Draft Initial Study / Proposed Mitigated Negative Declaration

Water Pipeline Design from the Harry Tracy Water Treatment Plant to the Town of Hillsborough Water System

Town of Hillsborough, San Mateo County, California

Prepared for:

Town of Hillsborough
Department of Public Works
1320 La Honda Road
Hillsborough, CA 94010

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WRA#30345

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List of Acronyms and Abbreviations

AB	Assembly Bill
ABAG	Association of Bay Area Governments
ADD	average day demand
Alta	Alta Archaeological Consulting, Inc.
APE	Area of Potential Effect
APN	Assessor's Parcel Number
BAAQMD	Bay Area Air Quality Management District
BMPs	best management practices
BP	before present
BRTR	Biological Resources Technical Report
C/CAG	City/County Association of Governments
CAAQS	California ambient air quality standards
CAFE	Corporate Average Fuel Economy
CAL FIRE	California Department of Forestry and Fire Protection
Caltrans	California Department of Transportation
Cal/OSHA	California Division of Occupational Safety and Health
CALGreen	Title 24 California Green Building Standards
CAP	Climate Action Plan
CARB	California Air Resources Board
CASQA	California Stormwater Quality Association
CBC	California Building Code
CCR	California Code of Regulations
CDC	California Department of Conservation
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFGC	California Fish and Game Code
CFR	Code of Federal Regulations
CHRIS	California Historical Information System
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CO	carbon monoxide
County	County of San Mateo
CO_2	carbon dioxide
CO_2e	CO_2 equivalent
Corps	United States Army Corps of Engineers
CPA	California Power Authority
CPUC	California Public Utilities Commission
CRHR	California Register of Historic Resources
CWA	Clean Water Act
CY	cubic yards
C&D	construction and demolition
dB	decibel
dBA	A-weighted sound level

DI	Ductile iron pipe
dB	decibel
DOE	Department of Energy
DOT	Department of Transportation
DPM	diesel particulate matter
DPS	Distinct Population Segment
DTSC	Department of Toxic Substances Control
EPA	Environmental Protection Agency
ERDIP	Earthquake resistant ductile iron pipe
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
FHSZ	Fire Hazard Severity Zone
FIRM	Federal Insurance Rate Maps
FMMP	Farmland Mapping and Monitoring Program
F&L	Freyer & Laureta
GHG	greenhouse gas
GPM	gallons per minute
HTWTP	Harry Tracy Water Treatment Plant
IEPR	Integrated Energy Policy Report
IPac	Information for Planning and Consultation
IS/MND	Initial Study / Mitigated Negative Declaration
I-280	Interstate 280
kWh	kilowatt-hour
lb	pound
L_{dn}	day-night average noise level
L_{eq}	energy-equivalent noise level
LF	linear feet
L_{max}	maximum noise level
LRA	Local Responsibility Area
LUST	leaking underground storage tank
MBTA	Migratory Bird Treaty Act
MFR	multifamily residential
MG	million gallons
MGD	million gallons per day
MMTCO2e	million metric tons of carbon dioxide equivalent
mpg	miles per gallon
MRP	Municipal Regional Stormwater NPDES Permit
MS4s	Municipal Separate Storm Sewer Systems
MT	metric tons
NAAQS	National Ambient Air Quality Standard
NAHC	Native American Heritage Commission
NCCP	Natural Community Conservation Plan
NFHL	National Flood Hazard Layer
NMFS	National Marine Fisheries Service
NO_x	nitrogen oxides
NPDES	National Pollution Discharge Elimination System
OHWM	Ordinary High Water Mark
OPR	Office of Planning and Research

O_3	ozone
PG&E	Pacific Gas and Electric Company
PM	particulate matter
$PM_{2.5}$	fine particulate matter
PM_{10}	respirable particulate matter
POTW	publicly owned treatment works
PPV	peak particle velocity
NAHC	Native American Heritage Commission
PS	pump station
PSPS	public safety power shutoff
Rank	California Rare Plant Rank
RCRA	Resource Conservation and Recovery Act
RMS	root mean square
ROG	reactive organic gas
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SFBAAB	San Francisco Bay Area Air Basin
SFIA	San Francisco International Airport
SFPUC	San Francisco Public Utilities Commission
SFR	single family residential
SO_x	sulfur oxide
SRA	State Responsibility Area
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TACs	toxic air contaminants
TCE	trichloroethylene
TCP	Traffic Control Plan
THPO	Tribal Historic Preservation Officer
Town	Town of Hillsborough
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
UWMP	Urban Water Management Plan
VdB	vibration decibel
VOC	volatile organic compound
WUI	Wildland Urban Interface
WRA	WRA, Inc.
WSCP	Water Shortage Contingency Plan

1.0 INTRODUCTION AND PURPOSE

This Initial Study/Mitigated Negative Declaration (IS/MND) has been prepared to conform to the requirements of the California Environmental Quality Act (CEQA), the CEQA Guidelines (California Code of Regulations 15000 et. seq.), and the regulations and policies of the Town of Hillsborough. This IS/MND evaluates the potential environmental impacts which might reasonably be anticipated to result from implementation of the Water Pipeline Design from Harry Tracy Water Treatment Plant to the Town of Hillsborough Water System (proposed project or project).

The Town of Hillsborough (Town) is the Lead Agency under CEQA and has prepared this IS/MND to address the potential impacts of implementing the proposed project. The proposed project consists of the construction of a new 29,900-foot long (5.7 miles) water pipeline to convey water from the San Francisco Public Utility Commission's (SFPUC) Harry Tracy Water Treatment Plant (HTWTP), starting at the Helen Drive Turnout in the City of Millbrae, continuing through the City of Burlingame, and terminating at the Darrell Tanks in the Town of Hillsborough's water system. The proposed project will improve water supply reliability to the Town and cities of Millbrae and Burlingame in the event of a failure or disruption of service due to seismic events, water quality issues, and/or public safety power shutoffs (PSPS). The seismically reliable pipeline also provides a new water supply along the Wildland Urban Interface (WUI), improving the Town's and cities' of Millbrae and Burlingame ability to respond to wildfire.

2.0 PROJECT INFORMATION

2.1 Project Title

Water Pipeline Design from the Harry Tracy Water Treatment Plant to the Town of Hillsborough Water System

2.2 Lead Agency Name and Address

Town of Hillsborough
Public Works Department
1320 La Honda Road
Hillsborough, CA 94010

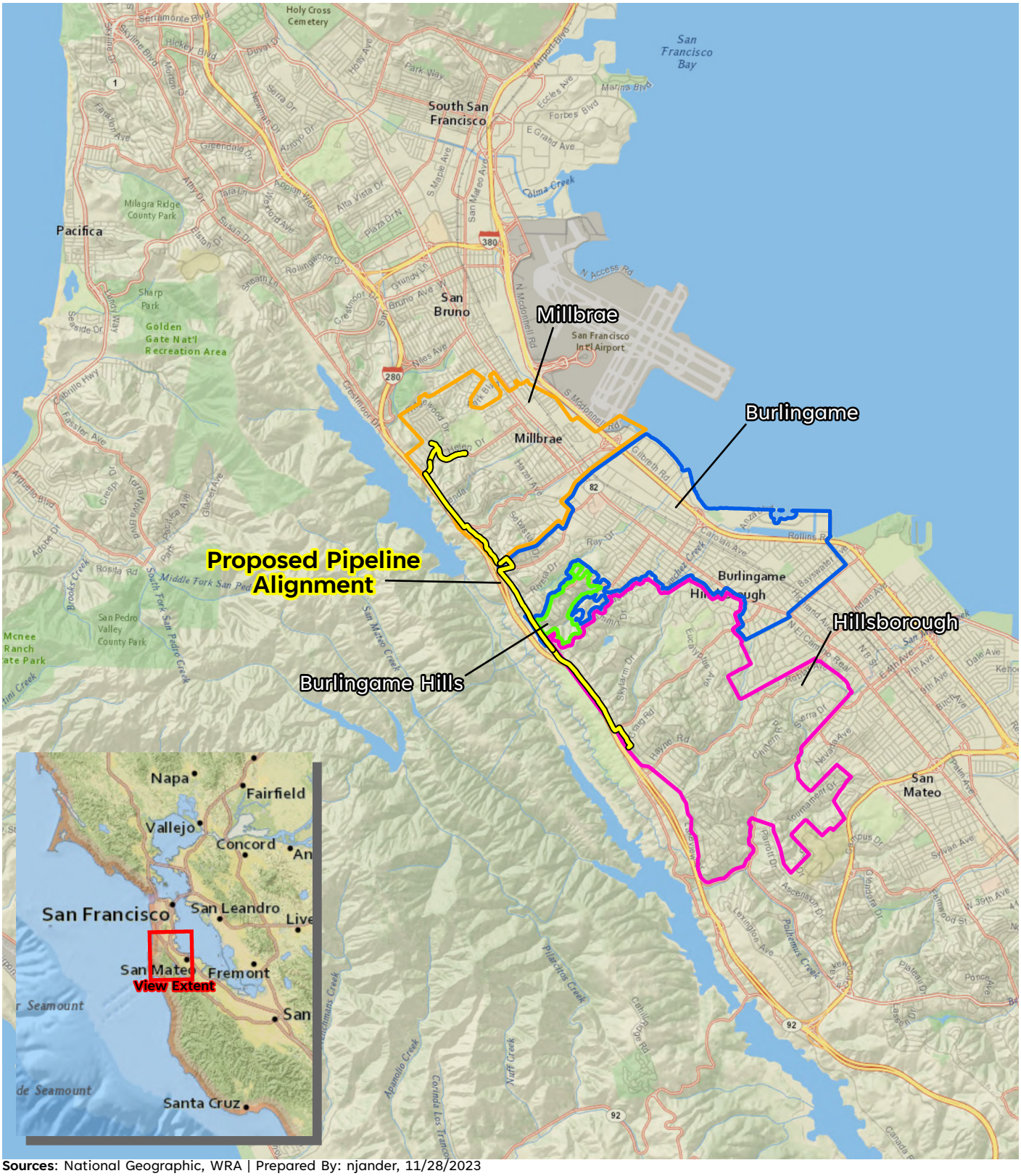
2.3 Contact Person and Phone Number

Paul Willis, P.E., QSD/QSP
Director of Public Works / City Engineer
(650) 375-7444
pwillis@hillsborough.net

2.4 Project Location

The selected project pipeline alignment begins in the City of Millbrae at the existing SFPUC Turnout on Helen Drive near Meadows Elementary School and continues up Helen Drive in an easterly direction to the project's new pump station (PS) proposed at the existing abandoned Helen Tank site just east of Evergreen Way. From the proposed PS the pipeline continues back

down Helen Drive in a westerly direction to Larkspur Drive where it traverses in a southerly direction to Skyline Boulevard. The proposed pipeline continues in a southeasterly direction along Skyline Boulevard and Vallejo Drive before making a deviation in the City of Burlingame, heading northeast at Frontera Way, southeast at Hunt Drive and southwest at Trousdale Drive, before continuing southeast along Skyline Boulevard. Within the Town of Hillsborough, the pipeline turns northeast along Chateau Drive and then southeast along Darrell Road before connecting to the Town's Darrell Tanks located slightly southwest of Darrell Road (Figure 1, Figure 2). See Figures 3 and 4 for photographs of existing conditions along the alignment. The location of proposed potholes is shown in Appendix A.



Path: L:\Acad 2000 Files\30000\30345\GIS\ArcMap\30345Base.aprx Layout Name:CEQA_Fig1_Project Site Location

Sources: National Geographic, WRA | Prepared By: njander, 11/28/2023

Figure 1. Project Site Location

0 1 2 Miles

N

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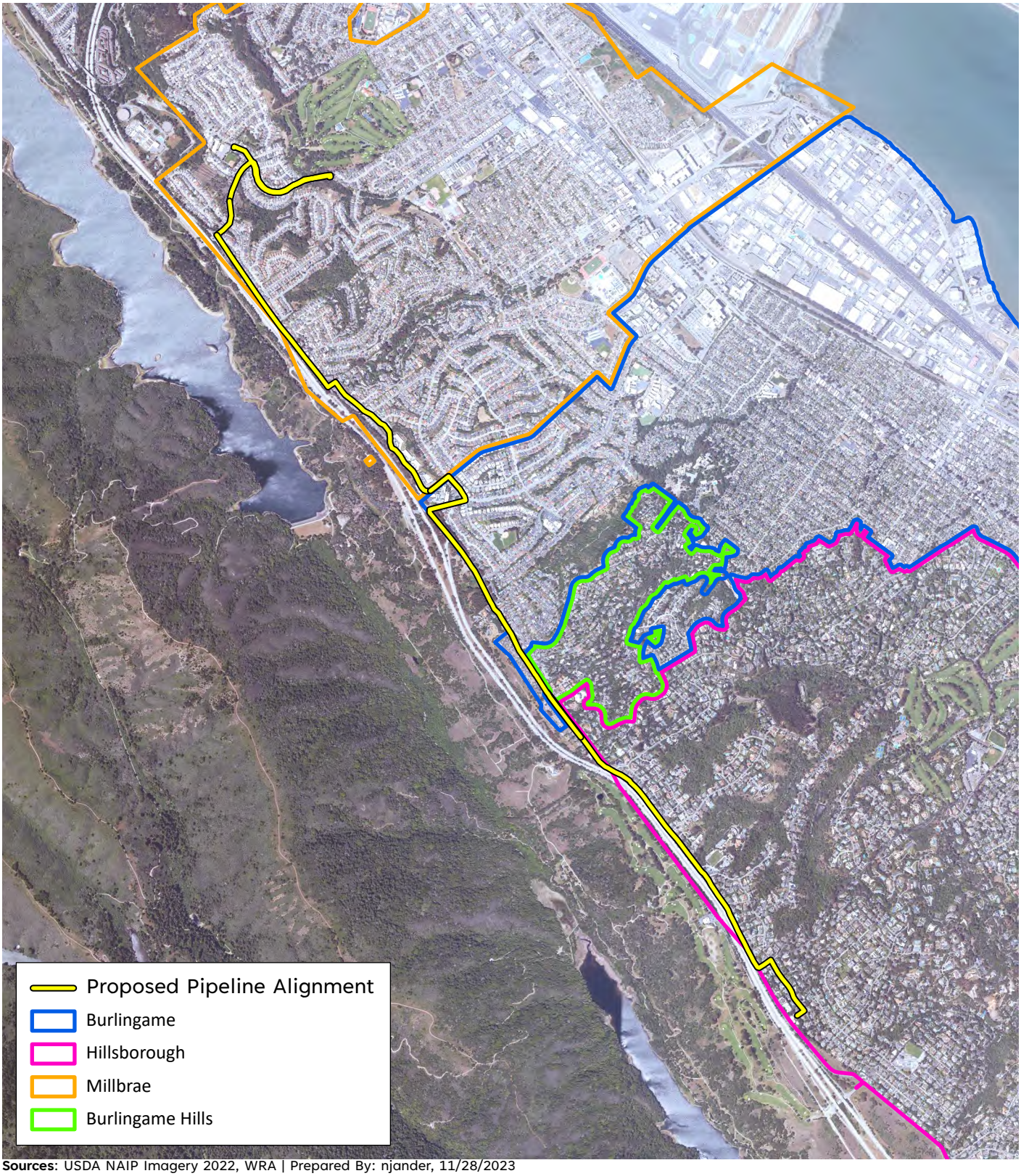

Path: L:\Acad 2000 Files\30000\30345\GIS\ArcMap\30345Base.aprx Layout Name: CEQA_Fig2_Aerial of Project Area

Sources: USDA NAIP Imagery 2022, WRA | Prepared By: njander, 11/28/2023

Figure 2. Aerial of Project Area

Town of Hillsborough Highline Pipeline Project

0 0.25 0.5 Miles

N

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Photo taken at proposed pothole location 2, facing south.

Photo taken at proposed pothole location 3, facing northeast.

Photo taken at proposed pothole location 4, facing north.

Photo taken proposed pothole location 5, facing southeast.

Figure 3. Photographs of Existing Conditions

Water Pipeline Design from Harry Tracy Water Treatment Plant to the Town of Hillsborough Water System

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Photo taken at proposed pothole location 6, facing north.

Photo taken at proposed pothole location 8, facing south.

Photo taken at proposed pothole location 9, facing southeast.

Photo taken at proposed pothole location 10, facing southwest.

Figure 4. Photographs of Existing Conditions

Water Pipeline Design from Harry Tracy Water Treatment Plant to the Town of Hillsborough Water System

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2.5 Surrounding Land Uses and Setting

Land uses surrounding the project primarily include (Table 1):

City of Millbrae: Residential, commercial, public school and open space

City of Burlingame: Residential

County of San Mateo (Unincorporated Burlingame Hills): Residential

Town of Hillsborough: Residential, private school

Table 1. Land Use Designation by Municipality

MUNICIPALITY	ZONING	PERCENT WITHIN MUNICIPALITY
City of Millbrae	Single Family Residential (SFR)	75
	Duplex	4
	Multi-family Residential (MFR)	8
	Public Facility	1
	Planned Development	4
	Open Space	6
	Commercial	2
City of Burlingame	R-1	100
Town of Hillsborough	Residential	91
	Public Facility	5
	Private School	4

3.0 PROJECT DESCRIPTION

3.1 Project Background and Purpose

The Town of Hillsborough, along with input from the cities of Millbrae and Burlingame and the San Francisco Public Utilities Commission (SFPUC), considered three separate pipeline alignments for the proposed project in a 2021 Alternative Analysis Report (F&L 2021).[1] The goals of the three alignments in the 2021 Alternative Analysis Report include:

- Provide an additional connection to the Town's water supply from SFPUC's system in the higher-pressure zones (i.e., elevations greater than 400 feet) in the event water cannot be delivered from SFPUC to the Town's lower pressure zone.
- Provide a seismically resilient pipeline system that will result in cost savings due to reduced operational (i.e., pumping) costs.
- Provide a seismically resilient pipeline system adjacent to or within the WUI to increase additional fire suppression resources to protect critical water storage and distribution infrastructure as well as the residents of all three communities.
- Provide benefits to the neighboring cities of Millbrae and Burlingame.
- Increase seismic reliability for the Town's water distribution system.
- Provide an approximate target flow of 6 million gallons per day (MGD).

Additionally, the proposed pipeline would provide benefits to the cities of Millbrae and Burlingame. Potential benefits to Millbrae include a source of water supply to pressure zones

[1] The 2021 Alternative Analysis Report (F&L 2021) is available for review at the Town of Hillsborough Public Works Department, 1320 La Honda Road, Hillsborough, California.

and/or Mills Tank, operations and energy savings, and opportunity for emergency PS. The project would also benefit Millbrae and Burlingame by providing additional hydrants for fire suppression along Skyline Boulevard.

Following analysis of three proposed pipeline alignments detailed in a 2021 Alternative Analysis Report, the project's proposed pipeline alignment (Alignment 3) was selected by the Town, with agreement from Millbrae and Burlingame, as the preferred alternative. Alignment 3 is approximately 29,900 linear feet and parallels I-280 for most of the alignment, which is the current boundary of the WUI. Even though Alignment 3 has the most Earthquake Resistant Ductile Iron Pipe (ERDIP) required, all the fault crossings are perpendicular crossings. This makes it more of a preferred alignment when compared to seismic resiliency design required when a pipeline traverses parallel to a given fault, due to the complexities with fault motion resulting in multiple modes of failure that must be accommodated in the ERDIP design. With most of the alignment paralleling I-280, the project's pipeline alignment (Alignment 3) can be utilized to combat potential wildfires that cross I-280.

Alignment 3 also has the most potential for partner agencies to participate in the development, cost share and construction of the project. Alignment 3 proposes a new PS at the decommissioned Helen Tank Site which can also be utilized by Millbrae as an emergency PS. The project's required PS can be utilized for two purposes with daily use to meet the Town's demands while being available in an emergency to convey water from Millbrae's Zone IV to Zone III.

Alignment 3 can also provide a secondary source of supply to both Millbrae's and Burlingame's main storage tanks. Alignment 3 will convey flows to the Town's Darrell Tanks and supply the Town's average day demand (ADD) of 2.91 MGD, which will allow the Operation and Maintenance team to easily distribute water supply to 17 of the Town's 19 pressure zones. In addition, the Town is currently implementing a project to replace two of the three existing Darrell Tanks with a single, seismically resilient storage tank resulting in overall improved reliability for the Town's distribution and storage system.

The proposed project provides a highly reliable source of water to all three municipalities (Millbrae, Burlingame, and Hillsborough) immediately after large earthquakes that can occur on the nearby, highly active Serra and San Andreas faults, the Hayward and Calaveras faults, and other faults due to the background seismicity in the greater San Francisco Bay area. The project would also provide high fire flows simultaneously to multiple hydrants to combat wildland fires that may encroach into the three communities from the adjacent open space areas. The pipeline is designed to be seismically resilient for shaking, landslide, liquefaction, and surface fault displacement that can occur due to the design seismic event on the Serra Fault and/or fault zones in the vicinity of the pipeline alignment.

3.2 Existing Water Systems

The Town of Hillsborough provides potable water to approximately 4,300 customers, approximately 93% of which are single family residences. The remaining customers include the Town's facilities, six schools, and two golf courses. The Town purchases water from SFPUC through eight metered turnouts from SFPUC's Sunset Supply Pipeline and Crystal Springs Pipeline No. 2. The Town's existing water distribution system consists of 18 pressure zones with approximately 116 miles of water mains, 18 active storage facilities, and 14 PS. The Town's 18 storage tanks have a cumulative capacity of 8.66 million gallons (MG). The Town intends to implement future projects to consolidate two of the three existing Darrell Tanks and to

decommission the existing Crocker, Major Hayes, and Forestview Tanks. The proposed storage tank capital improvements consolidation will reduce the Town's total storage capacity to 7.01 MG.

The City of Millbrae provides potable water to approximately 6,500 customers, 72% of which are residential and 28% of which are commercial, landscape, and government purchasers. Millbrae purchases its water from the SFPUC via the HTWTP through a single, metered turnout or from the Hetch Hetchy Supply, which includes the Sunset Supply and Crystal Springs Pipeline No. 2 through four metered turnouts. Millbrae's distribution system consists of four major pressure zones with approximately 75 miles of water mains, six storage tanks, and two PS.

The City of Burlingame provides water to approximately 9,000 customers. Burlingame receives water through six metered turnouts and two emergency turnouts at Cortez Avenue and Newhall Road from SFPUC's Hetch Hetchy Supply, including the Sunset Supply, Crystal Springs Pipeline No. 2, and Crystal Springs Pipeline No. 3. Burlingame's distribution system consists of ten pressure zones (nine of which are located in Burlingame Hills), five storage tanks, and five PS, with 85% of the water supply delivered to the Aqueduct pressure zone and 15% delivered to the Hills pressure zone.

3.3 Proposed Water Pipeline Project Components

3.3.1 Supply Pipeline to New Pump Station

The proposed water pipeline begins from a connection to an existing turnout at Helen Drive near Meadows Elementary School in Millbrae and the proposed minimum 16-inch diameter pipeline will travel approximately 2,700 feet along Helen drive to the decommissioned Helen Tank site just east of Evergreen Way where the new PS is proposed to be located. Refer to Appendix A for a detailed Project Site Plan. The pipe diameters range from 16 to 24 inches depending on the flow demands with an ADD of 2.91 MGD delivered to the Town of Hillsborough.

Most or all the pipeline alignment will be installed by open cut methods within existing roads, with standard specifications and details for excavation, backfill, and surface restoration appropriate for the City of Millbrae. Approximately 2,500 cubic yards (CY) of material will be excavated and off hauled to install the pipeline from Helen Turnout to the new PS, with approximately 2,200 CY of fill material imported for trench cover and other purposes. The pipeline will be constructed of metal pipe sections, protected against corrosion using a combination of polyethylene wrap, zinc coatings or sacrificial anodes. In areas where the pipe traverses zones with potential sympathetic offset from the Serra fault, the pipe material will be Earthquake Resistant Ductile Iron Pipe (ERDIP) and Ductile Iron Pipe (DI).

The pipeline from the Helen turnout to the new PS is within the City of Millbrae. The City of Millbrae maintains and operates their own water, storm, and sanitary sewer system. Along with the governmental municipalities, PG&E, AT&T, and Comcast all have underground utilities throughout this segment of the proposed pipeline alignment. This segment of the proposed pipeline alignment will be parallel to the following utilities:

- 8-inch to 12-inch water mains
- 6-inch to 8-inch sanitary sewer gravity mains
- 2-inch to 4-inch gas mains
- Electrical conduits
- Comcast conduits

- AT&T conduits
- 12-inch to 36-inch storm drains

3.3.2 Pump Station

The project's new PS is proposed to be installed at the existing decommissioned Helen Tank site just east of Evergreen Way and west of Tioga Drive in Millbrae. The triangular-shaped, fenced Helen Tank site is in a residential neighborhood across Helen Drive from the Green Hills Country Club and includes a water tank and associated improvements, grassland, and several trees.

The proposed PS will be built with backup power to provide flows to each of the three water agencies and may require the removal of a limited number of trees at the Helen Tank site. The proposed PS will be enclosed within a concrete masonry unit building structure which would be designed to attenuate noise in accordance with local standards. Meters will be placed at four locations: the turnout to the SFPUC connection (Helen Turnout) and turnouts to each municipality. The proposed PS can also serve a dual purpose as the emergency PS identified by Millbrae in its Master Plan that would allow flows to be conveyed from Zone IV to Zone III in an emergency condition. The PS is also designed to provide higher fire flows under rare conflagration conditions.

3.3.3 Conveyance Pipeline Away from Pump Station to Darrell Tanks

From the proposed PS the pipeline continues back down Helen Drive in a westerly direction to Larkspur Drive where it traverses in a southerly direction to Skyline Boulevard. The proposed pipeline continues in a southeasterly direction along Skyline Boulevard and Vallejo Drive before making a deviation in the City of Burlingame, heading northeast at Frontera Way, southeast at Hunt Drive and southwest at Trousdale Drive, before continuing southeast along Skyline Boulevard. Within the Town of Hillsborough, the pipeline turns northeast along Chateau Drive and then southeast along Darrell Road before connecting to the Town's Darrell Tanks, located slightly southwest of Darrell Road.

Most, if not all, of the alignment will be installed by open cut installation methods (similar to the pipeline segment to the new PS). Installation shall follow standard specifications and details for excavation, backfill, and surface restoration from the City of Millbrae, City of Burlingame, San Mateo County, and Town of Hillsborough will be used. Approximately 25,000 cubic yards (CY) of material will be excavated and off hauled to install the pipeline from the new PS to Darrell Tanks, with approximately 21,800 CY of fill material imported for trench cover and other purposes. Pipe diameters would range from 16 to 24 inches, depending on the flow demands. Construction of the pipeline will occur primarily along existing residential streets and Skyline Boulevard (a well-traveled regional thoroughfare. Refer to Appendix A for a detailed Project Site Plan.

This segment of the pipeline will also be constructed of metal pipe sections, protected against corrosion using a combination of polyethylene wrap, zinc coatings or sacrificial anodes, depending on jurisdictional preferences. In areas where the pipe traverses zones with potential sympathetic offset from the Serra fault, the pipe material will be ERDIP and DI.

The proposed pipeline would meet an approximate average day demand flow of 6.0 MGD immediately after a design earthquake. In the event the SFPUC's Hetch Hetchy pipelines are offline, the pipeline would meet the average day demand flow continuously until the Hetch Hetchy pipelines are operational. The new pipe is designed to be seismically tolerant, including provisions for strong ground shaking from the nearby San Andreas fault, fault offset (including

sympathetic fault offset through the Serra fault zone), and landslide or liquefaction hazards along the alignment. The expected lifetime of the pipeline is anticipated to be 50 years or longer, with annual maintenance, including but not limited to exercising valves and fire hydrants, conducted to ensure system integrity.

The City of Millbrae, City of Burlingame, and Town of Hillsborough maintain and operate their own water, storm, and sanitary sewer system. Along with the governmental municipalities, PG&E, AT&T, and Comcast all have underground utilities throughout this segment of the proposed pipeline alignment. This segment of the proposed pipeline alignment will be parallel to the following utilities:

- 8-inch to 24-inch water mains
- 6-inch to 8-inch sanitary sewer gravity mains
- 1-inch to 6-inch gas mains
- Overhead electrical and communication lines
- Electrical conduits
- Comcast conduits
- AT&T conduits
- Gas transmission mains
- Fiber optic conduits
- 12-inch to 36-inch storm drains

Of the entire pipeline length from Helen Turnout to Darrell Tanks, approximately 13,900 feet will be installed in Millbrae, approximately 8,000 feet in Burlingame, and approximately 8,000 feet in Hillsborough.

3.3.4 Equipment, Staging, and Access

Construction staging is planned to occur along existing developed areas, including streets, parking areas, and utility infrastructure properties. Potholing will be necessary throughout the alignment to ensure clearances for existing utility lines are met and to determine if utility clearance waivers are required. Pile driving will not be required as part of the project.

Equipment anticipated to be used during construction includes, but is not limited to, the following:

- Excavators
- Rollers
- Mobile cranes
- Asphalt paving machines
- Trenchers
- Concrete mixer trucks
- Concrete pump
- Forklifts
- Dump trucks
- Suction hoses
- Discharge hoses
- Pump for dewatering purposes
- Geosynthetic fabric
- Plate compactors

- Track loaders
- Motor graders
- Scrapers
- Hydraulic vertical shoring systems

3.3.5 Project Schedule

Project construction is anticipated to take a total of 15 months, including approximately 12 months for construction of the new PS at the existing Helen Tank site, and approximately 100 linear feet of new pipeline installation every day. Work will take place during standard daytime construction hours except for work near Meadows Elementary School and Nueva School Hillsborough Campus, where work will be coordinated to minimize impacts to school activities (such as possible avoidance of student drop off and pickup times and consideration of potential construction during school breaks). The remaining 26,800 feet of the pipeline alignment is near residential and commercial areas that do not require special construction periods. Traffic would likely be restricted to single lanes with heavy traffic control, particularly in residential neighborhoods. Some full road closures and detours may be necessary in some locations. In addition, there are two fire stations located along the pipeline alignment in the City of Millbrae and Town of Hillsborough with rear exits to Skyline Boulevard. Construction schedules will be shared with, and if necessary, coordinated with Central County Fire Department to ensure no loss of access for fire response occurs.

3.4 Project-Related Approvals

The information contained in this Initial Study will be used by the Town of Hillsborough (the CEQA Lead Agency) as it considers whether to approve the proposed project. If the project is approved, the Initial Study would be used by the Town and responsible and trustee agencies in conjunction with various approvals and permits. These actions may include, but may not be limited to, the following approvals by the agencies indicated:

3.4.1 Town of Hillsborough

- Administrative Review

3.4.2 City of Millbrae

- Encroachment Permit
- Building Permit
- Tree Removal Permit

3.4.3 City of Burlingame

- Encroachment Permit

3.4.4 San Mateo County

- Encroachment Permit

4.0 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is potentially significant unless mitigation is incorporated, as indicated by the checklist on the following pages.

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

4.1 Determination

On the basis of this initial evaluation:

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

☒ I find that although the project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

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

☐ I find that the 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 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.

ERuess _____ May 9, 2024

Signature **Date**

Name and Title:
Liz Ruess, Assistant Director of Building & Planning

4.2 Initial Study Checklist

This section describes the existing environmental conditions in and near the Project Area and evaluates environmental impacts associated with the proposed project. The environmental checklist, as recommended in the CEQA Guidelines (Appendix G), was used to identify environmental impacts that could occur if the proposed project is implemented. The right-hand column in the checklist lists the source(s) for the answer to each question. The cited sources are identified at the end of this section.

Each of the environmental categories was fully evaluated, and one of the following four determinations was made for each checklist question:

> **"No Impact"** means that no impact to the resource would occur as a result of implementing the project.
>
> **"Less than Significant Impact"** means that implementation of the project would not result in a substantial and/or adverse change to the resource, and no mitigation measures are required.
>
> **"Less than Significant with Mitigation Incorporated"** means that the incorporation of one or more mitigation measures is necessary to reduce the impact from potentially significant to less than significant.
>
> **"Potentially Significant Impact"** means that there is either substantial evidence that a project-related effect may be significant, or, due to a lack of existing information, could have the potential to be significant.

4.2.1 Aesthetics

Would the project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	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)	In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the Project is in an urbanized area, would the Project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
d)	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

The project site is in the Town of Hillsborough and the Cities of Burlingame and Millbrae in San Mateo County, California. The project site extends generally from an existing SFPUC Helen Turnout on Helen Drive in the City of Millbrae and extends south through the City of Burlingame to the Darrell Tanks located along Darrell Road in the Town of Hillsborough. Surrounding areas are primarily in residential uses; however, small portions of the proposed pipeline alignment would be situated through areas zoned for commercial, open space, and public facility (See Section 2.6, Surrounding Land Uses and Setting). Photographs of the existing views throughout the project site are provided in Figure 3 and Figure 4.

DISCUSSION OF IMPACTS

a) Have a substantial adverse effect on a scenic vista?

Less than Significant Impact

The project site is primarily located throughout residential areas. Some areas of the project site would be located adjacent to parks, including Millbrae Meadows Park and Skyline Park; however, most of the project work would occur within existing roadways and at the decommissioned Helen Tank Site and would not obstruct expansive views that can be observed

from these parks. The Town of Hillsborough and City of Millbrae have not designated any scenic resources within the vicinity of the project site.

A portion of the project site would be located within a Scenic Roadway, as designated by the City of Burlingame (City of Burlingame 2019a). This portion would be located along the proposed pipeline alignment from the intersection of Trousdale Drive and Hunt Drive to the north and the intersection of Canyon Road and Skyline Boulevard to the south (Hillsborough Town limits). Goal HP-7 of the Burlingame General Plan protects local scenic resources, including Scenic Roadways. Policies under Goal HP-7 that are applicable to the proposed project include:

> **Policy HP-7.3: City and County Scenic Roadways**
>
> Protect local scenic roadways by preserving mature trees wherever possible, maintaining landscaping along roadways, and ensuring that development and land uses do not detract from the aesthetics of the corridor. Consider establishing specific design guidelines for residential development, commercial development, and roadways signage along scenic corridors.
>
> Scenic roadways to be considered for such treatment are:
>
> - Airport Boulevard,
> - California Drive between North Lane and Morrell Avenue,
> - Easton Drive between El Camino Real and Summit Drive,
> - Hillsdale Drive,
> - Skyline Boulevard from the city limit north of Kip Lane to Trousdale Drive,
> - Ralston Avenue, and
> - Trousdale Drive.

The proposed project work would take place within the existing roadway and at the decommissioned Helen Tank Site and would preserve mature trees and landscaping wherever possible. Project construction would constitute a temporary impact to scenic vistas along the Scenic Roadway stretch of the project site; however, the impacts would be temporary and would only last the duration of project construction. Because the project would involve construction of an underground water pipeline, only minimal permanent aboveground structures would be visible during project operation, including hydrants, turnouts, and a new PS. The new PS would be located at the Helen Tank Site, and therefore would not cause a significant change in the local scenery. As such, no impact to scenic vistas would occur during project operation. Therefore, although project construction would impact scenic vistas, the impact of construction work would be short-term in duration and would not cause damage to scenic resources, such as landscaping and trees, within the Scenic Roadway. The impact of the proposed project would be less than significant.

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

Less than Significant Impact

Interstate 280 (I-280) is an officially designated State scenic highway and runs parallel to the project site to the west. The northern extent of the project site is situated approximately ½ mile away from I-280, however the Interstate is as close as ten feet away from the project site in some areas. As such, some, but not all, portions of the project site would be located within a designated State scenic highway corridor. In sections where the project site is visible from I-280,

construction activities would temporarily degrade the quality of views within the scenic highway corridor due to the presence of construction equipment and signage. However, these impacts would be temporary and would not substantially damage scenic resources. There is a plethora of mature trees situated between the project site and I-280 which would be considered scenic resources within the Scenic highway corridor. Tree removal for the proposed project would only be required at the existing Helen Tank Site, which is not within the I-280 corridor. Therefore, the impact would be less than significant.

c) *In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?*

Less than Significant Impact

The project site is located entirely within urbanized areas which are primarily in residential use. There are no applicable zoning or other regulations governing scenic quality that the project would conflict with. Construction of the proposed project would temporarily degrade scenic quality within the project area due to the use of heavy-duty construction equipment and vehicles, construction signage, etc. These impacts from construction would only be temporary and would be less than significant. Project operation would result in similar views as existing conditions because most of the new infrastructure would be located underground. The only new aboveground structures resulting from the project would be minor structures such as fire hydrants, turnouts, and the new PS at the Helen Tank Site. The installation of these minor structures would not conflict with any applicable zoning or other regulations governing scenic quality. Therefore, the impact of the proposed project would be less than significant.

d) *Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?*

No Impact

The proposed project would not create a new source of substantial light or glare which would affect day or nighttime views in the area. During construction, all work would take place during daytime hours. Project operation would result in similar light and glare settings to the existing conditions because most of the proposed infrastructure would be located underground. The only permanent aboveground structures would be minor and would not include nighttime lighting. Therefore, no impact related to light and glare would occur from the proposed project.

4.2.2 Agricultural and Forestry Resources

Would the project:		*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*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?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

The project site and surrounding areas have been mapped as Urban Built-Up Land in the Farmland Mapping and Monitoring Program (FMMP) by the California Department of Conservation (California Department of Conservation 2022).

DISCUSSION OF IMPACTS

a-e) 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? Conflict with existing zoning for agricultural use, or a Williamson Act contract? 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))? Result in a loss of forest land or conversion of forest land to non-forest use?

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?

No Impact

There is no Farmland, forest land, or timberland located in the project area. The project site is mapped by the California Department of Conservation (CDC) as Urban and Built-Up Land (CDC 2022). The project would not convert Farmland, forest land, or timber land to non-agricultural use, or conflict with an existing zoning for agricultural use or a Williamson Act contract. No impact would occur.

4.2.3 Air Quality

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 Incorporated*	*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 in 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) affecting a substantial number of people?	☐	☐	☒	☐

ENVIRONMENTAL SETTING

The project site is located within the San Francisco Bay Area Air Basin (SFBAAB) which has natural characteristics that limit the ability of natural processes to either dilute or transport air pollutants. The major determinants of air pollution transport and dilution are climatic and topographic factors such as wind, atmospheric stability, terrain that influences air movement, and sunshine. Wind and terrain can combine to transport pollutants away from upwind areas, while solar energy can chemically transform pollutants in the air to create secondary photochemical pollutants such as ozone. The following discussion provides an overview of the environmental setting with regard to air quality in the SFBAAB.

Ambient Air Quality and Climate

The Bay Area has a Mediterranean climate characterized by wet winters and dry summers. During the summer, a high-pressure cell centered over the northeastern Pacific Ocean results in stable meteorological conditions and a steady northwesterly wind flow that generally keeps storms from affecting the California coast. During the winter, the Pacific high-pressure cell weakens, resulting in increased precipitation and the occurrence of storms. The highest air pollutant concentrations in the Bay Area generally occur during inversions, when a surface layer of cooler air becomes trapped beneath a layer of warmer air. An inversion reduces the amount of vertical mixing and dilution of air pollutants in the cooler air near the surface.

The San Francisco Peninsula region extends from northwest of San Jose to the Golden Gate. Cities in the southeastern peninsula, such as the Town of Hillsborough, City of Millbrae, and City of Burlingame, experience warmer temperatures and fewer foggy days because the marine layer

is blocked by the ridgeline to the west. These three communities experience average maximum summer temperatures in the low 70 degrees Fahrenheit and average minimum winter temperatures in the low 40 degrees Fahrenheit. The prevailing winds in the project area are generally from the west.

Air Pollutants of Concern

The California Air Resources Board (CARB) and United States Environmental Protection Agency (EPA) focus on the following air pollutants as regional indicators of ambient air quality:

- Ozone
- Coarse particulate matter (PM10)
- Fine particulate matter (PM2.5)
- Nitrogen dioxide
- Carbon monoxide
- Sulfur dioxide
- Lead

Because these are the most prevalent air pollutants known to be harmful to human health based on extensive criteria documents, they are referred to as "criteria air pollutants." In the SFBAAB, the primary criteria air pollutants of concern are ground-level ozone formed through reactions of oxides of nitrogen (NOx) and reactive organic gases (ROG), PM10, and PM2.5. Regional air pollutants, such as ozone, PM10, and PM2.5, can be formed and/or transported over long distances and affect ambient air quality far from the emissions source. The magnitude and location of specific health effects from exposure to increased ozone, PM10, and PM2.5 concentrations are the result of emissions generated by numerous sources throughout the SFBAAB, as opposed to a single project.

Localized air pollutants generally dissipate with distance from the emission source and can pose a health risk to nearby populations. Toxic air contaminants (TACs), such as diesel particulate matter (DPM), are considered localized pollutants. PM2.5 is also considered a localized air pollutant, in addition to being considered a regional air pollutant. Air dispersion models can be used to reliably quantify the health risks to nearby receptors associated with emissions of localized air pollutants from an individual project.

REGULATORY SETTING

Federal and State Regulations

The federal EPA is responsible for implementing the programs established under the Federal Clean Air Act, such as establishing and reviewing the National Ambient Air Quality Standards (NAAQS) and judging the adequacy of State Implementation Plans to attain the NAAQS. A State Implementation Plan must integrate federal, state, and local plan components and regulations to identify specific measures to reduce pollution in nonattainment areas, using a combination of performance standards and market-based programs. If a state fails to enforce its implementation of approved regulations, or if the EPA determines that a State Implementation Plan is inadequate, the EPA is required to prepare and enforce a Federal Implementation Plan to promulgate comprehensive control measures for a given State Implementation Plan.

CARB is responsible for establishing and reviewing the California Ambient Air Quality Standards (CAAQS), developing and managing the California State Implementation Plans, identifying TACs, and overseeing the activities of regional air quality management districts. In California, mobile

emissions sources (e.g., construction equipment, trucks, and automobiles) are regulated by CARB and stationary emissions sources (e.g., industrial facilities) are regulated by the regional air quality management districts.

In accordance with the Federal Clean Air Act and California Clean Air Act, areas in California are classified as either in attainment, maintenance (i.e., former nonattainment), or nonattainment of the NAAQS and CAAQS for each criteria air pollutant. To assess the regional attainment status, the Bay Area Air Quality Management District (BAAQMD) collects ambient air quality data from over 30 monitoring sites within the SFBAAB. Based on current monitoring data, the SFBAAB is designated as a nonattainment area for ozone, PM10 (CAAQS only), and PM2.5, and is designated an attainment or unclassified area for all other pollutants (Table 2).

Table 2. San Francisco Bay Area Air Basin Attainment Status with National Ambient Air Quality Standards

POLLUTANT	AVERAGING TIME	CAAQS		NAAQS	
		Concentration	Attainment Status	Concentration	Attainment Status
Ozone	8 Hours	0.070 ppm	N	0.070 ppm	N (marginal)
	1-Hour	0.09 ppm	N	Revoked in 2005	---
Carbon Monoxide	8 Hours	9.0 ppm	A	9 ppm	A
	1-Hour	20 ppm	A	35 ppm	A
Nitrogen Dioxide	1-Hour	0.18 ppm	A	0.100 ppm	U
	Annual	0.030 ppm	---	0.053 ppm	A
Sulfur Dioxide	24 Hours	0.04 ppm	A	0.14 ppm	A
	1-Hour	0.25 ppm	A	0.075 ppm	A
	Annual	---	---	0.030 ppm	A
Coarse Particulate Matter (PM10)	Annual	20 µg/m^3	N	---	---
	24 Hours	50 µg/m^3	N	150 µg/m^3	U
Fine Particulate Matter (PM2.5)	Annual	12 µg/m^3	N	12 µg/m^3	U/A
	24 Hours	---	---	35 µg/m^3	N (moderate)
Lead	30 Days	1.5 µg/m^3	A	---	---
	Calendar Quarter	---	---	1.5 µg/m^3	A
	Rolling 3 Months	---	---	0.15 µg/m^3	A

Source: BAAQMD 2017

Notes: CAAQS = California Ambient Air Quality Standards; NAAQS National Ambient Air Quality Standards; A = Attainment; N = Nonattainment; U = Unclassified; "---" = not applicable; ppm = parts per million; µg/m^3 = micrograms per cubic meter; PST = Pacific Standard Time.

Regional Regulatory Framework

The BAAQMD is primarily responsible for ensuring that the NAAQS and CAAQS are attained and maintained in the SFBAAB. The BAAQMD fulfills this responsibility by adopting and enforcing rules and regulations concerning air pollutant sources, issuing permits, inspecting stationary sources of air pollutants, responding to citizen complaints, and monitoring ambient air quality and meteorological conditions.

The BAAQMD has adopted thresholds of significance to assist lead agencies in the evaluation of ozone precursors (NOx and ROG), PM10, and PM2.5 emitted from individual projects that could have a cumulatively considerable contribution to adverse air quality in the SFBAAB. The BAAQMD's thresholds of significance are summarized in Table 3.

ASSESSMENT METHODOLOGY

The project's potential impacts related to air quality were evaluated in accordance with the current BAAQMD CEQA Air Quality Guidelines. The project's estimated emissions associated with ROG, NOx, PM10, and PM2.5 were compared to the BAAQMD's thresholds of significance presented in Table 3.

Table 3. BAAQMD Project-level Thresholds of Significance

IMPACT ANALYSIS	POLLUTANT	THRESHOLD
Regional Air Quality (Construction)	ROG	54 pounds/day (average daily emission)
	NOx	54 pounds/day (average daily emission)
	Exhaust PM10	82 pounds/day (average daily emission)
	Exhaust PM2.5	54 pounds/day (average daily emission)
	Fugitive dust (PM10 and PM2.5)	Best management practices
Regional Air Quality (Operation)	ROG	54 pounds/day (average daily emission) 10 tons/year (maximum annual emission)
	NO_x	54 pounds/day (average daily emission) 10 tons/year (maximum annual emission)
	PM10	82 pounds/day (average daily emission) 15 tons/year (maximum annual emission)
	PM2.5	54 pounds/day (average daily emission) 10 tons/year (maximum annual emission)
Local Community Risks and Hazards	Exhaust PM2.5 (project)	0.3 µg/m^3 (annual average)
	TACs (project)	Cancer risk increase > 10.0 in one million Chronic hazard index > 1.0
	Exhaust PM2.5 (cumulative)	0.8 µg/m^3 (annual average)
	TACs (cumulative)	Cancer risk > 100 in one million Chronic hazard index > 10.0

Source: BAAQMD 2023

Notes: ROG = reactive organic gases; NOx = oxides of nitrogen; PM10 = coarse particulate matter; PM2.5 = fine particulate matter; TACs = toxic air contaminants; µg/m3 = micrograms per cubic meter

DISCUSSION OF IMPACTS

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

Less than Significant Impact

The BAAQMD's 2017 Clean Air Plan is the applicable air quality plan for projects located in the SFBAAB. Consistency may be determined by evaluating whether the project supports the primary goals of the 2017 Clean Air Plan, including applicable control measures contained within the 2017 Clean Air Plan, and would not conflict with or obstruct implementation of any 2017 Clean Air Plan control measures. The primary goals of the 2017 Clean Air Plan are the attainment of ambient air quality standards and reduction of population exposure to air pollutants for the protection of public health in the Bay Area (BAAQMD 2017). As described further in Impact b), the project's air pollutant emissions would not result in a cumulatively considerable net increase in criteria air pollutants for which the region is in nonattainment or expose the local community to substantial air pollutant concentrations.

The 2017 Clean Air Plan includes control measures that aim to reduce air pollution and greenhouse gases (GHGs) from stationary, area, and mobile sources. The control measures are organized into nine categories: stationary sources, transportation, buildings, energy, agriculture, natural and working lands, waste, water, and super-GHG pollutants (e.g., methane, black carbon, and fluorinated gases). The consistency of the proposed project with control measures from the 2017 Clean Air Plan is summarized in Table 4.

Table 4. Project Consistency with BAAQMD 2017 Clean Air Plan

CONTROL MEASURES	PROPOSED PROJECT CONSISTENCY
Stationary Sources	**Consistent**. The stationary source measures are enforced by the BAAQMD pursuant to its authority to control emissions from permitted facilities. The project would include an emergency diesel generator at the proposed PS. Operation of the emergency backup generator would be subject to the BAAQMD's permitting requirements for stationary sources. Therefore, the proposed project would be consistent with the stationary source control measures of the 2017 Clean Air Plan.
Transportation	**Not applicable**. The transportation control measures are designed to reduce vehicle trips, use, miles traveled, idling, or traffic congestion for the purpose of reducing vehicle emissions. The project operation would not generate any additional vehicle trips compared to the existing conditions. Therefore, the transportation control measures of the 2017 Clean Air Plan are not applicable to the project.
Energy	**Not applicable**. The energy control measures are designed to reduce emissions of criteria air pollutants, TACs, and GHGs by decreasing the amount of electricity consumed in the Bay Area, as well as decreasing the carbon intensity of the electricity used by switching to less GHG-intensive fuel sources for electricity generation. Since these measures apply to electrical utility providers and local government agencies (and not individual projects), the energy control measures of the 2017 Clean Air Plan are not applicable to the project.

Buildings	**Not applicable**. The BAAQMD has authority to regulate emissions from certain sources in buildings such as boilers and water heaters, but has limited authority to regulate buildings themselves. Therefore, the building control measures focus on working with local governments that have authority over local building codes to facilitate adoption of best GHG control practices and policies. Since the project does not include any building construction, the building control measures of the 2017 Clean Air Plan are not applicable to the project.
Agriculture	**Not applicable**. The agriculture control measures are designed primarily to reduce emissions of methane. Since the project does not include any agricultural activities, the agriculture control measures of the 2017 Clean Air Plan are not applicable to the project.
Natural and Working Lands	**Not applicable**. The control measures for the natural and working lands sector focus on increasing carbon sequestration on rangelands and wetlands, as well as encouraging local governments to adopt ordinances that promote urban tree plantings. Since the project does not include the disturbance of any rangelands or wetlands, the natural and working lands control measures of the 2017 Clean Air Plan are not applicable to the project.
Waste Management	**Not applicable**. The waste management measures focus on reducing or capturing methane emissions from landfills and composting facilities, diverting organic materials away from landfills, and increasing waste diversion rates through efforts to reduce, reuse, and recycle. The project would generate a minimal amount of waste. Therefore, the waste management measures of the 2017 Clean Air Plan are not applicable to the project.
Water	**Consistent**. The water control measures to reduce emissions from the water sector will reduce emissions of criteria pollutants, TACs, and GHGs by encouraging water conservation, limiting GHG emissions from publicly owned treatment works (POTWs), and promoting the use of biogas recovery systems. The project would provide a highly reliable source of water to all three water agencies, including Millbrae, Burlingame, and Hillsborough, immediately after large earthquakes, as well as high-fire flows at multiple hydrants simultaneously to combat wildland fires that may encroach into the three communities from the adjacent high-fuel load open space. Because the project would improve the POTW water distribution system's seismic reliability, the proposed project would be consistent with the water control measures of the 2017 Clean Air Plan.
Super GHGs	**Not applicable**. The super-GHG control measures are designed to facilitate the adoption of best GHG control practices and policies through the BAAQMD and local government agencies. Since these measures do not apply to individual projects, the super-GHG control measures of the 2017 Clean Air Plan are not applicable to the project.

Source: BAAQMD 2017

As shown in Table 4, the project would be consistent with applicable control measures from the 2017 Clean Air Plan. Therefore, the project would not conflict with or obstruct implementation of the applicable air quality plan, and the impact would be less than significant.

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?

Less than Significant with Mitigation Incorporated

Project construction activities would generate criteria air pollutant emissions that could potentially affect regional air quality. During construction, the primary pollutant emissions of concern would be ROG, NOx, PM10, and PM2.5 from the exhaust of off-road construction equipment and on-road construction vehicles related to worker vehicles, vendor trucks, and haul trucks. In addition, fugitive dust emissions of PM10 and PM2.5 would be generated by soil disturbance and demolition activities, and fugitive ROG emissions would result from paving. The project's emissions of fugitive dust during construction are analyzed separately, further below.

The BAAQMD recommends using the most current version of the California Emissions Estimator Model (CalEEMod Version 2022.1) to estimate construction and operational emissions of pollutants from a project. CalEEMod uses widely accepted models for emission estimates combined with appropriate default data for a variety of land use projects that can be used if site-specific information is not available. A linear land use type was selected to model the project. The primary input data used to estimate emissions associated with construction of the project were provided by the applicant and contain information on construction duration, import and export volumes, construction related vehicle trips, trip lengths, and off-road construction equipment inventory and usage. A summary of the assumptions for estimating construction emissions is provided in Table 5. Construction information provided by the project applicant and a copy of the CalEEMod report for the proposed project, which summarizes the input parameters, assumptions, and findings, is included in Appendix B.

Table 5. Construction Assumptions for CalEEMod

CALEEMOD INPUT CATEGORY	CONSTRUCTION ASSUMPTIONS AND CHANGES TO DEFAULT DATA
Construction Phase	The project contains three concurrent construction phases: pavement removal, trench excavation, and asphalt paving. The construction duration was provided by the project applicant and is included in Appendix B. Construction of the project is anticipated to occur from January 2025 through March 2026 (15 months). For the air quality analysis, it was conservatively assumed that construction would occur from January 2024 through March 2025. Earlier construction start date would be more conservative because emissions of criteria air pollutants from project construction occurring in later years would be lower due to the increasingly stringent emissions standards and fleet turnover (including construction off-road equipment, trucks, and on-road passenger vehicles).

Construction Equipment	The on-site construction equipment list was modified according to site-specific construction information provided by the project applicant (Appendix B).
Material Movement	Approximately 27,500 cubic yards of soil would be off-hauled and about 24,000 cubic yards of material would be imported for the project.
Worker, Vendor, and Hauling Trips	Construction vehicle trips, trip lengths, and fleet mix were provided by the applicant (Appendix B).
Paved Area	To estimate off gassing from asphalt paving, it was conservatively assumed the total new pavement area would be 8 acres, based on a 12-foot-wide lane and 29,900 linear feet of pipeline.

Source: CalEEMod Report, Appendix B
Notes: Default CalEEMod data used for all other parameters that are not described.

To analyze daily emission rates, the total emissions estimated during construction were averaged over the total working days (326 days) and compared to the BAAQMD's thresholds of significance. As shown in Table 6, the project's estimated emissions for ROG, NOx, and exhaust PM10 and PM2.5 during construction were below the thresholds of significance and, therefore, would not result in a cumulatively considerable net increase in criteria air pollutants for which the region is in nonattainment.

Table 6. Estimated Construction Emissions (Pounds Per Day)

EMISSIONS SCENARIO	ROG	NO_x	EXHAUST PM10	EXHAUST PM2.5
Construction Emissions	20.2	4.3	0.11	0.1
BAAQMD CEQA Thresholds of Significance	54	54	82	54
Threshold Exceedance?	**No**	**No**	**No**	**No**

Source: CalEEMod Report, Appendix B

The generation of fugitive dust PM10 and PM2.5 emissions from soil disturbance activities could result in a cumulatively considerable net increase in regional PM10 and PM2.5 concentrations. The BAAQMD does not have a quantitative threshold of significance for fugitive dust PM10 and PM2.5 emissions; however, the BAAQMD considers implementation of dust control measures during construction sufficient to reduce air quality impacts from fugitive dust to a less-than-significant level. The project would implement Mitigation Measure AQ-1, which contains Basic Best Management Practices (BMPs) from the BAAQMD's CEQA Guidelines. Implementation of Mitigation Measure AQ-1 would ensure that project construction activities would not result in a cumulatively considerable net increase in criteria air pollutants for which the region is in nonattainment. The impact would be less than significant with mitigation incorporated.

Project operation would include maintenance and testing of an emergency diesel generator at the proposed new PS at Helen Tank site, which would generate criteria air pollutant emissions that could potentially affect regional air quality. The primary pollutant emissions of concern would be ROG, NOx, and exhaust PM10 and PM2.5. Project emissions were estimated for 2027, when construction of the pipeline would be complete. Emissions of ROG, NOx, PM10, and PM2.5

during project operation were estimated using CalEEMod Version 2022.1. It was assumed that a 1,000-kilowatt emergency diesel generator would be required for the project, and the generator would be used for non-emergency operation up to 50 hours per year for routine testing and maintenance.

The estimated maximum annual emissions and average daily emissions during the operational phase of the proposed project are compared to the BAAQMD's thresholds of significance in Table 7. The estimated emissions for ROG, NOx, and exhaust PM10 and PM2.5 during operation were below the thresholds of significance. Therefore, the increase in ROG, NOx, and exhaust PM10 and PM2.5 concentrations from project operation would not result in a cumulatively considerable net increase in criteria air pollutants for which the region is in nonattainment and the impact on regional air quality would be less than significant.

Table 7. Estimated Operation Emissions

EMISSIONS SCENARIO	MAXIMUM ANNUAL EMISSIONS (TONS)				AVERAGE DAILY EMISSIONS (POUNDS)			
	ROG	NO_x	PM10	PM2.5	ROG	NO_x	PM10	PM2.5
Generator	0.04	0.18	0.01	0.01	0.22	1.0	0.03	0.03
BAAQMD CEQA Thresholds of Significance	10	10	15	10	54	54	82	54
Threshold Exceedance?	**No**	**No**	**No**	**No**	**No**	**No**	**No**	**No**

Source: CalEEMod Report, Appendix B

c) Expose sensitive receptors to substantial pollutant concentrations?

Less than Significant Impact

Sensitive receptors are groups of people that are more affected by air pollution than others. CARB has identified that the following persons are considered air quality sensitive receptors: children, elderly, asthmatics, and others whose are at a heightened risk of negative health outcomes due to exposure to air pollution (CARB 2023). Locations that may contain a high concentration of these sensitive population groups include residential areas, schools, hospitals, daycare facilities, and elder care facilities. The nearest sensitive receptors to the project site are the residents of the residential areas surrounding the proposed pipeline alignment.

Construction activities could generate DPM and PM2.5 emissions from off-road diesel construction equipment and on-road heavy-duty diesel trucks that could potentially result in elevated health risks at nearby sensitive receptors. The BAAQMD recommends evaluating a project's potential health risks to sensitive receptors within 1,000 feet of the project during project construction.

As mentioned above, construction of the project is anticipated to begin in early 2025 and is expected to occur over a period of approximately 15 months. It is anticipated that

approximately 100 linear feet of pipeline can be installed per workday.[2] In other words, for a given sensitive receptor, the construction activities would move out of the 1,000 feet zone of influence in about ten workdays. The Office of Environmental Health Hazard Assessment does not recommend assessing cancer risk for projects lasting less than two months due to the uncertainty in assessing cancer risk from short-term exposures. As construction activities within the 1,000 feet zone of influence of any given sensitive receptor would last less than two months, a health risk assessment was not conducted, and the short-term project construction emissions are presumed to be negligible. According to project-specific construction information, most of the construction offroad equipment that is going to be used for this project would be equipped with Tier 4 engines, which are considered the best available technology for reducing DPM emissions. Therefore, the impact would be less than significant.

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

Less than Significant Impact

Some odors would be generated during project construction due to the use of gasoline- and/or diesel-powered construction equipment that emit exhaust fumes. These activities would take place intermittently throughout the workday and the associated odors would dissipate within the immediate vicinity of the work area. Persons near the construction work area may find these odors objectionable; however, the project would not include uses that have been identified as potential sources of objectionable odors, such as restaurants, manufacturing plants, landfills, and agricultural and industrial operations.

During operation, no odor impacts associated with the water pipeline would be expected. The impact would be less than significant.

MITIGATION MEASURES

Mitigation Measure AQ-1

The project shall implement BMPs as recommended by the BAAQMD 2022 CEQA Air Quality Guidelines, which include the following measures:

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
- All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 mph.
- 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.

[2] Lorraine Htoo with Freyer & Laureta, 2023. Email Communication with Baseline Environmental Consulting. October 19.

- 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.
- All construction equipment shall be maintained and properly tuned in accordance with the manufacturers' specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.

4.2.4 Biological Resources

Would the project:		*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*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 U.S. 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?	☐	☐	☐	☒

On August 29, 2023, WRA, Inc. (WRA) biologists visited the project site to map vegetation and unvegetated land cover types, document plant and wildlife species presence, and evaluate habitat for the potential to support special-status species as defined by CEQA. The research and

survey methodology and results of these surveys are summarized in the following sections. Information in this section relies on the Biological Resources Technical Report (BRTR, Appendix C) prepared by WRA biologists in October 2023.

REGULATORY SETTING

Endangered and Threatened Plants, Fish, and Wildlife

Specific species of plants, fish, and wildlife may be designated as threatened or endangered by the Federal Endangered Species Act (ESA), or the California Endangered Species Act (CESA). Specific protections and permitting mechanisms for these species differ under each of these acts, and a species' designation under one law does not automatically provide protection under the other.

The ESA (16 USC 1531 et seq.) is implemented by the United States Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS). The USFWS and NMFS maintain lists of "endangered" and "threatened" plant and animal species (referred to as "listed species"). "Proposed" or "candidate" species are those that are being considered for listing and are not protected until they are formally listed as threatened or endangered. Under the ESA, authorization must be obtained from the USFWS or NMFS prior to the take of any listed species. "Take" under the ESA is defined as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." Take under the ESA includes direct injury or mortality to individuals, disruptions in normal behavioral patterns resulting from factors such as noise and visual disturbance and impacts to habitat for listed species. Actions that may result in "take" of an ESA-listed species may obtain a permit under ESA Section 10, or via the interagency consultation described in ESA Section 7. Federally listed plant species are only protected when take occurs on federal land.

The ESA also provides for designation of critical habitat, which are specific geographic areas containing physical or biological features "essential to the conservation of the species." Protections afforded to designated critical habitat apply only to actions that are funded, permitted, or carried out by federal agencies. Critical habitat designations do not affect activities by private landowners if there is no other federal agency involvement.

The CESA (California Fish and Game Code (CFGC) 2050 et seq.) prohibits a "take" of any plant and animal species that the California Fish and Game Commission determines to be an endangered or threatened species in California. CESA regulations include take protection for threatened and endangered plants on private lands, as well as extending this protection to "candidate species" which are proposed for listing as threatened or endangered under CESA. The definition of a "take" under CESA ("hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill") only applies to direct impact to individuals, and does not extend to habitat impacts or harassment. The California Department of Fish and Wildlife (CDFW) may issue an Incidental Take Permit under CESA to authorize take if it is incidental to otherwise lawful activity and if specific criteria are met. Take of these species is also authorized if the geographic area is covered by a Natural Community Conservation Plan (NCCP), if the NCCP covers that activity. CDFW may also authorize take for voluntary restoration projects through the Restoration Management Permit.

Fully Protected Species and Designated Rare Plant Species

This category includes specific plant and wildlife species that are designated in the CFGC as protected even if not listed under CESA or the ESA. Fully Protected Species includes specific lists

of birds, mammals, reptiles, amphibians, and fish designated in the CFGC. Fully protected species may not be taken or possessed at any time. No licenses or permits may be issued for the take of fully protected species, except for necessary scientific research and conservation purposes. The definition of "take" is the same under the CFGC and the CESA.

Special Protections for Nesting Birds and Bats

The federal Bald and Golden Eagle Protection Act provides relatively broad protections to both of North America's eagle species (bald [Haliaeetus leucocephalus] and golden eagle [*Aquila chrysaetos*]) that in some regards are like those provided by the ESA. In addition to regulations for special-status species, most native birds in the U.S., including non-status species, have baseline legal protections under the Migratory Bird Treaty Act of 1918 (MBTA) and CFGC, i.e., Sections 3503, 3503.5 and 3513. Under these laws/codes, the harm or collection of adult birds as well as the collection or destruction of active nests, eggs, and young is illegal. For bat species, the Western Bat Working Group designates conservation status for species of bats, and those with a high or medium-high priority are typically given special consideration under CEQA (Western Bat Working Group 2021).

Species of Special Concern, Movement Corridors, and Other Special-Status Species under CEQA

A Species of Special Concern is a species formally designated by CDFW which meet one or more criteria related to federal ESA status (if it is not listed under CESA), extirpation from California, documented population declines, or small population size within California and risk of declines. Section 15280 of the CEQA Guidelines states that species of special concern must be included in project impact analyses. In addition, CDFW has developed a special animals list as "a general term that refers to all of the taxa the CNDDB is interested in tracking, regardless of their legal or protection status." This list includes lists developed by other organizations, including for example, the Audubon Watch List Species, the Bureau of Land Management Sensitive Species, and USFWS Birds of Special Concern. Plant species on the California Native Plant Society (CNPS) Rare Plant Inventory (Inventory; CNPS 2023) with California Rare Plant Ranks (Rank) of 1 and 2, as well as some with a Rank of 3 or 4, are also considered special-status plant species and must be considered under CEQA. Some Rank 3 and Rank 4 species are typically only afforded protection under CEQA when such species are particularly unique to the locale (e.g., range limit, low abundance/low frequency, limited habitat) or are otherwise considered locally rare. Additionally, any species listed as sensitive within local plans, policies and ordinances are likewise considered sensitive. Movement and migratory corridors for native wildlife (including aquatic corridors) as well as wildlife nursery sites are given special consideration under CEQA.

Town of Hillsborough

General Plan

The Town's General Plan contains the following relevant policies related to biological resources:

> **Policy OSC-3.3:** Continue to preserve and protect valuable native tree life, such as redwoods, oaks, and bays, while recognizing the need to allow for the gradual replacement of trees to provide for on-going natural renewal.
>
> **Policy OSC-3.4:** Enforce the Tree Removal Ordinance and require development proposals to provide adequate information to all Town staff to assess the Project's impact on tree removal.
>
> **Policy OSC-3.5:** Require property owners to replace removed native trees in a manner that maintains the visual character of the property and takes neighboring properties into

consideration. The replacement trees may be located on other parts of the lot, as approved by the Town.

Policy OSC-3.7: Encourage the removal of non-native tree species, such as eucalyptus and acacia trees, that increase hazards for the community. Removed non-native trees should be replaced with native trees.

Policy OSC-3.11: Preserve and protect rare and endangered species, and their habitats.

Policy OSC-3.12: When appropriate, require proponents of projects to complete biological surveys necessary to ensure compliance with all local, regional, State, and federal regulations regarding biological resources. When negative impacts to biological resources are unavoidable, mitigation measures, such as conservation easements, will be required to reduce them.

City of Burlingame

General Plan

The City of Burlingame's General Plan contains the following relevant policies related to biological resources:

Policy HP-5.1: Wildlife Habitats. Preserve critical habitat areas and sensitive species within riparian corridors, hillsides, canyon areas, tree canopies, and wetlands that are within the City's control. Consult with the California Department of Fish and Wildlife to identify and map significant habitat areas and focus protection measures on habitats with special-status species. Protect declining or vulnerable habitat areas from disturbance during design and construction of new development.

Policy HP-5.2: Migratory Birds. Identify and protect habitats that contribute to the healthy propagation of migratory birds, including trees and natural corridors that serve as stopovers and nesting places. Avoid construction activities that involve tree removal between March and June unless a bird survey has been conducted to determine that the tree is unused during breeding season by avian species protected under California Fish and Game Codes 3503, 3503.5 and 3511.

Policy HP-5.5: Protection and Expansion of Tree Resources. Continue to preserve and protect valuable native trees, and introduce species that contribute to the urban forest but allow for the gradual replacement of trees for on-going natural renewal. Consider replacement with native species. Use zoning and building requirements to ensure that existing trees are integrated into new developments.

Policy HP-5.6: Tree Preservation Ordinance. Continue to adhere to the Burlingame Tree Preservation Ordinance (Burlingame Municipal Code Title 11); ensure the preservation of protected trees as designated by the ordinance, and continue to be acknowledged by the Arbor Day Foundation as a Tree City USA.

Policy HP-5.7: Urban Forest Management Plan. Continue to update and use the Burlingame Urban Forest Management Plan, which integrates the environmental, economic, political, historical, and social values for the community, for guidance on best management practices related to tree planting, removal, and maintenance, including onsite protection of extant trees and street trees during projects.

Policy HP-5.8: Invasive Plant Species. Discourage the use of invasive plant species in environmentally sensitive areas. Where species have already invaded and have been

shown to be detrimental, establish plans for removal where appropriate. Ensure that new development obtains appropriate permits and approvals related to invasive species from the Army Corps of Engineers and other relevant agencies.

Policy HP-5.11: Canyon and Hillside Protection. Protect Burlingame's canyon and hillside areas by ensuring that construction adjacent to these spaces is environmentally sensitive and preserves natural topography and vegetation.

Policy HP-5.13: Regional Coordination. Coordinate efforts with the San Mateo County Flood Control District, Caltrans, San Francisco Airport, Peninsula Watershed lands, and Coyote Point Recreation Area to preserve and manage interconnecting wildlife movement corridors.

Policy HP-5.14: Compliance with Environmental Laws. Ensure that all projects affecting resources of regional concern satisfy regional, State, and federal laws.

City of Millbrae

General Plan

The City of Millbrae's General Plan contains the following policies related to biological resources:

Policy NRC-10: Habitat Protection. The City shall protect sensitive biological resources, including habitats of State and Federally designated sensitive, rare, threatened, and endangered plant, fish, and wildlife species from urban development and incompatible land uses through analysis in the CEQA and permitting process. If new development results in impacts to any of these resources, loss of habitat should be fully compensated on-site whenever it is feasible to do so. If off-site mitigation is necessary, it should occur within the City of Millbrae whenever it is feasible to do so.

Tree Protection and Urban Forestry Program

The City of Millbrae Tree Protection and Uban Forestry Program requires a permit for the removal, pruning, and maintenance of Street Trees from any parcel of property in the City of Millbrae. The Program defines a "Street Tree" as:

1. Any woody perennial plant located in any street, including parking strips, having a single main axis or stem commonly achieving a minimum of ten feet in height and capable of shaping and pruning to develop a branch-free trunk at least nine feet in height.

METHODOLOGY

On August 29, 2023, WRA biologists visited the project site to map land cover types; document plant and wildlife species present; and evaluate on-site habitat for the potential to support special-status species as defined by CEQA. Prior to the site visit, WRA biologists reviewed literature resources and performed database searches to assess the potential for sensitive land cover types and special-status species, including:

- Soil Survey of San Mateo County, Eastern Part, and San Francisco County, California (USDA 1991)
- Montara Mountain 7.5-minute U.S. Geological Survey (USGS) quadrangle (USGS 2023)
- Contemporary aerial photographs (Google Earth 2023)
- Historical aerial photographs (National Environmental Title Research 2023)
- National Wetlands Inventory (USFWS 2023a)

- California Aquatic Resources Inventory (San Francisco Estuaries Institute 2017)
- California Natural Diversity Database (CNDDB) (CDFW 2023b)
- CNPS Inventory (CNPS 2023b)
- Consortium of California Herbaria (CCH1 2023, CCH2 2023)
- USFWS Information for Planning and Consultation (USFWS 2023b)
- eBird Online Database (Cornell Lab of Ornithology 2023)
- California Bird Species of Special Concern in California (Shuford and Gardali 2008)
- California Amphibian and Reptile Species of Special Concern (Thomson et al. 2016)
- A Field Guide to Western Reptiles and Amphibians (Stebbins 2003)
- A Manual of California Vegetation, Online Edition (CNPS 2023a)
- California Natural Community List (CDFW 2023a)
- Database searches (i.e., CNDDB, CNPS) for special-status species focused on the Montara Mountain, San Francisco South, Hunters Point, San Mateo, Woodside, and Half Moon Bay USGS 7.5-minute quadrangles.

Following the remote assessment, WRA completed a field review to document: (1) land cover types (e.g., vegetation communities, aquatic resources), (2) existing conditions and to determine if such provide suitable habitat for any special-status plant or wildlife species, (3) if and what type of aquatic land cover types (e.g., wetlands) are present, and (4) if special-status species are present. The field review did not constitute a protocol-level survey for any special-status species.

DISCUSSION OF IMPACTS

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 Wildlife (CDFW) or United States Fish and Wildlife Service (USFWS)?*

Special-status Plant Species

No Impact

Based upon a review of the resource databases listed in the Methodology Section above, 85 special-status plant species have been documented in the vicinity of the project site. None of these species were determined to have the potential to occur or are unlikely to occur within the project site due to one or more of the following:

- The project site does not contain the necessary hydrologic, edaphic (soil), topographic, and pH conditions necessary to support the special-status species.
- Associated natural communities necessary to support the special-status species are not present within the project site.
- The project site is geographically isolated from the documented range of the special-status plant species.
- The historical landscape and/or habitat(s) of the project site were not suitable habitat prior to land/type conversion to support the special-status plant species.
- Land use history and contemporary management has degraded the localized habitat necessary to support the special-status plant species.

- Portions of the project site are mapped as having serpentine-derived soils. However, all areas mapped as serpentine within the project site have been developed and are no longer intact. There are several special-status plant species with affinity to serpentine soils that have been documented within the vicinity of the project site; however, there is no longer suitable habitat for the species in the area of the project.

WRA biologists did not observe any special-status plant species during the August 29, 2023, site visit. Because no special-status plant species were observed on the project site, and special-status plant species have no potential or are unlikely to occur on the project site, the proposed project would have no impact on special-status plant species.

Special-Status Wildlife Species

Less than Significant with Mitigation Incorporated

The BRTR concluded that one special-status bird species, white-tailed kite, may nest in trees within the project site or in the immediate vicinity. In addition to special-status nesting birds, common avian species may also nest within the project site and may be similarly affected by project activities. Project activities proposed within the project site may directly impact the nests of protected species or may impact these species through visual and auditory disturbance sufficient to cause nest abandonment. Due to the protected status of these species under both the MBTA and CFGC, impacts to special-status and common, native nesting birds would be considered a potentially significant impact under CEQA. The project would implement Mitigation Measure BIO-1 to reduce impacts to special-status birds and common, native nesting birds to a less than significant level.

Moreover, common bats protected under the CFGC may also roost within and around the project site. Project construction activities could directly impact non-status bat roosting through visual, vibratory, and auditory disturbance. Activities that result in the direct removal of active roosts or disturbance to maternity roosting bats sufficient to result in the abandonment of the roost are a potentially significant impact under CEQA. The project would implement Mitigation Measure BIO-2 to reduce potential impacts to special-status and non-status roosting bats to a less than significant level.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or USFWS?

No Impact

There are no riparian habitats or other sensitive natural communities located within the project site. Therefore, no impact would occur.

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?

No Impact

There are no state or federally protected wetlands located within the project site. Therefore, no impact would occur.

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?

Less than Significant Impact

Wildlife movement between suitable habitat areas can occur via open space areas lacking substantial barriers. WRA biologists reviewed maps from the California Essential Connectivity Project (CalTrans 2010), and habitat connectivity data available through the CDFW Biogeographic Information and Observation System (CDFW 2020). Additionally, aerial imagery for the local area was referenced to assess if local core habitat areas were present within, or connected to, the project site. This assessment was refined based on observations of on-site physical and/or biological conditions, including topographic and vegetative factors that can facilitate wildlife movement, as well as on-site and off-site barriers to connectivity.

The project site is mapped within the Essential Connectivity Areas geospatial dataset, which uses habitat modelling to identify areas of land with value as wildlife corridors (CDFW 2023c). The mapped portion is classified in this dataset as Class 1-3, meaning that wildlife may use the project site as a corridor, but it is of medium to higher resistance to ecological flow (Spencer et al. 2010). Additionally, while there is open space that provides habitat for many special-status and common species, the project site is east of Highway 280 which already acts as a significant barrier to wildlife movement from the west. To the east of the project site, dense residential development also acts as a barrier. The project site is highly developed, and while common wildlife species presumably utilize the site to some degree for movement at a local scale, the project site itself does not provide corridor functions beyond connecting similar developed land parcels in surrounding areas. Furthermore, the project would include installation of an underground pipeline and does not propose the addition of fencing, new roads, or other barriers which could change wildlife movement or create impediments to existing movement.

Examples of native wildlife nursery sites include nesting sites for native bird species (particularly colonial nesting sites), marine mammal pupping sites, and colonial roosting sites for other species (such as for monarch butterfly [*Danaus plexippus*]). The BRTR concluded that there are no native wildlife nursery sites within the project site.

While some wildlife species may travel through the project site, the proposed project would not interfere substantially with the movement of wildlife species or with established wildlife corridors and would not impede the use of wildlife nursery sites. The impact would be less than significant.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Less than Significant with Mitigation Incorporated

Construction of the proposed new PS at the Helen Tank Site in the City of Millbrae may require the removal of a limited number of trees. Trees that qualify as “street trees” are protected under the City of Millbrae Tree Protection and Urban Forestry Program. The project applicant will comply with all applicable requirements of this program, including obtaining applicable permits and implementing associated mitigation measures for the removal of any protected trees.

Various policies contained in the Town of Hillsborough, City of Burlingame, and City of Millbrae General Plans enforce protection of biological resources such as sensitive habitats and special-

status species. As described in Impact b), the project would not impact any sensitive natural community. The project could potentially impact special-status wildlife species during construction; however, these impacts would be mitigated to a less than significant level with the implementation of Mitigation Measure BIO-1 and BIO-2. Therefore, with implementation of these measures, the project would not conflict with any local policies or ordinances protecting biological resources. The impact would be less than significant with mitigation incorporated.

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?

No Impact

The project site is within San Mateo County but is located outside the scope of the San Bruno Mountain Habitat Conservation Plan. There is no habitat conservation plan, natural community conservation plan, or other approved conservation plan for the project area, and therefore the project would not conflict with any such plan. No impact would occur.

MITIGATION MEASURES

Mitigation Measure BIO-1

To the extent feasible, project-related activities shall be avoided during the nesting bird season, generally defined as February 1 – August 31. If project work must occur during the nesting bird season, pre-construction nesting bird surveys shall be conducted within 14 days of initial ground disturbance in new areas to avoid disturbance to active nests, eggs, and/or young of nesting birds. These surveys will determine the presence or absence of active nests that may be affected by project activities. It is also recommended that any trees and shrubs in or adjacent to the project site that are proposed for removal and could be used as avian nesting sites be removed during the non-nesting season (September 1 through January 31).

If an active nest is located, a no-disturbance buffer shall be established around the nest until all young have fledged or the nest otherwise becomes inactive (e.g., due to predation). Suggested buffer zone distances differ depending on species, location, baseline conditions, and placement of nest and shall be determined and implemented in the field by a qualified biologist.

Mitigation Measure BIO-2

At least 30 days prior to the removal of any large trees (diameter at breast height>16 inches), a bat roost assessment shall be conducted by a qualified biologist to determine if potential roost habitat is present. If trees to be removed have no potential to support roosting bats (e.g., no large basal cavities, exfoliating bark, interstitial spaces, or suitable foliage), project work may be initiated with no further measures required to protect roosting bats.

If potential bat roost habitat is present, and work is occurring between September 1 and April 30 (outside of the maternity season), the qualified biologist shall conduct an emergence survey no more than 7 days prior to tree removal or ground disturbance to determine if the roost is occupied. If the emergence survey confirms the roost is inactive, ground disturbance may be initiated, and trees may be felled with no further measures required to protect roosting bats.

If a tree roost is confirmed active or is assumed to be active outside of the maternity season and cannot be avoided by project activities, a two-phased cut shall be employed to remove the tree. The qualified biologist shall oversee removal of branches and small limbs not containing

potential bat roost habitat using hand tools such as chainsaws or handsaws. The following day, the rest of the tree may be removed.

If potential bat roosting habitat is present and work is occurring during the maternity season (May 1–August 31), the qualified biologist may either conduct an emergence survey to determine if the roost is occupied; or assume the roost is occupied and a buffer shall be implemented. If the emergence survey does not detect bats, the tree may be removed, or ground disturbance may be initiated with no further measures required to protect roosting bats. If roosting bats are detected, or the tree or other suitable habitat is assumed to be an active maternity roost, the roost shall be given a 100-foot buffer within which construction activities shall be avoided until the roost is determined no longer active or the maternity season is complete.

4.2.5 Cultural Resources

Would the project:		*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
a)	Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	☐	☒	☐	☐
b)	Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	☐	☒	☐	☐
c)	Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☒	☐	☐

Alta Archaeological Consulting (Alta) prepared an Archaeological Survey Report for the project in October 2023 (DeGeorgey 2023). The study was designed to identify any cultural resources located within the project area. The study included a records search at the Northwest Information Center located on the campus of Sonoma State University, a review of historical maps, an ethnographic literature review, Native American outreach, and a field survey of the project site. Information in this section is adapted from and relies on the Archaeological Survey Report. The report is available for review at the Town by qualified individuals only.

ENVIRONMENTAL SETTING

Prehistory

The development of complex hunter-gatherer societies in the Bay Area first appears about 4,000 years ago. Cultural complexity, social stratification, and population density and resource intensification increase through time. Proto-Utian groups, speakers of Costanoan and Miwok languages, are thought to have entered the Bay Area through the Delta Region about 4,500 years ago, displacing Hokan speakers within this region (Moratto 1984).

Through its long history, the region defined by the Bay Area, North Coast Ranges, and Sacramento Delta Region has witnessed many population movements, pulses of cultural complexity and recession, and a complex interplay of cultural and environmental influences. Currently, four archaeological patterns have been clearly identified in the Bay Area region: the Borax Lake Pattern, Windmiller Pattern, Berkeley Pattern, and Augustine Pattern.

The Borax Lake Pattern (6,000 to 8,000 before present [BP]) demonstrates a reliance on seed processing evidenced by higher frequencies of milling slabs and hand stones in assemblages, which suggests an emphasis of plant resources at the expense of hunting. This subsistence shift has been suggested to be a response to a major mid-Holocene climatic change toward warmer and drier conditions when former wetlands and lakes were greatly reduced in extent (Fredrickson 1974). Most artifacts are manufactured from local materials and exchange presumably occurred in an ad hoc fashion. Wealth does not appear to have been emphasized, and the social unit probably consisted of the extended family (White et al. 2002).

The Windmiller Pattern (2,000-5,000 BP) begins during the Middle Archaic Period and represents the arrival and initial diversification of Utian languages from the Columbia Plateau or Western Great Basin (Moratto 1984). Windmiller assemblages are present in the Delta region dating some time before 2500 B.C. By circa 1,800 B.C., a strong Windmiller influence had spread west to the San Francisco Bay shoreline (Elsasser 1978).

The Berkeley Pattern dates to the Middle and Upper Archaic Period (1,500–6,000 BP). It appears to have developed in the Bay Area region as early as the Lower Archaic period, and later spread to surrounding coastal and interior areas of central California. Most sites representing this pattern date to the Middle Archaic. Berkeley Pattern assemblages may be associated with expansion of Miwok groups from the Bay Region eastward into the Valley and beyond. Virtually all the early Berkeley Pattern settlements were located near coastal or bayshore marshlands. These remarkably productive ecosystems offered fish, shellfish, waterfowl, shore birds, mammals, and marsh plants, and thus were able to sustain large aboriginal populations.

The Augustine pattern within the Later or Emergent Period (AD 500–1800) is the final prehistoric pattern identified within the North Coast Ranges, San Francisco Bay Area, and Sacramento Delta regions (Fredrickson 1973). It is distinguished by the emergence of distinctive "cultural climax" areas, generally characterized by large, dense populations, social stratification, complex exchange systems, and elaborate ceremonialism (Fredrickson 1973). Characteristic artifacts include small corner-notched and triangular arrowhead projectile points, clam shell disk beads, bead drills, magnesite cylinders, "banjo" type *Haliotis* ornaments, bedrock mortars, evidence of intensive fishing, hunting, and gathering of acorns, and presence of house pits (White et al. 2002).

Ethnography

Before European settlement, the area now known as Hillsborough was inhabited by Native American tribes, including the Ohlone people. They lived in the region for thousands of years, relying on the abundant natural resources of the area. The people of the Bay Area spoke Costanoan. The term Costanon is a construction used by ethnographers to describe a series of highly similar but not quite identical cultures. Eight mutually unintelligible dialects are recognized under the rubric of Costanoan (Levy 1978). These dialects are delineated by geographic divisions including: Karkin, Chochenyo, Tamyen, Ramaytush, Awaswas, Mutsun, Rumsen and Chalon. The tribal group that occupied the Project Area was the *Ssalson* (Milliken 1995).

The Ssalsons were known to inhabit at least three primary villages situated along San Mateo Creek, near the western shoreline of the San Francisco Bay, as well as in the San Andres Valley. Historical records suggest that the villages of Altagmu, Aleita, and Uturbe were located along various branches of the San Metho Arroyo, as indicated in numerous baptismal records (Milliken 1995). It's worth noting that members of this tribe underwent the process of baptism at Mission San Francisco over a significant period, spanning from 1780 through 1973 (Milliken 1995).

History

The Portolá Expedition, led by Gaspar de Portolá, was a Spanish exploration and colonization effort that took place in the 18th century. It aimed to establish Spanish control over California and to locate Monterey Bay, which was believed to be a suitable location for a Spanish settlement and port. On October 31, 1769, the Portolá Expedition reached the San Mateo area. They camped near San Francisquito Creek, which is located near present-day Palo Alto and Menlo Park. The expedition's presence in this region marked one of the earliest European explorations of the San Francisco Peninsula.

The establishment of Mission San Francisco de Asis (also known as Mission San Francisco Dolores) and the San Francisco Presidio in 1776 brought the most drastic and permanent change to the local Ohlone way of life. During the Spanish colonial era, the land that would become Hillsborough was part of vast land grants given to prominent Spanish and Mexican families. One such grant was the Rancho San Mateo, which covered a significant portion of the San Mateo Peninsula, including Hillsborough.

In the mid-19th century, with the American conquest of California, the land transitioned into American ownership. Much of it was used for ranching and agriculture.

Hillsborough was officially incorporated as a town on May 5, 1910. It was named after the city of Hillsborough, New Hampshire, by a developer named William Davis Merry Howard. Howard envisioned Hillsborough as a suburban community for San Francisco's elite, and he carefully planned the town's layout and aesthetics.

In the early 20th century, Hillsborough attracted wealthy residents who built large estates on big parcels of land. Many of these estates were designed by renowned architects, and some remain as architectural landmarks today. The Town's strict zoning laws and architectural guidelines have preserved its upscale character. The project alignment outside of Hillsborough is not situated in areas that are historically significant.

Archaeological Survey Report Findings

Results of the records search indicated that 24 cultural resource studies have been previously performed within a quarter mile of the project site. Approximately 40 percent of the quarter-mile records search radius has been previously surveyed, and four studies have been conducted within the project site. Review of historic registers and inventories indicate that no historical landmarks or points of interest are present within the project site. One National Register listed or eligible property, the Carolands Mansion, is located within the half-mile visual area of the project site. Seven historic-era cultural resources, including the Carolands Mansion, and one prehistoric resource are documented within a quarter mile of the project site, however there are no cultural resources documented within the project site.

Alta staff conducted a field survey of the project site on October 6, 2023. Ground surface visibility was variable ranging from about 5 to 65 percent throughout the survey area due to urban development, paving, and landscaping. The entire right of way on both sides of the pipeline alignment from center line of the road to the fence was surveyed. No cultural resources were identified by the field survey.

REGULATORY BACKGROUND

Cultural Resources

As set forth in Section 5024.1(c) of the Public Resources Code, for a cultural resource to be deemed "important" under CEQA and thus eligible for listing on the California Register of Historical Resources (California Register), it must meet at least one of the following criteria:

1. Is associated with events that have made a significant contribution to the broad patterns of California History and cultural heritage; or
2. Is associated with the lives of persons important to our past; or
3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possess high artistic value; or

4. Has yielded or is likely to yield, information important to prehistory or history.

Historic-era structures older than 50 years are most commonly evaluated in reference to Criterion 1 (important events), Criterion 2 (important persons) or Criterion 3 (architectural value). To be considered eligible under these criteria, the property must retain sufficient integrity to convey its important qualities. Integrity is judged in relation to seven aspects including: location, design, setting, materials, workmanship, feeling, and association. Prehistoric and historic-era archaeological resources are commonly evaluated with regard to Criterion 4 (research potential).

Guidelines for the implementation of CEQA define procedures, types of activities, persons, and public agencies required to comply with CEQA. Section 15064.5(b) prescribes that project effects that would "cause a substantial adverse change in the significance of an historical resource" are significant effects on the environment. Substantial adverse changes include both physical changes to the historical resource, or to its immediate surroundings.

Archeological Resources

Section 21083.2 of the CEQA guidelines also defines "unique archaeological resources" as "any archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

- Contains information needed to answer important scientific research questions and show that there is a demonstrable public interest in that information.
- Has a special and particular quality, such as being the oldest of its type or the best available example of its type.
- Is directly associated with a scientifically recognized important prehistoric or historic event or person."

This definition is equally applicable to recognizing "a unique paleontological resource or site." CEQA Section 15064.5 (a)(3)(D), which indicates "generally, a resource shall be considered historically significant if it has yielded, or may be likely to yield, information important in prehistory or history," provides additional guidance.

DISCUSSION OF IMPACTS

a-b) Cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5? Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5?

Less than Significant Impact with Mitigation Incorporated

There are seven historic-era cultural resources located within a quarter mile of the project site, none of which have the potential to expand into the project site (Alta 2023). There are no known archaeological resources located within the vicinity of the project site. Therefore, the project would not cause change in the significance of any known historical or archaeological resource. As the project would involve earth-disturbing activities, such as grading and excavating, the unanticipated discovery of unknown cultural resources during construction cannot be precluded. The project would implement Mitigation Measure CUL-1 to ensure that any potential unknown cultural resources discovered during construction would not be damaged. The implementation of Mitigation Measure CUL-1 would reduce potential impacts to unknown cultural resources during

project construction to a less than significant level. The impact would be less than significant with mitigation incorporated.

c) Disturb any human remains, including those interred outside of dedicated cemeteries?

Less than Significant Impact with Mitigation Incorporated

There are no known human remains located on the project site. However, discovery of unknown human remains during earth-disturbing construction activities cannot be precluded. Therefore, the project would implement Mitigation Measure CUL-2, which would reduce potential impacts to unknown human remains to a less than significant level. The impact would be less than significant with mitigation incorporated.

MITIGATION MEASURES

Mitigation Measure CUL-1

If previously unidentified cultural resources are encountered during project implementation, the construction team shall avoid altering the materials and their stratigraphic context. The project contractor shall be responsible for informing the lead agency of the discovery. The lead agency shall contract a qualified professional archaeologist to assess the situation. Should cultural resources be discovered, project personnel shall not collect the discovery. Prehistoric resources include, but are not limited to, chert or obsidian flakes, projectile points, mortars, pestles, and dark friable soil containing shell and bone dietary debris, heat-affected rock, or human burials. Historic resources include stone or abode foundations or walls; structures and remains with square nails; and refuse deposits or bottle dumps, often located in old wells or privies.

Mitigation Measure CUL-2

Although unlikely, if human remains are encountered, all work shall stop in the immediate vicinity of the discovered remains. The project contractor shall be responsible for informing the lead agency of the discovery. The lead agency shall notify the County Coroner and contact a qualified archaeologist immediately so that an assessment can be performed. If the remains are deemed to be Native American and prehistoric, the Native American Heritage Commission must be contacted by the Coroner so that a “Most Likely Descendant” can be designated and further recommendations regarding treatment of the remains is provided.

4.2.6 Energy

Would the project:		*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*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?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

Town of Hillsborough

Power in the Town is provided by Pacific Gas and Electric Company (PG&E) and Peninsula Clean Energy (PCE). PG&E provides electrical and natural gas service, offers programs and rebates for energy efficiency, operates, and expands transmission lines and gas service based on projected demands, and ensures that systems are properly maintained and reliable. PCE is the County's community choice energy program that provides cleaner energy at competitive rates and with a higher renewable energy content than PG&E. PCE offers two rates for its customers: 1) ECOplus is the default rate with at least 50 percent renewable energy content, and 2) ECO100 is the opt-up rate with 100 percent renewable energy. Residents have the option to receive service from PG&E or PCE. The Town's 2010 Climate Action Plan (CAP) is the local plan for renewable energy and energy efficiency. The 2010 CAP addresses community greenhouse gas emissions by sector, including the residential, commercial, transportation, and waste sectors (Town of Hillsborough, 2010). The water sector is not addressed in detail, yet the CAP includes goals related to water conservation and water efficiency upgrades.

City of Burlingame

The City of Burlingame receives energy services from two providers: PG&E and PCE. A PG&E transmission gas main is located along portions of Skyline Boulevard within the project site. PG&E is required to ensure that transmission and distribution facilities incorporate safety features and the latest technological advancements. The City of Burlingame opted to purchase 100 percent renewable energy for all City municipal electricity accounts as part of PCE's ECO100 rate. Residents also have the option to receive service from PG&E. The City's 2019 CAP is the local plan for renewable energy and energy efficiency. The CAP identifies that emissions associated with consumption of water are primarily from the energy and fuel used to extract, treat, convey, and distribute potable water, however, these emissions only make up less than one percent of the City's total greenhouse gas (GHG) emissions (City of Burlingame 2019b).

City of Millbrae

PG&E provides electrical service to the City of Millbrae. The City's 2020 CAP is the local plan for renewable energy and energy efficiency. The objectives of the CAP are to demonstrate environmental leadership, to save money and promote green jobs, to comply with letter and spirit of State environmental initiatives, and to promote sustainable development (City of Millbrae 2020). The 2020 CAP emphasizes the importance of water efficiency and conservation to reduce energy consumption as well as protect against drought.

DISCUSSION OF IMPACTS

a) Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Less than Significant Impact

The use of equipment and vehicles during project construction would require the use of energy resources. The construction process would be designed to be efficient to avoid excess monetary costs. Specifically, equipment and fuel would not be used wastefully during construction due to the added expense associated with renting, maintaining, and fueling equipment. As such, energy and fuel would not be wasted or used inefficiently by construction equipment and vehicles. During seismic events, project operation would also result in more efficient energy use. As stated in Section 4.1, Project Background and Purpose, one main goal of the project is to "provide a seismically resilient pipeline system that would result in cost savings due to reduced operational (i.e., pumping) costs during a seismic event." The proposed water pipeline would provide a highly reliable source of water to the three municipalities immediately after a seismic event, which would reduce the use of energy that would be required to pump water to these areas if the project were not constructed. Therefore, project operation would not result in wasteful, inefficient, or unnecessary consumption of energy resources. The impact would be less than significant.

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

No Impact

The proposed project is within the planning area of three local plans that discuss energy, including the Town's 2010 CAP, the City of Burlingame's 2019 CAP, and the City of Millbrae's 2020 CAP. All three CAPs identify the importance of increased water conservation and water efficiency in decreasing energy consumption. As discussed above in Impact a), one of the goals of the proposed project is to provide a water pipeline system that would result in reduced pumping during a seismic event. As such, the proposed project would reduce the consumption of energy needed to convey and distribute water to the area around the proposed pipeline alignment during or after seismic events. The proposed project would support the goals of the three applicable CAPs and would not conflict with any State or local plan for renewable energy or energy efficiency. No impact would occur.

4.2.7 Geology and Soils

Would the project:	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*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?*	☐	☐	☒	☐
i. *Strong seismic ground shaking?*	☐	☐	☒	☐
ii. *Seismic-related ground failure, including liquefaction?*	☐	☐	☒	☐
iii. *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, creating substantial direct or indirect risks to life or property?	☐	☐	☐	☒
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐

ENVIRONMENTAL SETTING

The project site is in the San Francisco – San Jose region of the Coast Range Geomorphic Province. The Coast Range Geologic Province borders the Coast of California and generally consists of northwesterly/southeasterly trending ridges of granitic, metavolcanic, and metasedimentary rocks. Numerous northwest to southeast trending faults parallel the trend of the Coast Ranges. The project area is underlain by four general geologic units: Cretaceous and Jurassic Franciscan Complex rock (Franciscan Complex), Pleistocene and Pliocene Merced Formation, Late Pleistocene Colma Formation, and other late Quaternary deposits (LCI 2021). Historical artificial fill is also abundant in the area.

As described in Section 4, Project Description, three major fault zones are located within the vicinity of the project site, including the San Andreas Fault, the Hayward Fault, and the Calaveras Fault. The San Andreas Fault parallels the proposed pipeline alignment approximately ½ mile to the west (California Geological Survey 2023). The Hayward Fault and Calaveras Fault are located approximately 17 miles and 26 miles northeast, respectively (California Geological Survey 2023b). The proposed pipeline alignment is also located in the immediate vicinity of the Serra Fault and crosses the Fault in some areas. The Serra Fault is a southwest dipping fault approximately 18.6 miles in length, with a 0.62 wide fault zone that includes multiple strands extending from the Hillsborough-Burlingame border north towards Marin County, and likely intersects the San Andreas Fault in some areas (F&L 2021b). The San Andreas, Hayward, and Calaveras faults are all capable of producing large earthquakes. Although the Serra Fault is not considered to be "active," sympathetic offset along the Serra Fault could occur during or after a large earthquake on the nearby highly active San Andreas Fault (G&E 2022).

DISCUSSION OF IMPACTS

a-i) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: 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?

Less than Significant Impact

The project site is located in the seismically-active San Francisco Bay Area region and is situated within the San Andreas and Serra Fault Zones (California Geological Survey 2023b). The San Andreas Fault is mapped on an Earthquake Zones of Required Investigation Map, however the project site is located outside of the Alquist Priolo fault zone for this Fault (California Geological Survey 2023a). The Serra Fault is not depicted on the Earthquake Zones of Required Investigation map, and is not considered to be active. Nonetheless, rupture of the nearby San Andreas Fault could cause sympathetic offset along the Serra Fault.

Although unlikely, rupture of the San Andreas or Serra Fault could pose potential risks to construction workers on the project site. The project contractor would comply with all federal Occupational Safety and Health Administration (OSHA) and California OSHA (Cal/OSHA) requirements related to constrution worker safety, which would reduce risks associated with fault rupture during construction to a less than significant level. Operation of the proposed project would not cause substantial effects associated with rupture of a known earthquake fault. The purpose of the proposed pipeline is to provide a highly reliable water source to all three municipaliteis immedialtely after a seismic event. As such, the proposed pipeline and PS are designed to be seismically resilient for shaking, landslide, liquefaction and surface fault

displacement that can occur due to the design seismic event on the Serra Fault and/or nearby fault zones in the vicinity of the pipeline alignment. As explained in Section 4, Project Description, the proposed pipeline would be constructed of ERDIP, and all fault crossings would be perpendicular crossings, which is a more resilient design than parallel crossings due to the complexities with fault motion. Therefore, the project would not cause substantial effects including the risk of loss, injury, or death associated with rupture of a known earthquake fault. The impact would be less than significant.

a-ii) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: Strong seismic ground shaking?

Less than Significant Impact

As described in Impact a-i) above, the project site is in a seismically active region and is within two fault zones. Earthquakes along the highly active San Andreas Fault, as well as the Hayward and Calaveras fault to the east could cause strong seismic ground shaking at the project site. As discussed above in Impact a-i), the project contractor would adhere to all OSHA and Cal/OSHA requirements for construction worker safety, which would minimize risks associated with strong seismic ground shaking during construction. Project operation would not result in any substantial effects related to strong seismic ground shaking because the proposed pipeline and PS are specifically designed to be seismically resilient. Therefore, the proposed project would not result in substantial effects associated with strong seismic ground shaking. The impact would be less than significant.

a-iii) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: Seismic-related ground failure, including liquefaction?

Less than Significant Impact

Liquefation is the loss of soil strength or stiffness due to a buildup of excess pore-water pressure and is often associated with strong shaking from seismic activity (LCI 2021). Liquefaction primarily occurs within loose, granular, saturated soil materials. The proposed pipeline alignment crosses liquefiable deposits for approximately 18 percent (5,490 LF) of its length and the deposits are ranked Low with regards to liquefaction and susceptibility (F&L 2021). The remainder of the proposed alignment crosses bedrock which is ranked Very Low for liquefaction susceptibility. Therefore, the project would not have substantial adverse effects associated with seismic-related ground failure, including liquefaction. The impact would be less than significant.

a-iv) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: Landslides?

Less than Significant Impact

Landslides, debris flows, and other mass wasting processes are common on steep Bay Area hillslopes underlain by Franciscan Complex rocks (LCI 2021). Regional-scale landslide mapping studies provide a charaterization of landslide susceptibility within the project area based on the bedrock type, slope gradient, average rainfall, and other considerations (LCI 2021). Low bedrock strength and slope gradient over 30 percent are considered to be two major factors contributing to increased landslide potential (LCI 2021). The proposed pipeline alignment traverses zones with High and Very High landslide suceptibility for approximately 24 percent (7,160 LF) of its length and crosses six zones that represent higher slope stability hazards (F&L 2021b). During construction, landslides and other mass wasting events caused by seismic activity could pose

risks to construction workers on the project site. As discussed, the project contractor would adhere to all OSHA and Cal/OSHA requirements for construction worker safety, which would minimize risks associated with landslides and slope instability during construction. During operation, the only permanent aboveground structures would be fire hydrants, meters, and the new PS. New aboveground structures would not be located in areas that are at high risk of landslide. The rest of the proposed new infrastructure would be placed underground and would therefore not be susceptible to hazards associated with landslides. The proposed new infrastructure is designed to be seismically resilient and would not be susceptible to landslides caused by seismic activity during project operation. The impact would be less than significant.

b) Result in substantial soil erosion or the loss of topsoil?

Less than Significant Impact

During construction, excavation and trenching would be required to construct the new pipeline. Most of the excavation would occur within existing roadways, and thus would not result in substantial loss of topsoil. Excavated earth would be replaced, leveled, and repaved or revegetated after the new infrastructure is installed. Some soil erosion and loss of topsoil would be unavoidable, as newly compacted soils may erode due to precipitation during project operation. The project would be required to prepare a Stormwater Pollution Prevention Plan (SWPPP) to comply with the Construction General Permit requirements. The SWPPP will contain measures to control surface runoff, reduce erosion, and minimize the potential for sediment to leave the project site and enter waterways during construction activities. Areas impacted by ground disturbance will be compacted with previously removed soil, and new soil from off-site, if necessary, reseeded, mulched, and shall be monitored and maintained until vegetation is established. With the implementation of measures in the SWPPP, the impact would be less than significant.

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?

Less than Significant Impact

As discussed above in Impact a-iv), approximately 24 percent of the proposed pipeline alignment is situated in areas that are at High or Very High risk of landslide. The project is not located in any areas that are at high risk of liquefaction. Project construction would not exacerbate the risk of landslide because no heavy equipment would be utilized on steep slopes in the project area. All excavation, trenching, and grading would occur on flat areas and would be primarily within the existing roadways. Construction activities would not disturb unstable soil units and would therefore not cause any landslide, lateral spreading, subsidence, liquefaction, or collapse. The proposed new infrastructure would be primarily located underground and is designed to be resilient to unstable conditions that may result from seismic shaking, including landslide, liquefaction, lateral spreading, and collapse. Therefore, the impact of the project related to unstable soil and geologic units would be less than significant.

d) Be located on expansive soil, as defined in Table 18 1 B of the Uniform Building Code, creating substantial direct or indirect risks to life or property?

No Impact

The Phase I Geohazard Assessment for the proposed project did not identify any expansive soils

that the proposed project would be located on. As described previously, the proposed pipeline and PS infrastructure are designed to be seismically resilient and would not be susceptible to soil expansion. No impact would occur.

e) *Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?*

No Impact

The project would include construction of a new water pipeline and PS and would not include any septic tanks or additional alternative wastewater disposal systems. No impact would occur.

f) *Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?*

Less than Significant Impact with Mitigation Incorporated

Paleontological resources are the fossilized remains of organisms from prehistoric environments found in geologic strata. There are no known paleontological resources within the project site. The project site is primarily located in existing roadways and therefore has a very low potential for unknown paleontological resources to occur. Although it is unlikely that paleontological resources are present on-site, construction activities could result in the disturbance and/or accidental discovery of unknown paleontological resources. The project would implement Mitigation Measure CUL-1 to reduce potential impacts to paleontological resources to a less than significant level. The impact would be less than significant with mitigation incorporated.

4.2.8 Greenhouse Gas Emissions

Would the project:		*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*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 any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

GHGs are recognized by wide consensus among the scientific community to contribute to global warming/climate change and associated environmental impacts. The most common GHGs released from human activity are carbon dioxide, methane, and nitrous oxide (Governor's Office of Planning and Research 2008). The primary sources of GHGs are vehicles (including planes and trains), energy plants, and industrial and agricultural activities (e.g., dairies and hog farms).

In the United States, the major sources of GHG emissions are transportation, electricity generation, and industrial activities (USEPA 2022). These three sources are also the top contributors of GHG emissions in California (CARB 2022).

Global Warming Solutions Act

Assembly Bill (AB) 32, adopted in 2006, established the Global Warming Solutions Act of 2006 which requires the State to reduce GHG emissions to 1990 levels by 2020. In 2016, Senate Bill (SB) 32 was signed into law, amending the California Global Warming Solution Action. SB 32 and Executive Order B-30-15 require CARB to ensure that statewide GHG emissions are reduced to 40 percent below the 1990 level by 2030. CARB updated its Climate Change Scoping Plan in December of 2017 to express the 2030 statewide target in terms of million metric tons of carbon dioxide equivalent (MMTCO2e). Based on the emissions reductions directed by SB 32, the annual 2030 statewide target emissions level for California is 260 MMTCO2e.

Bay Area 2017 Clean Air Plan

The 2017 Clean Air Plan is the most recently adopted air quality plan in the Bay Area. The Clean Air Plan focuses on two related BAAQMD goals: protecting public health and protecting the climate. To protect the climate, the Clean Air Plan includes control measures designed to reduce emissions of methane and other super-GHGs that are potent climate pollutants in the near-term, and to decrease emissions of carbon dioxide by reducing fossil fuel combustion.

CEQA Air Quality Guidelines

The BAAQMD CEQA Air Quality Guidelines are intended to serve as a guide for those who prepare or evaluate air quality impact analyses for projects and plans in the San Francisco Bay

Area. The City of Los Altos and other jurisdictions in the San Francisco Bay Area Air Basin utilize the thresholds and methodology for assessing GHG impacts developed by BAAQMD within the CEQA Air Quality Guidelines. The guidelines include information on legal requirements, BAAQMD rules, methods of analyzing impacts, and recommended mitigation measures.

Town of Hillsborough 2010 CAP

Water conservation is identified as a major strategy of the 2010 CAP. There are multiple water conservation programs included in the 2010 CAP that have been identified for the purpose of reducing GHG emissions. One recurring theme among these programs is to upgrade water infrastructure to be more efficient. The CAP notes that water and wastewater transport results in the largest amount of emissions for the Town due to the electricity required for pumping, which is largely due to the Town's topography.

City of Burlingame 2019 CAP

The City's 2019 CAP aims to set policies in place to achieve 2030 GHG emissions targets, which call for large reductions in GHG emissions across all sectors, including transportation, energy, waste, and water. Water and wastewater GHG emission reduction measures in the CAP include incentivizing businesses and private institutions to replace existing plumbing fixtures with water efficient plumbing, promoting best practices for water conservation throughout the city, educating the public about Burlingame's water rebate programs, and continuing to establish tiered water rates that promote water conservation (City of Burlingame 2019b).

City of Millbrae 2020 CAP

The 2020 CAP identifies that GHG emissions associated with water use are typically from energy used to collect, treat, convey, and distribute water. Section 3.1.4 of the CAP establishes a goal to conserve water to reduce energy use (City of Millbrae 2020). This goal can be accomplished by implementing water conservation incentives, increasing indoor water use efficiency, increasing water efficient landscaping, and implementing other community-wide water conservation programs. One main goal of reducing energy use associated with water is to reduce the GHG emissions caused by energy usage.

DISCUSSION OF IMPACTS

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less than Significant Impact

BAAQMD has adopted thresholds of significance that were designed to establish the level at which GHG emissions would cause significant environmental impacts under CEQA. The thresholds are included in the 2022 CEQA Air Quality Guidelines (BAAQMD 2022).

The project would result in GHG emissions from temporary construction-related activities, including operation of heavy equipment, use of trucks, worker trips, site preparation, and trenching. Direct long term operational emissions would include vehicular traffic during occasional maintenance activities, as well as maintenance and testing of the emergency diesel generator at the proposed new PS at the Helen Tank site. Indirect emissions would be generated from the electricity required to pump water through the proposed pipeline.

Construction would occur for approximately 326 working days from January 2024 through March 2025. GHG emissions generated by project construction activities were calculated using

CalEEMod Version 2022.1 and were based on the project's estimated construction schedule and anticipated equipment use (Appendix B). Construction activities would generate a maximum of 543 metric tons (MT) of CO2 equivalent (CO2e) during the entire construction period.

The BAAQMD does not have adopted thresholds of significance for GHG emissions. The BAAQMD's approach to developing thresholds of significance for GHG impacts is to use a "fair share" approach to determine whether an individual project's GHG emissions would be cumulatively considerable. If a project would contribute its "fair share" of what is needed to achieve Statewide long-term GHG reduction goals, the impact of the project's GHG emission would be less than significant. The BAAQMD has identified required design elements that development and transportation projects must incorporate into project plans for their impact to be considered less than significant. There are no design elements required for infrastructure projects, and therefore the project must only be consistent with the local GHG reduction strategy that meets the criteria under State CEQA Guidelines Section 15183.5(b) (BAAQMD 2022). Local GHG reduction plans include the Town's 2010 CAP, the City of Burlingame's 2019 CAP, and the City of Millbrae's 2020 CAP. As described below in Impact b), the project would be consistent with GHG reduction strategies identified in these local plans, and therefore would not constitute a significant impact regarding GHG emissions. The impact from GHG emissions would be less than significant.

b) Conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?

No Impact

The project site falls within the planning jurisdiction of the BAAQMD 2017 CAP, the Town's 2010 CAP, the City of Burlingame's 2019 CAP, and the City of Millbrae's 2020 CAP. As discussed in Section 5.2.3, Air Quality, the proposed project would not conflict with the BAAQMD 2017 CAP. The proposed project supports the goals of the Town's 2010 CAP, the City of Burlingame's 2019 CAP, and the City of Millbrae's 2020 CAP by increasing water efficiency and reducing the energy use necessary to pump water to the three municipalities. The Town's 2010 CAP identifies that water and wastewater transport is a large source of GHG emissions for the Town due to the electricity required for pumping, which is largely due to the Town's topography. One of the purposes of the project is to provide a pipeline that would increase efficiency of water conveyance to the western portion of the Town, as well as the western portions of Millbrae and Burlingame. This new pipeline would reduce the energy required for pumping water to these areas which would support goals of the Town's 2010 CAP. The project would not conflict with any policies identified in the 2010 CAP, the 2019 CAP, or the 2020 CAP. No impact would occur.

4.2.9 Hazards and Hazardous Materials

Would the project:		*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
a)	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b)	Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c)	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐
d)	Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☒	☐
e)	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☒	☐
f)	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
g)	Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☒	☐

ENVIRONMENTAL SETTING

A search of the State Water Resources Control Board's (SWRCB) GeoTracker database (SWRCB 2023) and the Department of Toxic Substances Control's (DTSC) EnviroStor database (DTSC 2023) indicated three closed leaking underground storage tank (LUST) cleanup sites in the immediate vicinity of the project site. The sites are located at a Chevron Station at 400 Skyline Boulevard, a former Steve's Auto Center at 1401 Millbrae Avenue, and the Hillsborough Fire Department at 835 Chateau Drive.

DISCUSSION OF IMPACTS

a-b) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Less than Significant Impact

Project construction would involve the use and transport of typical construction-related hazardous materials such as fuels, lubricants, adhesives, and solvents. Heavy equipment would be staged and refueled within the project staging areas. Construction activities would be required to comply with numerous hazardous materials regulations and implement BMPs to ensure that hazardous materials are handled properly and do not pose a threat to worker safety or the environment. Workers handling hazardous materials are required to adhere to all OSHA and Cal/OSHA health and safety requirements. Hazardous materials must be transported to and from the project area in accordance with the Resource Conservation and Recovery Act (RCRA) and U.S. Department of Transportation regulations and disposed of in accordance with RCRA at a facility that is permitted to accept the waste.

Although a spill or leak of hazardous materials is unlikely, a spill or leak that is not handled properly would have the potential to contaminate the environment. As discussed in Section 5.2.10, Hydrology and Water Quality, project contractors would be required to prepare a SWPPP for construction activities in accordance with the NPDES General Construction Permit requirements. The SWPPP would list the hazardous materials (including petroleum products) proposed for use during construction and describe spill response and control measures, equipment inspections, equipment storage, and protocols for responding immediately to spills.

With implementation of the SWPPP and compliance with existing regulations, the potential impact related to routine transport and accidental releases of hazardous materials would be less than significant.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Less than Significant Impact

The Meadows Elementary School is located near the intersection of Helen Drive and Larkspur Drive in the City of Millbrae, adjacent to the northern end of the project site. The Nueva School Hillsborough Campus is located adjacent to the project site in the Town of Hillsborough. As discussed above in Impact a) and b) the proposed project would comply with all applicable regulations related to the handling of hazardous materials and would implement a SWPPP which would contain proper spill response measures. Adherence with these regulations and

implementation of the SWPPP would ensure that impacts related to hazardous materials near existing schools during construction would be less than significant. Project operation would not introduce a new source of hazardous emissions or hazardous materials near an existing school. Occasional maintenance and repair of the proposed new infrastructure may require the use of hazardous materials; however, these materials would be handled in accordance with all applicable regulations and with the use of BMPs. Therefore, the impact of the proposed project associated with hazardous emissions and hazardous materials within one-quarter mile of an existing school would be less than significant.

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

Less than Significant Impact

The project site is not located on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, although there are three sites that are listed within 0.25 mile of the project site. The LUST cleanup sites are located at 400 Skyline Boulevard, 1401 Millbrae Avenue, and 835 Chateau Drive, all of which are directly adjacent to the project site. These sites do not pose an environmental risk to the project site due to the case closed status of each listing. The impact would be less than significant.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?

Less than Significant Impact

The San Francisco International Airport (SFIA) is located on the western side of the San Francisco Bay, approximately 1.2 miles northeast of the project site at the closest point. The project site is not located within an SFIA Safety Zone or Noise Compatibility Zone (San Mateo County GIS 2020). Therefore, the project would not result in a safety hazard for people residing or working in the project area. The impact would be less than significant.

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less than Significant Impact

The project would not impair implementation of or physically interfere with an adopted emergency response plan or evacuation plan. There are no designated evacuation routes within the area of the project site. Emergency evacuation routes may be determined and communicated to the public at the time disaster poses threat of evacuation. As described in Section 5.2.17, Transportation, the project would prepare a Traffic Control Plan (TCP) for all work within the public right-of-way during construction. The TCP would contain measures pertaining to emergency response and general traffic management and would ensure that the project would not obstruct any declared evacuation route. During operation, the proposed new infrastructure would be located primarily underground and would not obstruct any evacuation route or impair implementation of any emergency response plans. The impact would be less than significant.

g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

Less than Significant Impact

As discussed in Section 5.2.20, Wildfire, the proposed project would not expose people or structures to significant risk associated with wildland fires. During construction, the project would comply with all applicable requirements related to fire safety and implement BMPs to prevent the uncontrolled spread of wildfire. During operation, the proposed new infrastructure would be capable of providing high fire flows simultaneously at multiple hydrants to combat wildland fires that may encroach into the three communities from the adjacent high fuel load open space areas. As discussed in Section 4.0, Project Description, one of the purposes of the project is to provide a new water supply along the WUI, improving the Town's (and neighboring Cities') ability to respond to wildfire. Therefore, the impact would be less than significant.

4.2.10 Hydrology and Water Quality

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	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:				
i. result in substantial erosion or siltation on- or off-site;	☐	☐	☒	☐
ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;	☐	☐	☒	☐
iii. create or contribute runoff water that would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☒	☐
iv. impede or redirect flood flows?	☐	☐	☒	☐
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

The project site is located within the jurisdiction of the San Francisco Bay Regional Water Quality Control Board (RWQCB). The San Francisco Bay Region (Region 2) Water Quality Control Plan (Basin Plan) indicates that the project site is within the South Bay Hydrologic Planning Area (San Francisco Bay RWQCB 2017). The project site is not within a groundwater basin (San Francisco

Bay RWQCB 2017). San Andreas Lake is located west of Highway 280, approximately 0.15 miles from the project site in the closest areas. Lower Crystal Springs Reservoir is also located east of Highway 280, and the closest portions are approximately ½ mile from the project site.

DISCUSSION OF IMPACTS

a) *Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?*

Less than Significant Impact

The Basin Plan sets narrative and numerical water quality objectives for the San Francisco Bay Region. Numerical objectives typically describe pollutant concentration, physical and chemical conditions of water, and the toxicity of water to aquatic organisms. The project site is located throughout developed areas and is not located near any waterways. Prior to construction activities, the project contractor would prepare a SWPPP which would include proactive measures to prevent any water pollution from stormwater runoff during project construction. During construction, BMPs would be implemented to reduce substantial erosion which could lead to off-site water pollution and/or sedimentation of waterways. With the implementation of a SWPPP and BMPs, the project would not violate any water quality standards or waste discharge requirements. Project operations would not include any activities that would violate water quality standards or waste discharge requirements or degrade surface or groundwater quality. The impact would be less than significant.

b) *Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?*

No Impact

The project would not use groundwater supplies during construction activities. The Hillsborough, Millbrae, and Burlingame General Plans do not indicate that groundwater is used as a source for potable water supply within the three municipalities. The proposed water pipeline would be used to convey water but would not cause any change in the existing supply of water for the three municipalities. The proposed project would not substantially increase impervious surface area, as the new infrastructure would be constructed under existing roadways. Therefore, the project would not cause a change in groundwater supply or recharge.

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: (i) result in substantial erosion or siltation on- or off-site; (ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site; (iii) create or contribute runoff water that would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff; or (iv) impede or redirect flood flows?*

Less than Significant Impact

The project would not substantially alter the existing drainage pattern of the project site or area, project construction work would take place within existing roadways, and staging areas would be located on relatively flat surfaces near the public right-of-way. Staging areas would not occur on steep slopes or on sensitive habitat areas and would therefore not cause substantial

erosion or siltation. In addition, as described in Impact a), the project would implement a SWPPP to prevent excessive runoff and erosion and siltation during project construction. To install the proposed new infrastructure, the existing pavement would be trenched and would be repaved once construction is finished. As such, project operation would not result in a substantial increase in impervious surface area which would cause an increase in surface runoff. The impact would be less than significant.

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

No Impact

The project site is not located within a FEMA flood hazard zone nor a tsunami inundation area (Association of Bay Area Governments Hazard Viewer Map, 2023). No impact would occur.

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

No Impact

The project site is not located within a groundwater basin and is not within the boundaries of any sustainable groundwater management plan. The applicable water quality control plan is the Basin Plan. As discussed in Impact a), the project would not violate any water quality standards or waste discharge requirements established in the Basin Plan. Therefore, the project would not conflict with any applicable water quality control plan. No impact would occur.

4.2.11 Land Use and Planning

Would the project:		*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*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?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

The project site runs through the Town of Hillsborough, the City of Burlingame, and the City of Millbrae. Therefore, the project site falls within the planning jurisdiction of three separate General Plans: The City of Millbrae 2040 General Plan Policy Document (City of Millbrae 2022), the Hillsborough General Plan (Town of Hillsborough 2005), and the Burlingame General Plan (City of Burlingame 2019).

DISCUSSION OF IMPACTS

a) Physically divide an established community?

No Impact

The project site is surrounded by residential development and recreational areas. Project construction activities would require space for staging areas in various locations throughout residential neighborhoods surrounding the project site. However, access to residences and recreational facilities would be maintained throughout construction. During project operation, the proposed new infrastructure would be located underground aside from hydrants, turnouts, and the new PS at the Helen Tank Site. These structures would not cause division of an established community. Therefore, the project would not physically divide an established community during construction or operation. No impact would occur.

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?

No Impact

The project site spans across multiple land use designations as specified by the General Plans. Some areas of the project site would be located adjacent to parks, including Millbrae Meadows Park and Skyline Park, which are designated as Open Space. The project site is largely situated on developed land following existing roadways. Project operation would be similar to existing conditions at the project site because, with the exception of the proposed PS at the existing Helen Tank Site, the proposed new infrastructure would be located underground. Therefore, the

project would not conflict with any land use designation, plan, policy, or regulation in the General Plans, or any other land use plan, policy, or operation. No impact would occur.

4.2.12 Mineral Resources

Would the project:	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*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?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

The project is not located within or near a mineral resource site. The City of Millbrae, the City of Burlingame, and the Town of Hillsborough do not discuss mineral resources in their General Plan or other planning documents.

DISCUSSION OF IMPACTS

a-b) 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? 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?

No Impact

The project site is not located within or near a mineral resource site. The City of Millbrae 2040 General Plan (City of Millbrae 2022), the Hillsborough General Plan (Town of Hillsborough 2005), and the Burlingame General Plan (City of Burlingame 2019) do not identify the project area as a locally important mineral resource site. No impact would occur.

4.2.13 Noise

Would the project result in:	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*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?	☐	☐	☒	☐

BACKGROUND INFORMATION

Noise Concepts and Terminology

Noise is commonly defined as unwanted sound that annoys or disturbs people and can have an adverse psychological or physiological effect on human health. Sound is measured in decibels (dB), which is a logarithmic scale. Decibels describe the purely physical intensity of sound based on changes in air pressure, but they cannot accurately describe sound as perceived by the human ear since the human ear is only capable of hearing sound within a limited frequency range. For this reason, a frequency-dependent weighting system is used, and monitoring results are reported in A-weighted decibels (dBA). Decibels and other acoustical terms are defined in Table 7.

A typical method for determining a person's subjective reaction to a new noise is by comparing it to existing conditions. The following describes the general effects of noise on people: 1) a change of 1 dBA cannot typically be perceived except in carefully controlled laboratory experiments; 2) a 3-dBA change is considered a just-perceivable difference; 3) a minimum of 5-dBA change is required before any noticeable change in community response is expected; and 4) a 10-dBA change is subjectively perceived as approximately a doubling or halving in loudness (Charles M. Salter Associates, Inc. 1998).

Table 7. Definition of Acoustical Terms

TERM	DEFINITION
Frequency (Hz)	The number of complete pressure fluctuations per second above and below atmospheric pressure.
Decibel (dB)	A unit describing the amplitude of sound on a logarithmic scale. Sound described in decibels is usually referred to as sound or noise "level." This unit is not used in this analysis because it includes frequencies that the human ear cannot detect.
A-Weighted Sound Level (dBA)	The sound pressure level in decibels as measured on a sound level meter using the A-weighting filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound, in a manner similar to the frequency response of the human ear, and correlates well with subjective reactions to noise. All sound levels in this report are A-weighted.
Maximum Sound Levels (Lmax)	The maximum sound level measured during a given measurement period.
Equivalent Noise Level (Leq)	The average A-weighted noise level during the measurement period. For this CEQA evaluation, Leq refers to a 1-hour period unless otherwise stated.
Community Noise Equivalent Level (CNEL)	The average A-weighted noise level during a 24-hour day, obtained after addition of 5 decibels to sound levels during the evening from 7:00 to 10:00 p.m. and after addition of 10 decibels to sound levels during the night between 10:00 p.m. and 7:00 a.m.
Day/Night Noise Level (Ldn)	The average A-weighted noise level during a 24-hour day, obtained after addition of 10 decibels to sound levels during the night between 10:00 p.m. and 7:00 a.m.
Ambient Noise Level	The existing level of environmental noise at a given location from all sources near and far.
Vibration Decibel (VdB)	A unit describing the amplitude of vibration on a logarithmic scale.
Peak Particle Velocity (PPV)	The maximum instantaneous peak of a vibration signal.
Root Mean Square (RMS) Velocity	The average of the squared amplitude of a vibration signal.

Sources: Charles M. Salter Associates, Inc. 1998. Federal Transit Administration 2018.

General Information on Vibration

Vibration is an oscillatory motion through a solid medium in which the motion's amplitude can be described in terms of displacement, velocity, or acceleration. Several different methods are used to quantify vibration. Typically, groundborne vibration generated by human activities attenuates rapidly with distance from the source of the vibration. Sensitive receptors to vibration include structures (especially older masonry structures) and people (especially residents, the

elderly, and sick). Vibration amplitudes are usually expressed as either Peak Particle Velocity (PPV) or as Root Mean Square (RMS) velocity. PPV is appropriate for evaluating potential damage to buildings, but it is not suitable for evaluating human response to vibration because it takes the human body time to respond to vibration signals. The response of the human body to vibration is dependent on the average amplitude of a vibration event. Thus, RMS is more appropriate for evaluating human response to vibration. PPV and RMS are described in units of inches per second (in/sec), and RMS is also described in vibration decibels (VdB).

ENVIRONMENTAL SETTING

Sensitive Receptors

Sensitive receptors are defined as land uses where noise-sensitive people may be present or where noise-sensitive activities may occur. Examples of noise-sensitive land uses include residences, schools, hospitals, and retirement homes. Examples of noise-sensitive activities are those that occur in locations such as churches and libraries.

Construction of the pipeline would occur primarily along existing residential streets, as well as along Skyline Boulevard. Existing sensitive land uses near the proposed pipeline alignment include the Meadows Elementary School and Nueva School Hillsborough Campus located 175 feet and 645 feet from the proposed pipeline alignment, respectively, as well as residences along the roadways listed below:

Town: Skyline Boulevard, Chateau Drive, and Darrell Road

City of Burlingame: Frontera Way, Hunt Drive, Trousdale Drive, and Skyline Boulevard

City of Millbrae: Helen Drive, Larkspur Drive, Skyline Boulevard, and Vallejo Drive

Existing Ambient Noise Conditions

As mentioned above, the proposed pipeline alignments would traverse the City of Millbrae, the City of Burlingame, and the Town. The primary source of noise in the vicinity of the proposed pipeline is traffic on I-280. Based on the noise contours in the General Plan and Downtown and El Camino Real Specific Plan Draft EIR, ambient noise levels from traffic in the vicinity of the proposed pipeline alignment along Skyline Boulevard within the City of Millbrae range from about 70 to 75 dba (City of Millbrae 2022c). For the other roadways within City of Millbrae, the noise levels from traffic range from about 70 dBA to lower than 60 dBA. According to the existing transportation noise contours in the Burlingame General Plan (City of Burlingame 2019a) and the Town of Hillsborough 6th Cycle Housing Element Update Draft EIR (Town of Hillsborough 2023), ambient noise levels from traffic in the vicinity of the proposed pipeline alignment within the City of Burlingame and Town range from about 70 to 75 dBA.

REGULATORY SETTING

Town of Hillsborough

General Plan

The Noise Element of the General Plan describes the noise environment within the Town as generally peaceful and quiet without many on-going noise issues. The Hillsborough Police Department has noted that most noise complaints they receive are associated with construction activities, such as construction beginning too early in the morning or lasting too late in the evening, including loud radios and idling trucks. Policy N-1.3 of the General Plan requires the

Town to continue to enforce local and State noise regulations to minimize noise impacts associated with construction and public and private activities (Town of Hillsborough).

Municipal Code

The Town's Noise Ordinance is contained in Chapter 8.32 of the Municipal Code. Section 8.32.040.B states that discretionary noise shall be allowed only as follows:

- Monday through Friday between 8:00 a.m. and 5:00 p.m. (except holidays), anyone may perform construction, alteration, demolition or repair, and anyone may operate residential power equipment provided that the noise level from all sources combined (whatever the sources are), as measured 25 feet outside the property line, shall not exceed 100 dBA. This standard is the "property plane standard."
- Saturday between 10:00 a.m. and 5:00 p.m., anyone may perform construction, alteration, demolition or repair pursuant to a valid building or other applicable permit issued by the Town so long as the activities do not produce, singly or in combination, a total combined noise level of more than 70 dBA outside of the property plane; provided, however, that the building permit or other applicable permit may contain restrictions beyond those in this section, in which case, such greater restrictions shall control.
- Sunday and weekday holiday: no discretionary noise of any kind.

City of Burlingame

General Plan

The primary noise sources in Burlingame are mobile sources associated with transportation infrastructure, including aircraft, trains, and motor vehicles on freeways. The General Plan states that generally, the noise range of 55 to 65 dBA CNEL represents an acceptable outdoor noise environment for residential neighborhoods. According to the Burlingame General Plan EIR Figure CS-1, the existing (2017) transportation noise level in the project area is 70-75 CNEL. Policy CS-4.10 states that the City shall require development projects subject to discretionary approval to assess potential construction noise impacts on nearby sensitive uses and to minimize impacts on those consistent with Municipal Code provisions. Measures to minimize noise impacts may include construction management techniques such as siting staging areas away from noise-sensitive land uses or phasing activities to take advantage of shielding/attenuation provided by topographic features or buildings; construction equipment controls; use of temporary sound barriers; and monitoring of actual construction noise levels to verify the need for noise controls (City of Burlingame 2019a).

Municipal Code

The City of Burlingame Municipal Code contains the following relevant requirements for construction noise:

Section 18.07.110 General. No person shall erect (including excavation and grading), demolish, alter or repair any building or structure other than between the hours of 8:00 a.m. and 7:00 p.m. on weekdays, and 9:00 a.m. and 6:00 p.m. on Saturdays, except in circumstances where continuing work beyond legal hours is necessary to building or site integrity, including (but not limited to) large concrete pours, environmental considerations, state or federal requirements, or in cases where it is in the interest of public health and safety, and then only with written

approval from the building official, which shall be granted for no longer than necessary to complete the portion of the project for which the exception was granted. No person shall erect (including excavation and grading), demolish, alter, or repair any building or structure on Sundays or on holidays, except in the circumstances described earlier in this paragraph, and then only with written approval from the building official, which shall be granted for no longer than necessary to complete the portion of the project for which the exception was granted.

Section 10.40.39 Loading and unloading limited. It is unlawful to unload, load, open, close, or handle boxes, crates, containers, building materials, or similar objects in such a manner as to cause a noise disturbance across a property line into property located in a residential district between the following hours:

- Between the hours of 10:00 p.m. on a Sunday, Monday, Tuesday, Wednesday, or Thursday and 7:00 a.m. of the following day; and
- Between the hours of 10:00 p.m. on a Friday and 8:00 a.m. on the following Saturday; and
- Between the hours of 10:00 p.m. on a Saturday and 8:00 a.m. on the following Sunday; and
- Between the hours of 10:00 p.m. on a day before a holiday and 8:00 a.m. on the holiday.

Project work is within the public right-of-way and therefore would be required to comply with public works requirements which limit construction work to between 8:00 a.m. and 5:00 p.m. on Monday through Friday.

City of Millbrae

General Plan

The primary noise sources in Millbrae are from mobile sources, including motor vehicles on roadways, freight and passenger trains, and aircraft from SFIA. Figure 7-1 of the General Plan indicates that existing noise levels in the project area are between 65-75 CNEL. Policy HSHM-10.7 states that the City shall require new development to evaluate potential construction noise impacts on nearby sensitive uses as part of the CEQA analysis and to implement any required mitigation measures to minimize impacts on these uses (City of Millbrae 2022b).

Municipal Code

The City of Millbrae Municipal Code contains the following relevant requirements for construction noise:

Section 6.25.050.F.9.b. Unlawful property nuisances. Emanation of noise or vibrations on a continuous and regular basis of such a loud, unusual, unnecessary, penetrating, lengthy or untimely nature as to unreasonably disturb, annoy, injure, or interfere with or endanger the comfort, repose, health, peace, safety, or welfare of users of neighboring property.

Section 9.05.180 Hours of construction. The hours of noise generating construction activity shall be limited to the hours of 7:30 a.m. to 7:00 p.m. Monday through Friday, 8:00 a.m. to 6:00 p.m. Saturdays and 9:00 a.m. to 6:00 p.m. on Sundays and Holidays. Work outside of these hours may be approved by the Building Official when requested, in writing, a minimum of 48 hours in advance.

ASSESSMENT METHODOLOGY

The City of Millbrae and the City of Burlingame's Noise Ordinances do not establish noise criteria for assessing the impact of a construction project. The Federal Transit Administration (FTA) has developed a general construction noise threshold of 90 dBA Leq at the nearest noise-sensitive receptor (FTA 2006). According to the FTA, if the combined noise level in 1 hour from the two noisiest pieces of equipment exceeds the 90 dBA threshold at a residential land use (or other noise-sensitive receptors), then there may be a substantial adverse reaction. Therefore, the FTA's general construction assessment criterion of 90 dBA 1-hour Leq at the nearest noise-sensitive receptor is used in this analysis for construction activities within City of Millbrae and the City of Burlingame. For construction activities within the Town, the construction noise criteria established in the Town's Noise Ordinance is used.

The City of Millbrae, City of Burlingame, and Town of Hillsborough have not adopted criteria for construction groundborne vibration impacts. In this analysis, the FTA's and Caltrans' vibration impact criteria are used to evaluate potential vibration impacts associated with implementation of the project.

The FTA has developed vibration thresholds to prevent disturbances to (i.e., annoyance of) building occupants based on the frequency of a vibration event (FTA 2018). Vibrations that are equal to or exceed the vibration thresholds could result in potential disturbance to people or activities. The FTA thresholds of 80 VdB and 83 VdB are used in this analysis to evaluate disturbance to residences and buildings where people normally sleep and to institutional land uses with primarily daytime use (such as schools), respectively.

The California Department of Transportation (Caltrans) has developed vibration thresholds based on PPV values to evaluate the potential impact of construction vibration on structures (Caltrans 2020). Construction vibrations that are equal to or exceed the vibration thresholds could result in potential damage to structures. To be conservative, the Caltrans structural damage threshold of 0.3 in/sec which is recommended for older residential structures is used to evaluate potential vibration damage.

DISCUSSION OF IMPACTS

a) Would the project generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Less than Significant Impact

Construction Noise

Construction of the project is anticipated to begin in early 2025 and is expected to occur over a period of approximately 15 months. It is anticipated that approximately 100 linear feet of pipeline can be installed per workday.[3]

Construction activities would be required to comply with the City of Millbrae, the City of Burlingame, and the Town's Municipal Codes, which restricts the hours of construction as follows:

[3] Lorraine Htoo with Freyer & Laureta, 2023. Email Communication with Baseline Environmental Consulting. October 19.

City of Millbrae: Between 7:30 a.m. and 7:00 p.m. Monday through Friday, 8:00 a.m. and 6:00 p.m. on Saturdays, and 9:00 a.m. to 6:00 p.m. on Sundays and Holidays.

City of Burlingame: Between 8:00 a.m. and 5:00 p.m. Monday through Friday. In addition, loading/unloading activities are restricted to between the hours of 7:00 a.m. and 10:00 p.m. Monday through Friday and between the hours of 8:00 a.m. and 10:00 p.m. on Saturdays.

Town of Hillsborough: Between 8:00 a.m. and 5:00 p.m. Monday through Friday and between 10:00 a.m. and 5:00 p.m. on Saturdays.

These requirements would prevent the disturbance of nighttime sleep for the neighboring residences. However, project construction activities would temporarily increase noise levels in the project vicinity during the daytime.

The primary source of noise during project construction would be off-road equipment activities on the project site. Construction noise levels would vary from day-to-day, depending on the number and type of equipment being used, the types and duration of activity being performed, the distance between the noise source and the receptor, and the presence or absence of barriers, if any, between the noise source and receptor. Construction of the project would involve removal of existing pavement, trench excavation, and repaving. Pile driving, which can generate extreme levels of noise, is not proposed as part of the project.

The types of construction equipment that would be used on the project site (e.g., excavator and paver) were provided by the project applicant (Appendix D). For noise-sensitive receptors located in the Town, construction noise impacts were evaluated by quantifying the noise levels that would result from simultaneous operation of all pieces of equipment at 25 feet, in accordance with the Town's noise ordinance discussed above. For noise sensitive receptors located in the City of Millbrae and the City of Burlingame, construction noise impacts were evaluated by quantifying the maximum noise levels that would result from simultaneous operation of the two noisiest pieces of equipment in accordance with the FTA guidance (FTA 2006). Then, buffer distance that would be needed to avoid exceeding the FTA's 90 dBA construction noise threshold was estimated for each construction phase. Due to the linear construction of the project, buffer distances from the proposed pipeline alignment to the applicable noise thresholds were calculated. As construction progresses along the proposed pipeline alignment, noise from construction activities would temporarily affect different sensitive receptors. Potential noise impacts from project construction equipment are provided in Table 8.

Table 8. Potential Noise Impact from Project Construction Equipment

CONSTRUCTION PHASE	CONSTRUCTION WITHIN THE TOWN	CONSTRUCTION WITHIN THE CITY OF MILLBRAE AND THE CITY OF BURLINGAME	
	Potential Noise Levels at 25 feet (dBA)	Potential Noise Levels at 50 feet (dBA)	Buffer Distance to Construction Noise Threshold of 90 dBA Leq (Feet)
Pavement Removal	90	84	25
Trench Excavation	89	82	20

Asphalt Paving and Concrete	92	85	27

Source: Noise Calculations, Appendix D.

As shown in Table 8, project construction would not generate noise levels at 25 feet that exceed the Town's threshold of 100 dBA at 25 feet from the property line. For noise sensitive receptors located in the City of Millbrae and the City of Burlingame, construction noise could exceed the 90 dBA Leq threshold at residences located within 27 feet of the proposed pipeline alignment. Most of the residential structures are located further than 27 feet away from the proposed pipeline alignment, except for two residences south of the intersection of Pinehurst Court and Larkspur Drive to the east in the City of Millbrae. As mentioned above, it is expected that pipeline installation would progress about 100 linear feet horizontally per workday on average, which means any sensitive receptors within 27 feet of the pipeline alignment would be exposed to substantial noise levels for less than a day. As the construction progresses along the proposed pipeline alignment, construction noise impacts at individual sensitive receptors would generally be limited in frequency and duration. Therefore, off-road construction equipment activities on the project site would not generate excessive noise at nearby sensitive receptors for a substantial duration. Therefore, the project's construction noise impact would be less than significant.

In addition, noise reduction measures would be included as a condition of approval for construction of the project. Noise reduction measures would include, but are not limited to, the following:

1. Properly muffle and maintain all construction equipment powered by internal combustion engines.
2. Prohibit unnecessary idling of combustion engines.
3. Select quiet construction equipment, whenever possible. Fit motorized equipment with proper mufflers in good working order.
4. The project applicant should designate a "noise disturbance coordinator" responsible for responding to any local complaints about construction noise. The disturbance coordinator should determine the cause of any noise complaint (e.g., starting too early, bad muffler, etc.) and should require that reasonable measures be implemented to correct the problem (e.g., erection of a temporary noise barrier/wall). A telephone number for the disturbance coordinator shall be posted at the construction site.

Operational Noise

The primary source of noise during project operation would be the pumps within the proposed new PS. The proposed PS would include three pumps (two operating, one standby) hosted within an enclosed concrete masonry unit building structure. Standard building structures can provide an average of 20 dBA attenuation with windows closed. The nearest sensitive receptors to the proposed PS are residences along Helen Drive. The closest residence is located adjacent east of the decommissioned Helen Tank Site (proposed PS site). The building around the PS would be designed to minimize noise to meet Millbrae's noise ordinance, including noise associated with the occasional use of the emergency generator. As such, project operation would not result in a permanent increase in ambient noise levels that would exceed local standards.

b) Generation of excessive groundborne vibration or groundborne noise levels?

Less than Significant Impact

Construction can result in varying degrees of ground vibration depending on the type of equipment and activity. The primary types of equipment that could generate substantial ground vibration during project construction and the associated vibration calculations are included in Appendix D. To evaluate the project's potential vibration effects on nearby sensitive receptors, a buffer distance that would be needed to avoid exceeding the FTA and Caltrans construction vibration thresholds listed above was estimated for each type of equipment. It was conservatively assumed that the equipment that could generate substantial ground vibration would be used near the project boundaries. The estimated buffer distances for potential disturbance and building damage are summarized in Table 9. Refence vibration levels and related calculations are included in Appendix D.

Table 9. Buffer Distances for Potential Vibration Impacts from Project Construction Equipment

EQUIPMENT	BUFFER DISTANCE FOR POTENTIAL VIBRATION IMPACTS (FEET)	
	Human Disturbance Impacts[1]	Structural Damage Impacts[2]
Vibratory Roller	58	20
Loaded Trucks	31	10

Notes: Equipment list and supporting calculations are included in Appendix D.

[1] The FTA thresholds of 83 VdB for institutional land uses from infrequent construction events was used to calculate the buffer distances from construction equipment.

[2] To be conservative, the Caltrans vibration threshold of 0.3 in/sec for older residential structures was used to calculate the buffer distances from construction equipment.

As shown in Table 9, the construction equipment that would require the largest buffer distance to avoid generating vibration levels that could disturb institutional land uses with primarily daytime use is the vibratory roller. Vibration from a vibratory roller could exceed the 83 VdB threshold at institutional land uses located within 58 feet. The closest institutional land use is the Meadows Elementary School, which is located about 175 feet southwest to the nearest proposed pipeline alignment. Therefore, construction activities would not generate excessive vibration levels that could potentially disturb the normal school operations. As nighttime work is not anticipated, vibration annoyance impacts on people within residential buildings related to nighttime construction would not occur. Therefore, construction activities would not be expected to generate excessive vibration levels that would disturb nearby residents and institutional land uses, and this impact would be less than significant.

As shown in Table 9, vibration from a vibratory roller could exceed the 0.3 in/sec PPV threshold for potential structural impacts to older residential buildings located within 20 feet. All the residential structures along the proposed pipeline alignment would be located outside of the 20-foot buffer where a vibratory roller could exceed the 0.3 in/sec PPV threshold. Therefore, construction activities would not generate excessive vibration levels with the potential to damage adjacent buildings, and this impact would be less than significant.

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?*

Less than Significant Impact

The SFIA is located approximately 1.2 miles northeast of the project site at the closest point. The project site is not located within an SFIA Noise Compatibility Zone (San Mateo County GIS 2020), and therefore does not require additional noise analysis or protections related to airport noise (City of Millbrae 2020, City of Burlingame 2019a). The impact would be less than significant.

4.2.14 Population and Housing

Would the project:		*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*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?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

The project site is situated throughout residential areas of Hillsborough, Burlingame, and Millbrae. New development within Hillsborough, Burlingame, and Millbrae is limited due to the presence of mature and well-established neighborhoods and environmental constraints. In the Town of Hillsborough, new development is limited since most of the Town is built out. Environmental constraints such as creeks, steep slopes, and limited access also limit the Town's possibility of expanding. Based on the City of Millbrae 2040 General Plans, development of new housing will primarily occur through redevelopment of existing underutilized land and reuse of existing buildings. Similarly, the Burlingame General Plan indicates the desire of residents to maintain established neighborhood character of mature, built-out communities.

DISCUSSION OF IMPACTS

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)?

The project site is largely situated on developed land following existing roadways. The project does not propose new homes or businesses and would not alter the number or type of residential units present in the project area. The project would not introduce changes in infrastructure that would encourage substantial unplanned population growth in the project area. The proposed water pipeline is meant to support water service to existing residences after seismic events and would not result in capacity increases that would support substantial population growth. No direct or indirect impacts regarding substantial unplanned population growth would occur.

b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

Construction of the pipeline would occur primarily along existing residential streets, as well as along Skyline Boulevard, a well-traveled regional thoroughfare. The proposed alignment lies

along public rights-of-way. Construction activities may temporarily limit access to driveways along the proposed alignment, however these impacts would only last a few hours, if at all, and no people would be displaced. The project does not involve the removal of existing residential uses. Therefore, no impact related to displacement of existing people or housing would occur.

4.2.15 Public Services

Would the project:	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
Fire protection?	☐	☐	☒	☐
Police protection?	☐	☐	☒	☐
Schools?	☐	☐	☒	☐
Parks?	☐	☐	☒	☐
Other public facilities?	☐	☐	☒	☐

ENVIRONMENTAL SETTING

Meadows Elementary School is located near the intersection of Helen Drive and Larkspur Drive in the City of Millbrae. Nueva School Hillsborough Campus is located 0.5 miles east of the project in the Town of Hillsborough. In addition, there are two fire stations located along the pipeline alignment in the City of Millbrae and Town of Hillsborough with rear exits to Skyline Boulevard. Public service providers to the project site include the Central County Fire Department (Stations 35 and 38) for fire protection and Hillsborough Police Department for police services.

DISCUSSION OF IMPACTS

a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:

- Fire Protection?
- Police Protection?
- Schools?
- Parks?
- Other Public Facilities?

The project would not contribute any change in infrastructure that would require the provision of or need for new or physically altered governmental facilities. The purpose of the project is to ensure that a highly reliable source of water is available to the existing communities

immediately following a seismic event. As discussed in Section 5.2.14, Population and Housing, the proposed pipeline would not support expansion of the existing community and therefore would not induce population growth. As such, the project would not result in the need for new governmental facilities in order to maintain service ratios, response times, or other performance objectives. Construction work would take place during standard daytime construction hours with the exception of work near Meadows Elementary School and Nueva School Hillsborough Campus, where work would be coordinated to minimize impacts to school activities. In addition, there are two fire stations located along the pipeline alignment in the City of Millbrae and Town of Hillsborough with rear exits to Skyline Boulevard. Construction schedules would be shared with and, if necessary, coordinated with Central County Fire Department to ensure no loss of access for fire response occurs. Therefore, the impact of the proposed project related to public services, including fire protection, police protection, schools, parks, and other public facilities, would be less than significant.

4.2.16 Recreation

Would the project:		*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*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?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

There are two public recreational facilities within the project area: Millbrae Meadows Park and Skyline Park. Millbrae Meadows Park is a small park located along Helen Drive and across the street from Meadows Elementary School. It features a playground and is surrounded by tree lined open space. Skyline Park in the City of Burlingame features a fenced dog park and a walking loop.

DISCUSSION OF IMPACTS

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?

As discussed in Section 5.2.14, the proposed project would not support population growth and therefore would not indirectly increase the use of existing recreational facilities. During construction, access to existing recreational facilities, including Millbrae Meadows Park and Skyline Park, would be maintained. The project would not increase the use of existing recreational facilities such that physical deterioration of the facility would occur. No impact would occur.

b) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

The project would not include the construction of any recreational facilities. As stated above in Impact a), the project would not result in a need to construct or expand any existing recreational facilities. Therefore, no impact would occur.

4.2.17 Transportation

Would the project:		*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
a)	Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☒	☐	☐
b)	Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☐	☐	☒	☐
c)	Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
d)	Result in inadequate emergency access?	☐	☒	☐	☐

ENVIRONMENTAL SETTING

Regional and Local Access

Regional access to the project site is provided via I-280. I-280 is a major north-south auxiliary Interstate Highway in the San Francisco Bay Area in California. I-280 runs between San Jose and San Francisco and contains four lanes in each direction near Hillsborough. The portion of I-280 adjacent to Hillsborough is an officially designated State Scenic Highway. Local access to the project site in the Town of Hillsborough is provided by Larkspur Drive and Skyline Boulevard. Local access to the project site in the City of Burlingame is provided by Trousdale Drive and Skyline Boulevard. Local access to the project site in the City of Millbrae is provided by Larkspur Drive and Skyline Boulevard. I-280 will be used as a primary source of access to the project site whenever possible to limit truck trips through residential streets.

Pedestrian/Bicycle Routes

Bicycle routes near the project site include Class II Bicycle Lanes and Class III Bicycle Routes. Skyline Boulevard, which goes through the project site in the City of Millbrae, City of Burlingame, and the Town of Hillsborough, is classified as a Class II Bicycle Lane. Class II Lanes are striped and stenciled lanes for one-way bicycle travel on a street or highway (City of Millbrae 2022a). Hillside Drive, located approximately 100 feet east of the project site in the City of Burlingame, is designated as a Class III Bicycle Route. Class III Routes are designated by signs where bicyclists share a travel lane with motorists (City of Burlingame 2020). In addition, Trousdale Drive is included in the City of Burlingame's Bicycle and Pedestrian Master Plan as a recommended Class 2B Buffered Bicycle Lane (City of Burlingame 2020). Pedestrian routes near the project site include sidewalks/walkways.

Transportation Planning

The Metropolitan Transportation Commission (MTC) is the agency responsible for transportation planning and funding for the nine-county Bay Area, which includes San Mateo County.

MTC is charged with regularly updating the Regional Transportation Plan, a comprehensive blueprint for the development of mass transit, highway, airport, seaport, railroad, bicycle, and pedestrian facilities in the region. MTC and Association of Bay Area Governments (ABAG) adopted Plan Bay Area 2040 in July 2017, which includes the region's Sustainable Communities Strategy and Regional Transportation Plan.

The City of Millbrae, the City of Burlingame, and the Town of Hillsborough have established transportation polices in their General Plans that seek to improve regional transportation coordination to ensure an efficient transportation system for the region. These policies are described below.

REGULATORY SETTING

Town of Hillsborough General Plan

The Town of Hillsborough's General Plan includes the following relevant policies related to transportation:

> **Policy C-1.1:** Maintain public roadways in good condition to minimize the potential for automobile accidents and reduce wear and tear on vehicles.
>
> **Policy C-1.4:** Promote safe motor vehicle, pedestrian, and bicycle activities to avoid situations that may result in accidents.
>
> **Policy C-1.5:** Maintain adequate emergency access for all land uses.
>
> **Policy C-2.1:** Maintain a minimum Level of Service (LOS) "C" operating standard for intersections and roadway segments in the Town of Hillsborough, except for the Black Mountain Road/Hayne Road/Skyline Boulevard, which is affected by regional traffic traveling to and from I-280 through Hillsborough.
>
> **Policy C-2.2:** Accept LOS "F" at the intersection of Black Mountain Road/Hayne Road/Skyline Boulevard, which is affected by regional traffic traveling to and from I-280 through Hillsborough.
>
> **Policy C-2.3:** Accept LOS "F" during the morning and afternoon pick-up and drop-off hours at intersections and roadway segments adjacent to the public schools due to the intermittent character of the congestion.

City of Burlingame General Plan

The City of Burlingame's General Plan does not contain any transportation-related policies that are relevant to the proposed project. As described above, some roadways within the project site are designated bike lanes per the City of Burlingame's Bicycle and Pedestrian Master Plan (City of Burlingame 2020).

City of Millbrae General Plan

The City of Millbrae's General Plan includes the following relevant policies related to transportation:

Policy M-1.1 Serving all Users. The City shall develop, or require new development to incorporate into proposed projects, complete streets infrastructure, where applicable, sufficient to provide safe, comfortable, and convenient travel along and across streets to serve all types of travel (including pedestrians, bicyclists, motorists, movers of commercial goods, micromobility, and public transportation), and users (including persons with disabilities, seniors, children, and families).

Policy M-1.2: Traffic Diversion. The City shall strive to protect the character of Millbrae's residential neighborhoods by discouraging non-local and commercial traffic from local streets through land use restrictions and traffic control devices, where appropriate.

Policy M-1.13: Maintaining Traffic Level of Service. The City shall strive to achieve or exceed adopted traffic LOS standards during peak traffic hours through Transportation Systems Management (TSM), Transportation Demand Management (TDM), street maintenance, Capital Improvement Programming, coordination with federal, state, county, private and district funding programs for street and other transportation improvements. The City shall require developer payment of pro rata fair share of traffic improvement costs for new developments.

DISCUSSION OF IMPACTS

a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

Less than Significant Impact with Mitigation Incorporated

Construction of the project would generate off-site traffic, including the delivery of construction equipment and materials to the project site and the daily arrival and departure of construction workers. Construction-related traffic would be temporary and would not result in any long-term degradation in operating conditions on any locally used roadways. All streets that must be trenched to construct the proposed pipeline would be repaved, and all street features, including pedestrian and bike paths and lanes, would be replaced. Therefore, the project would not conflict with any General Plan policies regarding the quality and condition of public roadways or complete streets features. Therefore, the project would not conflict with Policy M-1.2 of the Millbrae General Plan.

The impact of construction-related traffic would temporarily decrease capacities of streets in the project area because of the slower movements and larger turning radii of construction vehicles compared to passenger vehicles. The public could experience delays if traveling behind a large or heavy truck. The addition of construction-related truck traffic would not be substantial enough to conflict with LOS standards in the Town of Hillsborough's or City of Millbrae's General Plan. While the traffic generated by construction activities would be noticeable and may increase traffic volumes on the local roadways serving the construction site, it would not be enough to conflict with LOS standards.

A Class II bicycle lane along Skyline Boulevard is located within portions of the project site. A Class III bicycle lane also runs along Hillside Drive, located approximately 100 feet east of the project site in the City of Burlingame. During construction, bicyclists could expect delays when traveling through the project site. The project would implement Mitigation Measure TRAN-1, which requires preparation of a TCP for all work within the public right-of-way during construction. The TCP would contain measures to ensure safe passage for bicyclists, pedestrians, and motorists during project construction activities that take place in the roadway. The TCP may

require measures such as advance warning signs and traffic guards. In addition, the TCP would contain measures to ensure adequate emergency access is maintained throughout project construction. In addition, the project would be required to obtain an Encroachment Permit from the City of Burlingame, Millbrae, and San Mateo County, and would comply with all requirements of the issued permit. With the implementation of Mitigation Measure TRAN-1, the project would not conflict with any General Plan policies regarding safety of pedestrians, bicyclists, and motorists, and emergency access. The impact would be less than significant with mitigation incorporated.

Once constructed, the project would only require occasional maintenance inspection, which would be similar to existing conditions. No operational impact would occur.

b) Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

Less than Significant Impact

In accordance with the *Technical Advisory on Evaluating Transportation Impacts in CEQA*, Section 21099 of the PRC states that the criteria for determining the significance of transportation impacts must promote: (1) reduction of GHG emissions; (2) development of multimodal transportation networks; and (3) a diversity of land uses. Section 21099 subd. (b)(1) further directed the Office of Planning and Research (OPR) to prepare and develop criteria for determining significance. The OPR identifies a screening threshold for small, land use projects as a project that generates or attracts fewer than 110 trips per day. Projects that generate fewer than this threshold may be assumed to cause a less-than-significant transportation impact (OPR, 2018).

The daily number of vehicle trips associated with the project would not exceed 110 trips per day, which is the OPR's screening threshold for conducting a vehicle traveled analysis. Once constructed, the project would only require occasional maintenance inspection, which would be similar to existing conditions. The project would not conflict with CEQA Guidelines section 15064.3, subdivision (b). The impact would be less than significant.

c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

No Impact

The project would include construction of a new water pipeline and PS which would be located under the existing roadway and at the Helen Tank Site, respectively. The project would not introduce any hazards due to geometric design features that are not already present. No impact would occur.

d) Result in inadequate emergency access?

Less than Significant with Mitigation Incorporated

As discussed above, neither project construction nor operational activities would permanently alter the physical configuration of the existing roadway network serving the project area. However, construction activities would take place in the existing roadway which could affect emergency access, which is a potentially significant impact. Mitigation Measure TRAN-1 requires the preparation of a TCP, which would include measures to ensure adequate emergency access during project construction. In addition, the project contractor would coordinate with local police

and fire departments to ensure law enforcement and emergency response personnel are aware of construction and potential delays. The project would be required to obtain an Encroachment Permit from the City of Burlingame, Millbrae, and San Mateo County, and would comply with all requirements of the issued permit. The impact would be less than significant with mitigation incorporated.

MITIGATION MEASURES

Mitigation Measure TRAN-1: Traffic Control Plan

To ensure that construction of the project does not adversely interfere with local traffic safety and circulation, a TCP shall be prepared for the project. The TCP shall include, but not be limited to, the following elements:

- The contractor shall provide flaggers as needed to temporarily hold traffic to safely stage equipment in advance of and/or during construction.
- The contractor shall coordinate with the Hillsborough, Millbrae, and Burlingame Police and Fire Departments to ensure that construction activities, including staging and storage of materials in and near the proposed staging areas, do not interfere with law enforcement activities, emergency response, or evacuation procedures.
- The contractor shall install advance warning signs to alert pedestrians, bicyclists, and motorists regarding construction activities in the project area. Advance warning signs may include reflective signs, cones, or barricades. Signage should state the anticipated duration for construction.
- Work shall be confined to the immediate project site and performed in a manner that would be least disruptive to the public.
- The contractor shall ensure that public access to businesses and private driveways is maintained at all times.

4.2.18 Tribal Cultural Resources

Would the project:	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*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 size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
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)?	☐	☒	☐	☐
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 Resources Code section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☒	☐	☐

ENVIRONMENTAL SETTING

A description of the environmental setting related to tribal cultural resources can be found in Section 5.2.5, Cultural Resources.

REGULATORY SETTING

Tribal Cultural Resources Assembly Bill 52 (AB 52)

AB 52 (Chapter 532, Statutes 2014) required an update of the CEQA Guidelines to include questions related to impacts to tribal cultural resources. AB 52 establishes a consultation process with all California Native American Tribes on the Native American Heritage Commission List, Federal and Non-Federal Recognized Tribes. AB 52 also establishes a new class of resources: Tribal Cultural Resources. Key components of AB 52 include consideration of Tribal Cultural Values in determination of project impacts and mitigation, and required Tribal notice and meaningful consultation.

PRC Section 21080.3.2(b) states that consultation ends when either 1) parties agree to mitigation measures or avoid a significant effect on a tribal cultural resource, or 2) a party,

acting in good faith and after reasonable effort concludes that mutual agreement cannot be reached.

State of California Public Resources Code

Section 21074 of the PRC defines historical resources related to tribal cultural resources.

a) "Tribal cultural resources" are either of the following:
    a. Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:
        A. Included or determined to be eligible for inclusion in the California Register of Historical Resources.
        B. Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1.
    b. 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 Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.
b) A cultural landscape that meets the criteria of subdivision (a) is a tribal cultural resource to the extent that the landscape is geographically defined in terms of the size and scope of the landscape.
c) A historical resource described in Section 21084.1, a unique archaeological resource as defined in subdivision (g) of Section 21083.2, or a "nonunique archaeological resource" as defined in subdivision (h) of Section 21083.2 may also be a tribal cultural resource if it conforms with the criteria of subdivision (a).

Section 5020.1(k) defines "Local register of historical resources" as a list of properties officially designated or recognized as historically significant by a local government pursuant to a local ordinance or resolution.

Section 5024.1 is the establishment of the California Register of Historical Resources (California Register).

ASSESSMENT METHODOLOGY

As part of the Archaeological Survey Report, Alta contacted the NAHC on September 28, 2023 to request a review of the Sacred Lands file for information on Native American cultural resources in the area of the project site and to request a list of Native American contacts in this area. No response was received from the NAHC at the time this document was drafted.

On September 28, 2023, a letter was sent to the Tribal Historic Preservation Officer (THPO) or appropriate representative of each tribal group associated with the project site area. The representatives were identified from a list previously provided by the NAHC for the area.

On October 2, 2023, follow up phone calls were conducted to all individuals that were contacted about the project. None of the individuals answered the phone. A voice mail message was left, when possible.

On October 5, 2023, Andy Galvan, of the Ohlone Indian Tribe, returned Alta's phone call to discuss the project. He inquired about the records search results and Sacred Lands search. Mr. Galvan requested to be notified if any cultural resources were identified in the project area as a result of the field survey effort.

To date, no other responses have been received from the Native community regarding the proposed project.

DISCUSSION OF IMPACTS

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 size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

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)?

ii) 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 Resources Code section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Less than Significant with Mitigation Incorporated

As described in Section 5.2.5, Cultural Resources, there are no resources listed within the project site. There is one prehistoric resource listed within a quarter mile of the project site; however, project activities would not disturb this resource as it does not extend into the project site. No impact to Tribal Cultural Resources that are listed in the California Register would occur. As described in Section 5.2.5, Cultural Resources, there is potential for unknown cultural resources, including tribal cultural resources, to be discovered during earth-disturbing construction activities, such as excavation and grading. As such, the project would implement Mitigation Measure CUL-1 to ensure that any accidentally discovered cultural resources would be treated with proper care.

As discussed above, Alta staff contacted the NAHC to request a review of the Sacred Lands file for information on Native American cultural resources within the project site and to request a list of Native American contacts in the project area. No response was received by the NAHC at the time this document was prepared. Tribal representatives were identified from a list previously provided by the NAHC for the area. Alta sent letters to each of these tribal groups associated with the project area and to the Tribal Historic Preservation Officer to inform them of the proposed project. Follow up phone calls to each group were made on October 2, 2023, however no individuals answered the phone. One tribal representative from the Ohlone Indian Tribe returned Alta's phone call to discuss the project and requested to be notified of any new discoveries of cultural resources.

AB 52 requires a direct consulting relationship between tribes and the lead agency. Tribes who wish to consult on a project and the lead agency bear the responsibility for compliance with AB

52. Therefore, the Town as the lead agency under CEQA shall conduct formal AB 52 consultation with any tribe that requests to consult on the proposed project. The five step process in making a good faith effort to conduct tribal consultation under State guidelines, as outlined by the NAHC, can be found at: https://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPAPDF.pdf.

With implementation of Mitigation Measure of CUL-1, and compliance with AB 52, potential impacts to tribal cultural resources would be less than significant.

4.2.19 Utilities and Service Systems

Would the project:		*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
a)	Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☒	☐	☐
b)	Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	☐	☐	☒	☐
c)	Result in a determination by the 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?	☐	☐	☒	☐

ENVIRONMENTAL SETTING

Town of Hillsborough

Water and Sewer Service is provided and maintained by the Town of Hillsborough Public Works Department. Hillsborough's water is provided by the SFPUC. The SFPUC water supply comes from three major sources: Hetch Hetchy Reservoir in the Sierra Nevada Mountains, and the local watersheds in Alameda County and the Peninsula. The Town contracts with Recology San Mateo County for solid waste pickup. Electrical Service is provided by PG&E.

City of Burlingame

Water is provided by the City of Burlingame Water Division. The City of Burlingame purchases all its water from the SFPUC. The City of Burlingame Wastewater Treatment Facility maintains the sewage system. The City contracts with Recology San Mateo County for solid waste pickup. The City of Burlingame has also chosen to purchase 100% renewable energy for all City municipal electricity accounts as part of PCE's ECO100 rate. However, residents may also choose to receive service from PG&E.

City of Millbrae

Water and Sewer Service is provided and maintained by the City of Millbrae Public Works Department. Electrical Service is provided by PG&E. Trash collection and recycling services are exclusively provided by the privately-owned South San Francisco Scavenger Company.

DISCUSSION OF IMPACTS

a) *Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?*

Less than Significant with Mitigation Incorporated

The proposed project would include the construction of a new water pipeline and PS to convey water to the three municipalities of Hillsborough, Millbrae, and Burlingame. Potential environmental effects of the proposed new water facilities are discussed throughout this IS/MND. Section 5.2.21, Mandatory Findings of Significance, describes the cumulative impacts of the proposed project. As described throughout this IS/MND, the project would not result in any significant environmental impacts; all impacts would be mitigated to a less than significant level with implementation of mitigation measures described throughout this document. Therefore, the environmental effects of the proposed new water facilities included in the project would be less than significant with mitigation incorporated.

b) *Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?*

Less than Significant Impact

The Town of Hillsborough, City of Burlingame, and City of Millbrae purchase potable water from SFPUC. SFPUC water is supplied from the Hetch Hetchy Supply, which includes the Sunset Supply and Crystal Springs Pipeline No. 2, as well as the Crystal Springs Pipeline No. 3 in the City of Burlingame. All three municipalities are members of the Bay Area Water Supply and Conservation Agency (BAWSCA), which works to ensure the SFPUC water system is fixed and upgraded to withstand seismic events expected to occur on the earthquake faults that cross under the system. Each municipality is required by the State to update its Urban Water Management Plan (UWMP) and Water Shortage Contingency Plan (WSCP) every five years.

Normal Year Water Supply

Town of Hillsborough

The Town has experienced a decline in water demand over the past ten years. The Town's 2020 UWMP estimates that the Town's water demand is projected to increase from 2,982 acre-feet

(AF) per year in 2020 to 3,738 AF by 2030 due to projected population growth. Water demand is then projected to fall to 3,669 AF per year by 2045, due to zero projected population growth and a continued projected improvement in water conservation and the plumbing code (Town of Hillsborough 2021a). The UWMP states that the Town has an individual water supply guarantee of 4,858 AF per year during normal water years, which is more than enough water to meet the Town's maximum projected water demand through 2045.

City of Burlingame

The City's 2020 UWMP states that the City has experienced declining water demands over the past ten years. The City's demand for potable water was 1,271 MG in 2020 and is expected to increase to 1,721 MG in 2045 (City of Burlingame 2021). The City has an individual water supply guarantee of 5.23 MGD, which corresponds to approximately 1,909 MG per year, which is more than enough to meet the City's projected water demand by 2045, in normal years (City of Burlingame 2021).

City of Millbrae

The City's 2020 UWMP explains that the City has experienced declining water demands over the past ten years, which is likely due to advances in water use efficiency, increased conservation awareness, periodic economic hardship, and drought regulations. The average annual water demand within the City from 2015 to 2020 was approximately 636 MG, which is expected to increase to 913 MG by 2030 and 1170 MG by 2045 (City of Millbrae 2021). During normal years, the City's is guaranteed an individual water supply of 3.15 MGD, which corresponds to an annual volume of 1,150 MG, which is more than enough to meet the City's projected water demand by 2030, in normal years.

Dry and Multiple Dry Year Water Supply

Each municipality's water supply reliability is directly dependent on potable water supply provided by the SFPUC. The SFPUC has stated that there is uncertainty surrounding dry year and multiple dry year water supply. The Bay Area Delta Plan Amendment adopted by the SWRCB in 2018 requires the release of 40 percent unimpaired flow on the Tuolumne River from February through June each year, which the SFPUC estimates will require water rationing in single- and multiple-dry year events (Town of Hillsborough 2021a). If the Amendment is implemented, the SFPUC would experience supply shortages of greater than 20 percent in single dry years or multiple dry years (City of Millbrae 2021), which could result in greater proportional shortages in each of the three municipalities. Although the Amendment was adopted in 2018, the changes have yet to take effect. Because of this uncertainty, the SFPUC is in the process of developing an Alternative Water Supply Plan to support the continued development of water supplies to meet future needs (City of Burlingame 2021). The Draft Alternative Water Supply Plan was released in June 2023 and shall be used to guide decision-making and provide recommendations to improve long-term water supply reliability. As the purpose of this plan is to ensure that adequate water supplies are available to SFPUC customers during dry and multiple dry year events, it can be concluded that ample planning is underway to ensure that adequate water supplies will exist to serve the project site in future shortage events.

As an additional contingency measure for water shortage planning, each municipality is required to update their WSCP every five years, which is intended to be a stand-alone planning document designed to prepare for and respond to water shortages. Each WSCP outlines shortage response actions, which include measures such as demand reduction methods, supply augmentation, allocation system changes, publicity and communication to the public, operational changes,

additional mandatory restrictions, and an emergency response plan. The proposed project would not conflict with any measures included in each applicable WSCP and would therefore not interfere with the municipalities' ability to address water shortages during dry and multiple dry years. The impact would be less than significant.

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?*

No Impact

As described in Section 5.2.14, Population and Housing, the proposed project would not generate substantial population growth, and therefore would not generate new demand for wastewater treatment. No impact would occur.

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?*

Less than Significant Impact

The project would generate construction and demolition (C&D) waste during construction, which would need to be disposed of at a facility that accepts C&D waste. The project would comply with all applicable C&D waste recycling requirements, as described below in Impact e). Project operation would not cause a substantial increase in solid waste generation. The impact would be less than significant.

e) *Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?*

Less than Significant Impact

The Town of Hillsborough Standard Conditions of Approval require that before any demolition and/or construction work is initiated, and before a Demolition or Building Permit is issued, a waste reduction plan shall be submitted to the Building Department for review and approval by the Town's Recycling Coordinator (Town of Hillsborough 2006). The plan shall include details on the types of materials to be recycled, how they will be transported, and what facility they will be taken to for recycling. The City of Burlingame has a Recycling Ordinance that requires submission and approval of a Waste Reduction Plan prior to issuance of a Building Permit, which applies to projects with a valuation of $50,000 or more, new construction, and to demolition of entire structures. As a construction project, the proposed project would be required to comply with the requirements of this ordinance. The City of Millbrae General Plan Policy NRC-6.2 states that the City shall require all developments to comply with the current California Green Building Standards code (CALGreen) requirements for construction and demolition waste diversion (City of Millbrae 2022b). The proposed project would generate C&D waste and would comply with all the requirements described above. Project operation would not result in substantial amounts of waste. Therefore, the impact would be less than significant.

4.2.20 Wildfire

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 Incorporated*	*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?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

The project site is located in a Local Responsibility Area (LRA), meaning that a local, rather than State agency, is responsible for protecting the area from wildfire hazards. The project site parallels I-280 to the east and is situated in primarily residential areas. Directly west of I-280 are open space areas that surround the San Andreas Lake and Lower Crystal Springs Reservoir. These areas are State Responsibility Areas that are categorized as High and Very High Fire Hazard Severity Zones (FHSZ) by Cal Fire.

Town of Hillsborough

The General Plan describes that the Town is at heightened risk of wildfire due to the design of the Town's street system, which is comprised of often narrow and curvilinear patterns and hilly topography, which can make it difficult for emergency vehicles to travel from one side of the community to the other and to access certain areas. The Town is proactive in addressing wildfire risks by clearing vegetation and maintaining access pathways to areas with the highest fire risks (Town of Hillsborough 2005). The Central County Fire Department participates in regional fire protection activities to reduce the overall risks of wildfire within the County. The General Plan contains the following policies related to wildfires:

Policy PS-1.1: Maintain safe building practices and require fire-safe building materials in all new developments and substantial redevelopments.

Policy PS-1.2: Support fire prevention, public education, early detection programs, and property inspections to identify and avoid fire hazards.

Policy PS-1.3: Encourage the maintenance of ground cover and fire breaks on all open space lands.

Policy PS-1.4: Support excellent fire service through the maintenance of fire equipment and the training of fire personnel.

The project site is located in a Very High Wildfire Hazard Area in the Town of Hillsborough (Town of Hillsborough 2005).

City of Burlingame

The Central County Fire Department provides fire response services to Burlingame. The General Plan contains the following policies related to wildfire:

CS-2.1: Joint Powers Agreement for the Provision of Services. Continue to participate with the Town of Hillsborough in the Joint Powers Agreement for the Central County Fire Department to ensure Burlingame is optimally served through fire suppression, emergency medical services, incident response, fire prevention, public education, and emergency management and preparedness.

CS2.4: Adequate Water Supply and Infrastructure for Fire Suppression. Require new development projects to document the availability of water supplies and infrastructure to meet the fire-suppression needs of the project without compromising existing fire suppression services to existing users.

CS-2.6: Removal of Fire Hazards. Maintain code enforcement programs that require private and public property owners to minimize fire risks by:

- Maintaining buildings and properties to prevent blighted conditions.
- Removing excessive or overgrown vegetation (e.g., trees, shrubs, weeds) in accordance with wildland-urban interface clearance requirements.
- Removing litter, rubbish, and illegally dumped items from properties.

City of Millbrae

The General Plan explains that the City of Millbrae borders the San Francisco Water Department watershed area, which is designated as a moderate or high FHSZ. Climate change is expected to increase wildfire potential in the surrounding foothills and mountains of the Bay Area, potentially including the City of Millbrae. Warmer, earlier springs that dry out vegetation have lengthened the fire season, while drought and warmer temperatures are expected to intensify wildfires that do occur. The General Plan contains the following policies related to wildfire:

HSHM-8.1: Adequate Water Supply for Fire Suppression. The City shall require new development to have adequate water supplies to meet the fire-suppression needs of the project without compromising existing fire suppression services to existing uses.

HSHM-8.3: Open Space Management. The City shall ensure open space maintenance and emergency access to reduce fire risk through City operations, enforcement of City regulations, and cooperation with other agencies.

HSHM-8.4: Wildfire Risk Reduction. The City shall recognize any areas identified in the city as at risk of wildfire as designated by the Office of the State Fire Marshall or by approval of a local risk assessment map prepared by the City. The City will consider funding for implementation of wildfire new planning, response, and mitigation programs, equipment, and resources to reduce the risk of wildfire.

DISCUSSION OF IMPACTS

a) Substantially impair an adopted emergency response plan or emergency evacuation plan?

Less than Significant Impact

As discussed in Section 5.2.9, Hazards and Hazardous Materials, the project would not impair implementation of, or physically interfere with, an adopted emergency response plan or evacuation plan. There are no designated evacuation routes within the area of the project site. Emergency evacuation routes may be determined and communicated to the public at the time disaster poses threat of evacuation. As described in Section 5.2.17, Transportation, the project would prepare a TCP for all work within the public right-of-way during construction. The TCP would contain measures pertaining to emergency response and general traffic management and would ensure that the project would not obstruct any declared evacuation route. During operation, the proposed new infrastructure would be located primarily underground and would not obstruct any evacuation route or impair implementation of any emergency response plans. The impact would be less than significant.

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?

Less than Significant Impact

The project site is located in an area that is particularly susceptible to wildfire risk. Open space areas to the west of I-280 are designated as High and Very High FHSZs by Cal Fire. The Town of Hillsborough General Plan also classifies the project site area to be within a Very High Wildfire Hazard Area. The Cities of Millbrae and Burlingame do not designate specific areas of wildfire risks within the municipalities; however, the General Plans note that the Cities are posed with threat of wildfires from adjacent open space areas, and that these risks may be heightened over time due to climate change.

There is potential for equipment used during project construction to create sparks which could pose an exacerbated fire risk. Construction activities would adhere to all applicable policies and regulations and implement BMPs to ensure fire safety and stop the spread of fire in case of ignition. One of the purposes of the proposed project is to provide additional fire suppression resources to protect critical water storage and distribution infrastructure, as well as the residents of all three communities. As described in Section 4.0, Project Description, once fully implemented, the proposed project would be able to provide high fire flows simultaneously at multiple hydrants to combat wildland fires that may encroach into the three communities from the adjacent high fuel load open space areas. This would reduce the risks associated with wildfires and the uncontrolled spread of wildfire. Therefore, the impact of the proposed project would be less than significant.

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?*

Less than Significant Impact

As described above in Impact b), one of the purposes of the proposed water pipeline is to provide a seismically reliable pipeline that can distribute high fire flows simultaneously at multiple hydrants to combat wildfires that may encroach into the three municipalities from nearby open space areas. Once implemented, the new infrastructure would be primarily located underground, aside from the new PS, which would be located at the Helen Tank Site. No project structures would require new infrastructure such as access roads, fire breaks, or emergency water sources. The impact would be less than significant.

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?*

No Impact

As discussed in Section 5.2.7, Geology and Soils, the project would not significantly alter slope stability or drainage patterns. Project construction activities would take place primarily within the existing roadways, with some staging areas situated near the existing roadway. Staging areas would be decided upon by the project contractor but would be located on relatively flat surfaces with sparse vegetation. During project operations, the proposed new infrastructure would be primarily located underground with the exception of hydrants, meters, and the new PS at the Helen Tank Site. Placement of these structures would not cause significant changes in the landscape that would increase the risk of post-fire hazards. Therefore, the project would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire instability, or drainage changes. No impact would occur.

4.2.21 Mandatory Findings of Significance

Does the project:		*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
a)	Have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b)	Have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☒	☐	☐
c)	Have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

DISCUSSION OF IMPACTS

a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

Less than Significant with Mitigation Incorporated

Implementation of the project would not substantially degrade the quality of the environment, reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or reduce the range of a rare or endangered plant or animal. Potential impacts to special-status wildlife species, including white tailed kite, native birds, and nesting bats, are described in Section 5.2.4,

Biological Resources. These impacts would be mitigated to a less than significant level with the implementation of Mitigation Measures BIO-1 and BIO-2. The proposed project would not eliminate important examples of the major periods of California history or prehistory. As discussed in Section 5.2.5, Cultural Resources, and Section 5.2.18, Tribal Cultural Resources, there are no known cultural resources located within the project site. Impacts to potentially unknown resources within the project site would be mitigated to a less than significant level by Mitigation Measures CUL-1 and CUL-2.

Given that potential impacts to biological and cultural resources would primarily occur during active construction (not long term) and that measures have been identified to reduce these temporary impacts, impacts would not be considered significant. Impacts would be less than significant with mitigation incorporated.

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

Less than Significant with Mitigation Incorporated

Cumulatively considerable means that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects. The lead agency identified one other project in the area, the Darrell Water Tank Replacement Project, which is located at the southern end of the proposed project site. Construction work for the proposed project is expected to begin in early- to mid-2024, and therefore may overlap with construction of the nearby Darrell Water Tank Replacement Project for up to six months. The analysis within this IS/MND demonstrates that the project would not have any individually limited, but cumulatively considerable, impacts. All potentially significant project impacts would be reduced to a less than significant level with mitigation. Compliance with the conditions of approval issued for the project would further ensure that project-level impacts would not be cumulatively considerable. Consequently, the project along with other cumulative projects (e.g., Darrell Water Tank Replacement Project) would create a less than significant cumulative impact with respect to all environmental issues analyzed in this IS/MND.

c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?

Less than Significant with Mitigation Incorporated

Potential impacts to human beings have been addressed in this IS/MND, including impacts related to air quality, noise, and transportation. Project construction activities would cause potential temporary impacts to humans due to the generation of criteria air pollutants, which would be considered less than significant under CEQA with implementation of Mitigation Measure AQ-1. Mitigation Measure AQ-1 requires that the project implement BMPs as recommended by the BAAQMD 2022 CEQA Air Quality Guidelines. During construction, project work would take place in the existing roadway. This could affect emergency access, which is a potentially significant impact to humans. The project would implement Mitigation Measure TRAN-1, which requires the preparation of a Traffic Control Plan, to reduce the impact to a less than significant level. Humans would be impacted by noise generated from construction activities; however, as discussed in Section 5.2.13, Noise, the impact would be less than significant.

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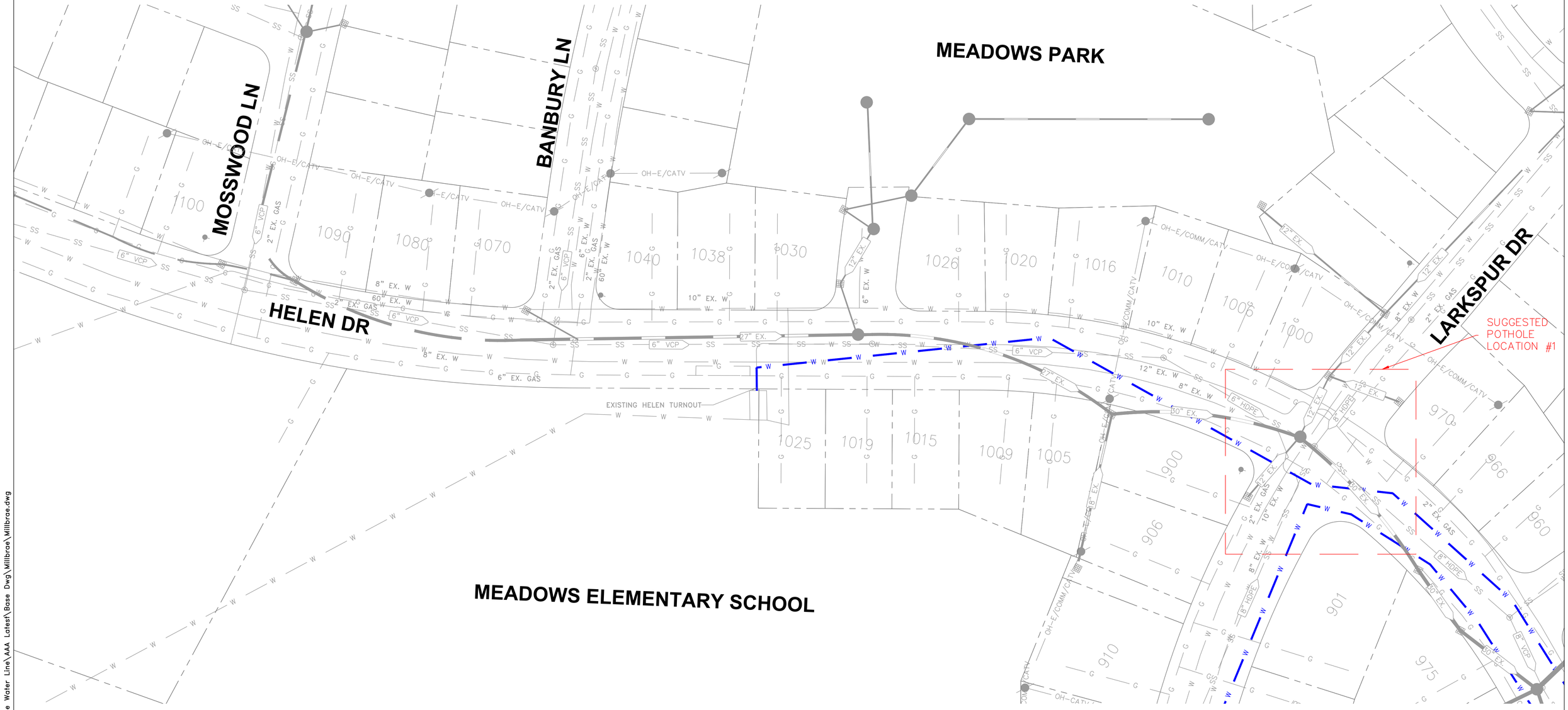
APPENDIX A. PIPELINE ALIGNMENT PLANS



GRAPHIC SCALE

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(IN FEET)
1 inch = 40 ft.

SCALE: AS NOTED				
DRAWN: CSM/FYM				
CHECKED: LFH				
PROJ. ENGR: JJT				
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ALIGNMENT 3-1 MILLBRAE

TOWN OF HILLSBOROUGH, CALIFORNIA

APPENDIX M

JOB NO. 263006

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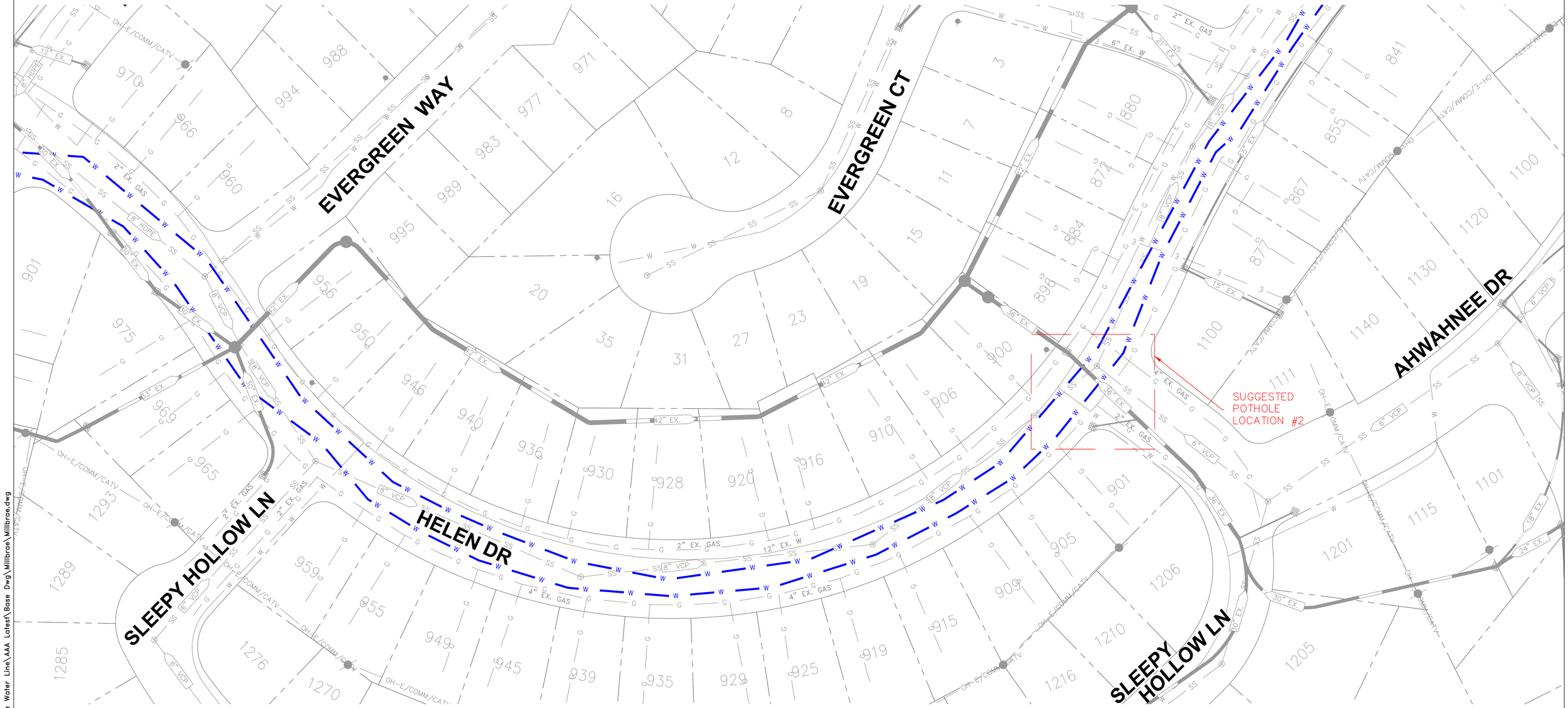

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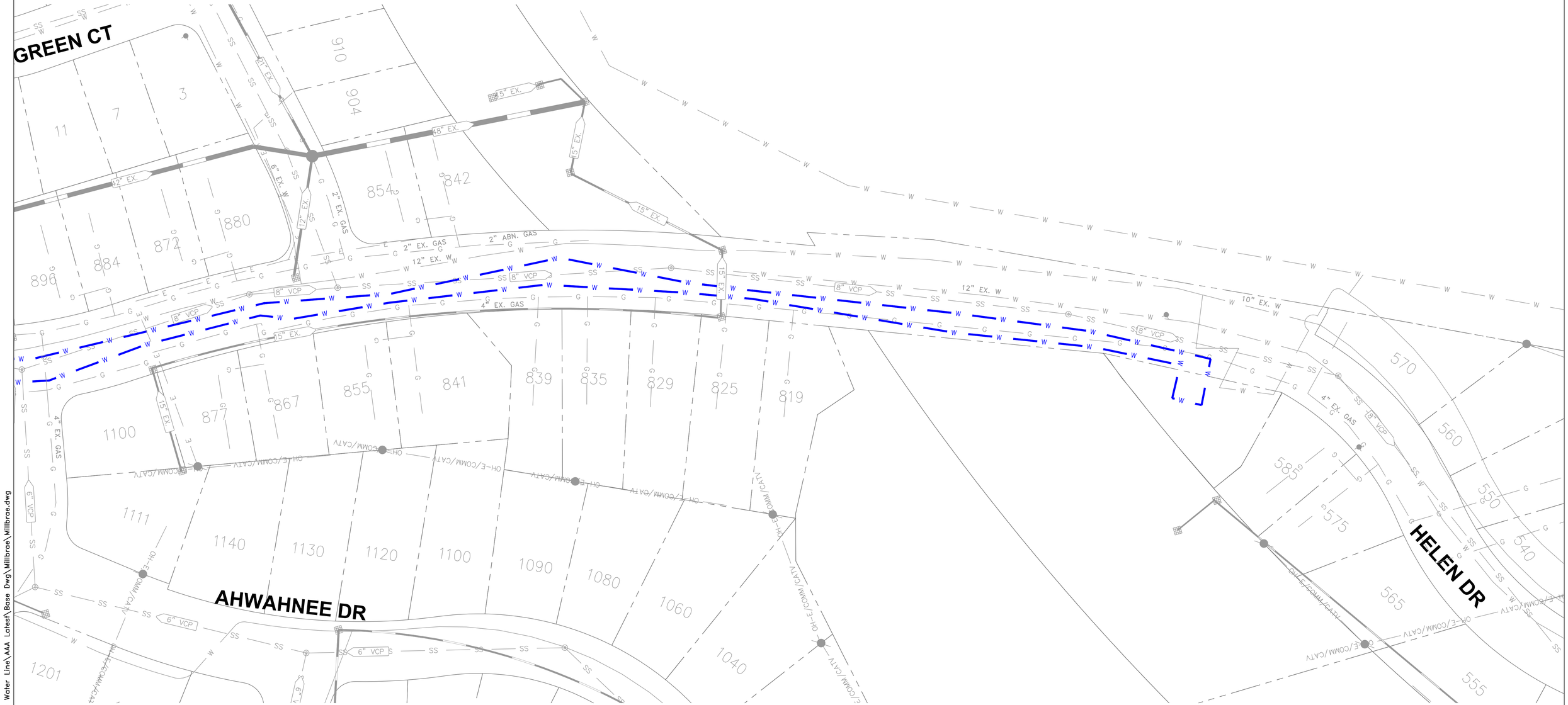

GRAPHIC SCALE

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(IN FEET)
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NORTH

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ALIGNMENT 3-3 MILLBRAE

TOWN OF HILLSBOROUGH, CALIFORNIA

APPENDIX M

JOB NO. 263006

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PINEHURST CT

LARKSPUR DR

SLEEPY HOLLOW LN

EVERGREEN WAY

SUGGESTED POTHOLE LOCATION #1

NORTH

GRAPHIC SCALE

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(IN FEET)
1 inch = 40 ft.

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ALIGNMENT 3-4 MILLBRAE

TOWN OF HILLSBOROUGH, CALIFORNIA

APPENDIX M

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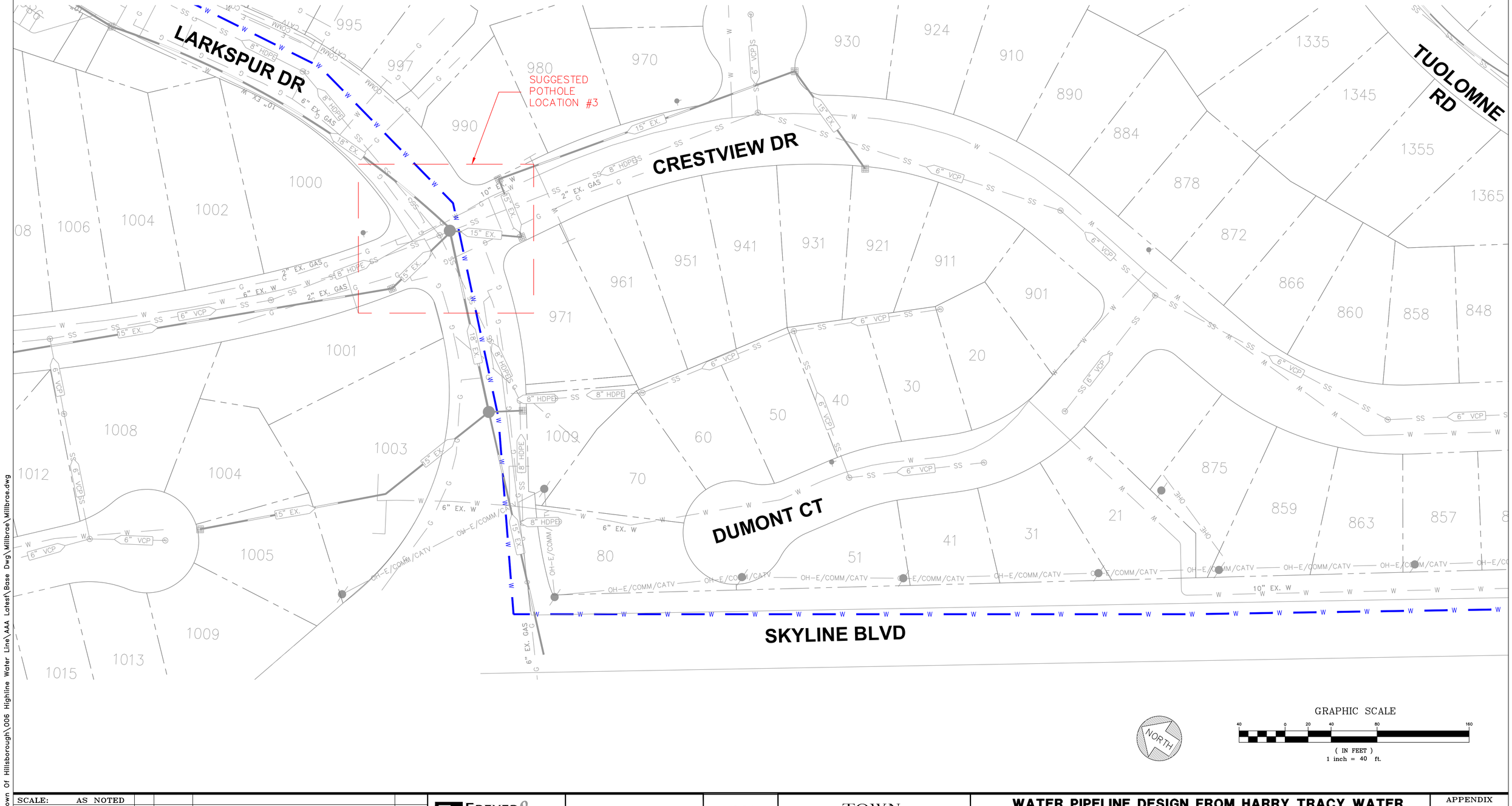

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ALIGNMENT 3-5 MILLBRAE

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APPENDIX M

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ALIGNMENT 3-6 MILLBRAE

TOWN OF HILLSBOROUGH, CALIFORNIA

APPENDIX M

JOB NO. 263006

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RIVERTON DR

CRESTVIEW DR

RIVERTON DR

LA PRENDA DR

ALTO LOMA ST

HILL CREST BLVD

SKYLINE BLVD

HWY 280

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 ft.

NORTH

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ALIGNMENT 3-7 MILLBRAE

TOWN OF HILLSBOROUGH, CALIFORNIA

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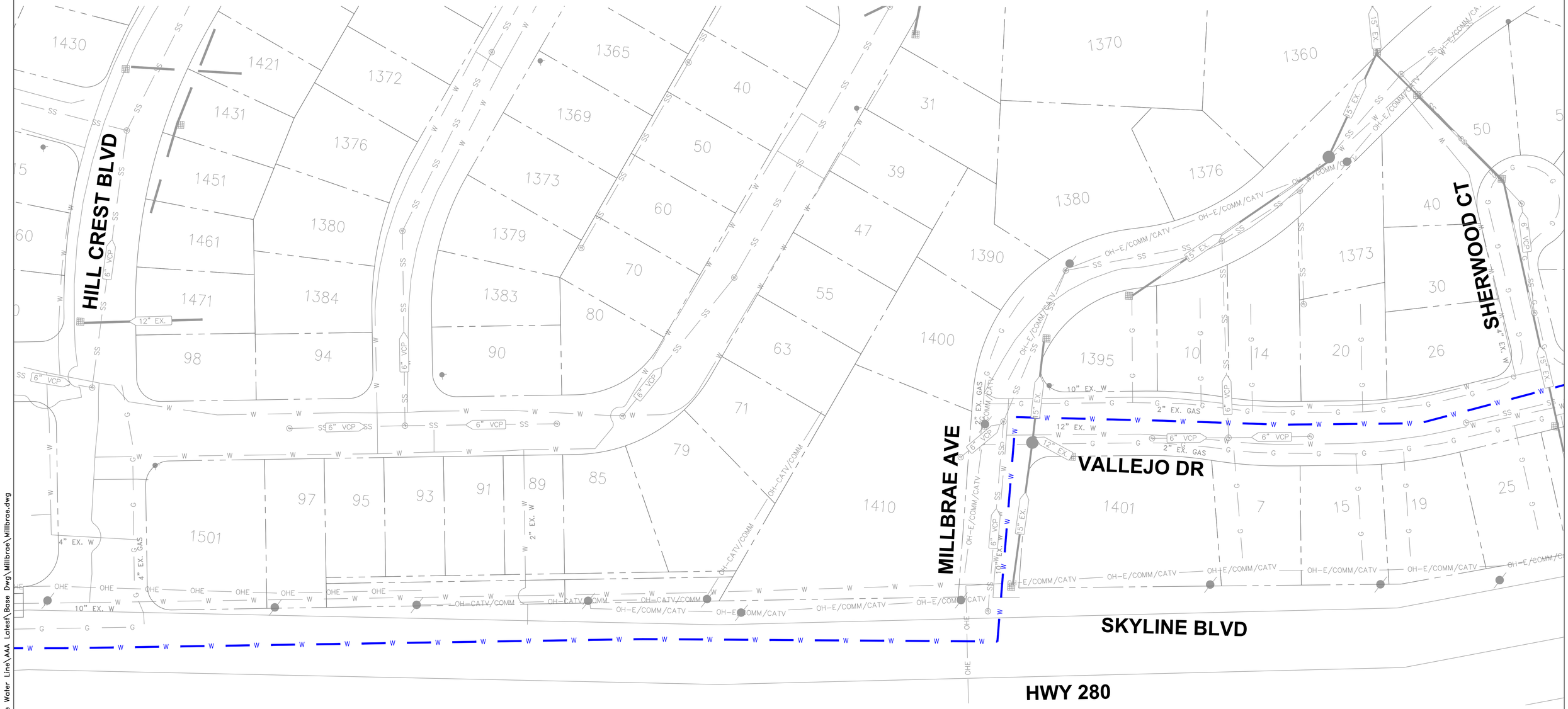

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(IN FEET)
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NORTH

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ALIGNMENT 3-8 MILLBRAE

TOWN OF HILLSBOROUGH, CALIFORNIA

APPENDIX
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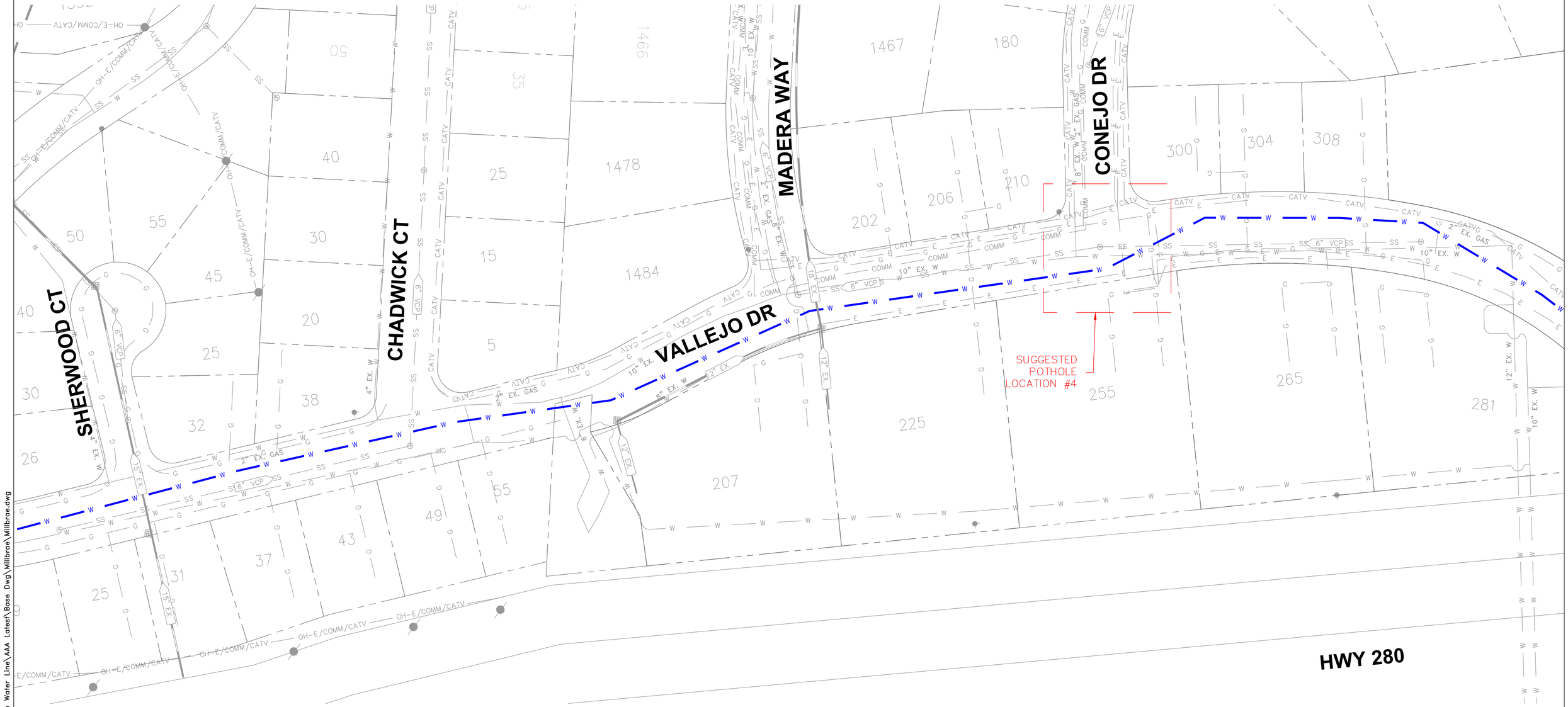

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ALIGNMENT 3-9 MILLBRAE

TOWN OF HILLSBOROUGH, CALIFORNIA

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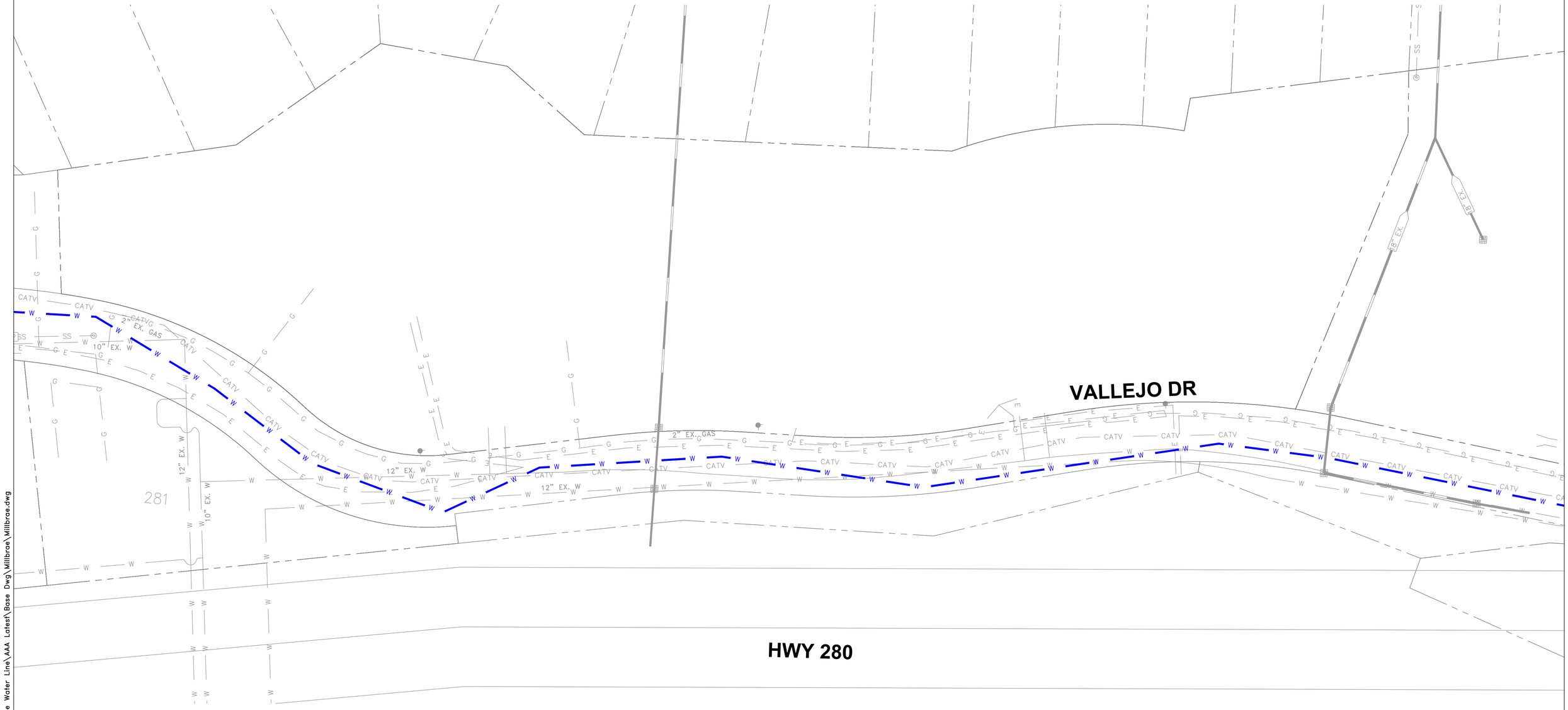

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(IN FEET)
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ALIGNMENT 3-10 MILLBRAE

TOWN OF HILLSBOROUGH, CALIFORNIA

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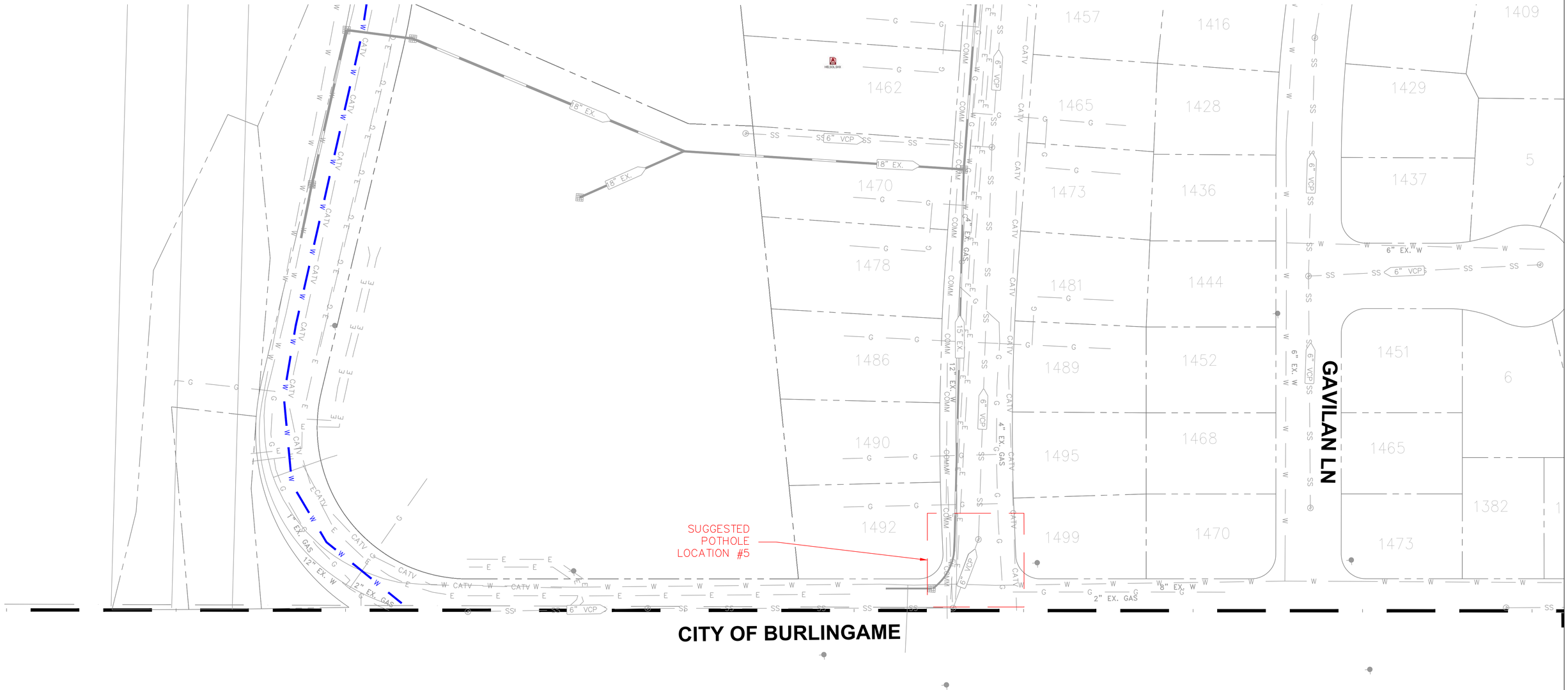

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ALIGNMENT 3-11 MILLBRAE

TOWN OF HILLSBOROUGH, CALIFORNIA

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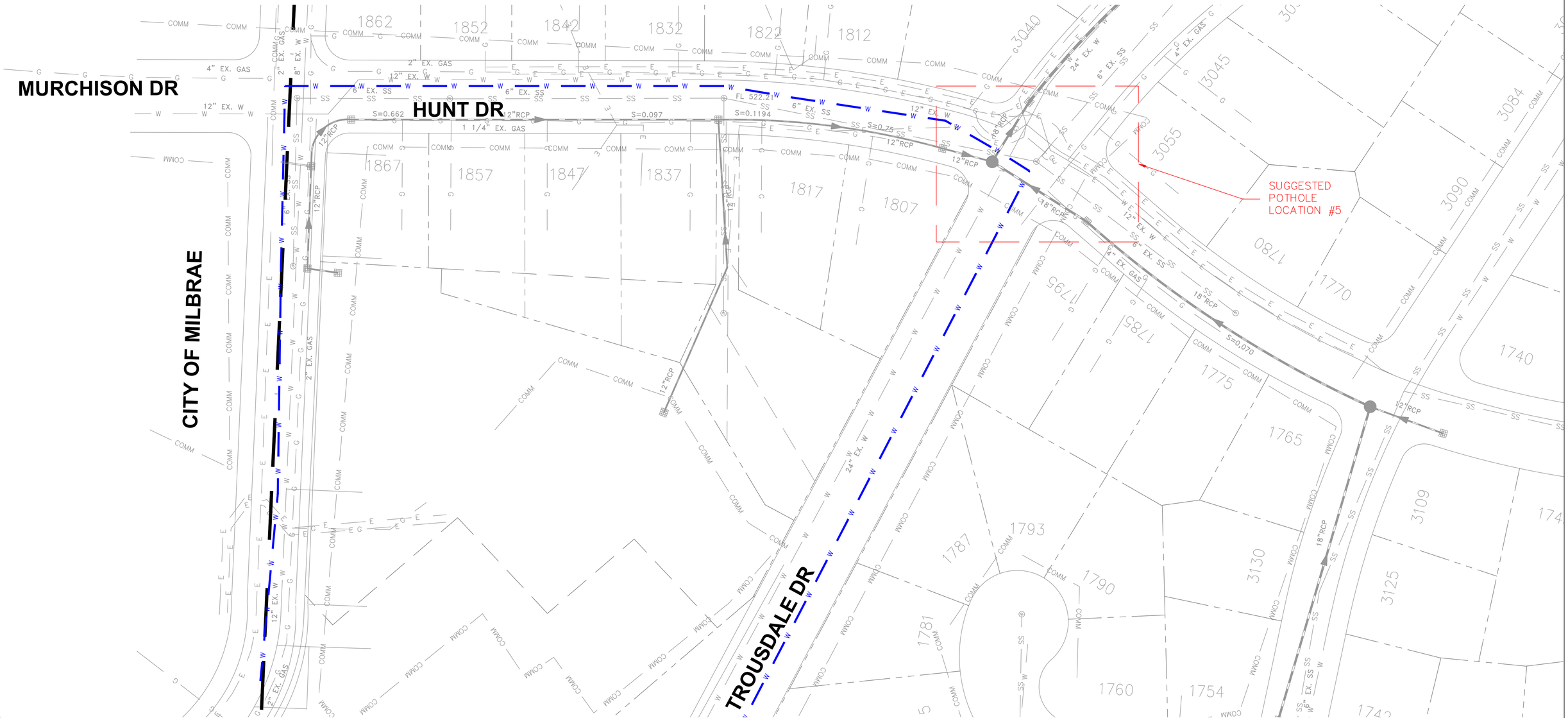

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ALIGNMENT 3-1 BURLINGAME

TOWN OF HILLSBOROUGH, CALIFORNIA

APPENDIX M

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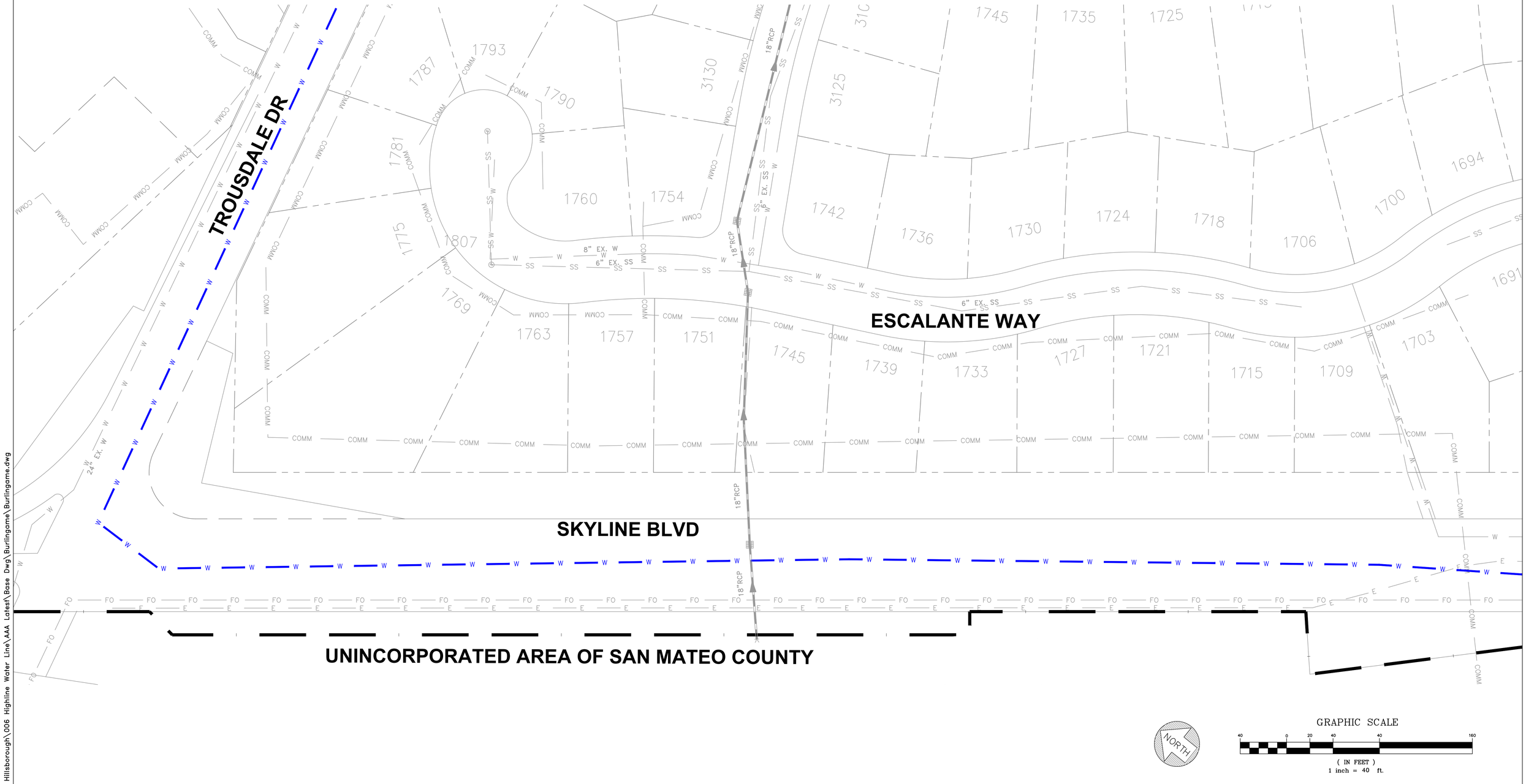

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ALIGNMENT 3-2 BURLINGAME

TOWN OF HILLSBOROUGH, CALIFORNIA

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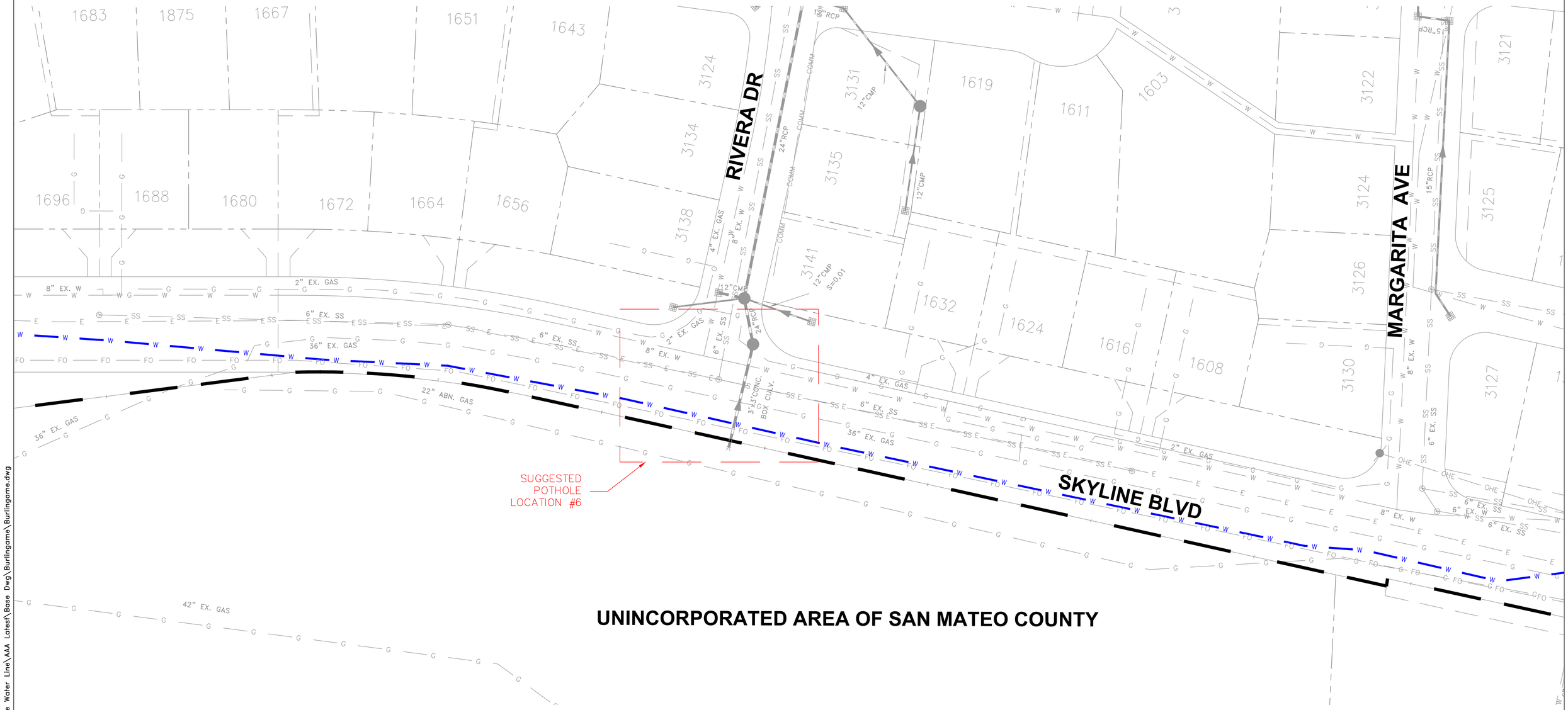

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ALIGNMENT 3-3 BURLINGAME

TOWN OF HILLSBOROUGH, CALIFORNIA

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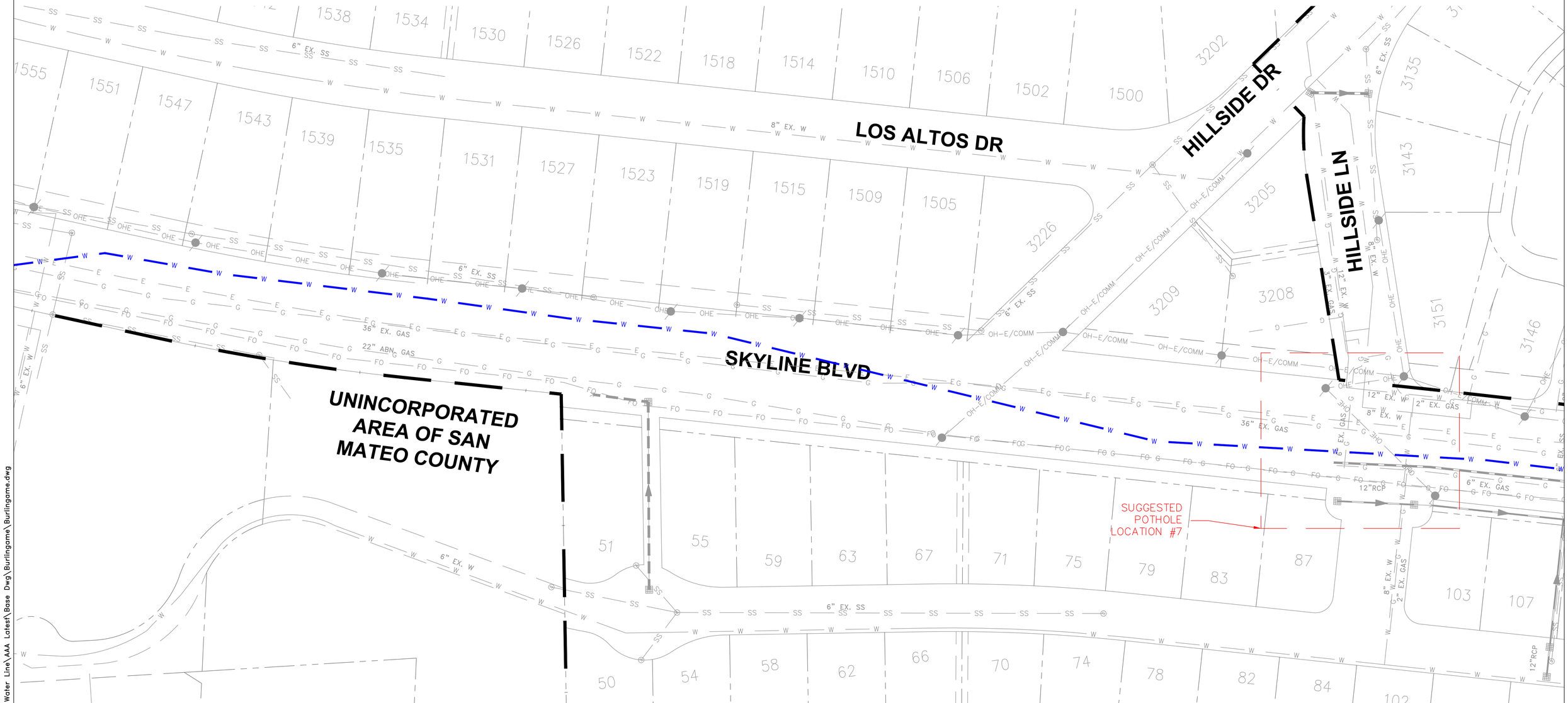

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ALIGNMENT 3-4 BURLINGAME

TOWN OF HILLSBOROUGH, CALIFORNIA

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ALIGNMENT 3-5 BURLINGAME

TOWN OF HILLSBOROUGH, CALIFORNIA

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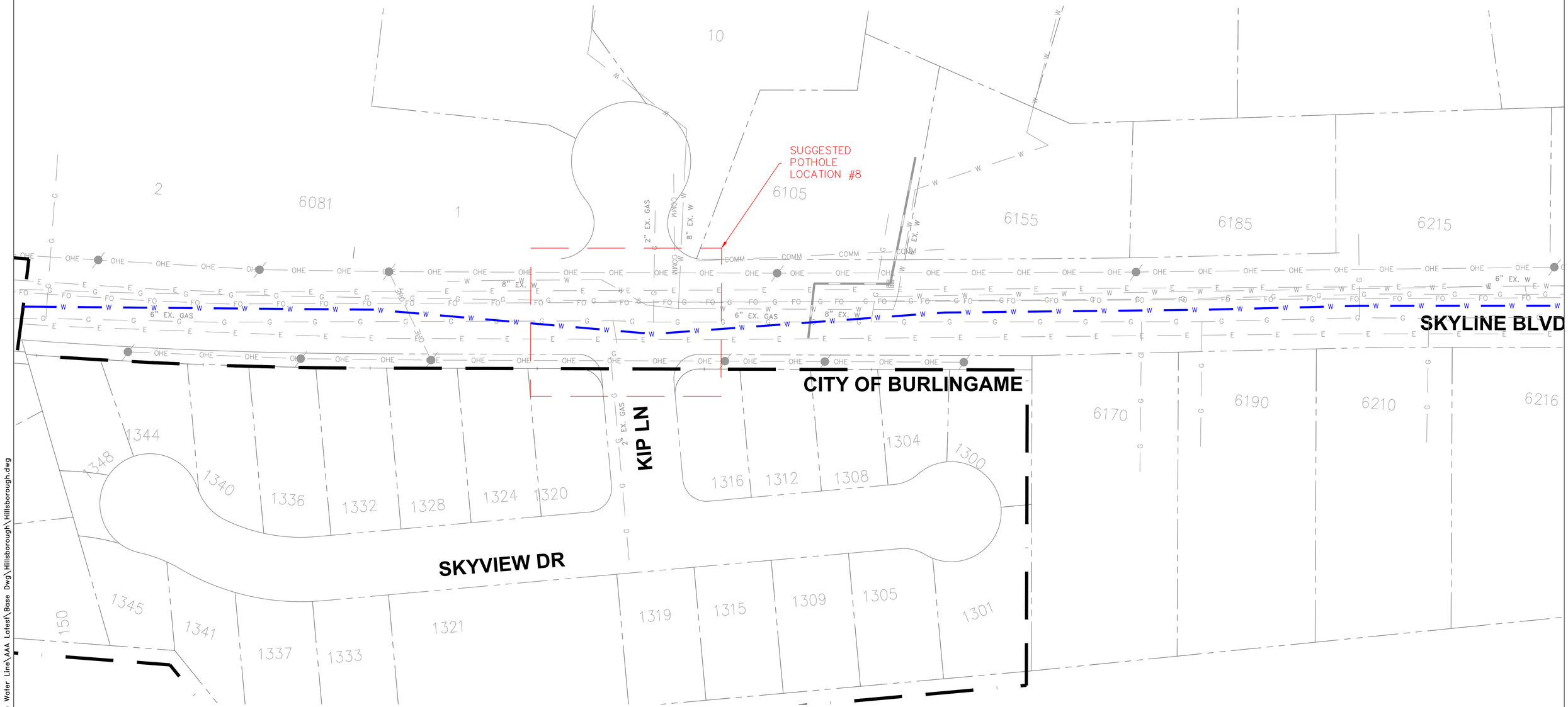

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ALIGNMENT 3-1 HILLSBOROUGH

TOWN OF HILLSBOROUGH, CALIFORNIA

APPENDIX M

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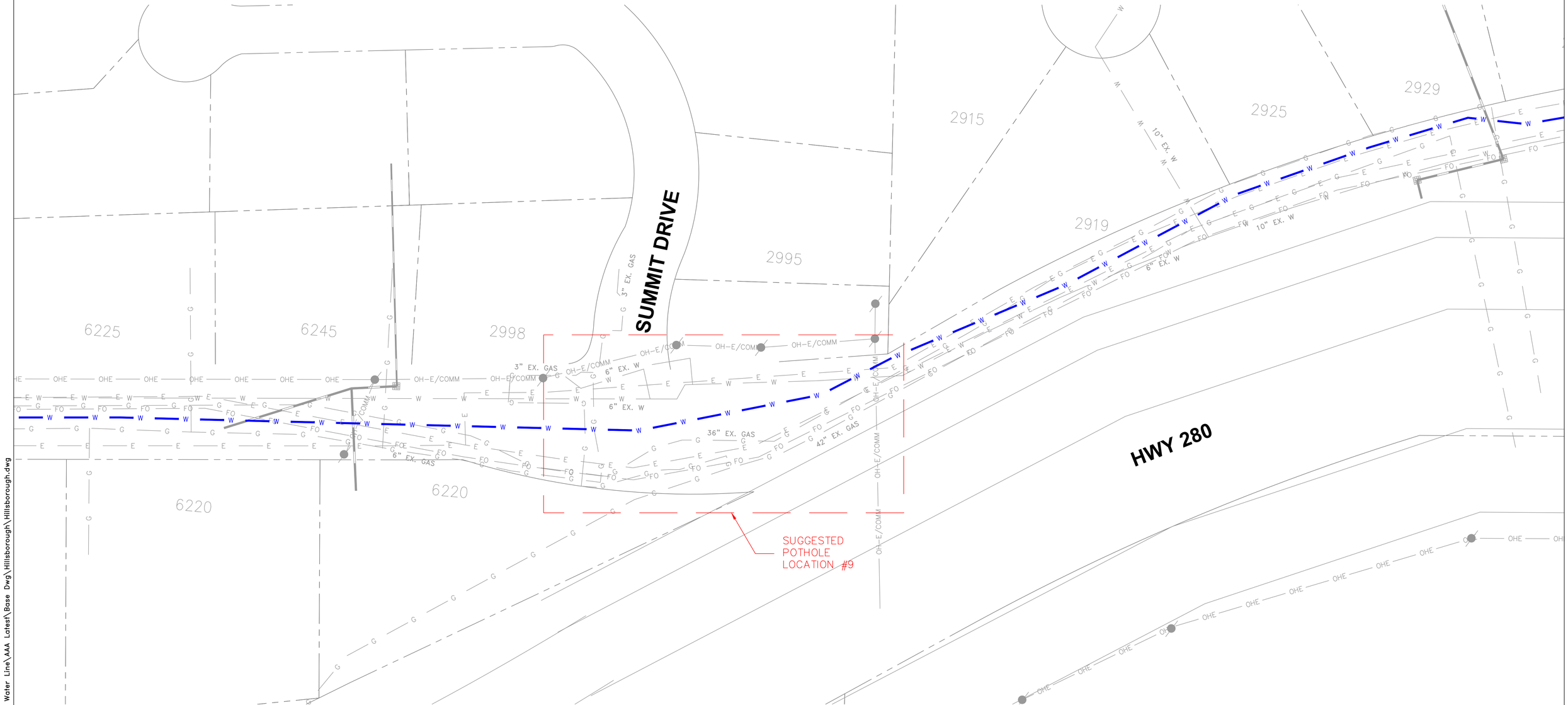

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ALIGNMENT 3-2 HILLSBOROUGH

TOWN OF HILLSBOROUGH, CALIFORNIA

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2931

2935

2945

2955

2961

2969

2971

2975

2980

10" EX. W

2" EX. GAS

SKYLINE BLVD

HWY 280

GRAPHIC SCALE

40 0 20 40 40 160

(IN FEET)
1 inch = 40 ft.

NORTH

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WATER PIPELINE DESIGN FROM HARRY TRACY WATER TREATMENT PLANT TO THE TOWN OF HILLSBOROUGH PROJECT

ALIGNMENT 3-3 HILLSBOROUGH

TOWN OF HILLSBOROUGH, CALIFORNIA

APPENDIX
M

JOB NO.
263006

BUTTERNUT DR

GREVILLEA CT

ROWAN TREE LN

2675

20

30

38

45

10" EX. W

10" EX. W

8" EX. W

2" EX. GAS

12" EX. W

SKYLINE BLVD

HWY 280

GRAPHIC SCALE

40 0 20 40 40 160

(IN FEET)
1 inch = 40 ft.

NORTH

Z:\Projects\263 Town Of Hillsborough\006 Highline Water Line\AAA Latest\Base Dwg\Hillsborough\Hillsborough.dwg

SCALE: AS NOTED				
DRAWN: CSM/FYM				
CHECKED: LFH				
PROJ. ENGR: JJT				
	BY	DATE	DESCRIPTION OF REVISIONS	APP'D

FREYER & LAURETA, INC.
CIVIL ENGINEERS • SURVEYORS • CONSTRUCTION MANAGERS
150 Executive Park Blvd., Suite 4200
San Francisco, CA 94134
(415)634-7070 ● Fax (650)344-9920
www.freyerlaureta.com

TOWN OF HILLSBOROUGH
DEPARTMENT OF PUBLIC WORKS
1600 FIORIBUNDA AVENUE
HILLSBOROUGH CALIFORNIA 94010

WATER PIPELINE DESIGN FROM HARRY TRACY WATER TREATMENT PLANT TO THE TOWN OF HILLSBOROUGH PROJECT

ALIGNMENT 3-4 HILLSBOROUGH

TOWN OF HILLSBOROUGH, CALIFORNIA

APPENDIX
M

JOB NO.
263006

CAMPHOR CT

SILK TREE PL

SKYFARM DR

SKYLINE BLVD

HWY 280

10

20

30

30

35

2775

8" EX. W

10" EX. W

12" EX. W

2" EX. GAS

NORTH

GRAPHIC SCALE

40 0 20 40 40 160

(IN FEET)

1 inch = 40 ft.

Z:\Projects\263 Town Of Hillsborough\006 Highline Water Line\AAA Latest\Base Dwg\Hillsborough\Hillsborough.dwg

SCALE: AS NOTED				
DRAWN: CSM/FYM				
CHECKED: LFH				
PROJ. ENGR: JJT				
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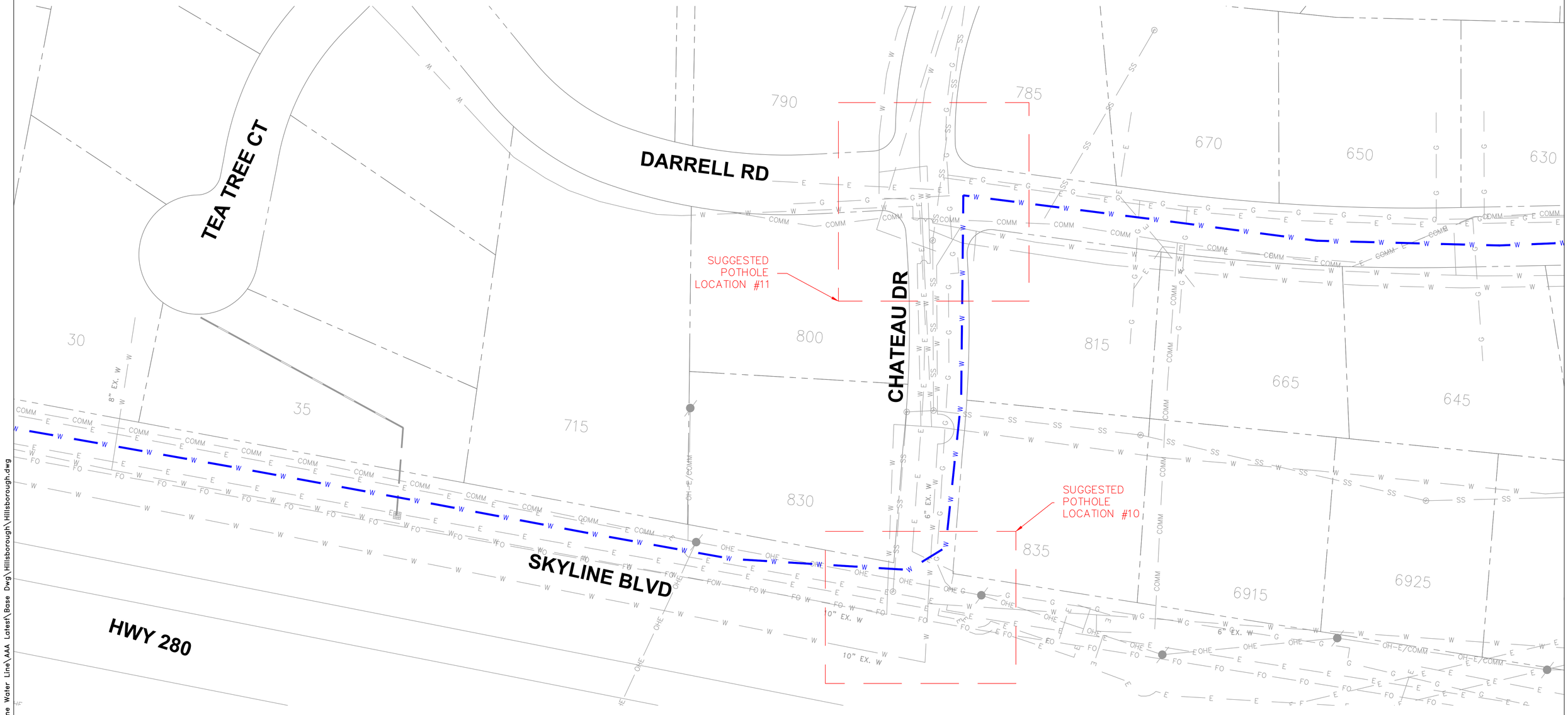
WATER PIPELINE DESIGN FROM HARRY TRACY WATER TREATMENT PLANT TO THE TOWN OF HILLSBOROUGH PROJECT

ALIGNMENT 3-5 HILLSBOROUGH

TOWN OF HILLSBOROUGH, CALIFORNIA

APPENDIX M

JOB NO. 263006



Z:\Projects\263 Town Of Hillsborough\006 Highline Water Line\AAA Latest\Base Dwg\Hillsborough\Hillsborough.dwg

SCALE: AS NOTED				
DRAWN: CSM/FYM				
CHECKED: LFH				
PROJ. ENGR: JJT				
	BY	DATE	DESCRIPTION OF REVISIONS	APP'D

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WATER PIPELINE DESIGN FROM HARRY TRACY WATER TREATMENT PLANT TO THE TOWN OF HILLSBOROUGH PROJECT

ALIGNMENT 3-6 HILLSBOROUGH

TOWN OF HILLSBOROUGH, CALIFORNIA

APPENDIX M

JOB NO. 263006

PULLMAN RD

DARRELL RD

620 780 625 615 595 575 555 6935 6945 6955

NORTH

GRAPHIC SCALE

40 0 20 40 40 160

(IN FEET)
1 inch = 40 ft.

BY	DATE	DESCRIPTION OF REVISIONS	APP'D

SCALE: AS NOTED
DRAWN: CSM/FYM
CHECKED: LFH
PROJ. ENGR: JJT

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WATER PIPELINE DESIGN FROM HARRY TRACY WATER TREATMENT PLANT TO THE TOWN OF HILLSBOROUGH PROJECT

ALIGNMENT 3-7 HILLSBOROUGH

TOWN OF HILLSBOROUGH, CALIFORNIA

APPENDIX M

JOB NO. 263006

Z:\Projects\263 Town Of Hillsborough\006 Highline Water Line\AAA Latest\Base Dwg\Hillsborough\Hillsborough.dwg

APPENDIX B. AIR QUALITY AND GREENHOUSE GAS EMISSIONS DATA

Hillsborough Highline Pipeline Custom Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Hillsborough Highline Pipeline
Construction Start Date	1/1/2024
Lead Agency	Town of Hillsborough
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	4.60
Precipitation (days)	44.8
Location	37.578551158908624, -122.40026685024563
County	San Mateo
City	Burlingame
Air District	Bay Area AQMD
Air Basin	San Francisco Bay Area
TAZ	1233
EDFZ	1
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.20

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description

User Defined Linear	5.70	Mile	8.00	0.00	0.00	—	—	The number of offroad equipment and water trucks needed for the construction of the project was provided by the Town. Lot acreage was estimated for informational purpose based on 29,900 linear feet of pipeline and the width of standard two-lane road (24 ft)

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	20.4	20.2	4.20	18.9	0.03	0.11	0.74	0.85	0.10	0.18	0.29	—	3,632	3,632	0.27	0.24	4.12	3,713
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	20.4	20.2	4.33	18.7	0.03	0.11	0.74	0.86	0.10	0.18	0.29	—	3,607	3,607	0.27	0.24	0.11	3,685
2025	20.4	20.2	4.21	18.5	0.03	0.11	0.74	0.85	0.10	0.18	0.28	—	3,570	3,570	0.26	0.23	0.10	3,645
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

2024	14.6	14.5	3.07	13.4	0.02	0.08	0.52	0.60	0.07	0.13	0.20	—	2,585	2,585	0.19	0.17	1.28	2,641
2025	3.60	3.56	0.73	3.27	0.01	0.02	0.13	0.15	0.02	0.03	0.05	—	629	629	0.05	0.04	0.30	643
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	2.67	2.64	0.56	2.44	< 0.005	0.01	0.09	0.11	0.01	0.02	0.04	—	428	428	0.03	0.03	0.21	437
2025	0.66	0.65	0.13	0.60	< 0.005	< 0.005	0.02	0.03	< 0.005	0.01	0.01	—	104	104	0.01	0.01	0.05	106

3. Construction Emissions Details

3.1. Pavement Removal (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.74	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	136	136	0.01	< 0.005	—	137
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.74	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	136	136	0.01	< 0.005	—	137
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.04	0.53	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	97.7	97.7	< 0.005	< 0.005	—	98.0

Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	16.2	16.2	< 0.005	< 0.005	—	16.2
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	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	0.00
Vendor	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	0.00
Hauling	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	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	0.00
Vendor	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	0.00
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	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	0.00
Vendor	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	0.00
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	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	0.00
Vendor	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	0.00
Hauling	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	0.00

3.3. Pavement Removal (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.74	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	136	136	0.01	< 0.005	—	137
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.13	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	24.0	24.0	< 0.005	< 0.005	—	24.1
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.98	3.98	< 0.005	< 0.005	—	3.99
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	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	0.00
Vendor	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	0.00
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	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	0.00
Vendor	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	0.00
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	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	0.00
Vendor	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	0.00
Hauling	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	0.00

3.5. Trench Excavation (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	20.0	20.0	0.68	7.10	< 0.005	0.07	—	0.07	0.06	—	0.06	—	390	390	0.02	< 0.005	—	391
Dust From Material Movement	—	—	—	—	—	—	0.02	0.02	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	20.0	20.0	0.68	7.10	< 0.005	0.07	—	0.07	0.06	—	0.06	—	390	390	0.02	< 0.005	—	391
Dust From Material Movement	—	—	—	—	—	—	0.02	0.02	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	14.3	14.3	0.49	5.09	< 0.005	0.05	—	0.05	0.04	—	0.04	—	279	279	0.01	< 0.005	—	280
Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.62	2.61	0.09	0.93	< 0.005	0.01	—	0.01	0.01	—	0.01	—	46.2	46.2	< 0.005	< 0.005	—	46.4
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.08	1.45	0.00	0.00	0.42	0.42	0.00	0.10	0.10	—	425	425	< 0.005	0.01	1.58	431
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	15.8	15.8	< 0.005	< 0.005	0.05	16.4
Hauling	0.22	0.03	1.93	1.26	0.01	0.01	0.29	0.31	0.01	0.08	0.09	—	1,261	1,261	0.19	0.21	2.49	1,330

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.11	1.18	0.00	0.00	0.42	0.42	0.00	0.10	0.10	—	401	401	< 0.005	0.01	0.04	405
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	15.8	15.8	< 0.005	< 0.005	< 0.005	16.4
Hauling	0.22	0.03	2.03	1.26	0.01	0.01	0.29	0.31	0.01	0.08	0.09	—	1,261	1,261	0.19	0.21	0.06	1,327
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.07	0.85	0.00	0.00	0.30	0.30	0.00	0.07	0.07	—	288	288	< 0.005	0.01	0.49	292
Vendor	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	11.3	11.3	< 0.005	< 0.005	0.01	11.8
Hauling	0.16	0.02	1.43	0.90	0.01	0.01	0.21	0.22	0.01	0.06	0.07	—	903	903	0.14	0.15	0.77	951
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.01	0.16	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	47.7	47.7	< 0.005	< 0.005	0.08	48.3
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.88	1.88	< 0.005	< 0.005	< 0.005	1.95
Hauling	0.03	< 0.005	0.26	0.16	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	150	150	0.02	0.02	0.13	158

3.7. Trench Excavation (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	20.0	20.0	0.68	7.10	< 0.005	0.07	—	0.07	0.06	—	0.06	—	390	390	0.02	< 0.005	—	391

Dust From Material Movement	—	—	—	—	—	—	0.02	0.02	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.53	3.52	0.12	1.25	< 0.005	0.01	—	0.01	0.01	—	0.01	—	68.7	68.7	< 0.005	< 0.005	—	68.9
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.64	0.64	0.02	0.23	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	11.4	11.4	< 0.005	< 0.005	—	11.4
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.10	1.09	0.00	0.00	0.42	0.42	0.00	0.10	0.10	—	392	392	< 0.005	0.01	0.04	396
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	15.6	15.6	< 0.005	< 0.005	< 0.005	16.2
Hauling	0.22	0.03	1.92	1.24	0.01	0.01	0.29	0.31	0.01	0.08	0.09	—	1,233	1,233	0.18	0.20	0.06	1,297

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.19	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	69.3	69.3	< 0.005	< 0.005	0.11	70.2
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.75	2.75	< 0.005	< 0.005	< 0.005	2.85
Hauling	0.04	< 0.005	0.33	0.22	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.02	—	217	217	0.03	0.03	0.19	229
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	11.5	11.5	< 0.005	< 0.005	0.02	11.6
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.46	0.46	< 0.005	< 0.005	< 0.005	0.47
Hauling	0.01	< 0.005	0.06	0.04	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	36.0	36.0	0.01	0.01	0.03	37.8

3.9. Asphalt Paving and Construction (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.15	1.44	8.37	0.01	0.03	—	0.03	0.03	—	0.03	—	1,403	1,403	0.06	0.01	—	1,408
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.15	1.44	8.37	0.01	0.03	—	0.03	0.03	—	0.03	—	1,403	1,403	0.06	0.01	—	1,408
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.10	0.10	1.03	5.99	0.01	0.02	—	0.02	0.02	—	0.02	—	1,005	1,005	0.04	0.01	—	1,008
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.19	1.09	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	166	166	0.01	< 0.005	—	167
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	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	0.00
Vendor	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	0.00
Hauling	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	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	0.00
Vendor	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	0.00
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	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	0.00
Vendor	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	0.00
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	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	0.00
Vendor	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	0.00
Hauling	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	0.00

3.11. Asphalt Paving and Construction (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.15	1.44	8.37	0.01	0.03	—	0.03	0.03	—	0.03	—	1,403	1,403	0.06	0.01	—	1,407
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	0.25	1.47	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	247	247	0.01	< 0.005	—	248
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.05	0.27	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	40.9	40.9	< 0.005	< 0.005	—	41.0
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	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	0.00
Vendor	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	0.00
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	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	0.00
Vendor	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	0.00
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	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	0.00
Vendor	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	0.00
Hauling	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	0.00

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description

Pavement Removal	Linear, Grubbing & Land Clearing	1/1/2024	3/31/2025	5.00	326	—
Trench Excavation	Linear, Grading & Excavation	1/1/2024	3/31/2025	5.00	326	—
Asphalt Paving and Construction	Linear, Paving	1/1/2024	3/31/2025	5.00	326	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Pavement Removal	Excavators	Diesel	Tier 4 Final	1.00	1.83	24.0	0.38
Pavement Removal	Excavators	Diesel	Tier 4 Final	1.00	1.83	130	0.38
Trench Excavation	Excavators	Diesel	Tier 4 Final	1.00	5.50	130	0.38
Trench Excavation	Pumps	Diesel	Average	1.00	5.50	11.0	0.74
Trench Excavation	Welders	Electric	Average	1.00	5.50	36.0	0.45
Trench Excavation	Plate Compactors	Diesel	Tier 4 Final	1.00	5.50	3.00	0.43
Trench Excavation	Plate Compactors	Gasoline	Average	1.00	5.50	3.00	0.55
Asphalt Paving and Construction	Pavers	Diesel	Tier 4 Final	1.00	7.31	148	0.42
Asphalt Paving and Construction	Rollers	Diesel	Tier 4 Final	1.00	7.31	48.0	0.38
Asphalt Paving and Construction	Graders	Diesel	Tier 4 Final	1.00	7.31	200	0.41
Asphalt Paving and Construction	Cement and Mortar Mixers	Diesel	Average	1.00	0.47	10.0	0.56

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Pavement Removal	—	—	—	—
Pavement Removal	Worker	0.00	11.7	LDA,LDT1,LDT2
Pavement Removal	Vendor	0.00	8.40	HHDT,MHDT
Pavement Removal	Hauling	0.00	20.0	HHDT
Pavement Removal	Onsite truck	—	—	HHDT
Trench Excavation	—	—	—	—
Trench Excavation	Worker	7.33	82.0	LDA,LDT1,LDT2
Trench Excavation	Vendor	0.92	6.00	MHDT
Trench Excavation	Hauling	10.1	31.3	HHDT
Trench Excavation	Onsite truck	—	—	HHDT
Asphalt Paving and Construction	—	—	—	—
Asphalt Paving and Construction	Worker	0.00	11.7	LDA,LDT1,LDT2
Asphalt Paving and Construction	Vendor	0.00	8.40	HHDT,MHDT
Asphalt Paving and Construction	Hauling	0.00	20.0	HHDT
Asphalt Paving and Construction	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Trench Excavation	24,000	27,500	16.0	0.00	—

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
User Defined Linear	8.00	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2024	66.4	204	0.03	< 0.005
2025	66.4	204	0.03	< 0.005

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

8. User Changes to Default Data

Screen	Justification
Construction: Construction Phases	The project applicant provided construction phasing and duration information.
Construction: Off-Road Equipment	Construction equipment information provided by the applicant. CalEEMod default values were used when project-specific equipment or emission factor data were not available. Assumed diesel engine when fuel type was not provided to be conservative.
Construction: Dust From Material Movement	Approximately 27,500 cubic yards of soil would be off-hauled, and about 24,000 cubic yards of material would be imported.
Construction: Trips and VMT	Project-specific construction vehicle trips, trip length, and fleet mix were provided by the applicant.

Construction Road Equipment Activity (Total Hours per Month)

Phase	Equipment Type	Fuel Type	Horsepow	Engine Tier	2024												2025			Duration (day)	Average Hours per day
					Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar		
Pavement Removal	Drill and Mini Excavator	Diesel	24	Tier 4	42	40	42	44	44	40	44	44	40	46	36	40	42	40	14	326	1.83
	Bigger Excavator	Diesel	130	Tier 4	42	40	42	44	44	40	44	44	40	46	36	40	42	40	14		1.83
Trench Excavation	Bigger Excavator	Diesel	130	Tier 4	126	120	126	132	132	120	132	132	120	138	108	120	126	120	42		5.50
	Pumps for Dewatering	Diesel	11	Average	126	120	126	132	132	120	132	132	120	138	108	120	126	120	42		5.50
	Welding Machine for Ductile Iron Pipe	Electric	36	N/A	126	120	126	132	132	120	132	132	120	138	108	120	126	120	42		5.50
	Trench Compactor	Diesel	3	Tier 4	126	120	126	132	132	120	132	132	120	138	108	120	126	120	42		5.50
	Tamping Rammer Compacter	Gas	3	Average	126	120	126	132	132	120	132	132	120	138	108	120	126	120	42		5.50
Asphalt Paving and Concrete	Asphalt Paver	Diesel	148	Tier 4	160	160	168	176	176	160	176	176	160	184	144	160	168	160	56		7.31
	Tandem Roller	Diesel	48	Tier 4	160	160	168	176	176	160	176	176	160	184	144	160	168	160	56		7.31
	Grader	Diesel	200	Tier 4	160	160	168	176	176	160	176	176	160	184	144	160	168	160	56		7.31
	Cement Mixer (Sidewalk Replacement)	Diesel	10	Average	2																0.01
	Cement Mixer (Thrust Block)	Diesel	10	Average	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10		0.46

Note: CalEEMod default values were used as project-specific hoursepower data were not available. Assumed diesel engine to be conservative when fuel type is unknown.

[1]CalEEMod 2020 default horsepower was used for excavators. CalEEMod 2022 default horsepower was used for other type of equipment.

Construction Vehicle Trip Activity (Total Round Trips per Month)

Vehicle Trip Activity	Travel Distance (round trip miles)	Custom Travel Destination	Fleet Mix (percentage)				2024												2025			Duration (day)	Average Trips per day	Average VMT per day	Average One-Way Trip Length (miles)
			LDA	LHD	MHD	HHD	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar				
Worker Commute Trips for Removal of Paving and Trench Excavation	82	Project Location	100%				84	80	84	88	88	80	88	88	80	92	72	80	84	80	28	326	3.67	300.8	
Worker Commute Trips for Asphalt Paving	82	Project Location	100%				80	80	84	88	88	80	88	88	80	92	72	80	84	80	28		3.66	299.8	
Vendor Trips	6	Project Location			100%		21	20	21	22	22	20	22	22	20	23	18	20	21	20	7		0.92	5.5	
Demolition Haul Trips Paving	28	Brisbane Recycling, Brisbane				100%	42	40	42	44	44	40	44	44	40	46	36	40	42	40	14		1.83	51.4	
Demolition Haul Trips Agreggate Base	32	Ox Mountain Sanitary Landfill					21	20	21	22	22	20	22	22	20	23	18	20	21	20	7		0.92	29.3	
Demolition Haul Trips Soil from excavation	32	Ox Mountain Sanitary Landfill				100%	63	60	63	66	66	60	66	66	60	69	54	60	63	60	21		2.75	88.0	
Soil Import Truck Trips for pit zone	32	Project Location				100%	42	40	42	44	44	40	44	44	40	46	36	40	42	40	14		1.83	58.7	
Asphalt Trucks Trips - Import	32	Project Location				100%	42	40	42	44	44	40	44	44	40	46	36	40	42	40	14		1.83	58.7	
Agregate Base Trucks Trips - Import	32	Project Location				100%	21	20	21	22	22	20	22	22	20	23	18	20	21	20	7		0.92	29.3	
Concrete Trucks Trips for Pump Station (Slab)	32	Project Location				100%						2											0.01	0.2	
All Phases Combined - Worker Commute																							7.33	600.66	82
All Phases Combined - Vendor																							0.92	5.50	6
All Phases Combined - Hauling																							10.10	315.71	31.3

APPENDIX C. BIOLOGICAL RESOURCES TECHNICAL REPORT

Biological Resources Technical Report

Water Pipeline Design from Harry Tracy Water Treatment Plant to the Town of Hillsborough Water System

Town of Hillsborough, San Mateo County, California

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WRA#30345

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List of Acronyms

BCDC	San Francisco Bay Conservation and Development Commission
BRTR	Biological Resources Technical Report
Caltrans	California Department of Transportation
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CESA	California Endangered Species Act
CEQA	California Environmental Quality Act
CFGC	California Fish and Game Code
CFP	California Fully Protected Species
CFR	Code of Federal Regulations
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
County	County of San Mateo
Corps	U.S. Army Corps of Engineers
CPRC	California Public Resources Code
CSRL	California Soils Resource Lab
CWA	Clean Water Act
CY	Cubic yards
DBH	Diameter at breast height
DI	Ductile Iron Pipe
ERDIP	Earthquake Resistant Ductile Iron Pipe
EFH	Essential Fish Habitat
ESA	Federal Endangered Species Act
gpm	Gallons per minute
HTWTP	Harry Tracy Water Treatment Plant
Inventory	California Native Plant Society Rare Plant Inventory
LF	Linear feet
MBTA	Migratory Bird Treaty Act
MGD	Million gallons per day
NETR	National Environmental Title Research
NMFS	National Marine Fisheries Service
NPPA	California Native Plant Protection Act
NWI	National Wetland Inventory
PSPS	Public safety power shutoffs
Rank	California Rare Plant Ranks
RHA	Rivers and Harbors Act
RWQCB	Regional Water Quality Control Board
SFEI	San Francisco Estuary Institute
SFPUC	San Francisco Public Utilities Commission
SSC	Species of Special Concern
Town	Town of Hillsborough
USC	U.S. Code
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
WBWG	Western Bat Working Group
WRA	WRA, Inc.

WUI	Wildlife Urban Interface

1.0 INTRODUCTION

This Biological Resources Technical Report (BRTR) evaluates existing biological resources, potential impacts, and mitigation measures (if required) for the Water Pipeline Design from Harry Tracy Water Treatment Plant to the Town of Hillsborough Water System, located in San Mateo County (County), California. The proposed project (Project) involves the construction of a new seismically reliable pipeline to convey water from the San Francisco Public Utilities Commission's (SFPUC) Harry Tracy Water Treatment Plant (HTWTP) Helen Turnout to the Town of Hillsborough's water system.

1.1 Overview and Purpose

This report provides an assessment of biological resources within the Project Area and its immediate vicinity (together, the Study Area). The purpose of the assessment was to develop and gather information on sensitive land cover types and special-status plant and wildlife species to support an evaluation of the Project under the California Environmental Quality Act (CEQA). This report describes the results of the site visit, which assessed the Study Area for (1) the presence of sensitive land cover types, special-status plant species, and special-status wildlife species, and (2) the potential for the site to support special-status plant and wildlife species. Based on the results of the site assessment, potential impacts to sensitive land cover types and special-status species resulting from the proposed Project were evaluated. If the Project has the potential to result in significant impacts to these biological resources, measures to avoid, minimize, or mitigate for those significant impacts are described.

A biological resources assessment provides general information on the presence, or potential presence, of sensitive species and habitats. This assessment is based on information available at the time of the study and on-site conditions that were observed on the date the site was visited. Conclusions are based on currently available information used in combination with the professional judgement of the biologists completing this study.

1.2 Project Description

The purpose of the Project is to construct a new seismically reliable pipeline, 29,900 feet (5.7 miles) in length, to convey water from the SFPUC HTWTP Helen Turnout to the Town of Hillsborough's (Town) water system. The proposed Project would improve the Town's water supply reliability in the event of a failure or disruption of service due to seismic events, water quality issues, and/or public safety power shutoffs (PSPS). The proposed Project would also provide a new water supply along the Wildland Urban Interface (WUI), improving the Town's (and neighboring agencies') ability to respond to wildfire.

1.2.1 Water Pipeline and Associated Infrastructure

Of the total pipeline length, approximately 13,900 linear feet (LF) will be installed in the City of Millbrae, approximately 8,000 LF in the City of Burlingame, and approximately 8,000 LF in the Town of Hillsborough. Construction of the pipeline will occur primarily along existing residential streets, as well as along Skyline Boulevard, a well-traveled regional thoroughfare. The proposed alignment lies along public rights-of-way (none within the California Department of Transportation's (Caltrans) right-of-way). Pile driving will not be required as part of the Project.

Most or all of the pipeline alignment will be installed by open cut methods, with standard specifications and details for excavation, backfill and surface restoration appropriate for each jurisdiction. A total of approximately 25,000 cubic yards (CY) of material will be excavated and off hauled to install the pipeline, with approximately 21,800 CY of fill material imported for trench cover and other purposes. Pipe diameters would range from 16 to 24 inches depending on the flow demands. The pipeline will be constructed of metal pipe sections protected against corrosion using a combination of polyethylene wrap, zinc coatings or sacrificial anodes. In areas where the pipe traverses zones with potential sympathetic offset from the Serra fault, the pipe material will be Earthquake Resistant Ductile Iron Pipe (ERDIP) and Ductile Iron Pipe (DI).

A new pump station will be built at the decommissioned Helen Tank site with backup power to provide flows to each of the three water agencies. Meters will be placed at four locations: the turnout to the SFPUC connection (Helen Turnout) and turnouts to each municipality. Fire hydrants will be placed along Skyline Boulevard to assist in the wildfire protection along the WUI.

The proposed pipeline will meet a maximum average day demand flow of 6.0 million gallons per day (MGD) immediately after a design earthquake. In the event the SFPUC's Hetch Hetchy pipelines are offline, the pipeline will meet the average day demand flow continuously until the Hetch Hetchy pipelines are operational. The pump station is also designed to provide higher fire flows under rare conflagration conditions. The new pipe is designed to be seismically tolerant, including provisions for strong ground shaking from the nearby San Andreas fault, fault offset (including sympathetic fault offset through the Serra fault zone), and landslide or liquefaction hazards along the alignment. The expected lifetime of the pipeline is anticipated to be 50 years or longer, with annual maintenance conducted to ensure system integrity.

1.2.2 Equipment, Staging, and Access

Construction staging is planned to occur along existing developed areas, including streets, parking areas and utility infrastructure properties. Potholing will be necessary throughout the alignment to ensure clearances for existing utility lines are met and to determine if utility clearance waivers are required. Equipment anticipated to be used during construction includes, but is not limited to: excavators, rollers, mobile cranes, asphalt paving machine, trenchers, concrete mixer truck, concrete pump, forklifts, dump trucks, suction hoses, discharge hose, pump for dewatering purposes, geosynthetic fabric, plate compactors, track loaders, motor graders, scrapers, and hydraulic vertical shoring system.

1.2.3 Project Schedule

Project construction is anticipated to take approximately 15 months, including approximately 12 months for construction of the new pump station at the existing Helen Tank site, and approximately 100 LF of new pipeline installation every day. Work will take place during standard daytime construction hours except for work near Meadows Elementary School and Nueva School Hillsborough Campus, where work will be coordinated to minimize impacts to school activities. In addition, there are two fire stations located along the pipeline alignment in the City of Millbrae and Town of Hillsborough with rear exits to Skyline Boulevard. Construction schedules will be shared with and if necessary, coordinated with, Central County Fire Department to ensure no loss of access for fire response occurs.

1.3 Summary of Results

The Study Area is largely situated on developed land following existing roadways. No sensitive or protected land cover types were identified during the survey. Tree removal may be proposed as a part of the Project, which may require a permit according to the City of Millbrae, detailed in Section 2.2.

No special-status wildlife or plant species were identified within or near the immediate vicinity of the Study Area during the biological surveys conducted on August 29, 2023. Additionally, no special-status plant species have the potential to occur within the Study Area based upon a literature review and conditions on site (Table 1). One special-status bird, white-tailed kite, has potential to nest in trees within and immediately adjacent to the Study Area. Non-status birds and bats with baseline legal protections also have the potential to nest and roost in the Study Area. Avoidance and minimization measures and best management practices have been developed and are provided herein to avoid impacts to these resources, detailed in Section 7.0.

Table 1: Summary of Biological Resources Evaluation

CEQA Assessment Category[1] IV – Biological Resources	Biological Resources Considered	Relevant Laws & Regulations	Responsible Regulatory Agency	Summary of Findings & Report Section[2]
Question A. **Special-status Species**	Special-status Plants Special-status Wildlife Designated Critical Habitat	Federal Endangered Species Act CA Endangered Species Act CA Native Plant Protection Act Migratory Bird Treaty Act Bald & Golden Eagle Protection Act	U.S. Fish & Wildlife Service National Marine Fisheries Service CA Department of Fish & Wildlife	Potentially significant impacts were identified, and mitigation measures are included that reduce those impacts to a level that is less than significant. **See Section 5.2 for more information.**
Question B. **Sensitive natural communities & riparian habitat**	Sensitive Natural Communities Streams, Lakes & Riparian Habitat	CA Fish & Game Code Oak Woodland Conservation Act Porter-Cologne Act Clean Water Act	CA Department of Fish & Wildlife U.S. Army Corps of Engineers U.S. Environmental Protection Agency State Water Resources Control Board Regional Water Quality Control Board	No potentially significant impacts were identified. No mitigation is required. **See Section 5.1 for more information.**
Question C. **State and federally protected wetlands**	Wetlands Unvegetated surface waters	Clean Water Act: Sections 404/401 Rivers & Harbors Act: Section 10 Porter-Cologne Act	U.S. Army Corps of Engineers U.S. Environmental Protection Agency State Water Resources Control Board Regional Water Quality Control Board	No potentially significant impacts were identified. No mitigation is required. **See Section 5.1 for more information**

[1] *CEQA Questions have been summarized here, see Section 6.2 for details.*
[2] *As given in this report, see Section 5.0 subheadings.*

Table 1: Summary of Biological Resources Evaluation

CEQA Assessment Category[1] IV – Biological Resources	Biological Resources Considered	Relevant Laws & Regulations	Responsible Regulatory Agency	Summary of Findings & Report Section[2]
Question D. **Fish & Wildlife corridors**	Essential Fish Habitat Wildlife Corridors	CA Fish & Game Code Magnuson-Stevens Fishery Conservation & Management Act	CA Department of Fish and Wildlife National Marine Fisheries Service	No potentially significant impacts were identified. No mitigation is required. **See Section 5.1 for more information**
Question E. **Local policies**	Protected Trees Coastal zone resources Other biological protections	Local Tree Ordinance General Plan (e.g. Stream & Wetland Setbacks) Local ordinances	Local and regional agencies CA Coastal Commission San Francisco Bay Conservation and Development Commission	No potentially significant impacts were identified. No mitigation is required. **See Section 5.1 for more information**
Question F. **Local, state, federal conservation plans**	Habitat Conservation Plans Natural Community Conservation Plans	Federal Endangered Species Act Natural Community Conservation Planning Act	U.S. Fish and Wildlife Service CA Department of Fish and Wildlife	No potentially significant impacts were identified. No mitigation is required. **See Section 5.2 for more information**

2.0 REGULATORY BACKGROUND

The following sections explain the regulatory context of the biological assessment, including applicable laws and regulations that were applied to the field investigations and analysis of potential Project impacts. Table 1 shows the correlation between these regulations and each Biological Resources question in the Environmental Checklist Form (Appendix G) of the CEQA Guidelines.

2.1 Federal and State Regulatory Setting

2.1.1 Vegetation and Aquatic Communities

CEQA provides protections for particular vegetation types defined as sensitive by the California Department of Fish and Wildlife (CDFW) and aquatic features protected by laws and regulations administered by the U.S Army Corps of Engineers (Corps), State Water Resources Control Board (SWRCB), and Regional Water Quality Control Boards (RWQCB). The laws and regulations that provide protection for these resources are summarized below.

Sensitive Natural Communities: Sensitive natural communities include habitats that fulfill special functions or have special values. Natural communities considered sensitive are those identified in local or regional plans, policies, regulations, or by the CDFW. CDFW ranks sensitive communities as "threatened" or "very threatened" (CDFW 2023a) and keeps records of their occurrences in its California Natural Diversity Database (CNDDB; CDFW 2023b). Natural communities are ranked 1 through 5 in the CNDDB based on NatureServe's (2020) methodology, with those communities ranked globally (G) or statewide (S) as 1 through 3 considered sensitive. Impacts to sensitive natural communities identified in local or regional plans, policies, or regulations or those identified by the CDFW or U.S. Fish and Wildlife Service (USFWS) must be considered and evaluated under CEQA (California Code of Regulations [CCR] Title 14, Div. 6, Chap. 3, Appendix G). In addition, this general class includes oak woodlands that are protected by local ordinances under the Oak Woodlands Protection Act and Section 21083.4 of California Public Resources Code (CPRC).

Waters of the United States, Including Wetlands: The Corps regulates “Waters of the United States” under Section 404 of the Clean Water Act (CWA). Waters of the United States are defined in the Code of Federal Regulations (CFR) as including the territorial seas, and waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, such as tributaries, lakes and ponds, impoundments of waters of the U.S., and wetlands that are hydrologically connected with these navigable features (33 CFR 328.3). Potential wetland areas, according to the three criteria used to delineate wetlands as defined in the *U.S. Army Corps of Engineers Wetlands Delineation Manual* (Corps Manual; Environmental Laboratory 1987), are identified by the presence of (1) hydrophytic vegetation, (2) hydric soils, and (3) wetland hydrology. Unvegetated waters including lakes, rivers, and streams may also be subject to Section 404 jurisdiction and are characterized by an ordinary high water mark (OHWM) identified based on field indicators such as the lack of vegetation, sorting of sediments, and other indicators of flowing or standing water. The placement of fill material into Waters of the United States generally requires a permit from the Corps under Section 404 of the CWA.

The Corps also regulates construction in navigable waterways of the U.S. through Section 10 of the Rivers and Harbors Act (RHA) of 1899 (33 U.S. Code [USC] 403). Section 10 of the RHA

requires Corps approval and a permit for excavation or fill, or alteration or modification of the course, location, condition, or capacity of, any port, roadstead, haven, harbor, canal, lake, harbor or refuge, or enclosure within the limits of any breakwater, or of the channel of any navigable water of the United States. Section 10 requirements apply only to navigable waters themselves, and are not applicable to tributaries, adjacent wetlands, and similar aquatic features not capable of supporting interstate commerce.

Waters of the State, Including Wetlands: The term "Waters of the State" is defined by the Porter-Cologne Act as "any surface water or groundwater, including saline waters, within the boundaries of the state." The SWRCB and nine RWQCB protect waters within this broad regulatory scope through many different regulatory programs. Waters of the State in the context of a CEQA Biological Resources evaluation include wetlands and other surface waters protected by the *State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State* (SWRCB 2019). The SWRCB and RWQCB issue permits for the discharge of fill material into surface waters through the State Water Quality Certification Program, which fulfills requirements of Section 401 of the CWA and the Porter-Cologne Water Quality Control Act. Projects that require a Clean Water Act permit are also required to obtain a Water Quality Certification. If a project does not require a federal permit but does involve discharge of dredge or fill material into surface waters of the State, the SWRCB and RWQCB may issue a permit in the form of Waste Discharge Requirements.

Sections 1600-1616 of California Fish and Game Code: Streams and lakes, as habitat for fish and wildlife species, are regulated by CDFW under Sections 1600-1616 of California Fish and Game Code (CFGC). Alterations to or work within or adjacent to streambeds or lakes generally require a 1602 Lake and Streambed Alteration Agreement. The term "stream," which includes creeks and rivers, is defined in the CCR as "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life [including] watercourses having a surface or subsurface flow that supports or has supported riparian vegetation" (14 CCR 1.72). The term "stream" can include ephemeral streams, dry washes, watercourses with subsurface flows, canals, aqueducts, irrigation ditches, and other means of water conveyance if they support aquatic life, riparian vegetation, or stream-dependent terrestrial wildlife (CDFG 1994). Riparian vegetation has been defined as "vegetation which occurs in and/or adjacent to a stream and is dependent on, and occurs because of, the stream itself" (CDFG 1994). Removal of riparian vegetation also requires a Section 1602 Lake and Streambed Alteration Agreement from CDFW.

2.1.2 Special-status Species

Endangered and Threatened Plants, Fish, and Wildlife. Specific species of plants, fish, and wildlife species may be designated as threatened or endangered by the federal Endangered Species Act (ESA), or the California Endangered Species Act (CESA). Specific protections and permitting mechanisms for these species differ under each of these acts, and a species' designation under one law does not automatically provide protection under the other.

The ESA (16 USC 1531 et seq.) is implemented by the USFWS and the National Marine Fisheries Service (NMFS). The USFWS and NMFS maintain lists of endangered and threatened plant and animal species (referred to as "listed species"). "Proposed" or "candidate" species are those that are being considered for listing and are not protected until they are formally listed as threatened or endangered. Under the ESA, authorization must be obtained from the USFWS or NMFS prior to

take of any listed species. “Take” under the ESA is defined as “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.” Take under the ESA includes direct injury or mortality to individuals, disruptions in normal behavioral patterns resulting from factors such as noise and visual disturbance, and impacts to habitat for listed species. Actions that may result in take of an ESA-listed species may obtain a permit under ESA Section 10, or via the interagency consultation described in ESA Section 7. Federally listed plant species are only protected when take occurs on federal land.

The ESA also provides for designation of critical habitat, which are specific geographic areas containing physical or biological features “essential to the conservation of the species.” Protections afforded to designated critical habitat apply only to actions that are funded, permitted, or carried out by federal agencies. Critical habitat designations do not affect activities by private landowners if there is no other federal agency involvement.

The CESA (CFGC 2050 et seq.) prohibits the take of any plant and animal species that the CFGC determines to be an endangered or threatened species in California. CESA regulations include take protection for threatened and endangered plants on private lands, as well as extending this protection to candidate species that are proposed for listing as threatened or endangered under CESA. The definition of a "take" under CESA ("hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill") only applies to direct impact to individuals, and does not extend to habitat impacts or harassment. CDFW may issue an Incidental Take Permit under CESA to authorize take if it is incidental to otherwise lawful activity and if specific criteria are met. Take of these species is also authorized if the geographic area is covered by a Natural Community Conservation Plan (NCCP), as long as the NCCP covers that activity. CDFW may also authorize take for voluntary restoration projects through the Restoration Management Permit (RMP).

Fully Protected Species and Designated Rare Plant Species. This category includes specific plant and wildlife species that are designated in the CFGC as protected even if not listed under CESA or ESA. Fully Protected Species includes specific lists of birds, mammals, reptiles, amphibians, and fish designated in CFGC. Fully protected species may not be taken or possessed at any time. No licenses or permits may be issued for take of fully protected species, except for necessary scientific research and conservation purposes. The definition of "take" is the same under the California Fish and Game Code and the CESA. By law, CDFW may not issue an Incidental Take Permit for Fully Protected Species except for specific projects in categories as defined in SB 147, under an NCCP, or RMP. Under the California Native Plant Protection Act (NPPA), CDFW has listed 64 “rare” or “endangered” plant species, and prevents “take”, with few exceptions, of these species. CDFW may authorize take of species protected by the NPPA through the Incidental Take Permit process, or under a NCCP.

Special Protections for Nesting Birds and Bats. The federal Bald and Golden Eagle Protection Act provides relatively broad protections to both of North America’s eagle species [bald eagle (*Haliaeetus leucocephalus*) and golden eagle (*Aquila chrysaetos*)] that in some regards are similar to those provided by the ESA. In addition to regulations for special-status species, most native birds in the United States, including non-status species, have baseline legal protections under the Migratory Bird Treaty Act of 1918 and CFGC, i.e., sections 3503, 3503.5 and 3513. Under these laws/codes, the intentional harm or collection of adult birds as well as the intentional collection or destruction of active nests, eggs, and young is illegal. For bat species,

the Western Bat Working Group (WBWG) designates conservation status for species of bats, and those with a high or medium-high priority are typically given special consideration under CEQA.

Essential Fish Habitat. The Magnuson-Stevens Fishery Conservation and Management Act provides for conservation and management of fishery resources in the U.S., administered by NMFS. This Act establishes a national program intended to prevent overfishing, rebuild overfished stocks, ensure conservation, and facilitate long-term protection through the establishment of Essential Fish Habitat (EFH). EFH consists of aquatic areas that contain habitat essential to the long-term survival and health of fisheries, which may include the water column, certain bottom types, vegetation (e.g., eelgrass (*Zostera* spp.)), or complex structures such as oyster beds. Any federal agency that authorizes, funds, or undertakes action that may adversely affect EFH is required to consult with NMFS.

Species of Special Concern, Movement Corridors, and Other Special-status Species under CEQA. A Species of Special Concern (SSC) is a species formally designated by CDFW which meet one or more criteria related to federal ESA status (if it is not listed under CESA), extirpation from California, documented population declines, or small population size within California and risk of declines. Section 15280 of the CEQA Guidelines state that species of special concern must be included in project impact analyses. In addition, CDFW has developed a special animals list as "a general term that refers to all of the taxa the CNDDB is interested in tracking, regardless of their legal or protection status." This list includes lists developed by other organizations, including for example, the Audubon Watch List Species, the Bureau of Land Management Sensitive Species, and USFWS Birds of Special Concern. Plant species on the California Native Plant Society (CNPS) Rare Plant Inventory (Inventory; CNPS 2023) with California Rare Plant Ranks (Rank) of 1 and 2, as well as some with a Rank of 3 or 4, are also considered special-status plant species and must be considered under CEQA. Some Rank 3 and Rank 4 species are typically only afforded protection under CEQA when such species are particularly unique to the locale (e.g., range limit, low abundance/low frequency, limited habitat) or are otherwise considered locally rare. Additionally, any species listed as sensitive within local plans, policies and ordinances are likewise considered sensitive. Movement and migratory corridors for native wildlife (including aquatic corridors) as well as wildlife nursery sites are given special consideration under CEQA.

2.2 Local Plans and Policies

City of Millbrae Tree Protection and Urban Forestry Program. The City of Millbrae Tree Protection and Urban Forestry Program requires a permit for the removal, pruning, and maintenance of Street Trees from any parcel of property in the City of Millbrae. The Program defines a "Street Tree" as:

1. Any woody perennial plant located in any street, including parking strips, having a single main axis or stem commonly achieving a minimum of 10 feet in height and capable of shaping and pruning to develop a branch-free trunk at least 9 feet in height.

City of Burlingame Tree Ordinance. The City of Burlingame Tree Ordinance requires a permit for the removal and pruning of any private protected tree or City Tree from any parcel of property in the City of Burlingame. The Ordinance defines a "private protected tree" as:

1. A tree with a trunk circumference of 48 inches or more measured 54 inches above ground.

The City of Burlingame defines a Street Tree as:

2. Trees that grow in the public right-of-way. In most cases, the right-of-way is located between sidewalk and street. Where no planting strips exist, City right-of-way generally extends 5 feet behind the sidewalk.

Town of Hillsborough Tree Protection Ordinance. The Town of Hillsborough Tree Protection Ordinance requires a permit for the removal and pruning of any protected tree category from any parcel of property in the Town of Hillsborough. The Ordinance defines a "protected tree" as:

1. All species with a diameter of 18 inches diameter at breast height (DBH).
2. Any tree planted as a requirement tree for site development, tree permit condition, landscape plan removal replacement, or other designated condition by the Town of Hillsborough.
3. This does not include any tree grown or held for sale by a licensed nursery.

The City of Millbrae, City of Burlingame, and Town of Hillsborough may require mitigation for the removal of trees as a condition of approval for a tree permit.

3.0 ASSESSMENT METHODOLOGY

On August 29, 2023, WRA, Inc. (WRA) visited the Study Area to map land cover types; document plant and wildlife species present; and evaluate on-site habitat for the potential to support special-status species as defined by CEQA. Prior to the site visit, WRA biologists reviewed literature resources and performed database searches to assess the potential for sensitive land cover types and special-status species, including:

- Soil Survey of San Mateo County, Eastern Part, and San Francisco County, California (U.S. Department of Agriculture [USDA] 1991)
- Montara Mountain 7.5-minute U.S. Geological Survey (USGS) quadrangle (USGS 2023)
- Contemporary aerial photographs (Google Earth 2023)
- Historical aerial photographs (Nationwide Environmental Title Research [NETR] 2023)
- National Wetlands Inventory (USFWS 2023a)
- California Aquatic Resources Inventory (San Francisco Estuary Institute [SFEI] 2017)
- CNDDB (CDFW 2023b)
- California Native Plant Society (CNPS) Inventory (CNPS 2023)
- Consortium of California Herbaria (CCH1 2023, CCH2 2023)
- USFWS Information for Planning and Consultation (USFWS 2023b)
- eBird Online Database (Cornell Lab of Ornithology 2023)
- California Bird Species of Special Concern in California (Shuford and Gardali 2008)
- California Amphibian and Reptile Species of Special Concern (Thomson et al. 2016)
- A Field Guide to Western Reptiles and Amphibians (Stebbins 2003)
- A Manual of California Vegetation, Online Edition (CNPS 2023)
- California Natural Community List (CDFW 2023a)
- Database searches (i.e., CNDDB, CNPS) for special-status species focused on the Montara Mountain, San Francisco South, Hunters Point, San Mateo, Woodside, and Half Moon Bay USGS 7.5-minute quadrangles.

Following the remote assessment, WRA completed a field review to document: (1) land cover types (e.g., vegetation communities, aquatic resources), (2) existing conditions and to determine if such provide suitable habitat for any special-status plant or wildlife species, (3) if and what type of aquatic land cover types (e.g., wetlands) are present, and (4) if special-status species are present. The field review did not constitute a protocol-level survey for any special-status species.

3.1 Vegetation Communities and Other Land Cover Types

During the site visit, WRA evaluated the species composition and area occupied by land cover types. Mapping of these classifications utilized a combination of aerial imagery and ground surveys. In some instances, communities are characterized and mapped based on distinct shifts in plant assemblage (vegetation) following the California Natural Community List (CDFW 2023a)

and A Manual of California Vegetation, Online Edition (CNPS 2023). These resources cannot anticipate every component of every potential vegetation assemblage in California, and so in some cases, it is necessary to identify other appropriate vegetative classifications based on best professional judgment of WRA biologists. When undescribed variants are used, it is noted in the description. Vegetation alliances (natural communities) with a CDFW Rank of 1 through 3 (globally critically imperiled [S1/G1], imperiled [S2/G2], or vulnerable [S3/G3]) (CDFW 2023a), were evaluated as sensitive as part of this evaluation.

The site was reviewed for the presence of wetlands and other aquatic resources according to the methods described in the Corps Manual (Environmental Laboratory 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West* (Corps 2008). Areas meeting these indicators were mapped as aquatic resources and categorized using the vegetation community classification methods described above. The presence of riparian habitat was evaluated based on woody plant species meeting the definition of riparian provided in *A Field Guide to Lake and Streambed Alteration Agreements, Section 1600-1607, California Fish and Game Code* (CDFG 1994) and based on best professional judgement of biologists completing the field surveys.

3.2 Special-status Species

3.2.1 General Assessment

Potential occurrence of special-status species in the Study Area was evaluated by first determining which special-status species occur in the vicinity of the Study Area through a literature and database review as described above. The presence of suitable habitat for special-status species was evaluated during the site visit based on physical and biological conditions of the site as well as the professional expertise of the investigating biologists. Species that were determined to have potential suitable habitat within the Study Area are discussed further below.

If a more thorough assessment was deemed necessary, a targeted or protocol-level assessment or survey was recommended as a future study. If a special-status species was observed during the site visit, its presence was recorded and discussed below in Section 5.2. If designated critical habitat is present for a species, the extent of critical habitat present and an evaluation of critical habitat elements is provided as part of the species discussions below.

3.3 Wildlife Corridors and Native Wildlife Nursery Sites

To account for potential impacts to wildlife movement/migratory corridors, biologists reviewed maps from the California Essential Connectivity Project (CalTrans 2010), and habitat connectivity data available through the CDFW Biogeographic Information and Observation System (CDFW 2020). Additionally, aerial imagery (Google Earth 2023) for the local area was referenced to assess if local core habitat areas were present within, or connected to the Study Area. This assessment was refined based on observations of on-site physical and/or biological conditions, including topographic and vegetative factors that can facilitate wildlife movement, as well as on-site and off-site barriers to connectivity.

The potential presence of native wildlife nursery sites is evaluated as part of the site visit and discussion of individual wildlife species below. Examples of native wildlife nursery sites include nesting sites for native bird species (particularly colonial nesting sites), marine mammal pupping sites, and colonial roosting sites for other species (such as for monarch butterfly [*Danaus plexippus*]).

4.0 ECOLOGICAL SETTING

The approximately 6-mile-long Study Area is located in San Mateo County east of Highway 280, beginning in the City of Millbrae where it traverses south through the City of Burlingame and ends within the Town of Hillsborough. The Study Area includes the Project alignment as well as a 15-foot buffer and staging areas at the northern and southern portions of the alignment. Additional details of the local setting are below.

4.1 Soils and Topography

The overall topography of the Study Area is relatively flat with elevations ranging from approximately 500 to 700 feet above sea level. According to the *Soil Survey of San Mateo County, Eastern Part, and San Francisco County, California* (USDA 1991), the Study Area is underlain by five soil mapping units: Orthents, cut and fill-Urban land complex (5 to 75 percent slopes), Fagan loam (15 to 50 percent slopes), Urban land-Orthents, cut and fill complex (5 to 75 percent slopes), Orthents, cut and fill (15 to 75 percent slopes), Urban land-Orthents, cut and fill complex (0 to 5 percent slopes). The parent soil series of all the Study Area's mapping units are summarized below.

Urban land Series: This series consists of disturbed and human-transported material in alluvial landforms. These soils are considered fill, commonly bordering the San Francisco Bay. The soil mapping units comprised of this parent soil series within the Study Area are not considered hydric (USDA 2023).

Fagan Series: This soil series consists of well drained clay loam soils formed in material from sandstone or shale at elevations ranging from 200 to 1,500 feet above sea level on slopes from 5 to 50 percent. These soils have medium to rapid runoff and slow permeability (USDA 2022, USDA 1978). Natural vegetation is mostly annual grasses and forbs and a few oaks on north slopes. Current uses include range and vineyards. A representative pedon of this series consists of an A-horizon of medium acid, very dark grayish brown (10YR 3/2) when moist light clay loam from approximately 0 to 12 inches depth. This is underlain by Bt horizons of medium acid, very dark grayish brown to olive brown (2.5Y 4/4) to yellowish brown (10YR 5/5) clay from approximately 10 to 46 inches depth. Occurring 46 inches and deeper is the Cr horizon of light yellowish brown (10YR 6/4) sandstone. The Fagan loam soil mapping unit within the Study Area is not considered to be hydric.

4.2 Climate and Hydrology

The Study Area is in the northern region of San Mateo County. The average monthly maximum temperature in the area is 64.4 degrees Fahrenheit, while the average monthly minimum temperature is 49.8 degrees Fahrenheit. Predominantly, precipitation falls as rainfall between November and March with an annual average precipitation of 30.04 inches.

The local watershed is Colma Creek-Frontal San Francisco Bay Estuaries (HUC 12: 180500040903) and the regional watershed is San Francisco Bay (HUC 8: 18050004). There are no mapped resources within the Study Area in the National Wetlands Inventory (NWI; USFWS 2023a) and California Aquatic Resources Inventory (CARI; SFEI 2017). Detailed descriptions of aquatic resources are provided in Section 5.1 below.

4.3 Land Use

The vast majority of the Study Area is developed as roadway. Descriptions are included in Section 5.1 below, and observed plant species are included in Appendix B. Surrounding land uses include residential and developed roadways and highways (Google Earth 2023). Historically, the Study Area was also largely residential and developed roadways but some portions of the Study Area were open space (NETR 2023).

5.0 ASSESSMENT RESULTS

5.1 Vegetation Communities and Other Land Cover

WRA observed three land cover types within the Study Area: developed/paved, ruderal and ornamental landscaped (Table 2). Land cover types within the Study Area are illustrated in Photos 1 and 2 below and in Appendix A – Figure 3. All land cover types are non-sensitive. The Study Area has been intentionally sited to follow mostly pre-existing roadways and developed areas.

Table 2: Vegetation Communities and Other Land Cover Types

COMMUNITY / LAND COVERS	SENSITIVE STATUS	RARITY RANKING
TERRESTRIAL / COMMUNITY LAND COVER		
Developed/Paved	None	None
Ruderal	None	None
Ornamental Landscaped	None	None
Oak Woodland	None	S4, G5

5.1.1 Terrestrial Land Cover

Developed Area (no vegetation alliance). CDFW Rank: None. A large majority of the Study Area is developed as paved roads. There is no vegetation in this land cover type. This community is not considered sensitive by San Mateo County, CDFW, or any other regulatory entity.

Photo 1: Photo of paved road which makes up most of the developed land cover type in the Study Area.

Photo 2: A representative photograph of the ruderal land cover type in the Study Area.

Ruderal (no vegetation alliance). CDFW Rank: None. Ruderal habitat is a type of disturbed environment that is dominated by non-native, opportunistic vegetation. These plant species thrive in response to human activities such as soil disruption and roadways. Ruderal vegetation within the Study Area is mostly comprised of species such as foxtail barley (*Hordeum murinum*), wild oats (*Avena* sp.), prickly lettuce (*Lactuca serriola*), bristly ox-tongue (*Helminthotheca echioides*), and English ivy (*Hedera helix*) The ruderal land cover type marginally lines portions of the roadways. This community is not considered sensitive by San Mateo County, CDFW, or any other regulatory entity.

Ornamental Landscaping. (no vegetation alliance) CDFW Rank: None. Throughout the Study Area, some parts of the alignment run through ornamental landscaping along roadsides or associated residential units. Ornamental landscaping often involves the use of non-native and cultivated

plant species and is commonly managed. Ornamental plant species in the Study Area includes blue gum eucalyptus (*Eucalyptus globulus*) strawberry tree (*Arbutus unedo*), and ornamental pines (*Pinus* sp.); however, there are several other common ornamental trees and shrubs that have been planted within the land cover type in the Study Area. This community is not considered sensitive by San Mateo County, CDFW, or any other regulatory entity.

Oak Woodland (*Quercus agrifolia*) CDFW Rank: S4. The Oak Woodland vegetation community is common throughout the California coast. This plant community typically occurs on canyon bottoms, slopes, and flats with deep, sandy or loamy soils with high organic matter (CNPS 2023). Oak Woodland is found on the north-facing slopes in the northern portion of the Study Area at the Helen Drive Tank site. The tree canopy is dense with overstories that are dominated by coast live oak (*Quercus agrifolia*) and other broadleaf species such as California bay (*Umbellularia californica*). The understory was dominated by wild oats, California blackberry (*Rubus ursinus*), and French broom (*Genista monspessulana*). This community is not considered sensitive by San Mateo County, CDFW, or any other regulatory entity.

5.1.2 Aquatic Resources

There are no aquatic features within the Study Area.

5.2 Special-status Species

5.2.1 Special-status Plants

Based upon a review of the resource databases listed in Section 3.0, 85 special-status plant species have been documented in the vicinity of the Study Area (Appendix B). None of these species have the potential to occur or are unlikely to occur in the Study Area. The species documented from the greater vicinity are unlikely or have no potential to occur for one or more of the following:

- Hydrologic conditions (e.g., tidal, riverine) necessary to support the special-status plant species are not present in the Study Area;
- Edaphic (soil) conditions (e.g., volcanic tuff, serpentine) necessary to support the special-status plant species are not present in the Study Area;
- Topographic conditions (e.g., north-facing slope, montane) necessary to support the special-status plant species are not present in the Study Area;
- Unique pH conditions (e.g., alkali scalds, acidic bogs) necessary to support the special-status plant species are not present in the Study Area;
- Associated natural communities (e.g., interior chaparral, tidal marsh) necessary to support the special-status plant species are not present in the Study Area;
- The Study Area is geographically isolated (e.g. below elevation, coastal environ) from the documented range of the special-status plant species;
- The historical landscape and/or habitat(s) of the Study Area were not suitable habitat prior to land/type conversion (e.g., reclaimed shoreline) to support the special-status plant species; and
- Land use history and contemporary management (e.g., grading, intensive grazing) has degraded the localized habitat necessary to support the special-status plant species.

Portions of the Study Area are mapped as having serpentine-derived soils. But all areas mapped as serpentine within the Study Area have been developed and are no longer intact. There are several special-status plant species with affinity to serpentine soils that have been documented within the vicinity of the Study Area; however, there is no longer suitable habitat for the species in the Study Area. Due to a lack of suitable habitat, no special-status plant species have potential to occur or are unlikely to occur within the Study Area.

5.2.2 Special-status Wildlife

Of the 57 special-status wildlife species documented in the vicinity of the Study Area, most are excluded from the Study Area based on a lack of habitat features and barriers to dispersal immediately adjacent to the Study Area. Features not found within the Study Area that are required to support special-status wildlife species include:

- Vernal pools
- Perennial aquatic habitat (e.g., streams, rivers or ponds)
- Tidal marsh areas
- Old growth redwood or fir forest
- Serpentine soils to support host plants
- Sandy beaches or alkaline flats
- Presence of specific host plants
- Caves, mine shafts, or abandoned buildings

The absence of such habitat features eliminates components critical to the survival or movement of most special-status species found in the vicinity. For instance, California red-legged frog (*Rana draytonii*) is known to occur in the open spaces in the vicinity. However, suitable aquatic habitat and movement corridors connecting the Study Area to source populations are absent. Highway 280 acts as a barrier to movement for this species and many others. Additionally, given the Study Area's relative proximity to sensitive habitats on the San Francisco Bay, many species documented nearby are additionally obligates to marine or tidal marsh habitats which are not present on or in the vicinity of the Study Area.

One special-status species has potential to occur in the immediate vicinity of or in portions of the Study Area: white-tailed kite (*Elanus leucurus*) (Table 3). Additionally, burrowing owl (*Athene cunicularia*) has been documented within San Mateo County and habitat for the species is present in the Study Area, although individuals of this species are unlikely to occur within the Study Area. These two species are discussed in greater detail below.

Table 3: Potential Special-status Wildlife in Study Area

SCIENTIFIC NAME	COMMON NAME	CONSERVATION STATUS	POTENTIAL HABITAT IN THE STUDY AREA
Elanus leucurus	white-tailed kite	California Fully Protected Species (CFP)	The Study Area is in proximity to golf courses and open space areas which may be occupied by this species. White-tailed kite may nest in trees within and immediately adjacent to the Study Area. Additionally, this species has been observed in the vicinity.

White-tailed kite (*Elanus leucurus*). CDFW Fully Protected Species. High Potential. The white-tailed kite is resident in open to semi-open habitats throughout the lower elevations of California, including grasslands, savannahs, woodlands, agricultural areas and wetlands. Vegetative structure and prey availability seem to be more important habitat elements than associations with specific plants or vegetative communities. Nests are constructed mostly of twigs and placed in trees, often at habitat edges. Nest trees are highly variable in size, structure, and immediate surroundings, ranging from shrubs to trees greater than 150 feet tall (Dunk 1995). This species preys upon a variety of small mammals, as well as other vertebrates and invertebrates.

The Study Area is in proximity to golf courses and open space areas which may be occupied by this species. Additionally, the species has been observed in the immediate vicinity of the Study Area (Cornell Lab of Ornithology 2023). Trees within the Study Area may support this species' nesting habits. Therefore, this species has high potential to nest in trees within the Study Area near open space.

Burrowing owl (*Athene cunicularia*). CDFW Species of Special Concern. Unlikely. Burrowing owl occurs as a year-round resident and winter visitor in much of California's lowlands, inhabiting open areas with sparse or non-existent tree or shrub canopies. Typical habitat is annual or perennial grassland, although human-modified areas such as agricultural lands and airports are also used (Poulin et al. 2023). This species is dependent on burrowing mammals to provide the burrows that are used characteristically for shelter and nesting, and in northern California is typically found in close association with California ground squirrels (*Otospermophilus beecheyi*). Manmade substrates such as pipes or debris piles may also be occupied in place of burrows. Prey consists of insects and small vertebrates. Breeding typically takes place from March to July.

Burrowing owl has been documented within San Mateo County, but the closest documented occurrence is approximately 5-miles east of the Study Area (CDFW 2023b). Additionally, habitat for this species within the Study Area is marginal, with only ruderal patches available, and no areas present of sufficient size to support the species. In addition, human disturbance within and around the Study Area is constant and high, as the Study Area is located in a corridor between Interstate 280 and dense, urbanized residential areas and highly trafficked streets. Therefore, due to these unsuitable conditions, it is unlikely that burrowing owls would occur within the Study Area.

5.3 Wildlife Corridors and Native Wildlife Nursery Sites

No native wildlife nursery sites are present in the Study Area. No aquatic habitats are present, therefore no EFH was identified within the Study Area (NMFS 2023).

Wildlife movement between suitable habitat areas can occur via open space areas lacking substantial barriers. The terms "landscape linkage" and "wildlife corridor" are often used when referring to these areas. The key to a functioning corridor or linkage is that it connects two larger habitat blocks, also referred to as core habitat areas (Beier and Loe 1992; Soulé and Terbough 1999). It is useful to think of a "landscape linkage" as being valuable in a regional planning context, a broad scale mapping of natural habitat that functions to join two larger habitat blocks. The term "wildlife corridor" is useful in the context of smaller, local area planning, where wildlife movement may be facilitated by specific local biological habitats or passages and/or

may be restricted by barriers to movement. Above all, wildlife corridors must link two areas of core habitat and should not direct wildlife to developed areas or areas that are otherwise void of core habitat (Hilty et al. 2019).

The Study Area is mapped within the Essential Connectivity Areas geospatial dataset, which uses habitat modelling to identify areas of land with value as wildlife corridors (CDFW 2023c). The Study Area is classified in this dataset as Class 1-3, meaning that wildlife may use the Study Area as a corridor, but it is of medium to higher resistance to ecological flow (Spencer et al. 2010). Additionally, while there is open space that provides habitat for many special-status and common species, the Study Area is east of Highway 280 which already acts as a significant barrier to wildlife movement from the west. To the east of the Study Area, dense residential development also acts as a barrier. The Study Area is highly developed, and while common wildlife species presumably utilize the site to some degree for movement at a local scale, the Study Area itself does not provide corridor functions beyond connecting similar developed land parcels in surrounding areas. Furthermore, the Project is an underground pipeline and does not propose the addition of fencing, new roads, or other barriers which could change wildlife movement or create impediments to existing movement.

6.0 ANALYTICAL METHODOLOGY AND SIGNIFICANCE THRESHOLD CRITERIA

Pursuant to Appendix G, Section IV of the State CEQA Guidelines, a project would have a significant impact on biological resources if it would:

1. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or U.S. Fish and Wildlife Service;
2. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or U.S. Fish and Wildlife Service;
3. 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
4. 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;
5. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; and/or,
6. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

These thresholds were utilized in completing the analysis of potential project impacts for CEQA purposes. For the purposes of this analysis, a "substantial adverse effect" is generally interpreted to mean that a potential impact could directly or indirectly affect the resiliency or presence of a local biological community or species population. Potential impacts to natural processes that support biological communities and special-status species populations that can produce similar effects are also considered potentially significant. Impacts to individuals of a species or small areas of existing biological communities may be considered less than significant if those impacts are speculative, beneficial, de minimis, and/or would not affect the resiliency of a local population.

7.0 IMPACTS AND MITIGATION EVALUATION

Using the CEQA analysis methodology outlined in Section 6.2 above, the following section describes potential significant impacts to sensitive resources within the Study Area as well as suggested mitigation measures which are expected to reduce impacts to less than significant.

7.1 Special-status Species

This section analyzes the Project's potential impacts and mitigation for special-status species in reference to the significance threshold outlined in CEQA Appendix G, Part IV (a):

> *Does the project have the potential to have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or U.S. Fish and Wildlife Service?*

Potential impacts and mitigation for potentially significant impacts are discussed below.

7.1.1 Special-status Plant Species

No special-status plants have the potential to occur within the Study Area; and no direct or indirect impacts to special status plants would occur as a part of this Project.

7.1.2 Special-status Wildlife Species

This assessment determined that one (1) species of special-status bird, white-tailed kite, may nest in trees within the Study Area or in the immediate vicinity. In addition to special-status nesting birds, common avian species may also nest within the Study Area and may be similarly affected by Project activities. Project activities proposed within the Study Area may directly impact the nests of protected species or may impact these species through visual and auditory disturbance sufficient to cause nest abandonment. Due to the protected status of these species under both the Migratory Bird Treaty Act (MBTA) and CFGC, impacts to special-status and common native nesting birds would be considered a **potentially significant impact** under CEQA.

> **Potential Impact BIO-1**: Project activities could result in the destruction or abandonment of nests of special-status or non-special-status bird species protected under the MBTA, CFGC, and CEQA.

To reduce potential impacts to special-status birds and native nesting birds to a less-than-significant level, the following measure shall be implemented:

> **Mitigation Measure BIO-1**: To the extent feasible, Project-related activities shall be avoided during the nesting bird season, generally defined as February 1 – August 31. If Project work must occur during the nesting bird season, pre-construction nesting bird surveys shall be conducted within 14 days of initial ground disturbance in new areas to avoid disturbance to active nests, eggs, and/or young of nesting birds. These surveys shall determine the presence or absence of active nests that may be affected by Project activities. It is also recommended that any trees and shrubs in or adjacent to the Project Site that are proposed for removal and could be used as avian nesting sites be removed during the non-nesting season (September 1 through January 31).
>
> If an active nest is located, a no-disturbance buffer shall be established around the nest until all young have fledged or the nest otherwise becomes inactive (e.g., due to

predation). Suggested buffer zone distances differ depending on species, location, baseline conditions, and placement of nest and shall be determined and implemented in the field by a qualified biologist.

Implementation of this mitigation measure will reduce potential impacts to special-status birds and common, native nesting birds to a **less-than-significant level**.

Moreover, common bats protected under the CFGC may also roost within the Project Area. Project construction activities could directly impact non-status bat roosting through visual, vibratory, and auditory disturbance. Activities that cause bats within or adjacent to the work area to abandon their roost site. Activities that result in the direct removal of active roosts or disturbance to maternity roosting bats sufficient to result in the abandonment of the roost are a **potentially significant impact** under CEQA.

> **Potential Impact BIO-2**: Project construction activities could directly or indirectly impact roosting bats during tree removal, ground disturbance, or other noise-generating activities.

To reduce potential impacts to special-status and non-status roosting bats to a **less-than-significant level**, the following measure shall be implemented:

> **Mitigation Measure BIO-2**: At least 30 days prior to the removal of any large trees (DBH>16 inches), a bat roost assessment shall be conducted by a qualified biologist to determine if potential roost habitat is present. If trees to be removed have no potential to support roosting bats (e.g., no large basal cavities, exfoliating bark, interstitial spaces, or suitable foliage), Project work may be initiated with no further measures required to protect roosting bats.
>
> If potential bat roost habitat is present, and work is occurring between September 1 and April 31 (outside of the maternity season), the qualified biologist shall conduct an emergence survey no more than 7 days prior to tree removal or ground disturbance to determine if the roost is occupied. If the emergence survey confirms the roost is inactive, ground disturbance may be initiated, and trees may be felled with no further measures required to protect roosting bats.
>
> If a tree roost is confirmed active or is assumed to be active outside of the maternity season and cannot be avoided by Project activities, a two-phased cut shall be employed to remove the tree. The qualified biologist shall oversee removal of branches and small limbs not containing potential bat roost habitat using hand tools such as chainsaws or handsaws. The following day, the rest of the tree may be removed.
>
> If potential bat roosting habitat is present and work is occurring during the maternity season (May 1–August 31), the qualified biologist may either conduct an emergence survey to determine if the roost is occupied; or assume the roost is occupied and a buffer shall be implemented. If the emergence survey does not detect bats, the tree may be removed, or ground disturbance may be initiated with no further measures required to protect roosting bats. If roosting bats are detected, or the tree or other suitable habitat is assumed to be an active maternity roost, the roost shall be given a 100-foot buffer within which construction activities shall be avoided until the roost is determined no longer active or the maternity season is complete.

Implementation of this mitigation measure will reduce potential impacts to roosting bats to a level that is **less than significant**.

7.2 Sensitive Natural Communities and Land Cover Types

This section addresses the question:

> *b) Does the Project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or U.S. Fish and Wildlife Service;*

No sensitive natural communities occur within the Study Area and **no direct or indirect impacts** would occur as a result of the Project.

7.3 Aquatic Resources

This section analyzes the Project's potential impacts and mitigation for wetlands and other areas presumed or determined to be within the jurisdiction of the Corps or San Francisco Bay Conservation and Development Commission (BCDC) in reference to the significance threshold outlined in CEQA Appendix G, Part IV (c):

> *c) Does the Project have the potential to have a substantial adverse effect on state or federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;*

No direct or indirect impacts to wetlands are anticipated from the Project. Furthermore, the Study Area is outside of the jurisdiction of BCDC.

7.4 Wildlife Corridors and Native Wildlife Nursery Sites

This section analyzes the Project's potential impacts and mitigation for habitat corridors and linkages in reference to the significance threshold outlined in CEQA Appendix G, Part IV (d):

> *d) Does the Project have the potential to 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;*

As noted in Section 3.3, no portions of the Project Area provide connectivity between areas of suitable habitat. For terrestrial and aquatic species, all portions of the Project Area are within a greater context of urban development. The Project will return the Project Area to pre-Project conditions, and no change to wildlife movement corridors will result from the Project. **No impact** would occur to migratory corridors for terrestrial and aquatic species.

7.5 Local Policies and Ordinances

This section analyzes the Project's potential impacts and mitigation based on conflicts with local policies and ordinances in reference to the significance threshold outlined in CEQA Appendix G, Part IV (e):

> *e) Does the Project have the potential to conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance;*

Local plans and policies related to biological resources examined in this analysis are:

- City of Millbrae Tree Protection and Urban Forestry Program

Tree removal may be required for the Project, as needed for construction and access at the proposed pump station at the existing Helen Drive Tank site in the City of Millbrae. Some of the trees removed may be classified as heritage trees or otherwise protected by local ordinances. The Project will comply with the City of Millbrae's tree removal requirements, including obtaining applicable permits and associated mitigation requirements for the removal of any protected and/or heritage trees. Therefore, the Project will have **no impact** to local policies and ordinances.

7.6 Habitat Conservation Plans

This section analyzes the Project's potential impacts and mitigation based on conflicts with any adopted local, regional, and state habitat conservation plans in reference to the significance threshold outlined in CEQA Appendix G, Part IV (f):

> *f) Does the Project have the potential to conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.*

The Study Area is within San Mateo County, but it is outside the scope of the San Bruno Mountain Habitat Conservation Plan. Therefore, there is no conservation plan for the Study Area, and there will be no conflict with any local conservation plans. Therefore, there is **no impact** to the function of the Habitat Plan.

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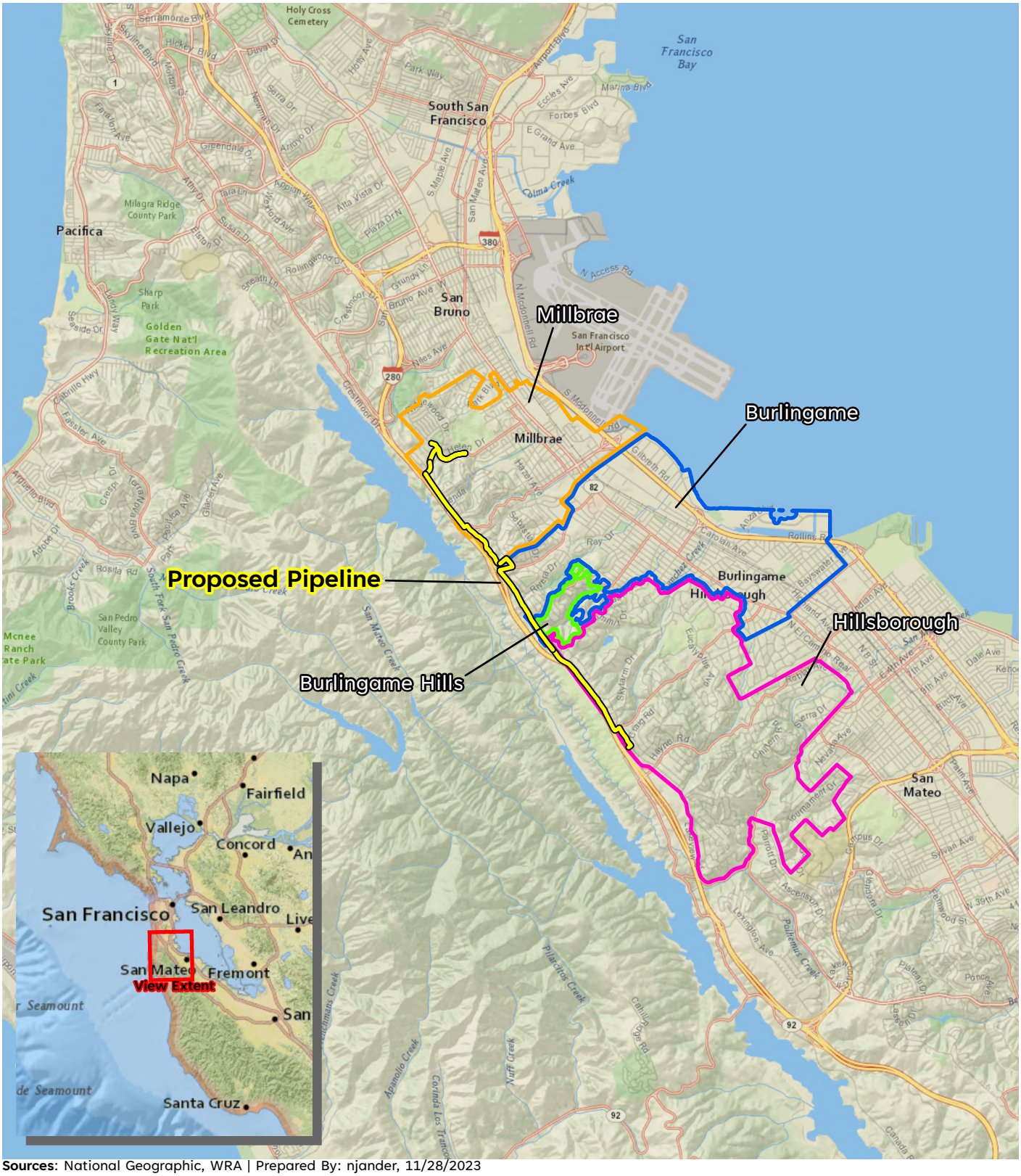
APPENDIX A. FIGURES



Path: L:\Acad 2000 Files\30000\30345\GIS\ArcMap\30345Base.aprx Layout Name:BRTR_Fig1_Project Site Location

Sources: National Geographic, WRA | Prepared By: njander, 11/28/2023

Figure 1. Study Area Location

Water Pipeline Design from
Harry Tracy Water Treatment Plant
to the Town of Hillsborough Water System

0 1 2 Miles

N

wra Environmental Consultants

Path: L:\Acad 2000 Files\30000\30345\GIS\ArcMap\30345Base.aprx Layout Name: BRTR_Fig2_Insets

Sources: USDA NAIP Imagery 2022, WRA | Prepared By: njander, 9/24/2023

Figure 2. Representative Alignment Locations

Water Pipeline Design from
Harry Tracy Water Treatment Plant
to the Town of Hillsborough Water System

0 0.25 0.5 Miles

N

wra Environmental Consultants

Path: L:\Acad 2000 Files\30000\30345\GIS\ArcMap\30345Base.aprx Layout Name: BRTR_Fig3a_Representative Alignment Location 1

Sources: USDA NAIP Imagery 2022, WRA | Prepared By: njander, 9/24/2023

Figure 3a. Representative Alignment Location 1

Water Pipeline Design from
Harry Tracy Water Treatment Plant
to the Town of Hillsborough Water System

0 25 50 Feet

N

wra Environmental Consultants

Path: L:\Acad 2000 Files\30000\30345\GIS\ArcMap\30345Base.aprx Layout Name: BRTR_Fig3b_Representative Alignment Location 2

Sources: USDA NAIP Imagery 2022, WRA | Prepared By: njander, 9/24/2023

Figure 3b. Representative Alignment Location 2

Water Pipeline Design from
Harry Tracy Water Treatment Plant
to the Town of Hillsborough Water System

0 25 50 Feet

N

wra Environmental Consultants

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Sources: USDA NAIP Imagery 2022, WRA | Prepared By: njander, 9/24/2023

Figure 3c. Representative Alignment Location 3

Water Pipeline Design from
Harry Tracy Water Treatment Plant
to the Town of Hillsborough Water System

0 25 50 Feet

N

wra Environmental Consultants

APPENDIX B. PLANT SPECIES OBSERVED IN AND AROUND THE STUDY AREA

Plant Species Observed within the Study Area During the Biological Resources Assessment Survey on August 29, 2023.

Scientific Name	Common Name	Origin	Form	Rarity Status[1]	CAL-IPC Status[2]	Wetland Status[3]
Arbutus unedo.	Strawberry tree	non-native	tree	-	-	-
Avena sp.	-	-	-	-	-	-
Cirsium vulgare	Bullthistle	non-native (invasive)	perennial herb	-	Moderate	FACU
Eschscholzia californica	California poppy	native	annual, perennial herb	-	-	-
Eucalyptus globulus	Blue gum	non-native (invasive)	tree	-	Limited	-
Foeniculum vulgare	Fennel	non-native (invasive)	perennial herb	-	High	-
Genista monspessulana	French broom	non-native (invasive)	shrub	-	High	-
Hedera helix	English ivy	non-native (invasive)	vine, shrub	-	High	FACU
Helminthotheca echioides	Bristly ox-tongue	non-native (invasive)	annual, perennial herb	-	Limited	FAC
Hordeum murinum	Foxtail barley	non-native (invasive)	annual grass	-	Moderate	FACU
Lactuca serriola	Prickly lettuce	non-native	annual herb	-	-	FACU
Lonicera sp.	-	-	-	-	-	-
Lotus corniculatus	Bird's foot trefoil	non-native	perennial herb	-	-	FAC
Pinus radiata	Monterey pine	native	tree	Rank 1B.1*	-	-
Polypogon monspeliensis	Annual beard grass	non-native (invasive)	annual grass	-	Limited	FACW
Quercus agrifolia	Coast live oak	native	tree	-	-	-
Rubus ursinus	California blackberry	native	vine, shrub	-	-	FAC
Toxicodendron diversilobum	Poison oak	native	vine, shrub	-	-	FACU
Umbellularia californica	California bay	native	tree	-	-	FAC

Note: All species identified using the *Jepson eFlora* [Jepson Flora Project (eds.) 2023]; nomenclature follows *Jepson eFlora* [Jepson Flora Project (eds.) 2023] or Rare Plant Inventory (CNPS 2023). Sp.: "species", intended to indicate that the observer was confident in the identity of the genus but uncertain which species.

*Special-status only at native occurrences. The Study/Project Area does not contain a native occurrence of this species.

[1] **California Native Plant Society. 2023. Rare Plant Inventory (online edition, v9.5). Sacramento, California. Online at: http://rareplants.cnps.org/; most recently accessed: September 2023**

FE:	Federal Endangered
FT:	Federal Threatened
SE:	State Endangered
ST:	State Threatened
SR:	State Rare
Rank 1A:	Plants presumed extinct in California
Rank 1B:	Plants rare, threatened, or endangered in California and elsewhere
Rank 2:	Plants rare, threatened, or endangered in California, but more common elsewhere
Rank 3:	Plants about which we need more information – a review list
Rank 4:	Plants of limited distribution – a watch list

[2] **California Invasive Plant Council. 2023. California Invasive Plant Inventory Database. California Invasive Plant Council, Berkeley, CA. Online at: http://www.cal-ipc.org/paf/; most recently accessed: September 2023**

High:	Severe ecological impacts; high rates of dispersal and establishment; most are widely distributed ecologically.
Moderate:	Substantial and apparent ecological impacts; moderate-high rates of dispersal, establishment dependent on disturbance; limited-moderate distribution ecologically
Limited:	Minor or not well documented ecological impacts; low-moderate rate of invasiveness; limited distribution ecologically
Assessed:	Assessed by Cal-IPC and determined to not be an existing current threat

[3] **U.S. Army Corps of Engineers. 2020. National Wetland Plant List, version 3.5. Engineer Research and Development Center. Cold Regions Research and Engineering Laboratory, Hanover, NH. Online at: http://wetland-plants.usace.army.mil/**

OBL:	Almost always found in wetlands
FACW:	Usually found in wetlands
FAC:	Equally found in wetlands and uplands
FACU:	Usually not found in wetlands
UPL:	Almost never found in wetlands
NL:	Not listed, assumed almost never found in wetlands
NI:	No information; not factored during wetland delineation

APPENDIX D. NOISE DATA

Construction Noise Calculations

Construction Phase	Equipment[1]	No. Equipment[1]	Usage Factor[2]	Maximum Noise Level @ 50 feet (Lmax)[2,3]	Typical Noise Level @ 50 feet (dBA_1)	Reference Distance (D_1)	Distance to Property Line (D_2)	Ground Absorption Constant (G)	Noise Level @ 25 feet (dBA_2)	All Equipment @ 25 feet	Two Noisiest Equipment@ 50 feet	Buffer Distance to 90 dBA Threshold (Millbrae and Burligame)
Unit		**Unit**	**%**	**dBA Lmax**	**dBA Leq**	**feet**	**feet**	**unitless**	**dBA Leq**	**dBA Leq**	**dBA Leq**	**feet**
Pavement Removal	Excavator	2	40	85	81	50	25	0	87	90	84	25
Trench Excavation	Excavator	1	40	85	81	50	25	0	87	89	82	20
	Pumps	1	50	77	74	50	25	0	80			
	Welder/Torch	1	40	73	69	50	25	0	75			
	Compactor	2	20	82	75	50	25	0	81			
Asphalt Paving and Concrete	Roller	1	20	85	78	50	25	0	84	92	85	27
	Paver	1	50	85	82	50	25	0	88			
	Grader	1	40	85	81	50	25	0	87			
	Cement Mixer	1	20	76	69	50	25	0	75			

Notes:

Noise level at the receptor calculated based on the following equation:[4]

$dBA_2 = dBA_1 + 10 * \log_{10}(D_1/D_2)^{2+G}$

Where:

dBA_2 = Noise level at receptor

dBA_1 = Noise level at reference distance

D_1 = Reference distance

D_2 = Receptor distance

G = Ground absorption constant (0 for hard surface, 0.5 for soft surface)

Combined noise levels at receptor calculated for two noisiest equipment using decibel addition:

$L = 10 * \log_{10} (10^{(L_1/10)}+10^{(L_2/10)})$

L = Combined noise level

L_1 = Noise level for first noisiest piece of equipment

L_2 = Noise level for second noisiest piece of equipment

Buffer distance to noise threshold of 90 dBA calculated based on the following equation:

$D_2 = D_1/(10^{((dBA2- dBA1)/10*(2+G))})$

Where:

dBA_1 = Noise level at reference level

dBA_2 = Noise threshold for construction

D_1 = Reference distance

D_2 = Buffer distance to construction noise threshold

G = Ground absorption constant (0 for hard surface, 0.5 for soft surface)

[1] The type of construction equipment is based on construction equipment list provided by the applicant.

[2] U.S. Department of Transportation, 2006. FHWA Highway Construction Noise Handbook, Table 9.1. August.

[3] Federal Transit Administration, 2018. Transit Noise and Vibration Impact Assessment Manual, Table 7-1. September.

[4] California Department of Transportation, 1998. Technical Noise Supplement (TeNS). Equation N-2141.2. October.

Construction Vibration Calculations for Potential Disturbance

Equipment[1]	Typical Vibration Level @ 25 Feet[2] (RMS_1)	Annoyance Vibration Threshold (RMS_2)	Reference Distance (D_1)	Buffer Distance to Annoyance Threshold (D_2)
Unit	**VdB**	**VdB**	**feet**	**feet**
Vibratory Roller	94	83	25	58
Loaded trucks	86	83	25	31

Notes:

Buffer distance to vibration threshold for human annoyance calculated based on the following equation:[3]

$D_2 = D_1 * 10^{((RMS_1 - RMS_2) / 30)}$

Where:

RMS_1 = Vibration level at reference distance

RMS_2 = Vibration threshold for human disturbance

D_1 = Reference distance

D_2 = Buffer distance to vibration threshold for human annoyance

Construction Vibration Calculations for Potential Building Damage

Equipment[1]	Typical Vibration Level @ 25 Feet[2] (PPV_1)	Building Damage Vibration Threshold (PPV_2)	Reference Distance (D_1)	Buffer Distance to Damage Threshold (D_2)
Unit	**in/sec**	**in/sec**	**feet**	**feet**
Vibratory Roller (FTA, underfined tonnage)	0.210	0.3	25	20
Loaded trucks	0.076	0.3	25	10

Notes:

Buffer distance to vibration threshold for building damage calculated based on the following equation:[3]

$D_2 = (PPV_1 / PPV_2)^{(1 / 1.5)} * D_1$

Where:

PPV_1 = Vibration level at reference distance

PPV_2 = Vibration threshold for building damage

D_1 = Reference distance

D_2 = Buffer distance to vibration threshold for building damage

[1] Project-specific construction list provided by the project applicant. Only equipment that generates substantial vibration is shown. for the project. Only equipment that generates substantial vibration is shown.

[2] Federal Transit Administration, 2018. Transit Noise and Vibration Impact Assessment Manual, Table 7-4. September.

[3] Federal Transit Administration, 2018. Transit Noise and Vibration Impact Assessment Manual, Equations 7-2 and 7-3. September.