# Appendix A
## Notice of Preparation and Comments

# NOTICE OF PREPARATION
# OF AN EIR AND SCOPING MEETING
# FOR THE PROPOSED 101 GULL DRIVE PROJECT

**To:** Agencies, Organizations, and Interested Parties

**From:** City of South San Francisco, Economic and Community Development Department

**Subject**: Notice of Preparation (NOP) of an Environmental Impact Report (EIR) in Compliance with Title 14, Sections 15082(a), 15103, and 15375 of the California Code of Regulations (CCR). Title 14, Chapter 3 of the CCR is described herein as the California Environmental Quality Act (CEQA). The City of South San Francisco (City) is the Lead Agency under CEQA for the proposed project identified below, and will prepare an EIR to analyze the project under CEQA.

**Project Title:** 101 Gull Drive. The project location and a summary of the project description are included on the following page.

**Current Environmental Review:** An Initial Study has been prepared in accordance with CEQA Guidelines Section 15063 to determine topic areas that have the potential to result in significant environmental impacts.

The Initial Study determined that the project would not have significant impacts in the other CEQA topic areas, consisting of Aesthetics, Agricultural and Forestry Resources, Air Quality, Biological Resources, Cultural Resources, Energy, Geology/Soils, Greenhouse Gas Emissions, Hydrology and Water Quality, Land Use and Planning, Population and Housing, Mineral Resources, Noise, Public Services, Recreation, Tribal Cultural Resources, Utilities and Service Systems, and Wildfire.

The Initial Study determined that an Environmental Impact Report should be prepared to provide detailed analysis in the topic areas of Hazards & Hazardous Materials and Transportation.

**Where to View Documents:** The Initial Study, its supporting documentation, and details relating to the project are on-file and available for review online at:
www.ssf.net/CEQAdocuments under the "101 Gull Drive" project. If you are unable to view documents online, please use the contact below to arrange access to an alternate digital copy or hard copy.

**Agency/Public Comments:** The City requests your comments regarding the analysis in the Initial Study and the scope and content of the environmental review to be presented in the Environmental Impact Report for the proposed project. Due to the time limits mandated by State law, your response must be sent at the earliest possible date but not later than 30 days after receipt of this notice. The City will accept written comments on this NOP from October 14, 2021 through 5pm on November 12, 2021. Please send your comments by email to stephanie.skangos@ssf.net or by mail to: **City of South San Francisco, Economic and Community Development Department,** 315 Maple Avenue, South San Francisco, CA 94083, Attention: Stephanie Skangos, Associate Planner. Verbal comments will also be received at the Scoping Meeting indicated below.

**Scoping Meeting:** Pursuant to Public Resources Code Section 21083.9 and Sections 15206 and 15082 of the CEQA Guidelines, the Lead Agency also hereby gives notice of a public scoping meeting on this project to receive comments on the scope of the EIR. In accordance with current shelter-in-place mandates related to COVID-19, the Lead Agency will conduct a virtual scoping meeting on Thursday, November 4, 2021, from 4:30 PM to 5:30 PM, via webinar and telephone conference line. During the

scoping meeting, agencies, organizations, and the public will have an opportunity to submit comments. Please note that comments are limited to three minutes per speaker.

To access the scoping meeting webinar, please use this link from your computer, tablet or smartphone (you may need to install the Zoom app on your device prior to the meeting):
https://ssf-net.zoom.us/j/81573605732?pwd=TDFLUWxxc25NRUYwYml3MUxPR3QzUT09

You can also dial in to the meeting using your phone (United States Toll Free):
833 548 0276, 833 548 0282, 877 853 5257, or 888 475 4499
Meeting ID: 815 7360 5732
Passcode: 285944

**EIR Process:** Following the close of the NOP comment period, a Draft EIR will be prepared that will consider the environmental topic areas of Hazards & Hazardous Materials and Transportation and take into consideration NOP comments. In accordance with CEQA Guidelines Section 15105(a), the Draft EIR will be released for public review and comment for the required 45-day review period. Following the close of the 45-day public review period, the City will prepare a Final EIR that will include responses to all substantive comments received on the Draft EIR. The Draft EIR and Final EIR will be considered by the Planning Commission and City Council in making the decision to certify the EIR and to approve or deny the project.

**Project Location:** The project site is located at 101 Gull Drive (Assessor's Parcel Number 015-082-250), within the City of South San Francisco's "East of 101" planning area. The 3.8-acre project site is currently vacant. While the site is located along Gull Drive, it is largely separated from the roadway by a grade change and steep slope. The project site is located behind businesses fronting Eccles Avenue and Oyster Point Boulevard and existing access easements with nearby properties would provide mutual access to driveways on those roadways along with the new driveway on Gull Drive proposed as a part of this project. The location of the project is shown in **Figure 1**.

The site is impacted by contamination from historic and adjacent uses. During the 1950s, trash was reportedly burned on a portion of the project site and/or burn ash dumped at the site. The trash burning/ash dumping activities were not licensed. While the burn ash located at the project site is assumed to be associated with activity at the now-closed Oyster Point Landfill across Gull Drive from the site, the project site was not used for disposal of municipal solid waste. The residual burn ash material consists of ash, brick, concrete, metal fragments, and glass, and select metals concentrations were reported at concentrations above industrial or commercial environmental screening levels, requiring further action. Additionally, migration of landfill gas from the Oyster Point Landfill had historically been a concern. Hazards and Hazardous Materials will be discussed in detail in the Environmental Impact Report.

**Project Description:** The Project Sponsor, Sanfo Group LLC, is proposing construction and operation of a new 166,613-square-foot, 7-story, office / research and development (R&D) building and an attached 4.5-story 419-stall parking garage. Site improvements would also include open space, landscaping, outdoor seating areas, pedestrian walkways, and vehicular circulation elements, including a connection to Gull Drive for the mutual access easements in the vicinity. The project site plan is shown in **Figure 2**.

Construction is expected to span approximately 22.5 months. No substantial excavation or subsurface floors / parking is proposed. Grading would involve 18,440 cubic yards of cut across the site. Some of that would be balanced on site, with a net import of 1,780 cubic yards and export of 16,460 cubic yards. Drilled piles are proposed for building support that would be drilled down to bedrock (approximately 15 to 60 feet). To address the stability of the slope along the south and east portions of the site, design-

level geotechnical recommendations would include a combination of additional rows of piles, ground improvement and/or tighter spacing of piles.

The proposed project is consistent with the existing General Plan designation and zoning at the site and would require the following approvals from the City of South San Francisco: Conditional Use Permit (Parking/Loading Reduction, Incentive-Based Floor Area Ratio (FAR) Bonus, Parking Garage Rooftop Planting), Design Review, Transportation Demand Management Program.

Date: October 13, 2021

Stephanie Skangos, Associate Planner
Telephone: (650) 877-8535

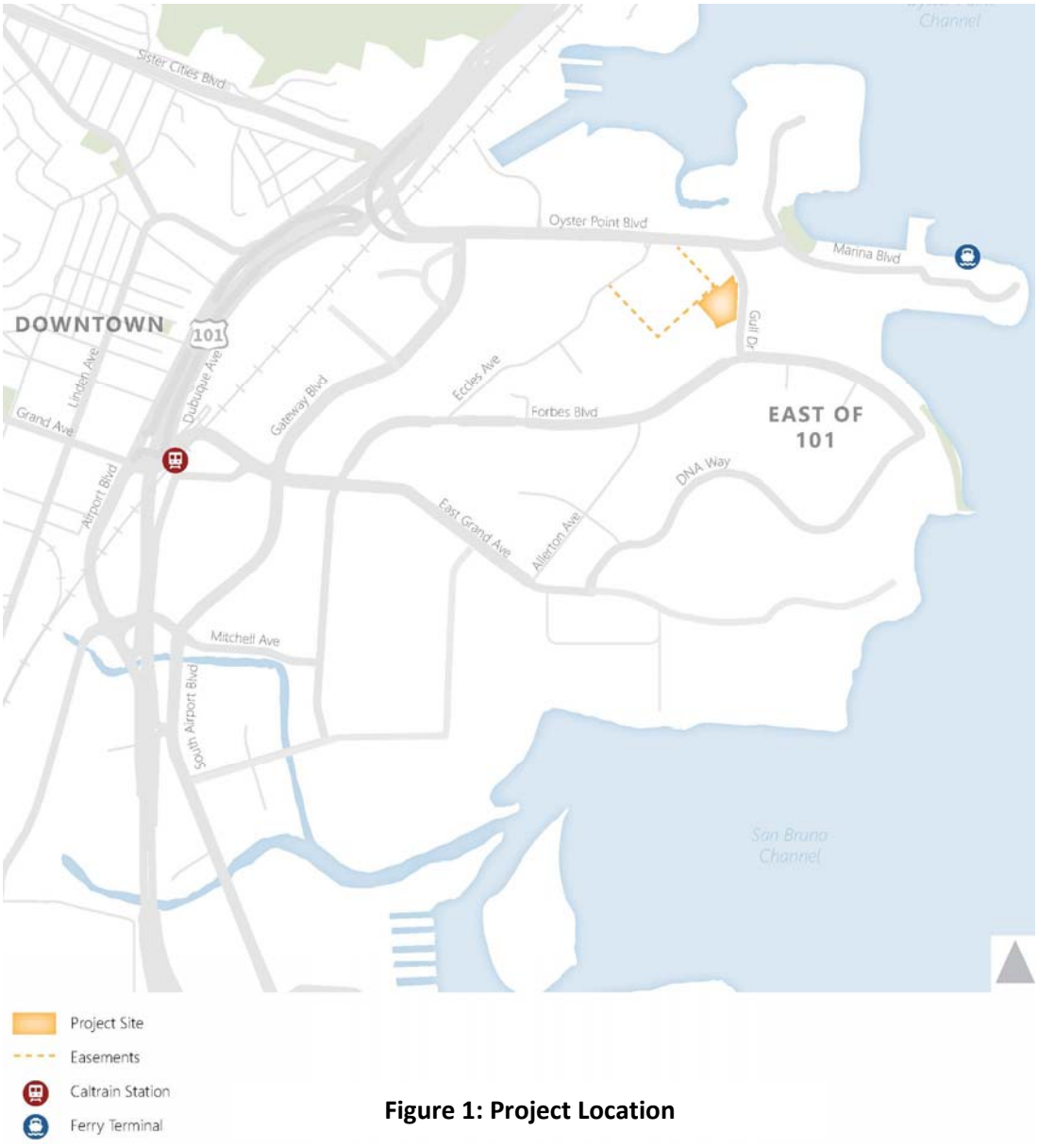


**Figure 1: Project Location**

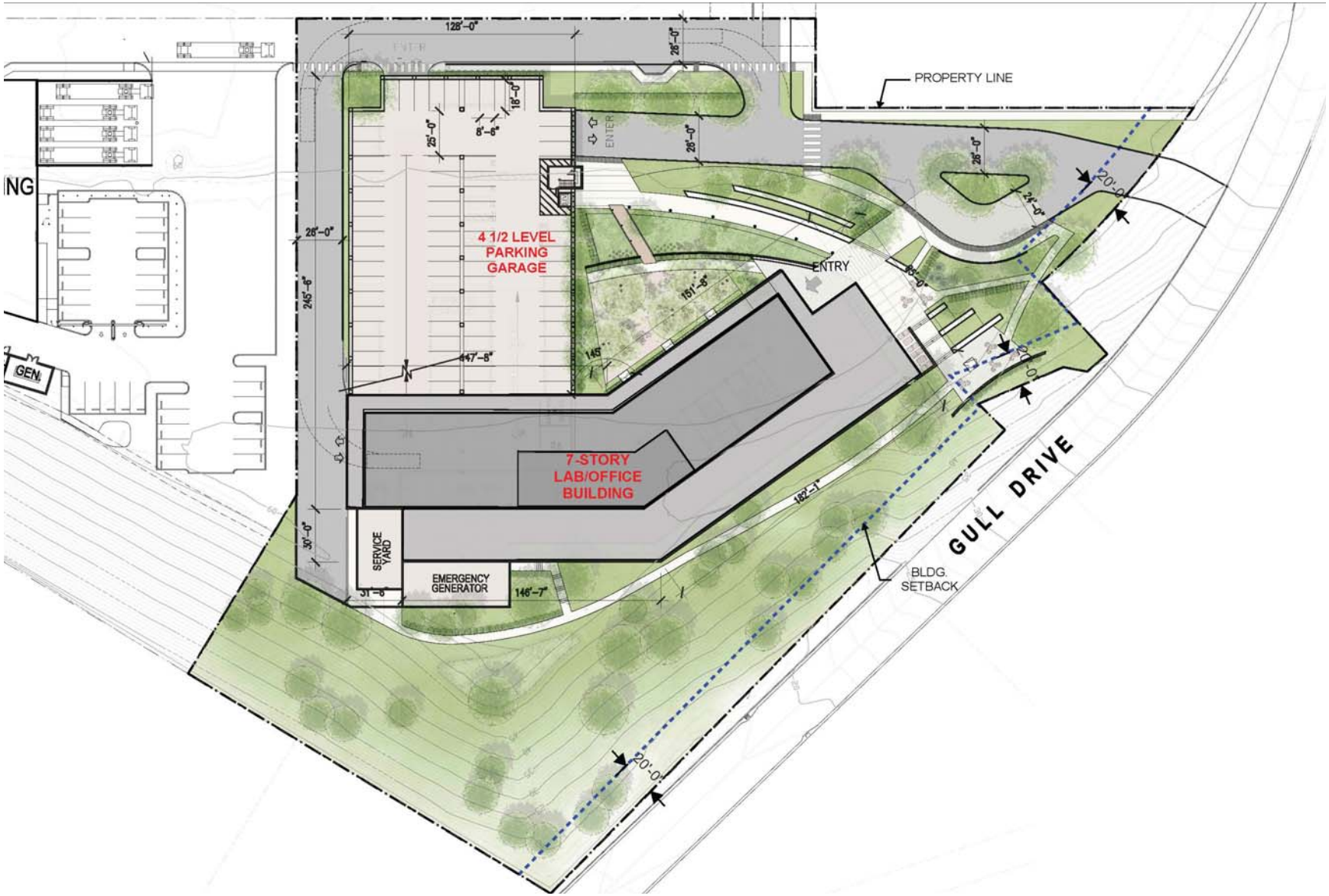


**Figure 2: Project Site Plan**

STATE OF CALIFORNIA — Gavin Newsom, Governor

NATIVE AMERICAN HERITAGE COMMISSION



October 20, 2021

Stephanie Skangos
City of South San Francisco, Economic & Community Development
315 Maple Avenue
South San Francisco, CA 94083

**Re: 2021100227, 101 Gull Drive Project, San Mateo County**

Dear Ms. Skangos:

The Native American Heritage Commission (NAHC) has received the Notice of Preparation (NOP), Draft Environmental Impact Report (DEIR) or Early Consultation for the project referenced above. The California Environmental Quality Act (CEQA) (Pub. Resources Code §21000 et seq.), specifically Public Resources Code §21084.1, states that a project that may cause a substantial adverse change in the significance of a historical resource, is a project that may have a significant effect on the environment. (Pub. Resources Code § 21084.1; Cal. Code Regs., tit.14, §15064.5 (b) (CEQA Guidelines §15064.5 (b)). If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an Environmental Impact Report (EIR) shall be prepared. (Pub. Resources Code §21080 (d); Cal. Code Regs., tit. 14, § 5064 subd.(a)(1) (CEQA Guidelines §15064 (a)(1)). In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources within the area of potential effect (APE).

CEQA was amended significantly in 2014. Assembly Bill 52 (Gatto, Chapter 532, Statutes of 2014) (AB 52) amended CEQA to create a separate category of cultural resources, "tribal cultural resources" (Pub. Resources Code §21074) and provides 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. (Pub. Resources Code §21084.2). Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource. (Pub. Resources Code §21084.3 (a)). **AB 52 applies to any project for which a notice of preparation, a notice of negative declaration, or a mitigated negative declaration is filed on or after July 1, 2015.** If your project involves the adoption of or amendment to a general plan or a specific plan, or the designation or proposed designation of open space, on or after March 1, 2005, it may also be subject to Senate Bill 18 (Burton, Chapter 905, Statutes of 2004) (SB 18). **Both SB 18 and AB 52 have tribal consultation requirements.** If your project is also subject to the federal National Environmental Policy Act (42 U.S.C. § 4321 et seq.) (NEPA), the tribal consultation requirements of Section 106 of the National Historic Preservation Act of 1966 (154 U.S.C. 300101, 36 C.F.R. §800 et seq.) may also apply.

The NAHC recommends consultation with California Native American tribes that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources. Below is a brief summary of portions of AB 52 and SB 18 as well as the NAHC's recommendations for conducting cultural resources assessments.

**Consult your legal counsel about compliance with AB 52 and SB 18 as well as compliance with any other applicable laws.**



**NAHC HEADQUARTERS**
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov

AB 52

AB 52 has added to CEQA the additional requirements listed below, along with many other requirements:

**1.** Fourteen Day Period to Provide Notice of Completion of an Application/Decision to Undertake a Project: Within fourteen (14) days of determining that an application for a project is complete or of a decision by a public agency to undertake a project, a lead agency shall provide formal notification to a designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, to be accomplished by at least one written notice that includes:

**a.** A brief description of the project.

**b.** The lead agency contact information.

**c.** Notification that the California Native American tribe has 30 days to request consultation. (Pub. Resources Code §21080.3.1 (d)).

**d.** A "California Native American tribe" is defined as a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of Statutes of 2004 (SB 18). (Pub. Resources Code §21073).

**2.** Begin Consultation Within 30 Days of Receiving a Tribe's Request for Consultation and Before Releasing a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report: A lead agency shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project. (Pub. Resources Code §21080.3.1, subds. (d) and (e)) and prior to the release of a negative declaration, mitigated negative declaration or Environmental Impact Report. (Pub. Resources Code §21080.3.1(b)).

**a.** For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code §65352.4 (SB 18). (Pub. Resources Code §21080.3.1 (b)).

**3.** Mandatory Topics of Consultation If Requested by a Tribe: The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:

**a.** Alternatives to the project.

**b.** Recommended mitigation measures.

**c.** Significant effects. (Pub. Resources Code §21080.3.2 (a)).

**4.** Discretionary Topics of Consultation: The following topics are discretionary topics of consultation:

**a.** Type of environmental review necessary.

**b.** Significance of the tribal cultural resources.

**c.** Significance of the project's impacts on tribal cultural resources.

**d.** If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency. (Pub. Resources Code §21080.3.2 (a)).

**5.** Confidentiality of Information Submitted by a Tribe During the Environmental Review Process: With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code §6254 (r) and §6254.10. Any information submitted by a California Native American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public. (Pub. Resources Code §21082.3 (c)(1)).

**6.** Discussion of Impacts to Tribal Cultural Resources in the Environmental Document: If a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document shall discuss both of the following:

**a.** Whether the proposed project has a significant impact on an identified tribal cultural resource.

**b.** Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to Public Resources Code §21082.3, subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource. (Pub. Resources Code §21082.3 (b)).

**7.** Conclusion of Consultation: Consultation with a tribe shall be considered concluded when either of the following occurs:

**a.** The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or

**b.** A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. (Pub. Resources Code §21080.3.2 (b)).

**8.** Recommending Mitigation Measures Agreed Upon in Consultation in the Environmental Document: Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code §21080.3.2 shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program, if determined to avoid or lessen the impact pursuant to Public Resources Code §21082.3, subdivision (b), paragraph 2, and shall be fully enforceable. (Pub. Resources Code §21082.3 (a)).

**9.** Required Consideration of Feasible Mitigation: If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, the lead agency shall consider feasible mitigation pursuant to Public Resources Code §21084.3 (b). (Pub. Resources Code §21082.3 (e)).

**10.** Examples of Mitigation Measures That, If Feasible, May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:

**a.** Avoidance and preservation of the resources in place, including, but not limited to:

**i.** Planning and construction to avoid the resources and protect the cultural and natural context.

**ii.** Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.

**b.** Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:

**i.** Protecting the cultural character and integrity of the resource.

**ii.** Protecting the traditional use of the resource.

**iii.** Protecting the confidentiality of the resource.

**c.** Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.

**d.** Protecting the resource. (Pub. Resource Code §21084.3 (b)).

**e.** Please note that a federally recognized California Native American tribe or a non-federally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed. (Civ. Code §815.3 (c)).

**f.** Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated. (Pub. Resources Code §5097.991).

**11.** Prerequisites for Certifying an Environmental Impact Report or Adopting a Mitigated Negative Declaration or Negative Declaration with a Significant Impact on an Identified Tribal Cultural Resource: An Environmental Impact Report may not be certified, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:

**a.** The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code §21080.3.1 and §21080.3.2 and concluded pursuant to Public Resources Code §21080.3.2.

**b.** The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.

**c.** The lead agency provided notice of the project to the tribe in compliance with Public Resources Code §21080.3.1 (d) and the tribe failed to request consultation within 30 days. (Pub. Resources Code §21082.3 (d)).

The NAHC's PowerPoint presentation titled, "Tribal Consultation Under AB 52: Requirements and Best Practices" may be found online at: http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPAPDF.pdf

SB 18

SB 18 applies to local governments and requires local governments to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. (Gov. Code §65352.3). Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at: https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf.

Some of SB 18's provisions include:

1. Tribal Consultation: If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. **A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe.** (Gov. Code §65352.3 (a)(2)).
2. No Statutory Time Limit on SB 18 Tribal Consultation. There is no statutory time limit on SB 18 tribal consultation.
3. Confidentiality: Consistent with the guidelines developed and adopted by the Office of Planning and Research pursuant to Gov. Code §65040.2, the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code §5097.9 and §5097.993 that are within the city's or county's jurisdiction. (Gov. Code §65352.3 (b)).
4. Conclusion of SB 18 Tribal Consultation: Consultation should be concluded at the point in which:
    a. The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or
    b. Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation. (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).

Agencies should be aware that neither AB 52 nor SB 18 precludes agencies from initiating tribal consultation with tribes that are traditionally and culturally affiliated with their jurisdictions before the timeframes provided in AB 52 and SB 18. For that reason, we urge you to continue to request Native American Tribal Contact Lists and "Sacred Lands File" searches from the NAHC. The request forms can be found online at: http://nahc.ca.gov/resources/forms/.

NAHC Recommendations for Cultural Resources Assessments

To adequately assess the existence and significance of tribal cultural resources and plan for avoidance, preservation in place, or barring both, mitigation of project-related impacts to tribal cultural resources, the NAHC recommends the following actions:

1. Contact the appropriate regional California Historical Research Information System (CHRIS) Center (http://ohp.parks.ca.gov/?page_id=1068) for an archaeological records search. The records search will determine:
    a. If part or all of the APE has been previously surveyed for cultural resources.
    b. If any known cultural resources have already been recorded on or adjacent to the APE.
    c. If the probability is low, moderate, or high that cultural resources are located in the APE.
    d. If a survey is required to determine whether previously unrecorded cultural resources are present.

2. If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
    a. The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum and not be made available for public disclosure.
    b. The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.

3. Contact the NAHC for:
   **a.** A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.
   **b.** A Native American Tribal Consultation List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.

4. Remember that the lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.
   **a.** Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources per Cal. Code Regs., tit. 14, §15064.5(f) (CEQA Guidelines §15064.5(f)). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.
   **b.** Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.
   **c.** Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code §7050.5, Public Resources Code §5097.98, and Cal. Code Regs., tit. 14, §15064.5, subdivisions (d) and (e) (CEQA Guidelines §15064.5, subds. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

If you have any questions or need additional information, please contact me at my email address: Katy.Sanchez@nahc.ca.gov.

Sincerely,

Katy Sanchez

Katy Sanchez,
Associate Environmental Planner

cc: State Clearinghouse

**California Department of Transportation**

DISTRICT 4
OFFICE OF TRANSIT AND COMMUNITY PLANNING
P.O. BOX 23660, MS–10D | OAKLAND, CA 94623-0660
www.dot.ca.gov

November 9, 2021

SCH #: 2021100227
GTS #: 04-SM-2021-00391
GTS ID: 24595
Co/Rt/Pm: SM/101/23.2

Stephanie Skangos, Associate Planner
City of South San Francisco
Economic & Community Development Department
315 Maple Avenue
South San Francisco, CA 94083

**Re: 101 Gull Drive Notice of Preparation (NOP)**

Dear Stephanie Skangos:

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the 101 Gull Drive Project. We are committed to ensuring that impacts to the State's multimodal transportation system and to our natural environment are identified and mitigated to support a safe, sustainable, integrated and efficient transportation system. The following comments are based on our review of the October 2021 NOP.

**Project Understanding**
The project proposes the construction and operation of a 166,613-square-foot, 7-story, office/research and development (R&D) building, an attached 4.5-story 419-stall parking garage, along with related site improvements. The project is located 1 mile east of the US-101/Oyster Point Boulevard interchange in the City of South San Francisco.

**Travel Demand Analysis**
With the enactment of Senate Bill (SB) 743, Caltrans is focused on maximizing efficient development patterns, innovative travel demand reduction strategies, and multimodal improvements. For more information on how Caltrans assesses Transportation Impact Studies, please review Caltrans' Transportation Impact Study Guide.

If the project meets the screening criteria established in the City's adopted Vehicle Miles Traveled (VMT) policy to be presumed to have a less-than-significant VMT impact and exempt from detailed VMT analysis, please provide justification to support the exempt status in align with the City's VMT policy. Projects that do not meet the screening criteria should include a detailed VMT analysis in the Draft Environmental Impact Report (DEIR), which should include the following:

- VMT analysis pursuant to the City's guidelines. Projects that result in automobile VMT per capita above the threshold of significance for existing (i.e. baseline) city-wide or regional values for similar land use types may indicate a significant impact. If necessary, mitigation for increasing VMT should be identified. Mitigation should support the use of transit and active transportation modes. Potential mitigation measures that include the requirements of other agencies such as Caltrans are fully enforceable through permit conditions, agreements, or other legally-binding instruments under the control of the City.

- A schematic illustration of walking, biking and auto conditions at the project site and study area roadways. Potential safety issues for all road users should be identified and fully mitigated.

- The project's primary and secondary effects on pedestrians, bicycles, travelers with disabilities and transit performance should be evaluated, including countermeasures and trade-offs resulting from mitigating VMT increases. Access to pedestrians, bicycle, and transit facilities must be maintained.

**Mitigation Strategies**
Location efficiency factors, including community design and regional accessibility, influence a project's impact on the environment. Using Caltrans' *Smart Mobility 2010: A Call to Action for the New Decade*, the proposed project site is identified as a Close-In Compact Community where community design is moderate and regional accessibility is variable.

Given the place, type and size of the project, the DEIR should include a robust Transportation Demand Management (TDM) Program to reduce VMT and greenhouse gas emissions from future development in this area. The measures listed below have been quantified by California Air Pollution Control Officers Association (CAPCOA) and shown to have different efficiencies reducing regional VMT:

- Bike/Pedestrian network improvements;
- Traffic calming measures;
- Implementation of a neighborhood electric vehicle (EV) network, including designated parking spaces for EVs;
- Limiting parking supply;

- Ridesharing programs, Commute Trip Reduction programs, bike sharing programs;
- Transit and trip planning resources such as a commute information kiosk;
- Real-time transit information system;
- Transit access supporting infrastructure (including bus shelter improvements and sidewalk/ crosswalk safety facilities);
- VMT Banking and/or Exchange program;
- Bike parking near transit facilities;
- Telecommuting programs and alternative work schedules; and/or
- Employer-based vanpool.

Using a combination of strategies appropriate to the project and the site can reduce VMT, along with related impacts on the environment and State facilities. TDM programs should be documented with annual monitoring reports by a TDM coordinator to demonstrate effectiveness. If the project does not achieve the VMT reduction goals, the reports should also include next steps to take in order to achieve those targets.

Please reach out to Caltrans for further information about TDM measures and a toolbox for implementing these measures in land use projects. Additionally, Federal Highway Administration's Integrating Demand Management into the Transportation Planning Process: A Desk Reference (Chapter 8). The reference is available online at: http://www.ops.fhwa.dot.gov/publications/fhwahop12035/fhwahop12035.pdf.

**Transportation Impact Fees**
Please identify project-generated travel demand and estimate the costs of transit and active transportation improvements necessitated by the proposed project; viable funding sources such as development and/or transportation impact fees should also be identified. We encourage a sufficient allocation of fair share contributions toward multi-modal and regional transit improvements to fully mitigate cumulative impacts to regional transportation. We also strongly support measures to increase sustainable mode shares, thereby reducing VMT.

**Lead Agency**
As the Lead Agency, the City of South San Francisco is responsible for all project mitigation, including any needed improvements to the State Transportation Network (STN). The project's fair share contribution, financing, scheduling, implementation responsibilities and lead agency monitoring should be fully discussed for all proposed mitigation measures.

Thank you again for including Caltrans in the environmental review process. Should you have any questions regarding this letter, please contact Nick Hernandez at nick.hernandez@dot.ca.gov. Additionally, for future notifications and requests for review of new projects, please email LDIGR-D4@dot.ca.gov.

Sincerely,

Mark Leong

MARK LEONG
District Branch Chief
Local Development - Intergovernmental Review

c: State Clearinghouse

# Appendix B
## Initial Study

# INITIAL STUDY

## 101 GULL DRIVE PROJECT

**Lead Agency:**

City of South San Francisco
Economic & Community Development Department
315 Maple Avenue
South San Francisco, CA 94083-0711

**OCTOBER 2021**

**Prepared By:**
Lamphier-Gregory, Inc.
4100 Redwood Rd, STE 20A - #601
Oakland, CA 94619

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## TABLES



## FIGURES



## ATTACHMENTS

# INTRODUCTION TO THIS DOCUMENT

This document serves as the Initial Study for the 101 Gull Drive project ("project"). As discussed in this document, an EIR will be prepared to address indicated topics. Full project application materials are available for review upon request from the Planning Department at City of South San Francisco (see contact info below).

# PUBLIC REVIEW

This Initial Study will be circulated for a 30-day public review period. Comments may be submitted in writing by email or regular mail to the following address:

Stephanie Skangos, Associate Planner
City of South San Francisco
Economic & Community Development Department
315 Maple Avenue
South San Francisco, CA 94083-0711
Phone: 650-877-8535
Email: stephanie.skangos@ssf.net

# PROJECT INFORMATION

All figures for the project information are included together on pages 5 through 10.

## PROJECT ENTITLEMENTS

Development of the project would require the following approvals from the City of South San Francisco: Conditional Use Permit (Parking/Loading Reduction, Incentive-Based Floor Area Ratio (FAR) Bonus, Parking Garage Rooftop Planting), Design Review, Transportation Demand Management Program.

Because the project is located in the San Francisco International Airport Land Use Compatibility Plan area, the project would be subject to Airport Land Use Commission review and approval.

The project is required to comply with Municipal Regional Permit requirements related to stormwater pollution prevention.

## LEAD AGENCY

City of South San Francisco
Economic & Community Development Department
315 Maple Avenue
South San Francisco, CA 94083-0711

## CONTACT PERSON

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## PROJECT SPONSOR

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El Dorado Hills, CA 96762

## PROJECT LOCATION AND EXISTING USES

The project site (APN 015-082-250) is a vacant, generally triangular-shaped 3.8-acre lot located in the East of 101 area of the City of South San Francisco, California. The project proposes the construction and operation of a 166,613 square foot office/research and development (R&D) building with adjoining structured parking and a new driveway on Gull Drive along with mutual access easements with the neighboring properties also connecting to Eccles Avenue and Oyster Point Road. **Figure 1** shows the project location.

The site is located along Gull Drive, but is largely separated from the roadway by a grade change and step slope. The project site is located behind businesses fronting Eccles Avenue and Oyster Point Boulevard and existing access easements with nearby properties would provide mutual access to driveways on those roadways and the new driveway on Gull Drive proposed as a part of this project. The regional location of the project is shown in **Figure 1** and the project parcel, including access easements, is shown in **Figure 2**.

The site is relatively level, except along its south and east portions, which slope down at inclinations of approximately 2:1 (horizontal to vertical). The maximum slope height is around 40 feet.

The site is generally underlain by about 10 to 55 feet of undocumented fill consisting of loose to medium dense sandy soil and stiff to very stiff clayey soil with varying amounts of debris. The fill is around 10 feet thick at the northeast corner of the site and increases to the south and to the west with the thickest portion near the top of the existing slope. The fill is underlain by stiff to hard clay and sandy clay over bedrock. Bedrock, consisting of sandstone and claystone of the Francisco Complex was encountered at depths ranging from 12 to 68 feet below ground surface. Bedrock generally becomes deeper to the southwest.

Due to the steep slope of the native soil and bedrock underlying the site and the current site topography, the depth to groundwater is variable. The depth to groundwater is approximately 30 feet below ground surface and the groundwater flow direction is to the southeast, generally toward the San Francisco Bay.

The site is impacted by contamination from historic and adjacent uses. During the 1950s, trash was reportedly burned on a portion of the project site and/or burn ash dumped at the site. The trash burning/ash dumping activities were not licensed. While the burn ash located at the project site is assumed to be associated with activity at the now-closed Oyster Point Landfill across Gull Drive from the site, the project site was not used for disposal of municipal solid waste. The residual burn ash material consists of ash, brick, concrete, metal fragments, and glass, and select metals concentrations were reported at concentrations above industrial or commercial environmental screening levels, requiring further action. Additionally, migration of landfill gas from the Oyster Point Landfill had historically been a concern. Hazards and Hazardous Materials will be discussed in detail in the Environmental Impact Report.

## General Plan Designation / Zoning

Business and Technology Park / Business Technology Park (BTP)

## Surrounding Land Uses

Uses in the project vicinity include a mix of office, warehouse, corporate, commercial, and light industrial uses in Business Technology Park zoning. The project parcel is bounded to the north, west, and south by office/commercial and light industrial buildings and associated parking lots. Gull Drive borders the project parcel to the east.

Four existing businesses would directly share the access driveway(s) with the project. The existing easements are shown on **Figure 2**. Adjacent to the north of the project site is Plenty Unlimited, Inc., a hydroponic produce company. Two buildings, together comprising the Nickell Property, sit southwest of the Plenty Unlimited building across the mutually-accessible 30-foot driveway to Eccles Avenue. The Nickell Property includes several office complexes and a wholesale business (MTC Trading Company). Both the Nickell and Plenty Unlimited properties have direct connections from their parking lots to the Eccles Avenue driveway.

On the other side of the Plenty Unlimited building to the east is Iron Mountain, a records storage and document shredding facility. This property is separated from Plenty Unlimited by two parallel approximately 30-foot drive aisles (both owned by Plenty Unlimited, but grade separated such that they are separate aisles), which intersect with Oyster Point Boulevard east of the signalized intersection with Eccles Avenue and the signalized intersection with a driveway to the north.

A mutual access easement also runs along the northwest border or the project site and the USDA facility to the southwest of the project site, allowing access around the back of the Plenty Unlimited and Iron Mountain properties and, if the project is implemented, to Gull Drive via the proposed new driveway.

## Project Description

*Overview and Building Massing*

The proposed project would involve construction of a new 166,613-square-foot (sf), 7-story, office / research and development (R&D) building and an attached 4.5-story 419-stall parking garage. Site improvements would also include open space, landscaping, outdoor seating areas, pedestrian walkways, and vehicular circulation elements, including a connection to Gull Drive for the mutual access easements in the vicinity (see above).

The exterior office/R&D building design would include fiber cement panels and colored glass with metal louvers and overhangs and would reach heights of 115.5 feet tall to the top of the parapet, with allowable rooftop elements up to 128 feet. The parking garage would reach heights of 44 feet tall.

The project site plan is shown on **Figure 3** and the grading and drainage plan is shown in **Figure 4**. Building elevations are shown on **Figures 5a** and **5b**.

*Access & Parking*

Vehicular access to and from the project would be via three routes (all of which have mutual access easements with nearby properties per discussion above):

- A new right-in/right-out only driveway on Gull Drive (which would require recording a new access easement over a sliver of City-owned land).

- Along the shared drive aisle heading southwest from the site then along an existing driveway between the Plenty Unlimited and Nickell properties to connect with Eccles Avenue at an unsignalized intersection.
- Along one of the two adjacent 30-foot drive aisle easements between the Plenty Unlimited and Iron Mountain buildings to Oyster Point Boulevard. While the intersection of these driveways with Oyster Point Boulevard is not signalized and would be limited to right-in, right-out movements by existing medians on Oyster Point Boulevard, it is possible for vehicles to access the adjacent signalized driveway intersection internally through the parking lot area for full turning options. Due to the constraints of the connection to Oyster Point Boulevard at this access point, the project's on-site circulation has been designed to discourage outbound movement along this pathway.

The companies currently using the existing paved drive aisle along the northwestern boundary of the existing parcel for access and circulation would continue to have the same access and rights to do so; with development of the project, vehicles accessing the project site would also use the driveway and drive aisles.

*Construction*

Construction is expected to span approximately 22.5 months. Site preparation would occur in the first 1.5 months, followed by 3 months of foundation work, then 18 months of building and parking garage construction, which would overlap with 2 months for hardscape and landscaping toward the end of that period. This active construction period would be followed by inspections and closeout. It is expected that future tenants would engage in additional interior build out of the space to suit their needs. Construction activities are targeted to begin in late summer 2022 with operations beginning as early as summer of 2024.

No substantial excavation or subsurface floors / parking is proposed. Grading would involve 18,440 cubic yards of cut across the site. Some of that would be balanced on site, with a net import of 1,780 cubic yards and export of 16,460 cubic yards. Drilled piles are proposed for building support that would be drilled down to bedrock (approximately 15 to 60 feet). To address the stability of the slope along the south and east portions of the site, design-level geotechnical recommendations would include a combination of additional rows of piles, ground improvement and/or tighter spacing of piles.

Depth to groundwater is approximately 30 feet below the ground surface (of the development portion of the site, not the slope), and dewatering is not anticipated during foundation work.


**Figure 1: Project Location**

Source: Fehr & Peers, for this project analysis

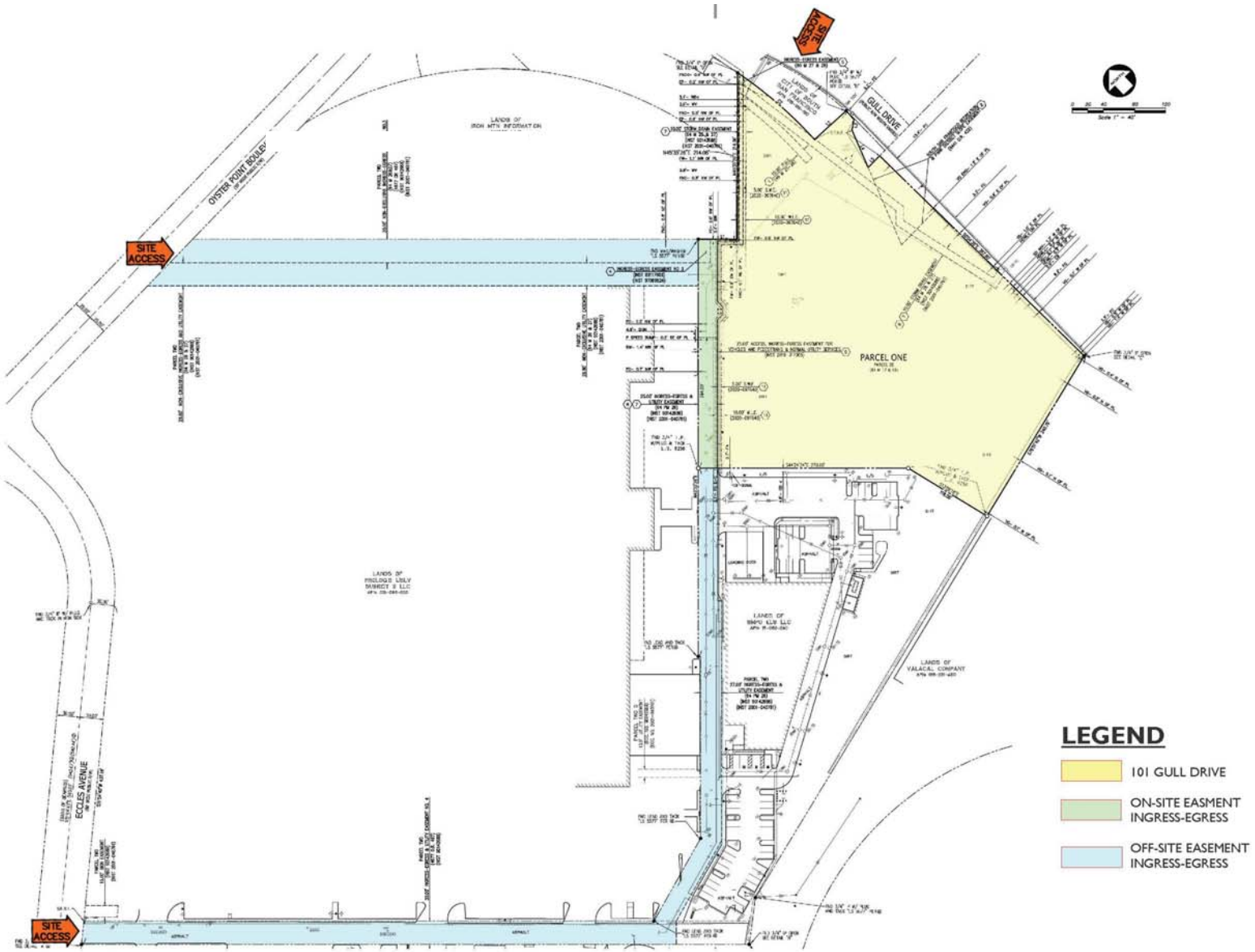



**Figure 2: Existing Conditions and Access Easements**
Source: Project Plan Set, dated 10/8/2021

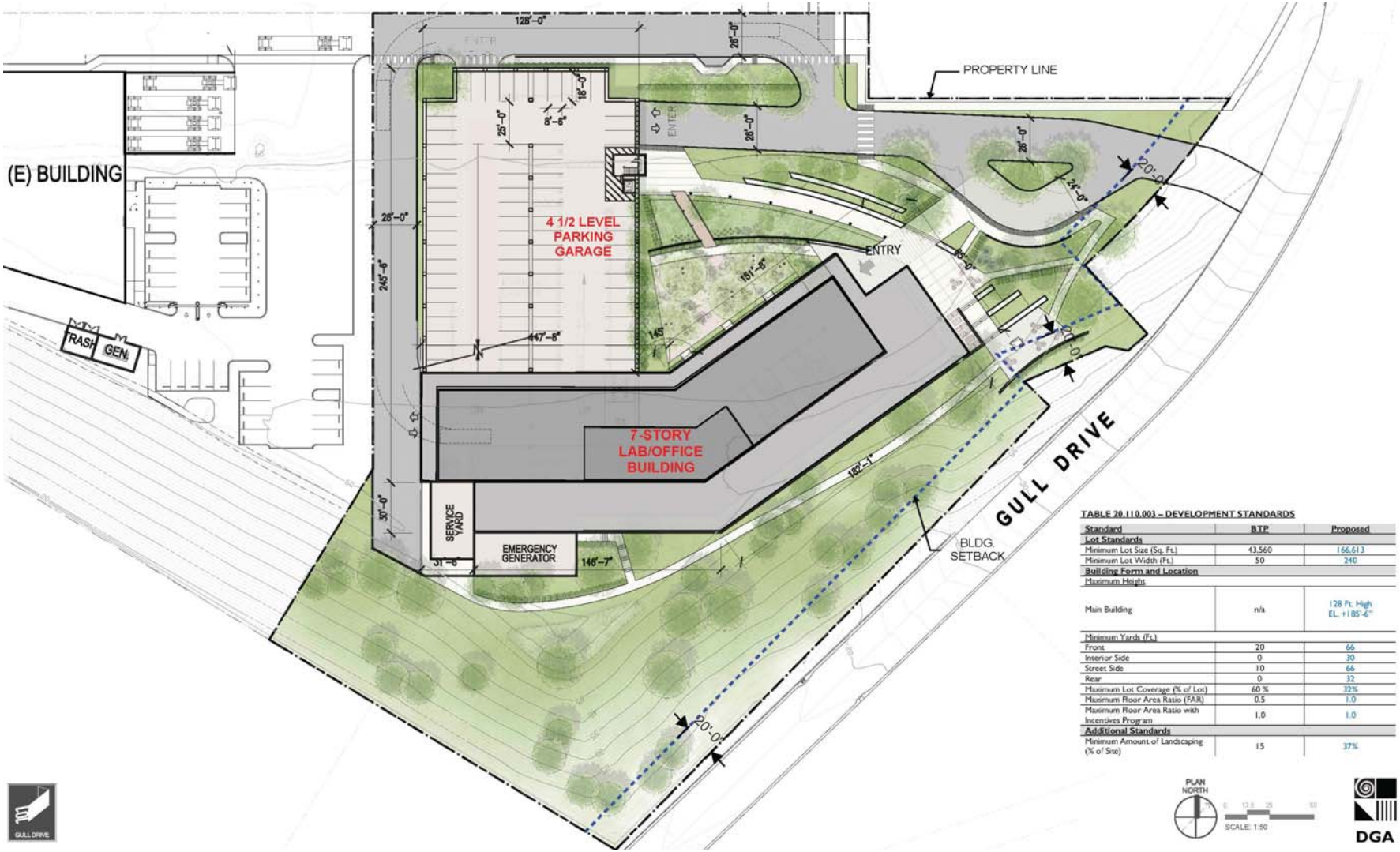



TABLE 20.110.003 – DEVELOPMENT STANDARDS

| Standard | BTP | Proposed |
|---|---|---|
| **Lot Standards** | | |
| Minimum Lot Size (Sq. Ft.) | 43,560 | 166,613 |
| Minimum Lot Width (Ft.) | 50 | 240 |
| **Building Form and Location** | | |
| Maximum Height | | |
| Main Building | n/a | 128 Ft. High EL. +185'-6" |
| Minimum Yards (Ft.) | | |
| Front | 20 | 66 |
| Interior Side | 0 | 30 |
| Street Side | 10 | 66 |
| Rear | 0 | 32 |
| Maximum Lot Coverage (% of Lot) | 60 % | 32% |
| Maximum Floor Area Ratio (FAR) | 0.5 | 1.0 |
| Maximum Floor Area Ratio with Incentives Program | 1.0 | 1.0 |
| **Additional Standards** | | |
| Minimum Amount of Landscaping (% of Site) | 15 | 37% |

**Figure 3: Illustrative Site Plan**

Source: Project Plan Set, dated 10/8/2021

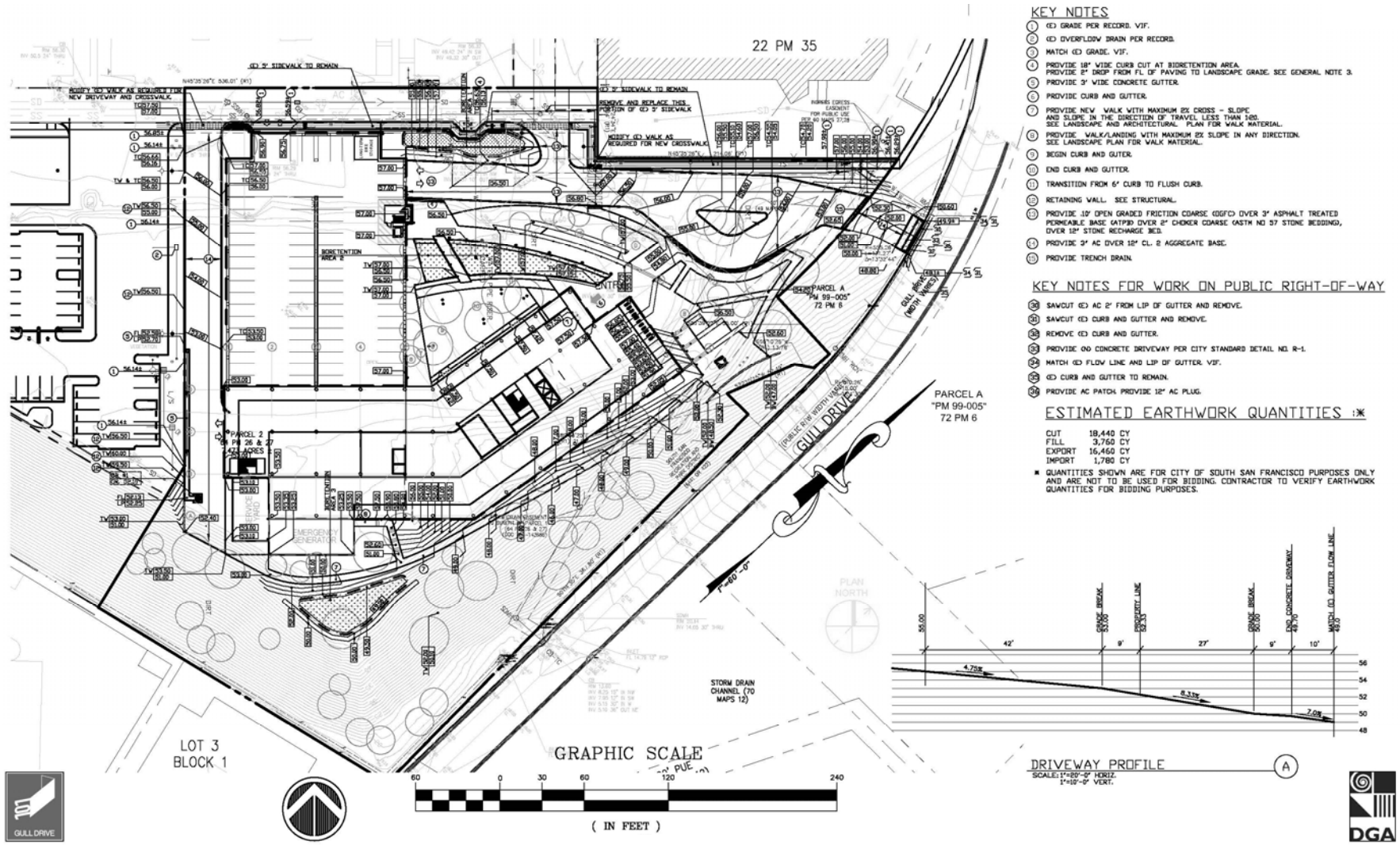



**Figure 4: Grading and Drainage Plan**

Source: Project Plan Set, dated 10/8/2021

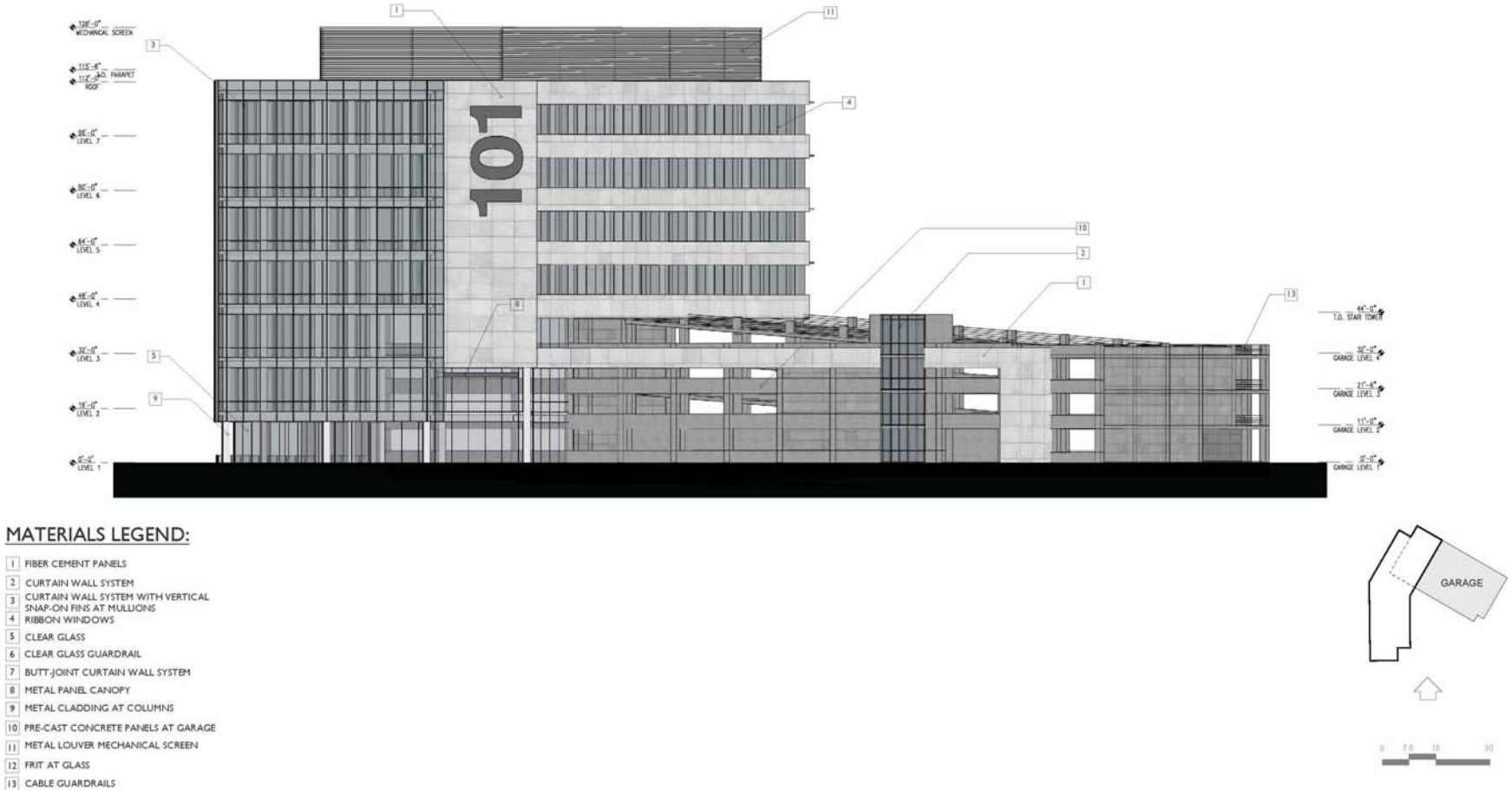
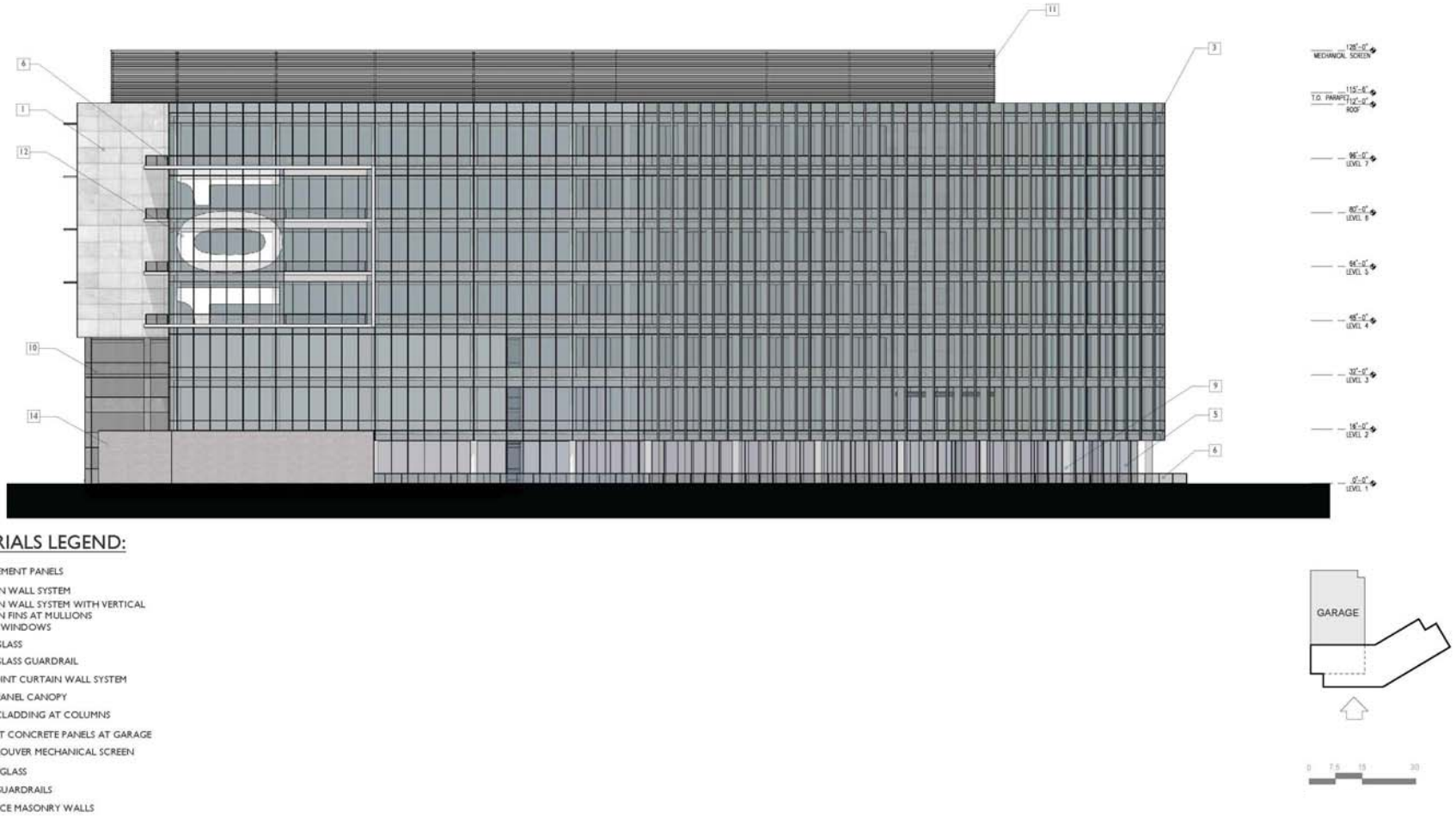



**Figure 5a: Exterior Elevations - Northeast**

Source: Project Plan Set, dated 10/8/2021




MATERIALS LEGEND:

1. FIBER CEMENT PANELS
2. CURTAIN WALL SYSTEM
3. CURTAIN WALL SYSTEM WITH VERTICAL SNAP-ON FINS AT MULLIONS
4. RIBBON WINDOWS
5. CLEAR GLASS
6. CLEAR GLASS GUARDRAIL
7. BUTT-JOINT CURTAIN WALL SYSTEM
8. METAL PANEL CANOPY
9. METAL CLADDING AT COLUMNS
10. PRE-CAST CONCRETE PANELS AT GARAGE
11. METAL LOUVER MECHANICAL SCREEN
12. FRIT AT GLASS
13. CABLE GUARDRAILS
14. SPLIT-FACE MASONRY WALLS

**Figure 5b: Exterior Elevations - South**

Source: Project Plan Set 2/28/2021

# LEAD AGENCY DETERMINATION

On the basis of this evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☐ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because mitigation measures to reduce these impacts will be required of the project. A MITIGATED NEGATIVE DECLARATION will be prepared.

☒ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature Date

Stephanie Skangos, Associate Planner

# INITIAL STUDY CHECKLIST

## ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

Environmental factors that may be affected by the project are listed alphabetically below. Factors marked with an "X" (☒) were determined to be potentially affected by the project, involving at least one impact that is a potentially significant impact as indicated by the Checklist on the following pages. Unmarked factors (☐) were determined to not be significantly affected by the project, based on discussion provided in the Checklist, including the application of mitigation measures.

| | | |
|---|---|---|
| ☐ Aesthetics | ☐ Agricultural/Forest Resources | ☐ Air Quality |
| ☐ Biological Resources | ☐ Cultural Resources | ☐ Energy |
| ☐ Geology/Soils | ☐ Greenhouse Gas Emissions | ☒ Hazards/Hazardous Material |
| ☐ Hydrology/Water Quality | ☐ Land Use/Planning | ☐ Mineral Resources |
| ☐ Noise | ☐ Population/Housing | ☐ Public Services |
| ☐ Recreation | ☒ Transportation | ☐ Tribal Cultural Resources |
| ☐ Utilities/Service Systems | ☐ Wildfire | ☒ Mandatory Findings of Significance |

An EIR will be prepared to address the indicated topics above.

## EVALUATION OF ENVIRONMENTAL EFFECTS

The Checklist portion of the Initial Study begins below, with explanations of each CEQA issue topic. Four outcomes are possible, as explained below.

1. A "no impact" response indicates that no action that would have an adverse effect on the environment would occur due to the project.

2. A "less than significant" response indicates that while there may be potential for an environmental impact, there are standard procedures or regulations in place, or other features of the project as proposed, which would limit the extent of this impact to a level of "less than significant."

3. Responses that indicate that the impact of the project would be "less than significant with mitigation" indicate that mitigation measures, identified in the subsequent discussion, will be required as a condition of project approval in order to effectively reduce potential project-related environmental effects to a level of "less than significant."

4. A "potentially significant impact" response indicates that further analysis is required to determine the extent of the potential impact and identify any appropriate mitigation. If any topics are indicated with a "potentially significant impact," these topics would need to be analyzed in an Environmental Impact Report.

| 1. AESTHETICS<br><br>Would the project: | Potentially Significant Impact | Less Than Significant With Mitigation | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| 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) 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 points.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality? | | | ☒ | |
| d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? | | | ☒ | |

a) Scenic Vistas

The project vicinity is predominantly developed with business park and industrial uses and is not considered a scenic resource or vista in any vicinity plans. The East of 101 Area Plan (Policy 5.3) states that a design goal of development in the Plan Area should be to "Protect visually significant features of the East of 101 Area, including views of the Bay and San Bruno Mountain."[1] CEQA generally protects against significant adverse impacts to public views of scenic vistas, taking into consideration whether the view is from a location at which people gather specifically to enjoy views and the environmental context (i.e., if the area is a natural area or a developed urban area). While views of the Bay and San Bruno Mountain are considered scenic vistas for purposes of this analysis, there are no designated public viewing locations in the vicinity of the project. Views from public roadways are discussed below to indicate the potential for changed views from public locations.

San Bruno Mountain, which lies northwest of the project site, is not visible from Gull Drive (to the east) or Forbes Boulevard (to the south) due to the relative ground elevations and existing development in the area. Similarly, views toward the Bay from area roadways that would cross the site are already substantially blocked at road level by existing area development, topography, and landscaping.

While areas of the adjacent development could experience some blockage of views of the Bay or San Bruno Mountain (for example, views from the parking area south of the Nickell Property and the Plenty Unlimited building could be partially obstructed), this would not be considered a substantial adverse effect, as these are not public viewing locations where people gather specifically to enjoy views and obstruction of private views is not considered a significant environmental impact under CEQA.

[1] East of 101 Area Plan, July 1994, p. 13

Taking both the regulatory and specific locational/scenic context into account, the impact on scenic vistas from implementation of the project would be considered ***less than significant***.

b) Scenic Highways

The project would not be visible from a designated or eligible State Scenic Highway. U.S. 101 is not a designated or eligible State Scenic Highway corridor in the vicinity of the project nor are there any scenic corridors identified in the area.[2] The project would ***be less than significant*** on a state scenic highway or scenic resources viewable from such a highway.

c) Visual Character

The project is located in an urbanized area and therefore the threshold of significance is whether the project would conflict with applicable zoning and other regulations governing scenic quality. The site is currently zoned for Business and Technology Park (BTP) use, under which R&D and office uses are explicitly permitted. While the proposed project would require a Conditional Use Permit for Parking/Loading Reduction, Incentive-Based FAR Bonus, and Parking Garage Rooftop Planting, these are allowable approvals under the site planning and would therefore not be considered conflicts. Therefore, the impact on visual character from implementation of the project would be considered ***less than significant***. Additionally, City staff will review the proposed design as part of the approval process, and design parameters would be imposed by the City.

d) Light and Glare

Sources of light and glare in the project vicinity include interior and exterior building lights, service areas and surface parking lots, and city street lights. Light and glare associated with vehicular traffic along major thoroughfares in the area also create sources of glare. The existing level and sources of light and glare are typical of those in a developed urban business park setting.

Residential uses and natural areas are particularly sensitive to light and glare impacts. The project is located in a commercial and industrial area with no immediately adjacent residential uses or natural areas and has lighting consistent with that existing in the area. As a standard condition of Project approval, new lighting will be required to conform to the City's standards that limit the amount of light that can spill over to other properties through the use of downcast lighting fixtures.

The project would result in development and lighting treatments typical of the existing commercial/industrial urban settings and consistent with lighting standards to minimize lighting on adjacent areas, and would therefore not result in new sources of substantial adverse light or glare. The impact would be ***less than significant***.

[2] California Department of Transportation, State Scenic Highway Mapping System, available at: https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways

| **2. AGRICULTURE AND FORESTRY RESOURCES**<br>In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project: | Potentially Significant Impact | Less Than Significant with Mitigation | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? | | | | ☒ |
| b) Conflict with existing zoning for agricultural use, or a Williamson Act contract? | | | | ☒ |
| c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production(as defined by Government Code section 51104(g))? | | | | ☒ |
| d) Result in the loss of forest land or conversion of forest land to non-forest use? | | | | ☒ |
| e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use? | | | | ☒ |

a-e) Agriculture and Forestry Resources

The project site is located in a developed urban area adjacent to a highway. No part of the site is zoned for or currently being used for agricultural or forestry purposes or is subject to the Williamson Act.[3] There would be ***no impact*** to agricultural and forestry resources as a result of this project.

[3] South San Francisco General Plan, 1999.

| **3. AIR QUALITY**<br>Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project: | Potentially Significant Impact | Less Than Significant with Mitigation | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| 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? | | | ☒ | |
| d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people? | | | ☒ | |
| a) Conflict with or obstruct implementation of the applicable air quality plan? | | | ☒ | |

a) Air Quality Plan

Projects within South San Francisco are subject to the Bay Area Clean Air Plan, first adopted by the Bay Area Air Quality Management District (BAAQMD) (in association with the Metropolitan Transportation Commission and the Association of Bay Area Governments) in 1991 to meet state requirements and those of the Federal Clean Air Act. The plan is meant to demonstrate progress toward meeting the ozone standards, but also includes other elements related to particulate matter, toxic air contaminants, and greenhouse gases. The latest update to the plan, adopted in April 2017, is the Bay Area 2017 Clean Air Plan.

BAAQMD recommends analyzing a project's consistency with current air quality plan primary goals and control measures. The impact would be presumed significant if the project would conflict with or obstruct attainment of the primary goals or implementation of the control measures.

The primary goals of the Bay Area 2017 Clean Air Plan are:

- Attain all state and national air quality standards
- Eliminate disparities among Bay Area communities in cancer health risk from toxic air contaminants
- Reduce Bay Area GHG emissions 40 percent below 1990 levels by 2030, and 80 percent below 1990 levels by 2050 (This standard is addressed in Section 8: Greenhouse Gas Emissions.)

The project would be required to comply with all applicable rules and regulations related to emissions and health risk and would not result in a new substantial source of emissions or toxic air contaminants (see items b-d below) or otherwise conflict with the primary goals of the 2017 Clean Air Plan.

Many of the Clean Air Plan's control measures are targeted to area-wide improvements, large stationary source reductions, or large employers and these are not applicable to the proposed

project. However, the project would be consistent with all rules and regulations related to construction activities and the proposed development would meet current standards of energy and water efficiency (Energy Control Measure EN1 and Water Control Measure WR2) and recycling and green waste requirements (Waste Management Control Measures WA3 and WA4) and does not conflict with applicable control measures aimed at improving access/connectivity for bicycles and pedestrians (Transportation Control Measure TR9) or any other control measures.

The project, therefore, would be consistent with the Clean Air Plan and have a ***less than significant*** impact in this regard.

b) Air Quality Standards/Criteria Pollutants

Ambient air quality standards have been established by state and federal environmental agencies for specific air pollutants most pervasive in urban environments. These pollutants are referred to as criteria air pollutants because the standards established for them were developed to meet specific health and welfare criteria set forth in the enabling legislation and include ozone precursors including nitrogen oxides and reactive organic gasses (NOx and ROG), carbon monoxide (CO), and suspended particulate matter ($PM_{10}$ and $PM_{2.5}$). The Bay Area is considered "attainment" for all of the national standards, with the exception of ozone. It is considered "nonattainment" for State standards for ozone and particulate matter.

Past, present and future development projects contribute to the region's adverse air quality impacts on a cumulative basis. By its very nature, air pollution is largely a cumulative impact. No single project is sufficient in size to, by itself, result in nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts.[4]

BAAQMD updated their Guidelines for air quality analysis in coordination with adoption of new thresholds of significance on June 2, 2010.[5] The most recent version of the Guidelines is dated May 2017.

Project-related air quality impacts fall into two categories: short-term impacts that would occur during construction of the project and long-term impacts due to project operation. BAAQMD's adopted thresholds are average daily emissions during construction or operation of 54 pounds per day or operational emissions of 10 tons per year of NOx, ROG or $PM_{2.5}$ and 82 pounds per day or 15 tons per year of $PM_{10}$.

*Construction Emissions*

Construction of the project would involve demolition, excavation and site preparation, and building erection. Although these construction activities would be temporary, they would have the potential to cause both nuisance and health-related air quality impacts.

Construction emissions for the project were modeled using the California Emissions Estimator Model ("CalEEMod"). Project details were entered into the model including the proposed land uses, Transportation Demand Management Plan trip reductions, Peninsula Clean Energy carbon intensity

[4] BAAQMD, May 2017, *California Environmental Quality Act Air Quality Guidelines*, p. 2-1.

[5] Bay Area Air Quality Management District. June 2, 2010. News Release http://www.baaqmd.gov/~/media/Files/Communications%20and%20Outreach/Publications/News%20Releases/2010/ceqa_100602.ashx .

factors, demolition/earthwork volumes, and construction schedule. Model defaults were otherwise used. The CalEEMod results are included in Attachment A. Emissions from construction are summarized in **Table 1**.

**Table 1: Daily Regional Air Pollutant Emissions for Construction (Pounds per Day)**

| Description | Reactive Organic Gases | Nitrogen Oxides | Particulate Matter ($PM_{10}$)* | Fine Particulate Matter ($PM_{2.5}$) * |
|---|---|---|---|---|
| Average Daily Emissions | 5 | 19 | 0.69 | 0.65 |
| *BAAQMD Daily Thresholds* | *54* | *54* | *82* | *54* |

* Applies to exhaust emissions only

Source: CalEEMod results included as Attachment A, converted from tons per year to pounds per day across the active construction days (approximately 533 days).

Construction-period emissions levels are below BAAQMD thresholds presented in Table 1. However, BAAQMD considers dust generated by grading and construction activities to be a significant impact associated with project development if uncontrolled and recommends implementation of construction mitigation measures to reduce construction-related emissions and dust for all projects, regardless of comparison to their construction-period thresholds. These basic measures are included in Mitigation Measure Air-1, below and would further reduce construction-period criteria pollutant impacts.

**Mitigation Measure**

**Air-1:** **Basic Construction Management Practices.** The project applicant / owner / sponsor shall demonstrate proposed compliance with all applicable regulations and operating procedures prior to issuance of demolition, building or grading permits, including implementation of the following BAAQMD "Basic Construction Mitigation Measures".

i) All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.

ii) All haul trucks transporting soil, sand, or other loose material off-site shall be covered.

iii) 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, unless the City Engineer determines that an alternative cleaning method would achieve the same standard of air pollution prevention and also reduce the potential for stormwater pollution.

iv) All vehicle speeds on unpaved roads shall be limited to 15 mph.

v) 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.

vi) 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.

vii) 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.

viii) Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. Bay Area Air Quality Management District's 24-hour general air pollution complaint phone number shall also be visible to ensure compliance with applicable regulations.

With implementation of Mitigation Measure Air-1, the impact related to construction-period criteria pollutant impacts would be ***less than significant with mitigation***. Because construction-period emissions would not exceed applicable significance thresholds, additional construction mitigation measures would not be required to mitigate impacts.

*Operational Emissions*

Emissions from operation of the project could cumulatively contribute to air pollutant levels in the region. These air pollutants include ROG and NOx that affect ozone levels (and to some degree – particulate levels), $PM_{10}$, and $PM_{2.5}$. Emissions of air pollutants associated with the project were predicted using CalEEMod. This model predicts daily emissions associated with development projects including transportation, energy and other utilities, and on-site activities such as landscaping and building cleaning and maintenance. CalEEMod inputs and results are included in Attachment A and summarized in **Table 2**, below.

**Table 2: Regional Air Pollutant Emissions for Operations (Pounds per Day for Daily, Tons per Year for Annual)**

| Description | Reactive Organic Gases | Nitrogen Oxides | Particulate Matter ($PM_{10}$) | Fine Particulate Matter ($PM_{2.5}$) |
|---|---|---|---|---|
| Project Emissions, Daily | 5.2 | 7.2 | 3.9 | 1.1 |
| *BAAQMD Daily Significance Thresholds* | *54* | *54* | *82* | *54* |
| Project Emissions, Annual | 0.9 | 1.3 | 0.7 | 0.2 |
| *BAAQMD Annual Significance Thresholds* | *10* | *10* | *15* | *10* |

Source: CalEEMod results included as Attachment A. Average daily emissions were calculated by converting from tons per year to pounds/days.

Daily and annual air emissions predicted with build-out of the proposed project are reported in Table 2 above and compared against BAAQMD thresholds.

As vehicular emissions have improved over the years, carbon monoxide hotspots have become less of a concern. BAAQMD presents traffic-based criteria as screening criteria for carbon monoxide impacts, as follows.[6] The project is consistent with General Plan and zoning designations for the site

[6] Bay Area Air Quality Management District. May 2017. *California Environmental Quality Act Air Quality Guidelines*, p. 3-2, 3-3.

and area planning and would implement a Transportation Demand Management Plan per South San Francisco Municipal Code to reduce project trips. The project is therefore consistent with the Congestion Management Plan (CMP) of the San Mateo City/County Association of Governments (C/CAG), which is the first threshold. The other two screening thresholds are whether the project would increase traffic volumes at affected intersections to more than 44,000 vehicles per hour or to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited (such as a tunnel or underground parking garage, which the project or vicinity intersections do not include). These hourly traffic volumes are very high and much higher than those in the vicinity. For example, the highest volume roadway in the vicinity of the project is Oyster Point Boulevard, which carries less than 17,000 vehicles per day under existing conditions and is forecast to carry just over 30,000 vehicle per day with cumulative development by 2040. With daily volumes below the hourly volume thresholds, the hourly volumes would be even lower and the project would not have the potential to exceed the screening thresholds. The project would not result in individually or cumulatively significant impacts from CO emissions.

The project is below significance thresholds established by BAAQMD and meets localized CO screening criteria. As a result, the project would have a ***less than significant*** impact on regional air quality during the operational period.

c) Sensitive Receptors

A toxic air contaminant (TAC) is defined by California law as an air pollutant that may cause or contribute to an increase in mortality or an increase in serious illness, or which may pose a present or potential hazard to human health. In the Bay Area, a number of urban or industrialized communities exist where the exposure to TACs is relatively high compared to other communities. According to the BAAQMD CEQA Guidelines, the project site is not in an impacted community.[7]

Substantial sources of TACs include, but are not limited to, land uses such as freeways and high-volume roadways, truck distribution centers, ports, rail yards, refineries, chrome plating facilities, dry cleaners using perchloroethylene, and gasoline dispensing facilities. The project would not involve any of these uses. However, construction activity that uses traditional diesel-powered equipment results in the emission of diesel particulate matter including fine particulate matter, which is considered a toxic air contaminant and potential health risk.

Certain population groups, such as children, the elderly, and people with health problems, can be particularly sensitive to air pollution. With respect to air pollutants, examples of sensitive receptors include health care facilities, retirement homes, school and playground facilities, and residential areas. The project itself is not considered a sensitive receptor. There are few sensitive receptors in the East of 101 area of South San Francisco, but there are scattered day care facilities and some live-aboard house boats in the marina in the Oyster Point area. All these sensitive receptors are over 1,000 feet from the proposed project, which is the screening distance recommended by BAAQMD.

Therefore, because there are no sensitive receptors within the screening distance of site and the project does not exceed criteria pollutant emissions levels during either the construction or operational period (discussed under this section 3(a) above), the project would not expose sensitive receptors to substantial pollutant concentrations and impact in this regard would be ***less than significant***.

[7] Bay Area Air Quality Management District. May 2017. *California Environmental Quality Act Air Quality Guidelines*, Figure 5-1.

d) Objectionable Odors

Odors from construction activities are associated with construction equipment exhaust and the application of asphalt and architectural coatings. Odors emitted from construction activities would be temporary and not likely to be noticeable much beyond the project site's boundaries. The proposed office/R&D use is consistent with the type of development in the area, and is not a use type considered by BAAQMD to be a source of substantial objectionable odors.[8] The same types of uses that are sensitive to pollutants would be sensitive to odors, and as discussed under this section 3(a) above, there are no sensitive receptors within 1,000 feet of the project. Therefore, the potential for objectionable odor impacts to adversely affect a substantial number of people is ***less than significant***.

[8] Bay Area Air Quality Management District. May 2017. *California Environmental Quality Act Air Quality Guidelines*, Table 3-3.

| **4. BIOLOGICAL RESOURCES**<br><br>Would the project: | Potentially Significant Impact | Less Than Significant With Mitigation | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| 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 California Department of Fish and Game or U.S. Fish and Wildlife Service? | | | ☒ | |
| 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 California Department of Fish and Game or US Fish and Wildlife Service? | | | ☒ | |
| 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? | | | | ☒ |
| 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? | | | | ☒ |

a–c) Special Status Species and Habitat and Wetlands

The project site is maintained as a vacant site and can generally be described as a grassy and weedy area with scattered shrubs that is regularly mowed/cut. The General Plan has assessed parcels in the area that have the potential for biological resources. The project site is mapped as an area that can be considered not to have biological resources, thus precluding the need for a Biological Resources Assessment.[9]

Special-status species are unlikely to occur in the project vicinity due to its highly disturbed and urbanized nature. The project site was not mapped in the East of 101 Area Plan as an area with sensitive biological resources.[10] Plant and animal species that may occur in the vicinity would be common species associated with urban, developed, and ruderal conditions throughout the San Francisco Bay area. No wetlands, riparian habitats, or other sensitive habitats are present at the site.[11] Impacts on special-status species and habitats would therefore be ***less than significant***.

[9] South San Francisco General Plan, 1999. Figure 7-2.

[10] City of South San Francisco. East of 101 Area Plan, July 1994. Figure 18.

[11] U.S. Fish and Wildlife Service, National Wetlands Inventory, Wetlands Mapper. Available at https://www.fws.gov/wetlands/data/mapper.html. Accessed August 2021.

d) Wildlife Corridors

The project site is surrounded by roadways and other developed areas and does not connect undeveloped areas or otherwise have the potential to act as a substantial wildlife corridor. Impacts related to movement of wildlife would be ***less than significant***.

e) Local Policies and Ordinances

There are no local policies or ordinances directly applicable to the project and tree removal is not proposed. Therefore, the project would have ***no impact*** regarding conflicts with local policies and ordinances, including tree preservation.

f) Habitat Conservation Plan

There is no Habitat Conservation Plan applicable to the project site. Therefore, the project would have ***no impact***.

| 5. CULTURAL RESOURCES<br><br>Would the project: | Potentially Significant Impact | Less Than Significant With Mitigation | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a) Cause a substantial adverse change in the significance of a historical resource pursuant to Public Resources Section 15064.5? | | | | ☒ |
| b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Public Resources Section 15064.5? | | ☒ | | |
| c) Disturb any human remains, including those interred outside of formal cemeteries? | | ☒ | | |

a) Historic Resources

The site is currently vacant and does not contain historic-age structures. There is no potential to impact historic resources , thus the project would have **no impact** on historic resources.

b, c) Archaeological Resources and Human Remains

A records search was performed by the Northwest Information Center (Attachment B), which indicated that while there are no known cultural resources present in the project area, there is a moderate to high potential for the inadvertent discovery of previously unrecorded Native American and historic-period archaeological resources based on the characteristics of the site and history of the region. A record search of the Native American Heritage Commission Sacred Lands File was completed for the project and indicated there are no known sacred lands present in the vicinity of the site (see Attachment B). While no tribes have requested consultation for project in this area, notice was sent to listed tribes in September 2021, per recommendation of the Native American Heritage Commission. No responses were received prior to publication of this Initial Study. If responses are subsequently received that require additional discussion in the CEQA context, such discussion will be included in the EIR.

There is no significant excavation or below-grade levels proposed. Given that the site is generally underlain by about 10 to 55 feet of fill, grading activities are not anticipated to disturb native soils, except limited disturbance from drilled piles for the foundation. Therefore, although not anticipated, previously unknown cultural resources or human remains could be inadvertently unearthed during ground-disturbing activities. This inadvertent discovery would be a potentially significant impact and require mitigation.

**Mitigation Measures**

**Cul-1: Cultural Resources Worker Environmental Awareness Program (WEAP).** A qualified archaeologist shall conduct a WEAP training for all construction personnel on the project site prior to construction and ground-disturbing activities. The training shall include basic information about the types of artifacts that might be encountered during construction activities, and procedures to follow in the event of a discovery. This training shall be provided for any personnel with the potential to be involved in activities that could disturb native soils.

**Cul-2: Halt Construction Activity, Evaluate Find and Implement Mitigation.** In the event that previously unidentified paleontological, archaeological, historical, or tribal resources are uncovered during site preparation, excavation or other construction activity, the project applicant / owner / sponsor shall cease or ensure that all such activity within 25 feet of the discovery are ceased until the resources have been evaluated by a qualified professional, who shall be retained by the project applicant / owner / sponsor, and specific measures can be implemented by the project applicant / owner / sponsor to protect these resources in accordance with sections 21083.2 and 21084.1 of the California Public Resources Code.

**Cul-3: Halt Construction Activity, Evaluate Remains and Take Appropriate Action in Coordination with Native American Heritage Commission.** In the event that human remains are uncovered during site preparation, excavation or other construction activity, the project applicant / owner / sponsor shall cease or ensure that all such activity within 25 feet of the discovery are ceased until the remains have been evaluated by the County Coroner, which evaluation shall be arranged by the project applicant / owner / sponsor, and appropriate action taken by the project applicant / owner / sponsor in coordination with the Native American Heritage Commission, in accordance with section 7050.5 of the California Health and Safety Code or, if the remains are Native American, section 5097.98 of the California Public Resources Code.

Implementation of Mitigation Measures Cul-1, Cul-2, and Cul-3 would reduce the impacts associated with possible disturbance of unidentified cultural resources at the project site to a level of ***less than significant with mitigation***.

| **6. ENERGY**<br><br>Would the project: | Potentially Significant Impact | Less Than Significant With Mitigation | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation? | | | ☒ | |
| b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency? | | | ☒ | |

a, b) Energy

The threshold of significance related to energy use is whether the project would result in wasteful, inefficient, or unnecessary consumption of energy resources or conflict with or obstruct state or local plans for renewable energy or energy efficiency.

The project would use energy in various ways, including directly to power the building, heating and cooling, and also to power vehicles. Construction and routine operation and maintenance also consume energy. Additionally, there is indirect energy consumption related to the production and distribution of energy and other utilities and transportation and disposal of waste. That being said, there is no quantified threshold for energy consumption against which to compare a quantified amount of energy use. Rather, the threshold hinges on whether the energy consumption would be wasteful, inefficient, or unnecessary.

As a project on a vacant site that is consistent with the General Plan and zoning designation for the site, it can be concluded that the project is consistent with City plans for area development and therefore that energy consumption for construction and operations would not be considered unnecessary.

As discussed in other sections of this analysis, the project incorporates energy and energy-related efficiency measures meeting all applicable requirements, including water and waste efficiency. The project would be required to comply with all standards of Title 24 of the California Code of Regulations and the California Green Building Standards Code (CALGREEN), as applicable, aimed at the incorporation of energy-conserving design and construction. The project would also implement a Transportation Demand Management Plan to reduce employee trips, thereby reducing energy consumption for transportation for the employees.

As detailed in sections 3: Air Quality and 8: Greenhouse Gas Emissions, the project is also consistent with regional and local climate actions plans, as currently applicable, which include measures related to energy consumption.

Therefore, although the project would incrementally increase energy consumption, it would not result in a significant impact related to energy consumption in a wasteful, inefficient, or unnecessary manner or otherwise conflict with energy plans and the impact in this regard would be ***less than significant***.

| **7. GEOLOGY AND SOILS**<br>Would the project: | Potentially Significant Impact | Less Than Significant With Mitigation | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| 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? | | ☒ | | |
| iv) Landslides? | | ☒ | | |
| 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 landslide, lateral spreading, subsidence, liquefaction or collapse? | | ☒ | | |
| d) Be located on expansive soil, as defined in 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 waste water disposal systems where sewers are not available for the disposal of waste water? | | | | ☒ |
| f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? | | ☒ | | |

This section utilizes information from the Preliminary Geotechnical Site Assessment and Supplemental Discussion ("Geotechnical Report") prepared for the applicants by Langan Engineering and Environmental Services, dated November 12, 2020 and August 2, 2021, which is available as part of project application materials.

a, c, d) Geologic Hazards

The major active faults in the area are the San Andreas, San Gregorio, and Hayward Faults. The closest fault traces are located almost 4 miles from the project site. The project site is not within an Alquist-Priolo Seismic Hazard Zone, and no known active or potentially active faults traverse the site. Therefore, the project has no impact related to rupture along a fault.

However, the San Francisco Bay Area is a seismically active region and the site is likely to encounter strong seismic ground shaking during the lifetime of the project, which can result in seismic-related ground failure including liquefaction depending on the characteristics of the site and development. The soil and development characteristics can also result in risks of non-seismic-related hazards, including lateral spreading and expansive soil.

The project's Geotechnical Report concludes that most of the fill encountered on site is sufficiently dense and/or has sufficient cohesion to resist substantial liquefaction, lateral spreading, and seismic densification during a large earthquake on one of the nearby faults. Isolated layers of medium dense sand at the site may be susceptible to liquefaction, estimated at about 1 inch of liquefaction-induced settlement and 1 inch of cyclic densification settlement should be anticipated during a major earthquake. Because the liquefiable layers are not continuous and occur near the base of the adjacent slope, the potential for lateral spreading is low.

The stability of the slope was also specifically considered, given the characteristics of the site soils and proposed development. While development is proposed on the relatively level portion of the site, buildings are proposed within 20 feet of the slopes at the south and east edges of the site. These slopes have inclinations of approximately 2:1 (horizontal to vertical) and the maximum slope height is around 40 feet. The project's Geotechnical Report concludes that the proposed development is feasible and would not result in slope instability with appropriate foundation support including a combination of additional rows of piles, ground improvement, and/or tighter spacing of piles.

The geotechnical analysis concluded that the potential geological hazards can be addressed through appropriate design and construction, which would occur as part of the design-level geotechnical recommendations and structural plans as specified in mitigation measure Geo-1.

**Mitigation Measure**

**Geo-1:** **Compliance with a design-level Geotechnical Investigation report prepared by a Registered Geotechnical Engineer and with Structural Design Plans as prepared by a Licensed Professional Engineer.** Proper foundation engineering and construction shall be performed in accordance with the recommendations of a Registered Geotechnical Engineer and a Licensed Professional Engineer. The structural engineering design, with supporting Geotechnical Investigation, shall incorporate seismic parameters compliant with the California Building Code.

Compliance with a design-level Geotechnical Investigation and Structural Design Plans, as required by Mitigation Measure **Geo-1** would reduce the potential impact of seismic hazards including liquefaction and slope stability to a level of ***less than significant with mitigation***.

b) Soil Erosion

Project construction, particularly grading and site preparation, can result in erosion and loss of topsoil from the project site. The development portion of the project site is generally flat. Outside of the proposed development area are existing slopes along the site's east and southeast boundaries with inclinations of approximately 2:1 (horizontal to vertical) and a maximum slope height around 40 feet. Grading would involve 18,440 cubic yards of cut across the site. Some of that would be balanced on site, with a net import of 1,780 cubic yard and export of 16,460 cubic yards. No substantial changes are proposed to the existing slopes.

The project would be required to obtain coverage under the statewide National Pollutant Discharge Elimination System (NPDES) General Permit for Discharges of Storm Water Associated with Construction Activity, Construction General Permit Order 2009-0009-DWQ (Construction General Permit), administered by the State Water Resources Control Board (SWRCB). Coverage under the NPDES Permit would require implementation of a Stormwater Pollution Prevention Plan (SWPPP) and various site-specific best management practices (BMPs) to reduce erosion and loss of topsoil during site demolition and construction. Compliance with the NPDES permit and BMPs during demolition and construction such as straw wattles, silt fencing, concrete washouts, and inlet

protection during construction would reduce impacts resulting from loss of topsoil. The project would be required to comply with South San Francisco Municipal Code ("SSFMC") Section 15.56.030, which would require the development of the project site to control filling, grading, and dredging which may increase flood damage.

Soil erosion after construction would be controlled by implementation of approved landscape and irrigation plans. With the implementation of a SWPPP and Erosion Control Plan to prevent erosion, sedimentation, and loss of topsoil during and following construction – which are required under existing regulations and therefore not needed to be implemented as mitigation - the soil erosion impacts of the project would be ***less than significant***.

e) Septic Tanks

The project would not include the use of septic tanks and associated disposal facilities. Therefore, the project would have ***no impact*** in this regard.

f) Unique Geologic Feature or Paleontological Resource

The area east of Highway 101 is underlain by deposits of Bay mud up to 80 feet deep in some places, which have some sensitivity for paleontological vertebrates, but no paleontological resources have been found on the project site (University of California Museum of Paleontology 2019).[12, 13]

The project site falls within a highly urbanized area and the site is underlain by about 10 to 55 feet of fill. Project grading activities are not anticipated to disturb native soils, though drilled piles would reach into native soils. Therefore, the project has a low potential to directly or indirectly destroy unique paleontological resources or a unique geologic feature. That being said, there is some potential that previously-undiscovered paleontological resources could be encountered, which would be addressed through the following measures.

**Mitigation Measures Cul-1a, Cul-2, and Cul-3** would also reduce the potential impact related to unknown paleontological resources.

Implementation of mitigation measures Cul-1, Cul-2, and Cul-3 would reduce the impacts associated with possible disturbance of previously-unidentified paleontological resources to a ***less than significant with mitigation*** level.

[12] South San Francisco General Plan, 1999.

[13] University of California Museum of Paleontology (UCMP) Online Database. 2019. UCMP specimen search portal, http://ucmpdb.berkeley.edu/ (accessed September 2021).

| 8. GREENHOUSE GAS EMISSIONS<br><br>Would the project: | Potentially Significant Impact | Less Than Significant With Mitigation | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a) Generate greenhouse gas 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 greenhouse gases? | | | ☒ | |

a) Greenhouse Gas Emissions

BAAQMD has determined that greenhouse gas (GHG) emissions and global climate change represent cumulative impacts. Construction and operation of the proposed project would be additional sources of GHG emissions, primarily through consumption of fuel for transportation and energy usage on an ongoing basis. The threshold of significance for operational GHGs is a brightline of 1,100 metric tons carbon dioxide equivalent ($CO_2e$) per year for small projects that do not meet the efficiency threshold or an efficiency threshold of 4.6 metric tons $CO_2e$ per service population (residents and employees) per year for large projects that do not meet the brightline threshold. Because this is not a small project, the efficiency threshold will be used for this analysis.

State Assembly Bill 32 (AB 32) required California state and local governments to reduce greenhouse gas emissions to 1990 levels by 2020. The BAAQMD thresholds were based on those 2020 targets. State Senate Bill 32 (SB 32) was subsequently adopted to require that there be a further reduction in GHG emissions to 40% below the 1990 levels by 2030. BAAQMD has not yet updated their thresholds to address future target reductions past 2020. While not yet adopted by BAAQMD, the additional 40% reduction by 2030 identified in SB 32 equates to a 2030 efficiency standard of 2.8 metric tons $CO_2e$ per year per service population.

BAAQMD has not proposed a separate threshold of significance for construction-related GHG emissions, though recommends quantification and a determination regarding significance in relation to meeting AB 32 (and now SB 32) goals. Standard practice is to divide the construction emissions by 40 years (an average building life) and add that to the operational emissions.

The project's GHG emissions were modeled using CalEEMod, as discussed in section 3: Air Quality. A summary of the results are included in **Table 3** on the next page and the CalEEMod input and output can be found in Attachment A and as detailed, the emissions quantification incorporated project details, some of which serve to reduce GHG emissions including Transportation Demand Management Plan trip reductions, and the lower carbon intensity factors of the Peninsula Clean Energy provider.

As shown in Table 3, GHG emissions would be below BAAQMD's efficiency threshold based on 2020 reductions and also the projected 2030 efficiency threshold. Therefore, the project would have a ***less-than-significant*** impact related to increased GHG emissions.

**Table 3: Greenhouse Gas Emissions**

| Description | metric tons $CO_2e$ per year |
|---|---|
| Project Emissions, Operational | 1,275 |
| Project Emissions, Construction (averaged over 40 years) | 29 |
| **Project Emissions, Total** | **1,304** |
| Project Service Population | 555 |
| **Project Emissions, Total (per Service Population)** | **2.35** |
| *BAAQMD Project Service Population Significance Threshold 2020* | *4.6* |
| ***Exceeds 2020 Threshold?*** | ***No*** |
| *Projected Service Population Significance Threshold 2030* | *2.8* |
| ***Exceeds 2030 Threshold?*** | ***No*** |

Source: CalEEMod results included as Attachment A.

Notes: $CO_2e$ is carbon dioxide equivalent units, the standard measure of total greenhouse gasses.

Service Population was calculated at approximately 300 square feet per employee for office/R&D. While office and specifically tech office uses could have a higher number of employees, a lower number was used here for a more conservative analysis of GHG emissions.

b) Greenhouse Gas Reduction Plans

The City adopted a GHG reduction plan in 2014, known as the City of South San Francisco Climate Action Plan ("SSF CAP"). This plan estimated community-wide GHG emissions of 548,600 metric tons $CO_2e$ in 2005 and a target reduction of 15% below the 2005 baseline levels by 2020. Because the SSF CAP only demonstrates consistency with the AB 32 near-term reduction target for 2020, it is not a "qualified" CAP available for CEQA streamlining for projects after 2020 and was therefore not used in place of emissions quantification under section 8(a) above. However, until an updated CAP is adopted, the current SSF CAP's measures and development requirements still apply to projects constructed and operated after 2020. Therefore, this analysis evaluates the proposed project's consistency with applicable measures and development requirements in the SSF CAP.

Many of the SSF CAP's reduction measures are targeted to city-wide strategies that are not directly applicable to the proposed project. The project includes bicycle facilities and has pedestrian connections to shuttle stops on Oyster Point Boulevard (to/from BART and Caltrain stations) and participate in a Transportation Demand Management program (contributing to SSF CAP Measures 1.1 through 1.3). The project includes tree plantings (SSF CAP Measure 3.4,) would meet current standards of energy and water efficiency (SSF CAP Measures 3.1 and 6.1), and occupants would participate in recycling for waste reduction (SSF CAP Measure 5.1). A discussion of the project's consistency with the Clean Air Plan is included in section 3: Air Quality.

Additionally, GHG emissions associated with the proposed project were analyzed per the BAAQMD Guidelines against thresholds based on 2020 target reductions and projected 2030 target

reductions. BAAQMD's thresholds and methodologies take into account implementation of state-wide regulations and plans, such as the Assembly Bill 32 Scoping Plan and adopted state regulations such as Pavley and the low carbon fuel standard. Systemic changes will be required at the state level to achieve California's future (post-2020) GHG reduction goals. Regulations, such as future amendments to the low-carbon fuel standard, updates to the state's Title 24 standards, and implementation of the state's Short-Lived Climate Pollutant Reduction Strategy, including forthcoming regulations for composting and organics diversion, will be necessary to attain the magnitude of reductions required for the state's goals. The project would be required to comply with applicable operational regulations or be directly affected by the outcomes (e.g., vehicle trips and energy consumption would be less carbon intensive because of statewide compliance with future low-carbon fuel standard amendments and increasingly stringent Renewables Portfolio Standards). Therefore, for the foreseeable future, the Specific Plan would not conflict with any other state-level regulations pertaining to GHGs in the post-2020 era. Additionally, as detailed under section 8(a) above, project emissions would not exceed threshold levels, including projected 2030 threshold levels consistent with adopted state reduction targets.

Therefore, there would be a ***less than significant*** impact in relation to consistency with GHG reduction plans.

| **9. HAZARDS AND HAZARDOUS MATERIALS**<br><br>Would the project: | Potentially Significant Impact | Less Than Significant With Mitigation | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| All topics | ☒ | | | |

Because hazards and hazardous materials considerations are expected to be of interest to the public and decision-makers, the discussion of this topic area is being deferred to the EIR. While significance conclusions have not yet been determined, these are considered potentially significant until additional information is compiled to reach detailed conclusions. All topics under the Hazards and Hazardous Materials section will be addressed in the EIR.

| 10. **HYDROLOGY AND WATER QUALITY**<br><br>Would the project: | Potentially Significant Impact | Less Than Significant With Mitigation | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| 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 site or 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:<br>i) result in substantial erosion or siltation on- or off-site;<br>ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;<br>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 | | | ☒ | |
| 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? | | | ☒ | |

a) Water Quality and Discharge

Construction activities have the potential to impact water quality through erosion and through debris and oil/grease carried in runoff could result in pollutants and siltation entering stormwater runoff and downstream receiving waters if not properly managed. The project would be required to obtain coverage under the General Construction Activity Storm Water Permit (General Construction Permit) issued by the State Water Resources Control Board. Coverage under this permit requires preparation of a Stormwater Pollution Prevention Plan (SWPPP) for review and approval by the City.[14] At a minimum, the SWPPP would include a description of construction materials, practices, and equipment storage and maintenance; a list of pollutants likely to contact stormwater; a list of provisions to eliminate or reduce discharge of materials to stormwater; best management practices (BMPs); and an inspection and monitoring program. Furthermore, the County of San Mateo's Water Pollution Prevention Program would require the project site to implement BMPs during project construction to reduce pollution carried by stormwater such as keeping sediment on site using perimeter barriers and storm drain inlet protection and proper management of construction materials, chemicals, and wastes on site. Additional BMPs required by South San Francisco Municipal Code Section 14.04.180 would also be implemented during project construction. Per standard City procedures, compliance with SWPPP requirements and BMPs would be verified during the construction permitting process.

[14] SWRCB, Construction General Permit Order 2009-0009-DWQ (Construction General Permit)

Project operations have the potential to result in sources of stormwater pollutants such as oil, grease, and debris to stormwater drainage flowing over roadways and other impermeable surfaces and entering the city's stormwater system, served by the City of South San Francisco's Public Works Department, Maintenance Division. The project site drains to an existing storm drain system that outfalls to a tidally influenced channel that is connected to the San Francisco Bay. With the proposed improvements, runoff from the rooftop and parking areas would be retained and treated via bio-retention basins and flow-through planters.

Federal Clean Water Act regulations require municipalities to obtain National Pollution Discharge Elimination System (NPDES) permits which outline programs and activities to control surface stormwater pollution. Municipalities, such as the City of South San Francisco, must eliminate or reduce "non-point" pollution, consisting of all types of substances generated as a result of urbanization (e.g. pesticides, fertilizers, automobile fluids, sewage, litter, etc.), to the "maximum extent practicable" (as required by Clean Water Act Section 402(p)(3)(iii)). Clean Water Act Section 402(p) and USEPA regulations (40 CFR 122.26) specify a municipal program of "best management practices" to control stormwater pollutants. Best Management Practices (BMP) refers to any kind of procedure or device designed to minimize the quantity of pollutants that enter the storm drain system. To comply with these regulations, each incorporated city and town in San Mateo County joined with the County of San Mateo to form the San Mateo County Water Pollution Prevention Program (SMCWPPP) in applying for a regional NPDES permit, which includes Provision C.3. [15] The C.3 requirements are intended to protect water quality by minimizing pollutants in runoff, and to prevent downstream erosion by: designing the project site to minimize imperviousness, detain runoff, and infiltrate runoff where feasible; treating runoff prior to discharge from the site; ensuring runoff does not exceed pre-project peaks and durations; and maintaining treatment facilities. Project applicants must prepare and implement a Stormwater Control Plan containing treatment and source control measures that meet the "maximum extent practicable" standard as specified in the NPDES permit and the SMCWPPP C.3 Guidebook. Project applicants must also prepare a Stormwater Facility Operation and Maintenance Plan and execute agreements to ensure the stormwater treatment and flow-control facilities are maintained in perpetuity.

Project compliance with applicable State General Permit requirements, City ordinances, County of San Mateo's guidelines, and General Plan policies would not result in significant impacts on water quality and would not result in a violation of water quality standards. Impacts would be ***less than significant***.

b) Groundwater Recharge and Supplies

The project is located on a designated urban area within the Visitation Valley groundwater basin.[16]

The California Water Service (Cal Water) supplies water to the City of South San Francisco and would serve the project site. Cal Water's Urban Water Management Plan (UWMP) anticipates future growth in the region that includes the project, as allowed under existing land use and zoning designation. The majority of the water supply to the Cal Water South San Francisco District (i.e., approximately 80 percent from 2005-2019) is treated water purchased from the City and County of San Francisco's Regional Water System (RWS), which is operated by the San Francisco Public Utilities

[15] Regional Water Board, 2007, Order No. R2-2007-0027, NPDES Permit No. CAS0029921.

[16] California Regional Water Quality Control Board San Francisco Bay Region, San Francisco Bay Basin Water Quality Control Plan (Basin Plan), November 2019.

Commission (SFPUC), and originates largely (85%) from the Hetch Hetchy watershed (surface water). Groundwater makes up approximately 20 percent of the water supply for the South San Francisco District, which comes from the "Westside Basin", which underlies the South San Francisco District. The Basin is currently categorized by the California Department of Water Resources as a very low priority basin and as such, the Basin is not subject to the requirements of the California Sustainable Groundwater Management Act though the Basin has been actively managed for years, including the establishment of pumping limitations.[17]

The site is currently undeveloped and therefore consists entirely of pervious surfaces. The project would result in an increase of approximately 2.4 acres of impervious surface (63% of the site). The project would construct new above and below ground drainage system that includes catch-basins, storm drain pipe, bio-retention areas, and flow-through planters to capture, treat, and discharge runoff from the entire site. The proposed drainage system would maintain the existing flow discharge pattern.

The project would not extract groundwater or directly interfere with the groundwater table through construction activities on the site, as ground disturbance would not occur below the water table.

As discussed under item a above, the project would comply with stormwater drainage requirements, including bio-retention/treatment areas to address both quality and volumes of runoff and is consistent with expected use of the site in basin planning. The project would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge, and would have a ***less than significant*** impact related to groundwater.

c) Drainage Pattern Alteration

The site is currently undeveloped and therefore consists entirely of pervious surfaces across the 3.8-acre site. The project would result in approximately 2.4 acres of impervious surface (63% of the site).

As an undeveloped site, runoff currently sheet flows north to a 30-inch storm drain pipe which conveys runoff from the properties at 560 and 570 Eccles Ave., and conveys it down the slope to the 38-inch culvert. The project site is currently served by a 30-inch storm drain that conveys runoff from 560 and 570 Eccles Ave to the 38-inch culvert under Gull Drive. The 38-inch culvert conveys runoff from Gull Drive and upstream drainage areas to the tidal channel that is east of the project site. The project would construct new above and below ground drainage system that includes catch-basins, storm drain pipe, bio-retention areas, and flow-through planters to capture, treat, and discharge runoff from the entire site. The proposed drainage system would maintain the existing flow discharge pattern. According to the 101 Gull Drive Storm Drainage Report (available as part of the project materials), there is adequate capacity in the existing off-site system to accommodate flows from the project site.[18]

As discussed under this section 10(a) above, through compliance with applicable regulations, runoff from site would be the same or reduced from that existing and would not cause erosion, siltation, pollution, or flooding and as discussed above, changes to on-site conditions would meet applicable requirements and would not exceed capacity of the stormwater drainage system or result in on- or

[17] California Water Service (Cal Water), adopted June 2021, 2020 Urban Water Management Plan: South San Francisco District., available at: https://www.calwater.com/docs/uwmp2020/SSF_2020_UWMP_FINAL.pdf.

[18] BKF Engineers, August 17 2021, 101 Gull Drive Storm Drainage Report.

off-site flooding. Project impacts related to alteration of drainage patterns would be ***less than significant***.

d) Inundation

The project site is approximately 0.25 miles from the San Francisco Bay and approximately 5.75 miles from the Pacific Ocean, and according to state hazard mapping is not located in a tsunami hazard area.[19]

The nearest body of water that could experience seiche (water level oscillations in an enclosed or partially enclosed body of water) is the San Francisco Bay located approximately 5.75 miles east of the project site. A seiche would not experience run up higher than a tsunami and as discussed above, the site is not located in a tsunami hazard area and is therefore not in an area at risk for seiche inundation either. No other large bodies of water with the potential to inundate the project site by a seiche are located near the site.

The project is not located within Federal Emergency Management Agency (FEMA) Flood Zone and is therefore not at substantial risk of flooding from 100-year or more common storms.[20]

Therefore, the proposed project would not result in the risk of release of pollutants due to inundation by a tsunami, seiche, or flooding and the project impact in this regard would be ***less than significant***.

e) Implementation of Plans

As discussed under this Section 10(a) above, the project would comply with applicable requirements under the General Construction Activity Storm Water Permit, County of San Mateo's Water Pollution Prevention Program, National Pollution Discharge Elimination System (NPDES), which are intended to implement relevant laws and plans related to water quality.

As discussed under this section 10(b) above, the local groundwater basin is not required to comply with the Sustainable Groundwater Management Act, but in any case, the project would not extract or recharge a substantial amount of groundwater from the basin, would not introduce more intensive or water-demanding uses than planned for the site, and would not otherwise conflict with Cal Water's Urban Water Management Plan or groundwater management. Impacts would be ***less than significant***.

[19] California Geological Survey, 2021, Tsunami Hazard Area Map, San Mateo County, available at: https://www.conservation.ca.gov/cgs/tsunami/maps.

[20] Federal Emergency Management Agency (FEMA), effective 4/5/2019, Flood Insurance Rate Map (FIRM), Map Number 06081C0042F, available at https://www.fema.gov/flood-maps.

| **11. LAND USE AND PLANNING**<br><br>Would the project: | Potentially Significant Impact | Less Than Significant With Mitigation | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a) Physically divide an established community? | | | | ☒ |
| 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? | | | ☒ | |

a) Physical Division of a Community

The project site is in an urbanized area with currently developed parcels and roadways and while currently undeveloped, the site does not act as a connection point for other parcels other than through the access easement, which would be preserved. The project would not involve any physical changes that would have the potential to divide an established community and there is therefore **no impact** in this regard.

b) Conflict with Land Use Plan

An environmental impact could occur when a project conflicts with a policy or regulation intended to avoid or reduce an environmental impact. The following discussion does not replace or preclude a consistency assessment for project approval considerations, which take into account more than potential impacts to the environment.

The site is currently zoned for Business and Technology Park (BTP) use, under which R&D and office uses are expressly permitted. While the proposed project would require a Conditional Use Permit for Parking/Loading Reduction, Incentive-Based FAR Bonus, and Parking Garage Rooftop Planting, these are allowable development standard approvals under the City's planning process and would therefore not be considered conflicts.

Therefore, the project would have a ***less than significant*** impact with regard to land use plan conflicts.

| **12. MINERAL RESOURCES**<br><br>Would the project: | Potentially Significant Impact | Less Than Significant With Mitigation | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state? | | | | ☒ |
| b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan? | | | | ☒ |

a, b) Mineral Resources

The site contains no known mineral resources and has not been delineated as a locally important mineral recovery site on any land use plan.[21] The project would have ***no impact*** related to mineral resources.

[21] U.S. Geological Survey, Mineral Resources Data System: U.S. Geological Survey, Reston, Virginia. Accessed Septmeber 2021, at: http://tin.er.usgs.gov/mrds/

| **13. NOISE**<br><br>Would the project result in: | Potentially Significant Impact | Less Than Significant With Mitigation | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a) Generation of 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) Generation of excessive groundborne vibration or groundborne noise levels? | | | ☒ | |
| 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? | | | ☒ | |

a-b) Excessive Noise or Vibration

Noise and vibrations from construction depend on the noise generated by various pieces of construction equipment, the timing and duration of noise generating activities, and the distance between construction noise sources and noise sensitive receptors. Construction noise impacts primarily occur when construction activities occur during noise-sensitive times of the day (early morning, evening, or nighttime hours), the construction occurs in areas immediately adjoining noise sensitive land uses, or when construction involves particularly noisy techniques, such as driven piles.

The South San Francisco Noise Ordinance (Chapter 8.32 of the Municipal Code, Section 8.32.050) restricts construction activities to the hours of 8:00 AM to 8:00 PM on weekdays, 9:00 AM to 8:00 PM on Saturdays, and 10:00 AM to 6:00 PM on Sundays and holidays. This ordinance also limits noise generation of any individual piece of equipment to 90 dBA at 25 feet or at the property line. The project does not propose pile driving (piles would be drilled) and the project's construction activities would comply with the Noise Ordinance.

With respect to noise, examples of sensitive receptors in the East of 101 area of South San Francisco include scattered day care facilities and some live-aboard house boats in the marina in the Oyster Point area. All these sensitive receptors are over 1,000 feet from the proposed project, which is beyond the distance potentially affected by normal on-site noise for this type of construction and use.

Operation of an office/R&D use would not be considered a noise-sensitive receptor and does not produce substantial levels of off-site vibration or noise. Traffic-related noise impacts generally have the potential to occur with at least a doubling of traffic volumes on roadways adjacent to areas with noise sensitive uses that are already at or above acceptable noise conditions. In this case, as will be detailed further in the EIR, trip generation estimates for the project given proposed Transportation Demand Management Plan reductions are preliminarily estimated to total 933 daily trips. The average daily traffic (ADT) on nearby roadway segments (and anticipated contribution of project traffic as a percentage of existing traffic) include 7,800 ADT (3%) on Gull Drive, 2,200 ADT (14%) on

Eccles Avenue, 16,300 ADT (3%) on Oyster Point Boulevard, and 7,700 ADT (1%) on Forbes Boulevard. With additional cumulative growth in the area, total ADT would be increased, making the project increment even smaller than under existing conditions. All of these increases are well below a doubling of traffic that could result in a noticeable increase in traffic noise. Because net new traffic volumes would generally be below a doubling of traffic volumes in noise-impacted areas, the project would therefore not result in traffic-related noise impacts.

Therefore, because the project is consistent with construction practices and regulations and operations would be consistent with area uses and not noticeably increase traffic noise on sensitive uses, impacts from noise and vibration generated by construction and operation of the project would be ***less than significant***.

c) Airport Noise

The closest airport to the project site is the San Francisco International Airport, approximately 2.25 miles to the south. The project site is within the boundary of the Airport Land Use Compatibility Plan (ALUCP), but is not within the area substantially impacted by airplane flyover noise (i.e., the Community Noise Equivalent Level 70 Noise Contours).[22] Impacts related to excessive aircraft noise exposure would be ***less than significant***.

[22] City/County Association of Governments of San Mateo County, November 2012. Comprehensive Airport Land Use Compatibility Plan for the Environs of San Francisco International Airport. Available at: http://ccag.ca.gov/wp-content/uploads/2014/10/Consolidated_CCAG_ALUCP_November-20121.pdf

| **14. POPULATION AND HOUSING**<br><br>Would the project: | Potentially Significant Impact | Less Than Significant With Mitigation | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| 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)? | | | ☒ | |
| b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere? | | | | ☒ |

a) Substantial Population Growth

While neither housing nor population are directly created as a result of this project, employment opportunities can indirectly increase population and the demand for housing.

Based on an average office/R&D project employment density of 300 gross square footage per employee, the project is estimated to introduce 555 new jobs to the City of South San Francisco. The current South San Francisco General Plan was released in 1999 and does not have relevant employee estimates and the updated General Plan, while being prepared during the preparation of this document, is not yet available. That being said, the project would be consistent with the land use and zoning designations for the site, and therefore should be within current and updated General Plan projections of future employees.

Plan Bay Area 2040 is the current regional long-range plan charting the course for the future of the nine-county San Francisco Bay Area. Plan Bay Area 2050 focuses on four key issues — the economy, the environment, housing and transportation. Plan Bay Area 2040 estimates a total addition of 4,698,375 total jobs to the Bay Area by 2040. The project's addition of 555 employees would increase jobs in the City and region incrementally. Compared to the total jobs projection for the entire Bay Area, the addition of 555 jobs would not be substantial. Based on consistency with land use and zoning designations of the site, project implementation would be within the expected growth of City employment and projected employment growth of the Bay Area and the impact with respect to indirect population growth would be ***less than significant***.

b) Displacement of Housing or People

There is currently no housing or people at the site that would be displaced by the project. The project would have ***no impact*** related to displacement of housing or people.

| **15. PUBLIC SERVICES**<br>Would the project 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 following public services? | Potentially Significant Impact | Less Than Significant With Mitigation | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a) Fire protection | | | ☒ | |
| b) Police protection | | | ☒ | |
| c) Schools | | | ☒ | |
| d) Parks | | | ☒ | |
| e) Other public facilities | | | ☒ | |

a-e) Public Services

The proposed project is located on a developed site within the City of South San Francisco that is within the public services area, which includes South San Francisco Fire Department Station 62 located 1.5 miles southwest of the project site. The project would not directly add population, and an office/R&D use would not be anticipated to substantially increase utilization of public services, such that new or physically altered facilities would be required. The minimal increases in demand for services expected with the worker population and potential indirect population growth (see section 14: Population and Housing), would be offset through payment of development fees and annual taxes, a portion of which go toward ongoing provision of and improvements to public services. Therefore, the impact to public services would be ***less than significant***.

| **16. RECREATION**<br><br>Would the project: | Potentially Significant Impact | Less Than Significant With Mitigation | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated. | | | ☒ | |
| b) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment. | | | ☒ | |

a-b) Recreation

The project proposes onsite open space in the form of landscaped areas, outdoor seating areas and outlook areas, and a hillside walking trail. The construction of onsite amenities has been included in the analysis in this document and would not result in significant impacts to the environment. The project would not otherwise construct or cause to be constructed parks or recreational facilities.

Some employees at the site could use area facilities, including the nearby Oyster Point Park (approximately 0.5 miles to the northeast) and the Bay Trail, all development that does not include qualifying publically-accessible parks and recreation amenities is required to pay in-lieu fees to the City, which helps fund City facilities and programs. The use of public recreational facilities would not be anticipated to increase substantially due to by project employees such that physical deterioration would occur or construction or expansion would be necessary. Therefore, the impact related to recreation would be ***less than significant***.

| **17. TRANSPORTATION**<br><br>Would the project: | Potentially Significant Impact | Less Than Significant With Mitigation | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| All topics | ☒ | | | |

Transportation topics were being analyzed during preparation of this Initial Study. While significance conclusions have not yet been determined, these are considered potentially significant until additional information is compiled to reach detailed conclusions. All topics under the Transportation section will be addressed in the EIR.

| **18. TRIBAL CULTURAL RESOURCES**<br><br>Would the project: | Potentially Significant Impact | Less Than Significant With Mitigation | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a) 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:<br>i) 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<br>ii) 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. | | ☒ | | |

a) Tribal Cultural Resources

The project area is previously disturbed, and a search of the Sacred Lands File (included in Attachment C) did not identify any Sacred Lands that could be impacted by the project.

As discussed in more detail under section 5: Cultural Resources, a records search performed by the Northwest Information Center (included as Attachment C) confirmed there are no known Native American resources on the site and the potential for unrecorded Native American resources is considered moderate to high based on the location of the site and history of the region. Construction of the project involves ground disturbance that would mostly occur in fill over top of any native soils at the site. However, there would be some disturbance of native soils, including for drilling of foundation piles and there is some potential for unknown tribal cultural resources or human remains to be encountered.

**Mitigation Measures Cul-1, Cul-2, and Cul-3** would require proper handling of any discoveries and also reduce the potential impact related to unknown tribal cultural resources.

While no tribes have requested consultation for project in this area, notice was sent to the Native American Heritage Commission listed local tribes in September 2021. No responses were received prior to publication of this Initial Study. If responses are subsequently received that require additional discussion in the CEQA context, such discussion will be included in the EIR.

Compliance with the protection procedures specified in Mitigation Measures Cul-1, Cul-2, and Cul-3 would require that if any previously-unknown tribal cultural resources and/or human remains are discovered, these would be handled appropriately and the impact of the project would be ***less than significant with mitigation***.

| **19. UTILITIES AND SERVICE SYSTEMS**<br>Would the project | Potentially Significant Impact | Less Than Significant With Mitigation | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a) Require or result in the relocation or construction of new or expanded water, or 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 wastewater 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? | | | ☒ | |
| e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste? | | | ☒ | |

a,b, c) Water, Stormwater, Wastewater, and Other Utilities

*Water*

As discussed in section 10: Hydrology and Water Quality, the City of South San Francisco's East of 101 Area is served by Cal Water through a combination of local groundwater and water purchased from SFPUC's Hetch Hetchy System. Cal Water's Urban Water Management Plan (UWMP), which plans for provision of water, anticipates future growth in the region that includes the project, as allowed under existing land use and zoning designation.

Statewide regulations and other factors can impact the water system reliability. Of note, the Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary (Bay-Delta Plan Amendment, adopted December 2018, Resolution No. 2018-0059) requires the release of 30-50 percent of the "unimpaired flow" on the three San Joaquin River tributaries from February through June in every year type to maintain the health of the Bay-Delta ecosystem. If implemented with no additional measures / supply in place to address the shortfall, this could impact the ability to meet the projected water demand in the UWMP during multiple dry years. However, implementation of the Bay-Delta Plan Amendment is uncertain at this time for multiple reasons, including numerous legal challenges in both state and federal courts, lack of implementation responsibility, current lack of the identified agreement between stakeholder agencies. In the meantime, the SFPUC and the Bay Area Water Supply and Conservation Agency (BAWSCA) - of which the SFPUC is a member agency - are pursuing numerous options to improve water supply reliability. The UWMP will continue to be updated regularly to reflect changes in regulations, projected demands, and water conservation and supply reliability measures.

The project is not required to prepare a separate Water Supply Assessment under Senate Bill 610 because the project has less than 1,000 employees and is less than 250,000 square feet (the threshold for a commercial office building) and can instead rely upon the planning within the current UWMP, which indicates available supply for the proposed project, which is within development assumptions for the site. Impacts with respect to water would be ***less than significant***. [23, 24, 25]

*Wastewater*

The wastewater collection system that serves the project site is owned and operated by the City of South San Francisco. According to the 101 Gull Drive Sanitary Sewer Analysis[26] (available as part of the project materials), the project's estimated Dry Weather Flow (PDWF), and the Peak Wet Weather Flow (PWWF) would be 83.3 gallons per minute and 138.8 gallons per minute, respectively, and these can be accommodated in the existing sewer system with the following exception:

The Oyster Point Specific Plan to the east identified required upsizing of the 8-inch gravity main in Oyster Point Blvd between approximately Gull Drive and Eccles Avenue to a 12-inch main. The Oyster Point Specific Plan project requires this mitigation with reimbursement from other area projects as appropriate. While this improvement has been fully analyzed as a part of the Oyster Point Specific Plan, that project is not fully built-out and this improvement has not yet been made. The following mitigation measure is consistent with the wording of the measure in the Oyster Point Specific Plan EIR and would be required of this project as well because this improvement is not included within the Sewer Master Plan.[27]

**Mitigation Measure**

**Util-1:** **Oyster Point Subtrunk Replacement.** An approximately 700-foot segment of 8-inch diameter sewer trunk from Eccles Avenue to Gull Road needs to be upsized to a 12-inch diameter trunk sewer. This segment of sewer trunk is not included in the Sewer Master Plan. The applicant / owner / sponsor shall either work with the City to include this improvement in an Sewer Master Plan update or directly fund their fair share of the improvement.

With implementation of Mitigation Measure Util-1, the impact related to required sewer system capacity upgrades would be ***less than significant with mitigation***.

*Stormwater*

As discussed in section 10: Hydrology and Water Quality, the proposed drainage system would maintain the existing flow discharge pattern and connect to the existing storm drain system operated and maintained by the City of South San Francisco. As development on a currently vacant site, the project would result in an increase of approximately 2.4 acres of impervious surface (63% of the site) and would construct a new above and below ground drainage system that includes catch-

[23] California State Water Board, amended plan adopted December 12, 2021, Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary, available at: https://www.waterboards.ca.gov/plans_policies/docs/2018wqcp.pdf .

[24] BAWSCA, Water Reliability webpage, available at: https://bawsca.org/water/reliability

[25] California Water Service (Cal Water), adopted June 2021, 2020 Urban Water Management Plan: South San Francisco District., available at: https://www.calwater.com/docs/uwmp2020/SSF_2020_UWMP_FINAL.pdf.

[26] BKF Engineers, August 17 2021, 101 Gull Drive Sanitary Sewer Analysis.

[27] Lamphier-Gregory, January 2011, Oyster Point Specific Plan and Phase I Project Draft Environmental Impact Report, Chapter 12.

basins, storm drain pipe, bio-retention areas, and flow-through planters to capture, treat, and discharge runoff from the entire site. According to the 101 Gull Drive Storm Drainage Report[28] (available as part of the project materials), there is adequate capacity in the existing off-site system to accommodate flows from the project site and the project would not require the construction of new stormwater drainage facilities or expansion of existing facilities. Impacts with respect to stormwater would be ***less than significant***.

*Electricity, Natural Gas, and Telecommunications*

As discussed in section 6: Energy, the project would not result in the wasteful, inefficient, or unnecessary consumption of energy. In addition, the project would not require the construction of new electric power, natural gas, or telecommunications facilities because it is located in an urban area already served by those utilities and would not require additional capacity. Impacts with respect to electricity, natural gas, and telecommunications would be ***less than significant***.

d, e) Solid Waste and Solid Waste Reduction

South San Francisco Scavenger Company, Inc. (SSFSC) manages all trash and recycling services in South San Francisco. SSFSC collects, receives, processes, and recycles (or transfers for landfill disposal) over 250,000 tons of waste a year.[29] Of all solid waste generated, approximately 84 percent is sent to the Corinda Los Trancos Landfill (Ox Mountain) in Half Moon Bay, California. The Corinda Los Trancos Landfill (Ox Mountain) accepts up to 3,598 tons per day and is anticipated to have available capacity until 2034.[30]

The proposed project would generate solid waste during construction and operation. Handling of debris and waste generated during construction would be subject to SSFMC Section 8.16 coordination with Scavengers Company; and SSFMC Section 15.22.030 diversion of at least 65 percent of construction or demolition waste. The project would not involve demolition activities; therefore, construction activities would not generate substantial solid waste.

According to CalEEMod default values (See section 3: Air Quality and Attachment A), the project would generate approximately 12.66 tons of waste per year, or approximately 0.03 tons per day. The estimate is conservative as it does not factor in any recycling or waste-diversion programs. The 0.03 tons of solid waste generated daily by the project would represent less than 0.001 percent of the permitted landfill throughput.

The City of South San Francisco is required to meet the statewide waste diversion goal of 50 percent set by AB 939. The proposed project would comply with federal, state, and local statutes and regulations related to solid waste, such as AB 939, the SSFMC, and the City's recycling program. Impacts related to solid waste and waste facilities would be ***less than significant***.

[28] BKF Engineers, August 17 2021, 101 Gull Drive Storm Drainage Report.

[29] South San Francisco Scavenger Company, Inc. website, "About Us", available at: https://ssfscavenger.com/about-us/, accessed August 2021.

[30] California Department of Resources Recycling and Recovery (CalRecycle), 2019, SWIS Facility Detail: Corinda Los Trancos Landfill (Ox Mtn) (41-AA-002), https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/1561?siteID=3223, accessed August 2021.

| **20. WILDFIRE**<br>If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project: | Potentially Significant Impact | Less Than Significant With Mitigation | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a) Substantially impair an adopted emergency response plan or emergency evacuation plan? | | | | ☒ |
| b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire? | | | | ☒ |
| c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment? | | | | ☒ |
| d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes? | | | | ☒ |

a-d) Wildfire Risk and Emergency Response

The project site is located within an urbanized area of the City of South San Francisco and is surrounded by existing industrial development. Neither the project site nor the City of South San Francisco is identified as being within a state responsibility area or a very high fire hazard severity zone and not located near such an area (the nearest very high fire severity zone is the San Bruno Mountain State and County Park, located approximately 6 miles from the project site). [31] The proposed project would have ***no impact*** related to wildfire.

[31] Department of Forestry and Fire Protection Fire and Resource Assessment Program, *San Mateo County Very High Fire Hazard Severity Zones*, November 24, 2008, available at: https://osfm.fire.ca.gov/media/6800/fhszl_map41.pdf.

| **21. MANDATORY FINDINGS OF SIGNIFICANCE** | Potentially Significant Impact | Less Than Significant With Mitigation | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| All topics | ☒ | | | |

As indicated throughout this document, there are various environmental topics that will be addressed in an EIR to be prepared subsequently. Because this section relies on conclusions from all topics, it will also be addressed in the EIR.

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**SOURCES**

1. Bay Area Air Quality Management District, May 2017, California Environmental Quality Act Air Quality Guidelines.
2. Bay Area Air Quality Management District, June 2, 2010, News Release http://www.baaqmd.gov/~/media/Files/Communications%20and%20Outreach/Publications/News%20Releases/2010/ceqa_100602.ashx
3. BKF Engineers, August 17 2021, 101 Gull Drive Sanitary Sewer Analysis
4. BKF Engineers, August 17 2021, 101 Gull Drive Storm Drainage Report
5. California Emergency Management Agency, Tsunami Inundation Map for Emergency Planning, San Mateo County.
6. California Regional Water Quality Control Board San Francisco Bay Region, San Francisco Bay Basin Water Quality Control Plan (Basin Plan), November 2019.
7. California Water Service (Cal Water), adopted June 2021, 2020 Urban Water Management Plan: South San Francisco District
8. City/County Association of Governments of San Mateo County, November 2012, Comprehensive Airport Land Use Compatibility Plan for the Environs of San Francisco International Airport.
9. City of South San Francisco, 1994, East of 101 Area Plan.
10. City of South San Francisco, 1999, General Plan.
11. Department of Forestry and Fire Protection Fire and Resource Assessment Program, San Mateo County Very High Fire Hazard Severity Zones.
12. Federal Emergency Management Agency (FEMA), April 2019, Flood Insurance Rate Map (FIRM), Map Number 06081C0042F.
13. Langan Engineering and Environmental Services, November 12, 2020, Preliminary Geotechnical Site Assessment.
14. Langan Engineering and Environmental Services, August 2, 2021, Preliminary Geotechnical Site Assessment Supplemental Discussion.
15. University of California Museum of Paleontology (UCMP) Online Database. 2019. UCMP specimen search portal, http://ucmpdb.berkeley.edu/ (accessed September 2021).
16. U.S. Fish and Wildlife Service, National Wetlands Inventory, Wetlands Mapper.

# EMISSIONS MODELING

## ATTACHMENT A

to the
101 Gull Drive Project Initial Study

# 101 Gull Drive SSF

**San Mateo County, Annual**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| Research & Development | 166.61 | 1000sqft | 2.00 | 166,608.00 | 0 |
| Enclosed Parking with Elevator | 419.00 | Space | 1.80 | 167,600.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.2 | **Precipitation Freq (Days)** | 63 |
| **Climate Zone** | 5 | | | **Operational Year** | 2024 |
| **Utility Company** | Pacific Gas & Electric Company | | | | |
| **CO2 Intensity (lb/MWhr)** | 129.77 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

### 1.3 User Entered Comments & Non-Default Data

Project Characteristics - Penninsula Clean Energy 2018 CO2 intensity factor used.

Land Use - Project total lot acreage is 166,613 square feet per plans, which was split betweent he parking and building uses for the analysis.

Demolition -

Vehicle Trips - Weekday trip rate of 5.6 per transportation study for the project, which takes into account normal employment densities and trip rates for similar project in the immediate vicinity, which already includes TDM Plan reductions.

Construction Phase - Per preliminary construciton schedule.

Grading - Estimated area to be disturbed based on a 3.8 acre site with undisturbed slopes along the boundary.

Energy Use -

Stationary Sources - Emergency Generators and Fire Pumps -

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblConstructionPhase | NumDays | 230.00 | 440.00 |
| tblConstructionPhase | NumDays | 8.00 | 25.00 |
| tblConstructionPhase | NumDays | 18.00 | 40.00 |
| tblConstructionPhase | NumDays | 5.00 | 10.00 |
| tblConstructionPhase | PhaseEndDate | 10/5/2023 | 2/28/2024 |
| tblConstructionPhase | PhaseEndDate | 8/16/2023 | 6/7/2024 |
| tblConstructionPhase | PhaseEndDate | 9/28/2022 | 9/30/2022 |
| tblConstructionPhase | PhaseEndDate | 9/11/2023 | 6/7/2024 |
| tblConstructionPhase | PhaseEndDate | 9/16/2022 | 8/26/2022 |
| tblConstructionPhase | PhaseStartDate | 9/12/2023 | 2/5/2024 |
| tblConstructionPhase | PhaseStartDate | 9/29/2022 | 10/3/2022 |
| tblConstructionPhase | PhaseStartDate | 9/17/2022 | 8/29/2022 |
| tblConstructionPhase | PhaseStartDate | 8/17/2023 | 4/15/2024 |
| tblConstructionPhase | PhaseStartDate | 9/10/2022 | 8/15/2022 |
| tblGrading | AcresOfGrading | 12.50 | 3.00 |
| tblGrading | MaterialExported | 0.00 | 16,460.00 |
| tblGrading | MaterialImported | 0.00 | 1,730.00 |
| tblLandUse | LotAcreage | 3.82 | 2.00 |
| tblLandUse | LotAcreage | 3.77 | 1.80 |
| tblProjectCharacteristics | CO2IntensityFactor | 641.35 | 129.77 |
| tblVehicleTrips | WD_TR | 8.11 | 5.60 |

## 2.0 Emissions Summary

### 2.1 Overall Construction

## Unmitigated Construction

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | tons/yr | | | | | | | | | | MT/yr | | | | | |
| 2022 | 0.1222 | 1.4064 | 1.0086 | 3.1100e-003 | 0.2333 | 0.0475 | 0.2808 | 0.1091 | 0.0443 | 0.1534 | 0.0000 | 283.9556 | 283.9556 | 0.0412 | 0.0000 | 284.9857 |
| 2023 | 0.2641 | 2.4618 | 2.5664 | 6.5000e-003 | 0.1744 | 0.0924 | 0.2668 | 0.0475 | 0.0869 | 0.1344 | 0.0000 | 582.9004 | 582.9004 | 0.0816 | 0.0000 | 584.9411 |
| 2024 | 1.0341 | 1.2091 | 1.3895 | 3.3000e-003 | 0.0821 | 0.0444 | 0.1265 | 0.0223 | 0.0417 | 0.0640 | 0.0000 | 294.3504 | 294.3504 | 0.0463 | 0.0000 | 295.5075 |
| **Maximum** | **1.0341** | **2.4618** | **2.5664** | **6.5000e-003** | **0.2333** | **0.0924** | **0.2808** | **0.1091** | **0.0869** | **0.1534** | **0.0000** | **582.9004** | **582.9004** | **0.0816** | **0.0000** | **584.9411** |

## Mitigated Construction

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | tons/yr | | | | | | | | | | MT/yr | | | | | |
| 2022 | 0.1222 | 1.4064 | 1.0086 | 3.1100e-003 | 0.2333 | 0.0475 | 0.2808 | 0.1091 | 0.0443 | 0.1534 | 0.0000 | 283.9555 | 283.9555 | 0.0412 | 0.0000 | 284.9855 |
| 2023 | 0.2641 | 2.4618 | 2.5664 | 6.5000e-003 | 0.1744 | 0.0924 | 0.2668 | 0.0475 | 0.0869 | 0.1344 | 0.0000 | 582.9000 | 582.9000 | 0.0816 | 0.0000 | 584.9407 |
| 2024 | 1.0341 | 1.2091 | 1.3895 | 3.3000e-003 | 0.0821 | 0.0444 | 0.1265 | 0.0223 | 0.0417 | 0.0640 | 0.0000 | 294.3502 | 294.3502 | 0.0463 | 0.0000 | 295.5073 |
| **Maximum** | **1.0341** | **2.4618** | **2.5664** | **6.5000e-003** | **0.2333** | **0.0924** | **0.2808** | **0.1091** | **0.0869** | **0.1534** | **0.0000** | **582.9000** | **582.9000** | **0.0816** | **0.0000** | **584.9407** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** |

| Quarter | Start Date | End Date | Maximum Unmitigated ROG + NOX (tons/quarter) | Maximum Mitigated ROG + NOX (tons/quarter) |
|---|---|---|---|---|
| 1 | 8-15-2022 | 11-14-2022 | 1.0594 | 1.0594 |
| 2 | 11-15-2022 | 2-14-2023 | 0.7363 | 0.7363 |
| 3 | 2-15-2023 | 5-14-2023 | 0.6667 | 0.6667 |
| 4 | 5-15-2023 | 8-14-2023 | 0.6876 | 0.6876 |
| 5 | 8-15-2023 | 11-14-2023 | 0.6891 | 0.6891 |
| 6 | 11-15-2023 | 2-14-2024 | 1.0365 | 1.0365 |
| 7 | 2-15-2024 | 5-14-2024 | 1.2467 | 1.2467 |
| 8 | 5-15-2024 | 8-14-2024 | 0.2490 | 0.2490 |
| | | Highest | 1.2467 | 1.2467 |

## 2.2 Overall Operational

### Unmitigated Operational

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Area | 0.7524 | 5.0000e-005 | 5.3700e-003 | 0.0000 | | 2.0000e-005 | 2.0000e-005 | | 2.0000e-005 | 2.0000e-005 | 0.0000 | 0.0105 | 0.0105 | 3.0000e-005 | 0.0000 | 0.0112 |
| Energy | 0.0222 | 0.2021 | 0.1698 | 1.2100e-003 | | 0.0154 | 0.0154 | | 0.0154 | 0.0154 | 0.0000 | 352.0003 | 352.0003 | 0.0337 | 0.0101 | 355.8632 |
| Mobile | 0.1736 | 1.1073 | 1.9674 | 8.3800e-003 | 0.6918 | 6.7500e-003 | 0.6985 | 0.1859 | 6.3200e-003 | 0.1922 | 0.0000 | 773.8962 | 773.8962 | 0.0289 | 0.0000 | 774.6189 |
| Waste | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 2.5699 | 0.0000 | 2.5699 | 0.1519 | 0.0000 | 6.3667 |
| Water | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 25.9898 | 26.0924 | 52.0822 | 2.6752 | 0.0642 | 138.1055 |
| **Total** | **0.9482** | **1.3094** | **2.1426** | **9.5900e-003** | **0.6918** | **0.0221** | **0.7139** | **0.1859** | **0.0217** | **0.2076** | **28.5597** | **1,151.9993** | **1,180.5589** | **2.8898** | **0.0744** | **1,274.9654** |

### Mitigated Operational

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Area | 0.7524 | 5.0000e-005 | 5.3700e-003 | 0.0000 | | 2.0000e-005 | 2.0000e-005 | | 2.0000e-005 | 2.0000e-005 | 0.0000 | 0.0105 | 0.0105 | 3.0000e-005 | 0.0000 | 0.0112 |
| Energy | 0.0222 | 0.2021 | 0.1698 | 1.2100e-003 | | 0.0154 | 0.0154 | | 0.0154 | 0.0154 | 0.0000 | 352.0003 | 352.0003 | 0.0337 | 0.0101 | 355.8632 |
| Mobile | 0.1736 | 1.1073 | 1.9674 | 8.3800e-003 | 0.6918 | 6.7500e-003 | 0.6985 | 0.1859 | 6.3200e-003 | 0.1922 | 0.0000 | 773.8962 | 773.8962 | 0.0289 | 0.0000 | 774.6189 |
| Waste | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 2.5699 | 0.0000 | 2.5699 | 0.1519 | 0.0000 | 6.3667 |
| Water | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 25.9898 | 26.0924 | 52.0822 | 2.6752 | 0.0642 | 138.1055 |
| **Total** | **0.9482** | **1.3094** | **2.1426** | **9.5900e-003** | **0.6918** | **0.0221** | **0.7139** | **0.1859** | **0.0217** | **0.2076** | **28.5597** | **1,151.9993** | **1,180.5589** | **2.8898** | **0.0744** | **1,274.9654** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** |

## 3.0 Construction Detail

### Construction Phase

| Phase Number | Phase Name | Phase Type | Start Date | End Date | Num Days Week | Num Days | Phase Description |
|---|---|---|---|---|---|---|---|
| 1 | Mobilization and Site Preparation | Site Preparation | 8/15/2022 | 8/26/2022 | 5 | 10 | |
| 2 | Grading | Grading | 8/29/2022 | 9/30/2022 | 5 | 25 | |
| 3 | Building Construction | Building Construction | 10/3/2022 | 6/7/2024 | 5 | 440 | |
| 4 | Paving | Paving | 4/15/2024 | 6/7/2024 | 5 | 40 | |
| 5 | Architectural Coating | Architectural Coating | 2/5/2024 | 2/28/2024 | 5 | 18 | |

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 3**

**Acres of Paving: 1.8**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 249,912; Non-Residential Outdoor: 83,304; Striped Parking Area:**

## OffRoad Equipment

| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|---|---|---|---|---|---|
| Mobilization and Site Preparation | Rubber Tired Dozers | 3 | 8.00 | 247 | 0.40 |
| Mobilization and Site Preparation | Tractors/Loaders/Backhoes | 4 | 8.00 | 97 | 0.37 |
| Grading | Excavators | 1 | 8.00 | 158 | 0.38 |
| Grading | Graders | 1 | 8.00 | 187 | 0.41 |
| Grading | Rubber Tired Dozers | 1 | 8.00 | 247 | 0.40 |
| Paving | Cement and Mortar Mixers | 2 | 6.00 | 9 | 0.56 |
| Grading | Tractors/Loaders/Backhoes | 3 | 8.00 | 97 | 0.37 |
| Building Construction | Cranes | 1 | 7.00 | 231 | 0.29 |
| Building Construction | Forklifts | 3 | 8.00 | 89 | 0.20 |
| Building Construction | Generator Sets | 1 | 8.00 | 84 | 0.74 |
| Building Construction | Tractors/Loaders/Backhoes | 3 | 7.00 | 97 | 0.37 |
| Building Construction | Welders | 1 | 8.00 | 46 | 0.45 |
| Paving | Pavers | 1 | 8.00 | 130 | 0.42 |
| Paving | Paving Equipment | 2 | 6.00 | 132 | 0.36 |
| Paving | Rollers | 2 | 6.00 | 80 | 0.38 |
| Architectural Coating | Air Compressors | 1 | 6.00 | 78 | 0.48 |
| Paving | Tractors/Loaders/Backhoes | 1 | 8.00 | 97 | 0.37 |

## Trips and VMT

| Phase Name | Offroad Equipment Count | Worker Trip Number | Vendor Trip Number | Hauling Trip Number | Worker Trip Length | Vendor Trip Length | Hauling Trip Length | Worker Vehicle Class | Vendor Vehicle Class | Hauling Vehicle Class |
|---|---|---|---|---|---|---|---|---|---|---|
| Mobilization and Site Preparation | 7 | 18.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Grading | 6 | 15.00 | 0.00 | 2,274.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Building Construction | 9 | 124.00 | 55.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Paving | 8 | 20.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Architectural Coating | 1 | 25.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |

## 3.1 Mitigation Measures Construction

## 3.2 Mobilization and Site Preparation - 2022

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 0.0903 | 0.0000 | 0.0903 | 0.0497 | 0.0000 | 0.0497 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0159 | 0.1654 | 0.0985 | 1.9000e-004 | | 8.0600e-003 | 8.0600e-003 | | 7.4200e-003 | 7.4200e-003 | 0.0000 | 16.7197 | 16.7197 | 5.4100e-003 | 0.0000 | 16.8549 |
| **Total** | **0.0159** | **0.1654** | **0.0985** | **1.9000e-004** | **0.0903** | **8.0600e-003** | **0.0984** | **0.0497** | **7.4200e-003** | **0.0571** | **0.0000** | **16.7197** | **16.7197** | **5.4100e-003** | **0.0000** | **16.8549** |

**Unmitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Worker | 2.7000e-004 | 1.8000e-004 | 1.9600e-003 | 1.0000e-005 | 7.1000e-004 | 0.0000 | 7.2000e-004 | 1.9000e-004 | 0.0000 | 1.9000e-004 | 0.0000 | 0.5884 | 0.5884 | 1.0000e-005 | 0.0000 | 0.5887 |
| **Total** | **2.7000e-004** | **1.8000e-004** | **1.9600e-003** | **1.0000e-005** | **7.1000e-004** | **0.0000** | **7.2000e-004** | **1.9000e-004** | **0.0000** | **1.9000e-004** | **0.0000** | **0.5884** | **0.5884** | **1.0000e-005** | **0.0000** | **0.5887** |

## Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 0.0903 | 0.0000 | 0.0903 | 0.0497 | 0.0000 | 0.0497 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0159 | 0.1654 | 0.0985 | 1.9000e-004 | | 8.0600e-003 | 8.0600e-003 | | 7.4200e-003 | 7.4200e-003 | 0.0000 | 16.7197 | 16.7197 | 5.4100e-003 | 0.0000 | 16.8549 |
| **Total** | **0.0159** | **0.1654** | **0.0985** | **1.9000e-004** | **0.0903** | **8.0600e-003** | **0.0984** | **0.0497** | **7.4200e-003** | **0.0571** | **0.0000** | **16.7197** | **16.7197** | **5.4100e-003** | **0.0000** | **16.8549** |

## Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 2.7000e-004 | 1.8000e-004 | 1.9600e-003 | 1.0000e-005 | 7.1000e-004 | 0.0000 | 7.2000e-004 | 1.9000e-004 | 0.0000 | 1.9000e-004 | 0.0000 | 0.5884 | 0.5884 | 1.0000e-005 | 0.0000 | 0.5887 |
| **Total** | **2.7000e-004** | **1.8000e-004** | **1.9600e-003** | **1.0000e-005** | **7.1000e-004** | **0.0000** | **7.2000e-004** | **1.9000e-004** | **0.0000** | **1.9000e-004** | **0.0000** | **0.5884** | **0.5884** | **1.0000e-005** | **0.0000** | **0.5887** |

### 3.3 Grading - 2022

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 0.0779 | 0.0000 | 0.0779 | 0.0417 | 0.0000 | 0.0417 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0244 | 0.2607 | 0.1909 | 3.7000e-004 | | 0.0118 | 0.0118 | | 0.0108 | 0.0108 | 0.0000 | 32.5685 | 32.5685 | 0.0105 | 0.0000 | 32.8318 |
| **Total** | **0.0244** | **0.2607** | **0.1909** | **3.7000e-004** | **0.0779** | **0.0118** | **0.0897** | **0.0417** | **0.0108** | **0.0525** | **0.0000** | **32.5685** | **32.5685** | **0.0105** | **0.0000** | **32.8318** |

**Unmitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 8.5900e-003 | 0.2824 | 0.0555 | 8.8000e-004 | 0.0193 | 8.0000e-004 | 0.0201 | 5.3000e-003 | 7.7000e-004 | 6.0700e-003 | 0.0000 | 84.8273 | 84.8273 | 4.1300e-003 | 0.0000 | 84.9306 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 5.6000e-004 | 3.8000e-004 | 4.0900e-003 | 1.0000e-005 | 1.4800e-003 | 1.0000e-005 | 1.4900e-003 | 3.9000e-004 | 1.0000e-005 | 4.0000e-004 | 0.0000 | 1.2258 | 1.2258 | 3.0000e-005 | 0.0000 | 1.2265 |
| **Total** | **9.1500e-003** | **0.2828** | **0.0596** | **8.9000e-004** | **0.0207** | **8.1000e-004** | **0.0216** | **5.6900e-003** | **7.8000e-004** | **6.4700e-003** | **0.0000** | **86.0530** | **86.0530** | **4.1600e-003** | **0.0000** | **86.1571** |

**Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 0.0779 | 0.0000 | 0.0779 | 0.0417 | 0.0000 | 0.0417 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0244 | 0.2607 | 0.1909 | 3.7000e-004 | | 0.0118 | 0.0118 | | 0.0108 | 0.0108 | 0.0000 | 32.5684 | 32.5684 | 0.0105 | 0.0000 | 32.8318 |
| **Total** | **0.0244** | **0.2607** | **0.1909** | **3.7000e-004** | **0.0779** | **0.0118** | **0.0897** | **0.0417** | **0.0108** | **0.0525** | **0.0000** | **32.5684** | **32.5684** | **0.0105** | **0.0000** | **32.8318** |

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 8.5900e-003 | 0.2824 | 0.0555 | 8.8000e-004 | 0.0193 | 8.0000e-004 | 0.0201 | 5.3000e-003 | 7.7000e-004 | 6.0700e-003 | 0.0000 | 84.8273 | 84.8273 | 4.1300e-003 | 0.0000 | 84.9306 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 5.6000e-004 | 3.8000e-004 | 4.0900e-003 | 1.0000e-005 | 1.4800e-003 | 1.0000e-005 | 1.4900e-003 | 3.9000e-004 | 1.0000e-005 | 4.0000e-004 | 0.0000 | 1.2258 | 1.2258 | 3.0000e-005 | 0.0000 | 1.2265 |
| **Total** | **9.1500e-003** | **0.2828** | **0.0596** | **8.9000e-004** | **0.0207** | **8.1000e-004** | **0.0216** | **5.6900e-003** | **7.8000e-004** | **6.4700e-003** | **0.0000** | **86.0530** | **86.0530** | **4.1600e-003** | **0.0000** | **86.1571** |

## 3.4 Building Construction - 2022

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Off-Road | 0.0555 | 0.5075 | 0.5318 | 8.8000e-004 | | 0.0263 | 0.0263 | | 0.0247 | 0.0247 | 0.0000 | 75.3107 | 75.3107 | 0.0180 | 0.0000 | 75.7618 |
| **Total** | **0.0555** | **0.5075** | **0.5318** | **8.8000e-004** | | **0.0263** | **0.0263** | | **0.0247** | **0.0247** | **0.0000** | **75.3107** | **75.3107** | **0.0180** | **0.0000** | **75.7618** |

**Unmitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 5.1700e-003 | 0.1816 | 0.0379 | 4.8000e-004 | 0.0117 | 3.4000e-004 | 0.0121 | 3.4000e-003 | 3.3000e-004 | 3.7300e-003 | 0.0000 | 46.3694 | 46.3694 | 2.4600e-003 | 0.0000 | 46.4308 |
| Worker | 0.0120 | 8.2100e-003 | 0.0879 | 2.9000e-004 | 0.0319 | 2.1000e-004 | 0.0321 | 8.4800e-003 | 1.9000e-004 | 8.6700e-003 | 0.0000 | 26.3460 | 26.3460 | 5.8000e-004 | 0.0000 | 26.3606 |
| **Total** | **0.0171** | **0.1898** | **0.1259** | **7.7000e-004** | **0.0436** | **5.5000e-004** | **0.0442** | **0.0119** | **5.2000e-004** | **0.0124** | **0.0000** | **72.7154** | **72.7154** | **3.0400e-003** | **0.0000** | **72.7914** |

**Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 0.0555 | 0.5075 | 0.5318 | 8.8000e-004 | | 0.0263 | 0.0263 | | 0.0247 | 0.0247 | 0.0000 | 75.3106 | 75.3106 | 0.0180 | 0.0000 | 75.7617 |

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total** | **0.0555** | **0.5075** | **0.5318** | **8.8000e-004** | | **0.0263** | **0.0263** | | **0.0247** | **0.0247** | **0.0000** | **75.3106** | **75.3106** | **0.0180** | **0.0000** | **75.7617** |

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 5.1700e-003 | 0.1816 | 0.0379 | 4.8000e-004 | 0.0117 | 3.4000e-004 | 0.0121 | 3.4000e-003 | 3.3000e-004 | 3.7300e-003 | 0.0000 | 46.3694 | 46.3694 | 2.4600e-003 | 0.0000 | 46.4308 |
| Worker | 0.0120 | 8.2100e-003 | 0.0879 | 2.9000e-004 | 0.0319 | 2.1000e-004 | 0.0321 | 8.4800e-003 | 1.9000e-004 | 8.6700e-003 | 0.0000 | 26.3460 | 26.3460 | 5.8000e-004 | 0.0000 | 26.3606 |
| **Total** | **0.0171** | **0.1898** | **0.1259** | **7.7000e-004** | **0.0436** | **5.5000e-004** | **0.0442** | **0.0119** | **5.2000e-004** | **0.0124** | **0.0000** | **72.7154** | **72.7154** | **3.0400e-003** | **0.0000** | **72.7914** |

## 3.4 Building Construction - 2023

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 0.2045 | 1.8700 | 2.1117 | 3.5000e-003 | | 0.0910 | 0.0910 | | 0.0856 | 0.0856 | 0.0000 | 301.3462 | 301.3462 | 0.0717 | 0.0000 | 303.1383 |
| **Total** | **0.2045** | **1.8700** | **2.1117** | **3.5000e-003** | | **0.0910** | **0.0910** | | **0.0856** | **0.0856** | **0.0000** | **301.3462** | **301.3462** | **0.0717** | **0.0000** | **303.1383** |

**Unmitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0152 | 0.5623 | 0.1326 | 1.8800e-003 | 0.0470 | 6.0000e-004 | 0.0476 | 0.0136 | 5.7000e-004 | 0.0142 | 0.0000 | 180.2007 | 180.2007 | 7.8500e-003 | 0.0000 | 180.3970 |
| Worker | 0.0445 | 0.0295 | 0.3221 | 1.1200e-003 | 0.1275 | 8.2000e-004 | 0.1283 | 0.0339 | 7.5000e-004 | 0.0347 | 0.0000 | 101.3535 | 101.3535 | 2.0900e-003 | 0.0000 | 101.4058 |
| **Total** | **0.0597** | **0.5918** | **0.4547** | **3.0000e-003** | **0.1744** | **1.4200e-003** | **0.1758** | **0.0475** | **1.3200e-003** | **0.0488** | **0.0000** | **281.5542** | **281.5542** | **9.9400e-003** | **0.0000** | **281.8028** |

**Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 0.2045 | 1.8700 | 2.1117 | 3.5000e-003 | | 0.0910 | 0.0910 | | 0.0856 | 0.0856 | 0.0000 | 301.3458 | 301.3458 | 0.0717 | 0.0000 | 303.1380 |
| **Total** | **0.2045** | **1.8700** | **2.1117** | **3.5000e-003** | | **0.0910** | **0.0910** | | **0.0856** | **0.0856** | **0.0000** | **301.3458** | **301.3458** | **0.0717** | **0.0000** | **303.1380** |

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0152 | 0.5623 | 0.1326 | 1.8800e-003 | 0.0470 | 6.0000e-004 | 0.0476 | 0.0136 | 5.7000e-004 | 0.0142 | 0.0000 | 180.2007 | 180.2007 | 7.8500e-003 | 0.0000 | 180.3970 |
| Worker | 0.0445 | 0.0295 | 0.3221 | 1.1200e-003 | 0.1275 | 8.2000e-004 | 0.1283 | 0.0339 | 7.5000e-004 | 0.0347 | 0.0000 | 101.3535 | 101.3535 | 2.0900e-003 | 0.0000 | 101.4058 |
| **Total** | **0.0597** | **0.5918** | **0.4547** | **3.0000e-003** | **0.1744** | **1.4200e-003** | **0.1758** | **0.0475** | **1.3200e-003** | **0.0488** | **0.0000** | **281.5542** | **281.5542** | **9.9400e-003** | **0.0000** | **281.8028** |

## 3.4 Building Construction - 2024

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 0.0846 | 0.7730 | 0.9296 | 1.5500e-003 | | 0.0353 | 0.0353 | | 0.0332 | 0.0332 | 0.0000 | 133.3132 | 133.3132 | 0.0315 | 0.0000 | 134.1014 |
| **Total** | **0.0846** | **0.7730** | **0.9296** | **1.5500e-003** | | **0.0353** | **0.0353** | | **0.0332** | **0.0332** | **0.0000** | **133.3132** | **133.3132** | **0.0315** | **0.0000** | **134.1014** |

**Unmitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 6.5100e-003 | 0.2469 | 0.0562 | 8.3000e-004 | 0.0208 | 2.6000e-004 | 0.0210 | 6.0100e-003 | 2.5000e-004 | 6.2600e-003 | 0.0000 | 79.1521 | 79.1521 | 3.4300e-003 | 0.0000 | 79.2379 |
| Worker | 0.0184 | 0.0117 | 0.1315 | 4.8000e-004 | 0.0564 | 3.5000e-004 | 0.0567 | 0.0150 | 3.3000e-004 | 0.0153 | 0.0000 | 43.0526 | 43.0526 | 8.3000e-004 | 0.0000 | 43.0734 |
| **Total** | **0.0249** | **0.2587** | **0.1877** | **1.3100e-003** | **0.0771** | **6.1000e-004** | **0.0778** | **0.0210** | **5.8000e-004** | **0.0216** | **0.0000** | **122.2047** | **122.2047** | **4.2600e-003** | **0.0000** | **122.3113** |

**Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 0.0846 | 0.7730 | 0.9296 | 1.5500e-003 | | 0.0353 | 0.0353 | | 0.0332 | 0.0332 | 0.0000 | 133.3131 | 133.3131 | 0.0315 | 0.0000 | 134.1012 |
| **Total** | **0.0846** | **0.7730** | **0.9296** | **1.5500e-003** | | **0.0353** | **0.0353** | | **0.0332** | **0.0332** | **0.0000** | **133.3131** | **133.3131** | **0.0315** | **0.0000** | **134.1012** |

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Vendor | 6.5100e-003 | 0.2469 | 0.0562 | 8.3000e-004 | 0.0208 | 2.6000e-004 | 0.0210 | 6.0100e-003 | 2.5000e-004 | 6.2600e-003 | 0.0000 | 79.1521 | 79.1521 | 3.4300e-003 | 0.0000 | 79.2379 |
| Worker | 0.0184 | 0.0117 | 0.1315 | 4.8000e-004 | 0.0564 | 3.5000e-004 | 0.0567 | 0.0150 | 3.3000e-004 | 0.0153 | 0.0000 | 43.0526 | 43.0526 | 8.3000e-004 | 0.0000 | 43.0734 |
| **Total** | **0.0249** | **0.2587** | **0.1877** | **1.3100e-003** | **0.0771** | **6.1000e-004** | **0.0778** | **0.0210** | **5.8000e-004** | **0.0216** | **0.0000** | **122.2047** | **122.2047** | **4.2600e-003** | **0.0000** | **122.3113** |

## 3.5 Paving - 2024

### Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 0.0176 | 0.1655 | 0.2444 | 3.8000e-004 | | 7.9700e-003 | 7.9700e-003 | | 7.3700e-003 | 7.3700e-003 | 0.0000 | 32.7606 | 32.7606 | 0.0103 | 0.0000 | 33.0180 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | **0.0176** | **0.1655** | **0.2444** | **3.8000e-004** | | **7.9700e-003** | **7.9700e-003** | | **7.3700e-003** | **7.3700e-003** | **0.0000** | **32.7606** | **32.7606** | **0.0103** | **0.0000** | **33.0180** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 1.0300e-003 | 6.6000e-004 | 7.3800e-003 | 3.0000e-005 | 3.1600e-003 | 2.0000e-005 | 3.1800e-003 | 8.4000e-004 | 2.0000e-005 | 8.6000e-004 | 0.0000 | 2.4153 | 2.4153 | 5.0000e-005 | 0.0000 | 2.4165 |

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total** | **1.0300e-003** | **6.6000e-004** | **7.3800e-003** | **3.0000e-005** | **3.1600e-003** | **2.0000e-005** | **3.1800e-003** | **8.4000e-004** | **2.0000e-005** | **8.6000e-004** | **0.0000** | **2.4153** | **2.4153** | **5.0000e-005** | **0.0000** | **2.4165** |

**Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 0.0176 | 0.1655 | 0.2444 | 3.8000e-004 | | 7.9700e-003 | 7.9700e-003 | | 7.3700e-003 | 7.3700e-003 | 0.0000 | 32.7606 | 32.7606 | 0.0103 | 0.0000 | 33.0179 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | **0.0176** | **0.1655** | **0.2444** | **3.8000e-004** | | **7.9700e-003** | **7.9700e-003** | | **7.3700e-003** | **7.3700e-003** | **0.0000** | **32.7606** | **32.7606** | **0.0103** | **0.0000** | **33.0179** |

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 1.0300e-003 | 6.6000e-004 | 7.3800e-003 | 3.0000e-005 | 3.1600e-003 | 2.0000e-005 | 3.1800e-003 | 8.4000e-004 | 2.0000e-005 | 8.6000e-004 | 0.0000 | 2.4153 | 2.4153 | 5.0000e-005 | 0.0000 | 2.4165 |
| **Total** | **1.0300e-003** | **6.6000e-004** | **7.3800e-003** | **3.0000e-005** | **3.1600e-003** | **2.0000e-005** | **3.1800e-003** | **8.4000e-004** | **2.0000e-005** | **8.6000e-004** | **0.0000** | **2.4153** | **2.4153** | **5.0000e-005** | **0.0000** | **2.4165** |

### 3.6 Architectural Coating - 2024

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Archit. Coating | 0.9037 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 1.6300e-003 | 0.0110 | 0.0163 | 3.0000e-005 | | 5.5000e-004 | 5.5000e-004 | | 5.5000e-004 | 5.5000e-004 | 0.0000 | 2.2979 | 2.2979 | 1.3000e-004 | 0.0000 | 2.3012 |
| **Total** | **0.9053** | **0.0110** | **0.0163** | **3.0000e-005** | | **5.5000e-004** | **5.5000e-004** | | **5.5000e-004** | **5.5000e-004** | **0.0000** | **2.2979** | **2.2979** | **1.3000e-004** | **0.0000** | **2.3012** |

**Unmitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 5.8000e-004 | 3.7000e-004 | 4.1500e-003 | 2.0000e-005 | 1.7800e-003 | 1.0000e-005 | 1.7900e-003 | 4.7000e-004 | 1.0000e-005 | 4.8000e-004 | 0.0000 | 1.3586 | 1.3586 | 3.0000e-005 | 0.0000 | 1.3593 |
| **Total** | **5.8000e-004** | **3.7000e-004** | **4.1500e-003** | **2.0000e-005** | **1.7800e-003** | **1.0000e-005** | **1.7900e-003** | **4.7000e-004** | **1.0000e-005** | **4.8000e-004** | **0.0000** | **1.3586** | **1.3586** | **3.0000e-005** | **0.0000** | **1.3593** |

**Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Archit. Coating | 0.9037 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 1.6300e-003 | 0.0110 | 0.0163 | 3.0000e-005 | | 5.5000e-004 | 5.5000e-004 | | 5.5000e-004 | 5.5000e-004 | 0.0000 | 2.2979 | 2.2979 | 1.3000e-004 | 0.0000 | 2.3012 |
| **Total** | **0.9053** | **0.0110** | **0.0163** | **3.0000e-005** | | **5.5000e-004** | **5.5000e-004** | | **5.5000e-004** | **5.5000e-004** | **0.0000** | **2.2979** | **2.2979** | **1.3000e-004** | **0.0000** | **2.3012** |

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 5.8000e-004 | 3.7000e-004 | 4.1500e-003 | 2.0000e-005 | 1.7800e-003 | 1.0000e-005 | 1.7900e-003 | 4.7000e-004 | 1.0000e-005 | 4.8000e-004 | 0.0000 | 1.3586 | 1.3586 | 3.0000e-005 | 0.0000 | 1.3593 |
| **Total** | **5.8000e-004** | **3.7000e-004** | **4.1500e-003** | **2.0000e-005** | **1.7800e-003** | **1.0000e-005** | **1.7900e-003** | **4.7000e-004** | **1.0000e-005** | **4.8000e-004** | **0.0000** | **1.3586** | **1.3586** | **3.0000e-005** | **0.0000** | **1.3593** |

## 4.0 Operational Detail - Mobile

### 4.1 Mitigation Measures Mobile

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Mitigated | 0.1736 | 1.1073 | 1.9674 | 8.3800e-003 | 0.6918 | 6.7500e-003 | 0.6985 | 0.1859 | 6.3200e-003 | 0.1922 | 0.0000 | 773.8962 | 773.8962 | 0.0289 | 0.0000 | 774.6189 |
| Unmitigated | 0.1736 | 1.1073 | 1.9674 | 8.3800e-003 | 0.6918 | 6.7500e-003 | 0.6985 | 0.1859 | 6.3200e-003 | 0.1922 | 0.0000 | 773.8962 | 773.8962 | 0.0289 | 0.0000 | 774.6189 |

## 4.2 Trip Summary Information

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Enclosed Parking with Elevator | 0.00 | 0.00 | 0.00 | | |
| Research & Development | 933.00 | 316.56 | 184.93 | 1,849,795 | 1,849,795 |
| Total | 933.00 | 316.56 | 184.93 | 1,849,795 | 1,849,795 |

## 4.3 Trip Type Information

| | Miles | | | Trip % | | | Trip Purpose % | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | H-W or C-W | H-S or C-C | H-O or C-NW | H-W or C-W | H-S or C-C | H-O or C-NW | Primary | Diverted | Pass-by |
| Enclosed Parking with Elevator | 9.50 | 7.30 | 7.30 | 0.00 | 0.00 | 0.00 | 0 | 0 | 0 |
| Research & Development | 9.50 | 7.30 | 7.30 | 33.00 | 48.00 | 19.00 | 82 | 15 | 3 |

## 4.4 Fleet Mix

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Enclosed Parking with Elevator | 0.562515 | 0.038056 | 0.190319 | 0.106285 | 0.014814 | 0.005157 | 0.024895 | 0.046887 | 0.002221 | 0.002358 | 0.005460 | 0.000343 | 0.000690 |
| Research & Development | 0.562515 | 0.038056 | 0.190319 | 0.106285 | 0.014814 | 0.005157 | 0.024895 | 0.046887 | 0.002221 | 0.002358 | 0.005460 | 0.000343 | 0.000690 |

# 5.0 Energy Detail

Historical Energy Use: N

### 5.1 Mitigation Measures Energy

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Electricity Mitigated | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 131.9520 | 131.9520 | 0.0295 | 6.1000e-003 | 134.5073 |
| Electricity Unmitigated | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 131.9520 | 131.9520 | 0.0295 | 6.1000e-003 | 134.5073 |
| NaturalGas Mitigated | 0.0222 | 0.2021 | 0.1698 | 1.2100e-003 | | 0.0154 | 0.0154 | | 0.0154 | 0.0154 | 0.0000 | 220.0482 | 220.0482 | 4.2200e-003 | 4.0300e-003 | 221.3559 |
| NaturalGas Unmitigated | 0.0222 | 0.2021 | 0.1698 | 1.2100e-003 | | 0.0154 | 0.0154 | | 0.0154 | 0.0154 | 0.0000 | 220.0482 | 220.0482 | 4.2200e-003 | 4.0300e-003 | 221.3559 |

### 5.2 Energy by Land Use - NaturalGas

**Unmitigated**

| | NaturalGas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Land Use | kBTU/yr | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Enclosed Parking with Elevator | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Research & Development | 4.12355e+006 | 0.0222 | 0.2021 | 0.1698 | 1.2100e-003 | | 0.0154 | 0.0154 | | 0.0154 | 0.0154 | 0.0000 | 220.0482 | 220.0482 | 4.2200e-003 | 4.0300e-003 | 221.3559 |
| **Total** | | **0.0222** | **0.2021** | **0.1698** | **1.2100e-003** | | **0.0154** | **0.0154** | | **0.0154** | **0.0154** | **0.0000** | **220.0482** | **220.0482** | **4.2200e-003** | **4.0300e-003** | **221.3559** |

**Mitigated**

| | NaturalGas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Land Use | kBTU/yr | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Enclosed Parking with Elevator | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Research & Development | 4.12355e+006 | 0.0222 | 0.2021 | 0.1698 | 1.2100e-003 | | 0.0154 | 0.0154 | | 0.0154 | 0.0154 | 0.0000 | 220.0482 | 220.0482 | 4.2200e-003 | 4.0300e-003 | 221.3559 |
| **Total** | | **0.0222** | **0.2021** | **0.1698** | **1.2100e-003** | | **0.0154** | **0.0154** | | **0.0154** | **0.0154** | **0.0000** | **220.0482** | **220.0482** | **4.2200e-003** | **4.0300e-003** | **221.3559** |

## 5.3 Energy by Land Use - Electricity

**Unmitigated**

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | kWh/yr | MT/yr | | | |
| Enclosed Parking with Elevator | 982136 | 57.8112 | 0.0129 | 2.6700e-003 | 58.9307 |
| Research & Development | 1.25956e+006 | 74.1409 | 0.0166 | 3.4300e-003 | 75.5766 |
| **Total** | | **131.9520** | **0.0295** | **6.1000e-003** | **134.5073** |

**Mitigated**

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | kWh/yr | MT/yr | | | |
| Enclosed Parking with Elevator | 982136 | 57.8112 | 0.0129 | 2.6700e-003 | 58.9307 |
| Research & Development | 1.25956e+006 | 74.1409 | 0.0166 | 3.4300e-003 | 75.5766 |
| **Total** | | **131.9520** | **0.0295** | **6.1000e-003** | **134.5073** |

## 6.0 Area Detail

### 6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Mitigated | 0.7524 | 5.0000e-005 | 5.3700e-003 | 0.0000 | | 2.0000e-005 | 2.0000e-005 | | 2.0000e-005 | 2.0000e-005 | 0.0000 | 0.0105 | 0.0105 | 3.0000e-005 | 0.0000 | 0.0112 |
| Unmitigated | 0.7524 | 5.0000e-005 | 5.3700e-003 | 0.0000 | | 2.0000e-005 | 2.0000e-005 | | 2.0000e-005 | 2.0000e-005 | 0.0000 | 0.0105 | 0.0105 | 3.0000e-005 | 0.0000 | 0.0112 |

### 6.2 Area by SubCategory

**Unmitigated**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

| SubCategory | tons/yr | | | | | | | | | | MT/yr | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Architectural Coating | 0.0904 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 0.6615 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Landscaping | 5.0000e-004 | 5.0000e-005 | 5.3700e-003 | 0.0000 | | 2.0000e-005 | 2.0000e-005 | | 2.0000e-005 | 2.0000e-005 | 0.0000 | 0.0105 | 0.0105 | 3.0000e-005 | 0.0000 | 0.0112 |
| **Total** | **0.7524** | **5.0000e-005** | **5.3700e-003** | **0.0000** | | **2.0000e-005** | **2.0000e-005** | | **2.0000e-005** | **2.0000e-005** | **0.0000** | **0.0105** | **0.0105** | **3.0000e-005** | **0.0000** | **0.0112** |

**Mitigated**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SubCategory | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Architectural Coating | 0.0904 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 0.6615 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Landscaping | 5.0000e-004 | 5.0000e-005 | 5.3700e-003 | 0.0000 | | 2.0000e-005 | 2.0000e-005 | | 2.0000e-005 | 2.0000e-005 | 0.0000 | 0.0105 | 0.0105 | 3.0000e-005 | 0.0000 | 0.0112 |
| **Total** | **0.7524** | **5.0000e-005** | **5.3700e-003** | **0.0000** | | **2.0000e-005** | **2.0000e-005** | | **2.0000e-005** | **2.0000e-005** | **0.0000** | **0.0105** | **0.0105** | **3.0000e-005** | **0.0000** | **0.0112** |

## 7.0 Water Detail

### 7.1 Mitigation Measures Water

| | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|
| Category | MT/yr | | | |
| Mitigated | 52.0822 | 2.6752 | 0.0642 | 138.1055 |
| Unmitigated | 52.0822 | 2.6752 | 0.0642 | 138.1055 |

## 7.2 Water by Land Use

### Unmitigated

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | Mgal | MT/yr | | | |
| Enclosed Parking with Elevator | 0 / 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Research & Development | 81.9211 / 0 | 52.0822 | 2.6752 | 0.0642 | 138.1055 |
| **Total** | | **52.0822** | **2.6752** | **0.0642** | **138.1055** |

### Mitigated

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | Mgal | MT/yr | | | |
| Enclosed Parking with Elevator | 0 / 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

| | | | | | |
|---|---|---|---|---|---|
| Research & Development | 81.9211 / 0 | 52.0822 | 2.6752 | 0.0642 | 138.1055 |
| **Total** | | **52.0822** | **2.6752** | **0.0642** | **138.1055** |

## 8.0 Waste Detail

### 8.1 Mitigation Measures Waste

**Category/Year**

| | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|
| | MT/yr | | | |
| Mitigated | 2.5699 | 0.1519 | 0.0000 | 6.3667 |
| Unmitigated | 2.5699 | 0.1519 | 0.0000 | 6.3667 |

### 8.2 Waste by Land Use

**Unmitigated**

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | tons | MT/yr | | | |
| Enclosed Parking with Elevator | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Research & Development | 12.66 | 2.5699 | 0.1519 | 0.0000 | 6.3667 |

| | | | | | |
|---|---|---|---|---|---|
| **Total** | | **2.5699** | **0.1519** | **0.0000** | **6.3667** |

**Mitigated**

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | tons | MT/yr | | | |
| Enclosed Parking with Elevator | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Research & Development | 12.66 | 2.5699 | 0.1519 | 0.0000 | 6.3667 |
| **Total** | | **2.5699** | **0.1519** | **0.0000** | **6.3667** |

## 9.0 Operational Offroad

| Equipment Type | Number | Hours/Day | Days/Year | Horse Power | Load Factor | Fuel Type |
|---|---|---|---|---|---|---|

## 10.0 Stationary Equipment

**Fire Pumps and Emergency Generators**

| Equipment Type | Number | Hours/Day | Hours/Year | Horse Power | Load Factor | Fuel Type |
|---|---|---|---|---|---|---|

**Boilers**

| Equipment Type | Number | Heat Input/Day | Heat Input/Year | Boiler Rating | Fuel Type |
|---|---|---|---|---|---|

**User Defined Equipment**

| Equipment Type | Number |
|---|---|

## 11.0 Vegetation

# CULTURAL RECORDS SEARCH, NATIVE AMERICAN HERITAGE COMMISSION RESPONSE

## ATTACHMENT B

to the
101 Gull Drive Project Initial Study

CALIFORNIA HISTORICAL RESOURCES INFORMATION SYSTEM

ALAMEDA
COLUSA
CONTRA COSTA
DEL NORTE
HUMBOLDT
LAKE
MARIN
MENDOCINO
MONTEREY
NAPA
SAN BENITO
SAN FRANCISCO
SAN MATEO
SANTA CLATA
SANTA CRUZ
SOLANO
SONOMA
YOLO

Northwest Information Center
Sonoma State University
1400 Valley House Drive, Suite 210
Rohnert Park, California 94928-3609
Tel: 707.588.8455
nwic@sonoma.edu
http://nwic.sonoma.edu

August 21, 2021 NWIC File No.: 21-0245

Rebecca Auld
Lamphier- Gregory, Inc.
4100 Redwood Road, STE 20A - #601
Oakland, CA 94619

Re: Record search results for the proposed 101 Gull Drive Project in the City of South San Francisco.

Dear Ms. Rebecca Auld:

Per your request received by our office on the 11th of August, 2021, a rapid response records search was conducted for the above referenced project by reviewing pertinent Northwest Information Center (NWIC) base maps that reference cultural resources records and reports, historic-period maps, and literature for San Mateo County. Please note that use of the term cultural resources includes both archaeological resources and historical buildings and/or structures.

As per information received by this office, the 3.8-acre project site is currently vacant. The site includes Assessor's Parcel Number 015-082-250. The project proposes construction and operation of a 166,608 square foot office/research and development (R&D) building with adjoining structured parking and a new driveway on Gull Drive along with mutual access easements with the neighboring properties also connecting to Eccles Avenue and Oyster Point Road. No substantial excavation or subsurface floors / parking is proposed and site grading will be constrained to building pad preparation involving 18,440 cubic yard of cut across the site. Drilled piles are proposed for building support that would be drilled down to bedrock (approximately 15 to 60 feet).

Review of this information indicates that there have been no cultural resource studies that cover the 101 Gull Drive project area. This 101 Gull Drive project area contains no recorded archaeological resources. The State Office of Historic Preservation Built Environment Resources Directory (OHP BERD), which includes listings of the California Register of Historical Resources, California State Historical Landmarks, California State Points of Historical Interest, and the National Register of Historic Places,

lists no recorded buildings or structures within or adjacent to the proposed 101 Gull Drive project area. In addition to these inventories, the NWIC base maps show no recorded buildings or structures within the proposed 101 Gull Drive project area.

At the time of Euroamerican contact the Native Americans that lived in the area were speakers of the Ramaytush language, part of the Costanoan/Ohlone language family (Levy 1978: 485). There are Native American resources in or adjacent to the proposed 101 Gull Drive project area referenced in the ethnographic literature (Levy 1976, Nelson 1909). Using Milliken's study of various mission records, the proposed project area is located within the lands of the Urebure tribe, whose territory was located "in the San Bruno Creek area just south of San Bruno Mountain on the San Francisco Peninsula. (Milliken 1995: 258-9).

Based on an evaluation of the environmental setting and features associated with known sites, Native American resources in this part of San Mateo County have been found in areas marginal to the San Francisco Bay shore and inland in valleys, near intermittent and perennial watercourses and near areas populated by oak, buckeye, manzanita, and pine, as well as near a variety of plant and animal resources. The 101 Gull Drive project area is located on the lower terraces of an eastern facing hillside approximate 0.25 miles from the current San Francisco Bayshore between Oyster Point Park and San Bruno Point Park, formerly within and adjacent to the historic bayshore margin. Aerial maps indicate an empty dirt parcel. Given the similarity of these environmental factors and the ethnographic sensitivity of the area, there is a moderate to high potential for unrecorded Native American resources to be within the proposed 101 Gull Drive project area.

Review of historical literature and maps indicated the possibility of historic-period activity within the 101 Gull Drive project area. Early San Mateo County maps indicated the project area was located within the South San Francisco Land and Improvements Co., Abattoire (Bromfield 1894). In addition, the 1915 San Mateo USGS 15-minute topographic quadrangle indicated a portion of railroad within and adjacent to the project area. With this in mind, there is a moderate to high potential for unrecorded historic-period archaeological resources to be within the proposed 101 Gull Drive project area.

The 1956 photo revised 1980 San Francisco South USGS 7.5-minute topographic quadrangle fails to depict any buildings or structures within the 101 Gull Drive project area; therefore, there is a low possibility for any buildings or structures 45 years or older to be within the 101 Gull Drive project area.

**RECOMMENDATIONS:**

1) There is a moderate to high potential of identifying Native American archaeological resources and a moderate to high potential of identifying historic-period archaeological resources in the project area. As the 101 Gull Drive project indicated that drilled piles are proposed for building support that would be drilled down to bedrock (approximately 15 to 60 feet), we recommend a qualified archaeologist conduct further archival and field study to identify cultural resources. Field study may include, but is not limited to, pedestrian survey, hand auger sampling, shovel test units, or geoarchaeological analyses as well as other common methods used to identify the presence of archaeological resources. Please refer to the list of consultants who meet the Secretary of Interior's Standards at http://www.chrisinfo.org.

2) We recommend the lead agency contact the local Native American tribe(s) regarding traditional, cultural, and religious heritage values. For a complete listing of tribes in the vicinity of the project, please contact the Native American Heritage Commission at 916/373-3710.

3) If the proposed project area contains buildings or structures that meet the minimum age requirement, prior to commencement of project activities, it is recommended that this resource be assessed by a professional familiar with the architecture and history of San Mateo County. Please refer to the list of consultants who meet the Secretary of Interior's Standards at http://www.chrisinfo.org.

4) Review for possible historic-period buildings or structures has included only those sources listed in the attached bibliography and should not be considered comprehensive.

5) If archaeological resources are encountered **during construction,** work should be temporarily halted in the vicinity of the discovered materials and workers should avoid altering the materials and their context until a qualified professional archaeologist has evaluated the situation and provided appropriate recommendations. Project personnel should not collect cultural resources. Native American resources include 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. Historic-period resources include stone or adobe foundations or walls; structures and remains with square nails; and refuse deposits or bottle dumps, often located in old wells or privies.

6) It is recommended that any identified cultural resources be recorded on DPR 523 historic resource recordation forms, available online from the Office of Historic Preservation's website: https://ohp.parks.ca.gov/?page_id=28351

Due to processing delays and other factors, not all of the historical resource reports and resource records that have been submitted to the Office of Historic Preservation are available via this records search. Additional information may be available through the federal, state, and local agencies that produced or paid for historical resource management work in the search area. Additionally, Native American tribes have historical resource information not in the California Historical Resources Information System (CHRIS) Inventory, and you should contact the California Native American Heritage Commission for information on local/regional tribal contacts.

The California Office of Historic Preservation (OHP) contracts with the California Historical Resources Information System's (CHRIS) regional Information Centers (ICs) to maintain information in the CHRIS inventory and make it available to local, state, and federal agencies, cultural resource professionals, Native American tribes, researchers, and the public. Recommendations made by IC coordinators or their staff regarding the interpretation and application of this information are advisory only. Such recommendations do not necessarily represent the evaluation or opinion of the State Historic Preservation Officer in carrying out the OHP's regulatory authority under federal and state law.

Thank you for using our services. Please contact this office if you have any questions, (707) 588-8455.

Sincerely,

Jillian Guldenbrein
Researcher

## LITERATURE REVIEWED

In addition to archaeological maps and site records on file at the Northwest Information Center of the Historical Resources Information System, the following literature was reviewed:


Brabb, Earl E., Fred A. Taylor, and George P. Miller
1982 *Geologic, Scenic, and Historic Points of Interest in San Mateo County, California*. Miscellaneous Investigations Series, Map I-1257-B, 1:62,500. Department of the Interior, United States Geological Survey, Washington, D.C.

Bromfield, Davenport
1894 Official Map of San Mateo County, California

General Land Office
1858, 1864 Survey Plat for Rancho Buri Buri, Township 3 South/Range 5 West.

Heizer, Robert F., editor
1974 *Local History Studies*, Vol. 18., "The Costanoan Indians." California History Center, DeAnza College, Cupertino, CA.

Helley, E.J., K.R. Lajoie, W.E. Spangle, and M.L. Blair
1979 *Flatland Deposits of the San Francisco Bay Region - Their Geology and Engineering Properties, and Their Importance to Comprehensive Planning*. Geological Survey Professional Paper 943. United States Geological Survey and Department of Housing and Urban Development.

Kroeber, A.L.
1925 *Handbook of the Indians of California*. Bureau of American Ethnology, Bulletin 78, Smithsonian Institution, Washington, D.C. (Reprint by Dover Publications, Inc., New York, 1976)

Levy, Richard
1978 Costanoan. In *California*, edited by Robert F. Heizer, pp. 485-495. Handbook of North American Indians, vol. 8, William C. Sturtevant, general editor. Smithsonian Institution, Washington, D.C.

Milliken, Randall
1995 *A Time of Little Choice: The Disintegration of Tribal Culture in the San Francisco Bay Area 1769-1810*. Ballena Press Anthropological Papers No. 43, Menlo Park, CA.

Nelson, N.C.
1909 *Shellmounds of the San Francisco Bay Region*. University of California Publications in American Archaeology and Ethnology 7(4):309-356. Berkeley. (Reprint by Kraus Reprint Corporation, New York, 1964)

Nichols, Donald R., and Nancy A. Wright
1971 Preliminary Map of Historic Margins of Marshland, San Francisco Bay, California. U.S. Geological Survey Open File Map. U.S. Department of the Interior, Geological Survey in cooperation with the U.S. Department of Housing and Urban Development, Washington, D.C.

San Mateo County Historic Resources Advisory Board
*1984 San Mateo County: Its History and Heritage*. Second Edition. Division of Planning and Development Department of Environmental Management.

State of California Department of Parks and Recreation
1976 *California Inventory of Historic Resources*. State of California Department of Parks and Recreation, Sacramento.

State of California Office of Historic Preservation **
2020 *Built Environment Resources Directory*. Listing by City (through March 3, 2020). State of California Office of Historic Preservation, Sacramento.

**Note that the Office of Historic Preservation's *Historic Properties Directory* includes National Register, State Registered Landmarks, California Points of Historical Interest, and the California Register of Historical Resources as well as Certified Local Government surveys that have undergone Section 106 review.

# NATIVE AMERICAN HERITAGE COMMISSION



**NAHC HEADQUARTERS**
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov

September 8, 2021

Rebecca Auld
Lamphier-Gregory

Via Email to: Rauld@lamphier-gregory.com

**Re: Native American Tribal Consultation, Pursuant to the Assembly Bill 52 (AB 52), Amendments to the California Environmental Quality Act (CEQA) (Chapter 532, Statutes of 2014), Public Resources Code Sections 5097.94 (m), 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2 and 21084.3, 101 Gull Drive Project, Alameda County.**

Dear Ms. Auld:

Pursuant to Public Resources Code section 21080.3.1 (c), attached is a consultation list of tribes that are traditionally and culturally affiliated with the geographic area of the above-listed project. Please note that the intent of the AB 52 amendments to CEQA is to avoid and/or mitigate impacts to tribal cultural resources, (Pub. Resources Code §21084.3 (a)) ("Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource.")

Public Resources Code sections 21080.3.1 and 21084.3(c) require CEQA lead agencies to consult with California Native American tribes that have requested notice from such agencies of proposed projects in the geographic area that are traditionally and culturally affiliated with the tribes on projects for which a Notice of Preparation or Notice of Negative Declaration or Mitigated Negative Declaration has been filed on or after July 1, 2015. Specifically, Public Resources Code section 21080.3.1 (d) provides:

*Within 14 days of determining that an application for a project is complete or a decision by a public agency to undertake a project, the lead agency shall provide formal notification to the designated contact of, or a tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, which shall be accomplished by means of at least one written notification that includes a brief description of the proposed project and its location, the lead agency contact information, and a notification that the California Native American tribe has 30 days to request consultation pursuant to this section.*

The AB 52 amendments to CEQA law does not preclude initiating consultation with the tribes that are culturally and traditionally affiliated within your jurisdiction prior to receiving requests for notification of projects in the tribe's areas of traditional and cultural affiliation. The Native American Heritage Commission (NAHC) recommends, but does not require, early consultation as a best practice to ensure that lead agencies receive sufficient information about cultural resources in a project area to avoid damaging effects to tribal cultural resources.

The NAHC also recommends, but does not require that agencies should also include with their notification letters, information regarding any cultural resources assessment that has been completed on the area of potential effect (APE), such as:

1. The results of any record search that may have been conducted at an Information Center of the California Historical Resources Information System (CHRIS), including, but not limited to:

- A listing of any and all known cultural resources that have already been recorded on or adjacent to the APE, such as known archaeological sites;
- Copies of any and all cultural resource records and study reports that may have been provided by the Information Center as part of the records search response;
- Whether the records search indicates a low, moderate, or high probability that unrecorded cultural resources are located in the APE; and
- If a survey is recommended by the Information Center to determine whether previously unrecorded cultural resources are present.

2. The results of any archaeological inventory survey that was conducted, including:

   - Any report that may contain site forms, site significance, and suggested mitigation measures.

     All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for public disclosure in accordance with Government Code section 6254.10.

3. The result of any Sacred Lands File (SLF) check conducted through the Native American Heritage Commission was negative.

4. Any ethnographic studies conducted for any area including all or part of the APE; and

5. Any geotechnical reports regarding all or part of the APE.

Lead agencies should be aware that records maintained by the NAHC and CHRIS are not exhaustive and a negative response to these searches does not preclude the existence of a tribal cultural resource. A tribe may be the only source of information regarding the existence of a tribal cultural resource.

This information will aid tribes in determining whether to request formal consultation. In the event that they do, having the information beforehand will help to facilitate the consultation process.

If you receive notification of change of addresses and phone numbers from tribes, please notify the NAHC. With your assistance, we can assure that our consultation list remains current.

If you have any questions, please contact me at my email address: Katy.Sanchez@nahc.ca.gov.

Sincerely,

Katy Sanchez

Katy Sanchez
*Associate Environmental Planner*

Attachment

On Tue, Sep 14, 2021 at 12:21 PM Sanchez, Katy@NAHC <Katy.Sanchez@nahc.ca.gov> wrote:

Hi Rebecca,

The AB 52 No letter is still in effect. The attached list is for the correct county in which the project is located. Thank you for your patience.

Katy Sanchez
Associate Environmental Planner
Native American Heritage Commission
(916) 373-3712

**Native American Heritage Commission**
**Native American Contacts List**
**September 8, 2021**

Amah Mutsun Tribal Band of Mission San Juan Bautista
Irene Zwierlein, Chairperson
3030 Soda Bay Road — Ohlone/Costanoan
Lakeport ,CA 95453
amahmutsuntribal@gmail.com
(650) 851-7489 Cell
(650) 332-1526 Fax

Costanoan Rumsen Carmel Tribe
Tony Cerda, Chairman
244 E. 1st Street — Ohlone/Costanoan
Pomona ,CA 91766
rumsen@aol.com
(909) 629-6081
(909) 524-8041 Fax

Indian Canyon Mutsun Band of Costanoan
Kanyon Sayers-Roods
1615 Pearson Court — Ohlone/Costanoan
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408-673-0626

Indian Canyon Mutsun Band of Costanoan
Ann Marie Sayers, Chairperson
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(831) 637-4238

Muwekma Ohlone Indian Tribe of the SF Bay Area
Monica Arellano, Vice Chairwoman
20885 Redwood Road, Suite 232 — Ohlone / Costanoan
Castro Valley ,CA 94546
marellano@muwekma.org
(408) 205-9714

North Valley Yokuts Tribe
Katherine Erolinda Perez, Chairperson
P.O. Box 717 — Ohlone/Costanoan
Linden ,CA 95236 — Northern Valley Yokuts
canutes@verizon.net — Bay Miwok
(209) 887-3415

North Valley Yokuts Tribe
Timothy Perez, MLD Contact
P.O. Box 717 — Ohlone/Costanoan
Linden ,CA 95236 — Northern Valley Yokuts
huskanam@gmail.com — Bay Miwok
(209) 662-2788

Tamien Nation
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Tamien Nation
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The Confederated Villages of Lisjan
Corrina Gould, Chairperson
10926 Edes Avenue — Ohlone/Costanoan
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(510) 575-8408

**Native American Heritage Commission**
**Native American Contacts List**
**September 8, 2021**

The Ohlone Indian Tribe
Andrew Galvan
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(510) 882-0527 Cell
(510) 687-9393 Fax

Ohlone
Bay Miwok
Plains Miwok
Patwin

Wuksache Indian Tribe/Eshom Valley Band
Kenneth Woodrow, Chairperson
1179 Rock Haven Ct.
Salinas ,CA 93906
kwood8934@aol.com
(831) 443-9702

Foothill Yokuts
Mono
Wuksache

# Appendix C

## Phase I Environmental Site Assessment

# PHASE I ENVIRONMENTAL SITE ASSESSMENT
# 101 Gull Drive/560 Eccles Avenue
# South San Francisco, California

***Prepared For:***

**SRE Acquisitions III, LLC**
**c/o Singerman Real Estate, LLC**
**980 North Michigan Avenue, Suite 1700**
**Chicago, Illinois 60611**

***Prepared By:***

**Langan Engineering and Environmental**
**135 Main Street, Suite 1500**
**San Francisco, California 94105**

**Hayley Farr, EIT**
**Senior Staff Engineer**

PROFESSIONAL GEOLOGIST
JEFFREY F. LUDLOW
NO. 6369
STATE OF CALIFORNIA

**Jeffrey Ludlow, PG**
**Principal/Vice President**

**22 December 2020**
**731747601**

LANGAN

LANGAN

Technical Excellence
Practical Experience
Client Responsiveness

22 December 2020

Kiley Carter
SRE Acquisitions III, LLC
c/o Singerman Real Estate, LLC
980 North Michigan Avenue, Suite 1700
Chicago, IL 60611

**Subject: Phase I Environmental Site Assessment**
**101 Gull Drive/560 Eccles Avenue**
**South San Francisco, California**
**Langan Project: 731747601**

Dear Ms. Carter:

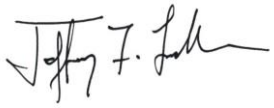
Langan Engineering and Environmental (Langan) is pleased to submit this Phase I Environmental Site Assessment (ESA), for the property located at 101 Gull Drive/560 Eccles Avenue, in South San Francisco, California.

In performing this Phase I ESA, we have endeavored to observe the degree of care and skill generally exercised by other consultants undertaking similar studies at the same time, under similar circumstances and conditions, and in the same geographical area.

We appreciate the opportunity to assist you with this project. If you have any questions or need any information clarified, please call Mr. Jeffrey Ludlow at (415) 717-0263.

Sincerely yours,
**Langan Engineering and Environmental**

Hayley Farr, EIT
Senior Staff Engineer



Jeffrey Ludlow
Principal/Vice President


cc: Mike Sanford – Sanfo Group
Lindsay Florin – LBF Consulting Group

731747601.02 HF_Phase 1 ESA 101 Gull-560 Eccles_122220

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**PHASE I ENVIRONMENTAL SITE ASSESSMENT**
**101 Gull Drive/560 Eccles Avenue**
**South San Francisco, California**

## E1.0 EXECUTIVE SUMMARY

Langan Engineering and Environmental (Langan) has performed a Phase I Environmental Site Assessment (ESA) for the property located at 101 Gull Drive/560 Eccles Avenue (Site) in South San Francisco, California (Figure 1). The ESA was performed on behalf of the SRE Acquisitions III, LLC (Client) to assist them with their due diligence for the Site.

This Phase I ESA was conducted in substantial conformance with the American Society for Testing and Materials (ASTM) Practice E1527-13 (Standard Practice for ESA: Phase I ESA Process), and the United States Environmental Protection Agency's (USEPA) 2006 All Appropriate Inquiry (AAI) Rule (40 CFR Part 312) now in effect. Completion of a Phase I ESA in accordance with the ASTM Practice and AAI Rule is needed to qualify for the bona fide prospective purchaser liability protections available under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA). The objective of this Phase I ESA was to identify the presence or likely presence, use, or release on the Site of hazardous substances or petroleum products as defined in ASTM E1527-13 as a recognized environmental condition (REC).

### E1.1 Site Description

The Site is located at 101 Gull Drive/560 Eccles Avenue in South San Francisco, California and is identified as Assessor Parcel Number (APN) 015-082-250. The Site is bound by commercial and light industrial properties to the north, commercial and light industrial properties west and south, and Gull Drive and commercial and light industrial properties to the east. As shown on Figure 2, the Site is currently undeveloped vacant land with an area of approximately 160,000 square feet (3.68 acres).

### E1.2 Environmental Database and File Review

As part of the Phase I ESA, we have reviewed the environmental database report prepared by Environmental Data Resources, Inc. (EDR). The EDR report contains information from the environmental databases maintained by the United States Environmental Protection Agency (USEPA), state, and local agencies within the approximate minimum search distance. The database review indicated that the property is not listed in any of the databases searched by EDR.

Inquiries were made and records searched at the California Department of Toxic Substances Control (DTSC), San Francisco Regional Water Quality Control Board (RWQCB), California Department of Resources Recycling and Recovery (CalRecycle), San Mateo County Environmental Health Services Division (SMCEHD), the City of South San Francisco Fire Department (SSFFD), and the Bay Area Air Quality Management District (BAAQMD) regarding any additional files related to fuel and hazardous materials leaks reported at the Site.

### E1.3 Conclusion

Based on the databases searched by EDR, requests made for public documentation related to past or present environmental conditions at the Site and surrounding area, review of previous Site reports, and our Site reconnaissance, Langan has identified one REC associated with the Site during this Phase I ESA:

- **REC-1 – Historical Site Operations and Impacted Shallow Site Soil, Groundwater, and Soil Vapor:** The Site was previously occupied by a portion of a former landfill that was utilized as a burn dump facility in the 1950s. The CalRecycle Solid Waste Information System (SWIS) database lists the facility as a former "Nonhazardous Ash Disposal/Monofill Facility" with an operational status of "Closed" and a regulatory status of "Unpermitted." Records indicate that residual burn ash material underlies the western portion of the Site and that after burn dump operations at the Site ceased in the late 1950s, additional fill material was placed over the burn ash material to raise the Site to the current grades. Records for the source of the fill material placed at the Site are unavailable; therefore the material is considered undocumented fill. Previous Site investigations indicate metals concentrations in shallow fill soil and burn ash material exceeding the 2019 RWQCB commercial shallow soil Environmental Screening Levels (ESLs). Shallow groundwater at the Site appears to have been impacted with metals (consistent with the presence of burn ash material below the water table) and Total Petroleum Hydrocarbons (TPH) in a limited area in the southeast portion of the Site; however, there are not RWQCB vapor intrusion ESLs established for metals or TPH. Volatile Organic Compounds (VOCs) were detected in soil vapor exceeding the 2019 RWQCB commercial vapor intrusion environmental screening levels and methane was also detected at concentrations up to 41% by volume. The residual burn ash from former landfill operations and impacted shallow Site soils, groundwater, and soil vapor are considered a REC for the Site. Future Site development will require mitigation measures to be established and implemented per California Code of Regulations Title 27 (27 CCR) §21190 governing redevelopments on closed landfills.

# 1.0 INTRODUCTION

Langan Engineering and Environmental (Langan) has performed a Phase I Environmental Site Assessment (ESA) for the property located at 101 Gull Drive/560 Eccles Avenue (Site) in South San Francisco, California (Figure 1). The ESA was performed on behalf of the SRE Acquisitions III, LLC (Client) to assist them with their due diligence for the Site.

The Site is located at 101 Gull Drive/560 Eccles Avenue in South San Francisco, California and is identified as Assessor Parcel Number (APN) 015-082-250. The Site is bound by commercial and light industrial properties to the north, commercial and light industrial properties west and south, and Gull Drive and commercial and light industrial properties to the east. As shown on Figure 2, the Site is currently undeveloped vacant land with an area of approximately 160,000 square feet (3.68 acres).

## 1.1 Purpose

The purpose of this Phase I ESA is to accomplish the following:

(1) Identify Recognized Environmental Conditions (RECs) in connection with the Site, as defined in The Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, Designation E1527-13, which states: The presence or likely presence of any hazardous substances or petroleum products in, on, or at a 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 term is not intended to include de minimis conditions that generally do not present a material risk of harm to public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.

(2) Satisfy the criteria of United States Environmental Protection Agency (USEPA) 40 Code of Federal Regulations (CFR) Part 312 Subpart C Standards and Practices §312.20 AAI Rule.

## 1.2 Scope of Phase I ESA

This Phase I ESA was conducted utilizing a standard of good commercial and customary practice that is consistent with American Society for Testing and Materials (ASTM) E1527-13. Any

significant scope-of-work additions, deletions, or deviations to ASTM E1527-13 are noted in Section 9.0 of this report. In general, the scope of this assessment consisted of obtaining information from the User; reviewing reasonably ascertainable information and environmental data relating to the Site; reviewing maps and records maintained by federal, state, and local regulatory agencies; interviewing persons knowledgeable about the Site; and conducting a Site reconnaissance. The specific scope of this assessment included the following:

1. A Site reconnaissance to observe conditions and assess the Site's location with respect to adjoining and surrounding property uses and natural surface features. The reconnaissance included the surrounding roads and observations of surrounding properties from public rights-of-way to identify obvious potential environmental conditions on neighboring properties. The Site reconnaissance was conducted in a systematic manner focusing on the spatial extent of the Site and then progressing to adjacent and surrounding properties. Photographs taken as part of the Site reconnaissance are provided in Appendix A.

2. As per ASTM E1527-13, a questionnaire was provided to the user and/or owner to obtain information related to the Site. A copy of the completed questionnaires are provided in Appendix B.

3. A review of environmental databases maintained by the USEPA, state, and local agencies within the approximate minimum search distance. Environmental Data Resources, Inc. (EDR) prepared the environmental database report, which is included in Appendix C.

4. Physical characteristics of the Site were determined through referenced sources for topographic, geologic, soils, and hydrologic data.

5. A review and interpretation of Sanborn Fire Insurance Maps (Sanborn Maps), historical topographic maps, city directories, and aerial photographs to identify previous activities on and in the vicinity of the Site. Copies are included in Appendices D, E, F, and G, respectively.

### 1.3 Assumptions, Limitations and Exceptions

This Phase I ESA report was prepared for SRE Acquisitions III, LLC (Client) for the property located at located at 101 Gull Drive/560 Eccles Avenue (Site) in South San Francisco, California. The report is intended to be used in its entirety. Excerpts taken from this report are not

necessarily representative of the assessment findings. Langan cannot assume responsibility for use of this report for any property other than the Site addressed herein, or by any other third party without a written authorization from Langan.

Langan's scope of services, which is described in Section 1.2, was limited to that agreed to with the User and no other services beyond those explicitly stated are implied. The services performed and agreed upon for this effort comports to those prescribed in the ASTM Standard E1527-13. This Phase I ESA was not intended to be a definitive investigation of possible environmental impacts at the Site. The purpose of this investigation was limited to determining if there is reason to suspect the possibility of RECs at the Site. It should be understood that even the most comprehensive Phase I ESA may fail to detect environmental liabilities at a particular property. Therefore, Langan cannot "insure" or "certify" that the Site is free of environmental impacts. No expressed or implied representation or warranty is included or intended in this report, except that our services were performed, within the limits prescribed by our Client, with the customary standard of care exercised by professionals performing similar services under similar circumstances within the same jurisdiction.

The findings and opinions provided in this report are based solely on the specific activities as required for the performance of ASTM E1527-13 and are intended exclusively for the purpose stated herein, at the specified Site, as it existed at the time of our Site reconnaissance. The services performed and agreed upon for this effort comports to those prescribed in the ASTM Standard E1527-13. Intrusive sampling (e.g., soil borings and groundwater sampling) was not performed as part of this Phase I ESA.

### 1.4 Special Terms and Conditions and User Reliance

The Client requested no special terms or conditions regarding this Phase I ESA. Langan has prepared this report specifically for the use of the Client and SRE SSF Innovation, LLC, a Delaware limited liability company. The findings contained within the report shall not, in whole or in part, be disseminated or conveyed to any other party, nor be used by any other party, in whole or in part without written prior consent of the Client and Langan. Other parties cannot rely on this Phase I ESA and the conclusions therein, unless Langan receives a written request from the Client, at which time a "Reliance Letter" will be prepared for the interested party. The relying party will be subject to the same terms and conditions and limitations as agreed to by the Client.

# 2.0 SITE DESCRIPTION

## 2.1 Location and Legal Description

The Site is located at 101 Gull Drive/560 Eccles Avenue in South San Francisco, California and is identified as APN 015-082-250.

## 2.2 Site and Vicinity General Characteristics

As shown on Figure 2, the Site is currently undeveloped vacant land with an area of approximately 160,000 square feet (3.68 acres). The Site is located in an area zoned by the City of South San Francisco as Business Technology Park, which is designated for a wide range of commercial and light industrial activities. The Site is located approximately ¾ miles east of highway 101 and 1,500 feet west of the San Francisco Bay. According to the United States Geological Survey (USGS) Topographic Maps, reviewed by Langan in EDR's Historical Topographic Map Report, the Site is at an elevation of approximately 50 feet above mean sea level (MSL). The Site topography slopes down to the southeast.

A detailed description the current Site uses observed during the Site reconnaissance are discussed in Section 6.0. Photographs showing the current Site use are provided in Appendix A.

## 2.3 Current Use of the Site and Adjoining Properties

The following table summarizes the current ownership and use of the parcel within the Site.

| Parcel Number | Current Address | Site Owner | Size (Acres) | Current Parcel Use |
|---|---|---|---|---|
| 015-082-250 | 101 Gull Drive/ 560 Eccles Avenue | SMPO ELS LLC | 3.68 | Vacant undeveloped land |

The current uses of the adjoining and surrounding properties include:

| Direction | Block/Lot | Adjoining Properties | Surrounding Properties |
|---|---|---|---|
| **North** | 015-082-180 | Iron Mountain Records Management Warehouse (336-340 Oyster Point Boulevard) | Commercial and light industrial properties |
| | 015-082-200 | Plenty Unlimited Inc. Warehouse (584-590 Eccles Avenue) | |
| **East** | 015-190-180 | Vacant undeveloped land owned by the City of South San Francisco | Commercial and light industrial properties |
| | Gull Drive | | |
| | 015-010-950 | Former Oyster Point Landfill - Redevelopment under construction (Oyster Point Boulevard) | |
| **South** | 015-231-430 | UPS Shipping Facility Parking Lot (Address not reported) | Commercial and light industrial properties |
| | 015-082-170 | Apex Logistics Warehouse (573 Forbes Boulevard) | |
| **West** | 015-082-240 | United States Department of Agriculture (USDA) Animal and Plant Health Inspection Office (560 Eccles Avenue) | Commercial and light industrial properties |

### 2.4 Descriptions of Structures, Roads, and Other Site Improvements

There are no structures or roads on the Site; however, there is a sidewalk and an ingress/egress easement for vehicles and utilities along a portion of the northern boundary of the Site (Land Title Survey, Appendix B). Additionally, there is a storm drain easement along the eastern boundary of the Site that parallels Gull Drive (Land Title Survey, Appendix B).

Within the southern portion of the eastern adjoining City of South San Francisco owned parcel (APN 015-190-180) are two perimeter landfill gas monitoring wells (LFG-9 and LFG-10) and a passive venting trench (PVT-1) related to the ongoing monitoring for the former Oyster Point Landfill (Figure 2). Further details regarding the former landfill and monitoring wells are provided in Sections 3.0 and 5.0.

## 3.0 PREVIOUS SITE INVESTIGATIONS

Langan reviewed the following environmental documents previously prepared for the Site and western adjoining property associated with the same address (560 Eccles Avenue):

- 1996 September 30, Phase I Environmental Site Assessment, 560 Eccles Avenue, South San Francisco, California prepared by Clayton Environmental Consultants;

- 1998 March 16, Phase I Environmental Site Assessment Update, 560 Eccles Avenue, South San Francisco, California prepared by AEI;
- 2006 June 14, Phase II Environmental Site Investigation Report, Vacant Land along Gull Drive between Oyster Point Boulevard and Forbes Boulevard, South San Francisco, California prepared by Environ;
- 2006 June 29, Phase I Environmental Site Assessment, Vacant Land, Northwest of the Intersection of Gull Road and Forbes Boulevard, South San Francisco, California prepared by Environ;
- 2008 January 30, Preliminary Waste Characterization Study of Burn Ash Material, Vacant Land at 560 Eccles Avenue, South San Francisco, California prepared by Environ;
- 2011 August 11, Site Closure Plan, Vacant Land at 560 Eccles Avenue, South San Francisco, California prepared by Environ;
- 2011 August 11, Risk Management Plan, Vacant Land at 560 Eccles Avenue, South San Francisco, California prepared by Environ;
- 2011 October 6, Groundwater Elevation Monitoring Report, Vacant Land at 560 Eccles Avenue, South San Francisco, California prepared by Environ;
- 2014 February 26, Site Closure Plan and Post Construction Maintenance Plan Letter to San Mateo County Environmental Health Services Division, 560 Eccles Avenue, South San Francisco, California prepared by Environ;
- 2017 April 5, Amended Site Closure Plan and Post-Construction Maintenance Plan, 560 Eccles Avenue, South San Francisco, California prepared by SCS Engineers;
- 2017 April 25, Amended Site Closure Plan and Post-Construction Maintenance Plan Review Letter, 560 Eccles Avenue, South San Francisco, California prepared by San Mateo County Environmental Health Services Division;
- 2017 June 21, Phase I Environmental Site Assessment and Landfill Due Diligence Report, 560 Eccles Avenue, prepared by SCS Engineers;
- 2018 February 22, Soil Management Plan, 560 Eccles Avenue, prepared by SCS Engineers;
- 2018 May 29, Completion Report – Monitoring Well Abandonment/Destruction, Groundwater Monitoring Wells MW-1 and MW-2, 560 Eccles Avenue, South San Francisco, California prepared by SCS Engineers;
- 2018 October 3, Completion Report – Monitoring Well Abandonment/Destruction, Groundwater Monitoring Wells MW-3, MW-4 and MW-5, 560 Eccles Avenue, South San Francisco, California prepared by SCS Engineers; and

- 2019 April 4, Covenant to Restrict Use of the Property, Environmental Restriction, 560 Eccles Avenue, South San Francisco, California between SMPO ELS, LLC and San Mateo County Environmental Health Services Division.

Relevant information based on our review of the above-listed reports is summarized below.

*Operational History of the Site*

The Site was historically undeveloped land on a hillside along the western margin of the San Francisco Bay. The Site contains fill material placed as part of modifications to the coastline of the Bay in the early 1900s and remained undeveloped through the 1950s. During the 1950s, a portion of the Site was reportedly used as a burn dump; this was common practice for waste management at the time, prior to phasing out in the early 1970s in response to federal and state air quality legislation. The California Department of Resources Recycling and Recovery (CalRecycle) Solid Waste Information System (SWIS) database lists the facility as a former "Nonhazardous Ash Disposal/Monofill Facility" under the name "USDA Building (41-CR-0028)" with an operational status of "Closed" and a regulatory status of "Unpermitted."

After burn dump operations at the Site ceased in the late 1950s, additional fill material was placed over the burn ash material to raise the Site to the current grades. Based on review of aerial photos, the property appears to have been graded to the current configuration by the 1980s. Records for the source of the fill material placed at the Site are unavailable; therefore the material is considered undocumented fill. From the 1980s through the present, the Site has been undeveloped, vacant land.

*Site Investigation History and Remedial Actions*

From the late 1990s through the present, several soil and groundwater investigations have been conducted to evaluate the former burn dump site and identify potential mitigative measures for future Site development. As shown in Exhibits 1 and 2, investigations previously conducted by Environ have identified burn ash material underlying the western portion of the Site. The areal extent of the residual ash material is approximately four acres, with an estimated in-place volume of 346,000 cubic yards (cy) (Environ, 2011). Within the Site boundaries, the burn ash material ranges from approximately 10 to 25 feet thick (Environ, 2011). Native clays and silts followed by bedrock were identified below the burn ash material (Environ, 2011). The thickness of fill material overlying the burn ash at the Site ranges from approximately 10 to 20 feet thick (Environ, 2011).

Soil sampling conducted between 2006 and 2008 identified elevated concentrations of metals exceeding the 2019 RWQCB commercial shallow soil environmental screening levels (ESLs)

within the burn ash material including: arsenic, copper, lead, and zinc (Environ, 2008). Several metals were also detected within the shallow undocumented fill material overlying the burn ash at concentrations exceeding the 2019 RWQCB residential shallow soil ESLs, but below the commercial ESLs, including: antimony, arsenic, chromium VI, cobalt, and lead (SCS, 2018). Arsenic and lead were also detected within the fill samples at concentrations exceeding their respective 2019 RWQCB commercial shallow soil ESLs (SCS, 2018). Select shallow fill soil samples were tested for soluble metals (Environ, 2008). Multiple shallow soil samples had concentrations exceeding the soluble threshold limit concentration (STLC) for lead, indicating that it is likely some of the soil at the Site could potentially be classified as hazardous waste if exported from the property for off-Site disposal. Concentrations of volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), total petroleum hydrocarbons (TPH), and polychlorinated biphenyls (PCBs) were not detected in shallow fill soil or burn ash samples at concentrations exceeding the 2019 residential or commercial ESLs, with the exception of TPH as diesel (TPHd) and motor oil (TPHmo) that were detected above both the residential and commercial ESLs in one sample at a depth of 25 feet below ground surface (bgs) (Environ, 2008).

A soil vapor investigation was conducted in 2006 that included installation of 16 temporary soil vapor probes to depths of 5 and 10 feet bgs at each sample location. Methane was detected in soil vapor at five sample locations at concentrations ranging from 0.45% to 41% by volume (Environ, 2008). The methane compliance levels enforced by the San Mateo County Health Services Division (SMCEHD) Local Enforcement Agency (LEA) per California Code of Regulations Title 27 (27 CCR) §20921 are 5% at the property perimeter, and 1.25% within on-site structures. Several VOCs were also detected in soil vapor at concentrations below their respective 2019 RWQCB residential and commercial vapor intrusion (V/I) ESLs, with the exception of benzene and vinyl chloride that were detected above both the residential and commercial V/I ESLs. The highest concentrations of methane were detected in the northeastern corner of the Site across Gull Drive from the eastern adjoining property (APN 015-010-950) that is part of a former municipal Class III landfill (Oyster Point Landfill) that was operated by the City of South San Francisco from approximately 1956 until it stopped accepting waste in 1970 (Langan, 2017). As discussed further in Section 5.1.2, there are two perimeter landfill gas monitoring wells (LFG-9 and LFG-10) and a passive venting trench (PVT-1) related to the ongoing monitoring for the former Oyster Point Landfill within the southern portion of the eastern adjoining City of South San Francisco owned parcel (APN 015-190-180) (Figure 2).

In 2008, five groundwater monitoring wells, designated MW-1 through MW-5 were installed at the property (Figure 2). Groundwater sampling was conducted between 2008 and 2009 as part

of ongoing Site investigations. The investigations concluded that shallow groundwater at the Site appears to have been impacted with metals consistent with the presence of burn ash material below the water table. It was also concluded that shallow groundwater in the vicinity of monitoring well MW-5 was impacted by low concentrations of TPH (Environ, 2011). RWQCB V/I ESLs are not established for metals or TPH. Due to the Site not being subject to any regulatory agency order or directive to perform water quality monitoring, the groundwater monitoring wells were abandoned in 2018 (SCS, 2018).

The western adjoining property (APN 015-082-240) that also overlies a portion of the burn ash material was recently developed in 2018 with a commercial/industrial building that is utilized as a USDA Animal and Plant Health Inspection Office. In preparation for redevelopment, SCS Engineers (SCS) prepared an Amendment to the Site Closure Plan (SCP) and Postclosure Monitoring and Maintenance Plan (PCMP) previously prepared by Environ in 2011 for a previous Site owner who intended to develop the property for commercial uses, but the development was not constructed (SCS, 2017). The Amended SCP and PCMP were prepared in accordance with 27 CCR §21190 requirements governing redevelopments on landfills and approved by the SMCEHD LEA, with concurrence from the San Francisco Regional Water Quality Control Board (RWQCB) (SCS, 2017). The remedial strategies in the SCP and PCMP included the following:

- Proper decommissioning and abandonment of existing groundwater monitoring wells within the footprint of proposed improvement areas;
- Localized excavations within shallow fill soil;
- Placement of a new landfill cap consisting of concrete or asphalt slabs within hardscape areas, re-compacted and vegetated soil within perimeter slope softscape areas, and planters with impermeable geomembrane liners and subdrain systems within parking lot softscape areas;
- Installation of a passive sub-slab methane mitigation system (MMS) and interior methane detection and alarm system; and
- Adherence to applicable provisions of the Risk Management Plan (RMP) and Health and Safety Plan (HASP) included in the initial SCP prepared by Environ (Environ, 2011).

Additionally, SCS prepared a Soil Management Plan (SMP) according to the revised development plans for the USDA building and Amended SCP and PCMP intended to guide the prime contractor and associated subcontractors to properly manage soils containing chemicals of concern (COCs) in a manner that is protective of human health during development and proposed future land use (SCS, 2018). At the time the SCP, PCMP, and SMP were prepared by SCS, the Site was part of

a larger parcel (APN 015-082-210-4), which was divided in 2018 into two parcels: APN 015-082-240 (western adjoining property) and APN 015-082-250 (Site); therefore, the property boundary in the plans is inclusive of the larger former parcel as shown in Exhibit 1. On 4 April 2019, a deed restriction was recorded between SMPO ELS, LLC and SMCEHD for the western adjoining property (APN 015-082-240) which requires the property owner to maintain the integrity of the landfill cap per the Amended PCMP, obtain agency approval prior to any soil disturbance or groundwater drilling, and comply with land use limitations (development and use of the property is restricted to commercial and/or industrial use).

## 4.0 CLIENT-PROVIDED INFORMATION

### 4.1 User/Owner Questionnaire

Per ASTM E1527-13, user and owner questionnaires were provided to the User to inquire about specialized information related to the Site.

Ms. Lindsay Florin of LBF Consulting Group Inc. completed the User/Client questionnaire on behalf of Ms. Kiley Carter of SRE Acquisitions III, LLC. Ms. Florin has no-first-hand knowledge of the Site and is not aware of any environmental cleanup liens associated with the Site. Ms. Florin is aware of the deed restriction recorded for the western adjoining property on 4 April 2019 as discussed in Section 3.0. The completed User questionnaire is included in Appendix B.

Mr. Steve Williams completed the owner questionnaire for the Site. Mr. Williams has no knowledge of environmental cleanup liens associated with the Site. Mr. Williams also provided several environmental documents to the Client, which are discussed in Section 3.0. The completed Owner questionnaire is included in Appendix B.

### 4.2 Title Records

A Title Report provided by the Client for the Site parcel (APN 015-082-250) is included in Appendix B.

### 4.3 Environmental Liens or Activity and Use Limitations

The Client is not aware of any environmental cleanup or liens in connection to the Site.

### 4.4 Specialized Knowledge

The Client does not have any specialized knowledge of the Site.

### 4.5 Commonly Known and Reasonable Ascertainable Information

The Client is not aware of any commonly known and reasonable ascertainable information regarding the Site.

### 4.6 Valuation Reduction for Environmental Issues

The Client is not aware of any valuation reduction for environmental issues in connection with the Site and that the value of the Site reflects market value.

### 4.7 Owner, Site Manager, and Occupant Information

The Client representative has indicated that the Site is owned by SMPO ELS, LLC.

### 4.8 Reason for Performing Phase I ESA

It is our understanding that the Client has requested this study as part of their environmental due diligence regarding the Site.

## 5.0 RECORDS REVIEW

### 5.1 Standard Environmental Record Sources

Langan reviewed an environmental database search report, prepared by EDR, for the Site and surrounding area. The EDR report is a listing of properties identified on select federal and state standard source environmental databases within the approximate search radius specified by ASTM Standard Practice for E1527-13.

A review of environmental regulatory agency lists and records was performed for the Site and vicinity to identify potential sources of or activities involving hazardous substances or petroleum products that might affect the soil and groundwater quality at the Site. The lists identify properties where underground storage tank (UST) leaks, chemical spills, or contamination of soil and/or groundwater have been reported and confirmed. The regulatory lists also include properties where above-ground or underground storage tanks are present, hazardous materials are generated and/or stored, and whether or not there has been an unauthorized release.

This information is reported to Langan by EDR, and to EDR by government sources; therefore, neither Langan nor EDR can verify the completeness and accuracy of the database information. Langan reviewed each environmental database on a record-by-record basis to determine if certain

sites identified in the report are suspected to represent a potential impact to the Site. A copy of regulatory database information that was provided by EDR is included in Appendix C.

The following summary table lists the number of properties by database within the prescribed search radius appearing in the EDR Radius Map Report:

| Database (Date of government version) | Minimum Search Area | Site Listed | Properties within Search Area |
|---|---|---|---|
| **Federal** | | | |
| Superfund Enterprise Management System (SEMS) Archive (10/25/2019) | ½ mile radius | No | 3 |
| Resource Conservation and Recovery Act (RCRA) Corrective Action Sites (CORRACTs) (12/16/2019) | 1 mile radius | No | 2 |
| Resource Conservation and Recovery Act (RCRA) Large Quantity Generators (RCRA – LQG) (12/16/2019) | ¼ mile radius | No | 6 |
| RCRA Small Quantity Generators (RCRA – SQG) (12/16/2019) | ¼ mile radius | No | 13 |
| **State and Tribal** | | | |
| RESPONSE – State and tribal equivalent NPL (10/28/2019) | 1 mile radius | No | 2 |
| DTSC EnviroStor (10/28/2019) | 1 mile radius | No | 12 |
| Solid Waste Facilities/Landfill (SWF/LF) (11/11/2019) | 1/2 mile radius | Yes | 2 |
| LUST (Leaking Underground Storage Tank) (09/09/2019) | ½ mile radius | No | 25 |
| Cleanup Program Sites/Spills, Leaks, Investigations, and Cleanups (CPS-SLIC) (06/08/2020) | ½ mile radius | No | 10 |
| Underground Storage Tank (UST) (09/09/2019) | ¼ mile radius | No | 1 |
| Aboveground Storage Tank (AST) (07/06/2019) | ¼ mile radius | No | 7 |
| Voluntary Cleanup Program (VCP) (10/28/2019) | ½ mile radius | No | 1 |
| Brownfields (09/23/2019) | ½ mile radius | No | 1 |
| **Additional Record Sources** | | | |
| Historical (HIST) Cal-Sites (08/08/2005) | 1 mile radius | No | 2 |
| California Environmental Reporting System (CERS) Hazardous (HAZ) Waste (10/21/2019) | ¼ mile radius | No | 18 |
| Toxic Pits | 1 mile radius | No | 1 |
| CA Statewide Environmental Evaluation and Planning System (SWEEPS) UST (06/01/1994) | ¼ mile radius | No | 8 |
| CA HIST UST (10/15/1990) | ¼ mile radius | No | 11 |
| CA Facility Inventory Database (FID) UST (10/31/1994) | ¼ mile radius | No | 7 |
| CERS TANKS (10/21/2019) | ¼ mile radius | No | 6 |
| Deed Restriction Listing (DEED) (09/03/2019) | ½ mile radius | No | 2 |
| RCRA Non-Generator (NonGen)/No Longer Regulated (NLR) (12/16/2019) | ¼ mile radius | Yes | 68 |
| Formerly Used Defense Sites (FUDs) (05/15/2019) | 1 mile radius | No | 1 |
| Facility Index System (FINDS) (02/03/2020) | 1⁄8 mile radius | Yes | 1 |

| Database (Date of government version) | Minimum Search Area | Site Listed | Properties within Search Area |
|---|---|---|---|
| Enforcement and Compliance History Information (ECHO) (06/27/2020) | 1⁄8 mile radius | Yes | 1 |
| CA Bond Expenditure Plan (01/01/1989) | 1 mile radius | No | 1 |
| San Mateo County Business Inventory (02/20/2020) | ¼ mile radius | No | 67 |
| Cortese (09/23/2019) | ½ mile radius | No | 17 |
| Facility and Manifest Data (HAZNET) (12/31/2019) | 1⁄8 mile radius | Yes | 2 |
| HIST CORTESE (4/1/2001) | ½ mile radius | No | 15 |
| Permitted Hazardous Waste Facility (HWP) (05/18/2020) | 1 mile radius | No | 3 |
| National Pollutant Discharge Elimination System (NPDES) Permit Sites (05/12/2020) | 1⁄8 mile radius | Yes | 1 |
| Proposition 65 Records (Notify 65) (09/16/2019) | 1 mile radius | No | 2 |
| California Integrated Water Quality System (CIWQS) (06/01/2020) | 1⁄8 mile radius | Yes | 1 |
| California Environmental Protection Agency Regulated Sites (CERS) (07/20/2020) | 1⁄8 mile radius | Yes | 2 |
| Geotracker Non-Case Information Sites (06/08/2020) | 1⁄8 mile radius | Yes | 1 |
| Hazardous Waste Tracking System (HWTS) (04/08/2020) | 1⁄8 mile radius | Yes | 3 |

A description of the reviewed databases is provided in the EDR Radius Map Report (Appendix C). A summary of Site database listings and other properties identified within the prescribed search area is presented below. A total of 326 listings within a one mile radius of the Site were found in various regulatory agency databases. Their database listings relative to the Site are shown in the maps found in the EDR Radius Map Report provided in Appendix C. Based on the large number of properties identified within one mile of the Site, Langan limited the review of surrounding properties to adjoining and upgradient properties. It is the environmental professional's opinion that, based on the area, and former, current and proposed use of the Site, the review of the database pertaining to this more limited area is appropriate.

Langan also requested and reviewed available environmental records from California Department of Toxic Substances Control (DTSC), RWQCB, CalRecycle, SMCEHD, the City of South San Francisco Fire Department (SSFFD), and the Bay Area Air Quality Management District (BAAQMD). A summary Site database listings and other properties identified within the prescribed search area is presented below.

5.1.1 Site – 101 Gull Drive/560 Eccles Avenue

The Site was identified in the following databases searched by EDR: SWF/LF, RCRA NonGen/NLR, FINDS, ECHO, HAZNET, NPDES, CIWQS, CERS, Geotracker Non-Case

Information Sites, and HWTS. Additionally, the Site was not listed in the DTSC EnviroStor database; however, it was listed in the RWQCB Geotracker database under the name "560 Eccles" with a status of "Informational Item as of 12/13/2018" and case number T10000012436. The records available on Geotracker were related to the abandonment of the former groundwater monitoring wells at the Site discussed in Section 3.0. The Site is also listed in the CalRecycle SWIS database as a former "Nonhazardous Ash Disposal/Monofill Facility" under the name "USDA Building (41-CR-0028)" with an operational status of "Closed" and a regulatory status of "Unpermitted." The records available on SWIS are related to the former Site use as a burn dump as discussed in Section 3.0. SMCEHD provided files related to the former Site use as a nonhazardous ash disposal/monofill facility under San Mateo County local oversight program (LOP) facility number FA0063171, including investigation and monitoring reports, postclosure development reports, and postclosure inspection reports related to the construction of the USDA building on the western adjoining property that also overlies a portion of the former burn ash material. No inspection violations were reported. SSFFD and BAAQMD had no records for the Site.

### 5.1.2 Off-Site Database Listings

Based on our review of off-Site property listings, most of the nearby listings were either: (1) closed by the regulatory agency, (2) located in the inferred hydrologically down-gradient direction from the Site, (3) determined to be a significant distance from the Site, and/or 4) determined not to have a potential impact on the Site based on our review of available database information. However, the following properties in the surrounding area are of environmental interest.

560 Eccles Avenue (Western adjoining property, inferred up- to cross-gradient)

SMCEHD records indicate that the USDA building owned by SMPO ELS, LLC is enrolled in the Certified Unified Program Agency (CUPA) with a valid permit for the storage of small quantities of hazardous materials related to facility operations, specifically 309 gallons of diesel fuel in an aboveground storage tank for a backup generator. No violations, spills, or releases from facility operations were noted; therefore, the property is not anticipated to be an environmental concern for the Site.

336 Oyster Point Boulevard (Northern/western adjoining property, inferred up- to cross-gradient)

This property was identified in the following databases searched by EDR: LUST, San Mateo County Business Inventory, Cortese, HIST CORTESE, and CERS. Additionally, this property is listed in the RWQCB Geotracker database as a LUST cleanup site under the name "Seaboard

Paper Co." with case number T0608100451 and a status of "Completed - Case Closed as of 11/14/1995." Alternative case numbers for property are San Mateo County LOP case number 550023 and RWQCB case number 41-0475. A No Further Action (NFA) letter issued by the SMCEHD indicates that the 2,000-gallon diesel UST was removed in 1987 and appeared to be in good condition with no holes (SMCEHD, 1995). Approximately 16 cy of soil were reportedly excavated and disposed. One water sample and one soil sample was obtained from the excavation, though no sample depths were recorded. An additional composite soil sample was collected from the excavated stockpile. TPHd was detected in the excavation soil sample and stockpile composite soil sample at concentrations of 3.4 parts per million (ppm) and 180 ppm, respectively, which are below the RWQCB 2019 residential and commercial shallow soil ESLs. Benzene, toluene, and xylenes were detected in the water sample at concentrations of 2,100 parts per billion (ppb), 22,000 ppb, and 42,000 ppb, respectively. TPHd and ethylbenzene were not detected at concentrations above the laboratory reporting limits in the water sample.

In July 1987, two groundwater monitoring wells were installed at the 336 Oyster Point Boulevard property at depths of approximately 17 and 18 feet bgs, and quarterly monitoring was conducted for four consecutive quarters between May 1994 and May 1995. TPHd was detected in the wells at concentrations ranging between 120 ppb and 220 ppb during the four quarters of monitoring. The low levels of TPHd detected in groundwater are slightly above the RWQCB 2019 direct exposure human health risk ESL of 200 ppb; however, V/I ESLs are not established for TPHd. SMCEHD stated in the NFA letter that no further monitoring of the groundwater was required due to the low levels of TPHd in groundwater, further reduction of TPHd levels, the apparent asymptomatic trend in TPHd levels, and lack of technically feasible remediation. Therefore, due to the NFA determination, this property not expected to be an environmental concern for the Site.

<u>349 Oyster Point Boulevard (approximately 350 feet northwest, inferred up- to cross-gradient)</u>

This property was identified in the following databases searched by EDR: RCRA NonGen/NLR, SEMS-ARCHIVE, RCRA-SQG, FINDS, CPS-SLIC, CERS, ENVIROSTOR, LUST, VCP, FINDS, ECHO, San Mateo County Business Inventory, Cortese, HIST CORTESE, CERS, CERS HAZ WASTE, and AST. Additionally, this property is listed in the RWQCB Geotracker database as a LUST cleanup site under the name "Wildberg Bros" with case number T0608114784 and a status of "Completed - Case Closed as of 7/17/2001", and as a cleanup program site under the name "Wildberg Brothers" with case number T10000008176 and a status of "Completed - Case Closed as of 3/21/2018." Alternative case numbers for property are San Mateo County LOP case number

559014 and RWQCB case numbers 41-1115 and 41S0028. The property is also listed in the DTSC Envirostor database as a voluntary cleanup site under the name "Wildberg Brothers (Boliden Metech)" with case number 41330049 and a status of "Certified as of 11/30/1987."

The Wildberg Brothers property (aka Boliden Metech) was formerly occupied by a metal reclamation plant which operated between 1907 and 1987. After operations of the facility ceased, several soil and groundwater investigations were conducted which identified heavy metals in shallow soils and trichloroethene (TCE) in groundwater at the Site related to former use as a metal reclamation facility. In 1995, Boliden Metech executed a voluntary cleanup agreement (VCA) with DTSC (DTSC, 1995). As part of the VCA activities, ACC Environmental Consultants collected soil samples from 19 locations and three groundwater monitoring wells (ACC, 1995). One soil sample collected from beneath a former laboratory building detected lead at a concentration of 930 ppm, which was above 800 ppm residential cleanup level at the time. Therefore, Boliden Metech removed approximately 10 cubic feet of soil from the impacted area in October 1995. Confirmation samples from these removal areas detected lead at a maximum concentration of 41 ppm, which is below the RWQCB 2019 residential and commercial shallow soil ESLs. TCE was detected in monitoring well MW-2 at a concentration of 2.5 ppb, which exceeds the RWQCB 2019 residential V/I ESLs, but is below the commercial V/I ESLs. In November 1995, DTSC issued a NFA letter indicating that all remedial actions conducted under the VCA had been completed (DTSC, 1995).

During construction activities in 1997, soil that appeared to be impacted with petroleum hydrocarbons was encountered beneath a concrete slab. Reportedly, a heating fuel oil UST of unknown capacity was removed in 1982. Additional soil samples were collected in 1997 and TPHd, TPHg, benzene, toluene, ethylbenzene, xylenes, and methyl tert-butyl ether (MTBE) were detected at concentrations of 730 ppm, 200 ppm, 0.024 ppm, 0.97 ppm, 0.240 ppm, 3.1 ppm, and 0.11 ppm, respectively. The concentration of TPHd exceeds the 2019 RWQCB residential shallow soil ESL, but is below the commercial ESL. Concentrations of TPHg, benzene, toluene, ethylbenzene, xylene, and MTBE are below both the 2019 RWQCB residential and commercial shallow soil ESLs. Two groundwater samples were collected and analysis did not detect fuel constituents above the laboratory reporting limits. Excavation activities were performed, removing approximately 412 cy of petroleum hydrocarbon impacted soil. Based on the characterization and remedial actions performed, a NFA letter was issued by the SMCEHD in 2001 (SMCEHD, 2001).

Due to the NFA determinations for the VCA and the LUST, this property not expected to be an environmental concern for the Site.

Former Oyster Point Landfill (eastern adjoining property across Gull Drive, inferred downgradient)

This property was identified in the following databases searched by EDR: RCRA-LQG, RCRA NonGen/NLR, SWF/LF, and CERS. Additionally, this property is listed in the RWQCB Geotracker database as a land disposal site under the name "Oyster Point Landfill" with case number L10009323371 and a status of "Open as of 1/1/1965." Alternative case numbers for property are RWQCB case number 2 417061001. The site is also listed in the CalRecycle SWIS database as a former "Solid Waste Disposal Site" under the name "So. San Francisco Municipal Dump/Oyster (41-AA-0065)" with an operational status of "Closed" and a regulatory status of "Unpermitted."

This property was formerly part of a municipal Class III landfill (Oyster Point Landfill) operated by the City of South San Francisco from approximately 1956 until it stopped accepting waste in 1970 (Langan, 2017). Prior to 1956, the existing landfill area consisted of tidal marshlands, upland bedrock and soils on the western part of the property, while the eastern part of the property was part of the San Francisco Bay. As a result of the waste disposal operations, the shoreline was extended approximately 3,000 feet to the east of the pre-landfill shoreline. Consistent with landfill practices at the time, no liner was installed underlying the refuse. Instead, the waste was placed directly onto the bay mud and soils overlying the bedrock. Two areas of the landfill, identified as Sumps 1 and 2, were reportedly used as hazardous waste disposal sites for industrial waste including drums, paints, thinners, and solvent sludge between 1961 and 1967. After landfill operations ceased in 1970, the City conducted various closure activities under RWQCB oversight and in accordance with the RWQCB regulatory guidelines that governed at that time; this was prior to the adoption of Title 27 CCR, the regulatory requirements currently governing Class III landfill closures. Between 1971 and 1976, the upper surface of the landfill was compacted, and a 2-foot layer of low-permeability soil was placed on top of the compacted fill. Additional mitigative measures were constructed between 1979 and 1981, including installation of a 2- to 3-foot-thick Bay Mud cap across the site, placement of additional riprap and Bay Mud along the Marina, construction of bentonite-cement trenches between the landfill and the drainage channel as well as along an approximately 300-foot length of shoreline on the west basin (beach area), and realignment of the drainage channel (Exhibit 3). In addition, Bay Mud was placed along the southern boundary of the landfill where leachate seepage had been observed. In 1987, a Bay Mud leachate cutoff trench was constructed along the northern landfill boundary, between the

mole and beach area. A gas barrier trench consisting of compacted soil and a CPE liner (20 mils thick) was also reportedly installed along the western landfill boundary to mitigate the lateral migration of landfill gas. As shown in Exhibits 4 and 5, the eastern adjoining parcel owned by the City of South San Francisco (APN 015-190-180) was formerly part of the Oyster Point Landfill property.

In April 1995, waste material was encountered during the installation of eight test pits as part of an investigation of unstable soil conducted by the City in connection with the realignment of Gull Drive (CH2MHILL, 1996). The waste was encountered to the west of the capped landfill area. A subsequent investigation indicated that part of the new Gull Drive alignment was likely being constructed over part of Sump 2 (CH2MHILL, 1996). CH2MHILL concluded that the westernmost portion of this sump had not been included in previous landfill closure activities (the original landfill cap was completed in 1981). After waste was uncovered, roadway construction stopped and approximately 220 drums and approximately 4,000 cy of soil were removed and disposed of off-site as hazardous material. In January 1996, following removal of the drums and soil, the excavated area was graded and covered (see Exhibit 6 for the approximate area of the Sump 2 excavation). At the request of the RWQCB, CH2MHILL performed a limited field investigation including a geophysical survey and confirmatory trenching in February 1996 to define the extent of waste not covered by the existing cap and not removed during Sump 2 excavation activities (CH2MHILL, 1996). Before completing the construction of Gull Drive, the landfill cover was extended as described in the *Construction Quality Assurance Report for the Gull Drive Final Cover Extension* prepared by CH2MHILL in October 1996; however, drums and refuse may potentially remain in place beyond the cover extension below Gull Drive and within the eastern adjoining parcel owned by the City of South San Francisco since the excavation and removal effort in the vicinity of Sump 2 was limited to the minimum extent necessary to allow for continued construction of the new road. The perimeter landfill gas monitoring wells (LFG-9 and LFG-10) and passive venting trench (PVT-1) immediately outside the eastern Site boundary within the City of South San Francisco owned parcel (APN 015-190-180) were reportedly installed outside the footprint of the landfill; therefore, refuse related to the former Oyster Point Landfill is not anticipated to be present within the Site boundaries.

Redevelopment of the landfill is currently ongoing as part of a larger, multi-phase development project by the City of South San Francisco and Kilroy Realty Corporation, including multiple office/research and development (R&D) buildings, infrastructure improvements, and open space areas. In anticipation of redevelopment of the landfill, Langan prepared a Final Closure Plan (FCP) and Postclosure Monitoring and Maintenance Plan (PCMMP), dated 8 September 2017,

describing the project in more detail and procedures for closure and long-term monitoring and maintenance of the landfill pursuant to Title 27 CCR §21190 requirements (Langan, 2017). As detailed further in the PCMMP, the Oyster Point Landfill is regulated by Order Number 2000-046 issued by the RWQCB to the City of South San Francisco on 21 June 2000 (RWQCB, 2000). The Order includes Waste Discharge Requirements (WDRs) for the landfill and imposes closure and postclosure requirements on the Discharger, including performing sampling, analyses, and observations of groundwater, leachate, and surface water and submitting the results in semi-annual and annual reports to the RWQCB. On 15 December 2017, the Order was amended to add Oyster Point Development, LLC as a discharger after they became the fee title owner of approximately 17.9 acres of the landfill property. In August 2018, Kilroy Realty assumed Oyster Point Development, LLC's contracts for redevelopment of the property. Additionally, perimeter landfill gas is regulated by the San Mateo County LEA. The perimeter compliance level enforced by the LEA is 5% methane by volume in air (27 CCR §20921). Per the Final Closure Plan, the City shall retain responsibility for environmental conditions and continued compliance with landfill post-closure maintenance, monitoring, and reporting requirements of the Order during and following redevelopment of the property (Langan, 2017).

As shown in Exhibit 7 and Figure 2, there are two perimeter landfill gas monitoring wells (LFG-9 and LFG-10) and a passive venting trench (PVT-1) related to the ongoing monitoring within the eastern adjoining City of South San Francisco owned parcel (APN 015-190-180). As documented in the 2019 Annual Monitoring Report for the former Oyster Point Landfill prepared by CSS Environmental, perimeter methane concentrations at LFG-9 and LFG-10 have largely been below the 5% threshold, with the exception of spikes in 2010 and 2011 up to 7.7% (CSS, 2020). In response, the City installed a passive wind turbine at the exhaust of the PVT-1 venting trench in 2011 to further enhance landfill gas venting, and methane concentrations at LFG-9 and LFG-10 have been below the 5% threshold since. Further, groundwater monitoring conducted at the landfill from 1999 through 2019 indicate that the concentrations of COCs within the perimeter compliance wells are below the Maximum Allowable Concentrations Limits (MACLs) established for the property and either steady, or following a decreasing trend. Groundwater monitoring locations are shown in Exhibit 8. Since the Oyster Point Landfill is downgradient of the Site, groundwater impacts are not anticipated to be a concern. However, due to the unknown extent of refuse potentially remaining in place beneath Gull Drive and further west within the eastern adjoining parcel owned by the City of South San Francisco (APN 015-190-180), and the ongoing operation, maintenance and monitoring requirements for the perimeter landfill gas monitoring features immediately outside the eastern Site boundary (LFG-9, LFG-10, and PVT-1), the Oyster Point Landfill is considered a Condition of Environmental Interest (COEI).

## 5.2 Physical Setting Sources

The physical setting at the Site is based on the *Physical Setting Source Addendum* to the *EDR Radius Map with GeoCheck* report, topographic maps, and subsurface investigations previously conducted at the Site by others.

*Topography*

The Site elevation is approximately 50 feet above MSL. The Site topography slopes down to the southeast.

*Geology and Hydrogeology*

The Site is located along the western margin of the historic shoreline of the San Francisco Bay. Based on our review of available maps, the southeastern portion of the Site is bayward of the historic shoreline. The Site is underlain by fill placed during modifications of the San Francisco Bay shoreline and general grading beginning in the early 1900s, based on historical topographic maps (Appendix E). Based on available subsurface data at the site, the fill thickness increases from the northwest to the southeast, with the thickest fill in the southeastern portion of the Site that is bayward of the historic shoreline. According to the Geologic Map of the San Francisco South 7.5' Quadrangle, the fill is underlain by Quarternary deposits consisting of sandy clay and clayey sand and Franciscan Complex bedrock classified as sandstone and shale (USGS, 1998).

As discussed in Section 3.0, the Site was formerly part of larger burn dump facility in the 1950s. According to previous subsurface investigations conducted by Environ, the burn ash material underlies the western portion of the Site and ranges from approximately 10 to 25 feet thick (Exhibits 1 and 2). Native clays and silts followed by bedrock were identified below the burn ash material (Environ, 2011). After burn dump operations ceased, additional fill material was placed over the burn ash material to raise the Site to the current grades. The thickness of fill material overlying the burn ash at the Site ranges from approximately 10 to 20 feet thick (Environ, 2011).

Due to the steep slope of the native alluvium and bedrock underlying the Site and the current Site topography, the depth to groundwater is highly variable (Environ, 2011). At the western boundary of the Site, depth to groundwater is approximately 30 feet bgs at former MW-4 (25 feet above mean sea level [MSL]) (Exhibit 2). At the eastern boundary of the Site, groundwater is approximately 10 feet bgs at former MW-5 (10 feet above MSL) (Exhibit 2). According to investigations conducted by Environ in 2008 and 2009, groundwater flow direction at the Site is to the southeast, generally toward the San Francisco Bay (Environ, 2011).

Surface Water

No surface water was observed at the Site at the time of this assessment. The San Francisco Bay is located approximately 1,500 feet east of the Site.

Wetlands and Flood Plain

According to the United States Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI), there are no mapped wetlands at the Site. The closest mapped wetlands are approximately 50 feet east of the Site at the San Bruno Channel. The Federal Emergency Management Association (FEMA) Flood Map Service Center indicates that the Site is not located in a flood hazard zone area.

Water Wells, Injection Wells and Oil and Gas Wells and Facilities

A review of the Geocheck section of the EDR Radius Map (Appendix C) and the California Geologic Energy Management Division (CalGEM) Well Finder did not identify any water, injection, or oil and gas wells on the Site or within 0.25-mile of the Site.

## 5.3 Historical Use Information on the Site and Adjoining and Surrounding Properties

*Sanborn Maps Review*

Sanborn maps were not available for the Site or surrounding properties. Appendix D contains a copy of the Sanborn Map Report indicating that fire insurance maps covering the target property were not found.

*Historical Topography Maps Review*

Langan reviewed the following Historical Topography Maps from EDR: 1896, 1899, 1915, 1939, 1947, 1950, 1956, 1968, 1973, 1980, 1995, 1996, and 2012. Appendix E contains copies of the Historical Topography Maps.

From the 1880s through 1950s, the Site was located on a hillside along the margins of the San Francisco Bay. By the 1960s, portions of the surrounding marshland, including the Site, were filled during modifications to the coastline of the Bay. The Site appears to be graded in the current configuration from the 1980s through the present.

*City Directory Review*

Langan reviewed the following city directory abstracts obtained from EDR. Listings in the EDR City Directory were found for Eccles Avenue from 1972 until 2017; however, no records were

related to the Site address (560 Eccles Avenue). Appendix F contains a copy of the City Directory Report.

*Aerial Photograph Review*

Langan reviewed aerial photographs to evaluate past uses and relevant characteristics of the Site and surrounding properties. We reviewed the following aerial photographs from EDR: 1943, 1946, 1956, 1963, 1968, 1974, 1982, 1993, 1998, 2006, 2009, 2012, and 2016. Appendix G contains copies of the aerial photographs from EDR.

In the 1940s, the Site appears to be undeveloped vacant land on a hillside along the margins of the San Francisco Bay. Adjoining and surrounding properties appear to be undeveloped, with the exception of the Wildberg Brothers metal reclamation plant to the northwest of the Site. By 1956, the Site appears to be utilized as a burn dump as indicated by a smoke plume visible along the western Site boundary. Modifications to the coastline of the Bay due to landfilling operations at the eastern adjoining property (former Oyster Point Landfill) are visible in the 1963 Aerial Photograph. Between 1963 and 1974, further filling operations and modifications to the coastline of the Bay are apparent at surrounding area properties. From 1982 through the 2016, the Site appears to be graded to the current configuration. Additional commercial/industrial development has also occurred at adjoining and surrounding area properties from the late 1960s through the present.

## 6.0 SITE RECONNAISSANCE

### 6.1 Methodology and Limiting Conditions

The Site reconnaissance was conducted in a systematic manner focusing on the spatial extent of the Site and then progressing to the adjacent and surrounding properties.

The assessment of the adjacent and surrounding properties was limited to identifying, if possible, any indications of past or current use that may involve the use, storage, disposal, or generation of hazardous substances or petroleum products; noting the general type of current use; the general topography of the surrounding area; and providing a general description of adjoining or adjacent structures.

Mr. Jeffrey Ludlow and Ms. Stephanie Lee of Langan performed a Site and vicinity reconnaissance on 20 October 2020. Appendix A contains photographs from the Site reconnaissance.

## 6.2 General Site Setting and Reconnaissance Observations

As shown on Figure 2, the Site is currently undeveloped vacant land with an area of approximately 168,500 square feet (3.9 acres). The Site is located in an area zoned by the City of South San Francisco as Business Technology Park, which is designated for a wide range of commercial and light industrial activities. Photographs showing the current Site use are provided in Appendix A.

*Past Use of Site*

No other evidence of past use of the Site was observed during the Site reconnaissance.

*Description of Structures*

There are no roads or structures on the Site; however, there is a sidewalk along the eastern and northern Site boundaries for adjoining properties ingress/egress.

## 6.3 Site Observations

*Hazardous Substances and Petroleum Products in Connection with Identified Uses*

Langan did not observe hazardous substances or petroleum products in connection with identified uses at the Site during the reconnaissance.

*Hazardous Substances and Petroleum Products Containers in Connection with Unidentified Uses*

Langan did not observe hazardous substances or petroleum products in connection with unidentified uses at the Site during the reconnaissance.

*Storage Tanks*

Langan did not observe any storage tanks at the Site during the reconnaissance.

*Odors*

Langan did not notice any noxious odors at the Site during the reconnaissance.

*Pools of Liquids*

Langan did not observe any pools of liquids at the Site during the reconnaissance.

*Drums*

Langan did not observe any drums at the Site during the reconnaissance.

*PCBs*

Langan did not observe PCBs or PCB-containing equipment at the Site during the reconnaissance.

*Pits, Ponds, or Lagoons*

Langan did not observe any pits, ponds, or lagoons at the Site during the reconnaissance.

*Stained Soil or Pavement*

Langan observed minor staining of the soil, including an approximately 5 by 10 foot area where an aggregate base patch appeared to be placed. Additionally, chunks of glass and porcelain were observed within shallow surface soils, indicating the potential presence of undocumented fill material.

*Stressed Vegetation*

Langan did not observe stressed vegetation at the Site during the reconnaissance.

*Solid Waste*

Langan observed solid waste in the form of trash, including abandoned piping, a refrigerator, and other miscellaneous debris, at the Site during the reconnaissance. These observations do not represent a concern at the Site.

*Wastewater*

Langan did not observe wastewater discharges at the Site during the reconnaissance.

*Wells*

Along the eastern Site boundary, Langan observed two perimeter landfill gas monitoring wells (LFG-9 and LFG-10) and a passive venting trench (PVT-1) related to the ongoing monitoring for the former Oyster Point Landfill located to the east of the Site (Appendix A). The wells are assumed to be located within the eastern adjoining City of South San Francisco owned parcel (APN 015-190-180). Abandoned groundwater monitoring well MW-3 was observed at the southeastern corner of the Site. Further details regarding the former landfill and monitoring wells are provided in Section 3.0.

*Septic Systems*

Langan did not observe septic systems at the Site during the reconnaissance.

*Utilities*

In the northeastern portion of the Site, Langan observed riser pipes and utility vaults assumed to be related to water and irrigation lines. Additionally, a concrete lined channel along the southern and eastern boundaries of the Site, a culvert, and a drain with a grate were observed that are assumed to be related to storm water drainage (Appendix A).

Langan also observed what appeared to be a post indicator valve and a stub up for unused water utilities in the northern portion of the Site (see Appendix A, Photographs 28 and 35). According to the Site Owner and available records, three laterals connected to the water line running along the northern Site boundary were reportedly installed for fire protection for a planned warehouse building at the Site that was never constructed (see SMPO Title Survey in Appendix B). The lateral furthest west was capped during development of the western adjoining property, but the other two laterals on Site are assumed to remain in place.

## 7.0 INTERVIEWS

### 7.1 Subject Site User

For the Phase I ESA, Langan was introduced to and interviewed the User of this report, as defined in ASTM 1527-13. The object of the interviews is to obtain information indicating RECs in connection with the Site and to provide further details regarding historical use of the Site.

Mr. Mike Sanford with the Sanford Group was interviewed as the User on behalf of Ms. Kiley Carter of SRE Acquisitions III, LLC. as part of this Phase I ESA. Mr. Sanford stated that he has no-first-hand knowledge of the Site and is not aware of any environmental cleanup liens associated with the Site. Mr. Sanford is aware of the Deed Restriction recorded for the western adjoining property on 4 April 2019 as discussed in Section 3.0. Mr. Sanford also indicated that he was not aware of any current government notifications, violations of environmental laws, or litigation at the Site.

### 7.2 Owners of Current and Adjacent Properties

Mr. Oscar Romero, the site engineer for SMPO ELS, LLC, was interviewed as part of this Phase I ESA. Mr. Romero stated that the Site was previously used as a staging area for construction office trailers and equipment storage during the construction of the USDA Building adjoining the Site to the west. Mr. Romero indicated that he has no actual knowledge whether the purchase price of the Site was below the fair market value due to environmental conditions.

Mr. Romero stated that he has no actual knowledge of any environmental liens or Activity and Use Limitations encumbering the Site or in connection with the Site and that he was not aware of any current government notifications, violations of environmental laws, or litigation at the Site.

Owners of adjacent properties were not available for interview.

## 8.0 PHASE I ESA FINDINGS AND CONCLUSION

Langan's findings with respect to known and suspect RECs and COEIs, and our opinion of these findings are as follows:

### 8.1 Known or Suspect RECs and COEIs

Based on the databases searched by EDR, requests made for public documentation related to past or present environmental conditions at the site and surrounding area, review of previous Site reports, and our Site reconnaissance, Langan has identified one REC associated with the Site during this Phase I ESA:

- **REC-1 – Historical Site Operations and Impacted Shallow Site Soil, Groundwater, and Soil Vapor:** The Site was previously occupied by a portion of a former landfill that was utilized as a burn dump facility in the 1950s. The CalRecycle SWIS database lists the facility as a former "Nonhazardous Ash Disposal/Monofill Facility" with an operational status of "Closed" and a regulatory status of "Unpermitted." Records indicate that residual burn ash material underlies the western portion of the Site and that after burn dump operations at the Site ceased in the late 1950s, additional fill material was placed over the burn ash material to raise the Site to the current grades. Records for the source of the fill material placed at the Site are unavailable; therefore the material is considered undocumented fill. Previous Site investigations indicate metals concentrations in shallow fill soil and burn ash material exceeding the 2019 RWQCB commercial shallow soil ESLs. Shallow groundwater at the Site appears to have been impacted with metals (consistent with the presence of burn ash material below the water table) and TPH in a limited area in the southeast portion of the Site; however, there are not RWQCB vapor intrusion ESLs established for metals or TPH. VOCs were detected in soil vapor exceeding the 2019 RWQCB commercial vapor intrusion environmental screening levels and methane was also detected at concentrations up to 41% by volume. The residual burn ash from former landfill operations and impacted shallow Site soils, groundwater, and soil vapor are considered a REC for the Site. Future Site development will require mitigation measures to be established and implemented per 27 CCR §21190 governing redevelopments on closed landfills.

Langan also identified one COEI associated with the eastern adjoining property during this Phase I ESA:

- **COEI-1 – Historical Operations at Eastern Adjoining Property:** The eastern adjoining property was formerly part of a municipal Class III landfill (Oyster Point Landfill) operated by the City of South San Francisco from approximately 1956 until it stopped accepting waste in 1970. Since the Oyster Point Landfill is downgradient of the Site, groundwater impacts to the Site from this landfill are not anticipated to be a concern. However, due to the unknown extent of refuse potentially remaining in place beneath Gull Drive and further west within the eastern adjoining parcel owned by the City of South San Francisco (APN 015-190-180), and the ongoing operation, maintenance and monitoring requirements for the perimeter landfill gas monitoring features immediately outside the eastern Site boundary (LFG-9, LFG-10, and PVT-1), the Oyster Point Landfill is considered a COEI.

### 8.2 De Minimis Conditions

No de minimis conditions were discovered during this study.

### 8.3 Data Gaps

The Site history could not be researched in five-year intervals back to 1940 because of a lack of readily available information. It is Langan's opinion that this variation from the ASTM standard does not significantly affect the results of this Phase I ESA or the ability to assess the presence of a REC at the Site, because land use did not change frequently enough to warrant a five year interval Site history evaluation.

### 8.4 Conclusion

Langan conducted this Phase I ESA with a standard of commercial and customary practice using the local standard of case that is consistent with ASTM E1527-13. Any significant scope-of-work deviations, deletions, or additions to ASTM E1527-13 are noted in Sections 8.0 and 9.0 of this report. This Phase I ESA identified that most of the Site is underlain by burn ash from the Nonhazardous Ash Disposal/Monofill Facility, as regulated by the San Mateo County LEA and CalRecycle.

Since the Site is underlain by a former landfill, development activities will be subject to 27 CCR §21190 governing redevelopments on landfills. This regulation requires that a new Postclosure Development Plan (PCDP) and Postclosure Monitoring and Maintenance Plan (PCMMP) be prepared for regulatory agency approval prior to any Site development activities. As detailed further below, these documents will outline mitigation measures and ongoing monitoring and

maintenance requirements to be implemented per 27 CCR §21190. In general, the PCDP and PCMMP will contain information on the following topics:

- **Introduction and Background**
- **Regulatory Requirements**
  - RWQCB Waste Discharge Requirements
  - Title 27 CCR §21190 Landfill Postclosure Land Use
- **Soil Management Plan**
  - Landfill Final Cover Requirements
    - Criteria for final cover components including concrete building slabs, asphalt parking lots, landscaped areas etc.
  - On-Site Soil Reuse Criteria
  - Import Fill Criteria
  - Foundation Installation
  - Dust Control and Monitoring
  - Stormwater Management
- **Landfill Gas Mitigation and Monitoring**
  - Sub-slab Methane Mitigation System
  - Building Interior Methane Detection System
- **Health and Safety Plan**
- **Construction Quality Assurance Plan**
- **Postclosure Monitoring and Maintenance**
  - Landfill Final Cover
    - Periodic visual inspections of landfill cover integrity
    - Repair of landfill cover components as needed to maintain condition
  - Landfill Gas Mitigation and Monitoring Systems
    - Periodic inspections of visible Methane Mitigation System components (risers at the roof level, perimeter fresh air inlet vents etc.)
    - Testing and calibration of interior methane detection system
    - As needed replacement of landfill gas mitigation and monitoring system components

  - Utilities
    - Periodic inspections of flexible connections or other settlement mitigation devices for utilities
    - Modification to utilities as necessary depending on settlement
    - Periodic inspections and maintenance of stormwater drainage systems
- **Emergency Response Plan**

## 9.0 DEVIATIONS

This Phase I ESA has been performed without deviation to, and in conformance with, ASTM Practice E 1527-05 and E1527-13 (Standard Practice for ESA: Phase I ESA Process) except as noted. No expressed or implied representation or warranty is included or intended in the report, except that the services were performed within the limits prescribed by the Client, and with the customary thoroughness and competence of our profession.

## 10.0 ADDITIONAL SERVICES

The scope of services performed for this study did not include the following non-ASTM required Phase I ESA items: radon, asbestos containing materials (ACM), lead-based paint (LBP), lead in drinking water, polychlorinated biphenyl (PCB)-containing material, wetlands, cultural and historical resources, industrial hygiene, health and safety, ecological resources, endangered species, mold, indoor air quality, and biological agents.

## 11.0 EXCEPTIONS

The exceptions to the ASTM standards for this Phase I ESA include not assessing the Site history on five-year intervals from its initial development to its current land use. The format of this report also varies from the format presented in the ASTM standard for Phase I ESAs. It is Langan's opinion that neither of these variations from the ASTM standard significantly affects the results of this Phase I ESA or the ability to assess the presence of a recognized environmental condition at the Site because land use did not change frequently enough to warrant a five year interval Site history evaluation.

## 12.0 REFERENCES

The sources below were used during the performance of this Phase I ESA:

AEI, *Phase I Environmental Site Assessment Update, 560 Eccles Avenue, South San Francisco, California* dated 16 March 1998.

American Society for Testing and Materials (ASTM, 2013), Designation: E 1527-13, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process.

ACC Environmental Consultants, *Letter Report of Limited Soil Investigation/Remediation, 349 Oyster Point Boulevard, South San Francisco, California* dated 19 October 1995.

CH2MHILL, *Construction Quality Assurance Report City of Landfill, City of South San Francisco Landfill, Gull Drive Final Cover Extension, South San Francisco, California* dated October 1996.

Clayton Environmental Consultants, *Phase I Environmental Site Assessment, 560 Eccles Avenue, South San Francisco, California* dated 30 September 1996.

CSS Environmental Services, Inc. *2019 Annual Report, Former Oyster Point Landfill, City of South San Francisco, South San Francisco, California* dated 31 January 2020.

Department of Toxic Substances Control (DTSC), *Wildberg Brothers (Boliden Metech) Oyster Point Facility Voluntary Cleanup Action Completion Letter, Five Year Review, South San Francisco, California* dated 22 November 1995.

DTSC, *Wildberg Brothers (Boliden Metech) Oyster Point Facility Voluntary Cleanup Action Completion Letter, Five Year Review, South San Francisco, California* dated 29 November 1995.

Environ, *Phase II Environmental Site Investigation Report, Vacant Land along Gull Drive between Oyster Point Boulevard and Forbes Boulevard, South San Francisco, California* dated 14 June 2006.

Environ, *Phase I Environmental Site Assessment, Vacant Land, Northwest of the Intersection of Gull Road and Forbes Boulevard, South San Francisco, California* dated 29 June 2006.

Environ, *Preliminary Waste Characterization Study of Burn Ash Material, Vacant Land at 560 Eccles Avenue, South San Francisco, California* dated 30 January 2008.

Environ, *Site Closure Plan, Vacant Land at 560 Eccles Avenue, South San Francisco, California* dated 11 August 2011.

Environ, *Risk Management Plan, Vacant Land at 560 Eccles Avenue, South San Francisco, California* dated 11 August 2011.

Environ, *Groundwater Elevation Monitoring Report, Vacant Land at 560 Eccles Avenue, South San Francisco, California* dated 6 October 2011.

Environ, *Site Closure Plan and Post Construction Maintenance Plan Letter to San Mateo County Environmental Health Services Division, 560 Eccles Avenue, South San Francisco, California* dated 26 February 2011.

Environmental Data Resources, Inc. (EDR), *The EDR Radius Map with GeoCheck®: 101 Gull Drive/560 Eccles Ave, South San Francisco, California 94080* dated 15 October 2020.

EDR, *The EDR Historical Topographic Map Report: 101 Gull Drive/560 Eccles Ave, South San Francisco, California 94080* dated 15 October 2020.

EDR, *The EDR-City Directory Abstract: 101 Gull Drive/560 Eccles Ave, South San Francisco, California 94080* dated 24 October 2020.

EDR, *The EDR Aerial Photo Decade Package: 101 Gull Drive/560 Eccles Ave, South San Francisco, California 94080* dated 15 October 2020.

EDR, *The Sanborn® Map Report: 101 Gull Drive/560 Eccles Ave, South San Francisco, California 94080* dated 15 October 2020.

Langan Engineering and Environmental Services, Inc. (Langan), *Final Closure Plan, Oyster Point Landfill, South San Francisco, California* dated 8 September 2017.

Langan, *Postclosure Monitoring and Maintenance Report, Oyster Point Landfill, South San Francisco*, California dated 8 September 2017.

Regional Water Quality Control Board (RWQCB) San Francisco Bay Region, *Order No. 00-046, Updated Waste Discharge Requirements and Rescission of Order No. 77-19 for City of South San Francisco Oyster Point Landfill, South San Francisco, San Mateo County, California* dated 21 June 2000.

RWQCB, *Order No. R2-2017-0046, Amendment of Waste Discharge Requirements for City of South San Francisco Oyster Point Landfill, South San Francisco, San Mateo County, California* dated 15 December 2017.

San Mateo County Environmental Health Services, *Amended Site Closure Plan and Post-Construction Maintenance Plan Review Letter, 560 Eccles Avenue, South San Francisco, California* dated 25 April 2017.

San Mateo County Environmental Health Services, *Case Closure of One 2000 Gallon Steel Diesel UST at 366 Oyster Point Boulevard, South San Francisco, California, Case No. 550023* dated 1 November 1995.

San Mateo County Environmental Health Services, *Case Closure of One Heating Fuel UST of Unknown Size, Wildberg Brothers, 349 Oyster Point Boulevard, South San Francisco, California, SMco Site: #559014* dated 17 July 2001.

SCS Engineers, *Amended Site Closure Plan and Post-Construction Maintenance Plan, 560 Eccles Avenue, South San Francisco, California* dated 5 April 2017.

SCS Engineers, *Completion Report – Monitoring Well Abandonment/Destruction, Groundwater Monitoring Wells MW-1 and MW-2, 560 Eccles Avenue, South San Francisco, California* dated 29 May 2018.

SCS Engineers, *Completion Report – Monitoring Well Abandonment/Destruction, Groundwater Monitoring Wells MW-3, MW-4 and MW-5, 560 Eccles Avenue, South San Francisco, California* dated 3 October 2018.

SCS Engineers, *Phase I Environmental Site Assessment and Landfill Due Diligence Report, 560 Eccles Avenue* dated 21 June 2017.

SCS Engineers, *Soil Management Plan, 560 Eccles Avenue* dated 22 February 2018.

SMPO ELS, LLC and San Mateo County Environmental Health Services Division, *Covenant to Restrict Use of the Property, Environmental Restriction, 560 Eccles Avenue, South San Francisco, California* dated 4 April 2019.

United States Geological Survey, Bonilla, M.G., *Preliminary geologic map of the San Francisco South 7.5' quadrangle and part of the Hunters Point 7.5' quadrangle, San Francisco Bay area* dated 1998.

## 13.0 SIGNATURE OF ENVIRONMENTAL PROFESSIONALS

The signatures of the environmental professional(s) responsible for this Phase I ESA are provided on the submittal letter and/or cover page of this report.

## 14.0 QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS

The qualifications of the environmental professionals that conducted this ESA are presented in the resumes provided in Appendix H. Langan declares that, to the best of our professional knowledge and belief, we meet the definition of Environmental Professional as defined in #312.10 of 40 CFR 312. Langan has the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the Site. Langan has developed and performed the all appropriate inquiries in general conformance with the standards and practices set forth in 40 CFR Part 312.

# FIGURES


**Legend**

Approximate Site Boundary

Notes:
1. Site located in the San Francisco South USGS Quadrangle.
2. Topographic basemap is provided through Langan's Esri ArcGIS software licensing and ArcGIS online, National Geographic Society, i-cubed.
3. Site boundary is based on the San Mateo County parcel dataset, September 2020.
4. All features shown are approximate.

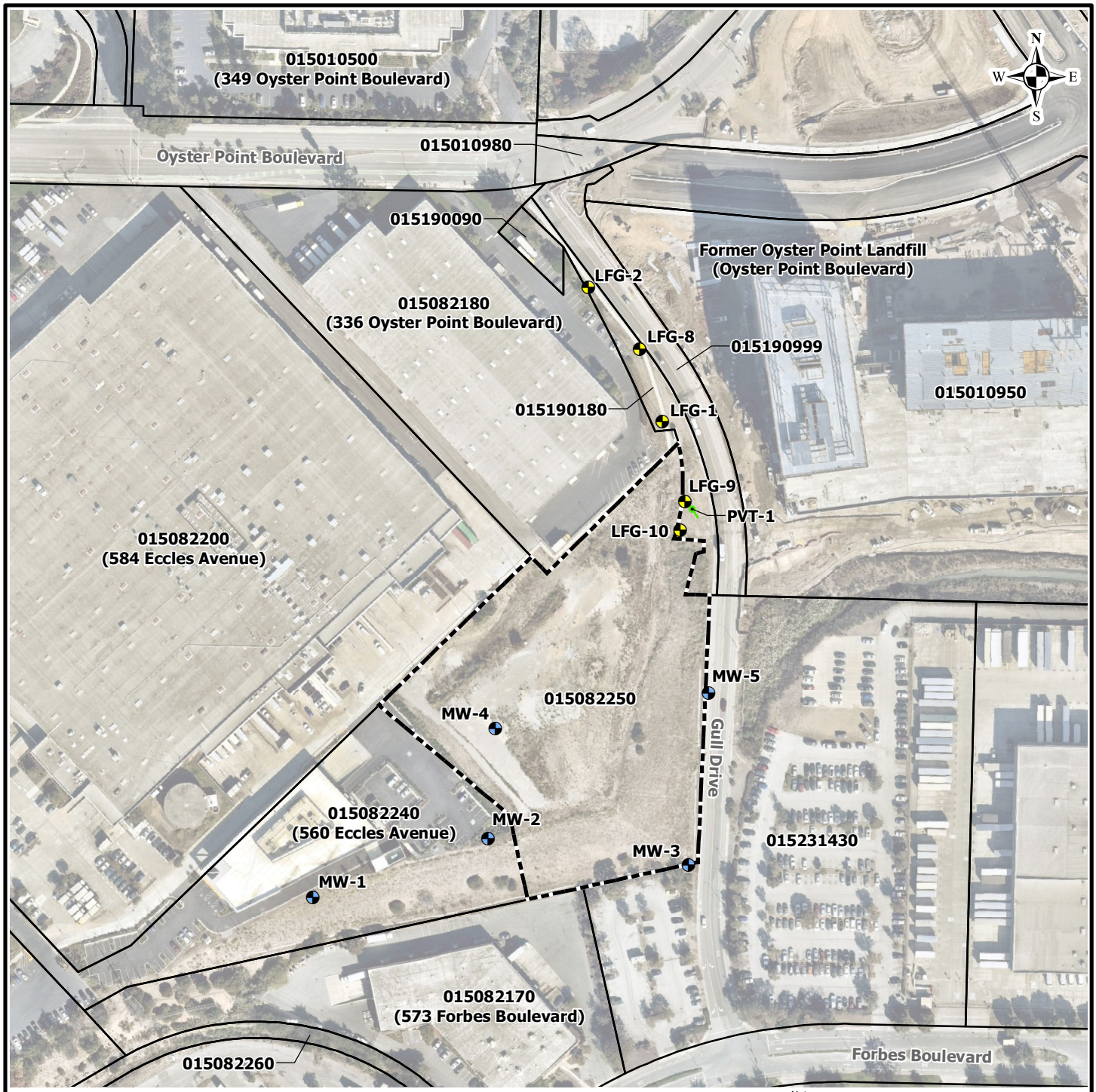
2,000 0 2,000
SCALE IN FEET


LANGAN
Langan Engineering and Environmental Services, Inc.
135 Main Street, Suite 1500
San Francisco, CA 94105
T: 415.955.5200 F: 415.955.5201 www.langan.com


| | |
|---|---|
| Project | 101 GULL DRIVE/ 560 ECCLES AVENUE<br>SOUTH SAN FRANCISCO<br>SAN MATEO COUNTY CALIFORNIA |
| Figure Title | SITE LOCATION MAP |
| Project No. | 731747601 |
| Date | 12/21/2020 |
| Scale | 1 " = 2,000 ' |
| Drawn By | NB |
| Figure | 1 |



Path: \\langan.com\data\SFO\data6\731747601\Project Data\ArcGIS\MXD\Environmental_Figures\Figure 1- Site Location.mxd




## Legend

- Approximate Site Boundary
- Surrounding Parcel Boundary
- 560 Eccles Property Former Groundwater Monitoring Wells (Abandoned in 2018)
- Oyster Point Landfill Perimeter Landfill Gas Monitoring Wells
- Oyster Point Landfill Passive Landfill Gas Venting Trench

Notes:
1. Aerial imagery provided by Near Map, 10/14/2020.
2. Site boundary is based on the San Mateo County parcel dataset, September 2020.
3. Groundwater Elevation Monitoring Report, Figure 2 - Well Locations, prepared by Environ, 2011.
4. Passive Landfill Gas Venting Trench not drawn to scale and is for reference purposes only.
5. All features shown are approximate.

200 0 200
SCALE IN FEET


LANGAN
Langan Engineering and Environmental Services, Inc.
135 Main Street, Suite 1500
San Francisco, CA 94105
T: 415.955.5200 F: 415.955.5201 www.langan.com

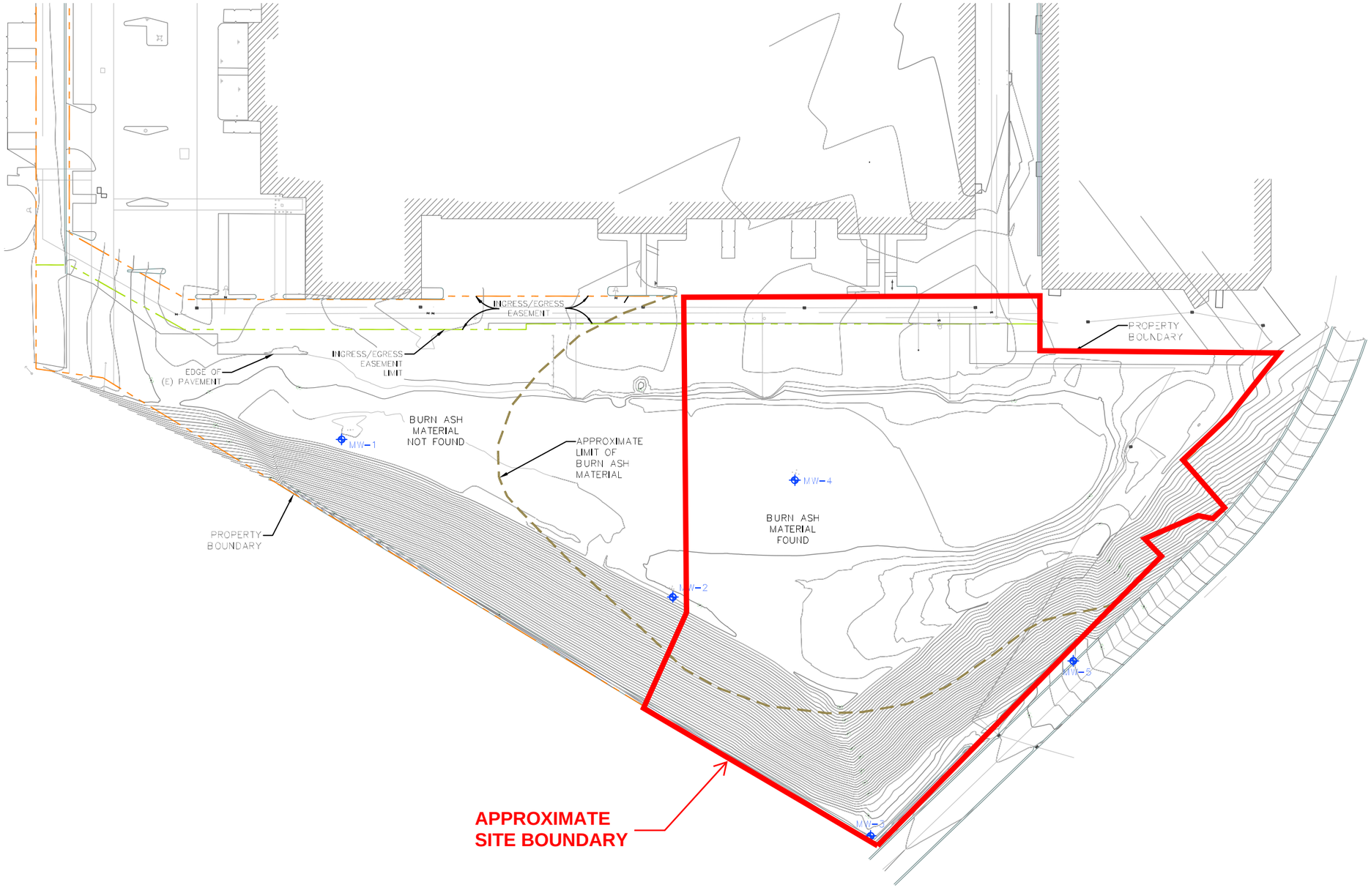

| | |
|---|---|
| Project | 101 GULL DRIVE/ 560 ECCLES AVENUE<br>SOUTH SAN FRANCISCO<br>SAN MATEO COUNTY CALIFORNIA |
| Figure Title | SITE PLAN |
| Project No. | 731747601 |
| Date | 12/21/2020 |
| Scale | 1 " = 200 ' |
| Drawn By | NB |
| Figure | 2 |



Path: \\langan.com\data\SFO\data6\731747601\Project Data\ArcGIS\MXD\Environmental_Figures\Figure 2 - Site Plan.mxd

# EXHIBITS

# EXHIBIT 1




25 0 25 50 75

APPROXIMATE SCALE 1"=50'

DRAWING IS HALF-SIZE AT 11x17

LEGEND

- APPROXIMATE LIMIT OF BURN ASH MATERIAL
- APPROXIMATE PROPERTY BOUNDARY
- INGRESS/EGRESS EASEMENT
- EXISTING MAJOR GRADES
- EXISTING MINOR GRADES
- MW-2 EXISTING GROUNDWATER MONITORING WELL (2008)

| NO. | REVISION | DATE |
|---|---|---|
| | | |

SHEET TITLE: SITE PLAN

PROJECT TITLE: USDA PROPOSED PROPERTY DEVELOPMENT
560 ECCLES AVENUE
SOUTH SAN FRANCISCO, CALIFORNIA

CLIENT: SMPO ELS, LLC
5858 RIDGEWAY CENTER PARKWAY
MEMPHIS, TENNESSEE

SCS ENGINEERS
ENVIRONMENTAL CONSULTANTS
3117 FITE CIRCLE, SUITE 108
SACRAMENTO, CA 95827
PH. (916) 361-1297 FAX. (916) 361-1299

PROJ. NO. 01233380.00 | DSN. BY: MJE | DWN. BY: MJE | CHK. BY: AAM | APP. BY: JJM | ACAD FILE: FIG SP 031317

DATE: 03-09-17

SCALE: AS SHOWN

FIGURE NO. 3

# EXHIBIT 2

**Ground Water Monitoring Well Construction Details**

| Well ID | Material | Diameter | Total Depth (feet bgs) | Screened Interval (feet bgs) | | |
|---|---|---|---|---|---|---|
| MW-1 | PVC | 2" | 25.0 | 15.0 | to | 25.0 |
| MW-2 | PVC | 2" | 42.0 | 32.0 | to | 42.0 |
| MW-3 | PVC | 2" | 20.0 | 10.0 | to | 20.0 |
| MW-4 | PVC | 2" | 35.0 | 25.0 | to | 35.0 |
| MW-5 | PVC | 2" | 20.0 | 10.0 | to | 20.0 |

APPROXIMATE SITE BOUNDARY

N

**EXPLANATION:**

- 2008 Soil Boring
- 2008 Monitoring Well
- 2006 Soil, Groundwater, and Soil Gas Sample Location
- 2006 Soil and Soil Gas Sample Location
- 2006 Soil Sample Location

Borings Drilled by Others:

- HTA (10/2000)
- DHA (3/1984)
- Geomatrix (3/2006)

A — A' Cross Section

Approximate Property Line

Fence

**Notes:**

SB-15 soil samples were collected in the same location as monitoring well MW-5.

Preliminary site development plan including a 4-level slab-on-grade building and associated parking areas shown in grey for reference.

Contours of ground surface elevation relative to mean sea level (Contour Interval = 5 feet).

Reference: Boundary Retracement & Topographic Survey from Kier & Wright, Civil Engineers and Surveyors, Inc., April-May 2006.

0 100 200

SCALE IN FEET

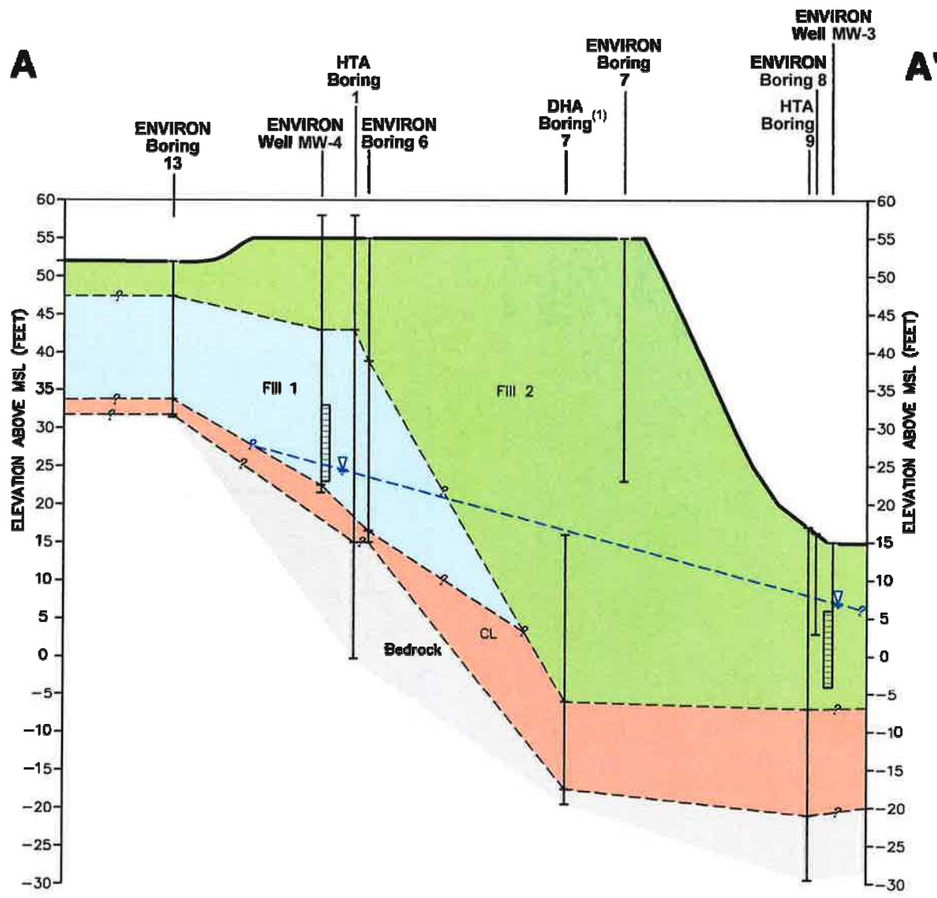
ENVIRON

**Soil Boring, Monitoring Well, and Cross-Section Location Map**
560 Eccles Avenue; Northwest of the Intersection of Gull Drive and Forbes Blvd
South San Francisco, California

| DATE: | CONTRACT NUMBER: | | FIGURE |
|---|---|---|---|
| 2/18/11 | 04-7590GC2 | | 3 |
| DRAFTER: RS | APPROVED: | REVISED: | |

Q:\DRAWINGS\047590GC2\047590GC2-well-location-5.dwg — Mon, 14 Feb 2011 — 4:59pm

Q:\DRAWINGS\047590GC2\047590GC2-XSECB-B.dwg – Mon, 14 Feb 2011 – 5:02pm




**EXPLANATION:**

- Sandy Clay Fill (Fill 2)
- Burn Ash Material (Fill 1)
- Native Clay (CL)
- Weathered Fractured Sandstone (Bedrock)
- Approximate Groundwater Table in First Quarter 2009
- Ground Water Level in First Quarter 2009
- Screened Interval of Ground Water Monitoring Well

(1) DHA Boring 7 installed in 1984 (before addition of fill materials)

0 100

SCALE IN FEET

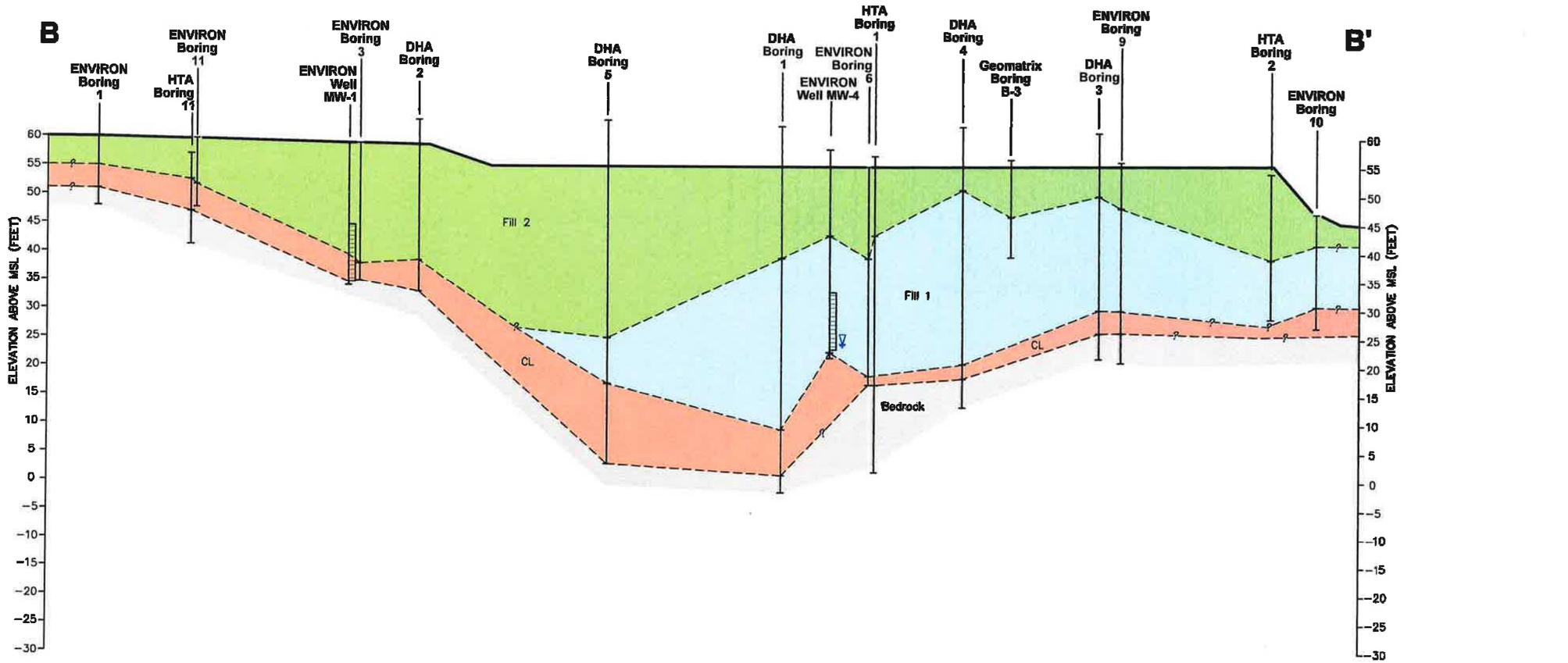
VERTICAL EXAGGERATION: 5X

ENVIRON

**Geologic Cross-Section A - A'**
560 Eccles Avenue
Northwest of the Intersection of Gull Drive and Forbes Blvd
South San Francisco, California

Figure **4a**

Drafter: RS | Date: 2/18/11 | Contract Number: 04-7590GC2 | Approved: | Revised:




**EXPLANATION:**

- Sandy Clay Fill (Fill 2)
- Burn Ash Material (Fill 1)
- Native Clay (CL)
- Weathered Fractured Sandstone (Bedrock)
- Ground Water Level in First Quarter 2009
- Screened Interval of Ground Water Monitoring Well

0 100

SCALE IN FEET
VERTICAL EXAGGERATION: 5X

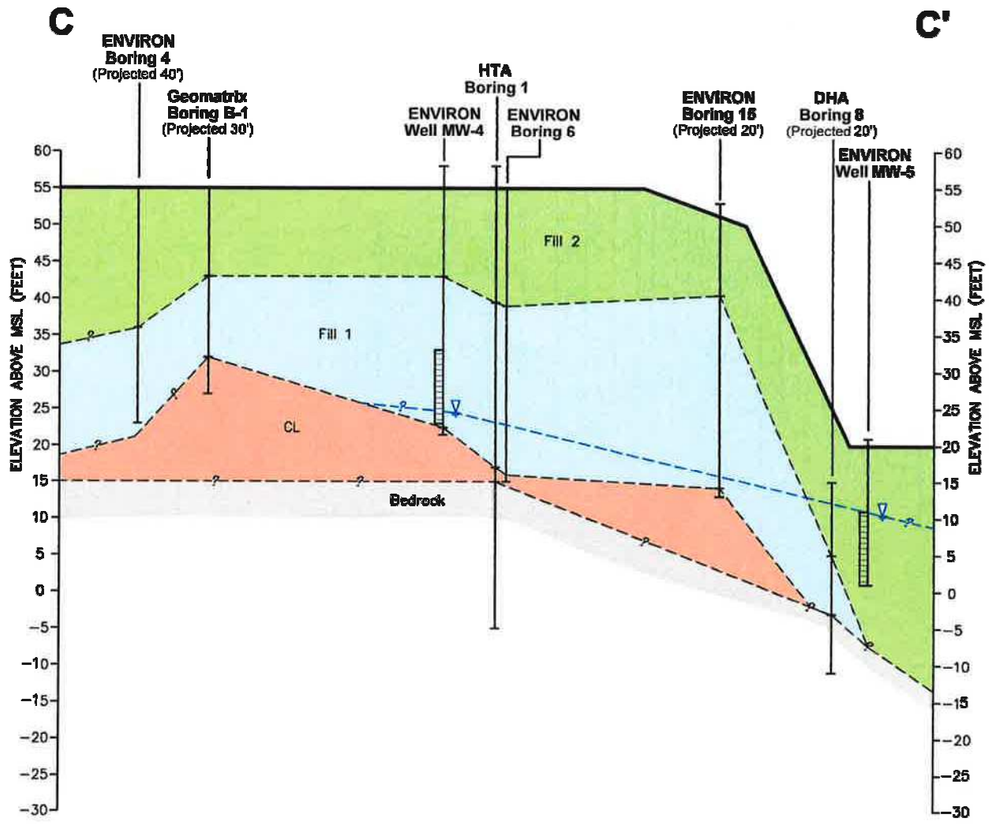
ENVIRON

Drafter: RS Date: 2/18/11 Contract Number: 04-7590GC2

Approved: Revised:

**Geologic Cross-Section B-B'**
560 Eccles Avenue
Northwest of the Intersection of Gull Drive and Forbes Blvd
South San Francisco, California

Figure
**4b**




**EXPLANATION:**

- Sandy Clay Fill (Fill 2)
- Burn Ash Material (Fill 1)
- Native Clay (CL)
- Weathered Fractured Sandstone (Bedrock)
- Approximate Groundwater Table in First Quarter 2009
- Ground Water Level in First Quarter 2009
- Screened Interval of Ground Water Monitoring Well

0 100

SCALE IN FEET
VERTICAL EXAGGERATION: 5X

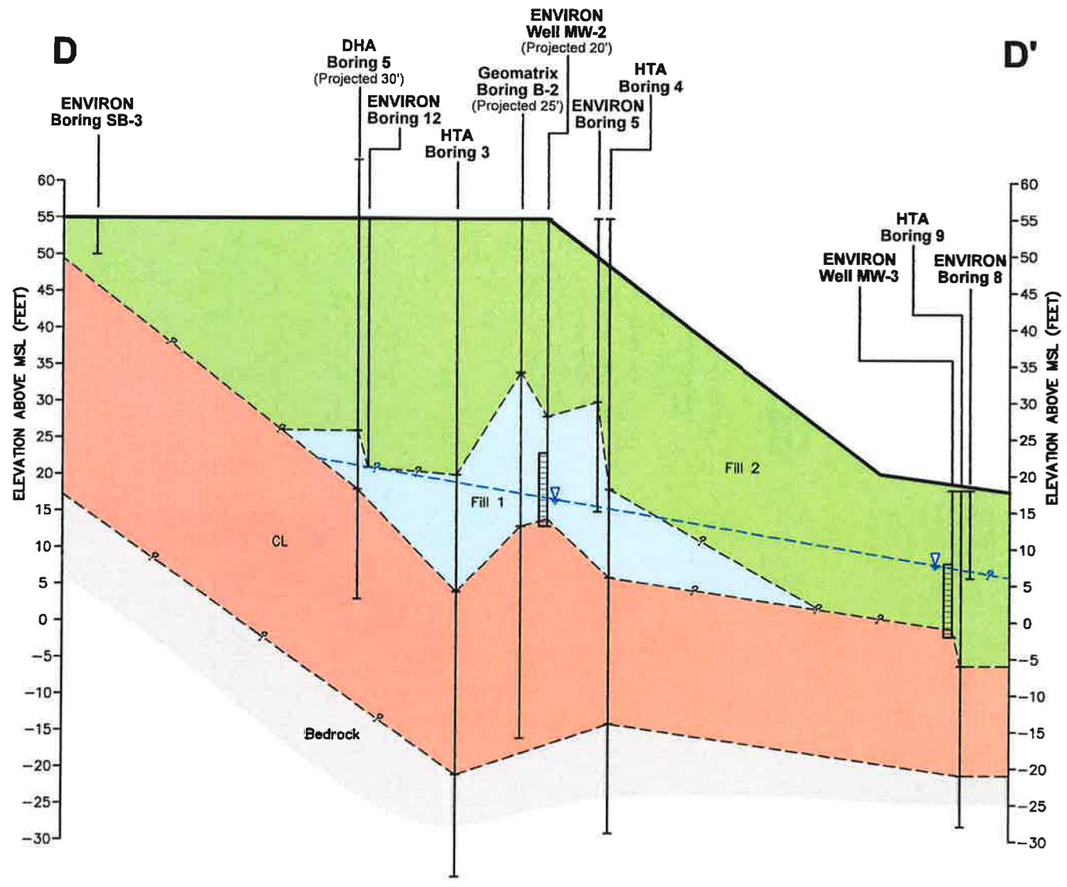
ENVIRON

Drafter: RS Date: 2/18/11 Contract Number: 04-7590GC2

Approved: Revised:

**Geologic Cross-Section C-C'**
560 Eccles Avenue
Northwest of the Intersection of Gull Drive and Forbes Blvd
South San Francisco, California

Figure
**4c**




**EXPLANATION:**

- Sandy Clay Fill (Fill 2)
- Burn Ash Material (Fill 1)
- Native Clay (CL)
- Weathered Fractured Sandstone (Bedrock)
- Approximate Groundwater Table in First Quarter 2009
- Ground Water Level in First Quarter 2009
- Screened Interval of Ground Water Monitoring Well

0 100

SCALE IN FEET
VERTICAL EXAGGERATION: 5X

ENVIRON

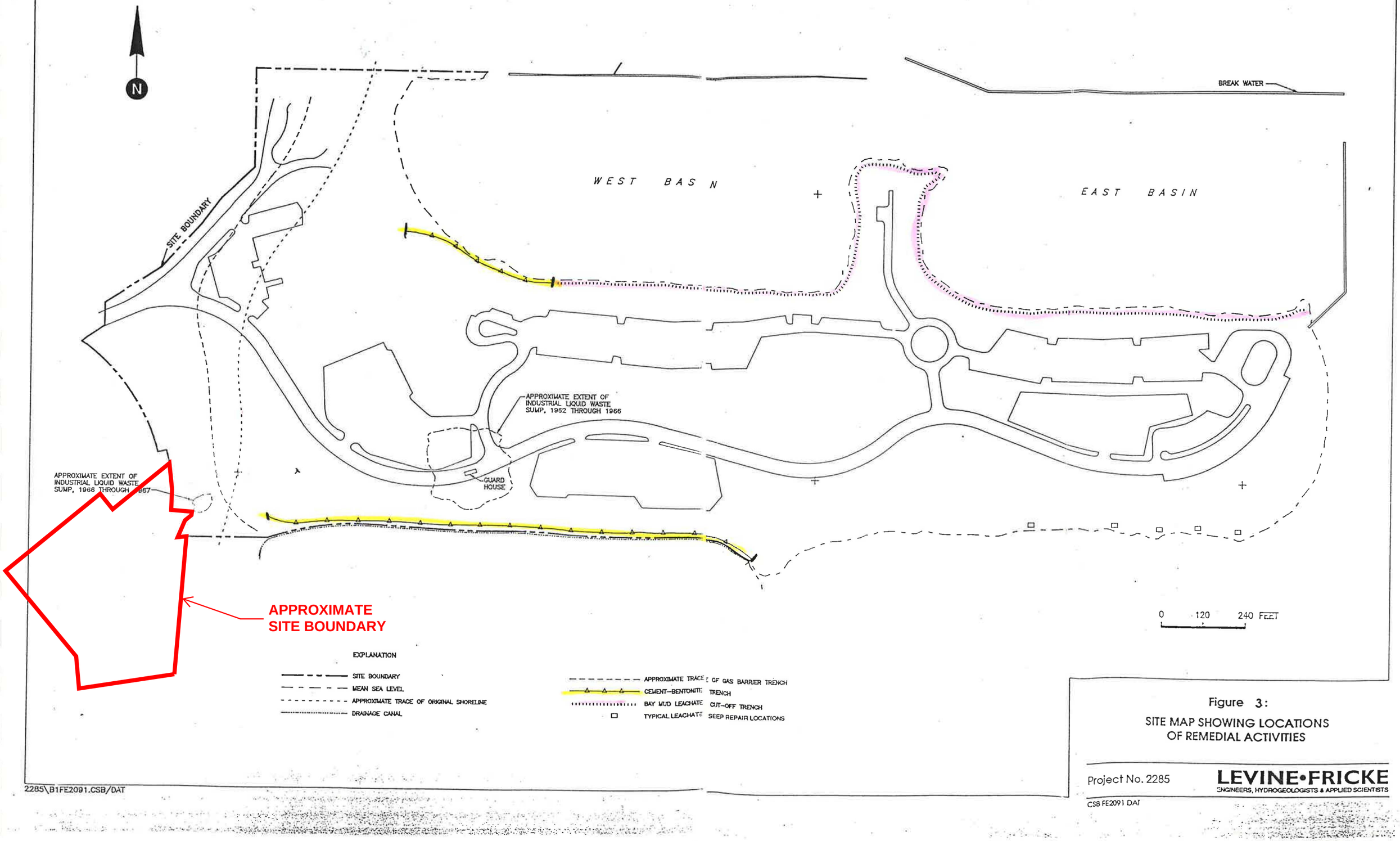
Drafter: RS Date: 2/18/11 Contract Number: 04-7590GC2

Approved: Revised:

**Geologic Cross-Section D-D'**
560 Eccles Avenue
Northwest of the Intersection of Gull Drive and Forbes Blvd
South San Francisco, California

Figure
**4d**

**EXHIBIT 3**




2285\B1FE2091.CSB/DAT

Figure 3:

SITE MAP SHOWING LOCATIONS OF REMEDIAL ACTIVITIES

Project No. 2285

LEVINE•FRICKE

ENGINEERS, HYDROGEOLOGISTS & APPLIED SCIENTISTS

CSB FE2091 DAT

# EXHIBIT 4

| Category | Scope of Site Preparation Work |
|---|---|
| 1 | No site preparation required. |
| 2 | Wheel roll existing surface. |
| 3 | Excavate, haul and place existing soils.<br>Scarify and compact existing exposed surfaces.<br>Place excavated material and compact exploratory trenching. |
| 3A | Excavate, haul and place existing soils.<br>Remove and place excavated material and compact. |
| 3B | Smooth existing surface, scarify and compact. |
| 4 | Excavate garbage and remove to designated disposal areas.<br>Wheel roll exposed surface.<br>Place cover material.<br>Construct containment dike for dredge spoil and conditioning area. |
| 5 | Place garbage fill and compact.<br>Place cover material as required. |
| Haul Road | Excavate and grade existing soils.<br>Scarify and compact existing and exposed surfaces.<br>Place fill material and compact. |
| Mole Area | Refer to detail specification. |

Existing Road 8'±
Construct cut off trench first. Place plywood form in trench wall as shown. Withdraw form after garbage removal & backfill is complete.
El. 106.0 Temporary Containment Dike
2' Clay Cap Seal
Remove existing garbage & backfill with on site beach sand
Slurry Trench with Bentonite backfill
2' Minimum
SECTION 2/5
Scales: 1" = 20' Horiz. 1" = 10' Vert.

Match Line - Restaurant / Rod & Gun Club 1/5

PUMP STA.
ROD & GUN CLUB
EXISTING MARINA ENTRANCE ROAD
Dike 2' High
Slurry Trench-type B
OYSTER POINT BOULEVARD
End of Key Trench
Limit of Grading
Key Trench & Limit of Clay Cap
Inv. 129.0
12" PE Pipe
Inv. 131.0
Preserve Trees in This Area Remove Debris
4" Aggregate Base Paving
20' Wide Chain Double Gate
New Fence
NEW ENTRANCE ROAD
Match Line - See Sheet 6
Match Line - See Marina Entrance 1/5
OYSTER POINT BOULEVARD Hand Excavate for Trench Across Utilities
NEW ENTRANCE ROAD
Temporary Containment Dike Top Elev. 106' ± Use Selected Silty Sand Material From Beach
Estimated Limits Garbage Removal
Security Fence
4" Rock paving
Limit of Clay Cap Seal
Existing Ground
Garbage Fill
Key Trench See 7/5
Cut to contour shown as dash line on plan
SECTION 4/5
Scales: 1" = 20' Horiz. 1" = 10' Vert.
APPROXIMATE SITE BOUNDARY
Limit of Clay Cap Seal
Back of Sidewalk
Existing Ground
Key Trench See 7/5
2' Clay Cap Seal
Type II Fill above Clay Cap
Slope to Follow Existing Ground
3%
2' Clay Cap
Conditioned Bay Mud (Bid Item A-6)
varies
key Trench
30 Mil CPE or equal (Field Seam Joints)
Membrane
2'
SECTION 5/5
Scales: 1" = 20' Horiz. 1" = 10' Vert.
RESTAURANT #1 & ROD & GUN CLUB 1/5
Scale: 1" = 40'
Exist. Drive Varies
Limit of Clay Cap
Slope
Exist. Grade
Bladed Ditch
Blade Exist. Drive
Key Trench See 7/5
Excavate to Grades shown ___ on Plan
Garbage Fill
SECTION 3/5
Scales: 1" = 20' Horiz. 1" = 10' Vert.
TYP. KEY TRENCH DETAIL 7/5
No Scale
Existing Ground
Slope to Follow Existing Ground
12" PE Pipe
Type II Fill above Clay Cap
Clay Cap Seal
Fill under Clay Cap
SECTION 6/5
Scales: 1" = 20' Horiz. 1" = 10' Vert.
Key Trench & Limit of Clay Cap
Remove Debris
Type II Fill above Clay Cap
Slope to Follow Existing Slopes
Slurry Trench & Limit of Clay Cap
End Slurry Trench
Type 'B' Drainage Structure
12" PE Pipe
Type 'A' Drainage Structure
MARINA ENTRANCE AREA 7/5
Scale: 1" = 40'
Match Line - See Sheet 6

DMJM
DANIEL, MANN, JOHNSON, & MENDENHALL
611 VETERANS BLVD. • REDWOOD CITY • CALIF. 94063 • PHONE 365-3900
PLANNING • ARCHITECTURE • ENGINEERING • SYSTEMS • ECONOMICS

PREPARED FOR
OYSTER POINT MARINA / PARK
SAN MATEO COUNTY HARBOR DISTRICT
CITY OF SOUTH SAN FRANCISCO

JOB TITLE: DREDGING, CLAY CAP, LEACHATE CONTROL & ASSOC. WORK
SHEET TITLE: GRADING PLAN - MARINA ENTRANCE AREA
DRAWN BY: H.H.
CHECKED BY: WRB
APPROVED BY:
JOB NO. 6226-1-1
SHEET NO. 5 of 10
DATE

D27-2700.42

**EXHIBIT 5**

Lot 26 389.55 | Lot 27 EAST 660' | Lot 28 660'

Shoreline

Pile Break-Water (4)

Existing Rod & Gun Club Bldg.

L. J. KUNST. AD. UX.

NORTH 278.01

Access Road

Beach Area

(1)

(2) Sampleing Station-Typical

City of South San Francisco

Tide Lot No. 6

Δ 37° 36' 30" R=798' D=5° 23.79 D=523.79

Δ 37° 36' 30" R=798'

City of South San Francisco

Tide Lot No. 5

(6) 150'

(7)

N43° 56' W 25.0'

N46° 04' E 117.16

N34° 50' E 93.02

N40° 58' 30" E 168.65

N55° 58' 26" E 197.35

Beach & Marina Road (Paved)

Lower Butler Road (Paved)

Shoreline (3)

N27° 29' 20" E 125.08'

(5)

CITY of SOUTH SAN FRANCISCO

REFERENCE POINT Property Corner

Reference Line

BLDG. PLATFORM

S89° 59' 05" W

Shoreline

LAUNCH RAMP

Shoreline

Service Roadway To Docks

R=100' L=42.29

R=275 - L=130.47

R=200' L=148.69

N12° 51' E 118.12

DUMP ACCESS ROAD

R=555.26 L=107.09

N0° 00' 55" W 165.0'

Property Line of Marina

Lot 6

MARINA PARKING LOT

Lot 5

Lot 4

S89° 59' 05" W 799.23

S88° 41' 55" W

6-0 High Chain Link Fence

Ramp Service Area

Service Road

DISPOSAL

20'

10'

Power Line Easement

Reference Line N0° 00' 55" W - 400'

Original Cross Dike Location

N17° 23' 03" W - 417.11'

Liquid Disposal Dump Site January 1962 June 1963

(Earth Berm Added)

Present Active Disposal Area January 1962

N0° 00' 55" W 535.00

Debris Fence (9)

SOUTH 1320'

175' 46'

S89° 59' W

12" Sunken Steel Test Well Holes

Top Bank of Fill

Top Bank

N0° 04' 35" W - 114.49'

Shoreline (16)

Sampleing Station (15)

(13) WEST

(12)

(11)

386.71'

Sampling Station (10)

N 86° 30' 07" W 55.0'

**APPROXIMATE SITE BOUNDARY**

Tide Lot 10

Tide Lot 11

Lot 12

LIQUID DISPOSAL SITE
At City Disposal Area - End of Butler Road

SCALE: 1" = 100'
DATE: 1-25-62
APPROVED BY: Director of Public Works
DRAWN BY RDH
REVISED See Below

CITY of SOUTH SAN FRANCISCO

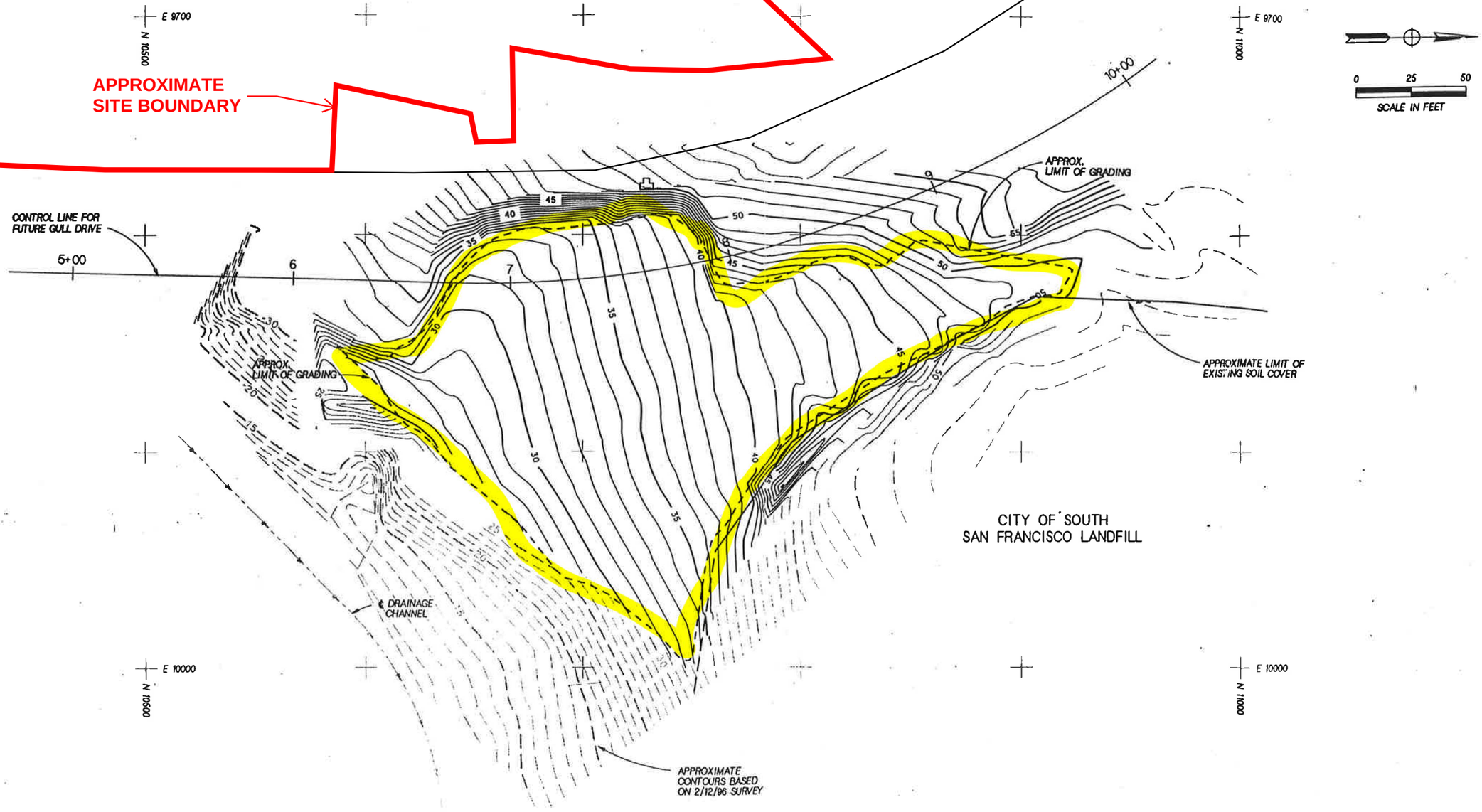
Revised - 6-24-63 - Well Holes & Berm Added

DRAWING NUMBER

17X22 PRINTED ON NO. 1000H CLEARPRINT

# EXHIBIT 6

APPROXIMATE
SITE BOUNDARY

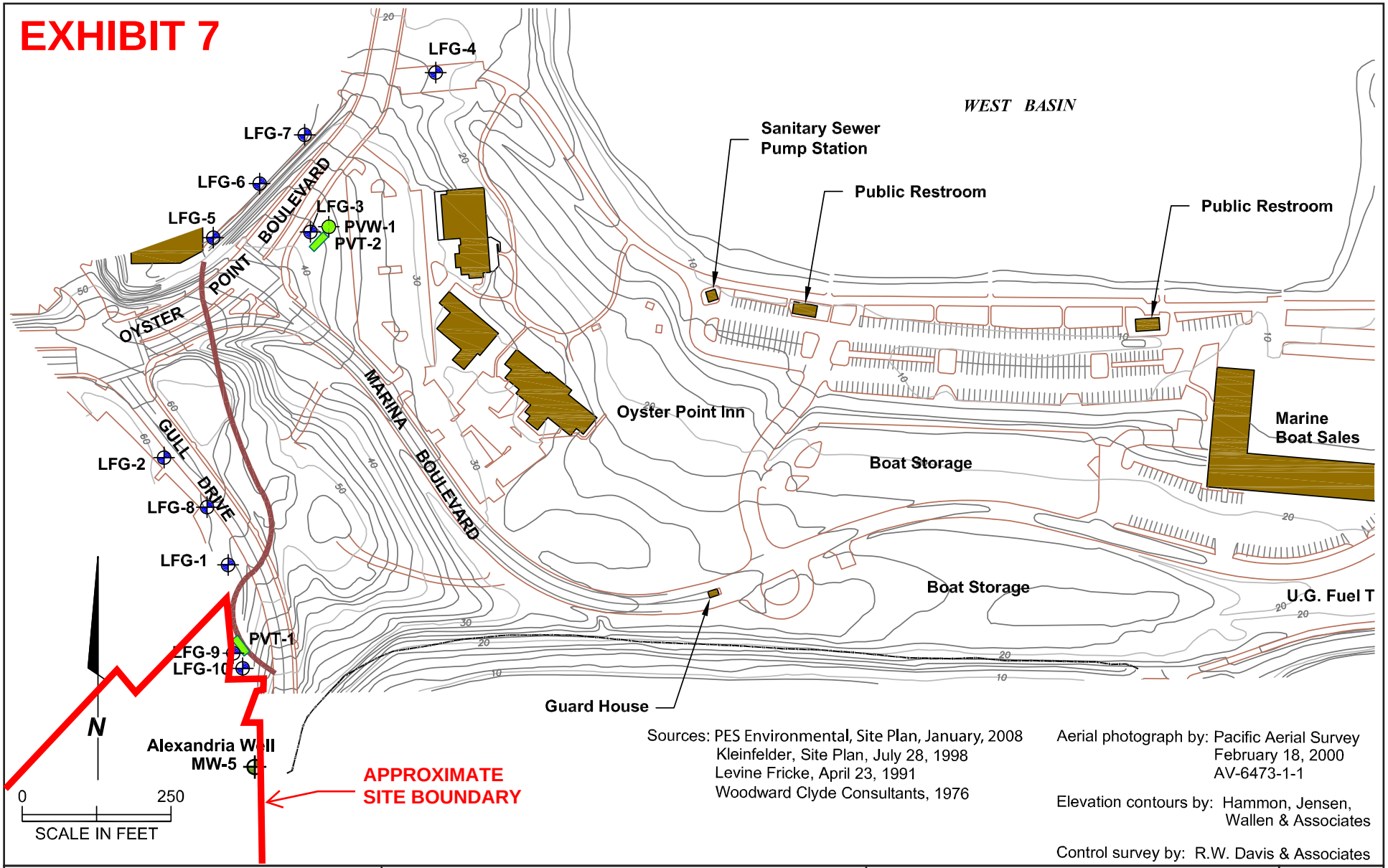



PLAN

GULLAB1.DLV

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| CH2M HILL | DSGN S. TERENTIEFF<br>DR S. LEONG<br>CHK<br>APVD R. REILAND | NO. | DATE | REVISION | BY | APVD | **REUSE OF DOCUMENTS** THIS DOCUMENT, AND THE IDEAS AND DESIGNS INCORPORATED HEREIN, AS AN INSTRUMENT OF PROFESSIONAL SERVICE, IS THE PROPERTY OF CH2M HILL AND IS NOT TO BE USED, IN WHOLE OR IN PART, FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF CH2M HILL. ©CH2M HILL | BAR IS ONE INCH ON ORIGINAL DRAWING. IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY. | CITY OF SOUTH SAN FRANCISCO LANDFILL GULL DRIVE FINAL COVER EXTENSION | AS-BUILT SUBGRADE GRADING PLAN | SHEET 1<br>DWG NO. AB-1<br>DATE AUG 1996<br>PROJ NO. 130873.CD |

# EXHIBIT 7




Sources: PES Environmental, Site Plan, January, 2008
Kleinfelder, Site Plan, July 28, 1998
Levine Fricke, April 23, 1991
Woodward Clyde Consultants, 1976

Aerial photograph by: Pacific Aerial Survey
February 18, 2000
AV-6473-1-1

Elevation contours by: Hammon, Jensen, Wallen & Associates

Control survey by: R.W. Davis & Associates

**Explanation**

- Loaction of Landfill Gas Perimeter Monitoring Well
- Passive Landfill Gas Venting Trench
- Passive Landfill Gas Venting Well
- Approximate Extent of Landfill Cap

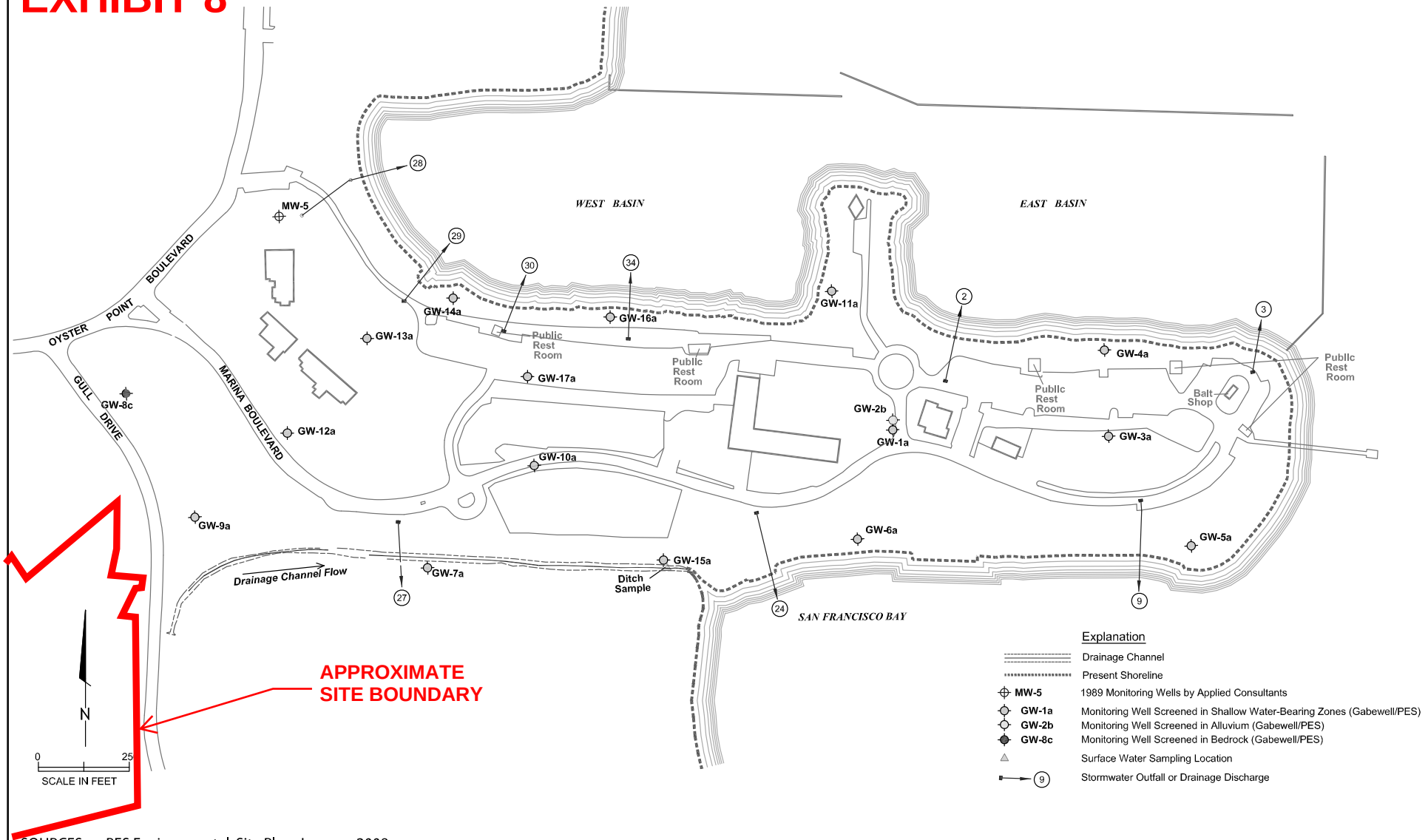
CSS ENVIRONMENTAL SERVICES, INC.

**LANDFILL GAS MONITORING LOCATIONS**
Former Oyster Point Landfill
South San Francisco, CA

| JOB NO. | DATE | BY | REVISED |
|---|---|---|---|
| 6551 | Oct '08 | AS | Jan '12 |

FIGURE 3

# EXHIBIT 8




SOURCES: PES Environmental, Site Plan, January, 2008

CSS ENVIRONMENTAL SERVICES, INC.

**Monitoring Well and Point of Compliance Sampling Locations**
Former Oyster Point Landfill
South San Francisco, CA

| JOB NO. | DATE | BY | REVISED |
|---|---|---|---|
| 6551 | Oct '08 | AS | |

FIGURE 4