include but are not limited to: including policies that limit the use of diesel generators, or control their emissions; limiting the idling of trucks to two minutes or less; requiring the electrification of loading docks in new and existing commercial land uses; and the implementation of transportation demand management strategies, traffic management strategies, and stipulations on development projects to use only the cleanest equipment, vehicles and fuel during construction.

Focus Area Plan Consistency: As discussed in chapter 5, Air Quality, of this EIR, the Freedom Circle Focus Area Plan would be consistent with the strategies outlined in *Planning Health Places* because it would be required to comply with BAAQMD rules and regulations, regarding diesel generators or natural gas-fueled boilers, which are designed to ensure no significant exposure for on- or off-site sensitive receptors; incorporate BAAQMD Basic Control Mitigation Measures that minimize construction vehicle idling times; incorporate transportation demand management (TDM) strategies; and require equipment to meet cleaner emission standards by using alternative fuel sources (e.g., electric-powered and liquefied or compressed natural gas).

Greystar Project Consistency: As further discussed in chapter 5, Air Quality, of this EIR, the Greystar project would be consistent with the strategies outlined in *Planning Health Places* because it would comply with BAAQMD rules and regulations, which are designed to ensure no significant diesel exhaust exposure for on- or off-site sensitive receptors. The project would incorporate BAAQMD Basic Control Mitigation Measures to minimize construction vehicle idling times, and utilize equipment meeting cleaner emission standards (e.g., using alternative fuel sources such as electric or liquefied or compressed natural gas).

San Francisco Regional Water Quality Control Board (Region 2). The San Francisco Regional Water Quality Control Board Region 2 (SFRWQCB) regulates stormwater quality under authority of both the Federal Clean Water Act and the Porter-Cologne Act. The SFRWQCB issues National Pollutant Discharge Elimination System (NPDES) permits to dischargers of municipal and industrial stormwater runoff and operators of large construction sites. In coordination with permittees of the San Francisco Bay Municipal Regional Stormwater Permit, including the City of Santa Clara, SFRWQCB staff performs an annual performance review and evaluation of the County's stormwater management program and NPDES compliance activities. The SFRWQCB also protects groundwater through its regulatory and planning programs.

The San Francisco Bay Municipal Regional Stormwater NPDES Permit (MRP) (1) issues the Waste Discharge Requirements and NPDES Permit for the discharge of stormwater runoff from the Municipal Separate Storm Sewer Systems (MS4s) of municipalities and local agencies in Bay Area counties, and (2) re-issued county-wide municipal stormwater permits as one Municipal Regional Stormwater NPDES Permit to regulate stormwater discharges from municipalities and local agencies in Alameda, Contra Costa, San Mateo, Santa Clara, and Solano counties. In addition, the NPDES permit requires cities and towns in the Santa Clara Valley to develop green stormwater infrastructure (GSI) plans that incorporate green stormwater infrastructure features into new and existing drainage infrastructure, such as rights-of-way, including streets, storm drains, and parking lots.

The City of Santa Clara has joined other cities and towns in the County to form the Santa Clara Valley Urban Runoff Pollution Prevention Program, which is a regulated waste discharger under the MRP (Order No. R2-2015-0049: NPDES Permit No. CAS612008). All new projects in the Freedom Circle Focus Area Plan that create or replace 10,000 square feet or more of roofs or pavement (including new development, redevelopment, and commercial and industrial sites) would be covered under this permit, which mandates a low impact development (LID) approach. LID treatment measures include rainwater harvesting and re-use, infiltration, evapotranspiration, and bio-treatment. The square footage standard is lowered for auto service facilities, retail gasoline outlets, restaurants, and stand-alone uncovered parking lots, which are also covered under the MRP if they create or replace 5,000 square feet or more of roofs or pavement.

Focus Area Plan Consistency: As discussed in chapter 11, Hydrology and Water Quality, of this EIR, the Freedom Circle Focus Area Plan would be consistent with the SFRWQCB municipal regional stormwater permit because projects in the Plan Area would be required by the City to implement stormwater runoff reduction measures to reduce discharge of pollutants, including site-specific erosion and sediment control plans (during construction), source control features such as roofed trash enclosures to keep pollutants from contacting stormwater, and use of techniques such as grassy swales, bioretention, flow-through planter boxes, and/or detention in landscaping to manage stormwater flows.

Greystar Project Consistency: As further discussed in chapter 11, Hydrology and Water Quality, the Greystar project would be consistent with the SFRWQCB municipal regional stormwater permit because the project would implement stormwater runoff reduction measures to reduce discharge of pollutants, such as site-specific erosion and sediment control plans (during construction). As the project proposes disturbance of more than one acre, a Notice of Intent (NOI) for coverage under the General Construction Permit would be required and a Storm Water Pollution Prevention Plan (SWPPP) would need to be prepared and implemented, which would include Best Management Practices (BMPs) to control erosion and storm water runoff during project construction activities. The project proposes several post-construction storm water control features such as roofed trash enclosures to keep pollutants from contacting stormwater, and use bioretention areas, self-retaining landscaped areas, and/or landscaping to manage stormwater flows.

Association of Bay Area Governments (ABAG) Multi-Jurisdictional Local Hazard Mitigation Plan. The ABAG Multi-Jurisdictional Local Hazard Mitigation Plan ("Taming Natural Disasters") involves local agencies throughout its nine-county Bay Area jurisdiction, with an overall strategy to maintain and enhance disaster response of the region. The plan focuses on mitigation *before* rather than after disasters by: (1) identifying natural hazards faced by the community and region (e.g., earthquakes, flooding, severe weather), (2) assessing the community's and region's vulnerability to these hazards, and (3) identifying specific preventive actions that can be taken to reduce the risk from the hazards. The plan, which has been approved by FEMA and adopted by ABAG, fulfills the requirements of the Federal Disaster Mitigation Act of 2000. The City of Santa Clara adopted the Santa Clara County Annex to 2010 ABAG Local Hazard Mitigation Plan (December 2011), which was incorporated into the ABAG Plan and also approved by FEMA. Adoption of the Annex allows the City of Santa Clara to become eligible for State and federal disaster assistance.

Focus Area Plan Consistency: The Freedom Circle Focus Area Plan is consistent with the ABAG Multi-Jurisdictional Local Hazard Mitigation Plan because it would be required to comply with the City's General Plan, Climate Action Plan, and City Code; State building codes and Government and Civil Code statutes; Water Board and regional pollution prevention plans; and other policy documents and plans related to hazards and hazard planning**,** that address risks related to flooding, hazardous materials, airport operations, and seismic and/or geologic and soil hazards.

Greystar Project Consistency: As further discussed in chapter 10, Hazards and Hazardous Materials, the Greystar project would be consistent with the ABAG Multi-Jurisdictional Local Hazard Mitigation Plan because the project would comply with policies and regulations protecting the project from risks related to airport operations, seismic and/or geologic and soil hazards. The project would comply with the City's General Plan, Climate Action Plan,

and City Code; State building codes and Government and Civil Code statutes; Water Board and regional pollution prevention plans; and other policy documents and plans related to hazards and hazard planning.

Santa Clara County Airport Land Use Commission. The Santa Clara County Airport Land Use Commission (ALUC) reviews proposals for general plans, specific plans, zoning ordinances, and land use development proposals in the vicinity of Norman Y. Mineta San Jose International Airport to ensure that future land uses in the surrounding area remain compatible with the realistically foreseeable, ultimate potential aircraft activity. This review is based on the Comprehensive Land Use Plan, Santa Clara County, Norman Y. Mineta San Jose International Airport, adopted May 25, 2011 (amended November 16, 2016). The Comprehensive Land Use Plan sets forth land use compatibility criteria, compatibility zones, development standards, and policies pertaining to noise, safety, airspace protection, and overflight standards, and establishes the planning boundaries that define height, tall structures, noise, and safety zones for policy implementation. The Land Use Plan also includes areas within which notification of airport proximity is required as part of real estate transactions.

Focus Area Plan Consistency: As discussed in chapter 10, Hazards and Hazardous Materials, of this EIR, the Freedom Circle Focus Area Plan is consistent with the Airport Comprehensive Land Use Plan (CLUP) because projects in the Plan Area would comply with applicable CLUP development standards related to noise, structure height, and safety in areas surrounding the airport, such as the Federal Aviation Administration's (FAA) Federal Aviation Regulations (FAR) Part 77 imaginary surfaces maximum structure height restrictions and CLUP policies related to prohibited land use uses that might create hazards to aircraft, such as electrical interference, high intensity lighting, uses attracting birds, and activities producing smoke, dust, or glare.

Greystar Project Consistency: As further discussed in chapter in chapter 10, Hazards and Hazardous Materials, of this EIR, the Greystar project is consistent with the Airport Comprehensive Land Use Plan (CLUP) because it would submit notification to the FAA of the proposed project and would be required to comply with any project plan review as determined by the FAA.

Association of Bay Area Governments (ABAG) Plans and Policies. The Association of Bay Area Governments (ABAG) is the regional planning agency and council of governments for the nine-county San Francisco Bay Area responsible for addressing in a regional context such intraregional issues as land use, housing, environmental quality, and economic development. The following ABAG regional planning programs warrant consideration:

(1) Plan Bay Area 2040. The primary document and associated process used in implementing ABAG policies is Plan Bay Area 2040, adopted collectively by ABAG and the Metropolitan Transportation Commission (MTC) on July 26, 2017. Plan Bay Area 2040 states:

"Plan Bay Area 2040 neither funds specific transportation projects nor changes local land use policies. Importantly, individual jurisdictions retain all local land use authority. But Plan Bay Area 2040 does set a roadmap for future transportation investments and identifies what it would take to accommodate expected growth." (page 26)

Recognizing that local jurisdictions retain land use authority, Plan Bay Area 2040 integrates land use and transportation planning to comply with the State's sustainable communities strategy law

(Senate Bill 375), which mandates both a reduction in greenhouse gas emissions from passenger vehicles and the provision of adequate housing for the region's 24-year projected population growth.

Plan Bay Area 2050, the update to Plan Bay Area 2040, was adopted on October 21, 2021 by the Metropolitan Transportation Commission and the Executive Board of the Association of Bay Area Governments. Plan Bay Area 2050 includes strategies for housing, transportation, economic vitality, and the environment in the Bay Area, with housing strategies for producing more than one million new permanently affordable homes by 2050, transit-fare reforms to reduce cost burdens for riders with low incomes, and paths to economic mobility through job training and a universal basic income. The Plan incorporates goals for a more equitable Bay Area and a focus on climate change. The Plan Bay Area 2050 strategies are substantially consistent with the overall goals and objectives of Plan Bay Area 2040 in meeting Statewide greenhouse gas emissions reduction goals and providing adequate housing.

(2) FOCUS Program. The ABAG-led FOCUS program, established in 2007, was a regional development and conservation strategy – in partnership with the MTC and with support from the Bay Area Air Quality Management District (BAAQMD) and the Bay Conservation and Development Commission (BCDC) – that promoted a more compact land use pattern for the Bay Area and supported development of Plan Bay Area. Through the FOCUS program, regional agencies supported local government commitments to direct existing and future incentives toward Priority Development Areas (PDAs) and Priority Conservation Areas (PCAs), which are an integral part of Plan Bay Area 2040.

(3) Regional Housing Needs Allocation. Though not an adopted plan per se, the Regional Housing Needs Allocation (RHNA) is the process by which the State of California requires every city and county to accommodate its fair share of regional growth. In the San Francisco Bay Area, the RHNA is administered by ABAG. ABAG allocates housing needs to each of the nine counties and 100+ cities in the region, identifying the number of units that must be accommodated in each of four income categories. Upon receiving its RHNA from ABAG, each local government must update the Housing Element of its General Plan to show how it plans to meet the housing needs in its community.

Focus Area Plan Consistency: As discussed in chapter 12, Land Use and Planning, of this EIR, the Freedom Circle Focus Area Plan would be consistent with Plan Bay Area 2040, Plan Bay Area 2050, and ABAG's FOCUS program because its proposed land uses would revitalize the Plan Area by facilitating development where services and infrastructure can be most efficiently provided and by promoting higher residential densities within or near existing employment and public transportation areas, which would promote compact, transit-accessible, pedestrian-oriented, mixed-use development patterns and land use.

As discussed in chapter 14, Population and Housing, of this EIR, with respect to the City's RHNA, the City is not currently on track to meet its RHNA this cycle for affordable (very-low, low, and moderate income) units, although it is meeting the standard for above-moderate-income units. The Freedom Circle Focus Area Plan includes a policy that calls for establishing affordable housing requirements for residential and residential mixed-use developments that support regional growth goals, City policy, and local need.

Greystar Project Consistency: As discussed in chapter 12, Land Use and Planning, of this EIR, the Greystar project would be consistent with Plan Bay Area 2040, Plan Bay Area

2050, and ABAG's FOCUS program because its proposed land uses would help revitalize the Plan Area by facilitating development where services and infrastructure can be most efficiently provided and by promoting higher residential densities within or near existing employment and public transportation areas. The Greystar project would promote compact, transit-accessible, pedestrian-oriented development patterns and land use. In addition, the Greystar project would require at least 15 percent of residential units in the Plan Area to be allocated toward housing people earning at or below 80 percent of the area median income (AMI).

Santa Clara Valley Transportation Authority. The Santa Clara Valley Transportation Authority (VTA) provides sustainable, accessible, community-focused transportation options in the Santa Clara region. The VTA is also the county's congestion management agency, responsible for countywide and regional transportation planning and programming, such as developing, implementing, and monitoring the Congestion Management Plan (which links transportation and land use planning within Santa Clara County); design and construction of specific highway, pedestrian, and bicycle improvement projects; transit planning, construction, and service; and promotion of transit-oriented development.

Focus Area Plan Consistency: As discussed in chapter 17, Transportation, of this EIR, the Freedom Circle Focus Area Plan would be consistent with the VTA Congestion Management Plan (CMP) because as a transit-oriented development project (i.e., infill development along major transit corridors), it would concentrate high density residential and non-residential development in proximity to regional transit amenities and would promote the use of transit by supporting improvement of transit stops and shelters, calling for design of infrastructure to facilitate access to transit stops, and requiring developments to implement transit demand management (TDM) measures.

Greystar Project Consistency: As further discussed in chapter 17, Transportation, of this EIR, the Greystar project would be consistent with the VTA Congestion Management Plan because as a transit-oriented development project (i.e., infill development along major transit corridors), it would (1) concentrate high density residential devleopment in proximity to regional transit amenities; (2) promote the use of alternatives to single-occupant automobiles through transit-supportive land use/transportation integration strategies and transportation demand management (TDM) measures; and (3) support alternative forms of transportation, including transit and bicycles, which would be consistent with the VTA CMP.

Valley Water (Santa Clara Valley Water District). Valley Water provides a safe and clean water supply for businesses and residents in the county, and also implements flood protection projects and programs to ensure the environmental health of streams and rivers. As an urban water supplier, Valley Water prepares and adopts its own district Urban Water Management Plan (Valley Water UWMP) as a planning tool to define the future water supply for its water supply service area in Santa Clara County (including water to be made available, by agreement, to the City of Santa Clara). Preparation of the Valley Water UWMP involves coordination with major water retailers in Santa Clara County, the cities in Santa Clara County, the County of Santa Clara, the San Francisco Public Utilities Commission, and the Bay Area Water Supply and Conservation Agency. The current Valley Water UWMP provides an overview of the water supply system, water resources planning, the water shortage contingency plan, water demand, wastewater, recycled water, and water conservation. As a wholesale water supplier and groundwater basin manager, Valley Water also provides assistance to urban and agricultural water conservation programs. Valley Water adopted a Groundwater Management Plan in 2016

that provides for replenishing groundwater (i.e., groundwater recharge), reducing groundwater demands, and monitoring groundwater to protect against contamination. In addition, Valley Water has "Guidelines and Standards for Land Use Near Streams" for review of development proposals near streams, including requirements and recommendations for land use activities in and around Santa Clara County streams in order to protect stream resources.

Focus Area Plan Consistency: The City of Santa Clara is required by State law to prepare its own Urban Water Management Plan (discussed above); however, both Valley Water and the City coordinate preparation of their respective water management plans and strategies to provide for more efficient management of water resources, thus helping ensure Freedom Circle Focus Area Plan consistency with the Valley Water Groundwater Management Plan.

Greystar Project Consistency: The Greystar project, which proposes to construct a connection to the San Tomas Aquino Creek Trail, would be consistent with Valley Water guidelines by ensuring that project construction activities related to the trail include site erosion and storm water runoff protection measures to prevent pollutants from entering San Tomas Aquino Creek. In addition to project compliance with State and local water quality policies, the project would not propose any activities related to project development that could encroach beyond the property line and impinge on creek bank stability or otherwise result in discharge into the creek.

20. CEQA-MANDATED SECTIONS

20.1 CUMULATIVE IMPACTS

Section 15130(a) of the CEQA Guidelines requires that the EIR "discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable...." The CEQA Guidelines (Section 15355) define "cumulative impacts" as "...two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts."

The quantitative cumulative growth recognized in this EIR is (1) the regional and city growth embedded in the City of Santa Clara's travel demand forecast model, including the current City of Santa Clara 2010-2035 General Plan, plus (2) the development assumptions for the Freedom Circle Focus Area Plan/Greystar General Plan Amendment. Item 1, the travel demand model, is the most reliable source of quantitative data because it is based on the regional Metropolitan Transportation Commission (MTC) Travel Demand Model and on forecasted growth in various land uses (e.g., residential, retail, office) beyond the boundaries of Santa Clara, thereby capturing a cumulative local and regional perspective. Item 2, city assumptions for the Freedom Circle Focus Area Plan, includes reasonably foreseeable development occurring over the next 20 years (the buildout period of the Focus Area Plan): i.e., Patrick Henry Drive Specific Plan, El Camino Real Specific Plan, Tasman East Specific Plan, Gateway Crossings, Lawrence Station Area Plan (Phases I through III), Santa Clara Square Apartments, City Place (various parcels and phases), Santa Clara Square, and other office, commercial, and institutional projects, among others, which are projects that have either been recently built or are projected to be constructed within the next five to 20 years.

As described above, the analyses of quantitative cumulative impacts in this EIR are based on the "summary of projections" method, as authorized by section 15130(b)(1)(B) of the CEQA Guidelines, supplemented with information about reasonably foreseeable development and recent development as provided by other City-prepared documents.[1]

The proposed Freedom Circle Focus Area Plan/Greystar General Plan Amendment is itself a cumulative project because the Focus Area Plan would be implemented across the entire Plan Area incrementally and cumulatively over approximately 20 years (the horizon year of the Plan is 2040). This program EIR evaluates the Freedom Circle Focus Area Plan/Greystar General Plan Amendment as one "project" in accordance with CEQA (see EIR chapter 1, Introduction). The cumulative analysis identifies potentially cumulatively significant impacts in order to evaluate whether the Plan's contribution to those impacts is cumulatively considerable.

[1]For example, projects identified in the Water Supply Assessment (WSA) for the Freedom Circle Focus Area, prepared by the City (April 7, 2021) and attached as Appendix A, include the Patrick Henry Drive Specific Plan, El Camino Real Specific Plan, Tasman East Specific Plan, Gateway Crossings, Lawrence Station Area Plan (Phases I through III), Santa Clara Square Apartments, City Place (various parcels and phases), Santa Clara Square, and other office, commercial, and institutional projects, among others, which are projects that have either been recently built or are projected to be constructed within the next five to 20 years.

All potentially significant cumulative impacts are addressed in this chapter with the following exceptions for chapters 5 (Air Quality) and 9 (Greenhouse Gas Emissions and Energy):

As the BAAQMD CEQA Guidelines explain, all regional air pollutant emission impacts and climate change impacts are inherently cumulative impacts because they contribute to regional and global conditions, and are not confined to physical boundaries. Accordingly, the analyses of these impacts in chapters 5 (Air Quality) and 9 (Greenhouse Gas Emissions and Energy) are analyses of cumulative impacts. These analyses are based on the Travel Demand Model as well as on the projections underlying BAAQMD's CEQA Guidelines and other information, as explained in chapters 5 and 9.

Additional cumulative effects are discussed below.

20.1.1 Cumulative Aesthetic Impacts

(a) Plan Area. Impacts on aesthetics and visual resources are localized impacts, although specific resources can be regional in nature, such as vistas of a mountain range. Cumulative development in Santa Clara would generally be limited to redevelopment of existing urbanized areas within Santa Clara because of the small number of vacant undeveloped parcels remaining in the City. The increased "urbanization" resulting from future development, particularly in the north of US 101 area, would generate an increased intensification of existing land uses. Proposed development adjacent to the Plan Area includes the proposed Patrick Henry Drive Specific Plan and the Kylli Mixed Use Development project, both currently under review, which are proposing to change their respective property's designation and uses to allow for a high-intensity mix of office, commercial, and residential uses. However, because the City design review process and applicable General Plan policies guide the appearance of new development, cumulative aesthetic and visual effects of future development would be limited by an individual project site's visual constraints.

The Freedom Circle Focus Area Plan Area does not afford expansive scenic views, and the Focus Area Plan includes policies that would policies that would support General Plan policies governing scenic quality (see EIR chapter 4, Aesthetics, section 4.2, Regulatory Setting) but because the Focus Area Plan goals and policies are generalized, the implementation of General Plan policies related to visual resources cannot be ensured until the future, more detailed comprehensive planning study is completed. However, adoption of the Focus Plan itself would not entitle development; future development in the Plan Area would be subject to the planning study which, when adopted, would include performance and design standards and guidelines that would apply to all future individual development proposals in the Plan Area to minimize visual impacts. Future individual projects would be subject to their own CEQA evaluation related to aesthetics impacts. Accordingly, the proposed Focus Area Plan would not make a cumulatively considerable contribution to any significant cumulative impact with respect to aesthetics and visual resources.

(b) Greystar Project. As discussed in EIR chapter 4, Aesthetics, the Greystar project design would be substantially consistent with General Plan policies governing scenic quality and would have a less-than-significant impact on the existing visual character and quality of the project site and its surroundings. The Greystar project would create a high-density residential project in an area surrounded by high-intensity office and commercial uses, with U.S. 101 bordering the southern part of the project site; therefore, the Greystar project would not make a cumulatively

considerable contribution to any significant cumulative impact with respect to aesthetics and visual resources.

Mitigation. No cumulatively considerable contribution to a significant cumulative impact has been identified for either the Plan or the project; no mitigation is required.

20.1.2 Cumulative Local Odor Impacts

(a) Plan Area. BAAQMD's CEQA Air Quality Guidelines land uses associated with odor complaints include agricultural operations, wastewater treatment plants, landfills, and certain industrial operations (such as manufacturing uses that produce chemicals, paper, etc.). Future development in the Plan Area would not be likely to fall into any of these categories. In addition, the closest cumulative development projects include the proposed Patrick Henry Drive Specific Plan (primarily high-density residential with some commercial office and retail); Tasman East and Related Santa Clara are farther north; Santa Clara Square is south of U.S. 101. Because of the inherent nature of odors to disperse in air, these distances and intervening uses would reduce any likely odor impacts; in addition, because no identified, odor-producing development projects would likely be proposed in the Plan Area, the Focus Area Plan would not make a cumulatively considerable contribution to any significant cumulative odor impact.

(b) Greystar Project. Similarly, the Greystar project would result in the development of new residential, retail, and community serving land uses. It would not permit the land uses identified in the BAAQMD's CEQA Air Quality Guidelines identified as generating odor, and therefore would not result in a significant odor impact or make a cumulatively considerable contribution to any significant cumulative odor impact.

Mitigation. No cumulatively considerable contribution to a significant cumulative impact has been identified for either the Plan or the project; no mitigation is required.

20.1.3 Cumulative Biological Resource Impacts

(a) Plan Area. The City of Santa Clara is largely built out, with limited undeveloped land providing suitable habitat for rare, threatened, or endangered flora or fauna. Although suitable habitat is located along creek corridors, new construction and/or redevelopment in Santa Clara would not be anticipated to contribute to cumulative impacts related to special status plants or animals within the City, and individual project environmental review would address potential impacts. The Focus Area Plan is subject to various federal, State, regional, and local regulations for protecting biological resources (see EIR Chapter 6, Biological Resources). There are no identified habitat types occurring in the Plan Area that would be able to support special-status species; in addition, the Plan Area does not contain riparian habitat, sensitive natural communities, or wetlands. Potential project impacts on special-status plants, nesting birds, and roosting bats would be mitigated on a site-specific basis (EIR Mitigations 6-3 and 6-4) and would not make a cumulatively considerable contribution to any significant cumulative biological resource impact.

(b) Greystar Project. As discussed in EIR Chapter 6 (Biological Resources), there is a low potential for birds on the project site due to low-quality foraging habitat and/or lack of suitable roosting and/or nesting habitat. However, because many common bird and bat species may utilize gravel substrates and landscaped vegetation for nesting, foraging, and roosting, the Greystar project would implement EIR Mitigation 6-4 by conducting a nesting bird and roosting

bat survey prior to construction activities. The project would also comply with EIR Mitigation 6-5 related to potential removal of trees, plants, and shrubs along streets or public places (i.e., during utility trenching, sidewalk roadways). These mitigations would reduce project impacts on biological resources to a less-than-significant level, and the project would not make a cumulatively considerable contribution to any significant cumulative biological resource impact.

Mitigation. No cumulatively considerable contribution to a significant cumulative impact has been identified for either the Plan or the project; no additional mitigation is required.

20.1.4 Cumulative Cultural and Historic Resource Impacts

(a) Plan Area. As required by State and federal law, development projects in the City and other cumulative projects are typically required to implement mitigation to avoid or lessen adverse effects on cultural and historic resources, and often include literature reviews and database research, pre-construction site surveys, and other related measures to prevent degradation or destruction of resources. In the Santa Clara City Code (see EIR chapter 7), the City recognizes the significance of preserving archaeological and historic resources. At the time of EIR preparation, no cultural or historic resources have been identified within the Focus Area Plan Area. However, the identification of historic resources must account for change over time. Today's newer buildings may be recognized as historic within the lifetime of the Freedom Circle Focus Area Plan. Today's older buildings may attain historic significance as more is uncovered about their past. Currently non-historic buildings may be recognized as historic in the future if the people or events associated with those buildings become historically or culturally distinguished. All these possibilities are accounted for in CEQA Guidelines section 15064.5 (Determining the Significance of Impacts to Archaeological and Historical Resources).

In addition, this EIR identifies mitigation (Mitigation 7-1) for preserving historic resources according to the Secretary of the Interior's Standards. If, in the future, the City determines that one or more local historic resources exist on a specific development site, any destruction, relocation, or alteration of the resource or its immediate surroundings, such that the significance of the historical resource would be materially impaired, that results from proposed project development would constitute a significant and unavoidable impact under CEQA. Other potential developments in Santa Clara (outside the Plan Area) could also result in impacts on historic resources. Accordingly, if local historic resources are determined to exist on a development site, the proposed Freedom Circle Focus Area Plan could result in a cumulatively considerable contribution to a potential significant cumulative impact on historic resources. The impact would be significant and unavoidable.

Mitigation. Unless the Secretary of the Interior's Standards are met, EIR Mitigation 7-1 would not fully mitigate the Focus Area Plan's contribution to the potential cumulative impact to a less-than-significant level. Therefore, if local historic resources are determined to exist on a future, specific development site and are demolished or altered in a manner that does not comply with the Secretary of the Interior's Standards, the Focus Area Plan's contribution to cumulative historic resource impacts would be significant and unavoidable.

(b) Greystar Project. As discussed in EIR chapter 7, the Greystar project site is vacant and does not contain any buildings or structures (except a wood and Plexiglas bus shelter). Based on review by a cultural resources consultant, none of the "built environment" features observed on the site (i.e., concrete utility vault, electrical transmission power poles, electrical service boxes/cabinets, a water service pipe, and the wood and Plexiglas bus shelter) were determined

to be historically significant, and the project would not make a cumulatively considerable contribution to a potential significant cumulative impact on historic resources.

Mitigation. For the Greystar project, no cumulatively considerable contribution to a significant cumulative impact has been identified; no additional mitigation is required.

20.1.5 Cumulative Archaeological/Tribal Cultural Resources Impacts

(a) Plan Area. Impacts to archeological resources tend to be localized. The proposed Focus Area Plan in combination with other future cumulative development would increase potential archaeological/tribal cultural resource impacts; however, as with other development, State and federal law protecting archaeological and tribal cultural resources employs standard protocols, such as those developed by the California Historical Resources Information System and the Native American Heritage Commission, to protect these resources, including pre-construction literature reviews and database research, site surveys, and outreach to local Native American tribes, with possible construction monitoring recommended. However, because almost all of the Plan Area is developed and no archaeological or cultural resources have been identified, Mitigation Measure 7-3 would ensure that impacts on any as-yet unrecorded prehistoric cultural resources, or tribal cultural resources encountered during future project development (i.e., ground-disturbing activities) would be reduced to a less-than-significant level. Other development projects outside the Plan Area also would be required to implement mitigation measures imposing the same requirements as the proposed EIR Mitigation 7-3. Therefore, implementation of this measure would reduce the cumulative impact on archaeological/tribal cultural resources to a less-than-significant level.

(b) Greystar Project. As discussed in EIR chapter 7, a field survey and records/literature search identified no evidence of prehistoric or historically significant archaeological resources or culturally modified soil (e.g., midden). Mitigation Measures 7-4 would ensure that impacts on any as-yet unrecorded prehistoric cultural resources, or tribal cultural resources encountered during project construction (i.e., ground-disturbing activities) would be reduced to a less-than-significant level. Therefore, implementation of this measure would reduce the cumulative impact on archaeological/tribal cultural resources to a less-than-significant level.

Mitigation. No cumulatively considerable contribution to a significant cumulative impact has been identified for either the Plan or the project; no additional mitigation is required.

20.1.6 Cumulative Geology and Soils Impacts

(a) Plan Area. Because geologic conditions are localized, future development in the region would be unlikely to result in a cumulative geological impact; in addition, future development would be required to comply with State building codes that protect structures and people from seismic risk, and therefore would serve to reduce individual project impacts related to geological conditions. The proposed Focus Area Plan's impacts with respect to geology and soils would also be site-specific and would not combine with the equally site-specific geology or soils impacts of other projects. Although it might be possible for two adjacent improperly constructed projects to cumulatively affect a third facility (e.g., an underground utility line), the implementation of adopted City regulations and required geotechnical investigations, as described in EIR chapter 8 (Geology and Soils), would avoid such impacts.

(b) Greystar Project. As discussed in EIR chapter 8 (Geology and Soils), the Greystar project site was the subject of a geotechnical report that recommended site-specific measures combined with adopted City regulations and required final geotechnical review of plans would avoid impacts related to soils and geology. The project therefore would not make a cumulatively considerable contribution to any significant cumulative geology and soils impact.

Mitigation. No cumulatively considerable contribution to a significant cumulative impact has been identified for either the Plan or the project; no mitigation is required.

20.1.7 Cumulative Paleontological Resources Impacts

(a) Plan Area. The proposed Focus Area Plan in combination with other future cumulative development would increase potential paleontological resource impacts. Other development projects located in the City but outside the Plan Area would also be required to comply with General Plan Policies 5.6.3-P1, 5.6.3-P2, 5.6.3-P4, and 5.6.3-P5 regarding avoiding or reducing impacts on paleontological resources and encouraging salvage and preservation of scientifically valuable materials; requiring monitor of grading and/or excavation where potential to affect paleontological resources exists (such as within 500 feet of natural water courses); and suspending work if paleontological resources are discovered, until the significance can be determined by a qualified paleontologist. These General Plan policies are reflected in proposed EIR Mitigation 8-7, which if not included in future development outside of the Plan Area, would likely include something similar because of Federal regulations (Title 43 CFR 8365.1-5), addresses the collection of invertebrate fossils and fossil plants, including the willful disturbance, removal, and destruction of scientific resources or natural objects, and California Public Resources Code Section 5097, prohibiting willfully damaging any historical, archaeological, or vertebrate paleontological site or feature on public lands. Implementation of this Mitigation 8-7 would reduce the Focus Area Plan cumulative impact on paleontological resources to a less-than-significant level.

(b) Greystar Project. Similar to the Focus Plan Area in general, development of the Greystar project could disturb unrecorded paleontological resources, although no records of recorded fossil sites within the Plan Area, including the project site, have been identified, the surficial geologic units in Santa Clara (Pleistocene alluvial deposits and the Santa Clara Formation) have high paleontological sensitivity. Therefore, development of the Greystar project could contribute to a cumulative paleontological resources impact if such resources were uncovered and destroyed or otherwise damaged. However, EIR Mitigation 8-8 would reduce potential impacts on paleontological resources to a less-than-significant level by requiring resource identification training procedures for construction personnel; spot-checks and monitoring of all excavations deeper than seven feet below ground surface; and procedures for management of resources encountered. Therefore, with this mitigation, the project would not make a cumulatively considerable contribution to any significant cumulative paleontological resources impact.

Mitigation. No cumulatively considerable contribution to a significant cumulative impact has been identified for either the Plan or the project; no additional mitigation is required.

20.1.8 Cumulative Hazards and Hazardous Materials Impacts

(a) Plan Area. Because of the applicable laws, adopted performance standards, and uniform protocols described in chapter 10 (Hazards and Hazardous Materials), the proposed Focus

Area Plan would create minimal risk from hazards and hazardous materials. For all potential exposure pathways other than transport of hazardous waste outside the Plan Area, potential impacts would be limited to the particular development site and its immediate vicinity. Also, any new project outside the Plan Area would also be required to comply with applicable laws, standards, and protocols, so no significant cumulative impact is anticipated.

(b) Greystar Project. As discussed in chapter 10 (Hazards and Hazardous Materials), the Greystar project has been the subject of environmental evaluation and cleanup activities since purchase of the property by Intel in 1997. Site remediation activities (i.e., excavation of contaminated soils and off-site disposal activities) would need to be completed as required by the State Department of Toxic Substances Control and coordinated with the Santa Clara Fire Department Fire Prevention & Hazardous Materials Division (CUPA), the State Water Resources Control Board, the Bay Area Air Quality Management District, and the Santa Clara County Department of Environmental Health, which would reduce this impact to a less-than-significant level and result in an improvement over existing conditions in that it will eliminate one contaminated site from the City. The project would therefore not make a cumulatively considerable contribution to any significant cumulative hazards and hazardous materials impact but instead would have a beneficial effect on the environment.

Mitigation. No cumulatively considerable contribution to a significant cumulative impact has been identified for either the Plan or the project; no mitigation is required.

20.1.9 Cumulative Hydrology and Water Quality Impacts

(a) Plan Area. Future cumulative development outside the Plan Area could result in soil erosion, contaminant spills, and long-term water quality effects, but would be subject to the same regulations as the proposed Focus Area Plan (see EIR chapter 11, Hydrology and Water Quality). Compliance with these requirements would ensure that any cumulative impacts would be less-than-significant.

(b) Greystar Project. Because new (future) development in the City and surrounding region share watersheds (Guadalupe River, Calabazas Creek, and San Thomas Aquino Creek), any development may alter local drainage and runoff characteristics, including the Greystar project. In addition, the increase in cumulative urbanization would be expected to result in more vehicle traffic with related releases of pollutants, such as petroleum hydrocarbons, metals, and sediment that drain from roads into surface waters. These drainage and runoff effects could potentially result in a cumulative impact on local watersheds, and without proper attention to project designs, the Greystar project could contribute to a possible cumulative hydrology and water quality impact. However, the Greystar project would be subject to the same regulations as described for the proposed Focus Area Plan in EIR chapter 11, Hydrology and Water Quality, and as part of its EIR mitigations would be required to submit a Final Stormwater Management Plan for City review and approval showing post-construction water runoff measures incorporated into construction plans as well as a “C.3” Worksheet that identifies the amount of pervious surfaces created by the project, in accordance with the City’s Urban Runoff Pollution Prevention Program standards. The project would be required to comply with City Code Chapter 13.20 (Storm Drains and Discharges) regulations to prevent and control unauthorized discharges into watercourses in order to reduce pollutants from urban stormwater runoff. Project compliance with these requirements and the EIR mitigations would ensure that any cumulative impacts would be less-than-significant.

Mitigation. No cumulatively considerable contribution to a significant cumulative impact has been identified for either the Plan or the project; no mitigation is required.

20.1.10 Cumulative Land Use and Planning Impacts

(a) Plan Area. The proposed Focus Area Plan would not make a cumulatively considerable contribution to any significant cumulative land use impact, for the following reasons. With respect to physically dividing an established community, as described in EIR chapter 12 (Land Use and Planning), the proposed project's effect would be positive rather than negative because the project is intended to provide for the expansion of housing choices by encouraging compact, transit-accessible, pedestrian-oriented housing development in the Plan Area at densities and heights greater than currently developed and conveniently located near public transportation, shopping, employment, and other community facilities.

With respect to consistency with adopted City of Santa Clara 2010-2035 General Plan land use plans and policies, projects inside the Plan Area and any projects outside the Plan Area are required by law to be consistent with those General Plan plans and policies. In addition, future development in the Plan Area (other than the Greystar project) would require a comprehensive planning study (e.g., specific plan) before any project approval would be considered. As the purpose of this comprehensive planning is to ensure development impacts within the area are considered cumulatively in order to identify appropriate mitigation, the proposed Focus Area Plan would not make a cumulatively considerable contribution to any significant cumulative land use or planning impact.

(b) Greystar Project. As discussed in EIR chapter 3 (Project Description), a General Plan Amendment is proposed to change the existing land use designation and allow the proposed high-density residential use and also to allow the project to proceed while the Focus Area Plan continues its planning process, which would eventually include a comprehensive planning study for future development in the Plan Area. With approval of the General Plan Amendment, the Greystar project would be consistent with General Plan policies regarding phasing of development in future focus areas. The project would construct three high-density residential buildings on a vacant, previously undeveloped parcel in a part of the Plan Area currently designated for high-intensity office/R&D development. The project would take advantage of conveniently located public transportation, shopping, employment, and other community facilities, and would have a minimal amount of commercial space (2,000 square feet of retail). The development of new housing would promote several General Plan policies, which would be a beneficial result of the project. As discussed in EIR chapter 12 (Land Use and Planning), the Greystar project is consistent with adopted City of Santa Clara 2010-2035 General Plan land use plans and policies, and would not make a cumulatively considerable contribution to any significant cumulative land use or planning impact.

Mitigation. No cumulatively considerable contribution to a significant cumulative impact has been identified for either the Plan or the project; no mitigation is required.

20.1.11 Cumulative Noise Impacts

(a) Plan Area. For purposes of this cumulative noise and vibration analysis, the geographic context is limited to the extent of potential noise impacts caused by the proposed Freedom Circle Focus Area Plan/Greystar General Plan Amendment that could combine with other relevant cumulative developments. Although construction and stationary source noise may

theoretically be audible far from the source, in practice ambient noise from wind, roadway traffic, and other land uses is substantially louder than equipment operating at a substantial distance substantial distance (i.e., hundreds or thousands of feet away).

As discussed in chapter 13, Noise, of this EIR, the Freedom Circle Focus Area Plan/Greystar General Plan Amendment could result in construction noise and vibration as individual development projects are constructed over time. Construction noise and vibration from projects in the Plan Area could combine with nearby construction projects from other development projects currently under review or yet to be submitted. The combined construction noise levels could impact new residential development in these projects and could, depending on the location, impact other potential sensitive uses (e.g., open space, trails, etc.). Future development in the Plan Area would be subject to City regulations and policies, as well as mitigation measures 13-1 and 13-3 (see chapter 13) which would limit construction noise to levels that do not exceed the ambient noise environment by more than 5 dBA and ensure that groundborne vibration levels would not be excessive or result in structural damage to any building in or near the Plan Area. With these measures, Plan construction noise levels would not make a cumulatively considerable contribution to cumulative construction noise or vibration impacts at on- or off-site receptor locations.

As discussed in chapter 13, Noise, of this EIR, the Plan could also result in operational noise and vibration from individual development projects in the Plan Area; however, the Plan is not anticipated to result in land uses that involve substantial on-site noise generating sources or activities. In addition, projects in the Plan Area as well other potential projects near the Plan Area would be subject to the City's Municipal Code requirements, as well as mitigation measure 13-5 (see chapter 13), which would limit noise from fixed equipment and machinery at adjacent property line locations to levels that comply with City standards. With these measures, Plan noise levels from operation would not make a cumulatively considerable contribution to cumulative noise impacts at on- or off-site property lines or receptor locations. The Plan does not propose or support any large vibration-inducing equipment or land use activities and would not result in excessive ground-borne vibration levels that have the potential to combine with vibration levels from other project within or outside of the Plan Area. No cumulative operational vibration impact would occur.

As discussed in chapter 13, Noise, of this EIR, the Plan would result in long term increases in vehicle trips and traffic-related noise levels, that exceed City guidelines for noise and land use compatibility (Freedom Circle, south of Mission College Boulevard). Since a reduction in vehicle trips on specific, impacted roadway segments cannot be guaranteed, and future traffic noise levels could increase by 5 dB or more in areas where noise levels would be conditionally acceptable, the Plan would result in a cumulatively considerable contribution to a significant and unavoidable cumulative traffic noise impact.

As discussed in chapter 13, Noise, of this EIR, the Plan would not expose people living or working in the Plan Area to excessive airport-related noise levels. This impact is Plan-specific and would not combine with any other project. No cumulative impact would occur.

(b) Greystar Project. The Greystar project would generate construction noise and vibration that could combine with construction from other development projects currently under review or yet to be submitted. These potential combined construction noise levels could impact the San Tomas Aquino creek trail and nearby commercial properties; there are no residential land uses within 750 feet of the Greystar project area. The Greystar project would be subject to City

regulations and policies, as well as mitigation measures 13-2 and 13-4 (see chapter 13), which would limit construction noise to levels that do not exceed the ambient noise environment by more than 5 dBA and ensure that groundborne vibration levels would not be excessive or result in structural damage to any building in or near the Plan Area. With these measures, Greystar project construction noise levels would not make a cumulatively considerable contribution to cumulative construction noise or vibration impacts at on- or off-site receptor locations.

As discussed in chapter 13, Noise, of this EIR, the Greystar project could also result in operational noise and vibration from increased parking activities, stationary sources of equipment such as HVAC equipment, and use of the proposed residential, park, and retail facilities. The Greystar project would be subject to the City's Municipal Code requirements, as well as mitigation measure 13-6 (see chapter 13), which would limit noise from fixed equipment and machinery at adjacent property line locations to levels that comply with City standards. With these measures, Project noise levels from operation would not make a cumulatively considerable contribution to cumulative noise impacts at on- or off-site property lines or receptor locations. The Project does not propose or support any large vibration-inducing equipment or land use activities and would not result in excessive ground-borne vibration levels that have the potential to combine with vibration levels from other project within or outside of the Plan Area. No cumulative operational vibration impact would occur.

Finally, the Greystar project would result in long term increases in vehicle trips and traffic-related noise levels. As discussed in chapter 13, the Greystar project itself would not result in change in traffic noise levels that exceeds City guidelines for noise and land use compatibility; however, because the Greystar project would generate traffic that contributes to overall Plan Area traffic generation, it would contribute to a cumulative impact (a noise increase of 5 dBA or more on Freedom Circle south of Mission College Boulevard). Since a reduction in vehicle trips on specific, impacted roadway segments cannot be guaranteed, and future traffic noise levels resulting from the Greystar project could contribute to an increase of more than 5 dB in areas where noise levels would be conditionally acceptable, the Project would result in a cumulatively considerable contribution (more than 1 dBA) to a significant and unavoidable cumulative traffic noise impact.

Mitigation. Since no noise reduction can be identified either for trip reduction measures required by the Plan or from EIR noise mitigations, reductions in vehicle trips on specific, impacted roadway segments cannot be guaranteed. Future traffic noise level increases could potentially expose noise-sensitive land uses to significant changes in traffic noise, and therefore, the Plan and the Greystar project would result in a cumulatively considerable contribution to a significant and unavoidable cumulative traffic noise impact. No other cumulatively considerable contributions to significant cumulative impacts have been identified; no additional mitigation is required.

20.1.12 Cumulative Population and Housing Impacts

(a) Plan Area. The residential development assumptions for the Focus Area Plan (including the Greystar project) would anticipate up to 3,600 net new residential units, with a projected increase of 8,172 new residents. In 2019, the City designated the Freedom Circle Focus Area as a Priority Development Area (PDA) because of the local interest in encouraging infill development that can take advantage of regional transit facilities, and is included in the Association of Bay Area Governments (ABAG) *Plan Bay Area 2050*, the newest iteration of *Plan Bay Area,* adopted in October 2021. Also, (1) the Focus Area Plan is substantially consistent

with the policies of the Santa Clara 2010-2035 General Plan (see EIR chapter 19, Project Consistency With Local and Regional Plans); and (2) Plan implementation would not extend roads or infrastructure through undeveloped areas (except for the vacant Greystar site) but, consistent with General Plan and City direction, would focus residential development in an underutilized area with the intention of helping to meet the City's housing needs. Plan implementation would not induce substantial population growth beyond the Plan Area boundaries because development would be focused within the Plan Area. The Plan would not directly or indirectly involuntarily displace residents or housing (as of April 2021, the Plan Area had no housing). With these considerations, both the project and cumulative impacts of unplanned residential and population growth under the Focus Area Plan would be less-than-significant. The proposed Plan would not make a cumulatively considerable contribution to a significant cumulative population or housing impact.

(b) Greystar Project. The Greystar project would include 1,075 net new residential units (of the maximum 3,600 units described above the Focus Area Plan), with a projected increase of 2,440 new residents, which would focus residential development in an underutilized area with the intention of helping to meet the City's housing needs. The project would include a perimeter road to provide site access (including access for emergency vehicles) but would not extend roads or infrastructure beyond the immediate project needs. The project would provide new residential development on a vacant site, and therefore would not displace any residents or housing. The Greystar project would not make a cumulatively considerable contribution to any significant cumulative population and housing impact.

Mitigation. No cumulatively considerable contribution to a significant cumulative impact has been identified for either the Plan or the project; no mitigation is required.

20.1.13 Cumulative Fire Protection/Emergency Medical Service (EMS) Demand Impacts

(a) Plan Area. Development facilitated by the proposed Focus Area Plan, subject to a comprehensive planning study (e.g., specific plan), in combination with other cumulative development by the year 2040 (the Plan horizon year) would increase the demand for fire protection/EMS service, including additional firefighters and requisite training, support staff, equipment, or other resources in the future. However, the City has determined that Fire Station 8 (recently remodeled) would provide sufficient fire facilities to support additional firefighting staff and equipment that may be required, identified in chapter 15, Public Services, of this EIR. Also, individual project proposals would continue to be subject to review and approval by the Fire Department, based on uniformly applied fire protection/EMS standards and regulations. Therefore, cumulative development would have a less-than-significant impact on fire protection/EMS. The proposed Plan would not make a cumulatively considerable contribution to a significant cumulative fire protection/EMS impact.

New development projects under the Focus Area Plan, which would be subject to a comprehensive planning study (e.g., specific plan), would be required to pay their share of the costs associated with provision of fire facilities through project-specific conditions of approval. Any future demand for additional fire protection/EMS personnel or equipment resulting from Plan implementation would be funded by the annual City General Fund budget review and allocation process. If cumulative development within the City requires new fire protection/EMS facilities in the future, they would be subject to their own CEQA review.

(b) Greystar Project. As discussed in chapter 15, Public Services, of this EIR, the City has determined that with the recent remodeling of Fire Station 8, sufficient fire facilities would be available to support additional firefighting staff and equipment, as may be required for the Greystar project. In addition, the project would be responsible for contributing its fair share of costs related to any increased service resources (e.g., equipment).

Mitigation. No cumulatively considerable contribution to a significant cumulative impact has been identified for either the Plan or the project; no mitigation is required.

20.1.14 Cumulative Police Service Demand Impacts

(a) Plan Area. Development facilitated by the proposed Freedom Circle Focus Area Plan/Greystar General Plan Amendment, in combination with other cumulative development by the year 2040 (the Plan horizon year) would cumulatively increase the demand for police services, including additional sworn police officers and requisite training, support staff, and equipment. However, as discussed in chapter 15, Public Services, of this EIR, although the City of Santa Clara Police Department has determined that new or reconfigured space will be needed as SCPD staff grows, projected SCPD staffing needs have been determined based on full Focus Area Plan build-out, which would occur over a 20-year period. Therefore, the City has determined that reconfiguration of existing facility space for additional workforce would be the approach to address these concerns. The SCPD has identified management measures to minimize the effects of anticipated additional population, such as (1) a new patrol staffing model (e.g., shifts, log-on schedule) that allows for more officers within each beat; (2) "civilianizing" select positions or redistributing job functions to another Department to free up officers from "desk" jobs; and (3) creating development impact fees to support the City's infrastructure.

Individual project proposals would continue to be subject to review and approval by the Police Department, based on uniformly applied standards and regulations. As also discussed in chapter 15, Public Services, of this EIR, as comprehensive planning continues for the Focus Area Plan, if reconfiguration is not feasible or is insufficient, then additional analysis would need to be undertaken to consider possible options for expansion or a new facility.[1] Any new or expanded facility project located outside of the Plan Area would require its own evaluation of environmental impact topics similar to that provided in this EIR. (If a site for a new facility in the Plan Area were to become available and selected, then the construction of the facility would be subject to the mitigations in this EIR as they apply to all development in the Plan Area.) However, because no determination on an expanded or new facility has been made or proposed, nor have any plans or sites been identified, any further analysis at this time would be speculative.[2]

Any future demand for additional police personnel or equipment resulting from Plan implementation would be funded by the annual City General Fund budget review and allocation process, and funding mechanisms would be incorporated in the required comprehensive planning study (e.g., specific plan) for contributions to capital improvement costs related to any new or expanded police facilities. In addition, if cumulative development within the city requires new police facilities in the future, they would be subject to their own CEQA review.

[1]Rebecca Bustos, Senior Planner, City of Santa Clara Community Development Department, email dated June 24, 2021, to MIG.

[2]R. Bustos, email dated June 24, 2021, to MIG.

(b) Greystar Project. Similar to the discussion for the Focus Area Plan above, the Greystar project would contribute to an increase in the City's population, which could result in the need for additional police personnel and/or equipment. However, as discussed in chapter 15, Public Services, of this EIR, the City of Santa Clara Police Department has determined that new or reconfigured space will be needed as SCPD staff grows, and the City has determined that reconfiguration of existing facility space for additional workforce would be the approach to address these concerns, with additional analysis undertaken to consider possible expansion options, or a new facility, if reconfiguration is not feasible or is insufficient.[1] The project would be responsible for contributing its fair share of costs related to any increased service resources (e.g., equipment).

Mitigation. Individual development projects under the Plan (including the Greystar project) would be required to pay their fair-share of any future police facility construction or expansion costs. No cumulatively considerable contribution to a significant cumulative impact has been identified for either the Plan or the project; no mitigation is required.

20.1.15 Cumulative Impacts on Public Schools

(a) Plan Area. Development facilitated by the proposed Focus Area Plan, subject to a comprehensive planning study, in combination with other cumulative development by the year 2040 (the Plan horizon year) would result in a cumulative addition of new students attending Santa Clara Unified School District schools. Individual development projects would each be assessed school impact fees. The California State Legislature has determined that school impact fees shall be the exclusive method of mitigating the school facilities impacts of a project or plan, has set limits on school impact fees, and has determined that payment of school impact fees shall be deemed to provide full and complete school facilities mitigation (California Government Code sections 65995 and 65996[a and b]). The SCUSD has identified the schools that future Plan Area students would attend and considered current and potential development in the same attendance boundaries as the Freedom Circle Focus Area Plan/Greystar General Plan Amendment (including the Tasman East Specific Plan, the proposed Kylli development, and the Patrick Henry Specific Plan).The SCUSD has determined that it does not have available capacity at the elementary or middle schools north of U.S. 101 to accommodate all students anticipated to be generated by the Plan and other anticipated development.[2]

If a school site is identified outside of the Plan Area, then depending on the location and characteristics, the construction of a future new or expanded school facility could cause environmental impacts; however, the location, timing, nature, extent, and severity of any potential environmental impacts cannot be predicted or evaluated at this time because no new schools or sites have been proposed. School facilities construction would require its own environmental review in accordance with CEQA; however, if a site is identified in the Plan Area, then school construction would be required to follow the mitigation measures already identified elsewhere in this EIR (chapters 5 [Air Quality], 6 [Biological Resources], 7 [Cultural and Historical Resources], etc.), plus any additional evaluation requirements as stipulated by State

[1]R. Bustos, June 24, 2021, to MIG.

[2]Michal Healy, Director, Facility Development and Planning, Santa Clara Unified School District, memo dated May 21, 2020, to John Davidson, Principal Planner, City of Santa Clara Community Development Department.

codes (e.g., Education Code, California Code of Regulations, Public Resources Code) and California Department of Education policies.

Although development under the Focus Area Plan would contribute to a cumulative need for new schools, new residential and commercial development in the Plan Area would be required to pay the State-authorized school impact fees approved by the SCUSD, which pursuant to the Government Code are deemed full and complete mitigation of the impact of providing new schools. Consequently, cumulative impacts on public schools would be less-than-significant, and the proposed Focus Area Plan would not make a cumulatively considerable contribution to a significant impact on public schools.

(b) Greystar Project. Similar to the discussion for the Focus Area Plan above, the Greystar project would contribute to an increase in the City's population, which could result in the addition of new students to district schools. As discussed in chapter 15, Public Services, of this EIR, the SCUSD has determined that SCUSD schools do not have available capacity. New or physically altered school facilities determined necessary by the SCUSD to accommodate students generated by the Greystar project could cause significant environmental impacts; however, any proposal for a new school would be subject to its own evaluation under the California Environmental Quality Act (CEQA). The Greystar project would be required to pay State-authorized school impact fees approved by the SCUSD, which pursuant to the Government Code are deemed full and complete mitigation of the impact of providing new schools. Consequently, cumulative impacts on public schools would be less-than-significant, and the proposed Greystar project would not make a cumulatively considerable contribution to a significant impact on public schools.

Mitigation. No cumulatively considerable contribution to a significant cumulative impact has been identified for either the Plan or the project; no mitigation is required.

20.1.16 Cumulative Impacts on Parks and Recreational Facilities

(a) Plan Area. Development facilitated by the proposed Focus Area Plan, subject to a comprehensive planning study, in combination with other cumulative development by the year 2040 (the Plan horizon year) would cumulatively increase the demand for parks and recreational facilities. As discussed in chapter 15, Public Services, of this EIR, Santa Clara City Code Chapter 17.35 requires new residential developments to provide developed park and recreational land and/or pay a fee in lieu of parkland dedication, at the City's discretion, and pursuant to the State of California Quimby Act (Quimby) and/or the Mitigation Fee Act (MFA) to help mitigate the impacts of the new resident demand on existing parkland and recreational facilities. The City is meeting the standard of 3 acres per 1,000 residents per the Quimby provisions of the City Code and 2.60 acres per 1,000 residents per the MFA provisions of the City Code with regard to neighborhood parks.

(b) Greystar Project. Similar to the discussion for the Focus Area Plan above, the Greystar project would be required to comply with the City Park and Recreational Land Ordinance. The Greystar project will meet its parkland dedication requirement by dedicating, in fee title, a developed 2.0-acre public park free of encumbrances to the City, and paying the mandatory City-adopted in-lieu park fees for the balance due to help mitigate the cumulative impacts of the new resident demand on existing parks and recreational facilities.

Mitigation. No cumulatively considerable contribution to a significant cumulative impact has been identified for either the Plan or the project; no mitigation is required.

20.1.17 Cumulative Impacts on Other Public Facilities

(a) Plan Area. Development facilitated by the proposed Focus Area Plan, subject to a comprehensive planning study (e.g., specific plan), in combination with other cumulative development by the year 2040 (the Plan horizon year) would cumulatively increase the demand for other public facilities, such as library services. As discussed in chapter 15, Public Services, of this EIR, the Focus Area Plan does not propose new or expanded public facilities, although the future, required comprehensive planning study may, when developed, include a public facilities component with discussion of funding options (including approaches and policies for both one-time and on-going costs of public infrastructure and related improvements). A future public facility proposal resulting from Focus Area Plan-facilitated development would therefore be speculative at this time and would be subject to its own evaluation under the California Environmental Quality Act (CEQA) when a specific proposal was brought forward. No public facilities needs have been identified; therefore, the proposed Focus Area Plan would not make a cumulatively considerable contribution to a significant cumulative public facility impact, although the future, required comprehensive planning study might.

(b) Greystar Project. Similar to the discussion for the Focus Area Plan above, the Greystar project would contribute to a cumulative increase in the demand for other public facilities, such as library services, and may be required to contribute to the development of a future public facility for the Plan Area. No public facilities have been identified; therefore, the Greystar project would not make a cumulatively considerable contribution to a significant cumulative public facility impact.

Mitigation. No cumulatively considerable contribution to a significant cumulative impact has been identified for either the Plan or the project; no mitigation is required.

20.1.18 Cumulative Impacts on Transportation

(a) Plan Area. Like the proposed Focus Area Plan, all development projects in Santa Clara (unless otherwise exempt) are required to comply with City transportation analysis policy, which requires development projects to use vehicle miles traveled (VMT) as the measure for transportation impact evaluation under CEQA. As described in chapter 17 (Transportation) of this EIR, because the Focus Area Plan qualifies as a transit supportive project (per State guidance[1] and City VMT Policy), the Plan would have a less-than-significant impact on VMT. According to State guidance, a finding of a less-than-significant project impact implies a less than significant cumulative impact. The Plan would be consistent with State Public Resources Code section 21159.28, which, as applicable, provides for streamlining opportunities for qualifying projects.[2]

[1]State of California, Office of Planning and Research, "Technical Advisory on Evaluating Transportation Impacts in CEQA", December 2018.

[2]California Public Resources Code Section 21159.28.

As also described in chapter 17, the Plan would be expected to have a positive effect on bicycle and pedestrian facilities and transit due to inclusion of transit supportive features such as improved bicycle facilities and pedestrian amenities. Compliance with City standards would ensure adequacy of Plan Area access for emergency vehicles and avoid potential hazards due to design features.

Therefore, the proposed Focus Area Plan would not make a cumulatively considerable contribution to a significant cumulative transportation impact.

(b) Greystar Project. As described in chapter 17 (Transportation) of this EIR, because the Greystar Project qualifies as a transit supportive project (per State guidance[1] and City VMT Policy), the project would have a less-than-significant impact on VMT. According to State guidance, a finding of a less-than-significant project impact implies a less than significant cumulative impact. Also as described in chapter 17, the Greystar project would be expected to have a positive effect on bicycle and pedestrian facilities due improved facilities proposed by the project; the project would have a less-than-significant impact on transit service; and project compliance with City standards would ensure adequacy of access for emergency vehicles and avoid potential hazards due to design features.

Mitigation. No cumulatively considerable contribution to a significant cumulative impact has been identified for the Focus Area Plan or the Greystar project, and no mitigation is required.

20.1.19 Cumulative Impacts on Solid Waste Disposal and Recycling

(a) Plan Area. Like the proposed Focus Area Plan, all development projects in Santa Clara are required to be consistent with adopted solid waste and recycling regulations and programs, including those described in chapter 18 (Utilities and Service Systems) of this EIR. The solid waste disposal and recycling facilities used by Santa Clara have ample capacity (e.g., Newby Island Sanitary Landfill, where approximately 75 percent of the City's solid waste was taken for disposal in 2019, has a cease operation date of January 1, 2041 and an estimated remaining capacity of nearly 21,200,000 cubic yards—solid waste generated by development under the Plan would be anticipated to represent approximately 0.2 percent of remaining capacity at Newby Island, based on City solid waste generation rates). As explained in chapter 18, the City has an agreement with GreenWaste Recovery that would provide the City with disposal capacity through June 30, 2036. In addition, the applicable regulations and programs, as provided by state law, have been deliberately designed and adopted to avoid or reduce cumulative solid waste/recycling impacts to less-than-significant levels. The overall cumulative solid waste/recycling impact of cumulative development would therefore be less-than-significant, and the proposed Plan would not make a cumulatively considerable contribution to a significant cumulative public facility impact.

(b) Greystar Project. Similar to the Focus Area Plan, Greystar project would be required to be consistent with adopted solid waste and recycling regulations and programs. Solid waste generated by the project would be anticipated to contribute approximately 20 percent of the total Focus Area Plan solid waste generation. The project would be required to comply with applicable regulations and programs, as provided by state law, to avoid or reduce solid waste. Therefore, the project /recycling impacts to less-than-significant levels. The Greystar project

[1]State of California, Office of Planning and Research, "Technical Advisory on Evaluating Transportation Impacts in CEQA", December 2018.

would not make a cumulatively considerable contribution to any significant cumulative population and housing impact.

Mitigation. No cumulatively considerable contribution to a significant cumulative impact has been identified for either the Plan or the project; no mitigation is required.

20.2 GROWTH-INDUCING EFFECTS

CEQA Guidelines Section 15126.2(e) requires that the EIR discuss "...the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment."

As of October 2021, there were no residential units in the Plan Area. Freedom Circle Focus Area Plan/Greystar General Plan Amendment implementation would result in new housing and population in the Plan Area over existing conditions, as explained in section 3.5 (Focus Area Plan Development Assumptions) and chapter 14 (Population and Housing) of this EIR. The increases through the horizon year of 2040 would be up to approximately 3,600 residential units and about 8,172 residents. This forecast assumption is based on the potential development of projects in the Plan Area, consistent with Plan goals and policies related to land use and urban design, and the proposed Greystar project. The direct increase in residential units and population could have an indirect economic “multiplier” effect, generating additional employment in the broader region.

The Freedom Circle Focus Area Plan/Greystar General Plan Amendment would help accommodate anticipated regional growth, including residential development that is necessary to meet the City’s state-mandated RHNA targets. No substantial, detrimental, unplanned growth-inducing effect is expected. Freedom Circle Focus Area Plan/Greystar General Plan Amendment implementation would not extend roads or infrastructure through undeveloped or low-density areas, except for the Greystar project, which would construct a perimeter road around the project site to facilitate resident movement and emergency vehicle (e.g., fire/EMS, police) access. The Plan (including the Greystar project) would not “oversize” infrastructure that would lead to indirect growth. A primary objective of the Plan is to facilitate appropriate development efficiently and effectively in an area where roads and infrastructure already exist (see EIR chapter 3, Project Description).

Any future individual development proposals **outside** the Plan Area would require standard local review of associated development applications, including CEQA-mandated development-specific environmental review, to ensure that any adverse environmental impacts are adequately addressed. These existing requirements and procedures would be expected to avoid or reduce the potential environmental impacts of such secondary growth inducement associated with the Focus Area Plan to less-than-significant levels, except where specific CEQA statements of overriding consideration are adopted. However, as explained above and throughout this EIR, the Freedom Circle Focus Area Plan/Greystar General Plan Amendment is being proposed to encourage infill and consolidated development within the Plan Area, not in outlying portions of Santa Clara.

20.3 SIGNIFICANT UNAVOIDABLE IMPACTS

CEQA Guidelines section 15126.2(b) requires that the EIR discuss "significant environmental effects which cannot be avoided if the proposed project is implemented." The impacts listed below are identified as significant and unavoidable for one of four reasons: (1) no potentially feasible mitigation has been identified; (2) potential mitigation has been identified but may be found by the Lead Agency to be infeasible; (3) with implementation of feasible mitigation, the impact still would not, or might not, be reduced to a less-than-significant level; or (4) implementation of the mitigation measure would require approval of another jurisdictional agency, whose approval will be pursued by the Lead Agency but cannot be guaranteed as of the publication of this EIR. Because these significant unavoidable impacts "cannot be alleviated without imposing an alternative design" (CEQA Guidelines Section 15126.2[b]), EIR chapter 21 (Alternatives to the Proposed Project) evaluates a range of feasible alternatives that could lessen the identified significant unavoidable impacts and evaluates the alternatives' ability to meet the project objectives.

The following impacts (Focus Area Plan only) have been identified in this EIR as significant and unavoidable:

- Impact 5-3: Result in a Cumulatively Considerable Net Increase in Criteria Pollutants for which the Region is Non-Attainment – Freedom Circle Focus Area Plan (cumulative)
- Impact 5-5: Generate Toxic Air Contaminant Emissions that Expose Sensitive Receptors to Substantial Pollutant Concentrations During Construction– Freedom Circle Focus Area Plan (project and cumulative)
- Impact 7-1: Destruction/Degradation of Historic Resources—Plan Area (chapter 7 and Section 20.1.4 above) (project and cumulative)
- Impact 13-7: Increases in Traffic Noise Levels–Freedom Circle Focus Area Plan (chapter 13 and Section 20.1.11 above) (project and cumulative)

The implications of each significant unavoidable impact identified above are described in the particular EIR chapter referenced with the impact. The Freedom Circle Focus Area Plan/Greystar General Plan Amendment is being proposed, notwithstanding these effects, to fully achieve the project objectives described in section 3.3 of this EIR. If the City approves the Plan (or an alternative to the proposed Plan) that would result in significant unavoidable impacts, the City must (1) make a finding per CEQA Guidelines section 15091(a)(3) that specific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible any mitigation measures or project alternatives identified in the EIR that may avoid or substantially lessen the Plan's significant unavoidable impacts, and (2) adopt a "Statement of Overriding Considerations" per CEQA Guidelines section 15093, describing why the economic, legal, social, technological, or other benefits, including region-wide or statewide environmental benefits, of the approved Plan outweigh its significant unavoidable impacts.

There were no significant unavoidable impacts identified for the Greystar project.

20.4 IRREVERSIBLE ENVIRONMENTAL CHANGES

CEQA Guidelines section 15126.2(c) requires that the EIR discuss "significant irreversible environmental changes which would be caused by the proposed project should it be implemented." Irreversible environmental changes caused by the proposed Freedom Circle Focus Area Plan/Greystar General Plan Amendment would include the following:

- As discussed in chapters 3 (Project Description), 12 (Land Use and Planning), and 17 (Transportation) of this EIR, Freedom Circle Focus Area Plan/Greystar General Plan Amendment implementation would encourage a better balance of multi-modal circulation (auto, transit, bicycle, pedestrian) in the Plan Area. This change would require, subject to a comprehensive planning study, implementation of planning and design strategies and standards that would result in relatively permanent physical changes to the Plan Area (and the Greystar project site). The change would be reflected in road re-design to accommodate new modes of circulation, and if coupled with signalization modifications and other road widening or re-routing, could present permanent changes.

- Freedom Circle Focus Area Plan/Greystar General Plan Amendment implementation would result in the loss of an as-yet unknown number of existing buildings, landscaping, and infrastructure, and their replacement with new development, landscaping, and infrastructure in accordance with the frameworks and design standards and guidelines of the Plan. It is emphasized that the Freedom Circle Focus Area Plan/Greystar General Plan Amendment would not give the City of Santa Clara eminent domain authority over any private property.

- Plan implementation would result in an irreversible commitment of energy resources, primarily in the form of fossil fuels, including fuel oil, natural gas, and gasoline or diesel fuel for construction equipment and vehicles, as well as the use of these same resources during long-term operation of individual projects facilitated by the Plan. Because development facilitated by the Freedom Circle Focus Area Plan/Greystar General Plan Amendment would be required by law to comply with California Code of Regulations Title 24 (including updates over time) and adopted City energy conservation ordinances and regulations, Plan implementation would not be expected to use energy in a wasteful, inefficient, or unnecessary manner (see section 20.6 below and chapter 9, Greenhouse Gas Emissions and Energy). In addition, the Greystar project proposes to implement sustainability measures, as described in EIR chapter 3.

- The consumption or destruction of other non-renewable or slowly renewable resources would also occur during construction, occupancy, and use of individual development sites under the Focus Area Plan. These resources would include, but would not be limited to, lumber, concrete, sand, gravel, asphalt, masonry, metals, and water. Plan (and Greystar project) implementation would also irreversibly use water and solid waste landfill resources. However, development under the Plan (and the Greystar project itself) would not involve a large commitment of those resources relative to supply, nor would it consume any of those resources wastefully, inefficiently, or unnecessarily, especially considering ongoing City and County conservation and recycling programs.

- Plan implementation would contribute both directly and indirectly to long-term increases in greenhouse gas (GHG) emissions, although under the criteria established by the Bay Area Air Quality Management District (BAAQMD), the impact would be less-than-significant (see EIR chapter 9). As chapter 9 explains, the proposed Freedom Circle Focus Area

Plan/Greystar General Plan Amendment is, deliberately and by design, consistent with State and regional GHG reduction strategies.

For practical purposes, these environmental changes would be permanent and irreversible. Because the proposed Plan would incorporate the energy conservation and sustainability measures described below (section 20.6), the identified irreversible commitment of resources is considered justified per CEQA Guidelines section 15126.2(c) and CEQA Guidelines Appendix F (Energy Conservation).

20.5 EFFECTS FOUND NOT TO BE SIGNIFICANT

CEQA Guidelines section 15128 requires that the EIR "contain a statement briefly indicating the reasons that various possible significant effects of a project were determined not to be significant and were therefore not discussed in detail in the EIR." This EIR discusses all the environmental topic areas and questions included in CEQA Guidelines Appendix G (Environmental Checklist Form), with the potential significance of each impact evaluated in the appropriate EIR chapter (e.g., Chapter 4 - Aesthetics, Chapter 12 - Land Use and Planning), except for the following environmental topics:

- Agricultural and Forestry Resources (item II in CEQA appendix G): No agricultural use, forest land, or timberland is located in the Plan Area. According to the Santa Clara County Important Farmland 2016 Map, the Plan Area does not contain Prime Farmland, Farmland of Statewide Importance, or Unique Farmland. No portion of the Plan Area (including the Greystar project site) is designated for agricultural use on the City Santa Clara 2010-2035 General Plan Land Use Diagram, nor is any portion under a Williamson Act contract. The proposed project would not result in any impact on agriculture, forest land, or timberland.

- Mineral Resources (item XII in CEQA appendix G): According to the 2010-2035 General Plan, no mineral deposits exist in the Plan Area. Therefore, the proposed project would not result in any impact on mineral resources.

- Wildfire (item XX in CEQA appendix G): According to CAL FIRE, the Plan Area is in a Local Responsibility Area and classified as a non-very high fire hazard severity zone. The 2010-2035 General Plan has determined, “The City of Santa Clara does not have the terrain or vegetation conditions for large or devastating wildfires.” Therefore, the proposed project would not result in any impact related to wildfire.

20.6 ENERGY CONSERVATION

CEQA Guidelines Appendix F (Energy Conservation) describes how energy conservation should be addressed in EIRs and states, “[CEQA] requires that EIRs include a discussion of the potential energy impacts of proposed projects, with particular emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy.” A discussion of energy use and conservation - including the City of Santa Clara Climate Action Plan and BAAQMD GHG reduction strategies - is included in chapter 9 (Greenhouse Gas Emissions and Energy) of this EIR.

The quantitative and qualitative analyses in chapter 9 conclude that: (1) Freedom Circle Focus Area Plan/Greystar General Plan Amendment implementation would not prevent the state from meeting the minimum CARB Scoping Plan threshold of a 40 percent reduction in GHG emissions below 1990 levels by 2030 or from meeting its 2050 goal; and (2) the Plan is consistent with applicable State, regional, and local plans and requirements adopted to reduce GHG emissions.

As discussed in EIR chapters 3 (Project Description), 12 (Land Use and Planning), and 17 (Transportation) of this EIR, Freedom Circle Focus Area Plan/Greystar General Plan Amendment implementation would encourage a better balance of multi-modal circulation (auto, transit, bicycle, pedestrian) in the Plan Area, with related energy conservation resulting from the more efficient use of transportation, circulation, and infrastructure systems. As discussed in EIR chapter 14, Population and Housing, the development anticipated by the Plan responds to anticipated growth and helps address the City's jobs to housing balance (i.e., the shortage of affordable housing). Energy resources are necessary to construct and operate the buildings needed to accommodate such growth; however, implementation of the Plan would be expected to result in replacement of older, less energy-efficient structures with newer structures built to the latest CALGreen Code standards (2019, at minimum), which would increase the efficiency of electricity consumed within the City. The proposed higher density land uses would result in more efficient energy use compared to energy use for lower density land uses (e.g., "sprawl") due to more residents being close to transit, which would reduce the amount of transportation energy spent on commuting. The proposed increase in residential development overall would be expected to result in a reduction in outcommuting and a decrease in the associated expenditure of transportation energy. Therefore, by ensuring the buildings are energy efficient, placing the buildings in a low VMT area, and providing space for a mix of uses and amenities that promote non-automobile transportation options, the project would use resources in a non-wasteful and efficient manner.

Based on the discussion above, the proposed Freedom Circle Focus Area Plan/Greystar General Plan Amendment would not cause inefficient, wasteful, and unnecessary consumption of energy and would not make a cumulatively considerable contribution to energy inefficiency during construction or operation.

21. ALTERNATIVES TO THE PROPOSED PROJECT

Section 15126.6 of the CEQA Guidelines requires an EIR to "describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project, but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives." The section also states that the discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if those alternatives would impede to some degree the attainment of the basic project objectives, or would be more costly.

Pursuant to section 15126.6, this chapter describes five alternatives to the Freedom Circle Focus Area Plan and compares their impacts to those of the proposed Focus Area Plan; in addition, this chapter also describes three alternatives to the Greystar General Plan Amendment and compares their impacts to those of the proposed Greystar project. Pursuant to the CEQA Guidelines, the ability of the alternatives to meet the project objectives is also described, and the "environmentally superior" alternative among them is identified.

Under CEQA, the analysis of alternatives needs only to evaluate how an alternative could avoid or reduce ***significant impacts***. Environmental impacts identified as "less-than-significant" do not require mitigation and, therefore, do not need to be further reduced under the analysis of alternatives. Similarly, potentially significant impacts that would be reduced to less-than-significant levels after mitigation could require less mitigation under an alternative. For a more thorough comparison, however, the evaluation below includes all 15 impact categories included in this EIR (aesthetics, air quality, biological resources, etc.).

This EIR has identified four ***significant unavoidable impacts*** (Focus Area Plan only) that could result from the Freedom Circle Focus Area Plan/Greystar General Plan Amendment (it is important to note that the Greystar Project itself would not result in a significant unavoidable impact):

- Impact 5-3: Result in a Cumulatively Considerable Net Increase in Criteria Pollutants for which the Region is Non-Attainment – Freedom Circle Focus Area Plan (cumulative)
- Impact 5-5: Generate Criteria Air Pollutants and Toxic Air Contaminants During Construction that Expose Sensitive Receptors to Substantial Pollutant Concentrations – Freedom Circle Focus Area Plan (project and cumulative)
- Impact 7-1: Destruction/Degradation of Historic Resources— Freedom Circle Focus Area Plan (project and cumulative)
- Impact 13-7: Increases in Traffic Noise Levels – Freedom Circle Focus Area Plan (project and cumulative)

In accordance with CEQA Guidelines section 15126.6(a), this EIR does not evaluate every conceivable alternative. A feasible range of alternatives that will allow decision-makers to make a reasoned choice and that meet most of the project objectives has been evaluated. Also, the Lead Agency may choose to adopt a combination of the alternatives described below.

The **Focus Area Plan** goals and objectives (chapter 1, section 1.2 Freedom Circle Focus Area Plan) are listed below; in addition, the Greystar project objectives are also listed. In this EIR, these goals and objectives are referred to under the CEQA term "basic project objectives" (CEQA Guidelines section 15124[b]). The following seven objectives for the Freedom Circle Focus Area Plan are also listed in chapter 3, section 3.3 (Basic Project Objectives) of this EIR.

- Develop an urban-scale mixed-use activity center in North Santa Clara to support economic vitality while increasing residential options.
- Provide for a range of housing types and densities to accommodate future residents and to create diversity in building scale and typology.
- Create a complete neighborhood that provides easy access to day-to-day services and amenities for residents, employees and visitors.
- Reduce reliance on private vehicles and improve jobs/housing balance by locating amenities and jobs within walking distance to housing.
- Create a human-scaled public realm through inviting architecture and urban design.
- Improve multi-modal transportation options and connections.
- Enhance connectivity to the San Tomas Aquino Creek trail.

The basic objectives of the **Greystar project**, as provided by the applicant and identified by the City, are:

- To both acknowledge the level of development interest in North Santa Clara, and to be consistent with and comply with the policies of the Freedom Circle Focus Area Plan. The Focus Area Plan will outline new land uses that will convert the area from an employment center to a high-intensity mixed-use neighborhood including residential developments. These changes will help meet the demand for housing and for using land more efficiently at high, urban densities.
- Create a vibrant residential community that complements other North Santa Clara neighborhoods and encourages walking and bike riding, linking the Freedom Circle neighborhood to the San Thomas Aquino Creek Trail via a new, two-acre public park.
- Redevelop a vacant lot in North Santa Clara and adjacent to the San Tomas Aquino Creek Trail with attractive and desirable amenities, housing, and a public park available to all Santa Clara residents.
- Support, enhance and connect to the City's existing and planned open space network.
- Create a vibrant, two-acre, multifunctional public park with space allocated for such activities including a dog park, sport court, and a playground for ages 2 and up.
- Meet the City's Affordable Housing Ordinance and Inclusionary Zoning requirements, including any direction on levels of affordability from the City Council.

- Create a human scaled public realm through inviting architecture and urban design.
- Activate street frontages and ground floor uses to create a pedestrian-friendly, cohesive urban environment.
- Minimize surface parking by providing below-grade and structured parking facilities.
- Redesign the Freedom Circle right-of-way adjacent to the project to better balance space dedicated to vehicles, bicycles, and pedestrians.
- Minimize environmental impacts through sustainable building and infrastructure by designing to a GreenPoint Rated Silver (or equivalent) level and remaining consistent with CALGreen and Santa Clara Climate Action Plan requirements.
- Contribute to the City's vehicle miles travelled (VMT) goals and implement Transportation Demand Management (TDM programs).
- Support and enhance the City's goal for a balanced transportation network serving all modes of transportation - including walking, biking, and driving - to address the City's transportation challenges and needs, and to build on Santa Clara's existing transportation system.
- Realize a market economic return on the property that reflects the costs of land, site preparation, environmental considerations, infrastructure, open space improvements and vertical development.

The following alternatives have been evaluated in comparison to the proposed Freedom Circle Focus Area Plan and Greystar General Plan Amendment:

Freedom Circle

- Alternative FC-1A: No Project (Without Greystar Project)--Existing City of Santa Clara 2010-2035 General Plan
- Alternative FC-1B: No Project (With Greystar Project)--Existing City of Santa Clara 2010-2035 General Plan
- Alternative FC-2: Mainly Commercial Office Development
- Alternative FC-3: Mainly Residential Development
- Alternative FC-4: Reduced Plan Alternative
- Alternative FC-5: Alternative Project Location (Considered but Rejected)

Greystar Project

- Alternative G-1: No Project--Existing City of Santa Clara 2010-2035 General Plan

- Alternative G-2: Same Residential Buildout but Larger Park
- Alternative G-3: Reduced Residential Buildout but Larger Park
- Alternative G-4: Alternative Project Location (Considered but Rejected)

In accordance with CEQA Guidelines section 15126.6, (1) an "environmentally superior alternative" has been chosen, and (2) the discussion in this chapter of the impacts of the alternatives is less detailed than the discussions in chapters 4 through 18 (the environmental topic chapters) of the impacts of the proposed Focus Area Plan. Table 21-1 quantitatively compares the alternatives with the proposed Plan. Tables 21-2 and 21-3 at the end of this chapter qualitatively summarizes impacts of the alternatives compared to impacts of the proposed Plan and Greystar project, respectively.

Table 21-1
ALTERNATIVES COMPARISON

Alternative	Residential Units (units)	Retail Square Footage (SF)	Office Square Footage (SF)	Parkland (acres)	Open Space (acres)	Buildout Population (residents)[1]	Differences Compared to the Proposed Plan
Freedom Circle Focus Area Plan	*3,600 (max)*	*2,000*	*5,369,000*	*≥2.0 acres (add'l parkland TBD)*	*(add'l open space TBD)*	*8,172*	
Alternative FC-1A: No Project (without Greystar Project)[2]	0	0	4,528,000	0	0	0	▪ Less residential development (3,600 fewer units) ▪ Less office development (841 ksf less SF) ▪ Fewer new residents (8,172 fewer residents)
Alternative FC-1B: No Project (with Greystar project)[4]	1,075	2,000	3,369,000	2.0 acres	0	2,440	▪ Less residential development (2,525 fewer units) ▪ Less office development (2,000 ksf less SF) ▪ Fewer new residents (5,732 fewer residents)
Alternative FC-2: Mainly Commercial Office Development[34]	1,075	2,000	6,410,000	2.0 acres	0	2,440	▪ Less residential development (2,525 fewer units) ▪ More office development (1,041 ksf) ▪ Fewer new residents (5,732 fewer residents)
Alternative FC-3: Mainly Residential Development[5]	5,471	2,000	1,868,000	≥2.0 acres (add'l park TBD)	*(add'l open space TBD)*	12,419	▪ More residential development (1,871 more units) ▪ Less office development (3,501 ksf) ▪ More new residents (4,247 more residents)

Alternative	Residential Units (units)	Retail Square Footage (SF)	Office Square Footage (SF)	Parkland (acres)	Open Space (acres)	Buildout Population (residents)[1]	Differences Compared to the Proposed Plan
Alternative FC-4: Reduced Focus Area Plan[6] (with Greystar project)	3,075	2,000	2,695,200	*≥2.0 acres (add'l parkland TBD)*	*(add'l open space TBD)*	6,980	▪ Less residential development (525 fewer units) ▪ Less office development (2,673.8 ksf less SF) ▪ Fewer new residents (1,192 fewer residents)
Greystar Project	*1,075*	*2,000*	*0*	*2.0 acres*	*(add'l open space TBD)*	*2,440*	
Alternative G-1: No Project[7]	0	0	1,159,000	0 acres	0 acres	0	▪ Less residential (0 DUs) and retail development (0 SF); no park ▪ More office development (1,159 ksf) ▪ No new residents
Alternative G-2: Same Residential Buildout but Larger Park[8]	1,075	2,000	0	3.0 - 4.0 acres	*(add'l open space TBD)*	2,440	▪ Same residential and retail development ▪ Same new residents ▪ Greater park acreage (increase between 1.0 and 2.0 acres)
Alternative G-3: Reduced Residential Buildout but Larger Park[9]	860	2,000	0	3.0 - 4.0 acres	*(add'l open space TBD)*	1,952	▪ Less residential (215 fewer DUs) but same retail development ▪ Fewer new residents (488 fewer residents) ▪ Greater park acreage (increase between 1.0 and 2.0 acres)

SOURCE: MIG, 2021.

SF = square feet
Ksf = thousand square feet
DU = dwelling unit

Alternative	Residential Units (units)	Retail Square Footage (SF)	Office Square Footage (SF)	Parkland (acres)	Open Space (acres)	Buildout Population (residents)[1]	Differences Compared to the Proposed Plan

Notes:

[1]Population based on a forecasted average of 2.27 persons per household, consistent with the Freedom Circle Focus Area Plan.
[2]This "No Project" alternative option incorporates existing allowable development in the Plan Area under the 2010-2035 General Plan (with a 2040 growth increment applied), including the development on the Greystar project site under its currently existing General Plan land use designation (i.e., the "Greystar No Project alternative" – Alternative G-1), plus one approved project, the "Sobrato Great America Parkway" project at 4301 Great America Parkway [from "FC parcel sizes and building areas_111020_Hexagon"]; this also includes the Greystar project as proposed because the Greystar approval would be reasonably foreseeable without Focus Area Plan approval.
[3]This "No Project" alternative option incorporates existing allowable development in the Plan Area as described in Alternative FC-1A above but includes the Greystar project as proposed because the City could approve Greystar and not the Focus Area Plan.
[4] This alternative would include maximum GP allowable development for Plan Area parcels that are interested in redevelopment (based on outreach to property owners); also, the Greystar site would remain as proposed—see previous note regarding reasonably foreseeable Greystar/GPA project approval.
[5] This alternative would include residential development in Plan Area for all parcels interested in redevelopment (based on outreach to property owners), plus the Greystar project; parcels uninterested in redevelopment would include their existing SF plus the 2040 growth increment (from the "No Project" alternative).
[6] This alternative would include a Focus Area Plan that has been reduced by 20 percent (with the exception of the Greystar project, which for the purposes of this alternative would be considered as proposed); i.e., 20 percent less commercial square footage and 20 percent fewer residential dwelling units.
[7] Potential development under existing General Plan land use designation for Greystar project site (HDRD) would allow a FAR of 2.0; at 13.3 acres, this could result in up to 1,158,696 square feet of development, or 1,159,000 (rounded up).
[8] This Greystar alternative would increase the size of the public park by 1.0 to 2.0 acres, resulting in park space from 3.0 to 4.0 acres.
[9] This Greystar alternative would reduce residential by 20 percent (from 1,075 DUs to 860 DUs) but increase the size of the public park by 1.0 to 2.0 acres, resulting in park space from 3.0 acres to 4.0 acres.

21.1 ALTERNATIVE FC-1A: NO PROJECT (WITHOUT GREYSTAR PROJECT)--EXISTING CITY OF SANTA CLARA 2010-2035 GENERAL PLAN

21.1.1 Alternative FC-1A Characteristics

Under Alternative FC-1A (No Project—Without Greystar Project), there would be no change in the current land use and zoning controls in the Focus Plan Area, and the Greystar project would not proceed as proposed. The Freedom Circle Focus Area Plan would not be adopted, and development would proceed under the current 2010-2035 General Plan, including development allowed on the Greystar site. New infrastructure would be maintained or constructed as required to accommodate new development on a project-by-project basis, and not as a planned, integrated set of improvements specifically for the Plan Area. This No Project alternative would continue to allow development under the existing High Intensity Office/R&D (HDRD) with some Regional Commercial (RC) General Plan designations. The HDRD classification would accommodate medical facilities, data centers (and supporting on-site uses), and campus-like corporate/office developments with a maximum Floor Area Ratio (FAR) of 2.00; the RC classification would accommodate commercial developments such as regional shopping centers, local-serving offices, medical facilities, and travel-related services such as hotels, gas stations, restaurants, convention centers, and amusement parks, among other uses, with a maximum Floor Area Ratio (FAR) of 0.60. Because no residential uses would be developed, no new parks or open spaces would be required.

Uses currently in the Plan Area include general office (2,122,500 square feet), R&D (209,500 square feet), a restaurant (17,000 square feet), and a hotel (750 rooms) for a current total development of 2,349,000 square feet. The potential allowable buildout under existing General Plan designations would include the existing conditions with a 2040 growth increment, plus one project already approved, but would not include several parcels because they are not assumed to be interested in being redeveloped. The total buildout under these assumptions would be 3,369,000 SF office commercial, or an increase of approximately 1,020,000; however, with the commercial development allowed under existing General Plan land use designations for the Greystar project site, this total would increase to 4,528,000 SF.

For this alternatives analysis it is assumed that the Greystar project would not be developed under its current proposal and reasonably foreseeable development on the Greystar site would include approximately 1,159,000 SF of commercial (see Alternative G-1, Greystar—No Project, below for further discussion of what the current General Plan would allow on the Greystar site).

No goals or policies of the Freedom Circle Focus Area Plan would be implemented, and no residential units would be developed. No additional office square footage as proposed by the Focus Area Plan (i.e., the 2,000,000 SF above GP allowed) would be developed.

Relevant to air quality, energy, GHG, and noise impacts, and based on vehicle trip ratios by land use included in the transportation analysis for the Focus Area Plan (including a 4 percent reduction for transit use), the No Project alternative would generate approximately 51,044 average daily vehicle trips (ADT). Existing conditions (what is on the ground now) generate about 17,365 ADT. The proposed Focus Area Plan would generate approximately 70,075 ADT.

Therefore, this No Project alternative would generate about 19,031 fewer ADT than the proposed Focus Area Plan.[1]

The No Project alternative would result in 3,600 fewer residential units, no new residents, and 841,000 less square feet of non-residential development compared to the proposed Focus Area Plan. Under this alternative, no Freedom Circle Focus Area Plan would be adopted.

21.1.2 Comparative Impacts and Mitigating Effects

(a) Aesthetic Resources. From the perspective of less development, the No Project (Without Greystar Project) alternative could have somewhat reduced impacts on aesthetic and visual resources compared with the proposed Focus Area Plan. However, there would also be potentially less enhanced visual character, identity, and cohesion without adoption of the required, future comprehensive planning study for the Plan Area (e.g., specific plan), whose unified design standards and guidelines, and context-sensitive frameworks, would be purposely designed to achieve and maintain a cohesive, compatible visual identity and sense of place in the Plan Area, as well as provide smooth transitions with adjacent neighborhoods and areas. Compared to the Focus Area Plan, impacts would be reduced; however, Focus Area Plan impacts are already either less than significant or mitigatable, and similar to the proposed project, there would be no cumulatively considerable contribution to a significant cumulative impact resulting from this alternative.

(b) Air Quality. This alternative could result in somewhat decreased air pollutant emissions compared to the proposed Plan because there would be a reduction in daily vehicle trips (ADT). However, based on the size of the Plan Area (108 acres) and the development allowed under this No Project alternative, the significant unavoidable air quality impacts (Impacts 5-3 [criteria air pollutants] and 5-5 [construction air emissions] in chapter 5, Air Quality) would not be reduced to a less than significant level because existing land uses already exceed BAAQMD significance thresholds for ROG. Compared to the Focus Area Plan, other impacts would be reduced; however, these other Focus Area Plan impacts are already either less than significant or mitigatable. A cumulatively considerable contribution to significant cumulative impacts (Impacts 5-3 [criteria air pollutants] and 5-5 [construction air emissions]) would remain.

(c) Biological Resources. Because the same overall amount of developable area in the Plan Area would be available and could be involved, under this No Project alternative, there would be similar potential for disturbance of existing urban landscape habitat, similar potential for disturbance of nesting birds during construction, and similar potential for existing trees to be removed from the Plan Area. Similar to the Focus Area Plan, impacts under this alternative would be either less than significant or mitigable, and there would be no cumulatively considerable contribution to a significant cumulative impact.

(d) Cultural and Historical Resources. Because the same overall amount of developable area in the Plan Area would be available and could be involved, there would be similar physical impacts on undiscovered cultural and tribal cultural resources compared to the proposed Focus Area Plan. There still would be significant unavoidable impacts if buildings that attain historic status are demolished or are not rehabilitated according to the Secretary of the Interior's

[1]Hexagon Transportation Consultants, Inc., "Freedom Circle Focus Area Plan and Greystar General Plan Amendment Transportation Analysis," prepared for MIG, Inc., September 24, 2021.

Standards (see Impact 7-1 [historic resources], in chapter 7, Cultural and Historical Resources). Similar to the Focus Area Plan, other impacts under this alternative would be either less than significant or mitigable. There would still be potential for a considerable contribution to a significant cumulative impact (Impact 7-1 [historic resources]).

(e) Geology and Soils. The decrease in development under the No Project alternative would attract fewer people who could be exposed to potential ground shaking, liquefaction, lateral spreading, expansive soils, subsidence, and differential settlement hazards associated with geologic and soils conditions within the Plan Area. However, impacts would remain similar to those under the proposed Plan, which are already either less than significant or mitigatable, and there would be no cumulatively considerable contribution to a significant cumulative impact.

(f) Greenhouse Gas Emissions and Energy. Buildout of the Plan Area under this alternative would result in a decrease in GHG emissions compared to the proposed Focus Area Plan because the alternative would result in fewer daily vehicle trips (ADT). However, because this alternative would not include any residential uses, it would not include pedestrian-, bicycle-, and transit-oriented improvements, nor would it address the City's existing jobs/housing imbalance, which could result in longer commutes in Santa Clara. Compared to the Focus Area Plan, impacts under this alternative would be reduced; however, Focus Area Plan impacts are already either less than significant or mitigatable, and there would be no cumulatively considerable contribution to a significant cumulative impact.

(g) Hazards and Hazardous Materials. The reduced development under this No Project alternative would attract fewer people, resulting in less potential exposure of people and property to hazards and hazardous materials compared to the proposed Focus Area Plan. Similar to the Focus Area Plan, impacts under this alternative would be less than significant, and there would be no cumulatively considerable contribution to a significant cumulative impact.

(h) Hydrology and Water Quality. This No Project alternative could have similar impacts on drainage and water quality compared to the proposed Focus Area Plan, however, because surface runoff is determined by a parcel's impervious surface area and not by land use or density, even a reduction in development could have a limited change over existing conditions, in terms of impervious surface area, stormwater runoff generation, and pollutant loading. In addition, development under this alternative still would be subject to standard City stormwater runoff requirements. Similar to the Focus Area Plan, impacts under this alternative would be less than significant, and there would be no cumulatively considerable contribution to a significant cumulative impact.

(i) Land Use and Planning. This No Project alternative could have greater impacts on land use and planning compared with the proposed Focus Area Plan without policies and/or standards ensuring compatible and integrated neighborhoods. However, these potential impacts would not likely be significant due to the types of development in the neighboring areas. Though impacts under this alternative would be somewhat greater than the Focus Area Plan (potential compatibility impacts), they would still be less than significant, and there would be no cumulatively considerable contribution to a significant cumulative impact

(j) Noise. Buildout under this No Project alternative could result in less noise than under the proposed Focus Area Plan because there would be fewer vehicle trips than under the proposed Plan. Although less overall development would occur, the No Project alternative would likely result in a similar *magnitude* of construction noise, construction vibration, on-site operational

noise and vibration, and airport-related noise level impacts compared to the proposed Focus Area Plan due to the nature and construction types of development allowed under the alternative. As identified in Impact 13-7 (traffic noise), one roadway segment would exceed the City's noise criteria with buildout of the proposed Plan, but the reduction in daily trips under this alternative (an approximately 27 percent decrease compared to the Plan) could result in a small enough change in noise along this segment that the traffic noise would not exceed the City's noise criteria. However, without specific traffic and noise modeling, it would be difficult to definitively determine the extent of the reduction in trips (as well as trip assignment and trip distribution). Compared to the Focus Area Plan, other noise-related impacts would be reduced; however, these other Focus Area Plan impacts are already either less than significant or mitigatable. If the traffic reduction under this alternative were sufficient, there would be no significant unavoidable traffic noise impact and no cumulatively considerable contribution to a significant cumulative traffic noise impact.[1]

(k) Population and Housing. This alternative would result in no increase in housing and population in the Plan Area nor would new housing be available to meet community and regional needs for market-rate and affordable housing. This No Project alternative would not address the City's existing jobs/housing imbalance and could result in an increase in commute length in Santa Clara. Compared to the Focus Area Plan, impacts under this alternative would be similar and less than significant, and there would be no cumulatively considerable contribution to a significant cumulative impact.

(l) Public Services. Compared to the proposed Focus Area Plan, this alternative would generally result in fewer impacts on fire protection/emergency medical service, police service, public schools, parks, and other public facilities (e.g., library, community center) because there would be no new residents and fewer employees requiring public services. However, less development could also mean fewer development fees and less tax revenue to maintain and enhance public services. Impacts under this alternative would be similar to those under the proposed Plan, which are already less than significant, and there would be no cumulatively considerable contribution to a significant cumulative impact.

(m) Recreation. Because no residential uses would be developed, no new parks or open spaces would be required under this No Project alternative. Compared to the proposed Focus Area Plan, this alternative could result in fewer impacts on City recreation resources because there would be no new residents requiring recreation services. However, less development could also mean fewer development fees and less tax revenue to maintain and enhance recreation facilities and services. Impacts under this alternative would be similar to those under the proposed Plan, which are already less than significant, and there would be no cumulatively considerable contribution to a significant cumulative impact.

[1]As shown in Table 13-12 in chapter 13, Noise, of this EIR, traffic along Agnew Rd/Freedom Circle south of Mission College Boulevard would more than quadruple with Focus Area Plan buildout (from 5,167 ADT without Focus Area Plan buildout to 22,400 ADT with Focus Area Plan buildout). This would result in a change in noise levels (+6.3 dB CNEL) that exceeds the City's noise standard (described in EIR Chapter 13). Without specific traffic and noise modeling, it would be difficult to conclusively determine the reduction in trips necessary to reduce this impact to a less-than-significant level. However, under this alternative, the 27 percent reduction in trips projected under this alternative could conceivably be sufficient to reduce this traffic noise impact to a less-than-significant level.

(n) Transportation. Under this No Project alternative, average daily traffic (ADT) and vehicle miles traveled (VMT) could be decreased compared to the proposed Focus Area Plan, although length of trips could increase and VMT per capita or per employee would likely be greater. This alternative would also not address the City's existing jobs/housing imbalance, thereby potentially increasing the length of commutes in Santa Clara. Despite a potential increase in trip length and VMT per capita/employee, impacts under this alternative would be somewhat reduced compared to those under the Focus Area Plan, which are already less than significant. There would be no cumulatively considerable contribution to a significant cumulative impact.

(o) Utilities and Service Systems. This alternative would result in reduced water demand, wastewater generation, and solid waste compared to the proposed Focus Area Plan, however, the decrease in overall development may not be sufficient to reduce impacts substantially. In addition, new infrastructure would be maintained or constructed as required, though not as a planned, integrated set of improvements specifically for the Plan Area. Impacts under this alternative would be similar to those under the proposed Plan, which are already either less than significant or mitigatable. There would remain a cumulatively considerable contribution to a significant cumulative impact (Impact 18-1 [water supply] and Impact 18-5 [wastewater pump station capacity]), which would be mitigated through Mitigations 18-1 and 18-5.

21.1.3 Attainment of Basic Project Objectives

This alternative would not achieve the following basic project objectives (see beginning of this chapter):

- Develop an urban-scale mixed-use activity center in North Santa Clara to support economic vitality while increasing residential options.
- Provide for a range of housing types and densities to accommodate future residents and to create diversity in building scale and typology.
- Create a complete neighborhood that provides easy access to day-to-day services and amenities for residents, employees and visitors.
- Reduce reliance on private vehicles and improve jobs/housing balance by locating amenities and jobs within walking distance to housing.

This alternative would be less effective in achieving the following basic project objectives:

- Create a human scaled public realm through inviting architecture and urban design.
- Improve multi-modal transportation options and connections.
- Enhance connectivity to the San Tomas Aquino Creek trail.

Unlike the current General Plan, the Focus Area Plan would support coordinated and integrated frameworks and design standards and guidelines intended to make their implementation more feasible and efficient with adoption of a comprehensive planning study (e.g., specific plan) as required by the General Plan.

21.2 ALTERNATIVE FC-1B: NO PROJECT (WITH GREYSTAR PROJECT) - EXISTING CITY OF SANTA CLARA 2010-2035 GENERAL PLAN

21.2.1 Alternative FC-1B Characteristics

Under Alternative FC-1B (No Project—With Greystar Project), there would be no change in the current land use and zoning controls in the Focus Plan Area, however the Greystar project would proceed as proposed. The Freedom Circle Focus Area Plan would not be adopted, and development would proceed under the current 2010-2035 General Plan (except for the Greystar proposal). New infrastructure would be maintained or constructed as required to accommodate new development on a project-by-project basis, and not as a planned, integrated set of improvements specifically for the Plan Area. The No Project alternative would continue to allow development under the existing High Intensity Office/R&D (HDRD) with some Regional Commercial (RC) General Plan designations. The HDRD classification would accommodate medical facilities, data centers (and supporting on-site uses), and campus-like corporate/office developments with a maximum Floor Area Ratio (FAR) of 2.00; the RC classification would accommodate commercial developments such as regional shopping centers, local-serving offices, medical facilities, and travel-related services such as hotels, gas stations, restaurants, convention centers, and amusement parks, among other uses, with a maximum Floor Area Ratio (FAR) of 0.60. Because no residential uses would be developed, no new parks or open spaces would be required.

Uses currently in the Plan Area (not including the Greystar site, discussed in the following paragraph) include general office (2,122,500 square feet), R&D (209,500 square feet), a restaurant (17,000 square feet), and a hotel (750 rooms) for a current total development of 2,349,000 square feet. The potential allowable buildout under existing General Plan designations would include the existing conditions with a 2040 growth increment, plus one project already approved, but would not include several parcels because they are not assumed to be interested in being redeveloped (such as the hotel and other office buildings). The total buildout under these assumptions would be 3,369,000 SF office commercial, or an increase of approximately 1,020,000.

For this alternatives analysis it is assumed that the Greystar project, which could theoretically be approved without approval of the Focus Area Plan, would be a reasonably foreseeable development, and therefore the Greystar project has been included in this “no project” alternative. (For a discussion of what would occur if the Focus Area Plan without the Greystar project, see the discussion above for the “No Project-Without Greystar project” alternative.).

No goals or policies of the Freedom Circle Focus Area Plan would be implemented, and no residential units (other than the Greystar project) would be developed. No additional office square footage (i.e., the 2,000,000 SF above GP allowed) would be developed.

Relevant to air quality, energy, GHG, and noise impacts, and based on vehicle trip ratios by land use included in the transportation analysis for the Focus Area Plan (including a 4 percent reduction for transit use), the No Project alternative would generate approximately 40,364 average daily vehicle trips (ADT). Existing conditions (what is on the ground now) generate about 17,365 ADT. The proposed Focus Area Plan would generate approximately 70,075 ADT.

Therefore, the No Project alternative would generate about 29,711 fewer ADT than the proposed Focus Area Plan.[1]

The No Project alternative would result in 2,525 fewer residential units, 5,732 fewer new residents, and 2,000,000 less square feet of non-residential development compared to the proposed Focus Area Plan. Under this alternative, no Freedom Circle Focus Area Plan would be adopted; however, the Greystar project has been included as reasonably foreseeable development. (For a discussion of what would occur without the Greystar project, see the discussion above for the "No Project-Without Greystar project" alternative.)

21.2.2 Comparative Impacts and Mitigating Effects

(a) Aesthetic Resources. From the perspective of less development, the No Project alternative could have reduced impacts on aesthetic and visual resources compared with the proposed Focus Area Plan. However, there would also be less enhanced visual character, identity, and cohesion without adoption of the required, future comprehensive planning study for the Plan Area (e.g., specific plan), whose unified design standards and guidelines, and context-sensitive frameworks, would be purposely designed to achieve and maintain a cohesive, compatible visual identity and sense of place in the Plan Area, as well as provide smooth transitions with adjacent neighborhoods and areas. Compared to the Focus Area Plan, impacts under this alternative would be reduced; however, Focus Area Plan impacts are already either less than significant or mitigatable, and there would be no cumulatively considerable contribution to a significant cumulative impact.

(b) Air Quality. This alternative would result in decreased air pollutant emissions compared to the proposed Plan generally because there would be fewer daily vehicle trips (ADT). Based on the size of the Plan Area (108 acres) and the development allowed under the No Project alternative, the significant unavoidable air quality impacts (Impacts 5-3 [criteria air pollutants] and 5-5 [construction air emissions] in chapter 5, Air Quality) would not be reduced to a less than significant level because existing land uses already exceed BAAQMD significance thresholds for ROG. Compared to the Focus Area Plan, other impacts would be reduced; however, these other Focus Area Plan impacts are already either less than significant or mitigatable. There would remain a cumulatively considerable contribution to a significant cumulative impact (Impacts 5-3 [criteria air pollutants] and 5-5 [construction air emissions]).

(c) Biological Resources. Because the same overall amount of developable area in the Plan Area would be available and could be involved, under the No Project alternative, there would be similar potential for disturbance of existing urban landscape habitat, similar potential for disturbance of nesting birds during construction, and similar potential for existing trees to be removed from the Plan Area. Similar to the Focus Area Plan, impacts under this alternative would be either less than significant or mitigable, and there would be no cumulatively considerable contribution to a significant cumulative impact.

(d) Cultural and Historical Resources. Because the same overall amount of developable area in the Plan Area would be available and could be involved, there would be similar physical impacts on undiscovered cultural and tribal cultural resources compared to the proposed Focus

[1]Hexagon Transportation Consultants, Inc., "Freedom Circle Focus Area Plan and Greystar General Plan Amendment Transportation Analysis," prepared for MIG, Inc., September 24, 2021.

Area Plan. There still would be significant unavoidable impacts if buildings that attain historic status are demolished or are not rehabilitated according to the Secretary of the Interior's Standards (see Impact 7-1 [historic resources], in chapter 7, Cultural and Historical Resources). Similar to the Focus Area Plan, other impacts under this alternative would be either less than significant or mitigable, and there would still be potential for a considerable contribution to a significant cumulative impact (Impact 7-1 [historic resources]).

(e) Geology and Soils. The reduced development under the No Project alternative would attract fewer people who could be exposed to potential ground shaking, liquefaction, lateral spreading, expansive soils, subsidence, and differential settlement hazards associated with geologic and soils conditions within the Plan Area. Similar to the Focus Area Plan, impacts under this alternative would be either less than significant or mitigable, and there would be no cumulatively considerable contribution to a significant cumulative impact.

(f) Greenhouse Gas Emissions and Energy. Buildout of the Plan Area under this alternative would result in a decrease in GHG emissions compared to the proposed Focus Area Plan because the alternative would result in fewer daily vehicle trips (ADT). However, because this alternative would not include any residential uses, it would not include pedestrian-, bicycle-, and transit-oriented improvements, nor would it address the City's existing jobs/housing imbalance, which could result in longer commutes in Santa Clara. Compared to the Focus Area Plan, impacts under this alternative would be reduced; however, Focus Area Plan impacts are already either less than significant or mitigatable, and there would be no cumulatively considerable contribution to a significant cumulative impact.

(g) Hazards and Hazardous Materials. The reduced development under the No Project alternative would attract fewer people, resulting in less potential exposure of people and property to hazards and hazardous materials compared to the proposed Focus Area Plan. Similar to the Focus Area Plan, impacts under this alternative would be less than significant, and there would be no cumulatively considerable contribution to a significant cumulative impact.

(h) Hydrology and Water Quality. The No Project alternative could have similar impacts on drainage and water quality compared to the proposed Focus Area Plan. From an engineering standpoint, surface runoff is determined by a parcel's impervious surface area and not by land use or density. Even with less development under the No Project alternative, there could be limited change over existing conditions, and limited change compared to the Focus Area Plan, in terms of impervious surface area, stormwater runoff generation, and pollutant loading. Development under this alternative still would be subject to standard City stormwater runoff requirements. Similar to the Focus Area Plan, impacts under this alternative would be less than significant, and there would be no cumulatively considerable contribution to a significant cumulative impact.

(i) Land Use and Planning. The No Project alternative could have greater impacts on land use and planning compared with the proposed Focus Area Plan without policies and/or standards ensuring compatible and integrated neighborhoods. Though impacts under this alternative would be somewhat greater than the Focus Area Plan (potential compatibility impacts), they would still be less than significant, and there would be no cumulatively considerable contribution to a significant cumulative impact

(j) Noise. Buildout under the No Project alternative would result in less noise than under the proposed Focus Area Plan because there would be fewer vehicle trips than under the proposed

Plan. Although less overall development would occur, the No Project alternative would likely result in a similar *magnitude* of construction noise, construction vibration, on-site operational noise and vibration, and airport-related noise level impacts compared to the proposed Focus Area Plan due to the nature and construction types of development allowed under the alternative. As identified in Impact 13-7 (traffic noise), one roadway segment would exceed the City's noise criteria with buildout of the proposed Plan, but the reduction in daily trips under this alternative (an approximately 42 percent decrease compared to the Plan) could result in enough of a change in noise along this segment that the additional noise would not exceed the City's noise criteria. However, without specific traffic and noise modeling, it would be difficult to definitively determine the extent of the reduction in trips (as well as trip assignment and trip distribution). Compared to the Focus Area Plan, other impacts would be reduced; however, these other Focus Area Plan impacts are already either less than significant or mitigatable. If the traffic reduction is sufficient, there would be no significant unavoidable traffic impact and no cumulatively considerable contribution to a significant cumulative traffic noise impact.[1]

(k) Population and Housing. This alternative would result in no increase in housing and population in the Plan Area (except for the Greystar project) nor would new housing be available to meet community and regional needs for market-rate and affordable housing. The No Project alternative would not address the City's existing jobs/housing imbalance and could increase the length of commutes in Santa Clara. Compared to the Focus Area Plan, impacts under this alternative would be similar and less than significant, and there would be no cumulatively considerable contribution to a significant cumulative impact.

(l) Public Services. Compared to the proposed Focus Area Plan, this alternative would result in fewer impacts on fire protection/emergency medical service, police service, public schools, parks, and other public facilities (e.g., library, community center) because there would be no new residents and fewer employees requiring public services. However, less development could also mean fewer development fees and less tax revenue to maintain and enhance public services. Impacts under this alternative would be similar to those under the proposed Plan, which are already less than significant, and there would be no cumulatively considerable contribution to a significant cumulative impact.

(m) Recreation. Because no residential uses would be developed (except for the Greystar project), no new parks or open spaces would be required under the No Project alternative. Compared to the proposed Focus Area Plan, this alternative would result in fewer impacts on City recreation resources because there would be no new residents requiring recreation services. However, less development could also mean fewer development fees and less tax revenue to maintain and enhance recreation facilities and services. Impacts under this alternative would be similar to those under the proposed Plan, which are already less than significant, and there would be no cumulatively considerable contribution to a significant cumulative impact.

[1]As shown in Table 13-12 in chapter 13, Noise, of this EIR, traffic along Agnew Rd/Freedom Circle south of Mission College Boulevard would more than quadruple with Focus Area Plan buildout (from 5,167 ADT without Focus Area Plan buildout to 22,400 ADT with Focus Area Plan buildout). This would result in a change in noise levels (+6.3 dB CNEL) that exceeds the City's noise standard (described in EIR Chapter 13). Without specific traffic and noise modeling, it would be difficult to conclusively determine the reduction in trips necessary to reduce this impact to a less-than-significant level. However, under this alternative, the 42 percent reduction in trips projected under this alternative could conceivably be sufficient to reduce this traffic noise impact to a less-than-significant level.

(n) Transportation. Under the No Project alternative, average daily traffic (ADT) and vehicle miles traveled (VMT) per capita associated with workers in the Plan Area would be anticipated to increase compared to the proposed Focus Area Plan; however, the No Project alternative would not provide for pedestrian, bicycle, and transit improvements. Because this alternative would not include any residential uses (except for the Greystar project), it would not address the City's existing jobs/housing imbalance and could increase the length of commutes in Santa Clara. Despite a potential increase in ADT and VMT per capita/employee, impacts under this alternative would be generally similar compared to the Focus Area Plan, which are already either less than significant or mitigable; there would be no cumulatively considerable contribution to a significant cumulative impact.

(o) Utilities and Service Systems. This alternative would result in reduced water demand, wastewater generation, and solid waste compared to the proposed Focus Area Plan. New infrastructure would be maintained or constructed as required, though not as a planned, integrated set of improvements specifically for the Plan Area. Impacts under this alternative would be similar to those under the proposed Plan, which are already either less than significant or mitigatable; however, there would remain a cumulatively considerable contribution to a significant cumulative impact (Impact 18-1 [water supply] and Impact 18-5 [wastewater pump station capacity]), though still mitigatable.

21.2.3 Attainment of Basic Project Objectives

This alternative would be less effective in achieving the following basic project objectives (see beginning of this chapter):

- Develop an urban-scale mixed-use activity center in North Santa Clara to support economic vitality while increasing residential options.
- Provide for a range of housing types and densities to accommodate future residents and to create diversity in building scale and typology.
- Create a complete neighborhood that provides easy access to day-to-day services and amenities for residents, employees and visitors.
- Reduce reliance on private vehicles and improve jobs/housing balance by locating amenities and jobs within walking distance to housing.
- Create a human scaled public realm through inviting architecture and urban design.
- Improve multi-modal transportation options and connections.

Unlike the current General Plan, the Focus Area Plan would support coordinated and integrated frameworks and design standards and guidelines intended to make their implementation more feasible and efficient with adoption of a comprehensive planning study (e.g., specific plan) as required by the General Plan.

21.3 ALTERNATIVE FC-2: MAINLY COMMERCIAL OFFICE DEVELOPMENT

21.3.1 Alternative FC-2 Characteristics

Under Alternative FC-2, a Freedom Circle Focus Area Plan would be adopted, but the maximum allowable office development would be approved (excluding parcels assumed not to be redeveloped, such as the hotel and other office buildings). Total office development would be 6,410,000 square feet, which would be an increase of 4,061,000 square feet over existing office development in the Plan Area and an increase of 1,041,000 square feet more than the proposed Focus Area Plan. No residential development would be included (besides the Greystar project), and because no other residential uses would be developed, no new parks or open spaces would be required (again, besides the Greystar project).

Alternative FC-2 would result in 2,525 fewer residential units and 5,732 fewer residents, but increases of 1,041,000 SF net new office development and 2,000 SF retail, and a 2.0-acre public park (both retail and the park would be on the Greystar site).

Relevant to air quality, energy, GHG, and noise impacts, and based on vehicle trip ratios by land use included in the transportation analysis for the Focus Area Plan (including a 4 percent reduction for transit use), the Mainly Commercial Office Development alternative would result in approximately 67,048 average daily vehicle trips (ADT). Existing conditions (what is on the ground now) generate about 17,365 ADT. The proposed Focus Area Plan would generate approximately 70,075 ADT. Therefore, the Mainly Commercial Development alternative would generate about 3,027 fewer ADT than the proposed Focus Area Plan.

The Mainly Commercial Office Development alternative would result in approximately 1,041,000 more square feet of commercial office development compared to the proposed Focus Area Plan. There would be no additional residential development or parkland (besides the Greystar project), and there would be 2,525 fewer residential units and 5,732 fewer new residents. Under this alternative, a Focus Area Plan would be adopted, but the goals and policies guiding the required, subsequent comprehensive plan would be revised/reformulated only for commercial office development.

21.3.2 Comparative Impacts and Mitigating Effects

(a) Aesthetic Resources. From the perspective of mainly commercial office development, the alternative would be expected to result in similar aesthetic and visual impacts compared with the proposed Focus Area Plan because the required, future comprehensive planning study for the Plan Area (e.g., specific plan) would need to include performance and design standards and guidelines that apply to all future individual development proposals in the Plan Area in order to comply with the General Plan. These performance and design standards and guidelines would help maintain a cohesive, compatible visual identity and sense of place in the Plan Area, as well as provide smooth transitions with adjacent neighborhoods and areas; under this alternative, they would be formulated to apply only to commercial development. Impacts under this alternative would be similar to those under the Focus Area Plan in that they would be either less than significant or mitigatable, and there would be no cumulatively considerable contribution to a significant cumulative impact.

(b) Air Quality. This alternative would result in decreased air pollutant emissions compared to the proposed Plan generally because there would be fewer daily vehicle trips (ADT). Based on

the size of the Plan Area (108 acres) and the development allowed under the Mainly Commercial Office Development alternative, the significant unavoidable air quality impacts (Impacts 5-3 [criteria air pollutants] and 5-5 [construction air emissions] in chapter 5, Air Quality) would not be reduced to a less than significant level because as discussed in EIR chapter 5, existing land uses already exceed BAAQMD significance thresholds for ROG. Compared to the Focus Area Plan, other impacts under this alternative would be reduced; however, these other Focus Area Plan impacts are already either less than significant or mitigatable, and there would remain a cumulatively considerable contribution to a significant cumulative impact (Impacts 5-3 [criteria air pollutants] and 5-5 [construction air emissions]).

(c) Biological Resources. Because the same overall amount of developable area in the Plan Area would be available and could be involved, under the Mainly Commercial Office Development alternative, there would be similar potential for disturbance of existing urban landscape habitat, similar potential for disturbance of nesting birds during construction, and similar potential for existing trees to be removed from the Plan Area. Similar to the Focus Area Plan, impacts under this alternative would be either less than significant or mitigable, and there would be no cumulatively considerable contribution to a significant cumulative impact.

(d) Cultural and Historical Resources. Because the same overall amount of developable area in the Plan Area would be available and could be involved, there would be similar physical impacts on undiscovered cultural and tribal cultural resources compared to the proposed Focus Area Plan. There still would be significant unavoidable impacts if buildings that attain historic status are demolished or are not rehabilitated according to the Secretary of the Interior's Standards (see Impact 7-1 [historic resources], in chapter 7, Cultural and Historical Resources). Similar to the Focus Area Plan, other impacts under this alternative would be either less than significant or mitigable, and there would still be potential for a considerable contribution to a significant cumulative impact (Impact 7-1 [historic resources]).

(e) Geology and Soils. With no residential development under the Mainly Commercial Development alternative, there would be fewer people exposed to potential ground shaking, liquefaction, lateral spreading, expansive soils, subsidence, and differential settlement hazards associated with geologic and soils conditions within the Plan Area. Similar to the Focus Area Plan, impacts under this alternative would be either less than significant or mitigable, and there would be no cumulatively considerable contribution to a significant cumulative impact.

(f) Greenhouse Gas Emissions and Energy. Buildout of the Plan Area under this alternative would result in a slight decrease in GHG emissions compared to the proposed Focus Area Plan because the alternative would result in fewer daily vehicle trips (ADT). However, because this alternative would not include any residential uses, it would not include pedestrian-, bicycle-, and transit-oriented improvements, nor would it address the City's existing jobs/housing imbalance, which could result in longer commutes in Santa Clara. Compared to the Focus Area Plan, impacts under this alternative would be reduced; however, Focus Area Plan impacts are already either less than significant or mitigatable, and there would be no cumulatively considerable contribution to a significant cumulative impact.

(g) Hazards and Hazardous Materials. With no residential development under the Mainly Commercial Development alternative, there would be less potential exposure of people to hazards and hazardous materials compared to the proposed Focus Area Plan. Similar to the Focus Area Plan, impacts under this alternative would be less than significant, and there would be no cumulatively considerable contribution to a significant cumulative impact.

(h) Hydrology and Water Quality. This alternative could have similar impacts on drainage and water quality compared to the proposed Focus Area Plan. From an engineering standpoint, surface runoff is determined by a parcel's impervious surface area and not by land use or density. Depending on specific site development proposals, there could be minimal change compared to the proposed Focus Area Plan, in terms of impervious surface area, stormwater runoff generation, and pollutant loading. Development under this alternative would still be subject to standard City stormwater runoff requirements. Similar to the Focus Area Plan, impacts under this alternative would be less than significant, and there would be no cumulatively considerable contribution to a significant cumulative impact.

(i) Land Use and Planning. The Mainly Commercial Development alternative could have greater impacts on land use and planning compared with the proposed Focus Area Plan without policies and/or standards ensuring compatible and integrated neighborhoods. Though impacts under this alternative would be somewhat greater than the Focus Area Plan (potential compatibility impacts), they would still be less than significant, and there would be no cumulatively considerable contribution to a significant cumulative impact

(j) Noise. Buildout under this alternative would result in less noise than under the proposed Focus Area Plan because there would be fewer vehicle trips than under the proposed Plan; however, significant unavoidable traffic noise impacts still would result (see Impact 13-7 [traffic noise], in chapter 13, Noise) because the reduction in traffic would be very large (approximately four percent). In addition, development under this alternative would likely result in a similar *magnitude* of construction noise, construction vibration, on-site operational noise and vibration, and airport-related noise level impacts compared to the proposed Focus Area Plan due to the nature and construction types of development allowed under the alternative. Compared to the Focus Area Plan, other impacts would be reduced; however, these other Focus Area Plan impacts are already either less than significant or mitigatable, and there would remain a cumulatively considerable contribution to a significant cumulative impact (Impact 13-7 [traffic noise]).

(k) Population and Housing. The Mainly Commercial Office Development alternative would result in no change in housing and population in the Plan Area. This alternative would not provide any new housing available to meet community and regional needs for market-rate housing and affordable housing as with the proposed Focus Area Plan (except for the Greystar project). The Mainly Commercial Office Development alternative would not address the City's existing jobs/housing imbalance and could increase the length of commutes in Santa Clara. Compared to the Focus Area Plan, impacts under this alternative would be similar and less than significant, and there would be no cumulatively considerable contribution to a significant cumulative impact.

(l) Public Services. With no new residents, compared to the proposed Focus Area Plan, this alternative could result in fewer impacts on fire protection/emergency medical service, police service, public schools, parks, and other public facilities (e.g., library, community center); however, the worker population resulting from the Mainly Commercial Office Development alternative would also require public services, which could result in a significant impact. Similar to the Focus Area Plan, impacts under this alternative would be less than significant, and there would be no cumulatively considerable contribution to a significant cumulative impact.

(m) Recreation. Because no residential uses would be developed, no new parks or open spaces would be required under the Mainly Commercial Office Development alternative (although the 2.0-acre park proposed for the Greystar project would still be developed). Compared to the proposed Focus Area Plan, this alternative would result in fewer impacts on recreational services. Impacts under this alternative would be similar to those under the proposed Plan, which are already less than significant, and there would be no cumulatively considerable contribution to a significant cumulative impact.

(n) Transportation. Under the Mainly Commercial Office Development alternative, ADT and VMT from new development within the Plan Area would result in a decrease compared to the proposed Focus Area Plan, although length of trips could increase and VMT per capita or per employee would be greater. This alternative would also not include any residential uses, so pedestrian, bicycle, and transit circulation and connectivity improvements would not be likely to be implemented; the alternative would also not address the City's existing jobs/housing imbalance, thereby potentially increasing the length of commutes in Santa Clara. Despite a potential increase in trip length and VMT per capita/employee, impacts under this alternative would be generally similar compared to the Focus Area Plan, which are already less than significant; there would be no cumulatively considerable contribution to a significant cumulative impact.

(o) Utilities and Service Systems. Although no residential uses would be developed, this alternative would result in increased water demand, wastewater generation, and solid waste compared to the proposed Focus Area Plan due to the substantial commercial office development, which would result in increased utility and service systems impacts compared to the Focus Area Plan. Impacts under this alternative would be increased somewhat compared to those under the proposed Plan, they would also be either less than significant or mitigatable as with the Plan; however, there would remain a cumulatively considerable contribution to a significant cumulative impact (Impact 18-1 [water supply] and Impact 18-5 [wastewater pump station capacity]), though still mitigatable.

21.3.3 Attainment of Basic Project Objectives

With no residential uses and mainly commercial development, the alternative would be less effective in achieving the following basic project objectives:

- Develop an urban-scale mixed-use activity center in North Santa Clara to support economic vitality while increasing residential options.
- Provide for a range of housing types and densities to accommodate future residents and to create diversity in building scale and typology.
- Create a complete neighborhood that provides easy access to day-to-day services and amenities for residents, employees and visitors.
- Reduce reliance on private vehicles and improve jobs/housing balance by locating amenities and jobs within walking distance to housing.

The alternative would be somewhat effective in achieving the following basic project objectives (primarily due to inclusion of the Greystar project):

- Create a human scaled public realm through inviting architecture and urban design.
- Improve multi-modal transportation options and connections.
- Enhance connectivity to the San Tomas Aquino Creek trail.

A Focus Area Plan would be adopted, but the goals and policies guiding the required, subsequent comprehensive plan would be formulated only for commercial office development. Basic project objectives related to providing residential and open space/recreational opportunities would not be implemented.

21.4 ALTERNATIVE FC-3: MAINLY RESIDENTIAL DEVELOPMENT

21.4.1 Alternative FC-3 Characteristics

Under Alternative FC-3, a Freedom Circle Focus Area Plan would be adopted, but all development would be multi-family residential. No community development would be included in the Focus Area Plan. Alternative FC-3 would result in a net reduction of 3,501,000 less square feet of office space, but a net gain of approximately 1,871 multi-family dwelling units, for a total of 5,471 dwelling units in the Plan Area.[1]

Overall impacts throughout the Plan Area would be expected to be higher, generally due to the single-use (residential) aspect of the alternative.

Relevant to air quality, energy, GHG, and noise impacts, and based on vehicle trip ratios by land use included in the transportation analysis for the Focus Area Plan (including a 4 percent reduction for transit use), the Mainly Residential Development alternative would result in approximately 48,726 average daily vehicle trips (ADT). Existing conditions (what is on the ground now) generate about 17,365 ADT. The proposed Focus Area Plan would generate approximately 70,075. Therefore, the Mainly Residential Development alternative would generate about 21,349 fewer ADT than the proposed Focus Area Plan.

The Mainly Residential alternative would result in 1,871 more residential units, 4,247 more new residents, and 3,501,000 less square feet of non-residential development compared to the proposed Focus Area Plan. Under this alternative, a Focus Area Plan would be adopted, but the goals and policies guiding the required, subsequent comprehensive plan would be formulated only for residential development.

21.4.2 Comparative Impacts and Mitigating Effects

(a) Aesthetic Resources. From the perspective of mainly residential development, the alternative would be expected to result in similar aesthetic and visual impacts compared with the proposed Focus Area Plan because the required, future comprehensive planning study for the

[1]The residential density calculations are based on the gross acreage of the parcels in Plan Area assumed to be redeveloped (54.41 acres) multiplied by 80.8 dwelling units (du) per acre (ac), which is the overall density of the Greystar project (1,075 du/13.3 ac = 80.8 du/ac). For the remaining Plan Area assumed not to be redeveloped, such as the hotel and other office buildings, plus the one project already approved, the same growth increment was applied as under the "No Project" alternative, which would result in an increase in office from 1,079,000 SF to 1,868,000 SF.

Plan Area (e.g., specific plan) would need to include performance and design standards and guidelines that apply to all future individual development proposals in the Plan Area in order to comply with the General Plan. These performance and design standards and guidelines would help maintain a cohesive, compatible visual identity and sense of place in the Plan Area, as well as provide smooth transitions with adjacent neighborhoods and areas; under this alternative, they would be formulated to apply only to residential development. Impacts under this alternative would be similar to those under the Focus Area Plan in that they would be either less than significant or mitigatable, and there would be no cumulatively considerable contribution to a significant cumulative impact.

(b) Air Quality. This alternative would result in decreased air pollutant emissions compared to the proposed Plan generally because there would be fewer daily vehicle trips (ADT). Based on the size of the Plan Area (108 acres) and the development allowed under the Mainly Residential Development alternative, the significant unavoidable air quality impacts (Impacts 5-3 [criteria air pollutants] and 5-5 [construction air emissions] in chapter 5, Air Quality) would not be reduced to a less than significant level because as discussed in EIR chapter 5, existing land uses already exceed BAAQMD significance thresholds for ROG. Compared to the Focus Area Plan, other impacts would be reduced; however, these other Focus Area Plan impacts are already either less than significant or mitigatable, and there would remain a cumulatively considerable contribution to a significant cumulative impact (Impacts 5-3 [criteria air pollutants] and 5-5 [construction air emissions]).

(c) Biological Resources. Because the same overall amount of developable area in the Plan Area would be available and could be involved, under the Mainly Residential Development alternative, there would be similar potential for disturbance of existing urban landscape habitat, similar potential for disturbance of nesting birds during construction, and similar potential for existing trees to be removed from the Plan Area. Similar to the Focus Area Plan, impacts under this alternative would be either less than significant or mitigable, and there would be no cumulatively considerable contribution to a significant cumulative impact.

(d) Cultural and Historical Resources. Because the same overall amount of developable area in the Plan Area would be available and could be involved, there would be similar physical impacts on undiscovered cultural and tribal cultural resources compared to the proposed Focus Area Plan. There still would be significant unavoidable impacts if buildings that attain historic status are demolished or are not rehabilitated according to the Secretary of the Interior's Standards (see Impact 7-1 [historic resources] in chapter 7, Cultural and Historical Resources). Similar to the Focus Area Plan, other impacts under this alternative would be either less than significant or mitigable, and there would still be potential for a considerable contribution to a significant cumulative impact (Impact 7-1 [historic resources]).

(e) Geology and Soils. With more residential development under the alternative, there would be more people exposed to potential ground shaking, liquefaction, lateral spreading, expansive soils, subsidence, and differential settlement hazards associated with geologic and soils conditions within the Plan Area. Though impacts under this alternative would be somewhat greater than the Focus Area Plan (more people in area), they would still be either less than significant or mitigable, and there would be no cumulatively considerable contribution to a significant cumulative impact.

(f) Greenhouse Gas Emissions and Energy. Buildout of the Plan Area under this alternative would result in an overall decrease in GHG emissions compared to the proposed Focus Area

Plan generally because the alternative would result in a decrease in daily vehicle trips (ADT). This alternative would include up to 1,871 additional residential units compared to the proposed Plan, so it would better address the City's existing jobs/housing imbalance. Compared to the Focus Area Plan, impacts under this alternative would be reduced; however, Focus Area Plan impacts are already either less than significant or mitigatable, and there would be no cumulatively considerable contribution to a significant cumulative impact.

(g) Hazards and Hazardous Materials. More new residents under the Mainly Residential Development alternative would result in more potential exposure of people to hazards and hazardous materials compared to the proposed Focus Area Plan. Though impacts under this alternative would be somewhat greater than the Focus Area Plan (more people in area), they would still be less than significant, and there would be no cumulatively considerable contribution to a significant cumulative impact.

(h) Hydrology and Water Quality. This alternative could have similar impacts on drainage and water quality compared to the proposed Focus Area Plan. From an engineering standpoint, surface runoff is determined by a parcel's impervious surface area and not by land use or density. Depending on specific site development proposals, there could be limited change, compared to the proposed Focus Area Plan, in terms of impervious surface area, stormwater runoff generation, and pollutant loading. Development under this alternative would still be subject to standard City stormwater runoff requirements. Similar to the Focus Area Plan, impacts under this alternative would be less than significant, and there would be no cumulatively considerable contribution to a significant cumulative impact.

(i) Land Use and Planning. The Mainly Residential Development alternative could have greater impacts on land use and planning compared with the proposed Focus Area Plan without policies and/or standards ensuring compatible and integrated neighborhoods. Though impacts under this alternative would be somewhat greater than the Focus Area Plan (potential compatibility impacts), they would still be less than significant, and there would be no cumulatively considerable contribution to a significant cumulative impact.

(j) Noise. Buildout under this alternative would result in less noise than under the proposed Focus Area Plan due to fewer vehicles added to the local roadways. The Mainly Residential Development alternative would likely result in a similar *magnitude* of construction noise, construction vibration, on-site operational noise and vibration, and airport-related noise level impacts compared to the proposed Focus Area Plan due to the nature and construction types of development allowed under the alternative. As identified in Impact 13-7 (traffic noise), one roadway segment would exceed the City's noise criteria with buildout of the proposed Plan, but the reduction in daily trips under this alternative (an approximately 30 percent decrease compared to the Plan) could result in a small enough change in noise along this segment that the additional noise would not exceed the City's noise criteria. However, without specific traffic and noise modeling, it would be difficult to definitively determine the extent of the reduction in trips (as well as trip assignment and trip distribution). Compared to the Focus Area Plan, other impacts would be reduced; however, these other Focus Area Plan impacts are already either less than significant or mitigatable. Therefore, if the traffic reduction is sufficient, there would be

no significant unavoidable traffic impact and no cumulatively considerable contribution to a significant cumulative traffic noise impact.[1]

(k) Population and Housing. The Mainly Residential Development alternative would increase housing and population in the Plan Area compared to the proposed Focus Area Plan. This alternative would increase the new housing available to meet community and regional needs for market-rate housing and affordable housing. It would address the City's existing jobs/housing imbalance and could reduce the length of commutes in Santa Clara. Compared to the Focus Area Plan, impacts under this alternative would be similar and less than significant, and there would be no cumulatively considerable contribution to a significant cumulative impact.

(l) Public Services. With more new residents compared to the proposed Focus Area Plan, this alternative could result in more impacts on fire protection/emergency medical service, police service, public schools, parks, and other public facilities (e.g., library, community center). Though impacts under this alternative would be somewhat greater than the Focus Area Plan (more people in area), they would still be less than significant, and there would be no cumulatively considerable contribution to a significant cumulative impact.

(m) Recreation. Compared to the proposed Focus Area Plan, this alternative would result in increased impacts on recreational services because projected residential buildout would increase the residential population, resulting in more people using City parks and recreational facilities, thereby contributing to the deterioration of existing park and recreation resources. Though impacts under this alternative would be somewhat greater than the Focus Area Plan (more people in area), they would still be less than significant, and there would be no cumulatively considerable contribution to a significant cumulative impact.

(n) Transportation. Under the Mainly Residential Development alternative, ADT and VMT from new development within the Plan Area would decrease compared to the proposed Focus Area Plan. This alternative would include more residential units, so it would better address the City's existing jobs/housing imbalance and could decrease the length of commutes in Santa Clara, but could also alternatively reduce the internal capture rate of trips. Compared to the Focus Area Plan, impacts under this alternative would be reduced; however, Focus Area Plan impacts are already less than significant, and there would be no cumulatively considerable contribution to a significant cumulative impact.

(o) Utilities and Service Systems. This alternative would result in increased water demand, wastewater generation, and solid waste compared to the proposed Focus Area Plan because of the increase in residential units. Although impacts under this alternative would be increased compared to those under the proposed Plan, they would also be either less than significant or mitigatable as with the Plan; however, there would remain a cumulatively considerable

[1]As shown in Table 13-12 in chapter 13, Noise, of this EIR, traffic along Agnew Rd/Freedom Circle south of Mission College Boulevard would more than quadruple with Focus Area Plan buildout (from 5,167 ADT without Focus Area Plan buildout to 22,400 ADT with Focus Area Plan buildout). This would result in a change in noise levels (+6.3 dB CNEL) that exceeds the City's noise standard (described in EIR Chapter 13). Without specific noise modeling, it would be difficult to conclusively determine the reduction in trips necessary to reduce this impact to a less-than-significant level. However, under this alternative, the 30 percent reduction in trips projected under this alternative could conceivably be sufficient to reduce this traffic noise impact to a less-than-significant level.

contribution to a significant cumulative impact (Impact 18-1 [water supply] and Impact 18-5 [wastewater pump station capacity]), though still mitigatable.

21.4.3 Attainment of Basic Project Objectives

The Mainly Residential Development alternative, with more residential development, would be *more effective* in achieving the following basic project objectives:

- Develop an urban-scale mixed-use activity center in North Santa Clara to support economic vitality while increasing residential options.
- Provide for a range of housing types and densities to accommodate future residents and to create diversity in building scale and typology.
- Create a human scaled public realm through inviting architecture and urban design.
- Improve multi-modal transportation options and connections.
- Enhance connectivity to the San Tomas Aquino Creek trail.

This alternative would be less effective at achieving the remaining project objectives listed at the beginning of this chapter.

A Focus Area Plan would be adopted, but the goals and policies guiding the required, subsequent comprehensive plan would be formulated only for residential development.

21.5 ALTERNATIVE FC-4: REDUCED FOCUS AREA PLAN (WITH GREYSTAR PROJECT)

21.5.1 Alternative FC-4 Characteristics

Under Alternative FC-4 (Reduced Focus Area Plan—With Greystar Project), a Focus Area Plan would be adopted but overall development would be reduced by 20 percent (except for the Greystar project, which would be included as proposed). Alternative FC-4 would result in approximately 3,075 residential units (a net reduction of 525 units); 2,695,200 square feet of commercial office (a net reduction of 2,673,800 square feet); and a minimum of 2.0 acres of new public parkland (for the Greystar project site). This alternative would not restrict development in the Plan Area, and all other Plan frameworks and design standards and guidelines would be anticipated to remain essentially the same. Overall impacts throughout the Plan Area would be expected to be lower, though not substantially.

For this alternatives analysis it is assumed that the Greystar project, which could theoretically be approved without approval of the Focus Area Plan, would be a reasonably foreseeable development, and therefore the Greystar project has been included in this “reduced” alternative. (For a discussion of what the effects would be without the Greystar project, see the discussion below for “No Project-No Greystar project” alternative.)

Relevant to air quality, energy, GHG, and noise impacts, and based on vehicle trip ratios by land use included in the transportation analysis for the Focus Area Plan (including a 4 percent reduction for transit use), the Reduced Plan Alternative would generate approximately 44,276

average daily vehicle trips (ADT).[1] Existing conditions (what is on the ground now) generate about 17,365 ADT. The proposed Focus Area Plan would generate approximately 70,075 ADT. Therefore, the Reduced Plan Alternative would generate about 25,349 fewer ADT than the proposed Focus Area Plan.[2]

The Reduced Plan alternative would result in 525 fewer residential units, 1,192 fewer new residents, and 2,673,800 less square feet of non-residential development compared to the proposed Focus Area Plan. Under this alternative, a Freedom Circle Focus Area Plan would be adopted with the same policies and guidelines, but with a lower total development capacity (reduced by 20 percent); in addition, the Greystar project would be included as reasonably foreseeable development.

21.5.2 Comparative Impacts and Mitigating Effects

(a) Aesthetic Resources. From the perspective of less development, the Reduced Plan alternative could have reduced impacts on aesthetic and visual resources compared with the Focus Area Plan as proposed. However, there could also be somewhat less enhanced visual character, identity, and cohesion with development due to lack of cohesive, compatible visual identity and sense of place desired for the Plan Area. However, compared to the Focus Area Plan, impacts under this alternative would generally be reduced, though Focus Area Plan impacts are already either less than significant or mitigatable, and there would be no cumulatively considerable contribution to a significant cumulative impact.

(b) Air Quality. This alternative would result in decreased air pollutant emissions compared to the proposed Plan generally because there would be fewer daily vehicle trips (ADT). Based on the size of the Plan Area (108 acres) and the development allowed under the Reduced Plan alternative, the significant unavoidable air quality impacts (Impacts 5-3 [criteria air pollutants] and 5-5 [construction air emissions] in chapter 5, Air Quality) would be reduced but not likely to an extent that would result in a less than significant level because, as discussed in EIR chapter 5, existing land uses already exceed BAAQMD significance thresholds for ROG. Compared to the Focus Area Plan, other impacts would be reduced; however, these other Focus Area Plan impacts are already either less than significant or mitigatable, and there would remain a cumulatively considerable contribution to a significant cumulative impact.

(c) Biological Resources. Because the same overall amount of developable area in the Plan Area would be available and could be involved, under the Reduced Plan alternative, there would be similar potential for disturbance of existing urban landscape habitat, similar potential for disturbance of nesting birds during construction, and similar potential for existing trees to be removed from the Plan Area. As with the Focus Area Plan, impacts under this alternative would be either less than significant or mitigable, and there would be no cumulatively considerable contribution to a significant cumulative impact.

[1]It should be kept in mind that because the travel demand modeling for Plan development shows different distributions on the roadway system, a broadly defined 20 percent reduction in overall development would not automatically mean a 20 percent reduction in trips on any particular roadway segment. More detailed analysis requiring model runs would be required to determine the reduction in trips, but as noted above, CEQA Guidelines 15126.6 allows a less detailed discussion of alternatives.

[2]Hexagon Transportation Consultants, Inc., "Freedom Circle Focus Area Plan and Greystar General Plan Amendment Transportation Analysis," prepared for MIG, Inc., September 24, 2021.

(d) Cultural and Historical Resources. Because the same overall amount of developable area in the Plan Area would be available and could be involved, there would be similar physical impacts on undiscovered cultural and tribal cultural resources compared to the proposed Focus Area Plan. There still would be significant unavoidable impacts if buildings that attain historic status are demolished or are not rehabilitated according to the Secretary of the Interior's Standards (see Impact 7-1 [historic resources], in chapter 7, Cultural and Historical Resources). Similar to the Focus Area Plan, other impacts under this alternative would be either less than significant or mitigable, and there would still be potential for a considerable contribution to a significant cumulative impact.

(e) Geology and Soils. The Reduced Plan alternative would attract fewer people who could be exposed to potential ground shaking, liquefaction, lateral spreading, expansive soils, subsidence, and differential settlement hazards associated with geologic and soils conditions within the Plan Area. However, similar to the Focus Area Plan, impacts under this alternative would be either less than significant or mitigable, and there would be no cumulatively considerable contribution to a significant cumulative impact.

(f) Greenhouse Gas Emissions and Energy. Buildout of the Plan Area under this alternative would result in a decrease in GHG emissions compared to the proposed Focus Area Plan because the alternative would result in fewer daily vehicle trips (ADT). However, this alternative would not address the City's existing jobs/housing imbalance as fully as the proposed Focus Area Plan, and therefore could result in longer commutes in Santa Clara. Compared to the Focus Area Plan, impacts under this alternative would be reduced; however, Focus Area Plan impacts are already either less than significant or mitigatable, and there would be no cumulatively considerable contribution to a significant cumulative impact.

(g) Hazards and Hazardous Materials. The reduced development under the Reduced Plan alternative would attract fewer people, resulting in less potential exposure of people and property to hazards and hazardous materials compared to the proposed Focus Area Plan. Similar to the Focus Area Plan, impacts under this alternative would be less than significant, and there would be no cumulatively considerable contribution to a significant cumulative impact.

(h) Hydrology and Water Quality. The Reduced Plan alternative could have similar impacts on drainage and water quality compared to the proposed Focus Area Plan. From an engineering standpoint, surface runoff is determined by a parcel's impervious surface area and not by land use or density. Less development under the Reduced Plan alternative could have a more limited effect over existing conditions, compared to the Focus Area Plan, in terms of impervious surface area, stormwater runoff generation, and pollutant loading. However, development under this alternative still would be subject to standard City stormwater runoff requirements. Similar to the Focus Area Plan, impacts under this alternative would be less than significant, and there would be no cumulatively considerable contribution to a significant cumulative impact.

(i) Land Use and Planning. The Reduced Plan alternative would have similar impacts on land use and planning compared with the proposed Focus Area Plan because the overarching goals of the proposed Focus Area Plan would still be implemented, even if on a somewhat reduced scale, and this would still support compatible and integrated neighborhoods. Though impacts under this alternative would be somewhat greater than the Focus Area Plan (there could be some gaps in neighborhoods or other minor incompatibilities), these impacts would still be less than significant, and there would be no cumulatively considerable contribution to a significant cumulative impact

(j) Noise. Buildout under the Reduced Plan alternative would result in less noise than under the proposed Focus Area Plan because there would be fewer vehicle trips than under the proposed Plan. Although less overall development would occur, the Reduced Plan alternative would likely result in a similar *magnitude* of construction noise, construction vibration, on-site operational noise and vibration, and airport-related noise level impacts compared to the proposed Focus Area Plan due to the nature and construction types of development allowed under the alternative. As identified in Impact 13-7 (traffic noise), one roadway segment would exceed the City's noise criteria with buildout of the proposed Plan, but the reduction in daily trips under this alternative (an approximately 30 percent decrease compared to the Plan) could result in a small enough change in noise along this segment that the additional noise would not exceed the City's noise criteria. However, without specific noise modeling, it would be difficult to definitively determine the extent of the reduction in trips (as well as trip assignment and trip distribution). Compared to the Focus Area Plan, other impacts would be reduced, though these other Focus Area Plan impacts are already either less than significant or mitigatable. Therefore, if the traffic reduction is sufficient, there would be no significant unavoidable traffic impact and no cumulatively considerable contribution to a significant cumulative traffic noise impact.[1]

(k) Population and Housing. This alternative would result in a smaller increase in housing and population in the Plan Area than under the proposed Focus Area Plan, and it would include less new housing to meet community and regional needs for market-rate and affordable housing. This alternative would help to address the City's existing jobs/housing imbalance but not to the extent of the proposed Focus Area Plan. Compared to the Focus Area Plan, impacts under this alternative would be similar and less than significant, and there would be no cumulatively considerable contribution to a significant cumulative impact.

(l) Public Services. Compared to the proposed Focus Area Plan, this alternative would result in fewer impacts on fire protection/emergency medical service, police service, public schools, parks, and other public facilities (e.g., library, community center) because there would be fewer new residents and fewer employees requiring public services. However, the reduced development could also mean fewer development fees and less tax revenue to maintain and enhance public services. Impacts under this alternative would be similar to those under the proposed Plan, which are already less than significant, and there would be no cumulatively considerable contribution to a significant cumulative impact.

(m) Recreation. Because fewer residential units would be developed, less public park and/or open space would be required under this alternative. Compared to the proposed Focus Area Plan, this alternative would still result in fewer impacts on City recreation resources because there would be fewer new residents and fewer new employees requiring recreation services. However, less development could also mean fewer development fees and less tax revenue to maintain and enhance recreation facilities and services. Impacts under this alternative would be

[1]As shown in Table 13-12 in chapter 13, Noise, of this EIR, traffic along Agnew Rd/Freedom Circle south of Mission College Boulevard would more than quadruple with Focus Area Plan buildout (from 5,167 ADT without Focus Area Plan buildout to 22,400 ADT with Focus Area Plan buildout). This would result in a change in noise levels (+6.3 dB CNEL) that exceeds the City's noise standard (described in EIR Chapter 13). Without specific noise modeling, it would be difficult to conclusively determine the reduction in trips necessary to reduce this impact to a less-than-significant level. However, under this alternative, the 30 percent reduction in trips projected under this alternative could conceivably be sufficient to reduce this traffic noise impact to a less-than-significant level.

similar to those under the proposed Plan, which are already less than significant, and there would be no cumulatively considerable contribution to a significant cumulative impact.

(n) Transportation. Because this alternative would include residential uses, it would help to address the City's existing jobs/housing imbalance, though to a lesser extent than the proposed Plan. Impacts under this alternative would be generally similar compared to the Focus Area Plan, which are already less than significant; there would be no cumulatively considerable contribution to a significant cumulative impact.

(o) Utilities and Service Systems. This alternative would result in reduced water demand, wastewater generation, and solid waste compared to the proposed Focus Area Plan. New infrastructure would be maintained or constructed as required. Impacts under this alternative would be similar to those under the proposed Plan, which are already either less than significant or mitigatable; however, there would remain a cumulatively considerable contribution to a significant cumulative impact (Impact 18-1 [water supply] and Impact 18-5 [wastewater pump station capacity]), though still mitigatable.

21.5.3 Attainment of Basic Project Objectives

This alternative would be less effective in achieving the following basic project objective (see beginning of this chapter):

- Provide for a range of housing types and densities to accommodate future residents and to create diversity in building scale and typology.

This alternative would be generally effective in achieving the following basic project objectives:

- Develop an urban-scale mixed-use activity center in North Santa Clara to support economic vitality while increasing residential options.
- Create a complete neighborhood that provides easy access to day-to-day services and amenities for residents, employees and visitors.
- Reduce reliance on private vehicles and improve jobs/housing balance by locating amenities and jobs within walking distance to housing.
- Create a human scaled public realm through inviting architecture and urban design.
- Improve multi-modal transportation options and connections.

The Reduced Plan Alternative would still largely support coordinated and integrated frameworks and design standards and guidelines intended to make their implementation more feasible and efficient with adoption of a comprehensive planning study (e.g., specific plan) as required by the General Plan.

21.6 ALTERNATIVE FC-5: ALTERNATIVE PROJECT LOCATION (CONSIDERED BUT REJECTED)

Section 15126.6(a) of the CEQA Guidelines states, "An EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic project objectives but would avoid or substantially lessen any of the significant effects of the project[.]" Further, section 15126.6(c) explains, "Among the factors that may be used to eliminate alternatives from detailed consideration in an EIR are: (i) failure to meet most of the basic project objectives, (ii) infeasibility, or (iii) inability to avoid significant environmental effects." To help clarify the meaning of "feasibility," CEQA Guidelines section 15126.6(f)(1) (Rule of Reason/Feasibility) states, "Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries...and whether the proponent can reasonably acquire, control, or otherwise have access to the alternative site….No one of these factors establishes a fixed limit on the scope of reasonable alternatives."

Santa Clara is an incorporated city bordered by the cities of Sunnyvale and Cupertino to the west, San Jose to the south and east, and Milpitas to the northeast. The approximately 108-acre Plan Area is completely surrounded by existing development. The Plan Area has been designated a Priority Development Area by ABAG as an area of growth due primarily to its location, the presence of nearby employment opportunities, and the availability of infrastructure (e.g., utility systems, transportation network - including light trail and Alameda Corridor Express and freeways). This situation provides an opportunity to accommodate projected growth while allowing the City to preserve its existing single family and other low-density neighborhoods.

An alternative location for the Freedom Circle Focus Area Plan is not feasible primarily because this is an area where developers with large landholdings are interested in redevelopment, which is the why this area was identified by the City. The City has not identified any other areas that could implement this high-density residential development that are not either currently under development review or already undergoing a planning study.

In addition, the CEQA Guidelines note that the alternatives evaluated in an EIR should be selected based on their ability to avoid or substantially lessen the significant impacts of the proposed project. Even if an alternative location for the project could implement the basic project objectives, only those locations that would avoid or substantially lessen any of the significant impacts of the project need to be considered in the EIR.

In the case of identified significant impacts under the proposed Freedom Circle Focus Area Plan, (1) feasible mitigation measures are available to reduce most impacts to less-than-significant levels (with the exception of air quality, cultural resources, and traffic noise impacts), and (2) transferring these potentially significant impacts to an alternative location still could substantially affect the environment, possibly worse than in the Plan Area, where coordinated infrastructure, services, regulations, plans, and proximity to transit resources already are in place to avoid or reduce significant environmental impacts. For instance, the significant and unavoidable impacts identified in the EIR and summarized at the beginning of this chapter would occur at a new location, with the possible exception of traffic noise impacts--i.e., air quality impacts would result wherever the Plan was implemented (e.g., constructed), and historic impacts would remain because currently non-historic buildings may be recognized as

historic in the future, if the people or events associated with those buildings become historically or culturally distinguished.

Because an alternative project location would be infeasible, would not necessarily avoid or lessen the significant impacts of the proposed project and might result in new significant impacts, and would not necessarily be able to achieve the basic project objectives, a project alternative in a different location was eliminated from further detailed consideration. No further evaluation of alternative project locations is required under CEQA.[1]

21.7 GREYSTAR ALTERNATIVE G-1: NO PROJECT - EXISTING CITY OF SANTA CLARA 2010-2035 GENERAL PLAN

21.7.1 Alternative G-1 Characteristics

Under Alternative G-1 (No Project), there would be no change in the current land use and zoning controls on the Greystar project site. The Greystar project would not be approved, and development would be allowed to proceed under the current 2010-2035 General Plan. The No Project alternative would continue to allow development under the existing High Intensity Office/R&D (HDRD) General Plan designation. The HDRD classification would accommodate medical facilities, data centers (and supporting on-site uses), and campus-like corporate/office developments with a maximum Floor Area Ratio (FAR) of 2.00. Because no residential uses would be developed, no new parks or open spaces would be required.

The project site is currently vacant. Potential allowable development under the site's existing General Plan designation (HDRD) would allow a FAR of 2.0; at 13.3 acres, this could result in up to 1,158,696 square feet of development, or 1,159,000 (rounded up).

No residential development would occur on the Greystar site, and no parkland would be required (i.e., the 2.0-acre public park would not be developed). In addition, there would be no retail development.

Relevant to air quality, energy, GHG, and noise impacts, and based on vehicle trip ratios by land use included in the transportation analysis for the Greystar project (including a 4 percent reduction for transit use), the No Project alternative would generate approximately 10,860 average daily vehicle trips (ADT). Existing conditions (what is on the ground now) generate nominal ADT (occasional trips for maintenance landscaping). The proposed Greystar project

[1]CEQA Guidelines section 15126.6(c) explains that alternatives may be eliminated from detailed consideration in the EIR if they fail to meet most of the basic project objectives, are infeasible, or do not avoid significant environmental effects. CEQA Guidelines section 15126.6(f) indicates that the Lead Agency should consider site suitability, economic viability, availability of infrastructure, general plan consistency, other regulatory limitation, jurisdictional boundaries, and the proponent's control over alternative sites in determining the range of alternatives to be evaluated in an EIR. With respect to alternative locations, CEQA Guidelines section 15126.6(f) indicates that alternative locations need not be evaluated in every case. The key question in determining whether to evaluate alterative locations is whether any of the significant effects of the project would be avoided or substantially lessened by putting the project in another location. Only locations that would avoid or substantially lessen significant effects need be evaluated in the EIR. CEQA Guidelines section 15126(f)(2) indicates that alternatives that are remote or speculative, or the effects of which cannot be reasonably predicted, need not be considered.

would generate approximately 5,722. Therefore, the No Project alternative would generate about 5,138 more ADT than the proposed Greystar project.

The No Project alternative would result in 1,075 fewer residential units, 2,440 fewer new residents, and 2,000 less square feet of retail development compared to the proposed Greystar project, but under this alternative, approximately 1,159,000 square feet of commercial development would be allowed.

21.7.2 Comparative Impacts and Mitigating Effects

(a) Aesthetic Resources. The No Project alternative could have increased impacts on aesthetic and visual resources compared to the proposed project unless particular care is exercised in applying architectural design standards in the design of the commercial development allowed under the existing General Plan land use designation. Compared to the proposed project, which incorporates design characteristics (textures, architectural detailing) with pedestrian areas (paseos, greenways) to add visual benefits to the area, including a 2-acre park that would not be developed in this alternative, development under this alternative could instead result in more built area without the visual character, identity, and cohesion on the project site envisioned by the proposed project. However, although compared to the proposed Greystar project, there could be somewhat increased impacts under this alternative due to possible lack of cohesive design and planning (a planned residential neighborhood versus an area with more commercial development), the overall Greystar project impacts are already less than significant, and there would be no cumulatively considerable contribution to a significant cumulative impact.

(b) Air Quality. This alternative would result in increased air pollutant emissions compared to the proposed project because the office commercial development would result in an increase in vehicle trips (ADT) compared to the proposed residential use. Although these potential new workers could use available transit, additional commercial development under this alternative would not necessarily include transit-oriented features to reduce vehicle trips. In addition, although the Greystar project impacts would be less than significant, there is no definitive timeline for development under the No Project alternative, and therefore development could potentially contribute to identified significant and unavoidable Focus Area Plan impacts and cumulative impacts (Impacts 5-3 [criteria air pollutants] and 5-5 [construction air emissions]).

(c) Biological Resources. Because the same overall amount of developable area (13.3 acres) would be involved, the No Project alternative would have the same potential for disturbance of existing urban landscape habitat, similar potential for disturbance of nesting birds during construction, similar potential for existing trees to be removed from the project site, and impacts would be similar to the proposed Greystar project. However, Greystar project impacts are already either less than significant or mitigable, and there are no cumulatively considerable contributions to a significant cumulative impact.

(d) Cultural and Historical Resources. Because the same overall amount of developable area (13.3 acres) would be involved, there would be the same physical impacts on undiscovered cultural and tribal cultural resources compared to the proposed project. Impacts are already either less than significant or mitigable, and there are no cumulatively considerable contributions to a significant cumulative impact.

(e) Geology and Soils. The No Project alternative would attract more people to the site because new employees would occupy the commercial space under this alternative at a higher density than if it were developed with residential uses, resulting in more potential exposure of people to potential ground shaking, liquefaction, lateral spreading, expansive soils, subsidence, and differential settlement hazards associated with geologic and soils conditions on the project site. However, impacts under this alternative would be similar to the proposed Greystar project, which are already either less than significant or mitigable, and there are no cumulatively considerable contributions to a significant cumulative impact.

(f) Greenhouse Gas Emissions and Energy. Buildout of the Project under this alternative would be expected to result in an overall increase in GHG emissions compared to the proposed project because of the increase in vehicle trips due to the increase in workers (under No Project) compared to new residents under the proposed Greystar project (i.e., more workers from commercial development allowed under the No Project than new residents generated by the proposed residential development)). The No Project alternative would contribute more to greenhouse emissions and energy usage impacts than the proposed project. However, impacts under this alternative would remain either less than significant or mitigable, and there are no cumulatively considerable contributions to a significant cumulative impact.

(g) Hazards and Hazardous Materials. The No Project alternative would attract more new employees, resulting in more potential exposure of people and property to hazards and hazardous materials compared to the proposed project. In addition, depending on the design of the commercial development allowed under the existing General Plan land use designation (i.e., if no underground parking is proposed and building foundation and supports would require minimal ground penetration), the contaminated soils under a majority of the project site may not require cleanup, which may increase potential exposure risk to employees over time (due to loss of integrity of the engineered cap). However, impacts under this alternative would remain either less than significant or mitigable, and there are no cumulatively considerable contributions to a significant cumulative impact.

(h) Hydrology and Water Quality. The No Project alternative could have similar impacts on drainage and water quality compared to the proposed project, depending on building designs, impervious surface area, stormwater runoff generation, and pollutant loading. However, development under this alternative still would be subject to standard City stormwater runoff requirements. From an engineering standpoint, surface runoff is determined by a parcel's impervious surface area and not by land use or density, and therefore would be dependent on design characteristics. Still, development under this alternative would be subject to standard City stormwater runoff requirements and similar to the proposed Greystar project, impacts under this alternative would be less than significant; there would be no cumulatively considerable contribution to a significant cumulative impact.

(i) Land Use and Planning. The No Project alternative may not result in a development project compatible with adjacent neighborhoods, as intended by the Focus Area Plan, which could be considered an impact; however, under current General Plan land use designations, commercial development on the project site would be compatible with existing nearby commercial development and therefore impacts under this alternative would remain less than significant; there are no cumulatively considerable contributions to a significant cumulative impact.

(j) Noise. Buildout under the No Project alternative would likely result in greater noise than under the proposed project due to more vehicles added to local roadways. In addition, the No Project alternative would likely result in a similar *magnitude* of construction noise, construction vibration, on-site operational noise and vibration, and airport-related noise level impacts. Although project impacts related to noise would not be considered significant in and of themselves and would be less than significant or mitigable, as discussed in EIR chapter 13, Noise, project long-term increases in vehicle trips and traffic-related noise levels could contribute to a significant and unavoidable cumulative traffic noise impact. This would also be true for the No Project alternative due to its projected increase in ADT.

(k) Population and Housing. This alternative would result in no increase in housing or resident population on the project site; however, new commercial development would increase the amount of workers on the project site, and no new housing would be made available to meet community and regional needs for market-rate and affordable housing. The No Project alternative would not address the City's existing jobs/housing imbalance and could increase the length of commutes in Santa Clara. However, project impacts on population and housing would not be considered significant in and of themselves, and the alternative would not contribute to an identified cumulative impact.

(l) Public Services. Compared to the proposed project, this alternative could result in increased impacts on fire protection/emergency medical service, police service, public schools, parks, and other public facilities (e.g., library, community center) because although there would be no new residents, and employees typically require public services during the regular working day, the overall increase in employees would be larger than the proposed project's resident population increase. In addition, there would be no park constructed, as under the proposed project. Impacts under this alternative would be generally similar to those under the proposed Greystar project because development under this alternative would not generate substantially greater need for new public facilities than the Greystar project, which are already less than significant; in addition, there would be no cumulatively considerable contribution to a significant cumulative impact.

(m) Recreation. Because no residential uses would be developed, no new parks or open spaces would be required under the No Project alternative. Compared to the proposed Greystar project, this alternative would result in fewer impacts on City recreation resources because there would be no new residents requiring recreation services. However, less development could also mean fewer development fees and less tax revenue to maintain and enhance recreation facilities and services. In addition, the 2.0-acre public park proposed by the Greystar project would not be built, nor would the connection to the San Tomas Aquino Creek Trail or other bicycle/pedestrian amenities. Impacts under this alternative would be less than significant (as with the proposed Greystar project), and there would be no cumulatively considerable contribution to a significant cumulative impact.

(n) Transportation. Under the No Project alternative, average daily traffic (ADT) and vehicle miles traveled (VMT) from allowable commercial office development on the project site would be greater compared to the proposed residential (with small retail component) of the proposed Greystar project. In addition, the No Project alternative would not implement the improvements proposed by the Greystar project for pedestrian, bicycle, and transit circulation and connectivity, including the connection to the San Tomas Aquino Creek Trail. Also, this alternative would not include any residential uses, so it would not address the City's existing jobs/housing imbalance and could increase the length of commutes in Santa Clara. However, although impacts under

this alternative could be significant due to VMT, development would be required to comply with City transportation standards which would minimize impacts, and no significant cumulative traffic impact has been identified.

(o) Utilities and Service Systems. This alternative would result in reduced water demand, wastewater generation, and solid waste compared to the proposed project. Depending on the particular design and timing of commercial development (i.e., potential piecemeal construction), necessary infrastructure improvements may not be efficiently provided, however, any development would still be required to comply with City development standards. Development under this alternative would have fewer impacts compared to the proposed Greystar project, whose impacts are less than significant. There would be no cumulatively considerable contribution to a significant cumulative impact.

21.7.3 Attainment of Basic Project Objectives

This alternative would be somewhat effective in achieving the following basic project objective (see beginning of this chapter) and would not be effective at achieving the others:

- Realize a market economic return on the property that reflects the costs of land, site preparation, environmental considerations, infrastructure, open space improvements and vertical development.

This alternative would not be effective in achieving the following basic project objects:

- Create a vibrant residential community that complements other North Santa Clara neighborhoods and encourages walking and bike riding, linking the Freedom Circle neighborhood to the San Thomas Aquino Creek Trail via a new, two-acre public park.
- Redevelop a vacant lot in North Santa Clara and adjacent to the San Tomas Aquino Creek Trail with attractive and desirable amenities, housing, and a public park available to all Santa Clara residents.
- Support, enhance and connect to the City's existing and planned open space network.
- Create a vibrant, two-acre, multifunctional public park with space allocated for such activities including a dog park, sport court, and a playground for ages 2 and up.
- Meet the City's Affordable Housing Ordinance and Inclusionary Zoning requirements, including any direction on levels of affordability from the City Council.
- Create a human scaled public realm through inviting architecture and urban design.
- Activate street frontages and ground floor uses to create a pedestrian-friendly, cohesive urban environment.
- Minimize surface parking by providing below-grade and structured parking facilities.
- Redesign the Freedom Circle right-of-way adjacent to the project to better balance space dedicated to vehicles, bicycles, and pedestrians.

- Minimize environmental impacts through sustainable building and infrastructure by designing to a GreenPoint Rated Silver (or equivalent) level and remaining consistent with CALGreen and Santa Clara Climate Action Plan requirements.

- Contribute to the City's vehicle miles travelled (VMT) goals and implement Transportation Demand Management (TDM programs).

- Support and enhance the City's goal for a balanced transportation network serving all modes of transportation - including walking, biking, and driving - to address the City's transportation challenges and needs, and to build on Santa Clara's existing transportation system.

21.8 GREYSTAR ALTERNATIVE G-2: SAME RESIDENTIAL BUILDOUT BUT LARGER PARK

21.8.1 Alternative G-2 Characteristics

Under Alternative G-2, the Greystar project would be developed essentially the same as proposed but with a larger park (3.0 to 4.0 acres rather than the proposed 2.0 acres). Though there would be changes made to configuration of the site (mainly to create the additional 1.0 to 2.0 acres), the number of dwelling units would stay the same, though there could be a different mix of unit types and the size of units could vary. The main project characteristics would remain the same. Relevant to air quality, energy, GHG, and noise impacts, this alternative would result in generally the same approximately 5,722 average daily vehicle trips (ADT) because the only change in this alternative would be the increase the size of the park from 2.0 acres to 3.0 or 4.0 acres. Therefore, this alternative would generate the same approximately 5,722 ADT as the proposed Greystar project.

Development of this alternative would be essentially the same as the Greystar project except that the 2.0-acre park would be increased in size to 3.0 to 4.0 acres (depending on site constraints). This alternative would include the same 1,075 residential units, the same 2,000 SF of retail, and the same number of residents (2,440) as the proposed Greystar project

21.8.2 Comparative Impacts and Mitigating Effects

(a) Aesthetic Resources. This alternative would be expected to result in similar aesthetic and visual impacts compared with the proposed Greystar project. In general, any designs to achieve and/or maintain a cohesive, compatible visual identity and sense of place would be virtually unaffected by a reduction in units. However, it is possible that the increase in park size might result in an increase in building height (at least for part of the site) to make up the additional land area available for residential development. This would not be likely to substantially interfere with or obstruct views and impacts would generally be the same as for the proposed Greystar project, but it could result in the redesign of the courtyards to accommodate additional units if building height becomes problematic (i.e., potential conflicts with FAA height restrictions—see EIR Chapter 10 for a discussion of building heights). In addition, this decrease in available building area could result in an increase in building massing, which while not a significant impact in and of itself, could detract from the more balanced development plan

proposed by the Greystar project. However, this would not be a significant impact, and there would be no cumulatively considerable contribution to a significant cumulative impact.

(b) Air Quality. This alternative would result in similar air pollutant emissions compared to the proposed project generally because the only increase would be possible additional visitors to the larger park; otherwise, all other elements of this alternative would be the same as the proposed project, and this alternative would have the same daily vehicle trips (ADT). Therefore, impacts would be the same as for the proposed Greystar project, which would be less than significant; in addition, due to project scheduling (completion anticipated prior to commencement of remaining development under the Focus Area Plan), there would be no contribution of the alternative to identified significant and unavoidable Focus Area Plan impacts and cumulative impacts (Impacts 5-3 [criteria air pollutants] and 5-5 [construction air emissions]).

(c) Biological Resources. Because the same overall amount of developable area (13.3 acres) would be involved, the Same Residential/Larger Park alternative would have the same potential for disturbance of existing urban landscape habitat, similar potential for disturbance of nesting birds during construction, and similar potential for existing trees to be removed from the project site. However, there could be some limited benefits for wildlife due to the increase in park area. Therefore, impacts under this alternative would be similar to the proposed Greystar project, which would be less than significant or mitigatable, and no cumulative impact has been identified.

(d) Cultural and Historical Resources. Because the same overall amount of developable area (13.3 acres) would be involved, there would be the same physical impacts on undiscovered cultural and tribal cultural resources compared to the proposed project. Therefore, impacts under this alternative would be the same as for the proposed Greystar project, which would be less than significant or mitigatable, and no cumulative impact has been identified.

(e) Geology and Soils. With the same residential development under the alternative, there would be the same number of people exposed to potential ground shaking, liquefaction, lateral spreading, expansive soils, subsidence, and differential settlement hazards associated with geologic and soils conditions within the project site. Therefore, impacts under this alternative would be the same as for the proposed Greystar project, which would be less than significant or mitigatable, and no cumulative impact has been identified.

(f) Greenhouse Gas Emissions and Energy. This alternative would result in the same GHG emissions compared to the proposed Greystar project because the only difference is the increase in park acreage (from 2.0 acres to 3.0 to 4.0 acres). Additional visitors to the park could result in some nominal GHG emissions but compared to the proposed project, this would not be expected to result in a substantial contribution. Because a version of the Greystar project would be approved, its pedestrian and bicycle improvements would be retained. This alternative would include the same number of residential units compared to the proposed project, so it would also address the City's existing jobs/housing imbalance. Therefore, impacts under this alternative would be the same as for the proposed Greystar project, which would be less than significant, and no cumulative impact has been identified.

(g) Hazards and Hazardous Materials. Potential exposure of residents to hazards and hazardous materials under the Same Residential/Larger Park alternative would be the same as with the proposed project because there would be no change in the number of new residents or

employees on the project site. Therefore, impacts under this alternative would be similar as for the proposed Greystar project (potential for taller buildings, depending on FAA review; see EIR Chapter 10), which would be less than significant, and no cumulative impact has been identified.

(h) Hydrology and Water Quality. This alternative would have similar impacts on drainage and water quality compared to the proposed project, but the larger park would help minimize storm water runoff if properly engineered. From an engineering standpoint, surface runoff is determined by a parcel's impervious surface area and not by land use or density. Change compared to the proposed project in terms of impervious surface area, stormwater runoff generation, and pollutant loading would overall be limited though there would be some benefits from the small increase in permeable surface area. This alternative would still be subject to standard City stormwater runoff requirements. Impacts under this alternative would be generally similar as for the proposed Greystar project (though there would be additional permeable area), which would be less than significant, and no cumulative impact has been identified.

(i) Land Use and Planning. The Same Residential/Larger Park Development alternative would have similar impacts on land use and planning compared with the proposed project, and the project site would remain compatible with adjacent neighborhoods. Impacts under this alternative would be generally similar as for the proposed Greystar project, which would be less than significant, and no cumulative impact has been identified.

(j) Noise. Buildout under this alternative would result in similar noise to the proposed project due mainly to the same projected number of vehicles added to the local roadways. The Same Residential/Larger Park alternative would likely also result in a similar *magnitude* of construction noise, construction vibration, on-site operational noise and vibration, and airport-related noise level impacts compared to the proposed project due to the nature and construction types of development allowed under the alternative. Therefore, impacts would be the same as for the proposed Greystar project, which would not be considered significant in and of themselves and would be less than significant or mitigable, as discussed in EIR chapter 13, Noise. However, project long-term increases in vehicle trips and traffic-related noise levels could contribute to a significant and unavoidable cumulative traffic noise impact.

(k) Population and Housing. The Same Residential/Larger Park alternative would have the same effect on housing and population as the proposed project. This alternative would not increase the amount of new housing available but would provide the same total residential units to meet community and regional needs for market-rate housing and affordable housing compared with the proposed Greystar project, thereby helping to address the City's existing jobs/housing imbalance and possibly reducing the length of commutes in Santa Clara. Therefore, impacts under this alternative would be the same as for the proposed Greystar project, which would be less than significant. No cumulative impact has been identified.

(l) Public Services. Because the number of new residents would be the same compared to the proposed project, this alternative could result in similar impacts on fire protection/emergency medical service, police service, public schools, parks, and other public facilities (e.g., library, community center); however, the increase in park size would be a beneficial impact. Aside from the park benefit, other impacts under this alternative would be the same as for the proposed Greystar project, which would be less than significant. No cumulative impact has been identified.

(m) Recreation. Compared to the proposed Greystar project, this alternative would result in similar impacts as the proposed Greystar project, which would be less than significant, and an increased *beneficial* impact on recreational services because this alternative would provide a 3.0- to 4.0-acre park as opposed to the 2.0-acre park in the project proposal. No cumulative impact has been identified.

(n) Transportation. Under the Same Residential/Larger Park alternative, ADT and VMT from the new project would be the same as the proposed Greystar project. Improvements proposed by the Greystar project for pedestrian, bicycle, and transit circulation and connectivity still would be implemented. This alternative would also have similar effects on addressing the City's existing jobs/housing imbalance as the proposed project. Therefore, impacts would be the same as for the proposed Greystar project, which would be less than significant, and no cumulative impact has been identified.

(o) Utilities and Service Systems. This alternative would result in the same water demand, wastewater generation, and solid waste compared to the proposed Greystar project because of the same number of residential units. Therefore, impacts would be the same under this alternative as for the proposed Greystar project, which would be less than significant, and no cumulative impact has been identified.

21.8.3 Attainment of Basic Project Objectives

The Same Residential Buildout but Larger Park alternative overall would be as effective as the proposed project in achieving the following basic project objectives listed at the beginning of this chapter:

- To both acknowledge the level of development interest in North Santa Clara, and to be consistent with and comply with the policies of the Freedom Circle Focus Area Plan. The Focus Area Plan will outline new land uses that will convert the area from an employment center to a high-intensity mixed-use neighborhood including residential developments. These changes will help meet the demand for housing and for using land more efficiently at high, urban densities.

- Create a vibrant residential community that complements other North Santa Clara neighborhoods and encourages walking and bike riding, linking the Freedom Circle neighborhood to the San Thomas Aquino Creek Trail via a new, two-acre public park.

- Redevelop a vacant lot in North Santa Clara and adjacent to the San Tomas Aquino Creek Trail with attractive and desirable amenities, housing, and a public park available to all Santa Clara residents.

- Meet the City's Affordable Housing Ordinance and Inclusionary Zoning requirements, including any direction on levels of affordability from the City Council.

- Create a human scaled public realm through inviting architecture and urban design.

- Activate street frontages and ground floor uses to create a pedestrian-friendly, cohesive urban environment.

- Minimize surface parking by providing below-grade and structured parking facilities.

- Redesign the Freedom Circle right-of-way adjacent to the project to better balance space dedicated to vehicles, bicycles, and pedestrians.

- Minimize environmental impacts through sustainable building and infrastructure by designing to a GreenPoint Rated Silver (or equivalent) level and remaining consistent with CALGreen and Santa Clara Climate Action Plan requirements.

- Contribute to the City's vehicle miles travelled (VMT) goals and implement Transportation Demand Management (TDM programs).

- Support and enhance the City's goal for a balanced transportation network serving all modes of transportation - including walking, biking, and driving - to address the City's transportation challenges and needs, and to build on Santa Clara's existing transportation system.

- Realize a market economic return on the property that reflects the costs of land, site preparation, environmental considerations, infrastructure, open space improvements and vertical development.

With a larger park, the project would be *more effective* in achieving the following basic project objectives:

- Support, enhance and connect to the City's existing and planned open space network.

- Create a vibrant, two-acre, multifunctional public park with space allocated for such activities including a dog park, sport court, and a playground for ages 2 and up.

21.9 GREYSTAR ALTERNATIVE G-3: REDUCED RESIDENTIAL BUILDOUT BUT LARGER PARK

21.9.1 Alternative G-3 Characteristics

Under Alternative G-3, the Greystar project would be developed similar to Alternative G-2 except that residential development would be reduced by 20 percent from 1,075 units to 860 units. The other aspects of the project would be the same: 2,000 SF retail and a larger park (3.0 to 4.0 acres rather than the proposed 2.0 acres). Relevant to air quality, energy, GHG, and noise impacts, this alternative would result in approximately 4,771 average daily vehicle trips (ADT) due to the 20 percent reduction in residential units. Therefore, this alternative would generate about 951 fewer ADT than the proposed project (5,722).

Development of this alternative would increase the size of the park to 3.0 to 4.0 acres and would include 20 percent fewer residential units (a reduction from 1,075 to 860) but the same 2,000 SF of retail. The number of residents (1,952) would be less than the proposed Greystar project

21.9.2 Comparative Impacts and Mitigating Effects

(a) Aesthetic Resources. From the perspective of reduced residential development, this alternative would be expected to result in similar aesthetic and visual impacts compared with the proposed Greystar project. In general, any designs to achieve and/or maintain a cohesive, compatible visual identity and sense of place would be virtually unaffected by a reduction in units. A potential decrease in building height due to reduction in number of units would possibly be offset by the increased park size, which would likely require modification of building design or layout to create the additional space; however, even if a decrease in building height was possible, it would not likely result in substantially improved views and therefore impacts would generally be the same as for the proposed Greystar project. Impacts under this alternative would be less than significant, and no cumulatively considerable contribution to a significant cumulative impact has been identified.

(b) Air Quality. This alternative would result in decreased air pollutant emissions compared to the proposed Project generally because there would be a reduction in daily vehicle trips (ADT); however, while this lower ADT would reduce air emission, it would have a relatively small effect on reducing quality impacts and therefore impacts would generally be the same as for the proposed Greystar project, which would be less than significant. In addition, due to project scheduling (completion anticipated prior to commencement of remaining development under the Focus Area Plan), there would be no contribution of the alternative to identified significant and unavoidable Focus Area Plan impacts and cumulative impacts (Impacts 5-3 [criteria air pollutants] and 5-5 [construction air emissions]).

(c) Biological Resources. Because the same overall amount of developable area (13.3 acres) would be involved, the Reduced Residential/Larger Park alternative would have the same potential for disturbance of existing urban landscape habitat, similar potential for disturbance of nesting birds during construction, and similar potential for existing trees to be removed from the project site. With fewer residents, there could be added benefits by reducing potential disturbance of wildlife, however this would likely be minimal; therefore, impacts under this alternative would generally be the same as for the proposed Greystar project, which would be less than significant or mitigatable, and no cumulative impact has been identified.

(d) Cultural and Historical Resources. Because the same overall amount of developable area (13.3 acres) would be involved, there would be the same physical impacts on undiscovered cultural and tribal cultural resources compared to the proposed project. Impacts under this alternative would generally be the same as for the proposed Greystar project, which would be less than significant or mitigatable; no cumulative impact has been identified.

(e) Geology and Soils. With less residential development under the alternative, there would be fewer people exposed to potential ground shaking, liquefaction, lateral spreading, expansive soils, subsidence, and differential settlement hazards associated with geologic and soils conditions within the project site. However, the decrease in people on site would be relatively small, and therefore impacts under this alternative, though decreased, would generally be the same as for the proposed Greystar project.

(f) Greenhouse Gas Emissions and Energy. This alternative would result in a reduction in GHG emissions compared to the proposed Greystar project and would not be expected to make a substantial contribution in reducing GHG effects, but this alternative would also include the same pedestrian and bicycle improvements as the proposed project. Therefore, impacts under

this alternative would generally be the same as for the proposed Greystar project, which would be less than significant, and no cumulative impact has been identified.

(g) Hazards and Hazardous Materials. Fewer new residents under the Reduced Residential/Larger Park alternative would result in less potential exposure of people to hazards and hazardous materials compared to the proposed project. However, the decrease in people on site would be relatively small, and therefore impacts would generally be the same as for the proposed Greystar project, which would be less than significant, and no cumulative impact has been identified.

(h) Hydrology and Water Quality. This alternative could have fewer but similar impacts on drainage and water quality compared to the proposed project, and the larger park would help minimize storm water runoff if properly engineered. From an engineering standpoint, surface runoff is determined by a parcel's impervious surface area and not by land use or density. Change compared to the proposed project in terms of impervious surface area, stormwater runoff generation, and pollutant loading would overall be limited, though there would be some benefits from the small increase in permeable surface area. This alternative would still be subject to standard City stormwater runoff requirements. Therefore, impacts under this alternative, although slightly reduced, would generally be similar as for the proposed Greystar project (though additional permeable area), and would be less than significant. No cumulative impact has been identified.

(i) Land Use and Planning. The Reduced Residential/Larger Park Development alternative would have similar impacts on land use and planning compared with the proposed project, and the project site would remain compatible with adjacent neighborhoods. Impacts would generally be similar under this alternative as for the proposed Greystar project, which would be less than significant, and no cumulative impact has been identified.

(j) Noise. Buildout under this alternative would result in less noise than under the proposed project due mainly to a projected reduction in vehicles added to the local roadways. However, the reduction would not likely be substantial compared to the overall amount of traffic in the vicinity of the project site. The Reduced Residential/Larger Park alternative would likely result in a similar *magnitude* of construction noise, construction vibration, on-site operational noise and vibration, and airport-related noise level impacts compared to the proposed project due to the nature and construction types of development allowed under the alternative. However, the decrease in residents and associated reduction in vehicle trips would be relatively small; therefore, while impacts might generally be reduced compared to the proposed Greystar project, the reduction would also likely be too small to notice without a measuring device. Therefore, impacts would essentially be the same as for the proposed Greystar project, which would not be considered significant in and of themselves and would be less than significant or mitigable, as discussed in EIR chapter 13, Noise. However, project long-term increases in vehicle trips and traffic-related noise levels could contribute to a significant and unavoidable cumulative traffic noise impact.

(k) Population and Housing. The Reduced Residential/Larger Park alternative would decrease housing and population on the Project site by 20 percent compared to the proposed project. This alternative would also result in a decrease new housing available to meet community and regional needs for market-rate housing and affordable housing compared with the proposed Greystar project, though it would still help to address the City's existing jobs/housing imbalance and could reduce the length of commutes in Santa Clara. Therefore, impacts under this

alternative would be slightly greater than the proposed Greystar project, which would be less than significant. No cumulative impact has been identified; the additional housing would be beneficial to the City.

(l) Public Services. With fewer new residents compared to the proposed project, this alternative could result in fewer impacts on fire protection/emergency medical service, police service, public schools, parks, and other public facilities (e.g., library, community center); however, the increase in park size would be a beneficial impact. With the park benefit and the reduction in residential need for public services, impacts under this alternative would be reduced compared to the proposed Greystar project, which would be less than significant. No cumulative impact has been identified.

(m) Recreation. Compared to the proposed Greystar project, this alternative would result in *beneficial* impacts on recreational services because this alternative would provide a 3.0- to 4.0-acre park as opposed to the 2.0-acre park in the project proposal. This would be a reduced impact under this alternative compared to the proposed Greystar project, which would be less than significant. No cumulative impact has been identified.

(n) Transportation. Under the Reduced Residential/Larger Park alternative, ADT and VMT from the new project would be less than the proposed Greystar project. Improvements proposed by the Greystar project for pedestrian, bicycle, and transit circulation and connectivity still would be implemented. However, this alternative would include fewer residential units, so it would not address the City's existing jobs/housing imbalance as well as the proposed project. Therefore, although a reduction in trip-related impacts would represent an improvement, in general impacts under this alternative would be the same as for the proposed Greystar project, which would be less than significant. No cumulative impact has been identified.

(o) Utilities and Service Systems. This alternative would result in decreased water demand, wastewater generation, and solid waste compared to the proposed Greystar project because of the decrease in residential units. However, the decrease in people on site would be relatively small, and therefore impacts under this alterative would generally be the same as for the proposed Greystar project, which would be less than significant. No cumulative impact has been identified.

21.9.3 Attainment of Basic Project Objectives

The Reduced Residential Buildout but Larger Park alternative overall would be as effective as the proposed project in achieving the following basic project objectives listed at the beginning of this chapter:

- Create a vibrant residential community that complements other North Santa Clara neighborhoods and encourages walking and bike riding, linking the Freedom Circle neighborhood to the San Thomas Aquino Creek Trail via a new, two-acre public park.

- Redevelop a vacant lot in North Santa Clara and adjacent to the San Tomas Aquino Creek Trail with attractive and desirable amenities, housing, and a public park available to all Santa Clara residents.

- Create a human scaled public realm through inviting architecture and urban design.

- Activate street frontages and ground floor uses to create a pedestrian-friendly, cohesive urban environment.

- Minimize surface parking by providing below-grade and structured parking facilities.

- Redesign the Freedom Circle right-of-way adjacent to the project to better balance space dedicated to vehicles, bicycles, and pedestrians.

- Minimize environmental impacts through sustainable building and infrastructure by designing to a GreenPoint Rated Silver (or equivalent) level and remaining consistent with CALGreen and Santa Clara Climate Action Plan requirements.

- Contribute to the City's vehicle miles travelled (VMT) goals and implement Transportation Demand Management (TDM programs).

- Support and enhance the City's goal for a balanced transportation network serving all modes of transportation - including walking, biking, and driving - to address the City's transportation challenges and needs, and to build on Santa Clara's existing transportation system.

With a larger park, the project would be *more effective* in achieving the following basic project objectives:

- Support, enhance and connect to the City's existing and planned open space network.

- Create a vibrant, two-acre, multifunctional public park with space allocated for such activities including a dog park, sport court, and a playground for ages 2 and up.

This alternative would be *less effective* in achieving the following basic project objective:

- To both acknowledge the level of development interest in North Santa Clara, and to be consistent with and comply with the policies of the Freedom Circle Focus Area Plan. The Focus Area Plan will outline new land uses that will convert the area from an employment center to a high-intensity mixed-use neighborhood including residential developments. These changes will help meet the demand for housing and for using land more efficiently at high, urban densities.

- Meet the City's Affordable Housing Ordinance and Inclusionary Zoning requirements, including any direction on levels of affordability from the City Council.

- Realize a market economic return on the property that reflects the costs of land, site preparation, environmental considerations, infrastructure, open space improvements and vertical development.

21.10 GREYSTAR ALTERNATIVE G-4: ALTERNATIVE PROJECT LOCATION (CONSIDERED BUT REJECTED)

Section 15126.6(a) of the CEQA Guidelines states, "An EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly

attain most of the basic project objectives but would avoid or substantially lessen any of the significant effects of the project[.]" Further, section 15126.6(c) explains, "Among the factors that may be used to eliminate alternatives from detailed consideration in an EIR are: (i) failure to meet most of the basic project objectives, (ii) infeasibility, or (iii) inability to avoid significant environmental effects." To help clarify the meaning of "feasibility," CEQA Guidelines section 15126.6(f)(1) (Rule of Reason/Feasibility) states, "Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries...and whether the proponent can reasonably acquire, control, or otherwise have access to the alternative site….No one of these factors establishes a fixed limit on the scope of reasonable alternatives."

The approximately 13.3-acre project site is completely surrounded by existing development. The project site is an undeveloped, vacant site of its size north of U.S. 101, and is included in an area identified in the adopted Santa Clara 2010-2035 General Plan and designated a Priority Development Area by ABAG as an area of growth due primarily to its location, the presence of nearby employment opportunities, and the availability of infrastructure (e.g., utility systems, transportation network - including light trail and Alameda Corridor Express and freeways). This situation provides an opportunity to accommodate projected growth while allowing the City to preserve its existing single family and other low-density neighborhoods.

An alternative location for the Greystar project is not feasible primarily because the Greystar applicant does not own or control other areas of a size that could accommodate similar high-density residential development are either currently under development review or are the focus of future study. The Greystar developer first expressed interest developing this size, so the City has not identified potential alternative sites.

In addition, the CEQA Guidelines note that the alternatives evaluated in an EIR should be selected based on their ability to avoid or substantially lessen the significant impacts of the proposed project. Even if an alternative location for the project could implement the basic project objectives, only those locations that would avoid or substantially lessen any of the significant impacts of the project need to be considered in the EIR.

In the case of identified significant impacts for the Greystar project, (1) feasible mitigation measures are available to reduce all but one impact to less-than-significant levels (contribution to cumulative traffic noise impact), (2) an alternative location could substantially affect the environment, possibly worse than on the project site, where coordinated infrastructure, services, regulations, plans, and proximity to transit resources already are in place to avoid or reduce significant environmental impacts, and (3) Greystar does not own another property in the City of a size to implement the proposed project.

Because an alternative project location would be infeasible, would not necessarily avoid or lessen the significant impacts of the proposed project and might result in new significant impacts, and would not necessarily be able to achieve the basic project objectives, a project

alternative in a different location was eliminated from further detailed consideration. No further evaluation of alternative project locations is required under CEQA.[1]

21.11 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

The CEQA Guidelines (section 15126.6[e][2]) stipulate, "If the environmentally superior alternative is the 'no project' alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives."

21.11.1 Freedom Circle Focus Area Plan

Of all the identified alternatives other than the No Project alternative (Alternative FC-1), Alternative FC-3: Mainly Residential Development would be the "environmentally superior alternative" because although the overall severity of impacts compared to the other alternatives (see Table 21-2) would be similar, if not greater in some instances, this alternative would meet the basic project objectives more effectively, particularly with respect to addressing the City's existing jobs/housing imbalance and providing needed affordable housing in Santa Clara.

As discussed above for each alternative, based on the sheer size of the Plan Area (108 acres) and the development already allowed under the existing Santa Clara General Plan (No Project), none of the significant unavoidable project or cumulative impacts are expected to be reduced to a level of less than significant under any of the Focus Area Plan alternatives.

21.11.2 Greystar Project

Of all the identified alternatives other than the No Project alternative (Alternative G-1), Alternative G-3: Reduced Residential Buildout/Larger Park would result in the least adverse overall environmental impacts and would therefore be the "environmentally superior alternative." This conclusion is based on the overall reduction in the severity of impacts compared to the other alternatives (see Table 21-3), although the Greystar project would not result in any significant unavoidable impacts in and of itself. However, while the alternative would meet most of the project objectives, it would not address the City's existing jobs/housing imbalance because it would not provide as much needed affordable housing in Santa Clara as either the proposed project or Alternative G-2.

[1]CEQA Guidelines section 15126.6(c) explains that alternatives may be eliminated from detailed consideration in the EIR if they fail to meet most of the basic project objectives, are infeasible, or do not avoid significant environmental effects. CEQA Guidelines section 15126.6(f) indicates that the Lead Agency should consider site suitability, economic viability, availability of infrastructure, general plan consistency, other regulatory limitation, jurisdictional boundaries, and the proponent's control over alternative sites in determining the range of alternatives to be evaluated in an EIR. With respect to alternative locations, CEQA Guidelines section 15126.6(f) indicates that alternative locations need not be evaluated in every case. The key question in determining whether to evaluate alterative locations is whether any of the significant effects of the project would be avoided or substantially lessened by putting the project in another location. Only locations that would avoid or substantially lessen significant effects need be evaluated in the EIR. CEQA Guidelines section 15126(f)(2) indicates that alternatives that are remote or speculative, or the effects of which cannot be reasonably predicted, need not be considered.

Table 21-2
ALTERNATIVES COMPARISON TO THE FREEDOM CIRCLE FOCUS AREA PLAN

	Alternatives[1]				
Impact Area	Alternative FC-1A: No Project (Without Greystar Project)—Existing Santa Clara General Plan	Alternative FC-1B: No Project (With Greystar Project)—Existing Santa Clara General Plan	Alternative FC-2: Mainly Commercial Office	Alternative FC-3: Mainly Residential	Alternative FC-4: Reduced Plan Alternative
(a) Aesthetic Resources	Reduced impacts but less visual cohesion. Impacts still less than significant or mitigatable. No cumulatively considerable contribution to a significant cumulative impact.	Reduced impacts but less visual cohesion. Impacts still less than significant or mitigable. No cumulatively considerable contribution to a significant cumulative impact.	Similar impacts. Impacts still less than significant or mitigable. No cumulatively considerable contribution to a significant cumulative impact.	Similar impacts. Impacts still less than significant or mitigable. No cumulatively considerable contribution to a significant cumulative impact.	Reduced impacts but less visual cohesion. Impacts still less than significant or mitigable. No cumulatively considerable contribution to a significant cumulative impact.
(b) Air Quality	Reduced impacts. Impacts still less than significant or mitigatable, but significant unavoidable impacts not reduced to less than significant and cumulatively considerable contribution to significant cumulative impacts would remain.	Reduced impacts. Impacts still less than significant or mitigatable, but significant unavoidable impacts not reduced to less than significant and cumulatively considerable contribution to significant cumulative impacts would remain.	Decreased impacts. Impacts still less than significant or mitigable, but significant unavoidable impacts not reduced to less than significant and cumulatively considerable contribution to significant cumulative impacts would remain.	Decreased impacts. Impacts still less than significant or mitigable, but significant unavoidable impacts not reduced to less than significant and cumulatively considerable contribution to significant cumulative impacts would remain.	Reduced impacts. Impacts still less than significant or mitigatable, but significant unavoidable impacts not reduced to less than significant and cumulatively considerable contribution to significant cumulative impacts would remain.
(c) Biological Resources	Similar impacts, but still less than significant or mitigatable. No cumulatively considerable contribution to a significant cumulative impact.	Similar impacts, but still less than significant or mitigatable. No cumulatively considerable contribution to a significant cumulative impact.	Similar impacts, but still less than significant or mitigatable. No cumulatively considerable contribution to a significant cumulative impact.	Similar impacts, but still less than significant or mitigatable. No cumulatively considerable contribution to a significant cumulative impact.	Similar impacts, but still less than significant or mitigatable. No cumulatively considerable contribution to a significant cumulative impact.
(d) Cultural and Historic Resources	Similar impacts; still less than significant or mitigatable, but still potential for significant unavoidable impacts. No cumulatively considerable	Similar impacts; still less than significant or mitigable, but still potential for significant unavoidable impacts. No cumulatively considerable contribution	Similar impacts; still less than significant or mitigable, but still potential for significant unavoidable impacts. No cumulatively considerable	Similar impacts; still less than significant or mitigable, but still potential for significant unavoidable impacts. No cumulatively considerable	Similar impacts; still less than significant or mitigable, but still potential for significant unavoidable impacts. No cumulatively considerable contribution

	Alternatives[1]				
Impact Area	Alternative FC-1A: No Project (Without Greystar Project)—Existing Santa Clara General Plan	Alternative FC-1B: No Project (With Greystar Project)—Existing Santa Clara General Plan	Alternative FC-2: Mainly Commercial Office	Alternative FC-3: Mainly Residential	Alternative FC-4: Reduced Plan Alternative
	contribution to a significant cumulative impact.	to a significant cumulative impact.	contribution to a significant cumulative impact.	contribution to a significant cumulative impact.	to a significant cumulative impact.
(e) Geology and Soils	Reduced impacts, still less than significant or mitigable. No cumulatively considerable contribution to a significant cumulative impact.	Reduced impacts, still less than significant or mitigable. No cumulatively considerable contribution to a significant cumulative impact.	Reduced impacts, still less than significant or mitigable. No cumulatively considerable contribution to a significant cumulative impact.	Increased impacts, still less than significant or mitigatable. No cumulatively considerable contribution to a significant cumulative impact.	Reduced impacts, still less than significant or mitigable. No cumulatively considerable contribution to a significant cumulative impact.
(f) Greenhouse Gas Emissions and Energy	Reduced impacts. Impacts still less than significant or mitigable; no cumulatively considerable contribution to a significant cumulative impact.	Reduced impacts. Impacts still less than significant or mitigable; no cumulatively considerable contribution to a significant cumulative impact.	Decreased impacts. Impacts still less than significant or mitigable; no cumulatively considerable contribution to a significant cumulative impact.	Decreased impacts. Impacts still less than significant or mitigable; no cumulatively considerable contribution to a significant cumulative impact.	Reduced impacts. Impacts still less than significant or mitigable; no cumulatively considerable contribution to a significant cumulative impact.
(g) Hazards and Hazardous Materials	Reduced impacts but still less than significant. No cumulatively considerable contribution to a significant cumulative impact.	Reduced impacts but still less than significant. No cumulatively considerable contribution to a significant cumulative impact.	Reduced impacts but still less than significant. No cumulatively considerable contribution to a significant cumulative impact.	Increased impacts but still less than significant mitigatable. No cumulatively considerable contribution to a significant cumulative impact.	Reduced impacts but still less than significant. No cumulatively considerable contribution to a significant cumulative impact.
(h) Hydrology and Water Quality	Similar impacts but still less than significant. No cumulatively considerable contribution to a significant cumulative impact.	Similar impacts but still less than significant. No cumulatively considerable contribution to a significant cumulative impact.	Similar impacts but still less than significant. No cumulatively considerable contribution to a significant cumulative impact.	Similar impacts but still less than significant. No cumulatively considerable contribution to a significant cumulative impact.	Similar impacts but still less than significant. No cumulatively considerable contribution to a significant cumulative impact.
(i) Land Use and Planning	Greater impacts from less compatibility and less integration of land use policies; however, impacts still less than significant.	Greater impacts from less compatibility and less integration of land use policies; however, impacts still less than significant.	Greater impacts from less compatibility and less integration of land use policies; however, impacts still less than significant.	Greater impacts from less compatibility and less integration of land use policies; however, impacts still less than	Greater impacts from less compatibility and less integration of land use policies; however, impacts still less than significant.

	Alternatives[1]				
Impact Area	Alternative FC-1A: No Project (Without Greystar Project)—Existing Santa Clara General Plan	Alternative FC-1B: No Project (With Greystar Project)—Existing Santa Clara General Plan	Alternative FC-2: Mainly Commercial Office	Alternative FC-3: Mainly Residential	Alternative FC-4: Reduced Plan Alternative
	No cumulatively considerable contribution to a significant cumulative impact.	No cumulatively considerable contribution to a significant cumulative impact.	No cumulatively considerable contribution to a significant cumulative impact.	significant. No cumulatively considerable contribution to a significant cumulative impact.	No cumulatively considerable contribution to a significant cumulative impact.
(j) Noise	Reduced impacts; still less than significant or mitigable. Potential to reduce significant unavoidable impacts to less than significant, and if so then no cumulatively considerable contribution to a significant cumulative impact.	Reduced impacts; still less than significant or mitigable. Potential to reduce significant unavoidable impacts to less than significant, and if so then no cumulatively considerable contribution to a significant cumulative impact.	Reduced impacts; still less than significant or mitigable. However, significant unavoidable impacts would not be reduced to less than significant and cumulatively considerable contribution to a significant cumulative impact would remain.	Decreased impacts; still less than significant or mitigable. Potential to reduce significant unavoidable impacts to less than significant, and if so then no cumulatively considerable contribution to a significant cumulative impact.	Reduced impacts; still less than significant or mitigable. Potential to reduce significant unavoidable impacts to less than significant, and if so then no cumulatively considerable contribution to a significant cumulative impact.
(k) Population and Housing	No new housing to meet need; does not address jobs/housing imbalance. Impacts still less than significant and no cumulatively considerable contribution to a significant cumulative impact.	No new housing to meet need (except Greystar project); does not address jobs/housing imbalance. Impacts still less than significant and no cumulatively considerable contribution to a significant cumulative impact.	No new housing to meet need; does not address jobs/housing imbalance. Impacts still less than significant and no cumulatively considerable contribution to a significant cumulative impact.	Increased benefits (i.e., more housing); better addresses jobs/housing balance. Impacts still less than significant and no cumulatively considerable contribution to a significant cumulative impact.	Less new housing to meet need; supports addressing jobs/housing imbalance but not as robust as proposed Plan. Impacts still less than significant and no cumulatively considerable contribution to a significant cumulative impact.
(l) Public Services	Reduced impacts but reduced development fees; impacts still less than significant, and no cumulatively considerable contribution to a significant cumulative impact.	Reduced impacts but reduced development fees; impacts still less than significant, and no cumulatively considerable contribution to a significant cumulative impact.	Similar impacts but impacts still less than significant. No cumulatively considerable contribution to a significant cumulative impact.	Increased impacts, but impacts still less than significant.. No cumulatively considerable contribution to a significant cumulative impact.	Similar impacts but reduced development fees; impacts still less than significant, and no cumulatively considerable contribution to a significant cumulative impact.

	Alternatives[1]				
Impact Area	Alternative FC-1A: No Project (Without Greystar Project)—Existing Santa Clara General Plan	Alternative FC-1B: No Project (With Greystar Project)—Existing Santa Clara General Plan	Alternative FC-2: Mainly Commercial Office	Alternative FC-3: Mainly Residential	Alternative FC-4: Reduced Plan Alternative
(m) Recreation	Reduced impacts but no new public parks. Impacts still less than significant, and no cumulatively considerable contribution to a significant cumulative impact.	Reduced impacts but no new public parks (except Greystar). Impacts still less than significant, and no cumulatively considerable contribution to a significant cumulative impact.	Reduced impacts but no new public parks (except Greystar). Impacts still less than significant, and no cumulatively considerable contribution to a significant cumulative impact.	Increased impacts, but still less than significant. No cumulatively considerable contribution to a significant cumulative impact.	Similar impacts but less public park and open space land. Impacts still less than significant, and no cumulatively considerable contribution to a significant cumulative impact.
(n) Transportation	Potential increase in VMT per capita, but impacts still less than significant; no multi-modal improvements. No cumulatively considerable contribution to a significant cumulative impact.	Potential increase in VMT per capita, but impacts still less than significant; no multi-modal improvements. No cumulatively considerable contribution to a significant cumulative impact.	Potential increase in VMT per capita, but impacts still less than significant; no multi-modal improvements. No cumulatively considerable contribution to a significant cumulative impact.	Decreased impacts. Impacts still less than significant. No cumulatively considerable contribution to a significant cumulative impact.	Similar impacts but still less than significant. No cumulatively considerable contribution to a significant cumulative impact.
(o) Utilities and Service Systems	Reduced impacts but still less than significant or mitigable. Cumulatively considerable contributions to significant cumulative impacts would remain, though would be mitigatable.	Reduced impacts but still less than significant or mitigable. Cumulatively considerable contributions to significant cumulative impacts would remain, though would be mitigatable.	Increased impacts but still less than significant or mitigable. Cumulatively considerable contributions to significant cumulative impacts would remain, though would be mitigatable.	Increased impacts but still less than significant or mitigable. Cumulatively considerable contributions to significant cumulative impacts would remain, though would be mitigatable.	Reduced impacts but still less than significant or mitigable. Cumulatively considerable contributions to significant cumulative impacts would remain, though would be mitigatable.
Attainment of Project Objectives	No attainment.	Less attainment.	Less attainment.	More attainment, but does not support range or of mix of users and uses.	Somewhat less attainment.

SOURCE: MIG, 2021.

Alternative FC-5: Alternative Project Location would not achieve most of the project objectives, would not avoid or lessen the significant impacts of the proposed project, may result in new significant impacts, and would be infeasible, and thus was eliminated from further consideration. See section 21.6.

Table 21-3
ALTERNATIVES COMPARISON TO THE GREYSTAR PROJECT

	Alternatives[1]		
Impact Area	Alternative G-1: No Project--Existing Santa Clara General Plan	Alternative G-2: Same Residential Buildout but Larger Park	Alternative G-3: Reduced Residential Buildout but Larger Park
(a) Aesthetic Resources	Increased impacts; however, still less than significant. No cumulatively considerable contributions to significant cumulative impacts.	Similar impacts; however, potential building massing conflicts, though impacts still less than significant. No cumulatively considerable contributions to significant cumulative impacts.	Similar impacts, but still less than significant. No cumulatively considerable contributions to significant cumulative impacts.
(b) Air Quality	Increased impacts, though impacts less than significant or mitigable, Alternative could contribute to Focus Area Plan cumulative and significant unavoidable impacts.	Similar impacts though impacts less than significant or mitigable. Due to proposed scheduling, alternative would not contribute to Focus Area Plan cumulative and significant unavoidable impacts.	Similar impacts though impacts less than significant or mitigable. Due to proposed scheduling, alternative would not contribute to Focus Area Plan cumulative and significant unavoidable impacts.
(c) Biological Resources	Similar impacts though still less than significant or mitigatable. No cumulatively considerable contributions to significant cumulative impacts.	Similar impacts; still less than significant or mitigable, and potential benefits from more park area. No cumulatively considerable contributions significant cumulative impacts.	Similar impacts; still less than significant or mitigable, and potential benefits from more park area. No cumulatively considerable contributions significant cumulative impacts.
(d) Cultural and Historic Resources	Similar impacts though still less than significant or mitigatable. No cumulatively considerable contributions to significant cumulative impacts.	Similar impacts though still less than significant or mitigable. No cumulatively considerable contributions to significant cumulative impacts.	Similar impacts though still less than significant or mitigable. No cumulatively considerable contributions to significant cumulative impacts.
(e) Geology and Soils	Increased impacts but still less than significant or mitigable. No cumulatively considerable contributions to significant cumulative impacts.	Similar impacts; still less than significant or mitigable. No cumulatively considerable contributions to significant cumulative impacts.	Small decrease in impacts; still less than significant or mitigable. No cumulatively considerable contributions to significant cumulative impacts.
(f) Greenhouse Gas Emissions and Energy	Increased impacts though still less than significant. No cumulatively considerable contributions to significant cumulative impacts.	Similar impacts; still less than significant. No cumulatively considerable contributions to significant cumulative impacts.	Some GHG reductions but generally similar impacts; still less than significant. No cumulatively considerable contributions to significant cumulative impacts.
(g) Hazards and Hazardous Materials	Increased impacts though still less than significant. No cumulatively considerable contributions to significant cumulative impacts.	Similar impacts; still less than significant. No cumulatively considerable contributions to significant cumulative impacts.	Fewer new residents but generally similar impacts; still less than significant. No cumulatively considerable contributions to significant cumulative impacts.

	Alternatives[1]		
Impact Area	Alternative G-1: No Project--Existing Santa Clara General Plan	Alternative G-2: Same Residential Buildout but Larger Park	Alternative G-3: Reduced Residential Buildout but Larger Park
(h) Hydrology and Water Quality	Similar impacts, though still less than significant. No cumulatively considerable contributions to significant cumulative impacts.	Similar impact; still less than significant. Some additional permeable area. No cumulatively considerable contributions to significant cumulative impacts.	Small increase in permeable area would have some benefits, but overall similar impacts. Still less than significant. No cumulatively considerable contributions to significant cumulative impacts.
(i) Land Use and Planning	Potential for impacts from less neighborhood compatibility but still less than significant. No cumulatively considerable contributions to significant cumulative impacts.	Similar impacts; still less than significant. No cumulatively considerable contributions to significant cumulative impacts.	Similar impacts; still less than significant or mitigable. No cumulatively considerable contributions to significant cumulative impacts.
(j) Noise	Increased impacts. Though less than significant or mitigable, potential contribution to significant unavoidable and cumulative Plan noise impacts.	Similar impacts. Though less than significant or mitigable, potential contribution to significant unavoidable and cumulative Plan noise impacts.	Potential decreases in impacts would unlikely be noticeable; overall similar impacts. Though less than significant or mitigable, potential contribution to significant unavoidable and cumulative Plan noise impacts.
(k) Population and Housing	No new housing to meet need. Does not address jobs/housing imbalance. However, impacts would be less than significant. No cumulatively considerable contributions to significant cumulative impacts.	Same amount of new housing; would address jobs/housing imbalance. However, impacts would be less than significant. No cumulatively considerable contributions to significant cumulative impacts.	Decreased benefits, therefore slight increase in impacts, though impacts still less than significant. Would help address jobs/housing balance. No cumulatively considerable contributions to significant cumulative impacts.
(l) Public Services	Increased impacts and no new park. Impacts would still be less than significant. No cumulatively considerable contributions to significant cumulative impacts.	Similar less than significant impacts and *beneficial* impacts from larger public park. No cumulatively considerable contributions to significant cumulative impacts.	Decreased impacts; still less than significant. No cumulatively considerable contributions to significant cumulative impacts.
(m) Recreation	Reduced impacts but no new park. Impacts would still less than significant. No cumulatively considerable contributions to significant cumulative impacts.	Similar impacts and *beneficial* impacts from larger public park. No cumulatively considerable contributions to significant cumulative impacts.	Similar impacts and *beneficial* impacts from larger public park. Impacts still less than significant. No cumulatively considerable contributions to significant cumulative impacts.
(n) Transportation	Potential for Increased VMT; potential for significant transportation impact but mitigatable. No significant cumulative impact identified.	Similar impacts but still less than significant. No cumulatively considerable contributions to significant cumulative impacts.	Potential reduction in trips but overall similar impacts; still less than significant. No cumulatively considerable contributions to significant cumulative impacts.

	Alternatives[1]		
Impact Area	Alternative G-1: No Project--Existing Santa Clara General Plan	Alternative G-2: Same Residential Buildout but Larger Park	Alternative G-3: Reduced Residential Buildout but Larger Park
(o) Utilities and Service Systems	Reduced impacts; still less than significant. No significant cumulative impact identified.	Similar impacts; still less than significant. No significant cumulative impact identified.	Decreased impacts due to fewer residents; however, the number would be small so overall similar impacts, but still less than significant.
Attainment of Project Objectives	Would attain one.	Similar attainment as proposed project.	Similar attainment as proposed project but less affordable housing.
SOURCE: MIG, 2021.			
Alternative G-4: Alternative Project Location would not achieve most of the project objectives, would not avoid or lessen the significant impacts of the proposed project, may result in new significant impacts, and would be infeasible, and thus was eliminated from further consideration. See section 21.10.			

22. MITIGATION MONITORING

22.1 MITIGATION MONITORING REQUIREMENTS

CEQA Statute section 21081.6 requires all public agencies to adopt reporting or monitoring programs when they approve projects subject to environmental impact reports or mitigated negative declarations. A mitigation monitoring program would therefore be required for implementation subsequent to certification of the Freedom Circle Focus Area Plan/Greystar General Plan Amendment EIR. Most of the environmental mitigation needs that have been identified in this EIR would be subject to effective monitoring through the City's standard development review and approval procedures, as well as during associated plan check and field inspection procedures. However, to satisfy CEQA Statute section 21081.6 and CEQA Guidelines section 15097 (Mitigation Monitoring and Reporting), a documented record of implementation will be necessary.

22.2 MITIGATION MONITORING CHECKLIST FORMAT

While adoption of a mitigation monitoring program would not occur until this EIR is certified, the mitigation monitoring framework to be followed can be described. The attached checklist format (Table 22-1) is based upon the impacts and mitigations in Table 2-1 in EIR chapter 2, Summary and includes individual columns for identifying the following, pursuant to CEQA Guidelines section 15097:

22.1.1 Identified Impact

This column would include each identified impact as it is described in the EIR summary table (Table 2-1 in chapter 2)—such as Impact 4-1, Impact 4-2, Impact 4-3 for Aesthetics; Impact 5-1, Impact 5-2, Impact 5-3, Impact 5-4, Impact 5-5 for Air Quality, etc.

22.1.2 Related Mitigation Measure (Performance Criteria)

This column would include each mitigation measure as it is described in the EIR summary table (Table 2-1 in EIR chapter 2)—such as Mitigation 4-1, Mitigation 4-2, Mitigation 4-3, Mitigation 5-1, Mitigation 5-2, Mitigation 5-3, Mitigation 5-4, Mitigation 5-5, etc. The description could be supplemented by applicable performance criteria (i.e., the criteria by which the success of the mitigation can be gauged).

22.1.3 Monitoring

This column would describe (1) the “implementation entity” responsible for carrying out each mitigation measure (such a “future project applicant” or “City”); (2) the “monitoring and verification entity” responsible for performing the monitoring of each mitigation (e.g., a City department, another public agency, or some other entity); and (3) specific implementation timing

requirements (e.g., at the completion of a particular future individual project development review or construction phase, prior to occupancy, or when some other specific threshold is reached).

22.1.4 Verification

The verification column would provide a space for the signature and date of the "monitoring and verification" entity when a monitoring milestone is reached.

Table 22-1

MITIGATION MONITORING CHECKLIST— FREEDOM CIRCLE FOCUS AREA PLAN/GREYSTAR GENERAL PLAN AMENDMENT

The environmental mitigation measures listed in column two below have been incorporated into the conditions of approval for the Freedom Circle Focus Area Plan/Greystar General Plan Amendment in order to mitigate identified environmental impacts. A completed and signed chart will indicate that each mitigation requirement has been complied with, and that City and state monitoring requirements have been fulfilled with respect to Public Resources Code section 21081.6.

		MONITORING			VERIFICATION	
IDENTIFIED IMPACT	**RELATED MITIGATION MEASURE (Performance Criteria)**	**Implementation Entity**	**Monitoring and Verification Entity**	**Timing Requirements**	**Signature**	**Date**
AESTHETICS						
Impact 4-1: Effects on Scenic Vistas—Plan Area.						
Impact 4-2: Effects on Scenic Vistas—Greystar Project.						
Impact 4-3: Impacts on Existing Visual Character and Quality—Plan Area.						
Impact 4-4: Impacts on Existing Visual Character and Quality—Greystar Project.						
Impact 4-5: Project Light and Glare Effects—Plan Area.						
Impact 4-6: Project Light and Glare Effects—Greystar Project.						
AIR QUALITY						
Impact 5-1: Conflict with 2017 Clean Air Plan – Freedom Circle Focus Area Plan.						
Impact 5-2: Conflict with 2017 Clean Air Plan – Greystar General Plan Amendment.						
Impact 5-3: Result in a Cumulatively Considerable Net Increase in Criteria Pollutants for which the Region is Non-Attainment – Freedom Circle Focus Area Plan.						

Impact 5-4: Result in a Cumulatively Considerable Net Increase in Criteria Pollutants for which the Region is Non-Attainment – Greystar General Plan Amendment.						
Impact 5-5: Generate Toxic Air Contaminant Emissions that Expose Sensitive Receptors to Substantial Pollutant Concentrations During Construction – Freedom Circle Focus Area Plan.						
Impact 5-6: Expose Sensitive Receptors to Substantial Operational Pollutant Concentrations – Freedom Circle Focus Area Plan.						
Impact 5-7: Expose Sensitive Receptors to Substantial Pollutant Concentrations – Greystar General Plan Amendment.						
Impact 5-8: Odors – Freedom Circle Focus Area Plan.						
Impact 5-9: Odors – Greystar General Plan Amendment.						
BIOLOGICAL RESOURCES … **[etc.]…**						

23. ORGANIZATIONS AND PERSONS CONTACTED

23.1 CITY STAFF

Reena Brilliot, Planning Manager, Community Development Department
John Davidson, Principal Planner, Community Development Department
Rebecca Bustos, Senior Planner, Community Development Department
Manuel Pineda, Assistant City Manager
Jeremy Ray, Deputy Fire Chief, Fire Department
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Carol Shariat, Principal Transportation Planner, Department of Public Works Traffic Division
Shilpa Mehta, Assistant Director, Water & Sewer Utilities Department
Allie Jackman, Principal Engineer, Department of Public Works
Gustavo Gomez, Principal Engineer (AN), Department of Public Works
Evelyn Liang, PE, SE, Senior Civil Engineer, Department of Public Works
Diane Asuncion, Acting Compliance Manager, Water & Sewer Utilities Department
Rinta Perkins, Compliance Manager, Public Works Department
Carolyn McDowell, Management Analyst, Police Department
Gina Saporito, Staff Aide II, Parks & Recreation Department

23.2 OTHERS

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Emily Hanson, Green Waste Recovery

24. EIR PREPARERS

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