

DRAFT

**CONTRA COSTA COUNTY
FIRE PROTECTION DISTRICT
FIRE STATION 9 REDEVELOPMENT PROJECT
(PROJECT NO. WH728B)
INITIAL STUDY/MITIGATED NEGATIVE
DECLARATION**

PREPARED FOR :

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Acronyms and Abbreviations

AB	Assembly Bill
ABAG	Association of Bay Area Governments
ADA	Americans with Disabilities Act
ADT	average daily traffic
Air District	Bay Area Air District
Air District CEQA Guidelines	California Environmental Quality Act Air Quality Guidelines
ALUCP	Airport Land Use Compatibility Plan
AST	aboveground storage tank
ATP	Active Transportation Plan
Basin Plan	Water Quality Control Plan for the San Francisco Bay Basin
BERD	Built-Environment Resources Directory
BMPs	best management practices
CAAP	Climate Action and Adaptation Plan
CAAQS	California Ambient Air Quality Standards
CAL FIRE	California Department of Forestry and Fire Protection
Cal/OSHA	Division of Occupational Safety and Health
CalEnviroScreen	California Communities Environmental Health Screening Tool
CalEPA	California Environmental Protection Agency
CALGreen	California Green Building Standards Code
CalRecycle	California Department of Resources Recycling and Recovery
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CBC	California Building Code
CCCMC	Contra Costa County Municipal Code
CCHSHMP	Contra Costa Health Services, Hazardous Materials Program
CCR	California Code of Regulations
CCTA	Contra Costa Transportation Authority
CCWD	Contra Costa Water District
CDFW	California Department of Fish and Wildlife
Central San	Central Contra Costa Sanitary District
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CGS	California Geological Survey
CH ₄ ,	methane
CNDDB	California Natural Diversity Database

CNPS	California Native Plant Society
CO	carbon monoxide
CO ₂	carbon dioxide
CO ₂ e	carbon dioxide equivalent
Conservancy	East Contra Costa County Habitat Conservancy
County	Contra Costa County
CRHR	California Register of Historic Resources
CUPA	Certified Unified Program Agency
CVLN	Confederated Villages of Lisjan Nation
dB	decibel
dBA	A-weighted decibel
DBE	design-build entity
DPM	diesel particulate matter
DPR	Department of Parks and Recreation
DTSC	Department of Toxic Substances Control
ECCCCHCP	East Contra Costa County Habitat Conservation Plan
EPA	U.S. Environmental Protection Agency
ESA	environmentally sensitive area
FAA	Federal Aviation Administration
FEMA	Federal Emergency Management Agency
FTA	Federal Transit Authority
GHG	greenhouse gas
GIS	geographic information system
GSP	Groundwater Sustainability Plan
HCP	habitat conservation plan
HDM	Highway Design Manual
HELIX	HELIX Environmental Planning, Inc.
HRA	health risk assessment
HVAC	heating, ventilation, air-conditioning
IPaC	Information for Planning and Consultation
IPCC	Intergovernmental Panel on Climate Change
IS/MND	initial study/mitigated negative declaration
L _{dn} or DNL	day/night level
LEED	Leadership in Energy and Environmental Design
L _{eq}	equivalent sound level
LHMP	Local Hazard Mitigation Plan
L _{max}	maximum sound level
LOS	level of service
LRA	Local Responsibility Zone

LUST	leaking underground storage tank
MBTA	Migratory Bird Treaty Act
MEIR	maximally exposed individual receptor
MLD	most likely descendant
mph	miles per hour
MRP	Municipal Regional Permit
MT	metric ton
MTC	Metropolitan Transportation Commission
MUC	Mixed-Use Community Specific
N ₂ O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NCCP	natural community conservation plan
NO ₂	nitrogen dioxide
NO _x	nitrogen oxides
NRHP	National Register of Historic Places
NWIC	Northwest Information Center
O ₃	ozone
OEHHA	Office of Environmental Health Hazard Assessment
OHP	Office of Historic Preservation
PM	particulate matter
PM ₁₀	particulate matter no more than 10 microns in diameter
PM _{2.5}	particulate matter no more than 2.5 microns in diameter
PPV	peak particle velocity
rms	root mean square
ROG	reactive organic gas
RTP/SCS	regional transportation plan/sustainable communities strategy
SB	Senate Bill
SFBAAB	San Francisco Bay Area Air Basin
SGMA	Sustainable Groundwater Management Act
SLF	Sacred Lands File
SO ₂	sulfur dioxide
SPCC	Spill Prevention Control and Countermeasure
SWCP	Stormwater Control Plan
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TACs	toxic air contaminants
U.S.C.	United States Code
USFWS	U.S. Fish and Wildlife Service

USGS	U.S. Geological Survey
UST	underground storage tank
VdB	vibration decibel level
VMT	vehicle miles traveled
WEAP	Worker Environmental Awareness Program
WMP	Water Management Plan

Chapter 1

CEQA Environmental Checklist Form

1. Project Title:

Fire Station 9 Redevelopment (Project No. WH728B)

2. Lead Agency Contact:

Contra Costa County Fire Protection District
4005 Port Chicago Highway, Suite 250
Concord, CA 94520

3. Contact Person and Phone Number:

Sam Nichols, Assistant Chief
Contra Costa County Fire Protection District, Support Services
925.941.3300 ext. 1107
Sam.Nichols@cccfpd.org

4. Project Sponsor's Name and Address:

Contra Costa County Fire Protection District
4005 Port Chicago Highway, Suite 250
Concord, CA 94520

5. General Plan Designation:

Mixed-Use Community Specific (MUC)

6. Zoning Designation:

Single-Family Residential (R-7)

7. Project Location:

209 Center Avenue
Pacheco, CA 94553
Assessor's Parcel Number: 125-073-003

8. Description of Project:

The proposed project would demolish and reconstruct an operational fire station on the same site (0.92 acre). The existing station, which was constructed in 1956, is outdated and unable to support the staff or equipment needed for a modern fire protection agency. The new fire station building would be larger than the fire station that currently exists. The current station is a 2,215-square-foot single-company, one-story station with two apparatus bays. The new structure would be an approximately 15,400-square-foot double-company, two-story station with three apparatus bays that would have a maximum height of 35 feet. The existing station has a three-person crew with one captain, one engineer, and one firefighter that works a 48-hour shift; it houses two fire engines.

The new fire station would include offices and crew quarters for up to nine firefighters during their 48-hour shifts and an apparatus bay for storing three fire engines when not on call. The office/crew quarters portion of the building would include a lobby area, a battalion chief's office, station office, nine dorm rooms, a kitchen, dining and day rooms, an exercise room, a laundry room, a communications/IT room, multipurpose room, and five restrooms. The apparatus bay would include turnout and washrooms, gear storage rooms, a restroom, storage and compressor

rooms, and mechanical and electrical rooms. The project would meet Leadership in Energy and Environmental Design (LEED) Silver equivalent standards which provides a framework for healthy, efficient, and cost-effective green buildings.

The parcel would also be developed with paved areas for parking and an equipment yard for on-site vehicle cleaning and maintenance, along with two fuel tanks, an emergency generator, and a trash enclosure. In addition, landscaping and pedestrian walkways would be installed at the fire station entrance; stormwater retention basins would be installed within the landscaping throughout the parcel. Existing mature redwood trees at the corner of Center Avenue and Blackwood Drive would need to be removed from the project site. A 6-foot-tall privacy wall would be installed along Blackwood Drive, around the back of the property, and along Grayson Creek.

The project would require the following variance and exception:

- A front yard setback of approximately 4 to 10 feet is required.

Access, Circulation, and Parking

Fire engines would leave the station via Center Avenue and enter the station from Blackwood Drive. Three visitor parking spaces would be provided in the front parking lot that would be accessed from Center Avenue. Up to 16 employee parking spaces and two bike racks, for a total of four bikes, would be provided behind the building; these could be accessed from either Blackwood Drive or Center Avenue through automatic gates.

Site plans are attached.

Construction

Project construction is anticipated to begin in late 2026 and take approximately 17 months. The first phase of construction would involve demolition of the existing fire station, which would take approximately 2 months. Site preparation, including grading activities, would take approximately 1 month. Trenching and utility line preparation would then occur and take approximately 1 month to complete. Construction of the building and its interior would follow and take approximately 12 months to complete. Following building construction, site work, including paving and landscaping, would take approximately 2 months to complete. A total of 2,000 cubic yards of fill material is anticipated over the course of project construction.

9. Surrounding Land Uses and Setting:

The project location is in unincorporated Pacheco, about 0.3 miles east of the Martinez city limit. The highly residential setting is bordered to the north, south, and west by residences. North of the project is a medium-density planned apartment unit. South and west of the project are single-family residential homes. Grayson Creek is directly east of the project site, as is an access road owned and maintained by the Contra Costa County Flood Control District. East of the project site, across Grayson Creek, is a retail business district with numerous commercial stores. These are located along the Pacheco Boulevard.

10. Other Agencies Whose Approval Is Required:

While the Fire District is the CEQA Lead Agency for the project, other agencies also have discretionary authority related to the project and approvals, or serve as a responsible and/or trustee agency in connection to the proposed project. A list of these agencies and potential permits and approvals that may be required is provided in Table 1.

Table 1: Potential Permits and Approvals

Lead Agency	Permits/Approvals
Contra Costa County Fire Protection District Board of Directors	Approve Project/CEQA and advertise; award; and accept project as complete
Contra Costa County Department of Conservation and Development, Building Inspection Division	Building and Grading Permit
Contra Costa County Department of Public Works, Engineering Services Division	Encroachment Permit (Road Right-of-Way)
Contra Costa County Flood Control and Water Conservation District	Encroachment Permit (Grayson Creek Maintenance Access)

11. Have California Native American Tribes Traditionally and Culturally Affiliated with the Project Area Requested Consultation Pursuant to Public Resources Code Section 21080.3.1? If so, is there a plan for consultation that includes, for example, a determination of the significance of impacts on tribal cultural resources, procedures regarding confidentiality, etc.?

Yes, tribes that have previously requested to be notified of projects within Contra Costa County under Assembly Bill (AB) 52 include Wilton Rancheria and the Confederated Villages of Lisjan Nation (CVLN). A Notice of Opportunity to Request Consultation was sent on February 4, 2025, to Wilton Rancheria and CVLN. Wilton Rancheria did not request consultation or provide information about potential resources. CVLN requested consultation and Contra Costa County (County) consulted with CVLN regarding the methods of resource investigation and identification, along with avoidance, mitigation, and monitoring measures. Refer to Section 2.18, Tribal Cultural Resources, for a record of consultation meetings. Measures were agreed upon and consultation concluded on November 19, 2025.

Environmental Factors Potentially Affected

The environmental factors checked below could be affected by this project, with at least one impact that would be a "potentially significant impact," as indicated by the checklists on the pages below.

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

Environmental Determination

On the basis of this initial evaluation:

- ☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- ☒ I find that, although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions to the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- ☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- ☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards and 2) has been addressed by mitigation measures, based on the earlier analysis, as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- ☐ I find that although the proposed project could have a significant effect on the environment because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

DocuSigned by:

Aaron McAllister

AD946ABE223B428

Chief Aaron McAllister, Deputy Fire Chief
Contra Costa County Fire Protection District

3/31/2026

Date

Chapter 2

Environmental Checklist

2.1 Aesthetics

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than- Significant Impact	No Impact
Except as provided in Public Resources Code Section 2.1099, would the project:				
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 points). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☐	☒
d) Create a new source or substantial light or glare that would adversely affect daytime or nighttime views in the area?	☐	☐	☒	☐

2.1.1 Discussion

a) Would the project have a substantial adverse effect on a scenic vista?

According to the Contra Costa County 2045 General Plan, scenic vistas include scenic routes, scenic ridges, and other natural features with scenic value (Contra Costa County 2024). The project site is in an urbanized area within unincorporated Pacheco, California, and surrounded primarily by residential uses on the north, west, and south, with commercial uses to the east beyond Grayson Creek; the project site currently supports a fire station. The Contra Costa County 2045 General Plan does not identify any County-recognized scenic vistas in the project vicinity. The only natural feature in the project vicinity is Grayson Creek, which supports natural vegetation; however, the character of the surrounding environment is urban and includes the maintenance trail that parallels the creek. Views of the creek at this location are not considered a designated scenic resource, and the replacement of an existing fire station with a larger fire station would not obstruct or alter views of any scenic resources or natural features. Therefore, the project would have a **less-than-significant impact**.

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

The nearest designated state scenic highway is State Route 24, approximately 6 miles south of the project site. The project site is not near any County-designated scenic routes (California Department of Transportation [Caltrans] 2019; Contra Costa County 2024), and the existing fire station is not considered a historic building. The project would involve the removal of eight mature redwood trees and 15 smaller trees that were planted as landscaping for the existing fire station. The tree removals would be exempt from the County’s tree protection and preservation

ordinance because the parcel is owned by the County (Contra Costa County Municipal Code [CCCMC] 816-6.1002[6]), and their removal would not affect a state scenic highway or historic building. Therefore, the project would have a **less-than-significant impact**.

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

The project site is in an urbanized area and currently supports a fire station. The project site is zoned Single-Family Residential (R-7) and a fire station is a permissible use under R-7 zoning.

The Contra Costa County 2045 General Plan contains the following relevant goals and policies from the Conservation, Open Space, and Working Lands Element (COS):

Goal COS-12. Protected natural features with high scenic value, such as visual landmarks, major ridges, prominent hillsides, and stands of mature trees.

Policy COS-P12.1. Deny applications for development that would destroy unique and irreplaceable natural features, such as distinctive rock formations.

Policy COS-P12.2. Require redesign of project components that negatively impact viewsheds or the visual quality of the area.

Policy COS-P12.5. Require restoration of natural contours and vegetation after grading and other land disturbances.

As discussed above, the project site does not have views of any County-designated scenic vistas, and it does not contain any protected scenic resources. The new fire station, although larger in scale, has been designed to blend into the existing urban fabric; it would not degrade the visual character of the area. The surrounding neighborhood already includes a variety of residential and commercial structures, many of which are multiple stories. The increase in height would not be incompatible with the surrounding development. Thus, the project would not conflict with applicable regulations governing scenic quality. The project would have **no impact**.

- d) *Would the project create a new source or substantial light or glare that would adversely affect daytime or nighttime views in the area?*

The project site is in an urbanized area with existing sources of nighttime light, including streetlights and headlights from vehicles and existing interior and exterior lighting from surrounding residential and commercial uses.

Construction is anticipated to occur during daylight hours; however, temporary nighttime lighting could be used during construction for safety and security purposes. Lighting will be in accordance with the California Energy Code (CEC), which contains standards for reducing nuisances associated with lighting and includes standards that requires all lighting, whether temporary or permanent be controlled and properly shielded to reduce light spillover (CEC 76-4.612).

During operation, sources of light would continue however could increase due to the larger building size and height. Nighttime sources include the interior and exterior lighting for security and navigation. Without proper configuration, the new fire station could result in light spillover onto adjacent properties. However, the project would comply with the CCCMC street light standards and the CEC, which requires light fixtures to be controlled or directed to reduce light interference or

spillover as well as dimming, motion-activated lighting, and automatic shut off features (CEC Chapter 76-4.612). Further, the addition of landscape trees would also provide shielding of nighttime light source spillover.

Sources of glare during operation include light reflected from pavement, vehicles, and building materials, such as reflective glass and polished surfaces, which could affect neighboring properties. However, glare would be minimized with treated windows and solar panels. Solar panels would be placed on the roof of the fire station building which is situated at a higher elevation (approximately 35 feet) than the surrounding land uses and the treated panels would not create glare that could be a safety concern for air traffic or avian species. As noted, all exterior light fixtures would comply with the CEC, which also requires lighting features that control glare. Consequently, the new structure would be designed to minimize glare and be consistent with the surrounding environment.

The project would not create new sources of light and glare that would substantially affect daytime or nighttime views in the area. Therefore, the project would have a **less-than-significant impact**.

2.1.2 Sources of Information

California Department of Transportation. 2019. *Scenic Highways: California State Scenic Highways*. Website and Map. Available: <https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways> Accessed: January 29, 2021, and November 24, 2025.

Contra Costa County. 2024. *Contra Costa County 2045 General Plan*. Chapter 3: Land Use Element, 2005–2020. Available: <http://www.co.contra-costa.ca.us/DocumentCenter/View/30913/Ch3-Land-Use-Element?bidId=>. Chapter 5: Transportation and Circulation Element, 2005–2020. Available: <http://www.co.contra-costa.ca.us/DocumentCenter/View/30915/Ch5-Transportation-and-Circulation-Element?bidId=>.

2.2 Agriculture and Forestry Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than- Significant Impact	No Impact
<i>In determining whether impacts on agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts on forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forestland, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project, and the forest carbon measurement methodology provided in the Forest Protocols adopted by the California Air Resources Board.</i>				
<i>Would the project:</i>				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on 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, forestland (as defined in Public Resources Code Section 12220[9]), timberland (as defined by Public Resources Code Section 4526), or timberland zoned for timberland production (as defined by Government Code Section 51104[9])?	☐	☐	☐	☒
d) Result in the loss of forestland or conversion of forestland to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment that, due to their location or nature, could result in the conversion of Farmland to non-agricultural use or the conversion of forestland to non-forest use?	☐	☐	☐	☒

2.2.1 Discussion

- a) *Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?*

The current Contra Costa County Important Farmland Map (2022) indicates that the project site is classified as "Urban and Built-Up Land," defined as land "occupied by structures with a building density of at least 1 unit to 1.5 acres, or approximately six structures to a 10-acre parcel" (California Department of Conservation 2025). Because the project site is classified as Urban and Built-Up Land, project development would not result in the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to a non-agricultural use. Therefore, the project would have **no impact**.

- b) *Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?*

The project site and surrounding area is in an urbanized area not zoned for agricultural use and is not restricted by a Williamson Act contract. Therefore, the project would have **no impact**.

- c) *Would the project conflict with existing zoning for, or cause rezoning of, forestland (as defined in Public Resources Code Section 12220[9]), timberland (as defined by Public Resources Code Section 4526), or timberland zoned for timberland production (as defined by Government Code Section 51104[9])?*

The project site is in an urbanized area and is zoned R-7, Single-Family Residential. The site and its surroundings are urban and not zoned for forestland, timberland, or timberland production. Therefore, the project would have **no impact**.

- d) *Would the project result in the loss of forestland or conversion of forestland to non-forest use?*

No forestland is present on or near the project site. The project would not result in the loss of forestland and/or conversion of forestland. Therefore, the project would have **no impact**.

- e) *Would the project involve other changes in the existing environment that, due to their location or nature, could result in the conversion of Farmland to non-agricultural use or the conversion of forestland to non-forest use?*

There is no farmland or forestland on or near the project site. The project site is a functioning fire station and the surrounding area is developed with predominantly residential and commercial uses. Because no farmland or forestland is present, the project would not result in the conversion of farmland to non-agricultural use or the conversion of forestland to non-forest use. Therefore, the project would have **no impact**.

2.2.2 Sources of Information

California Department of Conservation. 2025. *Contra Costa County Important Farmland 2022*.

Available: <https://www.conservation.ca.gov/dlrp/fmmp/Pages/ContraCosta.aspx>. Accessed: November 7, 2025.

2.3 Air Quality

	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less-than- Significant Impact</i>	<i>No Impact</i>
<i>Would the project:</i>				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b) Result in a cumulative considerable net increase in 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) adversely affecting a substantial number of people?	☐	☐	☒	☐

2.3.1 Discussion

Setting

The project site is in unincorporated Contra Costa County, which is in the San Francisco Bay Area Air Basin (SFBAAB). Concentrations of ozone (O₃), carbon monoxide (CO), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), lead, and particulate matter (PM₁₀ [particulate matter no more than 10 microns in diameter] and PM_{2.5} [particulate matter no more than 2.5 microns in diameter]) are commonly used indicators of ambient air quality conditions. These pollutants are known as criteria pollutants and regulated by the U.S. Environmental Protection Agency (EPA) and California Air Resources Board (CARB) through the National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS), respectively. The NAAQS and CAAQS limit criteria pollutant concentrations to protect human health and prevent environmental and property damage.

Regional Attainment Status

CARB and EPA maintain ambient air quality monitoring stations within California. Local monitoring data are used to designate areas as nonattainment, maintenance, attainment, or unclassified areas for ambient air quality standards. The four designations are defined below. Table 2.3-1 summarizes the attainment status of Contra Costa County.

- Nonattainment—assigned to areas where monitored pollutant concentrations consistently violate the standard in question
- Maintenance—assigned to areas where monitored pollutant concentrations exceeded the standard in question in the past but are no longer in violation of that standard
- Attainment—assigned to areas where pollutant concentrations meet the standard in question over a designated period of time
- Unclassified—assigned to areas where data are insufficient for determining whether a pollutant is violating the standard in question.

Table 2.3-1. Federal and State Attainment Status for Contra Costa County Portion of the San Francisco Bay Area Air Basin

Criteria Pollutant	Federal Designation	State Designation
Ozone (O ₃ [8-hour standard])	Marginal nonattainment	Nonattainment
Carbon monoxide (CO)	Attainment	Attainment
Particulate matter (PM ₁₀)	Attainment	Nonattainment
Fine particulate matter (PM _{2.5}) ^a	Moderate nonattainment	Nonattainment
Nitrogen dioxide (NO ₂)	Attainment	Attainment
Sulfur dioxide (SO ₂)	Attainment	Attainment
Lead	Attainment	Attainment
Sulfates	(no federal standard)	Attainment
Hydrogen sulfide	(no federal standard)	Unclassified
Visibility-reducing particles	(no federal standard)	Unclassified

Sources: CARB 2023; EPA 2024.

^a Federal designation reflects the 2006 PM_{2.5} standard, which is more stringent than the 2012 standard. The area’s status under the 2006 standard is worse than under the 2012 standard.

Existing Toxic Air Contaminant Sources and Health Risks

The Bay Area Air District (Air District) maintains an inventory, which is available online, of health risks associated with all permitted stationary sources within the SFBAAB (Air District 2024). Within 1,000 feet of the project site, there are two permitted facilities. Aside from stationary sources, emissions of toxic air contaminants (TACs) around the project site are also generated from mobile sources on roads and highways, like Pacheco Boulevard and I-680. Health risks associated with the nearby permitted stationary sources and roads are considered in the analysis of the project’s cumulative health risks.

Environmental Burdens

The Office of Environmental Health Hazard Assessment (OEHHA) maintains the California Communities Environmental Health Screening Tool (CalEnviroScreen), which provides relative rankings of census tracts, based on 21 environmental, health, demographic, and socioeconomic indicators (e.g., O₃ concentrations, groundwater threats, education levels). Scores are given on a scale of 0 to 100, with larger numbers representing areas with relatively high existing pollution burdens and population sensitivities. The proposed project is in Census Tract 6013321200, which has a CalEnviroScreen percentile score of 33. This score indicates that the census tract experiences more minor levels of pollution, as well as secondary effects, than the rest of the state (OEHHA 2023). Because the census tract has a CalEnviroScreen score lower than 70 percent, it is not considered an overburdened community, per Air District guidance (Air District 2023).

Regulatory Setting

The Air District is responsible for ensuring that the NAAQS and CAAQS are met within the SFBAAB. Specifically, the Air District manages air quality through a comprehensive program that includes long-term planning, regulations, incentives for technical innovation, education, and community outreach. The Air District’s 2017 Clean Air Plan (Spare the Air, Cool the Climate) is the current air quality attainment plan for the SFBAAB. It provides an integrated strategy for

reducing O₃, particulate matter, TAC, and greenhouse gas (GHG) emissions in a manner that is consistent with federal and state air quality programs and regulations. Specifically, the Clean Air Plan:

- Describes the Air District plan for attaining all state and federal air quality standards and eliminating health risk disparities from exposure to air pollution among Bay Area communities;
- Defines a vision for transitioning the region to the post-carbon economy needed to achieve ambitious GHG reduction targets for 2030 and 2050;
- Provides a regional climate protection strategy that will put the Bay Area on a pathway to achieving GHG reduction targets; and
- Includes a wide range of control measures to decrease emissions of air pollutants that are harmful to Bay Area residents, such as particulate matter, O₃, and TACs; reduce emissions of methane and other GHGs with high global warming potential that are potent climate pollutants for the near term; and decrease emissions of CO by reducing fossil fuel combustion.

In addition to air quality plans, the Air District also adopts rules and regulations to improve existing and future air quality. The proposed project may be subject to the Air District rules below.

- Regulation 2, Rule 2 (New Source Review)—contains requirements for best available control technology and emission offsets
- Regulation 2, Rule 5 (New Source Review of Toxic Air Contaminant)—outlines guidance for evaluating TAC emissions and their potential health risks
- Regulation 6, Rule 1 (Particulate Matter)—restricts emissions of particulate matter darker than a 1 on the Ringlemann Chart to less than 3 minutes in any 1 hour
- Regulation 7 (Odorous Substances)—establishes general odor limitations for odorous substances and specific emission limitations for certain odorous compounds
- Regulation 8, Rule 3 (Architectural Coatings)—limits the amount of reactive organic gas (ROG) in architectural coatings
- Regulation 9, Rule 6 (Nitrogen Oxides Emission from Natural Gas-Fired Boilers and Water Heaters)— limits emissions of NO_x generated by natural gas-fired boilers.
- Regulation 9, Rule 8 (Stationary Internal-Combustion Engines)—limits emissions of nitrogen oxides (NO_x) and CO from stationary internal-combustion engines of more than 50 horsepower

Air District California Environmental Quality Act Air Quality Guidelines

In April 2023, the Air District published the most recent version of its California Environmental Quality Act Air Quality Guidelines (Air District CEQA Guidelines). The Air District CEQA Guidelines provide recommended procedures for evaluating potential air impacts during the environmental review process, consistent with CEQA requirements, and include recommended thresholds of significance, mitigation measures, and background air quality information. They also include recommended assessment methodologies for TACs and odors as well as best practices for centering environmental justice, health, and equity.

a) *Would the project conflict with or obstruct implementation of the applicable air quality plan?*

According to the Air District CEQA Guidelines, the determination of consistency with the 2017 Clean Air Plan, which is the current air quality attainment plan for the SFBAAB, should consider the following for project-level analyses (Air District 2017):

- Does the project support the primary goals of the 2017 Clean Air Plan?
- Does the project include all applicable control measures from the 2017 Clean Air Plan?
- Does the project disrupt or hinder implementation of any 2017 Clean Air Plan control measures?

Support of 2017 Clean Air Plan Goals

The primary goals of the 2017 Clean Air Plan are to reduce emissions and decrease concentrations of harmful pollutants, safeguard public health by reducing exposure to air pollutants that pose the greatest health risk and reduce GHG emissions to protect the climate.

The project is necessary for the County to provide critical emergency services, and it will be constructed and operated without resulting in significant emissions of criteria pollutants or causing significant increases in health risks. As a fire station, the project serves a critical role for safeguarding public health because uncontrolled fires and the corresponding smoke are detrimental to human health; thus, the project supports a primary goal of the 2017 Clean Air Plan.

Include Applicable 2017 Clean Air Plan Control Measures

Control strategies in the 2017 Clean Air Plan include measures in the following categories: stationary source control measures, transportation control measures, energy control measures, building control measures, agriculture control measures, natural and working lands control measures, waste management control measures, and water control measures. The project's diesel-powered emergency generator would require a permit to operate from the Air District; compliance with district permitting requirements, which include stationary-source control measures from the 2017 Clean Air Plan, ensures the project would be consistent with these measures. The project would install bike racks and be less than 600 feet from bus stops at the intersection of Pacheco Boulevard and Center Avenue; thus, employees and visitors would have the option to bicycle or use public transit instead of driving, which is consistent with the Clean Air Plan's goals to reduce transportation-related emissions. Further, the project would install photovoltaic panels to generate on-site renewable energy, supporting the Clean Air Plan's energy-related goals. Other energy measures from the Clean Air Plan apply to utility providers and not the sponsors of individual projects; those measures are thus not applicable to the project. Similarly, the waste, water, and agriculture measures from the Clean Air plan are not applicable because those measures are intended for landfill operators, water providers, and other similar entities rather than sponsors of individual projects. In addition, some measures are not applicable because the project does not include land uses that the measures are intended for (i.e. agricultural land).

Disrupt or Hinder Implementation of 2017 Clean Air Plan Control Measures

As discussed previously, the project would incorporate design features to reduce emissions. As a result, the project would not disrupt, delay, or otherwise hinder implementation of any applicable control measures from the 2017 Clean Air Plan.

Accordingly, the project would not conflict with or obstruct implementation of the 2017 Clean Air Plan and would have a **less-than-significant impact**.

- b) *Would the project result in a cumulative 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?*

Construction

Construction of the project would generate ROG, NO_x, PM₁₀, and PM_{2.5} emissions that could result in short-term air quality effects during the construction period of 2026 to 2028. Emissions would be released in the form of exhaust from off-road equipment, employee vehicles, vendor trucks, and haul trucks; fugitive dust from site grading and earthmoving; suspended road dust from vehicle travel; and off-gassing from architectural coatings and paving. Table 2.3-2 summarizes the results of the emissions modeling. The technical memorandum prepared for this project, included in Attachment B, outlines the methods used to conduct the modeling.

Table 2.3-2. Criteria Pollutant Emissions from Project Construction (average pounds per day)

Construction Year	ROGs	NO _x	CO	PM ₁₀		PM _{2.5}	
				Dust	Exhaust	Dust	Exhaust
2026	<1	4	6	<1	<1	<1	<1
2027	<1	4	6	<1	<1	<1	<1
2028	3	7	10	1	<1	<1	<1
<i>Air District Threshold</i>	<i>54</i>	<i>54</i>	<i>-</i>	<i>BMPs</i>	<i>82</i>	<i>BMPs</i>	<i>54</i>
<i>Exceed Threshold?</i>	<i>No</i>	<i>No</i>	<i>-</i>	<i>-</i>	<i>No</i>	<i>-</i>	<i>No</i>

Source: Attachment B.

BMPs = best management practices; CO = carbon monoxide; NO_x = nitrogen oxide; PM_{2.5} = particulate matter no more than 2.5 microns in diameter; PM₁₀ = particulate matter no more than 10 microns in diameter; ROG= reactive organic gases.

As shown in Table 2.3-2, construction of the project would not generate ROG, NO_x, or PM exhaust in excess of the Air District's numeric thresholds. However, the District considers emissions of fugitive dust to be potentially significant unless BMPs are implemented to minimize the generation of fugitive dust. As such, this impact is potentially significant.

The project would incorporate **Mitigation Measure AQ-1**, which will require implementation of the BMPs to minimize construction-related fugitive dust impacts during all phases of construction.

Because construction-related criteria pollutant emissions associated with the project would be below the District's significance thresholds, and the project would incorporate **Mitigation Measure AQ-1**, the project would not contribute to a significant level of air pollution that would degrade regional air quality within the SFBAAB. This impact would be **less than significant with mitigation**.

Mitigation Measure AQ-1: Implement the Air District's Basic Best Management Practices for Construction-Related Fugitive Dust Emissions

The project sponsor shall require its contractor(s) to implement the *Basic Best Management Practices for Construction-Related Fugitive Dust Emissions* recommended by the Air District. The emissions reduction measures shall include, at a minimum, the following practices.

- 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 trackout 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 miles per hour (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.
- All excavation, grading, and/or demolition activities shall be suspended when average wind speeds exceed 20 mph.
- All trucks and equipment, including their tires, shall be washed off prior to leaving the site.
- Unpaved roads providing access to sites located 100 feet or further from a paved road shall be treated with a 6- to 12-inch layer of compacted layer of wood chips, mulch, or gravel.
- Publicly visible signs shall be posted with the telephone number and name of the person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's General Air Pollution Complaints number shall also be visible to ensure compliance with applicable regulations.

Operations

The project's operations would result in criteria air pollutant emissions from area, energy (i.e., natural gas), mobile, and stationary sources. These sources of emissions are the same as the existing fire station; however, conservatively it was assumed that there is no emergency generator located at the existing fire station¹. Table 2.3-3 summarizes the criteria pollutant emissions from the existing Fire Station 9, the project, and the net emissions, which are compared to the Air District's operational criteria pollutant thresholds. Attachment B outlines the methods used to conduct the modeling.

¹ The exiting station includes an emergency generator, however this was not included in the analysis and therefore, the quantification of existing emissions is lower than what presently exists and provides a foundation for a conservative analysis because the delta between existing and projected is actually less than modeled.

Table 2.3-3. Existing Conditions (2025), Project Conditions (2028), and Net Criteria Pollutant Emissions during Project Operation (average daily pounds per day)

Emission Source	ROG	NO _x	CO	PM ₁₀			PM _{2.5}		
				Dust	Exhaust	Total	Dust	Exhaust	Total
Existing Fire Station 9 (Existing Conditions, 2025)									
Area	<1	<1	<1	-	<1	<1	-	<1	<1
Energy	<1	<1	<1	-	<1	<1	-	<1	<1
Mobile	<1	1	<1	<1	<1	<1	<1	<1	<1
Stationary ^a	-	-	-	-	-	-	-	-	-
Total Existing	<1	1	<1	<1	<1	<1	<1	<1	<1
Proposed Fire Station 9 (Project Conditions, 2028)									
Area	<1	<1	<1	-	<1	<1	-	<1	<1
Energy	<1	<1	<1	-	<1	<1	-	<1	<1
Mobile	<1	1	1	<1	<1	<1	<1	<1	<1
Stationary	<1	<1	<1	-	<1	<1	-	<1	<1
Total Project	<1	2	2	<1	<1	<1	<1	<1	<1
Net Emissions	<1	1	2	<1	<1	<1	<1	<1	<1
Air District Threshold ^b	54	54	—	—	—	82	—	—	54
Exceed Threshold?	No	No	—	—	—	No	—	—	No

Source: Attachment B

CO = carbon monoxide; NO_x = nitrogen oxide; PM_{2.5} = particulate matter no more than 2.5 microns in diameter; PM₁₀ = particulate matter no more than 10 microns in diameter; ROG = reactive organic gases.^a. The existing analysis conservatively assumed there was no existing emergency generator.^b. The Air District has no threshold of significance for CO; CO emissions presented for informational purposes.

Operation of the project would not generate ROG, NO_x, or particulate matter that would exceed the Air District's thresholds, as shown in Table 2.3-3. As such, operational emissions would not contribute a significant level of air pollution that would degrade regional air quality within the SFBAAB. This impact would be **less than significant**.

Localized Carbon Monoxide Impacts

CO hot spots are typically observed at heavily congested intersections where a substantial number of gasoline-powered vehicles idle for prolonged durations throughout the day. Peak-hour traffic volumes at the Center Avenue and Pacheco Boulevard intersection in the transportation study area were analyzed (Fehr & Peers 2025). The peak-hour volumes at this intersection are less than 2,500 vehicles per hour; thus, the minimal increase in peak-hour trips from the project at this intersection would not result in volumes greater than the 24,000- or 44,000-vehicle-per-hour screening threshold that the Air District has identified. This screening threshold is discussed in more detail in Attachment B. The project would thus not result in an exceedance of the CAAQS. This impact would be **less than significant**.

Health Effects of Regional Criteria Pollutant and Precursor Emissions

The Air District has developed District-specific CEQA thresholds of significance for use in consideration of existing air quality concentrations and attainment designations under the NAAQS and CAAQS. The NAAQS and CAAQS are informed by a wide range of scientific evidence regarding safe concentrations of criteria pollutants. Recognizing that air quality is a cumulative problem, the Air District typically considers projects that generate criteria pollutant and ozone precursor emissions that are below the thresholds to be minor in nature. Such projects would not adversely affect air quality or exceed the NAAQS or CAAQS. As shown in Table 2.3-2 and Table 2.3-3, construction and

operation of the project would not generate ROG_s, NO_x, or particulate matter that would be in excess of the Air District's numeric thresholds with **Mitigation Measure AQ-1**, applicable to project construction. This impact would be **less than significant with mitigation**.

c) *Would the project expose sensitive receptors to substantial pollutant concentrations?*

Diesel Particulate Matter and PM_{2.5}

During construction, diesel particulate matter (DPM) would result from the use of off-road diesel-powered equipment and heavy-duty trucks, and PM_{2.5} would result from diesel and non-diesel exhaust and from fugitive dust generated by soil disturbance and vehicle travel on paved and unpaved surfaces. During project operation, DPM emissions would occur from the testing, maintenance, and emergency use of the proposed backup generator.

The health risk assessment (HRA) evaluates potential impacts from these emissions and was prepared using the AERMOD View 13.0.0 air dispersion model. Attachment B provides more methodology discussion of the HRA. Table 2.3-4 presents the incremental health risk estimates for off-site residential, student, and worker receptors located within 1,000 feet of the project site. Because **Mitigation Measure AQ-1** is required to mitigate fugitive dust emissions, the HRA results presented here assume implementation of this measure and are considered unmitigated for this component of the analysis. Based on the HRA results, the residential maximally exposed individual receptor (MEIR) is located at a single-family home on Blackwood Drive, directly south of the project site; the student MEIR is located at a day-care facility on 2nd Avenue, southwest of the site; and the off-site worker MEIR is located in the retail center at the intersection of Center Avenue and Pacheco Boulevard, east of the project site.

Table 2.3-4. Estimated Unmitigated Project-Level Health Risk Results²

Off-site Receptor Type	Cancer Risk (cases per million) ^a	Non-Cancer Chronic Risk	Annual PM _{2.5} Concentrations (µg/m ³) ^b
MEIR – Resident			
Construction	2.4	<0.01	0.01
Generator Operation	<0.1	<0.01	<0.01
Project – Total (resident)	2.4	<0.01	0.01
Threshold	10	1.0	0.3
<i>Exceeds Threshold?</i>	<i>No</i>	<i>No</i>	<i>No</i>
MEIR – Student			
Construction	0.1	<0.01	<0.01
Generator Operation	<0.1	<0.01	<0.01
Project – Total (student)	0.1	<0.01	<0.01
Threshold	10	1.0	0.3
<i>Exceeds Threshold?</i>	<i>No</i>	<i>No</i>	<i>No</i>

² These results reflect the implementation of the Air District's basic dust-reducing BMPs, as written in the District CEQA Guidelines. Because these BMPs are required for a project to be considered less than significant with respect to mass emissions of fugitive dust, their implementation is required regardless of the HRA results. Therefore, the scenario shown in Table 2.3-4 is considered unmitigated for the purposes of the HRA.

Off-site Receptor Type	Cancer Risk (cases per million) ^a	Non-Cancer Chronic Risk	Annual PM _{2.5} Concentrations (µg/m ³) ^b
MEIR – Worker			
Construction	<0.1	<0.01	<0.01
Generator Operation	<0.1	<0.01	<0.01
Project – Total (worker)	<0.1	<0.01	<0.01
Threshold	10	1.0	0.3
<i>Exceeds Threshold?</i>	<i>No</i>	<i>No</i>	<i>No</i>

Source: Attachment B

MEIR = maximally exposed individual receptor; µg/m³ = micrograms per cubic meter; PM_{2.5} = particulate matter with an aerodynamic diameter of 2.5 or less. Exceedances are bolded and underlined.

^a. The evaluation of cancer risks in the HRA was based on an exposure duration of 1.42 years for project construction.

^b. Because construction activities and generator operation would not occur simultaneously, their annual PM_{2.5} concentrations are not combined. Instead, the “Project – Total” value reflects the highest annual PM_{2.5} concentration from either source.

As shown in Table 2.3-4, cancer risks and annual PM_{2.5} concentrations would be below the applicable thresholds at all receptor locations. The highest values would occur for the residential receptor, but all results would be considerably less than the thresholds. Therefore, project-generated emissions would not expose sensitive receptors to substantial pollutant concentrations or associated health risks. With implementation of **Mitigation Measure AQ-1**, the DPM and PM_{2.5} impact of the project would be **less than significant with mitigation**.

Cumulative Health Risk Assessment

According to the Air District CEQA Guidelines, risk levels from project-generated sources and existing sources within 1,000 feet of a project site should be combined and compared to the district’s cumulative health risk thresholds (Air District 2023).

Existing and project-generated health risks could contribute to a cumulative health risk for sensitive receptors near the project site. Potential existing TAC sources include permitted stationary sources (e.g., generators and gas dispensing facilities), roadways, and other development projects in the surrounding area. As described previously, there are two permitted facilities within 1,000 feet of the project site. The District’s inventory of stationary health risks was used to estimate the combined health risks from the existing permitted facilities in combination with the project’s contributions. Mobile sources on nearby roadways like Interstate 680 would also generate TAC emissions. Geographic information system (GIS) raster files provided by the district were used to estimate roadway emissions within 1,000 feet of the project site (Air District 2022).

Table 2.3-5 summarizes the health risks for the project’s MEIRs, in addition to the contributions from existing stationary and mobile sources within 1,000 feet of the site. The combined health risk values are compared to the District’s cumulative thresholds. Additional details on individual background source contributions are provided in Attachment B.

Table 2.3-5. Cumulative Health Risk Results

Pollutant/Receptor Type	Cancer Risk (cases per million)	Non-Cancer Chronic Risk	Annual PM_{2.5} Concentration (µg/m³)
MEIR – Resident			
Existing Sources	12.5	0.04	0.24
Stationary Sources	1.6	<0.01	<0.01
Roadway Sources	10.9	0.03	0.24
Project Sources	2.4	<0.01	0.01
Total cumulative (resident)	14.9	0.04	0.25
Threshold	100	10	0.8
<i>Exceeds threshold?</i>	<i>No</i>	<i>No</i>	<i>No</i>
MEIR – Student			
Existing Sources	7.1	0.02	0.15
Stationary Sources	0.3	<0.01	<0.01
Roadway Sources	6.7	0.02	0.15
Project Sources	0.1	<0.01	<0.01
Total cumulative (student)	7.2	0.02	0.16
Threshold	100	10	0.8
<i>Exceeds threshold?</i>	<i>No</i>	<i>No</i>	<i>No</i>
MEIR – Worker			
Existing Sources	16.5	0.05	0.27
Stationary Sources	2.6	0.01	<0.01
Roadway Sources	13.8	0.04	0.27
Project Sources	< 0.1	<0.01	<0.01
Total cumulative (worker)	16.5	0.05	0.27
Threshold	100	10	0.8
<i>Exceeds threshold?</i>	<i>No</i>	<i>No</i>	<i>No</i>

Source: Attachment B.

MEIR = maximally exposed individual receptor; µg/m³ = micrograms per cubic meter; PM_{2.5} = particulate matter with an aerodynamic diameter of 2.5 or less.

As shown in Table 2.3-5, health risks associated with existing stationary and roadway sources in combination with the project would not exceed the Air District's cumulative thresholds. All results would be below the District's thresholds by a substantial margin. Therefore, the cumulative effect of TACs and PM_{2.5} emitted by the project in combination with TACs and PM_{2.5} from existing sources would not result in cumulatively considerable local health risks or substantial pollutant concentrations at sensitive land uses. The cumulative health impact of the project would be **less than significant**.

Naturally Occurring Asbestos

For projects that are not in an area that is known to contain naturally occurring asbestos, it can be assumed that those projects would not have the potential to expose people to airborne asbestos particles. The project site is not in an area that is known to contain naturally occurring asbestos

(U.S. Geological Survey and California Geological Survey [USGS and CGS] 2011). Demolition of the existing asphalt surface and building on the project site may expose workers and nearby receptors to asbestos if it was used during construction of the original hardscape and building. However, the project would comply with Air District Regulation 11, Rule 2, Asbestos, Demolition, Renovation, and Manufacturing, which would control emissions of asbestos into the atmosphere during demolition and building renovation. **Mitigation Measure AQ-1** would also reduce dust emissions. Therefore, construction of the project would not expose receptors to substantial public health risks related to asbestos. This impact would be **less than significant**.

d) *Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?*

Potential odor sources during construction include diesel exhaust, asphalt paving, and architectural coatings and solvents. Construction-related activities would be temporary, and construction activities would not be likely to result in nuisance odors that would violate Air District Regulation 7 (Odorous Substances), described in *Regulatory Setting*. Odors during operation could result from emergency generator testing and maintenance, activities at the project site, and from vehicle exhaust and the reapplication of architectural coatings. These odors would be limited to areas adjacent to the building. Although such brief exhaust- and paint-related odors may be considered adverse, they would not affect a substantial number of people. In addition, emergency generator testing would be minimal, occurring weekly for 30 minutes and up to 2 hours on one day per year. Further, the project does not propose any changes that would include odor-generating facilities. This impact would be **less than significant**.

2.3.2 Sources of Information

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2.4 Biological Resources

	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less-than- Significant Impact</i>	<i>No Impact</i>
<i>Would the project:</i>				
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 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, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☐	☐	☒
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marshes, vernal pools, coastal areas) 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?	☐	☐	☐	☒

2.4.1 Discussion

Setting

The project site is an approximately 1-acre developed lot within an urbanized area surrounded to the north, west, and south by residential properties, and channelized Grayson Creek is adjacent to the east. The existing fire station, including a paved parking lot, occupies the northern third of the project site. The undeveloped portion of the project site is dominated by non-native annual grasses, disturbed and bare ground is present on the northwestern side of the project site, and landscape trees are present along the western and southern edges of the fire station and along the southern border of the project site. The developed urban area surrounding the project site has existing sources of night-time ambient light, such as streetlights, vehicle headlights, and residential lighting.

To characterize special-status biological resources with potential to occur on the project site, a desktop analysis was conducted by ICF to review aerial imagery, existing species information, and database searches using the following sources:

- California Native Plant Society online Inventory of Rare and Endangered Plants of California search of the 9 U.S. Geological Survey quadrangles surrounding the project site (California Native Plant Society 2025).

- California Natural Diversity Database (CNDDDB) special-status plants and wildlife search of the 9 U.S. Geological Survey quadrangles surrounding the project site (California Department of Fish and Wildlife 2025).
- U.S. Fish and Wildlife Service (USFWS) species list of endangered and threatened species that may occur in or be affected by the proposed project was obtained through the Information for Planning and Consultation (IPaC) web portal (USFWS 2025).
- Cornell University's eBird species maps of bird observations reported by the public (eBird 2025).

a) *Would the project 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 or U.S. Fish and Wildlife Service?*

Special-Status Plants

The database searches identified 64 special-status plant species within the 9-quad search area (CNPS 2025; CDFW 2025). None of these species are expected to occur on the project site due to a lack of suitable habitat. Therefore, the project would have **no impact**.

Special-Status Wildlife

The database searches identified 69 special-status wildlife species that are occurring or potentially occurring in the project vicinity (CDFW 2025; USFWS 2025). Of these, 63 species were eliminated from consideration due to the absence of suitable habitat within the project site, the project's location outside of the species' known range, or the small patch size and presence of urbanization and human activity in areas surrounding the project site that would render potentially suitable habitat unsuitable for some species (Dudek 2025). The 68 species are not discussed further.

A review of occurrence databases indicated that there is moderate potential for white-tailed kite (*Elanus leucurus*), non-special-status migratory or nesting birds, and special-status bats including pallid bat (*Antrozous pallidus*), hoary bat (*Lasiurus cinereus*), and Townsend's big-eared bat (*Corynorhinus townsendii*) to occur on the project site. The trees and building provide suitable habitat for these species and therefore, project construction would result in the temporary loss of suitable habitat. Furthermore, construction activities may result in injury, mortality, or disruption of normal behaviors if the aforementioned species are present during construction. The removal of trees and buildings on the site has the potential to physically injure or kill individuals, cause physiological stress from disturbance, or could increase the risk of predation. In addition, bird eggs and nestlings, and nursing young bats may be subjected to disturbance-related abandonment.

Windows on the constructed building could create glare that increases the risk of bird collisions, and permanent nighttime lighting for security purposes may result in injury, mortality, or disruption of normal behaviors; however, the proposed project would comply with the CEC requirements to reduce glare and lighting, which would reduce the risk of injury or mortality. During project operations, landscape and building maintenance and presence of humans and vehicles may result in injury, mortality, or disruption of normal behaviors for special-status wildlife; however the likelihood is low due to the lack of suitable habitat and routine human activity. Therefore, project impacts would be potentially significant. The mitigation measures described below are provided to reduce impacts to a less-than-significant level.

White-Tailed Kite

White-tailed kite is a California Fully Protected species. The project site and adjacent Grayson Creek contains suitable nesting, foraging, and roosting habitat. There are no CNDDDB occurrences within 5 miles of the project site (CDFW 2025); however, there are several eBird reports of white-tailed kite within 1 mile of the project site, including one location approximately 730 feet south of the project site along Grayson Creek (eBird 2025).

Migratory and Nesting Passerine Birds and Raptors

Migratory and nesting passerine birds and raptors are protected by the federal Migratory Bird Treaty Act (MBTA). Disturbing or destroying active nests is a violation of the MBTA. In addition, nests and eggs are protected under California Fish and Game Code Section 3503.

The ruderal land cover on the project site and the adjacent trees may provide suitable habitat for several migratory and nesting bird species, such as Cooper's hawk, (*Astur cooperii*), red-tailed hawk (*Buteo jamaicensis*), mourning dove (*Zenaida macroura*), and white-crowned sparrow (*Zonotrichia leucophrys*).

Project construction and operations could result in injury, mortality, or disturbance of normal behaviors of migratory and nesting birds and white-tailed kite if present, a potentially significant impact. Implementation of **Mitigation Measure BIO-1**, below, would require pre-construction surveys for nesting passerine birds and raptors, which would also detect any white-tailed kites nesting in the site vicinity, and avoidance measures and construction monitoring would be required if the species is present. Therefore, the project would have a **less-than-significant impact with mitigation incorporated**.

Mitigation Measure BIO-1: Avoid and Minimize Impacts on Nesting and Migratory Passerine Birds and Raptors

If project construction-related activities take place during the nesting season (February through August), preconstruction surveys for nesting passerine birds and raptors (birds of prey) within the project site and the large trees within the adjacent area will be conducted by a qualified biologist no more than five (5) days prior to the commencement of site grading or construction activities. The survey area (area of influence) shall include the project site and those adjacent areas within 250 feet of the project site. If any bird listed under the Migratory Bird Treaty Act is found to be nesting within the project site or within the area of influence, an adequate protective buffer zone shall be established by a qualified biologist to protect the nesting site. This buffer shall be a minimum of 75 feet from the project activities for passerine birds, and a minimum of 200 feet for raptors. The distance shall be determined by the competent biologist based on the site conditions (topography, if the nest is in a line of sight of the construction and the sensitivity of the birds nesting). The nest site(s) shall be monitored by a qualified biologist periodically to see if the birds are stressed by the construction activities and if the protective buffer needs to be increased. If an active nest is located in a tree or shrub designated for removal, the removal shall be deferred until the young are no longer dependent on the nest site, as determined by a qualified biologist. Once the young have fledged and are flying well enough to avoid project construction zones (typically by August), the project can proceed without further regard to the nest site(s).

Special-status Bats

Existing trees and buildings on the project site provide potential roosting habitat for special-status bats, including pallid bat, hoary bat, and Townsend's big-eared bat. Project construction and operations could result in injury, mortality, or disturbance of normal behaviors for special-status bats if present, a potentially significant impact. Implementation of Mitigation Measure BIO-2, below, would require preconstruction surveys; if roosting bats are present, avoidance measures would be implemented. Therefore, the project would have a **less-than-significant impact with mitigation incorporated**.

Mitigation Measure BIO-2: Avoid and Minimize Impacts on Roosting Bats

To avoid take of roosting bats, a preconstruction survey of buildings to be demolished or trees to be trimmed or removed shall be conducted prior to the start of by a qualified wildlife biologist in accordance with *Caltrans Bat Mitigation: A Guide to Developing Feasible and Effective Solutions* (Johnston et al. 2019). If special-status roosting bats are found, an avoidance or mitigation plan prepared by a qualified wildlife biologist shall be developed and implemented to avoid take of roosting bats. Avoidance measures may include conducting construction, demolition, tree-trimming or tree-removal outside of hibernation and maternal roosting time periods (April 1 through October 31) and excluding bats from buildings after they have left the roost to forage at night by closing entrances.

- b) *Would 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 California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?*

No riparian habitat or other sensitive natural communities are present at the project site. While the adjacent Grayson Creek is a riparian zone, the project would have no impact as construction and operations of the project would occur on the project site. Therefore, the project would have **no impact**.

- c) *Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marshes, vernal pools, coastal areas) through direct removal, filling, hydrological interruption, or other means?*

No state or federally protected wetlands are present at the project site. Therefore, the project would have **no impact**.

- d) *Would the project 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?*

The project would not substantially interfere with the movement of any native resident or migratory fish or wildlife species or migratory wildlife corridors or impede the use of wildlife nursery sites. No rookeries or other nursery sites, water bodies, riparian areas, or wildlife corridors are located on the project site. The project site contains existing developed and disturbed areas, and a small area (less than 1 acre) of vegetation dominated by non-native invasive grasses with few trees. Surrounding land uses include residential neighborhoods to the west and the narrow Grayson Creek corridor with limited riparian vegetation to the east bordered by commercial buildings. While the non-native grassland and trees may provide some habitat for wildlife, the existing highly urbanized surrounding areas likely obstruct most wildlife movement through the area. Urban-adapted wildlife would move around the Project site unhindered along Grayson Creek. Therefore, the project would have a **less-than-significant impact**.

- e) *Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?*

The project will involve the removal of eight mature redwood trees and 15 smaller trees; however, the tree removal will be exempt from the County's tree protection and preservation ordinance because the parcel is owned by the County (Contra Costa County Municipal Code [CCCMC] 816-6.1002(6)). Therefore, the project would have **no impact**.

- f) *Would the project 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 project is not located in area of an adopted habitat conservation plan (HCP), natural community conservation plan (NCCP), or other approved local, regional, or state habitat conservation plan. Therefore, the project would have **no impact**.

2.4.2 Sources of Information

California Department of Fish and Wildlife. 2025. *California Natural Diversity Database*. RareFind, Version 5 (commercial subscription). Sacramento, CA: Biogeographic Data Branch. Available: <http://www.dfg.ca.gov/biogeodata/cnddb/mapsanddata.asp>. Accessed December 3, 2025.

California Native Plant Society. 2025. *Inventory of Rare and Endangered Plants* (online edition, v9.5.1). Rare Plant Program. Sacramento, CA. Available: <http://www.rareplants.cnps.org>. Accessed: December 3, 2025.

eBird. 2025. *eBird: An Online Database of Bird Distribution and Abundance*. White-tailed Kite. Ithaca, NY: Cornell Lab of Ornithology. Available: <http://www.ebird.com>. Accessed: December 4, 2025.

Johnston, D. S., K. Briones, and C. Pincetich. 2019. *California Bat Mitigation: A Guide to Developing Feasible and Effective Solutions*. H. T. Harvey & Associates, Los Gatos, CA. Prepared for the California Department of Transportation, Office of Biological Studies, Sacramento, CA. Task Order 7, Agreement 43A0355.

U.S. Fish and Wildlife Service. 2025. Information for Planning and Consultation. Available: <http://www.fws.gov/data>. Accessed: December 3, 2025.

2.5 Cultural Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than- Significant Impact	No Impact
<i>Would the project:</i>				
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 formal cemeteries?	☐	☒	☐	☐

2.5.1 Discussion

HELIX Environmental Planning, Inc. (HELIX), prepared a Cultural and Historic Resources Evaluation for the project in February 2025 (HELIX 2025). The findings of the report are summarized herein, and the report is included as Attachment C of this IS/MND.

A records search at the Northwest Information Center (NWIC) on July 22, 2024, for the project site and a 0.25-mile radius. The records search was done to identify prehistoric and historic-era resources within the search radius, determine which portions of the project site have been previously studied, and ascertain the potential for cultural resources and human remains to occur within the project site. The search included a review of United States Geological Service archaeological site location maps at the NWIC, resource records, and data from previous studies. HELIX also reviewed the California Points of Historical Interest, California Historical Landmarks, National Register of Historic Places (NRHP), California Register of Historic Resources (CRHR), Office of Historic Preservation (OHP) Archaeological Determinations of Eligibility, Built-Environment Resources Directory (BERD), historic-era topographic maps and plat maps, and historic-era aerial photographs.

The records search revealed that 18 studies have previously been conducted within a 0.25-mile radius of the project site, and that none of these studies included the project site. The records search also revealed that ten cultural resources, consisting primarily of historic era structures, are located within a 0.25-mile radius of the project site, but that none of these resources lie within the project site itself.

- a) *Would the project cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?*
- Because of its age and its proposed demolition, a HELIX senior architectural historian conducted an eligibility evaluation of the existing fire station building and complex to determine eligibility for the NRHP and/or the CRHR. Constructed in 1957, the building and complex are not listed individually in the NRHP or CRHR, nor are they located within any NRHP-listed or CRHR-listed historic districts. Further, the station is not included in the California OHP BERD for Contra Costa County. Based on the results of the evaluation, HELIX concluded that the fire station building and complex do not meet the criteria to be eligible for listing in either the NRHP or CRHR. As such, the fire station building and complex does not qualify as a historical resource for the purposes of CEQA. Thus, the project would not disturb any known historical resources pursuant to Section 15064.5 Therefore, the project would have **no impact**.

b) Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

As noted above, the records search did not identify any cultural resources for the project site. A pedestrian survey of the project site conducted by HELIX staff did not identify cultural resources. However, if present on site, subsurface cultural resources may be impacted during construction activities. Implementation of **Mitigation Measure TR-CUL-1** described in the Tribal Cultural Resources section would address protocol in accordance with state regulations.

On July 22, 2024, HELIX requested that staff at the Native American Heritage Commission (NAHC) conduct a search of their Sacred Lands File (SLF) for the presence of Native American sacred sites or human remains in the vicinity of the project site. A written response received from the NAHC on July 30, 2024, stated that the results of the SLF search were positive. The NAHC also provided a list of 40 Native American points of contact who may possess additional information concerning cultural and or tribal resources within the project site and its vicinity. The Contra Costa County Public Works Department Environmental Services Division conducted outreach with Native American points of contact. Please refer to Section 2.18, Tribal Cultural Resources for further discussion of the consultation and mitigation measures applicable to tribal cultural resources.

c) Would the project disturb any human remains, including those interred outside of formal cemeteries?

No human remains or cultural resources were identified from the NWIC and NAHC record search, or other research, Native American consultation, or during the pedestrian-level survey of the project site. In addition, no formal cemeteries are present within or adjacent to the project site. However, construction could discover human remains if present within the project site, a potentially significant impact. Implementation of **Mitigation Measure CUL-1**, below, details the course of action if human remains are discovered. Therefore, the project would have a **less-than-significant impact with mitigation incorporated**.

Mitigation Measure CUL-1. Procedures for Discovery of Human Remains

- In the event of the accidental discovery or recognition of any human remains, all work within 100 feet of the remains or any nearby area reasonably suspected to overlie adjacent human remains should be redirected and the County Coroner notified immediately. There shall be no further excavation or disturbance within 100 feet of the remains until the Contra Costa County Coroner determines whether the remains are Native American and if an investigation of the cause of death is required. At the same time, an archaeologist shall be contacted to assess the situation.
- If the Coroner determines the remains to be Native American, the Coroner shall contact the Native American Heritage Commission (NAHC) within 24 hours of this identification. The NAHC shall identify a Most Likely Descendant (MLD) to inspect the site and provide recommendations for the proper treatment of the remains and associated funerary objects.
- Once NAHC identifies the MLD, the tribe shall make every effort to recommend keeping ancestral remains and funerary objects in situ and protected. If removal of burials is necessary, tribal representatives shall work with the qualified archaeologist to ensure that excavation and documentation are treated carefully, ethically, and respectfully. No photography or testing shall be conducted on Native American human remains. All bone, if not identifiable as human or animal, shall be treated as human remains and the appropriate protocols followed. The archaeologist shall recover information, AS appropriate and in

accordance with the recommendations of the MLD and/or tribal representative. The archaeologist shall prepare a report of all activities, including the recommendations for the treatment of the human remains and any associated funerary objects as provided by the MLD. The report shall be submitted to the County, the Northwest Information Center, and the tribe.

- Tribal representatives shall rebury the Native American human remains and associated funerary objects with appropriate dignity either: 1) In accordance with the recommendations of the MLD if available; or 2) In the project vicinity at a location mitigated between the tribal representative and the County, where the reburial would be accessible to tribal members, protected in perpetuity, and would not be subject to further subsurface disturbance. The discovery is to be documented on DPR 523 forms and otherwise kept confidential and secure to prevent any further disturbance.

2.5.2 Sources of Information

HELIX Environmental Planning, Inc. 2025. *Fire Station 9 Project No. WH728A, Cultural and Historic Resources Evaluation*. February 2025.

2.6 Energy

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than- Significant Impact	No Impact
<i>Would the project:</i>				
a) Result in potentially significant environmental impact due to the 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?	☐	☐	☒	☐

2.6.1 Discussion

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

The project would not result in the wasteful, inefficient, or unnecessary consumption of energy. Although energy would be used during both construction and operation of the proposed project, the project would be designed to minimize its impact through compliance with regulatory standards. The incorporation of the recommended Air District BMPs to reduce GHGs also reduces energy consumption during construction. These BMPs as shown in Table 6-1 of the 2022 CEQA Guidelines include a combination of using zero emission or hybrid equipment as well as equipment that meets the Tier 4 compliant engines, and minimize idling times, among other recommendations (see Section 2.8 Greenhouse Gas Emissions). These recommendations would be incorporated as feasible and applicable.

The project would be constructed pursuant to Part 6 of the California Energy Code, which ensures a baseline level of energy efficiency and design. To further reduce energy consumption, the project would incorporate renewable energy sources and infrastructure, including a solar photovoltaic system to generate electricity on-site and Electric Vehicle Supply Equipment (EVSE). EVSE includes the infrastructure necessary to charging electric vehicles such as charging stations, connectors, cables, and control systems. Furthermore, the project would meet, at a minimum, LEED Silver equivalent standards by incorporating energy efficient designs. Therefore, the project would have a **less-than-significant impact**.

b) *Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?*

The project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. The County has adopted the 2024 Climate Action and Adaptation Plan (CAAP), which includes goals for expanding renewable energy use and increasing energy efficiency in buildings and infrastructure (Contra Costa County 2024). The project’s design and operational features, such as solar energy, drought-resistant landscaping, and using LEED building design standards would be consistent with the objectives.

At the state level, the project would support the framework laid out in CARB's 2022 scoping plan update, which emphasizes decarbonizing the electricity sector through efficient energy use and replacing fossil-fueled generation with renewable and zero-carbon resources. The project also support the goals of Senate Bill (SB) 100, which requires renewable and zero-carbon resources to supply 90 percent of all retail electricity sales by 2035 and 95 percent of all retail electricity sales by 2040 (CARB 2022). As mentioned above, the project is designed to meet LEED Silver equivalent standards. Given the project's incorporation of renewable energy infrastructure and compliance with state and County climate planning efforts, the project would have a **less-than-significant impact**.

2.6.2 Sources of Information

California Air Resources Board. 2022. *2022 Scoping Plan for Achieving Carbon Neutrality*. November. Available: https://ww2.arb.ca.gov/sites/default/files/2022-12/2022-sp_1.pdf.

Contra Costa County. 2024. *Contra Costa County 2024 Climate Action and Adaptation Plan*. Adopted November 5, 2024. Available: <https://www.contracosta.ca.gov/DocumentCenter/View/84967/Contra-Costa-County-2024-Climate-Action-and-Adaptation-Plan-PDF?bidId=>.

2.7 Geology/Soils

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than- Significant Impact	No Impact
<i>Would the project:</i>				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☐	☐	☒
iii) Seismically related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable or that would become unstable as a result of the project and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative 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 geological feature?	☐	☒	☐	☐

2.7.1 Discussion

The discussion below is based on the geotechnical investigation prepared for the project by Geocon (2024), attached to this IS/MND as Attachment D. The geotechnical investigation report contains several recommendations that are designed to meet the criteria set forth in the California Building Code (CBC), which is adopted into the Contra Costa County Code as Chapter 74-2.002. Accordingly, these recommendations are required by the CBC and are incorporated as project design features that would be included as conditions of approval. Please refer to Attachment D for the recommendations.

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

i) *Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.*

The Alquist-Priolo Earthquake Fault Zone Act of 1972 regulates development near active faults for the purpose of preventing surface fault rupture hazards at structures for human occupancy. The project site is not mapped within an Alquist-Priolo Fault Zone or within a currently

designated California Earthquake Fault Zone. According to the geotechnical report prepared by Geocon, no known faults have been mapped on the site (Geocon 2024). Because no active faults cross the project site, the project would not exacerbate known risks of fault rupture or exacerbate an existing fault rupture risk. Therefore, the project would have **no impact**.

ii) Strong seismic ground shaking?

The project site is in a seismically active region. Small earthquakes occur every year in the San Francisco Bay Area. However, large earthquakes have been recorded and can be expected to occur in the future (Geocon 2024). The project would not involve any activity, such as groundwater injection, that would exacerbate seismicity. Therefore, the project would have **no impact**.

iii) Seismically related ground failure, including liquefaction?

According to Geocon, the site is in an area of mapped liquefaction and in particular, the eastern portion of the site is highly susceptible to liquefaction, Geocon performed subsurface investigations and in general, the results indicated that the liquefiable layers are more than 15 feet below existing grade at the site. Consequences of liquefaction can include ground surface settlement, ground loss (sand boils) and lateral slope displacements (lateral spreading).

Based on the presence of the non-liquefiable layer that mantles the site and the depth to significant liquefiable layers, the potential for ground loss due to sand boils or fissures in a seismic event is considered low and the greatest risk of potential liquefaction at the site is settlement. Analysis indicates that total ground surface settlements up to approximately 1 inch may result from liquefaction after a seismic event. The recommendations included in the geotechnical investigation report adhere to the CBC and are incorporated into the project design. Therefore, the project would have a **less-than-significant impact**.

iv) Landslides?

There are no known landslides near the site, nor is the site in the path of any known or potential landslides. The geotechnical investigation indicates that there is no potential for a landslide to be a hazard to this project. Therefore, the project would have **no impact**.

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

The modified grades associated with the completed project would result in negligible changes in topography. Construction of the project would temporarily increase the exposure of soil to stormwater runoff and wind erosion because of grading and excavation. However, standard erosion control BMPs would be implemented during construction to minimize potential impacts. A Stormwater Pollution Prevention Plan (SWPPP) would be prepared consistent with the Statewide Construction General Permit (Order No. 2022-0057-DWQ). See Section 3.10, Hydrology/Water Quality, for more details about the SWPPP. Therefore, the project would have a **less-than-significant impact**.

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?

As noted above, the project site is subject to liquefaction and subsequently the secondary impacts that result from liquefaction. The project has incorporated the recommendations of the geotechnical investigation report as required. Therefore, the project would have a **less-than-significant impact**.

- d) *Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?*

As described in detail in the geotechnical investigation report, the alluvial soils encountered at the project site are considered “expansive” as defined by the 2022 CBC (Geocon 2025). The clayey portions of the alluvium at the site possesses moderate to high expansion potential based on the results of laboratory testing. The project has incorporated the recommendations of the geotechnical investigation report as required. Therefore, the project would have a **less-than-significant impact**.

- 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?*

The project does not include septic tank or alternative wastewater disposal system would not be required. Therefore, the project would have **no impact**.

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

The project site is nearly level, and the surface is partially covered with the existing fire station building, as well as concrete and asphalt pavement, and artificial fill from previous site development (Geocon 2025). Based on geologic mapping by the California Geological Survey (CGS), the site is underlain by late Pleistocene age alluvial deposits; Holocene age deposits are mapped within the Grayson Creek channel to the east of the site (Geocon 2024; CGS 1991). Areas of artificial fill from past episodes of site development are also present.

Paleontological resources include fossil plants and animals, and evidence of past life such as trace fossils and tracks. Pleistocene age alluvial deposits have the potential to contain paleontological resources; the nearby Holocene deposits are too young and therefore unlikely to yield fossil resources.

No unique geologic features are present on or near the project site and no known paleontological resources are located within the project site. However, excavation on the project site could inadvertently expose previously unknown paleontological resources. Therefore, the project would result in a potentially significant impact. Implementation of **Mitigation Measure GEO-1**, below, would reduce this impact to a less-than-significant level. Therefore, the project would have a **less-than-significant impact with mitigation incorporated**.

Mitigation Measure GEO-1. Procedures for Discovery of Paleontological Resources

The contractor(s) shall be notified of the possibility of encountering paleontological materials during ground-disturbing activities. A standard inadvertent discovery clause will be included in every construction contract to inform contractors of requirements during construction.

Implement the following measures if potential unanticipated paleontological resources are discovered during project construction.

- 1) The contractor(s) will be educated on the types of materials that may be encountered.

- 2) If an inadvertent discovery is made, the contractor(s) will cease all ground-disturbing activities within the area of discovery.
- 3) The contractor(s) will immediately notify the County who will then request a qualified paleontologist to evaluate the finding(s).
- 4) If the finding(s) is determined to be potentially significant, the paleontologist will develop a research design and treatment plan outlining management of the resource, analysis, and reporting of the find. Such plan may include data recovery and analysis, preparation of a final report, and the formal transmission or delivery of any fossil material recovered to a paleontological repository, such as the University of California Museum of Paleontology. If project activities cannot avoid the resources, the adverse effects will be mitigated in accordance with CEQA Guidelines Section 15126.4(b)(3). Upon completion of project activities, the final report will document methods and findings of the mitigation and be submitted to Contra Costa County and a suitable paleontological repository.

2.7.2 Sources of Information

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2.8 Greenhouse Gas Emissions

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than- Significant Impact	No Impact
<i>Would the project:</i>				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

2.8.1 Discussion

Setting

Human activities that generate GHGs increase the amount of infrared radiation absorbed by the atmosphere, thereby enhancing the greenhouse effect and amplifying the warming of Earth. Increases in fossil fuel combustion and deforestation have exponentially increased concentrations of GHGs in the atmosphere since the Industrial Revolution (Intergovernmental Panel on Climate Change [IPCC] 2007). Rising atmospheric concentrations of GHGs, in excess of natural levels, have resulted in increasing global surface temperatures—a process commonly referred to as *global warming*. Higher global surface temperatures have, in turn, resulted in changes to Earth’s climate system, including increases in ocean temperature and acidity, reduced sea ice, variable precipitation, and increases in the frequency and intensity of extreme weather events (IPCC 2018). Large-scale changes to Earth’s system are collectively referred to as *climate change*.

The principle anthropogenic (human-made) GHGs are carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), and fluorinated compounds, including sulfur hexafluoride, hydrofluorocarbons (HFCs), and perfluorocarbons. The primary GHGs emitted by project-related construction and operations would include CO₂, CH₄, and N₂O. The principal characteristics of these pollutants are discussed below.

- **Carbon dioxide** enters the atmosphere through the combustion of fossil fuel (i.e., oil, natural gas, coal), solid waste decomposition, plant and animal respiration, and chemical reactions (e.g., from manufacturing cement). CO₂ is also removed from the atmosphere, or *sequestered*, when it is absorbed by plants as part of the biological carbon cycle.
- **Methane** is emitted during the production and transport of coal, natural gas, and oil. CH₄ emissions also result from livestock and agricultural practices as well as the anaerobic decay of organic waste in municipal solid waste landfills.
- **Nitrous oxide** is emitted by agricultural and industrial activities as well as the combustion of fossil fuels and solid waste.

Regulatory Setting

California has adopted statewide legislation to address various aspects of climate change and implement GHG emissions mitigation. Much of this legislation establishes a broad framework for the state’s long-term GHG reduction and climate change adaptation program. Of particular

importance are SB 32 and AB 1279, which outline the State's GHG reduction goals (i.e., achieving a 40 percent reduction in GHG emissions by 2030 [relative to 1990 emissions levels] and net-zero GHG emissions no later than 2045 (i.e., reach a balance between GHGs emitted and removed from the atmosphere). AB 1279 also mandates an 85 percent reduction in statewide GHG emissions (from 1990 levels) by 2045. The 2017 climate change scoping plan and the 2022 scoping plan update provide frameworks for achieving the 2030 and 2045 reduction targets, respectively, by leveraging and enhancing many of the efforts and programs already adopted by the state (CARB 2017 and 2022).

Recent actions by President Donald Trump have significantly altered the federal climate policy landscape. On January 20, 2025, President Trump signed executive order Executive Order 14154, which includes pausing the disbursement of funds appropriated through the Inflation Reduction Act (2022) and targeting incentives for EVs and other clean energy technologies. Although some of former President Biden's policies remain, these new executive orders represent a shift away from the previous administration's focus on reducing GHG emissions and increasing climate resiliency.

The following sections describe regional and local regulations relevant to the project.

Metropolitan Transportation Commission

The Metropolitan Transportation Commission (MTC) is the metropolitan planning organization for the nine counties that make up the Bay Area and SFBAAB, including Contra Costa County. In October 2021, MTC and the Association of Bay Area Governments (ABAG) adopted Plan Bay Area 2050, the latest regional transportation plan/sustainable communities strategy (RTP/SCS) for the SFBAAB. Plan Bay Area 2050 incorporates emission reduction targets that were updated by CARB in 2018 pursuant to SB 375 and carries forward many of the development and funding strategies of earlier plans (MTC/ABAG 2021a).

Air District

The Air District is the primary agency responsible for managing air quality in the Bay Area, including Contra Costa County. It provides recommended methods for analyzing project-related GHGs in CEQA reviews. In April 2023, the Air District published the most recent version of its CEQA Air Quality Guidelines (Air District Guidelines), which offer direction for evaluating plan- and project-level air quality and climate impacts. These guidelines also outline best practices for centering environmental justice, health, and equity thresholds when evaluating a project's impact on air quality (Air District 2023). Appendix B of the guidelines, *CEQA Thresholds for Evaluating the Significance of Climate Impacts*, provides substantial evidence in support of the Air District's updated GHG thresholds and recommendations for assessing project-level climate impacts. This analysis was prepared in accordance with the guidance and recommendations outlined in the Air District Guidelines.

Construction GHG Emissions

The Air District Guidelines do not identify a GHG emissions threshold for construction-related emissions (Air District 2023). Nevertheless, the Air District Guidelines recommend the quantification and disclosure of construction-related GHG emissions. Even though the significance of construction GHG emissions has not been determined, the Air District Guidelines provide BMPs that projects should incorporate to reduce construction-related GHG emissions (Air District 2023).

Operational GHG Emissions

According to the Air District Guidelines, the Air District recommends focusing the evaluation of land use projects on contributions to the state’s efforts to meet long-term climate goals. If a project would contribute its “fair share”³ of what would be required to achieve long-term climate goals, then a reviewing agency can find that the impact would not be significant because the project would help to solve the problem of global climate change (Air District 2023). Applying this approach, the Air District has found that a new land use development project being built today would need to incorporate the design elements provided in Table 2.8-1 to do its fair share toward meeting the SB 32 2030 target and the goal of carbon neutrality by 2045.

Table 2.8-1. Air District Greenhouse Gas Thresholds for Land Use Projects

Thresholds for Land Use Projects (Must Include A or B)
A. Projects must include, at a minimum, the following project design elements: <ul style="list-style-type: none">1. Buildings<ul style="list-style-type: none">a. The project would not include natural gas appliances or natural gas plumbing (in both residential and nonresidential development).b. The project would not result in any wasteful, inefficient, or unnecessary electrical usage, as determined by the analysis required under Section 21100(b)(3) of the CEQA statute and Section 15126.2(b) of the State CEQA Guidelines.2. Transportation<ul style="list-style-type: none">a. Achieve compliance with EV requirements in the most recently adopted version of CALGreen Tier 2.b. Achieve a reduction in project-generated vehicle miles traveled (VMT) to a level below the regional average, consistent with the current version of the California Climate Change Scoping Plan (currently, 15 percent), or meet a locally adopted SB 743 VMT target, reflecting the recommendations provided in the Governor’s Office of Planning and Research’s Technical Advisory on Evaluating Transportation Impacts in CEQA:<ul style="list-style-type: none">i. Residential projects: 15 percent below existing VMT per capitaii. Office projects: 15 percent below existing VMT per employeeiii. Retail projects: no net increase in existing VMT
B. Projects must be consistent with a local GHG reduction strategy that meets the criteria under State CEQA Guidelines Section 15183.5(b).

Source: Air District 2023.

If a project is designed and built to incorporate the design elements listed in Table 2.8-1 (Threshold Option A) or consistent with a local GHG reduction strategy under Section 15183.5(b) of the State CEQA Guidelines (Threshold Option B), then it would contribute its portion of what is necessary to achieve California’s long-term climate goals—its fair share—and would not make a cumulatively considerable contribution to global climate change. If the project does not incorporate these design

³ The Air District defines “fair share” as the design elements that need to be incorporated into a project to lay the foundation for achieving carbon neutrality by 2045. These design elements are elements that the project has influence or control over. For example, becoming carbon neutral by 2045 will require California’s electrical power generators to shift to 100 percent carbon-free energy resources, which is not something that can be controlled through the design of new land use projects and would not be a part of a project’s fair share. Other sources that would not be part of the “fair share” are the vehicle fleet mix or indirect off-site emissions (e.g., methane emissions from wastewater or solid waste).

elements or is not consistent with a local GHG reduction strategy, then it should be found to have a significant climate impact because it would hinder the state's efforts to address climate change. This analysis evaluates the project's consistency with the Air District's land use GHG thresholds (Threshold Option B) to determine the significance of the project's GHG emissions.

Contra Costa County

Contra Costa County 2045 General Plan

The Contra Costa County 2045 General Plan includes the following goals and policies associated with greenhouse gases that are relevant to the project (Contra Costa County 2024b).

Policy HS-P3.2: Facilitate carbon-neutral development projects and communities that support a circular economy, zero-emission modes of transportation, reliable and renewable energy resources, energy-efficient buildings, zero waste, water efficiency and conservation, green infrastructure, soil conservation, and a system of natural and working lands that support natural carbon sequestration and climate resilience.

Policy HS-P3.3: Require new development projects using the Contra Costa County Climate Action and Adaptation Plan to streamline their environmental review of GHG emissions, as permitted by CEQA Guidelines Section 15183.5, to demonstrate consistency with the Climate Action and Adaptation Plan and incorporate applicable GHG reduction and climate change adaptation measures.

Policy COS-P14.3: Encourage installation of battery storage systems in new and existing buildings, especially buildings with solar energy systems and buildings that provide essential community services.

Contra Costa County Climate Action and Adaptation Plan

In 2024, the County adopted an update to previous climate action planning efforts, the Climate Action and Adaptation Plan 2024 Update (CAAP). The CAAP outlines strategies to reduce greenhouse gas emissions and adapt to climate impacts. It includes measures to improve energy efficiency, develop renewable energy, reduce VMT, and expand green infrastructure. The CAAP sets targets to reduce emissions 40 percent below 1990 levels by 2030 and 85 percent below 1990 levels by 2045, and it calls for the County to be on a pathway to support statewide carbon neutrality by 2045 (Contra Costa County 2024a).

- a) *Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?*

Construction

As noted in the Air Quality section, construction of the project would result in direct GHG emissions generated by vehicle trips (i.e., construction worker trips and haul truck trips) and operation of construction equipment. Project construction would result in GHG emissions that would generate approximately 231 metric tons (MT) of carbon dioxide equivalent (CO₂e) over the course of the approximately 17-month project construction period. Because construction emissions would cease once construction is complete, they are considered short term. The Air District CEQA Guidelines do not identify a GHG emission threshold for construction-related emissions. Instead, the Air District recommends that GHG emissions from construction be quantified and disclosed. The Air District further recommends incorporation of BMPs to reduce GHG emissions during construction, as

feasible and applicable. BMPs recommended by the Air District, as shown in Table 6-1 of the 2022 CEQA Guidelines, to reduce GHG emissions during construction are provided below (Air District 2023).

- Use zero-emission and hybrid-powered equipment to the greatest extent possible, particularly if emissions are occurring near sensitive receptors or located within an Air District–designated Community Air Risk Evaluation (CARE) area or Assembly Bill 617 community.
- Require all diesel-fueled off-road construction equipment be equipped with EPA Tier 4 Final compliant engines or better as a condition of contract.
- Require all on-road heavy-duty trucks to be zero emissions or meet the most stringent emissions standard, such as model year (MY) 2024 to 2026, as a condition of contract.
- Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to no more than 2 minutes (A 5-minute limit is required by the state airborne toxics control measure [Title 13, Sections 2449(d)(3) and 2485 of the California Code of Regulations]). Provide clear signage that posts this requirement for workers at the entrances to the site and develop an enforceable mechanism to monitor idling time to ensure compliance with this measure.
- Prohibit off-road diesel-powered equipment from being in the “on” position for more than 10 hours per day.
- Use California Air Resources Board–approved renewable diesel fuel in off-road construction equipment and on-road trucks.
- Use U.S. Environmental Protection Agency SmartWay certified trucks for deliveries and equipment transport.
- Require all construction equipment is maintained and properly tuned in accordance with manufacturer’s specifications. Equipment should be checked by a certified mechanic and determined to be running in proper condition prior to operation.
- Where grid power is available, prohibit portable diesel engines and provide electrical hook ups for electric construction tools, such as saws, drills and compressors, and using electric tools whenever feasible. Where grid power is not available, use alternative fuels, such as propane or solar electrical power, for generators at construction sites.
- Encourage and provide carpools, shuttle vans, transit passes, and/or secure bicycle parking to construction workers and offer meal options onsite or shuttles to nearby meal destinations for construction employees.
- Reduce electricity use in the construction office by using LED bulbs, powering off computers every day, and replacing heating and cooling units with more efficient ones.
- Minimize energy used during site preparation by deconstructing existing structures to the greatest extent feasible.
- Recycle or salvage nonhazardous construction and demolition debris, with a goal of recycling at least 15% more by weight than the diversion requirement in Title 24.
- Use locally sourced or recycled materials for construction materials (goal of at least 20% based on costs for building materials and based on volume for roadway, parking lot, sidewalk and curb materials). Wood products used should be certified through a sustainable forestry program.

- Use low-carbon concrete, minimize the amount of concrete used and produce concrete on-site if it is more efficient and lower emitting than transporting ready-mix.
- Develop a plan to efficiently use water for adequate dust control since substantial amounts of energy can be consumed during the pumping of water.
- Include all requirements in applicable bid documents, purchase orders, and contracts, with successful contractors demonstrating the ability to supply the compliant on- or off-road construction equipment for use prior to any ground-disturbing and construction activities.

These measures would reduce GHG emissions during construction. Regardless, the Air District has not identified a GHG emissions threshold for construction activities, and the impact would be **less than significant**.

Operations

Project operations would result in GHG emissions from area, energy, mobile, stationary, solid waste, water, and wastewater sources. Table 2.8-2 summarizes the estimated operational GHG emissions from the existing fire station, the proposed project, and the net difference in emissions between the two.

Table 2.8-2. Existing Conditions (2025), Project Conditions (2028), and Net GHG Emissions during Project Operation (metric tons per year)

Emission Source	CO₂	CH₄	N₂O	CO₂e
Existing Fire Station 9 (Existing Conditions, 2025)				
Area	< 1	< 1	< 1	< 1
Energy	9	< 1	< 1	9
Mobile	65	< 1	< 1	68
Stationary ^a	-	-	-	-
Solid Waste Generation	<1	< 1	< 1	1
Water and Wastewater Use	<1	< 1	< 1	1
<i>Total Existing</i>	<i>74</i>	<i>< 1</i>	<i>< 1</i>	<i>78</i>
New Fire Station 9 (Project Conditions, 2028)				
Area	< 1	< 1	< 1	< 1
Energy	51	< 1	< 1	52
Mobile	147	< 1	< 1	155
Stationary	14	< 1	< 1	14
Solid Waste Generation	1	< 1	< 1	4
Water and Wastewater Use	3	< 1	< 1	6
<i>Total Project</i>	<i>216</i>	<i>< 1</i>	<i>< 1</i>	<i>231</i>
Net Emissions	142	< 1	< 1	153

Source: See Attachment B.

^a. The existing analysis conservatively assumed there was no existing emergency generator.

CH₄ = methane; CO₂ = carbon dioxide; CO₂e = carbon dioxide equivalent; N₂O = nitrous oxide.

As shown in Table 2.8-2, the project would generate approximately 153 MT CO₂e of net emissions during its first year of full buildout. While these emission estimates are not directly used to determine significance under CEQA, they are included here to provide a fully comprehensive assessment.

Under the Air District's Land Use Threshold Option B, projects must demonstrate consistency with a local GHG reduction strategy. To address this requirement, the following discussion evaluates the project's alignment with the County's CAAP. Table 2.8-3 evaluates the project's consistency with the CAAP 2024 Climate Action Strategies to determine if the project would generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.

Table 2.8-3. Project Consistency with Contra Costa County's CAAP 2024 Climate Action Strategies

Climate Action Strategy	Project Consistency
BE-1: Require and incentivize new buildings and additions built in unincorporated Contra Costa County to be low-carbon or carbon neutral.	Consistent. The project would be built to LEED Silver Standard. Although the design includes natural gas stoves, they are part of the proposed employee facilities. Additionally, the County replaced its all-electric ordinance in October 2024 by adopting Ordinance No. 2024-17, which amended the 2022 California Energy Code to require increased energy efficiency standards for newly constructed residential, hotel, office, and retail buildings. The more stringent energy efficiency standards support low levels of GHG emissions for new constructions and are expected to contribute to the reduction of Contra Costa County's future GHG emissions.
BE-2: Retrofit existing buildings and facilities in the unincorporated county, and County infrastructure, to reduce energy use and convert to low-carbon or carbon-free fuels.	Not applicable. The project is demolishing an existing building and constructing a new one.
BE-3: Increase the amount of electricity used and generated from renewable sources in the county.	Consistent. The project will include solar panels, be consistent with Title 24 standards, and be built to LEED Silver standard.
NW-1: Increase composting of organic waste.	Consistent. The project will include green waste bins and will participate in composting program managed by Republic Services, the solid waste service provider to the site.
NW-2: Reduce waste from County operations.	Consistent. Shipping and receiving occurs out of a centralized Fire District location in Concord. The substantial waste associated with shipping and receiving is recycled from the central warehouse and would not occur as part of this project. The project will be served by Republic Services, which implements three-stream recycling (trash, recycling, and organic waste). Bay-friendly landscaping will be incorporated within bioretention features with drought-resistant plants reducing waste/pollution.
NW-3: Increase community-wide recycling and waste minimization programs.	Not applicable. This measure involves expanding waste minimization programs, which are not within the operational control of the Fire District.
NW-4: Reduce emissions from landfill gas.	Not applicable. This measure applies to the operations of County-owned landfills, which is not within the operational control of the fire district.

Climate Action Strategy	Project Consistency
DR-1: Reduce indoor and outdoor water use.	Consistent. The project will be built to LEED Silver standard, which requires water-efficient devices and technology and drought-tolerant landscaping.
DR-2: Ensure sustainable and diverse water supplies.	Not applicable. This measure involves decision-making with respect to water supplies, which is not within the operational control of the Fire District.
TR-1: Improve the viability of walking, biking, zero-emission commuting, and using public transit for travel within, to, and from the county.	Consistent. The project would install bike racks, thereby supporting active transportation and enhancing the viability of biking as a commuting option for staff. The project is also less than 600 feet from bus stops located at the intersection of Pacheco Boulevard and Center Avenue.
TR-2: Increase the use of zero-emission vehicles. Transition to a zero-emission County fleet by 2035 and a community fleet that is at least 50 percent zero-emission by 2030.	Not applicable. Zero-emission fire suppression vehicles are not widely commercially available at this time. These types of vehicles are exempt from zero-emission regulations, because they are used for emergency purposes and thus have higher reliability requirements. This measure indicates that over 70 percent of heavy-duty vehicles will be zero-emissions by 2045. The percentage of heavy-duty vehicles that will not be zero-emissions by 2045 are those that are exempt and/or that have feasibility challenges, such as fire engines.
NI-1: Protect against and adapt to changes in sea levels and other shoreline flooding conditions.	Not applicable. The project is not near the shoreline and is thus less vulnerable to sea level rise.
NI-2: Protect against and adapt to increases in the frequency and intensity of wildfire events.	Consistent. The project is a fire station; therefore, it directly supports wildfire preparedness and emergency response capacity.
NI-3: Establish and maintain community resilience hubs.	Not applicable. The project's purpose is to provide emergency fire services rather than a community resilience hub. However, the facility may serve a critical role in emergency response and coordination during disasters, which can contribute to broader community resilience.
NI-4: Sequester carbon on natural and working lands in Contra Costa County.	Not applicable. The project does not involve natural or working lands, because it is replacing an existing fire station at the same site.
NI-5: Minimize heat island effects through the use of cool roofs, green infrastructure, tree canopy, cool paint and pavement, and other emerging strategies.	Consistent. The landscaping will include drought-tolerant green infrastructure which would include bioretention features that will filter and retain runoff to support flood management and groundwater recharge. Trees will also be installed.
NI-6: Protect communities against additional hazards created or exacerbated by climate change.	Consistent. The project is a fire station, and thus its purpose is to protect against hazards, some of which will be exacerbated by climate change. The project also includes an emergency generator, which enhances the facility's operational resilience during power outages and extreme weather events. The backup power capability supports continuous emergency response services, helping protect the community from climate-related hazards such as wildfires, heat waves, and severe storms.

Climate Action Strategy	Project Consistency
CE-1: Provide access to affordable, clean, safe, and healthy housing and jobs.	Consistent. While the project does not provide housing, it contributes to a safe and healthy living environment by enhancing emergency response services. In addition, the fire station creates local employment opportunities for public safety personnel and support staff.
CE-2: Invest in solutions to support climate equity.	Consistent. The fire station supports climate equity by ensuring emergency services are accessible to all community members, including vulnerable populations who may be disproportionately affected by climate-related hazards.
CE-3: Increase access to parks and open space.	Not applicable. The intention of this measure is for the County to take action to increase access to parks and open space, which is not within the operational control of the fire district.
CE-4: Ensure residents have equitable, year-round access to affordable, local fresh food.	Not applicable. The intention of this measure is for the County to take action to ensure residents have access to food, which is not within the operational control of the fire district.
CE-5: Ensure that large industrial facilities act as good neighbors.	Not applicable. The project is not a large industrial facility.
L-1: Establish Contra Costa County as a leader among local governments for addressing climate issues.	Not applicable. The measure focuses on County-wide leadership and policy initiatives, which is not within the operational control of the fire district. However, the fire station may indirectly support climate leadership by enhancing emergency response capacity and incorporating resilient infrastructure.
L-2: Continue to recognize the climate crisis as an emergency for Contra Costa County and make addressing climate change a top County priority.	Not applicable. This measure pertains to County-level policy and prioritization, which is not within the operational control of the Fire District. Nonetheless, the fire station contributes to climate emergency preparedness by improving local response capabilities to climate-related hazards such as wildfires and extreme weather.
IS-1: Monitor and report progress toward achieving Climate Action and Adaptation Plan goals on an annual basis.	Not applicable. This measure pertains to County-level monitoring and reporting, which is not within the operational control of the Fire District.
IS-2: Continue collaborative partnerships with public agencies, private partners, and community groups that support Climate Action and Adaptation Plan implementation, with an emphasis on residents and community-based organizations from Impacted Communities.	Not applicable. The project does not involve formal partnerships for Climate Action Plan implementation, because that is not within the operational control of the Fire District. However, as a public safety facility, it may engage with other agencies during emergency response operations.
IS-3: Secure necessary funding to implement the Climate Action and Adaptation Plan.	Not applicable. This measure involves securing funding for Climate Action Plan implementation, which is not within the operational control of the Fire District.
IS-4: Continue to update the baseline emissions inventory and Climate Action and Adaptation Plan every five years.	Not applicable. This measure involves updating the emissions inventory in the Climate Action and Adaptation Plan, which is not within the operational control of the Fire District.
IS-5: Maintain and update the Climate Action and Adaptation Plan to allow for greater resilience.	Not applicable. This measure involves maintaining and updating the Climate Action Plan, which is not within the operational control of the Fire District. However, the fire station contributes to community resilience through enhanced emergency response capabilities.

Source: Contra Costa County 2024.

As discussed in Table 2.8-3, the project would be consistent with all applicable Contra Costa County CAAP 2024 Climate Action Strategies. Thus, the project would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment. Therefore, the project would have a **less-than-significant impact**.

- b) *Would the project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing emissions of greenhouse gases?*

California Senate Bill 375/Plan Bay Area 2050

The project aligns with the type and scale of development envisioned in the Contra Costa County 2045 General Plan, which supports growth and development assumptions for Plan Bay Area 2050, which is the Regional Transportation Plan/Sustainable Communities Strategy for the San Francisco Bay Area (MTC/ABAG 2021b). It advances the Plan's overarching vision of creating a safe, healthy, and resilient region by maintaining and upgrading infrastructure to support communities' and enhancing resilience to hazards such as wildfires and earthquakes. Redeveloping the fire station strengthens emergency response capacity—critical for wildfire preparedness and disaster recovery—while ensuring essential public services remain accessible. Furthermore, by redeveloping the station within the established urban growth boundary, the project directly supports Strategy EN4 (Maintain Urban Growth Boundaries), reinforcing the Plan's commitment to sustainable and equitable growth.

The project would also be located less than 600 feet from bus stops located at the intersection of Pacheco Boulevard and Center Avenue. Thus, the project would be consistent with Plan Bay Area 2050 goals that encourage the use of transit as an alternate method of transportation. Further, the project would also install bike racks, thereby supporting active transportation and enhancing the viability of biking as a commuting option for staff, which aligns with Plan Bay Area 2050's strategies to reduce reliance on single-occupancy vehicles and promote low-carbon travel modes. Finally, as described in Section 2.17, Transportation, the project would have a less-than-significant impact with respect to VMT.

Because the project would support Plan Bay Area 2050 goals of reducing VMT and GHG emissions from passenger cars and light-duty trucks and its proposed land use fits within the envelope of the uses assumed in the plan, the project would not conflict with implementation of Plan Bay Area 2050. Therefore, the project would have a **less-than-significant impact**.

CARB 2022 Scoping Plan

The proposed project is consistent with CARB's 2022 Scoping Plan because it incorporates modern building standards that improve energy efficiency, supports electrification of building systems, and reduces reliance on fossil fuels. By demolishing the outdated facility and constructing a new, energy-efficient building, the project helps advance building decarbonization goals identified in the Scoping Plan. Further, the Scoping Plan emphasizes reducing GHG emissions from buildings and public facilities through electrification and improved energy performance. The new fire station will be designed to meet current Title 24 energy efficiency standards, including solar panels, and be built to LEED Silver Standard. These features reduce operational emissions and align with CARB's strategy to transition public infrastructure toward carbon neutrality. In addition, by improving resiliency and supporting emergency response capabilities, the project contributes to climate adaptation goals while minimizing emissions compared to maintaining a

less efficient existing structure. Although the project would include natural gas stoves for essential fire personnel operations, this does not substantially conflict with the overall goal of reducing emissions. Therefore, the project would not conflict with the scoping plan. Therefore, the project would have a **less-than-significant impact**.

Contra Costa County Climate Action and Adaptation Plan

As discussed above in Table 2.8-3, the project would be consistent with all applicable 2024 Climate Action Strategies, indicating the project would not conflict with the Contra Costa County CAAP, and the impact with respect to applicable plans, policies, or regulations adopted for the purpose of reducing GHG emissions. Therefore, the project would have a **less-than-significant impact**.

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2.9 Hazards and Hazardous Materials

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than- Significant Impact	No Impact
<i>Would the project:</i>				
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 involve handling hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, 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 2 miles of a public airport or public use airport, result in a safety hazard or excessive noise 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?	☐	☐	☐	☒

2.9.1 Discussion

- a) *Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?*

Project construction would involve the routine transport, use, and disposal of hazardous materials such as solvents, paints, oils, grease, and caulking but would be handled on a temporary basis and do not represent acutely hazardous materials. Such transport, use, and disposal must comply with applicable regulations. Any spills or releases involving these materials are expected to be small, localized, and cleaned up as they occur. In addition, construction personnel would implement standard construction best management practices to prevent hazardous materials releases from the construction site into the environment.

Long-term maintenance activities associated with the new fire station building would involve the use of hazardous chemicals that are typical of maintenance uses such as cleaners and degreasers, solvents, paints, lubricants, adhesives, sealers,. Such materials are considered common and are unlikely to be stored or used in large quantities. Any spills involving these materials would be small and localized and cleaned up as they occur.

A 2,000-gallon aboveground diesel fuel storage tank (AST) will be installed for fueling fire engines and an on-site generator. Improper storage and handling of the AST could create a hazard to the public or environment if there are significant leaks or spills. However, prior to the issuance of

building permits, in accordance with California Health and Safety Code Chapter 6.67, the project applicant is required to submit a Spill Prevention Control and Countermeasure (SPCC) plan⁴ for the aforementioned AST to the Contra Costa Health Services, Hazardous Materials Program (CCHSHMP) for review and approval. The project applicant is also required to prepare a Hazardous Materials Business Plan⁵ and submit it to CCHSHMP. Compliance with applicable programs and requirements of the CCHSHMP would reduce potential impacts to **less than significant**.

- b) *Would the project 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?*

For potential impacts associated with the handling, transport and disposal of hazardous materials during construction and operations, refer to threshold a), above.

An environmental database search was conducted by ICF in November 2025 using the State Water Resource Control Board's (SWRCB) GeoTracker, the Department of Toxic Substances Control's (DTSC's) EnviroStor, and the California Environmental Protection Agency's (CalEPA's) Cortese List Data Resources online databases. The project site was identified in GeoTracker as a Non-Case Information⁶ site. According to a 2021 Unauthorized Release /Contamination Report form (SWRCB. 2021), a diesel hydrocarbon release was noted (in 2020) during an underground storage tank⁷ (UST) removal, however, the release appears to be minor as comments in the form state that the discharge had been stopped, and *no soil contamination was found*. Potential impacts associated with this listing are considered low. No other records associated with releases, violations or remediation activities were identified with the project site.

The environmental database search revealed several hazardous material sites within a 0.50-mile radius with a history of environmental releases (sites within this radius were analyzed because they are the most likely to have a deleterious effect on the project). All sites identified within the specified radius were listed with a *Completed-Case Closed* status and are not considered a risk to implementation of the project.

The first phase of construction would involve demolition of the existing fire station. The structure was constructed in 1956 and thus, hazardous building materials are expected to be encountered during demolition. As such, a hazardous building materials survey as part of **Mitigation Measure**

⁴ An SPCC is required when a facility has an aggregate aboveground oil storage capacity greater than 1,320 U.S. gallons or a completely buried storage capacity greater than 42,000 U.S. gallons and there is a reasonable expectation of an oil (of any type and in any form) discharge into or upon navigable waters of the U.S. or adjoining shorelines (EPA 2010).

⁵ The business plan's objective is to prevent or minimize damage to public health, safety, and the environment, from a release or threatened release of hazardous materials. This is accomplished by requiring businesses that handle hazardous materials in reportable quantities (equal to or greater than 55 gallons of a liquid, 500 pounds of a solid, 200 cubic feet of gas, or an extremely hazardous substance at or above the chemical specific reportable quantity (40 CFR, Part 355) to submit an annual hazardous materials business plan to the local Certified Unified Program Agency (CUPA) as well as prepare a site map, develop an emergency response plan, and implement a training program for employees. Contra Costa Health Services - Hazardous Materials Programs (CCHSHMP) is the CUPA for all businesses within Contra Costa County (Contra Costa Health 2025).

⁶ Non-Case Information sites are sites that either have no unauthorized release, had a release to the environment with minimal impact or are currently evaluated for impacts and may result with the activation of a new case. Non-Case Information sites contain environmental data, location data, or potential source information that may be considered important to a given area.

⁷ The removal involved a 550-gallon single wall tank.

HAZ-1 would be required prior to demolition. The surveys would provide protocols for the proper handling and disposal of the materials, should they be encountered. With implementation of **Mitigation Measure HAZ-1**, the project would result in a **less-than-significant impact with mitigation incorporated**.

Mitigation Measure HAZ-1: Conduct a Hazardous Building Materials Survey prior to Demolition.

Prior to the issuance of any demolition permit, the applicant shall ensure that a Hazardous Building Materials Survey is conducted (or has been conducted) by a licensed contractor on the structure to be demolished. The survey shall identify the presence of hazardous building materials including asbestos-containing materials, lead-based paint, and PCBs. Should the survey determine that asbestos-containing materials, lead-based paint, or other hazardous building materials are present, the following actions shall be implemented by the applicant.

- A Health and Safety Plan shall be developed by a certified industrial hygienist for potential asbestos-containing materials, lead-based paint, or other hazardous building materials risks present during demolition. The Plan shall then be implemented by a licensed contractor. The Plan shall comply with federal OSHA and Cal/OSHA requirements.
- Necessary approvals shall be acquired from Contra Costa County (by the licensed contractor) for specifications or commencement of abatement activities. Abatement activities shall be conducted by a licensed contractor.
- Prior to demolition of building materials containing asbestos, the Air District shall be notified ten days prior to initiating construction and demolition activities. Section 19827.5 of the California Health and Safety Code requires that local agencies not issue demolition or alteration permits until an applicant has demonstrated compliance with notification requirements under applicable federal regulations regarding hazardous air pollutants, including asbestos. In addition:
 - Asbestos shall be disposed of at a licensed disposal facility to be identified by the licensed contractor.
 - The local office of the Cal/OSHA shall be notified of asbestos abatement activities.
 - Asbestos abatement contractors shall follow state regulations contained in 8 CCR 1529 and 8 CCR 341.6 through 341.14 where there is asbestos-related work involving 100 square feet or more of asbestos containing material.
 - Asbestos removal contractors shall be certified as such by the Contractors Licensing Board of the State of California.

c) *Would the project emit hazardous emissions or involve handling hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?*

There are no schools within a 0.25-mile radius of the proposed project. The closest school is the *Choice in Learning Montessori* preschool at 490 Golf Club Road in Pleasant Hill, located approximately 0.60 miles to the southwest of the proposed project. **No impact** would occur.

- d) *Would the project be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment?*

An environmental database search conducted in November 2025 by ICF (via SWRCB's *GeoTracker*, DTSC's] *EnviroStor*, and CalEPA's] Cortese List Data Resources) did not identify the project site on any hazardous materials listings that would meet the criteria of a Cortese List⁸ site. As mentioned, the proposed project site is listed as a *Non-Case Information* site (refer to threshold b) for additional details regarding this classification), however, that category does not meet the criteria of a Cortese List site. **No impact** would occur.

- e) *For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?*

Buchanan Field Airport is approximately 0.25 mile east of the project site, as measured from the closest point on the project site to the runway. The project site is located within the airport's Federal Aviation Administration (FAA) Regulation Part 77 sphere of influence and within the boundaries of Airport Influence Area of the Contra Costa County Airport Land Use Compatibility Plan (ALUCP)(Contra Costa County Airport Land Use Commission 2000). As such, the compatibility criteria contained within the ALUCP are applicable to development of the project site. The intent of the ALUCP is to promote compatibility between the airports in Contra Costa County and the land use which surrounds them. Moreover, the plan serves as a tool for use by the Airport Commission to review airport and adjacent land use development.

The project site is within *Height Exception Overlay Zone 2* of the airport's Airspace Protection Criteria. According to the ALUCP, structures proposed for construction within Height Exception Overlay Zone 2 are permitted to have a total height of up to 45 feet above ground level. If a proposed structure height exceeds the 45-foot threshold, a FAA aeronautical study is required. As stated above in the *Description of Project*, the new station's maximum height would be 35 feet and thus, would not require an aeronautical study as it is within the permitted total height of the protection criteria. In addition, the project site is not located within a composite noise contour (per Figure 3B of the ALUCP) and as such is not subject to the airport's noise compatibility criteria. Furthermore, the proposed project would not introduce any new aircraft noise sources, would not result in changes to flight operations at Buchanan Field Airport, or any existing airports, airfields, airstrips, or heliports in the region and as discussed in Section 2.13, *Noise*, with mitigation. Thus, the project would result in a **less-than-significant impact**.

⁸ U.S.C. Section 65962.5 (Cortese List) includes DTSC-listed hazardous waste facilities and sites, Department of Health Services lists of contaminated drinking water wells, sites listed by SWRCB as having underground storage tank leaks or a discharge of hazardous wastes or materials into the water or groundwater, and lists from local regulatory agencies of sites with a known migration of hazardous waste/material. Specifically, the following resources provide information regarding facilities meeting "Cortese List" requirements:

- List of hazardous waste and substances sites from DTSC's *EnviroStor* database.
- List of leaking underground storage tank sites from SWRCB's *GeoTracker* database.
- List of solid waste disposal sites identified by SWRCB with waste constituents above hazardous levels.
- List of "active" cease-and-desist orders and cleanup and abatement orders from SWRCB.
- List of hazardous waste facilities subject to corrective action pursuant to Section 25187.5 of the Health and Safety Code, as identified by DTSC.

f) Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Project development would not include any permanent changes to existing public roadways that provide emergency access to the project site or surrounding area. The project consists of a redevelopment of an existing fire station, which would also include offices and crew quarters. It is possible that construction activity associated with the project could affect emergency response or evacuation plans that could impede emergency access. However, compliance with County requirements regarding emergency access during construction activities would minimize potential impacts associated with emergency response times and access; and thus, emergency response access or emergency evacuation plan routes would not be impeded significantly during construction. Also, the project would not involve any long-term features that would impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan, such as the *2024 Hazard Mitigation Plan Contra Costa County, California* (LHMP) (Contra Costa County 2024). Therefore, development of the project is not expected to interfere with the aforementioned LHMP or any evacuation route assigned to the project area. Furthermore, as the project would handle and store hazardous materials, it would be required to adhere to all applicable regulations including the Hazardous Materials Business Plan Program and the Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (the CCHSHMP is the Certified Unified Program Agency [CUPA] for Contra Costa County). Adherence to the aforementioned regulations and plans would ensure a proper response and evacuation in the event of an emergency associated with a hazardous material release. Potential impacts would be **less than significant**.

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

The project site is in a highly developed area of Contra Costa County with no wildlands intermixed. The project site is bound by residential uses to the north, west and south, and the Grayson Creek and commercial development to the east. According to CAL FIRE's Local Responsibility Area Fire Hazard Severity Zones, Contra Costa County – Unincorporated LRA map (California Department of Forestry and Fire Protection [CAL FIRE] 2025), the project site is not within a Very High, High, or Moderate Fire Hazard Severity Zone. The closest moderate fire area is approximately 1.37 miles southwest of the project site, within the Paso Nogal Park in Pleasant Hill. Thus, the project would not exacerbate wildfire risks of any nature, and it is not located within or adjacent to a Fire Hazard Severity Zone. **No impact** would occur.

2.9.2 Sources of Information

California Department of Forestry and Fire Protection. 2025. *Local Responsibility Area Fire Hazard Severity Zones, Contra Costa County – Unincorporated LRA Map*.

Contra Costa County. 2024. *2024 Hazard Mitigation Plan Contra Costa County, California*. Available: <https://www.contracosta.ca.gov/DocumentCenter/View/82620/2024-Contra-Costa-County-HMP-Volume-1---Approved?bidId=>.

Contra Costa County Airport Land Use Commission. 2000. *Contra Costa County Airport Land Use Compatibility Plan - Buchanan Field Airport Policies*. Available: <https://www.contracosta.ca.gov/DocumentCenter/View/856/Buchanan-Field-Airport-Policies?bidId=>.

Contra Costa Health. 2025. *Business Plan Program*. Available: <https://www.cchealth.org/health-and-safety-information/hazmat-programs/business-plan-program>.

State Water Resources Control Board. 2021. *Underground Storage Tank (UST) Site-Unauthorized Release/Contamination Report*. Available: https://documents.geotracker.waterboards.ca.gov/regulators/deliverable_documents/2239225089/URF.pdf.

U.S. Environmental Protection Agency. 2010. *Spill Prevention, Control, and Countermeasure (SPCC) Regulation 40 CFR part 112 - A Facility Owner/Operator's Guide to Oil Pollution Prevention*. Available: <https://www.epa.gov/sites/default/files/documents/spccbluebroch.pdf>.

2.10 Hydrology and Water Quality

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than- Significant Impact	No Impact
<i>Would the project:</i>				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater 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 that 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 that would result in flooding on- or off-site;	☐	☐	☒	☐
iii) Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☒	☐
iv) Impede or redirect floodflows?	☐	☐	☒	☐
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?	☐	☐	☐	☒

2.10.1 Discussion

- a) *Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?*

The project site is currently developed with an operational fire station. Most of the site currently drains west via overland flow towards Blackwood Drive, where runoff is collected by existing drainage inlets within the roadway and on the project parcel. Runoff is routed via an existing 18-inch storm drainpipe towards Grayson Creek to the east of the project site.

Construction activities associated with the proposed project include ground-disturbing activities such as vegetation removal, trenching, and grading. Ground-disturbing activities and runoff from work areas could cause soil erosion and sedimentation, reducing water quality. Grayson Creek adjoins the project site to the east. The potential impacts on water quality are related to sediment and sediment-bound pollutants that may be mobilized into the storm drain system that may drain into Grayson Creek. In addition, common hazardous materials (e.g., gasoline, oils, grease, lubricants) from construction equipment could be accidentally released during construction. Accidental discharges, contaminants from construction vehicles and equipment, and sediment from soil erosion could temporarily adversely affect water quality or result in a violation of water quality standards due to increase the pollutant load in runoff being transported to receiving waters via the storm drain system and/or runoff into Grayson Creek.

Because less than one acre would be disturbed, compliance with the Construction General Permit and implementation of a Stormwater Pollution Prevention Plan is not required. However, projects creating and/or replacing (redeveloping) impervious area exceeding 10,000 square feet require submitting a Storm Water Control Plan (SWCP) for the review and approval of the Public Works Department, in compliance with Provision C.3 of the NPDES Permit and the County's Stormwater Management and Discharge Control Ordinance (Section 1014). The project's SWCP would ensure stormwater is captured and treated on the project site. In addition, the County will require a Construction Best Management Practices (BMPs) Plan to identify temporary soil stabilization, sediment control, tracking control, and non-stormwater management to be implemented during construction activities to minimize adverse effects to water quality. Erosion control BMPs include source control measures, such as wetting dry and dusty surfaces to prevent fugitive dust emissions and installing an effective soil cover (e.g., geotextiles, straw mulch) for inactive areas to prevent sediments from being dislodged by wind, rain, or flowing water. Sediment control BMPs would include measures such as the installation of fiber rolls to capture particles that have already been dislodged.

Currently, the project site is 6,657 square feet (0.15 acre) of impervious cover and 29,899 square feet (0.69 acre) of pervious cover. Impervious surfaces could transport sediment and hazardous substances into area storm drain inlets that drain into waterways. The project would have additional impervious surfaces and therefore would result in increased concentrated polluted flows. Provision C.3 of the San Francisco Bay Region Municipal Regional Stormwater National Pollutant Discharge Elimination System Permit (MRP) requires all projects creating and/or redeveloping at least 5,000 square feet of impervious surface to incorporate stormwater management treatment facilities. The project would create approximately 23,823 square feet (0.55 acre) of impervious surface cover, resulting in 30,480 square feet (0.70 acre) of impervious cover totaling 76 percent of the project site. However, the project would also include the installation of stormwater retention basins, bioretention areas, flow through planters, and landscaping. These features would decrease the rate and volume of stormwater runoff, treat runoff, and allow runoff to infiltrate prior to discharge. As noted above a SWCP would be required for review and approval by the Contra Costa County Public Works Department/Clean Water Program, in compliance with the Stormwater Management and Discharge Control Ordinance (Section 1014) and MRP.

All project activities would be subject to existing regulatory requirements as described above which complies with the goals and requirements of the Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) and the Contra Costa County 2045 General Plan. Furthermore, operation and maintenance of the C.3 stormwater treatment facilities would comply with the MRP requirements through the County Clean Water Program. Therefore, construction and operation would not violate water quality standards or waste discharge requirements. Therefore, the project would have a **less-than-significant impact**.

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

Due to the underlying geology, the project site is predominantly not within a recognized Department of Water Resources groundwater basin. The eastern portion of the project site is within the Ygnacio Valley Groundwater Basin, which is considered a very low priority basin. The Sustainable Groundwater Management Act (SGMA) encourages and authorizes the submittal and implementation of a groundwater sustainability plan (GSP) for a basin designated low- or very low-priority but does not mandate it. Implementation of the project would increase the impervious area within the project site. However, the project site would be developed with stormwater retention basins, bioretention areas, flow through planters, and landscaping. These features would decrease the volume of stormwater

runoff, treat runoff, and allow runoff to infiltrate prior to discharge into the municipal storm drain. Recharge in the area would continue to occur through infiltration of precipitation. Groundwater supplies would not be used for construction activities or project operation, and no groundwater pumping or dewatering is anticipated. Groundwater was observed at depths of approximately 12 to 16 feet below existing grade, which is below the maximum depth of project excavation (9 feet), although historic high groundwater levels in the site vicinity are less than 10 feet below grade (Geocon 2024). Therefore, the project would have a **less-than-significant impact**.

- c) *Would the project 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 that would:*

- i) *Result in substantial erosion or siltation on- or off-site,*

During construction, existing drainage patterns could temporarily be altered through minor grading, potentially resulting in temporary increased erosion. Construction BMPs would be implemented to manage runoff and potential erosion, that would be described in the SWCP for erosion and sediment control such as wetting dry and dusty surfaces to prevent fugitive dust emissions and installing an effective soil cover (e.g., geotextiles, straw mulch) and installation of fiber rolls to capture particles that have already been dislodged. Implementation of the project would result in the addition of impervious surface cover. However, the project site would include stormwater retention basins, bioretention areas, flow through planters, and landscaping, which would decrease stormwater runoff and any mobilization of sediment. As a result, soil disturbance would be minimized and associated soil erosion and siltation impacts would be reduced. Therefore, the project would have a **less-than-significant impact**.

- ii) *Substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site;*

During construction, existing drainage patterns could temporarily be altered, potentially resulting in increased runoff or flooding. Construction BMPs would be implemented to manage runoff or flooding that would be described in the SWCP. The project would result in an increase in impervious surface area compared to existing conditions. An increase in impervious cover could result in increased surface runoff rates and volumes. However, the project site would include stormwater retention basins, bioretention areas, flow through planters, and landscaping. These features would decrease the rate and volume of stormwater runoff and allow runoff to infiltrate prior to discharge into the municipal storm drain. A SWCP would be required for review and approval by the Contra Costa County Public Works Department/Clean Water Program, in compliance with the Stormwater Management and Discharge Control Ordinance (Section 1014) and MRP. Runoff would be managed according to the approved SWCP to ensure that site drainage features are appropriately sized and connected to drainage infrastructure off-site. Therefore, the project would have a **less-than-significant impact**.

- iii) *Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or*

Most of the site currently drains west via overland flow towards Blackwood Drive, where runoff is collected by existing drainage inlets within the roadway and on the project parcel. Runoff is routed via an existing 18-inch storm drainpipe towards Grayson Creek to the east of the project site. The project would increase the area of impervious cover which would increase runoff if not managed.

Runoff would be managed onsite with the inclusion of bioretention areas, flow through planters, and landscaping. The SWCP process would ensure that site drainage and features would be appropriately sized and connected to the off-site drainage infrastructure. Therefore, the project would not create or contribute to runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. The project would have a **less-than-significant impact**.

iv) impede or redirect floodflows?

The proposed project would demolish and reconstruct an operational fire station on the same site. During construction, the drainage pattern of the site may be temporarily altered. The project site is within Federal Emergency Management Agency (FEMA) Zone AE, the 100-year Floodplain Zone where base flood elevations are known (FEMA 2009). Grayson Creek, which is within the FEMA Zone AE floodway, is approximately 70 feet from the project site. The project will raise the grade of the project site by two feet due to its location in a floodplain zone. Runoff flows would be managed through implementation of the BMPs in the approved SWCP as described above. Therefore, the project would not impede or redirect floodflows. The project would have a **less-than-significant impact**.

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

The project site is approximately 4.5 miles southeast of the Carquinez Strait and not within a mapped tsunami inundation zone (State of California 2021). There are no reservoirs adjacent to the project site; therefore, the project would not be prone to inundation by seiche. As noted above, the project site is within FEMA Zone AE, the 100-year floodplain (FEMA 2009). The project site would include, four bioretention areas, flow through planters, and landscaping which would manage treat runoff prior to discharge. Chemicals stored on-site would be appropriately stored. The project would not release pollutants due to project inundation. Therefore, the project would have **less-than-significant impact**.

e) Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

As noted above, the proposed project would comply with the applicable water quality objectives for the region through implementation of federal, state, and local requirements. Therefore, the project would have **no impact**.

2.10.2 Sources of Information

Federal Emergency Management Agency. 2009. *National Flood Hazard Layer Viewer*.

Map #06013C0277F, June 16, 2009. Available: <https://hazards-fema.maps.arcgis.com/apps/webappviewer/index.html?id=8b0adb51996444d4879338b5529aa9cd>. Accessed: November 19, 2025.

Geocon Consultants, Inc. 2024. Fire Station No. 9 Replacement 209 Center Avenue Pacheco, California Geotechnical Investigation. June.

State of California. 2021. *Tsunami Hazard Area Map, Contra Costa County* (displayed at multiple scales). Produced by the California Geological Survey and the Governor's Office of Emergency Services.

2.11 Land Use and Planning

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than- Significant Impact	No Impact
Would the project:				
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?	☐	☒	☐	☐

2.11.1 Discussion

a) Would the project physically divide an established community?

The project site is in the unincorporated community of Pacheco, about 0.3 mile east of the Martinez city limit. The project site is bordered to the north, south, and west by residences and commercial structures to the east. North of the project is a medium density apartment complex and a commercial building. Single family homes are immediately south and west of the project site. Grayson Creek is directly east of the project site, with retail development across Grayson Creek to the east. Hayden/Pacheco Creekside Park is northeast of the project site across Center Avenue.

The project would demolish and replace an existing fire station with a larger facility of the same type. It does not include features, such as new roads or barriers, that would divide an existing community. Therefore, the project would have **no impact**.

b) Would the project 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?

The project site carries a Contra Costa County 2045 General Plan land use designation of Mixed-Use Community Specific (MUC), allowing for “various housing types, including tiny homes, townhouses, condominiums, apartments, studios, live-work units, and micro-units, along with a wide range of neighborhood- and community-serving retail, personal service, office, hospitality, entertainment, and public uses” (ArcGIS 2025; Contra Costa County 2024). The project site is zoned R-7, Single-Family Residential, under which governmental structures, including fires stations, are a permitted use.

The project replaces an existing fire station on the project site with a new, larger fire station and would be consistent with the intent and assumptions of the MUC land use designation and R-7 zoning designation.

The General Plan Conservation, Open Space, and Working Lands Element calls for the protection of unknown cultural and paleontological resources in the event of discovery (COS-P10.7); however, with mitigation measures CUL-1 and GEO-1, impacts are less than significant. In addition, without the implementation of BMPs to minimize the generation of fugitive dust, project-related fugitive dust emissions would be potentially significant under the Bay Area Air Quality District’s standards. Mitigation Measure AQ-1 requires implementation of the Air District’s Basic Best Management Practices for Construction-Related Fugitive Dust Emissions to reduce construction-related fugitive dust impacts during all phases of construction. Implementation of Mitigation Measure AQ-1 would reduce this conflict to a less-than-significant level. Similarly, conflicts in relation to regulations that

protect special status wildlife species and migratory birds are reduced to less than significant levels through Mitigation Measures BIO-1 through BIO-3. The project would involve the removal of approximately eight mature redwood trees and 15 smaller trees; however, tree removal is exempt from the County's tree protection and preservation ordinance because the parcel is owned by the County (CCCMC 816-6.1002[6]). The project's potential conflict with noise standards established in General Plan Policies HS-P14.5 and HS-P14.7 would be mitigated to less-than-significant levels through implementation of Mitigation Measures NOI-1 and NOI-2, which would minimize noise impacts on surrounding land uses.

The project would not 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 with implementation of the above mitigation measures. Therefore, the project would have a **less-than-significant impact with mitigation incorporated**.

2.11.2 Sources of Information

ArcGIS. 2025. CC Map. Available: <https://www.arcgis.com/apps/webappviewer/index.html?id=92d542bcb39247e8b558021bd0446d18>. Accessed: November 17, 2025.

Contra Costa County. 2024. *Contra Costa County 2045 General Plan*. Adopted November 5, 2024. Available: <https://www.contracosta.ca.gov/4732/General-Plan>. Accessed: November 10, 2025.

2.12 Mineral Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than- Significant Impact	No Impact
Would the project:				
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?	☐	☐	☐	☒

2.12.1 Discussion

- a) *Would the project 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?*
- No known mineral resources are present within the project site (California Department of Conservation 2025). A geotechnical report prepared for the project does not indicate the presence of mineral resources on the project site (Contra Costa County Public Works Department 2024). Therefore, the project would not result in the loss of availability of any known mineral resource that would be of value to the region and the residents of the state. Therefore, the project would have **no impact**.
- b) *Would the project 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 local general plan, specific plan or other land use plan identifies known mineral resources within the project site (Contra Costa County 2024). Therefore, the project would not result in the loss of availability of any locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan. Therefore, the project would have **no impact**.

2.12.2 Sources of Information

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Contra Costa County. 2024. *Contra Costa County 2045 General Plan: Conservation, Open Space, and Working Lands Element*. Available: <https://www.contracosta.ca.gov/DocumentCenter/view/84948/Chapter-7--Conservation-Open-Space-and-Working-Lands-Element-PDF>. Accessed: November 17, 2025.

Contra Costa County Public Works Department. 2024. *Geotechnical Investigation: Fire Station No. 9 Replacement, 209 Center Avenue, Pacheco, California*. Prepared by Geocon Consultants, Inc.

2.13 Noise

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than- Significant Impact	No Impact
Would the project:				
a) Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance or applicable standards of other agencies?	☐	☒	☐	☐
b) Generate excessive groundborne vibration or groundborne noise levels?	☐	☒	☐	☐
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 2 miles of a public airport or public use airport, expose people residing or working in the project area to excessive noise levels?	☐	☐	☒	☐

2.13.1 Discussion

Noise can be described as any loud, unexpected, or annoying sound. The loudness of the noise source and obstructions or atmospheric factors affecting the propagation path to the receptor determine the sound level and characteristics of the noise perceived by the receptor. The standard unit of measurement of the loudness of sound is the decibel (dB). Because the human ear is not equally sensitive to sound at all frequencies, the A-weighted decibel scale (dBA) was devised to relate noise to human sensitivity because it gives greater weight to the frequencies of sound to which the human ear is most sensitive. The human ear can detect changes in sound levels of approximately 3 dBA under normal conditions. A change of 5 dBA is noticeable to most people in an exterior environment.

Different metrics are used to evaluate the effects of noise on a community. The equivalent sound level (L_{eq}) represents an average of the sound energy occurring over a specified period, typically 1 hour. The maximum sound level (L_{max}) refers to the root-mean-square (rms) sound level corresponding to the loudest 1second interval occurring during the measurement. The day/night level (DNL)is an average of all noise levels recorded over a 24-hour period, with a 10 dBA penalty added to noise levels occurring during nighttime hours between 10:00 p.m. and 7:00 a.m.

The primary source of existing noise in the project area is traffic on local roads, including Center Avenue, Pacheco Boulevard, Aspen Drive, and Blackwood Drive. Other noise sources include periodic aircraft overflights and general residential sources (e.g., air conditioners and landscaping activities). In addition, the existing fire station at the project site is a source of intermittent vehicle and siren noise. The closest airport to the project site is Buchanan Field Airport, a public airport approximately 0.4 mile east of the project site in the city of Concord.

To establish the existing noise environment, long-term noise monitoring was conducted at three locations on April 28 and 29, 2025. The purpose of long-term noise measurement is to establish the existing DNL in a project area and characterize the daily trend in noise levels throughout a 48-hour period.

The monitoring results are summarized in Table 2.13-1.

Table 2.13-1. Summary of Noise Measurement Results

Site	Description	Day 1 ^a 24-Hour Noise Level (dBA DNL)	Day 2 ^b 24-Hour Noise Level (dBA DNL)	Average Daytime Noise Level (dBA Leq)	Average Nighttime Noise Level (dBA Leq)
LT-1	Southeast corner of Center Avenue and Blackwood Drive	64.9	65.2	62.0	57.8
LT-2	Blackwood Drive, south of South 1 st Avenue	66.6	64.6	64.4	57.4
LT-3	Pantano Lane, west of Aspen Drive	64.3	63.7	61.2	56.5

^a. Day 1 was from 12:00 a.m. April 28, 2025, to 12:00 a.m. April 29, 2025.

^b. Day 2 was from 12:00 a.m. April 29, 2025, to 12:00 a.m. April 30, 2025.

dBA = A-weighted decibel level, a logarithmic measurement scale that approximates the frequency response of the human ear.

Daytime noise level = average noise level calculated from measured hourly noise levels between 7:00 a.m. and 10:00 p.m.

Nighttime noise level = average noise level calculated from measured hourly noise levels between 10:00 p.m. and 7:00 a.m.

DNL = day-night sound level. DNL describes the average acoustical energy content of noise for a 48-hour period. Nighttime hours between 10:00 p.m. and 7:00 a.m. are assigned a 10 dB penalty to account for human sensitivity to noise at night.

Leq = equivalent sound level. Leq describes the average acoustical energy content of noise for an identified period of time, commonly 1 hour.

Sensitive Receptors

Sensitive receivers are defined as locations that are sensitive to noise and vibration, such as residences, schools, transient lodging (e.g., hotels), and hospitals. Land uses and the closest noise-sensitive receptors surrounding the project site include single-family residential uses to the south and west along Blackwood Drive and to the north along Center Avenue, multi-family residences further north along Aspen Drive and Pantano Lane, and the Gospel Light Church on Aspen Drive. The closest single-family residences to the project site are located along Blackwood Drive. Across Blackwood Drive and Center Avenue, single-family residences are 65 and 70 feet away, respectively. Multi-family residences are approximately 255 feet northwest of the project site. The Gospel Light Church is approximately 230 feet north of the project site.

- 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?*

Project-related noise would occur because of construction and operation. However, the current land use, an existing fire station, also generates noise. In addition, vibration would occur as a result of demolition of the existing fire station building and the operation of construction equipment.

Construction Noise

The assessment of noise levels from heavy construction equipment was based on equipment data provided in Federal Transit Authority (FTA) guidance (FTA 2018). The heavy equipment needed for each construction phase is listed in Table 2.13-2, along with reference noise levels for each equipment type.

Table 2.13-2. Construction Phases and Reference Noise Levels of Equipment Types

Construction Phase	Equipment	Reference Noise Level at 50 Feet (dBA)	Number of Pieces	Hours/Day
Demolition	Concrete saw/industrial saw	90	1	8
	Rubber-tired dozer	85	1	1
	Tractor/loader/backhoe	80	2	6
Site preparation	Grader	85	1	8
	Tractor/loader/backhoe	80	1	8
Trenching/utilities	Tractor/loader/backhoe	80	1	8
Building shell	Crane	83	1	4
	Forklift	80	2	6
	Tractor/loader/backhoe	80	2	8
Architectural coating	Air compressor	80	1	6
	Aerial lift	73	1	6
Paving	Cement and mortar mixer	85	4	6
	Paver	85	1	7
	Roller	85	1	7
	Tractor/loader/backhoe	80	1	7

Sources: Contra Costa County Public Works Department 2025; FTA 2018; Federal Highway Administration 2006.

As shown, typical sound levels for heavy construction equipment are in the range of 73 to 90 dBA L_{eq} at a reference distance of 50 feet. The construction noise level at a given receiver location would depend on the type of construction activity as well as the distance and shielding between the activity and noise-sensitive receivers. To characterize the source level of the worst-case noise condition during each phase of project construction, the two loudest pieces of equipment were assumed to be operating simultaneously at a work area perimeter location.

The worst-case noise exposure at the nearest sensitive receptors was determined by combining the noise levels of the two loudest pieces of equipment that could operate at the same time. Construction equipment noise levels, listed by project phase, are shown in Table 2.13-3.

Construction would be done during the allowed hours specified in General Plan Policy HS-P14.7, which requires noise-generating construction activities be limited to weekdays and non-holidays between the hours of 7:30 a.m. to 5:00 p.m. within 1,000 feet of noise-sensitive uses and the hours of 7:00 a.m. to 6:00 p.m. if beyond 1,000 feet from noise-sensitive uses (Contra Costa County 2024). Night construction work would not occur. The loudest construction equipment would be used during the demolition phase, which could result in a combined noise level of 91 dBA L_{max} at 50 feet; this would exceed the FTA daytime criterion at 57 feet. Given the levels indicated in Table 2.13-3, construction activities would be readily audible at residential receptors adjacent to the project site. However, the use of heavy equipment at the site would be temporary and intermittent and would cease at the end of each day during the construction period.

Table 2.13-3. Construction Noise Levels by Activity and Distance to Allowable Sound Levels

Construction Activity	Loudest Equipment Types Used	Worst-Case Combined Source Level at 50 feet (L_{max}, dBA)	Distance to Daytime Sound-Level Limit of 90 dBA L_{eq} (feet)^a	Distance to Nighttime Sound-Level Limit of 80 dBA L_{eq} (feet)^a
Demolition	Concrete saw, dozer	91	57	181
Site Preparation	Grader, loader	86	32	102
Trenching/Utilities	Backhoe	80	16	50
Building Shell	Crane, backhoe	85	27	87
Architectural Coating	Air compressor, aerial lift	81	17	55
Paving	Cement mixer, paver	88	40	126

^a The maximum distance where the combined equipment level may exceed FTA criteria.

Note: Distance calculations do not include the effects, if any, of local shielding from walls, topography, or other barriers that may further reduce sound levels.

L_{eq} = equivalent sound level; dBA = A-weighted decibel

The nearest residential structure is on Blackwood Drive about 10 feet from the southern property line of the project site. The single family residences on Blackwood Drive are about 50 feet away from the western property line, and the single family residences on Center Avenue are about 75 feet away from the northern property line. Due to the proximity of the closest residence on Blackwood Drive, noise levels would exceed FTA daytime noise criteria at this location during the site preparation and paving phases of construction because construction would extend up to the property line during these phases of construction, resulting in a potentially significant impact. Noise during construction may exceed the FTA daytime criteria at the multi-family residences as well; however, this would occur only when equipment is operated at full power at locations near the residences. This would occur infrequently, because the proposed parking areas would be adjacent to the property line, and the proposed building would be farther from residences. Given the potential for construction noise to exceed FTA standards, this impact is potentially significant. Implementation of **Mitigation Measure NOI-1**, below, would minimize the potential for community annoyance through best noise control practices. With implementation of **Mitigation Measure NOI-1**, the project would have a **less-than-significant impact with mitigation incorporated**.

Mitigation Measure NOI-1: Implement Noise Control Practices During Construction

The project sponsor shall require its contractor(s) to implement noise control practices during demolition and construction to minimize noise levels in the community. Best practices to minimize construction noise include the following:

- Locating stationary equipment (e.g., generators, pumps, cement mixers, idling trucks) as far as possible from noise-sensitive land uses.
- Requiring that all construction equipment powered by gasoline or diesel engines have sound-control devices such as exhaust mufflers that are at least as effective as those originally provided by the manufacturer and that all equipment be operated and maintained to minimize noise generation.

- Preventing excessive noise by shutting down idle vehicles or equipment.
- Using noise-reducing enclosures around noise-generating equipment.
- Notifying adjacent residents in advance of construction work.

During operation, noise would be generated by mobile sources, primarily fire station vehicles, including vehicles with emergency sirens, and traffic associated with the project. In addition, noise at the site would be generated intermittently by heating, ventilation, air-conditioning (HVAC) equipment; an emergency alert system; and an emergency generator. The project would replace an existing fire station and occupy the same location; thus, many sources of operational noise would be similar to those under existing conditions. Each source of operational noise is described below.

Fire Station Vehicles

The existing fire station is currently a source of noise from sirens and emergency vehicles. Sirens on fire station vehicles are required to be operated in accordance with California Vehicle Code Section 21055, which states that sirens should be sounded “as may be reasonably necessary.” In principle, the use of sirens depends heavily on traffic conditions at the time of an emergency call; the use of sirens may not always be necessary. Based on previously conducted modeling, sirens may produce a maximum noise level of 85 to 97 dBA at 50 feet (Los Angeles Bureau of Engineering 2016). This would be readily noticeable above existing ambient levels for a short duration as an emergency vehicle passes by a given location.

The project would replace an existing fire station and occupy the same location. As described in the transportation analysis technical memorandum (Fehr & Peers 2025) prepared for the project, the response area would not change as a result of the proposed project. According to service call data provided by the County, the station responds to an average of eight or nine incidents per day, with a total of 3,054 calls in 2024. Because the response area would be the same following redevelopment, zero net new calls would need to be served by the redeveloped Fire Station 9. The number of vehicles responding to incidents would vary each day, similar to existing conditions. Because there would be a net-zero increase in the use of emergency vehicles as a result of the project, a noticeable increase in noise from fire station vehicles would not occur based on the frequencies from the incident response data. The project would have a **less-than-significant impact**.

Emergency Alert System

Similar to existing conditions, the project would include an emergency alert system to notify the on-site staff of an emergency call for service. This type of system creates noise and is activated by an electronic signal received from a dispatch center. The system includes a speaker behind the apparatus bay on the east side of the building. According to the Fire District, the system would be used only when personnel are working outdoors and need to be alerted; it would be turned off at night between 8:00 p.m. and 8:00 a.m. Although emergency alerts may be audible at the nearest noise-sensitive receivers on an occasional basis, they would not be used at night and would not be expected to contribute to an overall increase in ambient levels at nearby residences. The impact of the project would be **less than significant**.

Traffic Generation

Similar to existing conditions, the project would generate traffic from employee trips, fuel trucks, and visitors. Traffic volumes on local roads near the fire station site were calculated by Fehr & Peers under no-project and with-project scenarios. As shown in transportation analysis memorandum

(Fehr & Peers 2025), traffic volumes under with-project scenarios would increase by less than 1 percent compared to the no-project scenario, which would be less than a 40 percent average daily traffic (ADT) increase threshold for a traffic noise analysis, as stated in General Plan Policy HS-P14.8. The transportation analysis memorandum also indicates the project would generate 22 new vehicle trips in addition to the 20 trips under existing conditions. This incremental increase in the number of vehicle trips would produce a traffic noise level of up to 50 dBA DNL. With an existing ambient noise level of 67 dBA DNL, the incremental increase in noise from new vehicle trips would be less than 0.1 dB. This magnitude of increase would not be noticeable above existing conditions. The project would have a **less-than-significant impact**.

Building HVAC System

The proposed building would include an HVAC system that would generate steady-state noise on an intermittent basis. While the existing fire station includes HVAC equipment, the HVAC system for the project would be larger, would require different equipment, and the equipment on the roof of the proposed station would be closer to residences on Blackwood Drive compared to the equipment at the existing station. Noise levels from HVAC equipment vary but generally depend on the make/model and size (capacity) of the HVAC system. The HVAC system for the project would consist of two heat recovery units, three heat pumps, two energy recovery ventilators, two supply fans, and two exhaust fans on the roof. At 50 feet, HVAC equipment could produce a sound level of up to 75 dBA (Hoover & Keith 2000). Typically, this type of equipment includes a sound attenuating feature such as a screen, enclosure, or building parapet; however, this has not yet been specified.

Because the fire station would be used as sleeping quarters, the HVAC system could be operational anytime of the day or night. As described in the noise measurement results in Table 4, nighttime ambient levels would be about 57 dBA (1-hour L_{eq}) around the project site, with an average value of 65 dBA DNL. Depending on the location and orientation of the system relative to the property, HVAC equipment could be located as close as 80 feet from the nearest residence, resulting in a noise level of up to 71 dBA (1-hour L_{eq}), assuming no sound attenuating features are included. This would be noticeable above ambient levels. In terms of DNL, this would result in an increase of more than 1.5 dB above General Plan noise standards under Policy HS-P14.5, a potentially significant impact. Implementation of **Mitigation Measure NOI-2**, below, would reduce the potential for the HVAC system to exceed General Plan noise standards through installation of noise attenuating features.

Emergency Generator

While the existing fire station includes an emergency generator adjacent to the current building along Center Avenue, the emergency generator for the project would be larger and closer to residences compared to the existing station. Under the proposed project, an emergency generator would be installed inside a structure that would be separate from the main fire station along the southern perimeter of the project site. The generator would be operated intermittently (e.g., on an emergency basis during power outages). In addition, the generator would require weekly tests, during which time it would run for 30 minutes. Every year, the generator would run for 2 hours. Every 3 years, it would require a 4-hour test. Without a ventilated acoustic enclosure, generators produce a steady-state noise level of up to 82 dBA at 50 feet (Hoover & Keith 2000).

The generator would be located along the southern boundary of the site approximately 20 feet away from the nearest residence, which is to the south on Blackwood Drive. At that location, the noise level from the generator could be up to 90 dBA (1-hour L_{eq}). At the nearest residences on Blackwood Drive, about 80 feet away from the generator location, the noise level would be up to 78 dBA (1-hour

L_{eq}). Although the generator would produce noise only on an occasional basis, it would contribute to a significant increase in noise levels during outages and testing and be readily noticeable above ambient levels, which were measured at 57 dBA (1-hour L_{eq}) during nighttime hours in this area. In terms of DNL, operation of the generator would result in an increase of more than 1.5 dB above General Plan noise standards stated in Policy HS-P14.5. Due to the substantial increase above ambient levels during operation of the generator, this impact is potentially significant. Implementation of **Mitigation Measure NOI-2**, below, would reduce the potential for the emergency generator to exceed General Plan noise standards through installation of noise attenuating features.

Mitigation Measure NOI-2: Design Noise Attenuation for the HVAC System and Emergency Generator Enclosure to Meet County Noise Standards

The project sponsor shall require its contractor(s) to implement this measure to ensure that operational noise levels shall not exceed the County standard of 1.5 dB above ambient DNLs found in the General Plan. This can be achieved through low-noise equipment specifications or acoustic treatments such as louvers or silencers. Verification noise monitoring shall be conducted to confirm that acoustic treatments will reduce operational noise to comply with the General Plan. The acoustic treatments for the HVAC system and emergency generator shall include, but are not limited to, the following:

- Enclosing noise-generating mechanical equipment;
- Installing relatively quiet models of air handlers, exhaust fans, and other mechanical equipment;
- Using mufflers or silencers on equipment exhaust fans;
- Orienting or shielding equipment to protect noise-sensitive receptors to the greatest extent feasible;
- Increasing the distance between noise-generating equipment and noise-sensitive receptors; and
- Placing barriers around the equipment to facilitate the attenuation of noise.

With implementation of **Mitigation Measure NOI-2**, the project would have a **less-than-significant impact with mitigation incorporated**.

b) Would the project generate excessive groundborne vibration or groundborne noise levels?

Construction Vibration

Ground-borne vibration during project construction was analyzed using the methodology from the FTA Manual. Vibration source levels (expressed in terms of peak particle velocity (PPV) in inches per second and root-mean-square VdB at a reference distance of 25 feet from the source) for the typical construction equipment proposed for the project are shown in Table 2.13-4. According to project-specific information provided by the Fire District, construction of the project would not require impact equipment such as pile drivers, which would otherwise be the most vibration-intensive construction equipment. Therefore, for this project, a vibratory roller (source vibration level with a PPV of 0.210 inch per second at 25 feet) is expected to produce the highest vibration levels of the equipment types to be used.

Table 2.13-4. Reference Vibration Levels of Construction Equipment

Equipment	PPV at 25 Feet	PPV at 50 Feet	PPV at 75 Feet	PPV at 100 Feet
Vibratory roller	0.210	0.074	0.040	0.026
Large bulldozer	0.089	0.032	0.017	0.011
Loaded trucks	0.076	0.027	0.015	0.010
Jackhammer	0.035	0.012	0.007	0.004
Small bulldozer	0.003	0.001	0.001	< 0.001

Source: FTA 2018.

PPV = peak particle velocity

The nearest residential structure is on Blackwood Drive about 10 feet from the southern property line of the project site. Although project-related construction vibration would be temporary and intermittent and would cease once construction is complete, vibratory rollers and other heavy equipment may result in perceptible vibration at the nearest residence when such equipment is operated near the structure. Table 2.13-5 identifies the damage potential thresholds associated with vibration generated by construction activities.

Table 2.13-5. Maximum Vibration Levels for Preventing Damage to Buildings

Building Category	Limiting Velocity (PPV in inch/ second)	Approximate Maximum Vibration Level (VdB)
Reinforced concrete, steel, or timber (no plaster)	0.5	102
Engineered concrete and masonry (no plaster)	0.3	98
Non-engineered timber and masonry buildings	0.2	94
Buildings that are extremely susceptible to vibration damage	0.12	90

Source: Federal Transit Administration 2018.

PPV = peak particle velocity; VdB = root-mean-square velocity in decibels (1 micro-inch/second)

At a distance of 10 feet, vibration levels could have a PPV of up to 0.83 inch per second during use of a vibratory roller and up to 0.35 inch per second during use of a bulldozer. These levels of vibration would be readily perceptible to the nearest structure to the south and exceed the building damage criteria in Table 2.13-5 at this location. At the next-nearest residences across Blackwood Drive, vibration from the use of heavy equipment could be slightly perceptible to people inside the buildings but would not result in structural damage. Due to exceeding the building damage criteria at one residence, this impact is potentially significant. Implementation of **Mitigation Measure NOI-3**, below, would reduce the potential for vibration damage to adjacent buildings and structures through vibration control planning, monitoring and building damage mitigation.

With implementation of **Mitigation Measure NOI-3**, the project would have a **less-than-significant impact with mitigation incorporated**.

Mitigation Measure NOI-3: Protect Adjacent Buildings/Structures and Vibration Monitoring During Construction

The project sponsor shall require its contractor(s) to implement a vibration management and monitoring plan during demolition and construction to 1) avoid project-related construction vibration damage to adjacent buildings and/or structures and 2) ensure that any such damage is documented and repaired. The vibration management and monitoring plan shall include the following components, as applicable:

- **Pre-construction Survey.** Prior to the start of any ground-disturbing activity, the project sponsor or its contractor(s) shall engage a structural engineer or other professional consultant with similar qualifications to undertake a pre-construction survey of the residential building just south of the project site that may be affected and document and photograph the existing conditions.
- **Use of Alternative Construction Equipment and Techniques.** The plan shall identify potential alternative equipment and techniques that could be implemented if construction vibration levels are observed in excess of the established standard (e.g., smaller, lighter equipment could be used in some cases).
- **Buffer Distances.** The plan shall identify buffer distances to be maintained, based on vibration levels and site constraints, between vibration-generating construction equipment and the potentially affected building and/or structure to avoid damage to the extent possible.
- **Maximum Vibration Level.** Based on the anticipated construction and condition of the residential structure, a qualified acoustic/vibration consultant shall establish a maximum vibration level that shall not be exceeded at each building/structure on adjacent properties, based on existing conditions, character-defining features, soil conditions, and anticipated construction practices.
- **Vibration Monitoring.** The plan shall identify the method and equipment for vibration monitoring to ensure that construction vibration levels do not exceed the established standards identified in the plan. Should construction vibration levels be observed in excess of the standards established in the plan, the contractor(s) shall halt construction and put alternative construction techniques identified in the plan into practice, to the extent feasible. If vibration has damaged nearby buildings, the structural engineer shall immediately notify the County and prepare a damage report documenting the features of the building and/or structure that have been damaged.
- **Periodic Inspections.** The plan shall identify the intervals and parties responsible for periodic inspections. The structural engineer shall conduct periodic inspections of the residential structure (as allowed by property owner) during vibration-generating construction activity on the project site. The plan will specify how often inspections occur.
- **Repair Damage.** The plan shall also identify provisions to be followed should damage to any building and/or structure occur due to construction-related vibration. The residential structure shall be remediated to pre-construction conditions (as allowed by property owner) at the conclusion of vibration-generating activity on the site.

Operation Vibration

Like existing conditions, operation of the project would include the use of fire station vehicles with rubber tires, which would not be a source of substantial vibration. Projects that involve the use of rubber-tired vehicles rarely show any potential for vibration impacts. For example, a loaded heavy truck, similar to a fire station vehicle, produces a vibration level with a PPV of less than 0.1 inch per second at 25 feet. At that level, vibration would generally not be noticeable. Therefore, it is not anticipated that vehicles accessing the project site would generate perceptible levels of vibration at surrounding land uses. No other aspects of project operation would generate a noticeable level of vibration. Ground-borne vibration from the operation of the project would not result in building damage or a negative community reaction. The project would have a **less-than-significant impact**.

- 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 2 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?*

Buchanan Field Airport is a public-use airport approximately 0.4 mile east of the project site. According to the 2000 Contra Costa County Airport Land Use Compatibility Plan (ALUCP), the project site falls outside the 50–55 dBA Community Noise Equivalent Level (CNEL) contour (Contra Costa County Airport Land Use Commission 2000). The project would consist of sleeping quarters (i.e., residential uses). The 2000 ALUCP designates this land use category as “normally acceptable” and “clearly acceptable” within the 50–55 dBA CNEL contour, according to the noise compatibility criteria in the ALUCP. Because of this, the project would not conflict with the land use restrictions found in the ALUCP.

The project would have a **less-than-significant impact**.

2.13.2 Sources of Information

Contra Costa County. 2024. *Contra Costa County 2045 General Plan: Chapter 9, Health and Safety Element*. Adopted November 2, 2024. Available: <https://www.contracosta.ca.gov/DocumentCenter/View/84949/Chapter-8---Public-Facilities-and-Services-Element-PDF>.

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Los Angeles Bureau of Engineering. 2016. *Van Nuys Fire Station 39 Project Draft Environmental Impact Report*. Prepared by ICF.

2.14 Population and Housing

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than- Significant Impact	No Impact
<i>Would the project:</i>				
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?	☐	☐	☐	☒

2.14.1 Discussion

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 in an urbanized, unincorporated area of Contra Costa County (USGS 2025). The project involves the replacement of the existing fire station with a larger, more modern fire station on the same site; the project does not include new homes or businesses that could directly induce population growth. The new fire station is anticipated to employ an additional six fire personnel drawn from the nearby population and would not result in substantial population growth in Contra Costa County. No extension of roads or other infrastructure is proposed that could directly or indirectly induce population growth. Therefore, the project would have a **no impact**.

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

The project would replace an existing fire station on the same site. It would not displace any existing people or housing; as such, no replacement housing is necessary. Therefore, the project would have **no impact**.

2.14.2 Sources of Information

U.S. Geological Survey. 2025. Pacheco. Geographic Names Information Service Database. Available: <https://edits.nationalmap.gov/apps/gaz-domestic/public/search/names/1659330>. Accessed: November 21, 2025.

2.15 Public Services

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

2.15.1 Discussion

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

Fire Protection?

The project involves the replacement of the existing fire station with a larger, more modern fire station on the same site allowing the fire station to adequately meet existing and forecasted demand and comply with the response time standards presented in the Contra Costa County General Plan (Contra Costa County 2024). As previously discussed within this IS/MND, the project would result in physical impacts associated with the provision of a new government facility (fire station); all of which are mitigated to less than significant (see mitigation measures AQ-1, BIO-1 through BIO-3, CUL-1, GEO-1, NOI-1 through NOI-3, and TRA-1).

Over the past 5 years, Fire Station 9 experienced a 26.93 percent increase in calls, and anticipates the trend of an approximate 5-percent-per-year increase in calls to continue (Dutter pers comm). The response area of Fire Station 9 will not be increased; the expanded facilities, six additional fire personnel, and additional fire engine will result in quicker response times and more effective service.

Project construction is anticipated to begin in late 2026 and take 17 months to complete. During project construction the fire station would not be operational, thus the surrounding fires stations would be required to temporarily absorb the workload of Fire Station 9. The three nearest fire stations, all within a 3-mile radius of Fire Station 9, are:

- **Fire Station 6:** One Type 1 engine, 1 truck, 1 battalion vehicle, and 21 employees, approximately 2 miles southeast of Fire Station 9 (United Professional Firefighters of Contra Costa County 2024; Google Earth 2025).
- **Fire Station 5:** One Type 1 engine and three employees approximately 2.7 miles to the south of Fire Station 9 (United Professional Firefighters of Contra Costa County 2024; Google Earth 2025).
- **Fire Station 13:** Approximately 2.8 miles to the west of Fire Station 9.

During construction, the current Fire Station 9 staff and resources would be temporarily reassigned and continue to serve at nearby facilities to help alleviate the increased demand on surrounding stations.

The project could therefore affect service ratios, response times, or other performance objectives for fire protection during construction, but will ultimately serve to improve service ratios, response times, and performance objectives for fire protection in the long term. Therefore, the project would have a **less-than-significant impact with mitigation incorporated**.

Police Protection?

The project would not result in population growth, nor does it propose new land uses that increase demands on police services; as such, the project would not affect service ratios, response times, or other performance objectives for police protection. Construction of a new or expanded police station would not be required. Therefore, the project would have **no impact**.

Schools?

The project site is within the Mt. Diablo Unified School District, and the neighborhood is served by Hidden Valley Elementary School, Valley View Middle School, and College Park High School (Mt. Diablo Unified School District 2025). The addition of six fire personnel to new fire station would not result in substantial population growth, nor does the project propose land uses that increase demands on school services. Therefore, the project would have **no impact**.

Parks?

Because the expansion of the fire station would not result in population growth, nor does it propose land uses that increase demands on park services, no construction of new or expanded parks would be required. Therefore, the project would have **no impact**.

Other Public Facilities?

The project would not result in population growth, nor does it propose land uses that increase demands on other public facilities including civic, library, medical, and other community facilities. Therefore, the project would have **no impact**.

2.15.2 Sources of Information

Contra Costa County. 2024. *Contra Costa County 2045 General Plan*. Adopted November 2, 2024.

Available: <https://www.contracosta.ca.gov/DocumentCenter/View/84949/Chapter-8---Public-Facilities-and-Services-Element-PDF>. Accessed: November 21, 2025.

Dutter, Tracey. Assistant Fire Chief. Contra Costa County Fire Protection District, Concord, CA. April 28, 2025.—Email to Claudia Gemberling.

Google Earth. 2025. Contra Costa County. Available: <https://earth.google.com/>. Accessed: November 21, 2025.

Mt. Diablo Unified School District. 2025. *Find Your School*. Available:

<https://www.schoolsitelocator.com/apps/mtdiablo/>. Accessed: November 21, 2025.

United Professional Firefighters of Contra Costa County. 2025. Fire Station Bios. Available:

<https://www.contracostafirefighters.org/fire-station-bios>. Accessed: November 11, 2025.

2.16 Recreation

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than- Significant Impact	No Impact
<i>Would the project:</i>				
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facilities 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?	☐	☐	☐	☒

2.16.1 Discussion

Pacheco Creekside Park is northeast of the project site across Center Avenue. Pacheco Creekside Park is a 1.61-acre park built in 2011 and follows the frontage of Grayson Creek.

- a) *Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facilities would occur or be accelerated?*
- The project would replace the existing operational fire station with a larger fire station on the same site to support the equipment and staffing needs of a modern fire protection agency. The new fire station would retain its current three employees and is expected to increase staffing to include six additional employees in the future. This expansion does not result in significant population growth, nor does the project propose land uses that increase demands on park services that would increase use of existing parks or recreational facilities to a degree that would result in substantial physical deterioration. Therefore, the project would have **no impact**.
- b) *Would the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?*
- The project does not include recreational facilities or new residential development. Contra Costa County strives to provide 3 acres of local parks per 1,000 residents (Contra Costa County 2025). The new fire station’s staffing increase of 6 employees is expected to draw from the nearby population and does not represent significant population growth that would require the construction of new recreational facilities or the expansion of existing recreational facilities. Therefore, the project would have **no impact**.

2.16.2 Sources of Information

Contra Costa Public Works. 2025. *Parks and Recreation*. Available:
<https://www.contracosta.ca.gov/446/Parks-and-Recreation>. Accessed: November 21, 2025.

2.17 Transportation

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than- Significant Impact	No Impact
<i>Would the project:</i>				
a) Conflict with a program plan, ordinance, or policy addressing the circulation system, including transit, roadways, bicycle, and pedestrian facilities?	☐	☐	☒	☐
b) Conflict with or be inconsistent with State 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?	☐	☐	☒	☐

2.17.1 Discussion

In November 2025, Fehr & Peers prepared a transportation analysis memorandum (Attachment F) for the proposed project to satisfy the traffic impact requirements of Contra Costa County.

To evaluate the project’s effects on traffic operations, the intersection of Pacheco Boulevard and Center Avenue was analyzed. Weekday AM (7:00 to 9:00 a.m.) and PM (4:00 to 6:00 p.m.) peak-period turning movement counts were collected in April 2025 for the intersection on a clear-weather midweek day. Attachment F includes a summary of the traffic count data.

Two scenarios were evaluated to assess project effects:

- **Existing:** Existing traffic volumes based on traffic counts collected in 2025.
- **Existing plus Project:** Existing conditions plus estimated traffic generated by the project.

Intersection operations including delay and level of service (LOS) were evaluated using the *Highway Capacity Manual*, seventh edition, applied using the Synchro software (version 12). The intersection operations analysis (Attachment F) was conducted to determine if peak hour queues would block the fire station’s Center Avenue driveway and to provide data for the air quality and noise analyses prepared for the project.

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

Relevant transportation-related policies of the Contra Costa County 2045 General Plan include the following.

Transportation Element

TR-P2.1. In addition to any required California Environmental Quality Act (CEQA) review, evaluate the traffic operations effects of proposed projects in accordance with the County’s Transportation Analysis Guidelines and other appropriate policy supplements and transportation plans, and best practices. When operational deficiencies are identified, the treatments to address those deficiencies should first prioritize reducing the project’s vehicular

trips and collision risks and may secondarily consider adding vehicular capacity so long as the safety and movement of active modes are not compromised. Exceptions to the level of service (LOS) operational standards presented in the Transportation Analysis Guidelines may be granted if the treatments necessary to address operational deficiencies would conflict with other priorities in this General Plan and if the project is otherwise consistent with this Plan.

TR-P3.2. Minimize conflicts between vehicles and people who walk, bike, or use micromobility through careful site planning, paying particular attention to driveway locations and internal pedestrian circulation, and prioritizing safety for active modes of travel.

TR-P4.1. Plan, design, and maintain improvement projects involving County roadways in accordance with the County’s adopted Complete Streets Policy, other applicable policies (e.g., Vision Zero and other safety initiatives), planning documents such as the County ATP and CCTA Countywide Bicycle and Pedestrian Plan, and best practices (e.g., Caltrans, American Association of State and Highway Transportation Officials, and National Association of City Transportation Officials guidance).

TR-P4.4. Manage access points along arterial and collector roadways to minimize the number of new driveway or street-type intersections. Consolidate existing street and driveway intersections to limit conflict points as opportunities arise.

Growth Management Element

GM-P3.2. Through the development review process, support accommodation of transit, bicycle, and pedestrian access for new development by applying the County Transportation Analysis Guidelines, Complete Streets Policy, Active Transportation Plan, and related best practices.

As indicated in the November 2025 Fehr & Peers transportation report, the analysis follows Contra Costa County’s adopted guidelines and methods.

County Connection currently provides fixed-route and paratransit services throughout Pacheco and the rest of Contra Costa County. There are five bus stops within 0.1 mile of the project site, outlined in Table 2.17-1.

Table 2.17-1. Transit Stop Locations and Facilities

Direction	Nearest Bus Stop Location	Routes	Bus Stop Facilities
NB	Pacheco Boulevard, south of Center Avenue	18, 19, 98X, 316	Bus stop sign, shelter with bench
SB	Pacheco Boulevard, south of Center Avenue	18, 19, 28, 98X, 316	Bus stop sign, shelter with bench
WB	Center Avenue, west of Pacheco Boulevard	28	Bus stop sign
EB	Center Avenue, west of Blackwood Drive	28	Bus stop sign

Source: Fehr & Peers 2025.

Table 2.17-2, below, provides service information for the County Connection transit lines.

Table 2.17-2. Transit Line Descriptions

Route	Major Destinations	Days of Operation	Hours of Operation	Headways (minutes)
18	Martinez Amtrak, Morello Avenue, Diablo Valley College, Gregory Lane, Pleasant Hill BART	Weekdays	6:00 a.m. to 9:30 p.m.	Every 80 minutes
19	Martinez Amtrak, Pacheco Boulevard, Concord BART	Weekdays	7:00 a.m. to 7:30 p.m.	Every 90 minutes
28	Martinez Amtrak, Contra Costa Regional Medical Center, Veteran Affairs Clinic, Diablo Valley College, Concord BART	Weekdays	6:45 a.m. to 6:30 p.m.	Every 50 minutes
98X	Martinez Amtrak, Contra Costa Regional Medical Center, Walnut Creek BART	Weekdays	5:30 a.m. to 7:45 p.m.	Every 45 minutes
316	Martinez Amtrak, Morello Avenue, Arnold Drive, Diablo Valley College, Pleasant Hill BART	Weekends	7:00 a.m. to 8:30 p.m.	Every 80 minutes

Source: Fehr & Peers 2025.

The project proposes no features which conflict with existing or planned transit services and increases in ridership above the available capacities are not expected.

Pedestrian facilities in the study area include sidewalks, crosswalks, and pedestrian signals. Crosswalks and pedestrian push-button actuated signals are provided at the signalized intersection of Center Avenue and Pacheco Boulevard. Nine-foot-wide sidewalks are provided on both sides of Pacheco Boulevard, and five-foot-wide sidewalks are provided on Center Avenue, except for the south side of the overcrossing of Grayson Creek.

The project reduces potential conflicts between vehicles and pedestrians through incorporation of sidewalks abutting the fire station along Center Drive that are 10-feet-wide and along Blackwood Drive that are five-feet-wide. However, Americans with Disabilities Act (ADA) compliant curb ramps are not detailed along the project site's frontage where crossings would occur. As the project is reconstructing these sidewalks, ADA curb ramps will be required in the southeast corner of the Center Avenue/Blackwood Drive intersection along the project frontage.

The project will install two bike racks that can accommodate four bikes. Bicycle access to the site would be provided via Center Avenue or Blackwood Drive.

Center Avenue provides a Class II bike lane west of Aspen Drive (north of Center Avenue) and a Class III bike route east of Pacheco Boulevard. Center Avenue has three proposed projects in the 2025 revised list of local projects within the 2018 Countywide Bike and Pedestrian Plan, as detailed in Table 2.17-3.

Table 2.17-3. Center Avenue Complete Street Project in 2018 Countywide Bicycle and Pedestrian Plan

Limits	Description	Bikeway Class
Blackwood Drive to Contra Costa Canal	Close sidewalk gaps, widen sidewalks, upgrade pedestrian crossings, and construct Class-IV separated bikeway. Potential for two-way cycle track on south side with fewer driveways and connection to trails. Narrow curb to curb roadway to calm traffic.	Class IV
Marsh Drive to Pacheco Boulevard	Improve this section of Pacheco Boulevard with complete streets type improvements including closing sidewalk gaps, installing Class-II bike lanes, provide improved lighting in highway overpass for pedestrian comfort and personal security	Class II
Pacheco Boulevard to Blackwood Drive	Improve this section of Pacheco Boulevard with complete streets type improvements including widening the Grayson Creek bridge and installing buffered bike lanes.	-

Source: Fehr & Peers 2025.

Project construction would be done in compliance with all applicable regulations, including the required installation of Americans with Disabilities Act (ADA) compliant curb ramps in the southeast corner of the Center Avenue/Blackwood Drive intersection along the project's frontage.

A Class IV bicycle facilities is planned along Center Avenue and construction of the project would not prohibit the County's ability to implement it. Through the County's Public Works Director review and approval, future roadways would be altered to accommodate the planned Class IV bicycle facility and fire station driveways. Because the project does not conflict with a program plan, ordinance, or policy addressing the circulation system, including transit, roadways, bicycle, and pedestrian facilities, the project would have a **less-than-significant impact**.

b) Would the project conflict with or be inconsistent with State CEQA Guidelines Section 15064.3, subdivision (b)?

State CEQA Guidelines Section 15064.3(b) sets forth the criteria for assessing a project's transportation impacts using vehicle miles traveled (VMT), defined as the "amount and distance of automobile travel attributable to a project." The vehicle miles traveled analysis for the proposed project follows Contra Costa County's adopted guidelines and methods which include metrics, thresholds, and screening criteria for evaluating a project's VMT impact. Land use projects that meet the screening criteria below are presumed not to cause significant VMT impacts and do not require a detailed VMT analysis:

- Projects that:
 - Generate or attract fewer than 110 daily vehicle trips.
 - Projects of 10,000 square feet or less of non-residential space or 20 residential units or less or otherwise generating less than 836 VMT per day.
- Residential, retail, office, or mixed-use projects located within half a mile of high-quality transit.
- Residential projects with home-based VMT at 85 percent or less of the baseline County-wide average or employment projects with employee VMT at 85 percent or less of the baseline Bay Area average in areas with low VMT that incorporate similar VMT-reducing features.
- Public facilities (e.g., emergency services, passive parks, libraries, community centers, public utilities) and government buildings.

The proposed project falls under the public facility VMT screening criteria as a local-serving emergency service. Therefore, the project would have a **less-than-significant impact**.

- c) *Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?*

Vehicle access to the project site will be provided via Center Avenue and Blackwood Drive. Up to 16 employee parking spaces and two bike racks would be provided behind the building, accessible from either Blackwood Drive or Center Avenue, through automatic gates. The front parking lot, accessible from Center Avenue, would have three visitor parking spaces. The project does not propose any hazardous design features such as sharp curves or dangerous intersections, or incompatible uses.

Sight distances were evaluated based on sight distance criteria contained in the Highway Design Manual (HDM) published by Caltrans. The recommended sight distance for the intersection of streets is based on corner sight distances, with more sight distance needed for a left turn versus a right turn. The corner sight distance criterion for private road intersections was applied for evaluation purposes. The HDM recommends an equation of $D = 1.47 * V * T$ for corner sight distance, where "D" is corner sight distance, "V" is vehicle speed, and "T" is a time gap dependent on turning movement and design vehicles, which for a passenger car correlates to a "T" of 7.5 seconds for left turns and 6.5 seconds for right turns.

The posted speed limit along Center Avenue is 25 mph; Blackwood Drive does not have a posted speed limit and thus functions under the prima facie speed limit of 25 mph. Adding five mph to each speed limit, the corner sight distance for left-turning traffic is 330 feet and right-turning traffic is 290 feet for both roadways.

Drivers departing from the driveway on Blackwood Drive appear to have adequate sight distances for the conflicting southbound traffic; however, views of the northbound traffic could be obstructed by landscaping on the adjacent property. Drivers departing from the Center Avenue driveway appear to have adequate sight distance for eastbound conflicting traffic; however, views of the westbound traffic may be obstructed by the existing bridge railing.

Because of the posted speed limits and roadway configuration, the Project would not substantially increase traffic hazards. Therefore, the project would have a **less-than-significant impact**.

- d) *Would the project result in inadequate emergency access?*

Several factors determine whether a project has enough access for emergency vehicles, including the following:

- Number of access points
- Width of access points
- Width of internal roadways

The project site has two access points, with driveways at Center Avenue and Blackwood Drive and internal roadways that are designed to accommodate fire engines. The project would provide adequate emergency vehicle access. Therefore, the project would have a **less-than-significant impact**.

2.17.2 Sources of Information

Fehr & Peers. 2025. *Transportation Analysis for the Fire Station 9 Redevelopment Project (County Project No. WH728A)*. November 17, 2025.

2.18 Tribal Cultural Resources

	Potentially Significant Impact	Less than Significant Mitigation Incorporated	Less-than-Significant Impact	No Impact
<i>Would the project:</i>				
a) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe and:	☐	☒	☐	☐
i) listed in or eligible for listing in the California Register of Historical Resources or in a local register of historical resources, as defined in Public Resources Code Section 5020.1(K), or				
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.				

2.18.1 Discussion

- a) *Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe and:*
- i) *Listed in or eligible for listing in the California Register of Historical Resources or in a local register of historical resources, as defined in Public Resources Code Section 5020.1(K), or*
- ii) *A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.*

As discussed in Section 2.3, Cultural Resources, the project would not have an impact on historical and non-tribal archeological resources.

In relation to tribal cultural resources, on July 22, 2024, HELIX requested that staff at the Native American Heritage Commission (NAHC) conduct a search of their Sacred Lands File (SLF) for the presence of Native American sacred sites or human remains in the vicinity of the project site. A written response received from the NAHC on July 30, 2024, stated that the results of the SLF search were positive. Therefore, the project would result in a potentially significant impact.

Costa Contra County conducted the tribal consultation for the project. Tribes that have previously requested to be notified of projects within Contra Costa County under AB 52, which requires public agencies to consult with tribes during the CEQA process, include Wilton Rancheria and Confederated Village of Lisjan Nation (CVLN). CVLN requested consultation on February 4, 2025. Wilton Rancheria did not request consultation or provide information about resources.

The County and CVLN had a consultation meeting on March 25, 2025, and CVLN requested additional information about site records and project excavation depths. The County provided site record information and continued to correspond and consult with CVLN regarding the methods of resource investigation identification and avoidance, mitigation, and monitoring measures. Measures were agreed upon and consultation was concluded on November 19, 2025. Implementation of **Mitigation Measures TCR-1 and TCR-2 in addition to CUL-1** would require the presence of a Native American monitor when ground disturbance would occur within the agreed-upon environmentally sensitive area (ESA) and outline the process, responsibilities, and requirements of the County and CVLN in the event that potential tribal cultural resources are discovered. Therefore, the project would have a **less-than-significant impact with mitigation incorporated**.

Mitigation Measure TCR-1: Native American Monitoring.

- The ESA shall be established where excavation activities would occur in previously undisturbed soil.
- Prior to ground-disturbing activities, a CVLN tribal monitor(s) shall be retained. Archaeological tribal monitoring by tribal monitor(s) shall be conducted during all ground disturbing activities within the boundaries of the Environmentally Sensitive Area. Monitoring may be reduced or halted at the discretion of the CVLN monitor, in consultation with the County Fire as warranted by conditions such as encountering bedrock, sediments being excavated are fill, negative findings during the first 50 percent of the entire area of ground disturbance, etc. If monitoring is reduced to spot checking, spot checking shall occur when ground disturbing activities moves to a new location within the project site and/or when ground disturbance will extend to depths not previously reached (unless those depths are within bedrock). The tribal monitor shall complete daily monitoring logs that provide descriptions of the day's activities, including construction activities, locations, soil, and any cultural materials identified.
- CVLN tribal monitor(s) will have the authority to halt and redirect work should any archeological or tribal cultural resources be identified during monitoring.
- If archeological or tribal cultural resources are encountered during ground disturbing activities, work within 100 feet of the find must halt and the find must be evaluated for listing in the CRHR and NRHP.

Mitigation Measure TCR-2. Unanticipated Discovery of Archaeological and/or Tribal Cultural Resources

- The Contractor shall be notified of the possibility of encountering archaeological and/or tribal Cultural materials during ground-disturbing activities. A standard inadvertent discovery clause will be included in every construction contract to inform Contractors of requirements during construction.

- Prior to the initiation of construction activities, a qualified archaeologist and tribal monitor shall provide Worker Environmental Awareness Program (WEAP) training to construction personnel with an overview of applicable laws, Project mitigation measures, and procedures to be followed with regards to historical, archaeological, and tribal resources that may be encountered over the course of the project.
- Procedures for discovery include:
 - If potential archaeological and/or tribal cultural resources are encountered during construction, the contractor shall cease all ground disturbing activities within a 100-foot radius of the find and the find must be evaluated for listing in the CRHR and NRHP. The contractor shall immediately notify the County resident engineer or their designated representative to request a qualified archaeologist and a Confederated Villages of Lisjan Nation representative to assess the nature and significance of the find to determine if the find is a tribal cultural resource and thus significant under CEQA and/or the tribe. The archaeologist shall stake the area of discovery, placing stakes no more than 10 feet apart, forming a circle having a radius of no less than 100 feet from the point of discovery.
 - If the finding(s) is not determined to be potentially significant, work may resume. If the finding(s) is determined to be potentially significant, the archaeologist in consultation with the tribal representatives shall develop a mitigation plan outlining management of the resource, analysis, reporting of the find, and reburial of cultural items. The plan shall be implemented by the County in accordance with state guidelines and in consultation with the consulting tribe. The mitigation plan shall include avoidance of the resource or, if avoidance of the resource is not feasible, the plan shall outline appropriate treatment of the resource in coordination with the consulting tribe and, if applicable, a qualified archaeologist. Examples of appropriate mitigation for the tribal cultural resources include, but are not limited to, protecting the cultural character and integrity of the resources, protecting traditional use of the resources, protecting the confidentiality of the resources, heritage recovery, processing materials for reburial, minimizing handling of cultural objects, leaving objects in place within the landscape, construction monitoring of any further activities by a tribal representative, and/or returning the objects to a location within the project area where they will not be subject to future impacts. Preservation in place (i.e., avoidance) is typically the preferred manner of treatment of tribal resources and cultural items. Tribal cultural resources shall not be permanently curated, unless specifically requested by the tribe. Work may resume according to the recommendations in the mitigation plan.
 - Any previously undiscovered resources found during construction within the project site shall be recorded on appropriate California Department of Parks and Recreation (DPR) 523 forms and shall be submitted to Contra Costa County Department of Conservation and Development, the Northwest Information Center (NWIC), and the California Office of Historic Preservation (OHP), as required.

2.18.2 Sources of Information

HELIX. 2025. *Fire Station 9 Project No. WH7728 Cultural and Historic Resources Evaluation.*

2.19 Utilities and Service Systems

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than- Significant Impact	No Impact
<i>Would the project:</i>				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment (for stormwater 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 official dry and multiple dry years?	☐	☐	☒	☐
c) Result in a determination by the wastewater treatment provider that 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?	☐	☐	☒	☐

2.19.1 Discussion

- a) *Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment (for stormwater drainage), electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?*

The project site is developed with a fire station and water, wastewater, electric/gas and telecommunication services are provided by the Contra Costa Water District (CCWD), Central Contra Costa Sanitary District (Central San), Pacific Gas & Electric, and Comcast.

The project would add six additional employees to the existing fire station staff. While the expanded (reconstructed) fire station would have an increase in demand for services proportionate to the increase in size and employees, the existing infrastructure is adequately sized to meet the increased demand and would involve only localized infrastructure improvements and connections to accommodate site development.

The existing electric pole on Blackwood Avenue would need to be relocated. Although there would be various upgrades and connections to the existing infrastructure that occurs within and surrounding the site, the extent of impacts would be examined in the context of the project as a whole (i.e., grading for utility trenches would be considered in overall grading plan). The project would not result in the need for new or expanded water, wastewater treatment or storm drainage, electric power, natural gas, or telecommunication facilities.

Utility and drainage relocations would be done in compliance with all applicable regulations and would not cause a significant environmental impact. Therefore, the project would have a **less-than-significant impact**.

- b) *Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during official dry and multiple dry years?*

The project site is located within the CCWD service area. The CCWD provides water to its service area through a combination of purchased imported water, groundwater, and recycled water. According to the most recent CCWD Water Management Plan (WMP), CCWD does not anticipate any supply deficits in normal years or single-dry years throughout the planning horizon however, CCWD may have supply shortfalls in future years of up to 15 percent of demand in the later years of a multiple dry year conditions (CCWD 2021). The WMP outlines the strategies for any potential supply shortfalls experienced during dry year conditions that include a combination of a short-term conservation program and/or short-term water purchases, consistent with the CCWD's future water supply study and includes the purchase of additional water supply if necessary to meet the water supply reliability goal.

The project site currently supports a fire station, and the project would not introduce a new use that would alter the pattern of water usage. Although demand may increase incrementally with the increase of employees housed at the site, this increase would be countered with the installation of improved infrastructure (e.g., water efficient plumbing) to meet LEED Silver standards and drought-resistant landscaping.

Moreover, fire protection is a priority, and in the event that CCWD determined that the ordinary demands and requirements of water consumers within the service area cannot be satisfied without depleting the water supply to the extent that there would be insufficient water for human fire protection, in accordance with the California Water Code, conservation efforts are required to be implemented (as outlined in the WMP). Therefore, the project would have a **less-than-significant impact**.

- c) *Would the project result in a determination by the wastewater treatment provider that 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?*

As noted in 2.19.1(a), the project would not be expected to produce an unmanageable added capacity demand on the wastewater system, nor interfere with existing facilities. Therefore, the project would have a **less-than-significant impact**.

- d) *Would the project 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?*

During construction, the project would generate waste as part of normal construction activities and from the demolition of the existing structure. In accordance with the County's CALGreen Construction and Demolition Debris Recovery Program, the County requires that at least 65 percent of construction and demolition debris be reused, recycled or otherwise diverted from a landfill. In accordance with CALGreen, the project conditions of approval will include that the construction contractor provides a construction and demolition plan prior to the issuance of demolition and grading permits and provide post-project documentation.

The project site currently supports a fire station, and the new station, which would include six additional employees, may generate additional waste. However, the waste from six additional employees would be a negligible change to the waste stream in type or quantity that would negatively affect waste services and could be managed by the existing provider and facilities.

Republic Services provides solid waste collection, disposal, recycling, and yard waste services for the project site and the project would include three-stream collections (trash, recycling, and organic waste).

Waste from the site is ultimately transferred to the Keller Canyon Landfill. Keller Canyon Landfill is 1,399 acres with 244 acres used for disposal. The landfill is permitted to accept 3,500 tons/day and the remaining capacity is 63,408,410 cubic yards. Based on the remaining capacity at Keller Canyon Landfill, sufficient capacity would be available to accommodate the project's solid waste needs. Therefore, the project would have a **less-than-significant impact**.

- e) *Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?*

The proposed project would be required to comply with federal, state, and local waste reduction and recycling regulations, particularly those contained in the California Integrated Waste Management Act (Assembly Bill 939); Division 4.4, Material Conservation and Resource Efficiency, of CALGreen; and the City's Construction and Demolition Debris Recycling Ordinance.

The project would be LEED Silver equivalent. To receive the credits to achieve LEED certification, a project must demonstrate that waste reduction and management strategies have been incorporated into both construction and operation. Typical actions include diverting construction waste from landfills through recycling and reuse, reuse of existing and salvaged materials or using construction materials with high recycled content, dedicated recycling area, collection systems, and tracking ongoing waste generation and diversion during operation.

Therefore, the project would have a **less-than-significant impact**.

2.19.2 Sources of Information

Contra Costa Water District. 2021. *2020 Water Management Plan*. Available: 2020-
<https://www.ccwater.com/DocumentCenter/View/9851/2020-Urban-Water-Management-Plan-PDF> Urban-Water-Management-Plan-PDF.

2.20 Wildfire

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than- Significant Impact	No Impact
<i>If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:</i>				
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?	☐	☐	☒	☐

2.20.1 Discussion

- a) *Would the project substantially impair an adopted emergency response plan or emergency evacuation plan?*

The County has not adopted an emergency response plan for the Pacheco area, and thus the project would not impair implementation of or physically interfere with such a plan. In addition, the project is designed to comply with County and Fire District standards for roadways and emergency vehicle access and compliance would be verified by both agencies prior to and after construction. Similarly, the project would not impact implementation of or physically interfere with an emergency evacuation system. The Emergency Alert System and Emergency Digital Information Service are the primary systems used to inform the public of emergencies and threats to health, safety, and welfare. These systems are electronic and operated by government agencies in conjunction with television and radio stations. In the event of an emergency, these systems are used to broadcast emergency information, such as evacuation alerts, across all radio and television stations in the affected area. Due to the electronic nature of these systems, there is no possibility they would be impacted by the project. Therefore, the project would have **no impact**.

- b) *Would the project 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?*

According to CAL FIRE's State Responsibility Area Fire Hazard Severity Zones Map, the project site is not within a Very High, High, or Moderate Fire Hazard Severity Zone and is not within or near a state responsibility area. The project site is flat and in an urbanized area subject to a Local Responsibility Zone (LRA) where a local agency bears responsibility for preventing and suppressing wildfires (CAL FIRE 2025a; 2025b). The project site is in Contra Costa County's Unincorporated Local Responsibility Area and is in an unzoned LRA; the local fire protection agency for the project site is the Contra Costa County Fire Protection District (CAL FIRE 2025b; Contra Costa County Fire Protection District 2025).

Redevelopment of the existing fire station would continue to address and respond to fires. As such, the project would not exacerbate wildfire risk and thereby expose occupants to pollutant concentrations from wildfire or the uncontrolled spread of a wildfire. Therefore, the project would have **no impact**.

- c) *Would the project 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?*

The project involves the redevelopment of an existing fire station in an urbanized area and therefore, would not require the installation of new water, power, and other utility connections. The project would be built in compliance with applicable state and local building, engineering, and environmental standards and regulations. Moreover, the project involves the construction of a fire station that would address and respond to fire risks in the area. Therefore, the project would have **no impact**.

- d) *Would the project 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?*

The project is limited to the construction of a replacement fire station on relatively flat ground where minor amounts of grading will occur. While the project site will be raised a couple of feet due to its location within a 100-year floodplain zone, drainage will be designed for flood flows. As discussed in Sections 2.7 (Geology/Soils) and 2.10 (Hydrology/Water Quality) of this IS/MND, the project, with the required regulatory adherence, would not expose people or structures to significant risks, including downslope or downstream flooding or landslides resulting from runoff, post-fire slope instability, or drainage changes. Therefore, the project would have **a less-than-significant impact**.

2.20.2 Sources of Information

California Department of Forestry and Fire Protection. 2025a. *Fire Hazard Severity Zones*. Available: https://osfm.fire.ca.gov/what-we-do/community-wildfire-preparedness-and-mitigation/fire-hazard-severity-zones?itid=lk_inline_enhanced-template.

California Department of Forestry and Fire Protection. 2025b. *Find Your Fire Hazard Severity Zone*. Available: <https://experience.arcgis.com/experience/5065c998b4b0462f9ec3c6c226c610a9>.

Contra Costa County Fire Protection District. 2025. *Fire Hazard Severity Zones in Local Response Areas*. Available: <https://experience.arcgis.com/experience/2ef5360a18394780baa32080f05825bb>.

2.21 Mandatory Findings of Significance

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than- Significant Impact	No Impact
<i>Would the project:</i>				
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?	☐	☒	☐	☐
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)?	☐	☒	☐	☐
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

2.21.1 Discussion

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?*

As described in Section 2.4, Biological Resources, no special-status plant species were observed during the field survey. Because they are not expected to occur on the project site due to a lack of suitable habitat the project would have no impact on plants or plant communities. However, there is moderate potential for special-status wildlife species including western burrowing owl (*Athene cunicularia*), Swainson’s hawk (*Buteo swainsoni*), and white-tailed kite (*Elanus leucurus*), as well as non-special-status migratory or nesting birds protected by the MBTA, such as red-tailed hawk (*Buteo jamaicensis*), mourning dove (*Zenaida macroura*), and savannah sparrow (*Passerculus sandwichensis*), to occur on the project site. Project construction would result in the loss of suitable habitat and construction activities may result in injury, mortality, or disruption of normal behaviors if these species are present. In addition, project operations and the associated presence of humans, vehicles, and permanent nighttime lighting may result in injury, mortality, or disruption of normal behaviors for special-status wildlife. Implementation of **Mitigation Measures BIO-1 through BIO-3** would require pre-construction surveys for burrowing owl, nesting Swainson’s hawks, and non-special-status migratory and nesting birds, which would also detect any white-tailed kites nesting in the site vicinity, and avoidance measures and construction monitoring would be required if the species is present. Therefore, the project would have a **less-than-significant impact with mitigation incorporated**.

Section 2.5, Cultural Resources; Section 2.7, Geology/Soils; and Section 2.18, Tribal Cultural Resources, indicate that the project would not disturb any known historical or prehistoric resources. However, as described in Sections 2.5, 2.7, and 2.18, project construction could discover historical or prehistoric resources, including human remains, if present within the project site, a potentially significant impact. Implementation of **Mitigation Measures CUL-1, GEO-1, and TCR-1**, which outline the course of action if historical, prehistoric, and human remains are discovered, would reduce the project's potential impact on unknown examples of the major periods of California history or prehistory to a **less-than-significant impact 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)?*

The County has not identified any cumulative projects within the project area.

Implementation of the proposed project would not result in individually limited, but cumulatively considerable significant impacts. As discussed under item 2.3.1.b, the project's emissions of criteria pollutants would not exceed the Air District screening thresholds. Therefore, the project's operational activities would not result in a cumulatively considerable net increase of criteria pollutants that would violate any air quality standard or contribute substantially to an existing or projected air quality violation. Similarly, the project would have a less-than-significant impact in relation to GHG, which is inherently discussed in terms of cumulative impacts.

All resource topics associated with the project have been analyzed in accordance with State CEQA Guidelines and found to pose no impact, less-than-significant impact, or less-than-significant impact with mitigation incorporated. Potential cumulative projects that could be constructed in the vicinity of the project would be required to comply with existing applicable federal, state, and local regulations. Therefore, the project would have a **less-than-significant cumulative impact with mitigation incorporated**.

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

The project would not consist of any uses or activities that would negatively affect any people in the vicinity. In addition, resource topics associated with the project have been analyzed in accordance with CEQA and the State CEQA Guidelines and found to pose no impact, less-than-significant impact, or less-than-significant impact with mitigation. As discussed in Sections 2.3 and 2.9 of this Initial Study, there are no concerns in relation to air quality that cannot be mitigated (see **Mitigation Measure AQ-1**), no concerns from past activities at the site, and no present hazardous materials and/or wastes concerns have been identified. No potential land use consistency conflicts related to noise impacts that would impact human beings and cannot be mitigated to less than significant have been identified (see **Mitigation Measures NOI-1 and NOI-2**). Consequently, the project would not result in any environmental effects that would cause substantial adverse effects on human beings directly or indirectly.

With implementation of the identified mitigation measures in this Initial Study, the proposed project would not have environmental effects that would directly or indirectly cause substantial adverse effects on human beings. All identified mitigation measures will be included in the conditions of approval for this project, and the project sponsor will be responsible for implementation of the

measures. As a result, there would not be any environmental effects that would directly or indirectly cause substantial adverse effects on human beings. Therefore, the project would have a **less-than-significant impact with mitigation incorporated**.

2.21.2 Sources of Information

Please see Sections 2.1 through 2.20.

Chapter 3 List of Preparers

3.1 Contra Costa County Public Works Department (County)

- Claudia Gemberling—Principal Environmental Analyst
- Laura Cremin—Environmental Analyst III
- Christian Montoya—Environmental Analyst I

3.2 ICF (Environmental Consultant)

- Kara Palm—Project Manager
- Susan Swift—Aesthetics, Agriculture and Forestry Resources, Cultural Resources, Energy, Geology/Soils, Greenhouse Gas Emissions, Land Use and Planning, Mineral Resources, Population and Housing, Public Services, Recreation, Tribal and Cultural Resources, Utilities and Service Systems, Wildfire
- Cory Matsui—Air Quality
- Jacqueline Mansoor—Air Quality
- Danika Tsao—Biological Resources
- Mario Barrera—Hazards and Hazardous Materials
- Katrina Sukola— Hydrology and Water Quality
- Jason Volk—Noise
- Allison Medina—Built Environment
- Lindsley Britton—Archeologist
- John Mathias—Editor
- David Lucas—Document Production

3.3 Fehr & Peers (Transportation)

- Bill Burton—Principal

3.4 Contra Costa County Fire Protection District (Lead Agency)

- Sam Nichols—Assistant Chief
- Aaron McAlister—Deputy Fire Chief
- Tracie Dutter—Deputy Fire Chief

Attachment A
Site/Project Plans

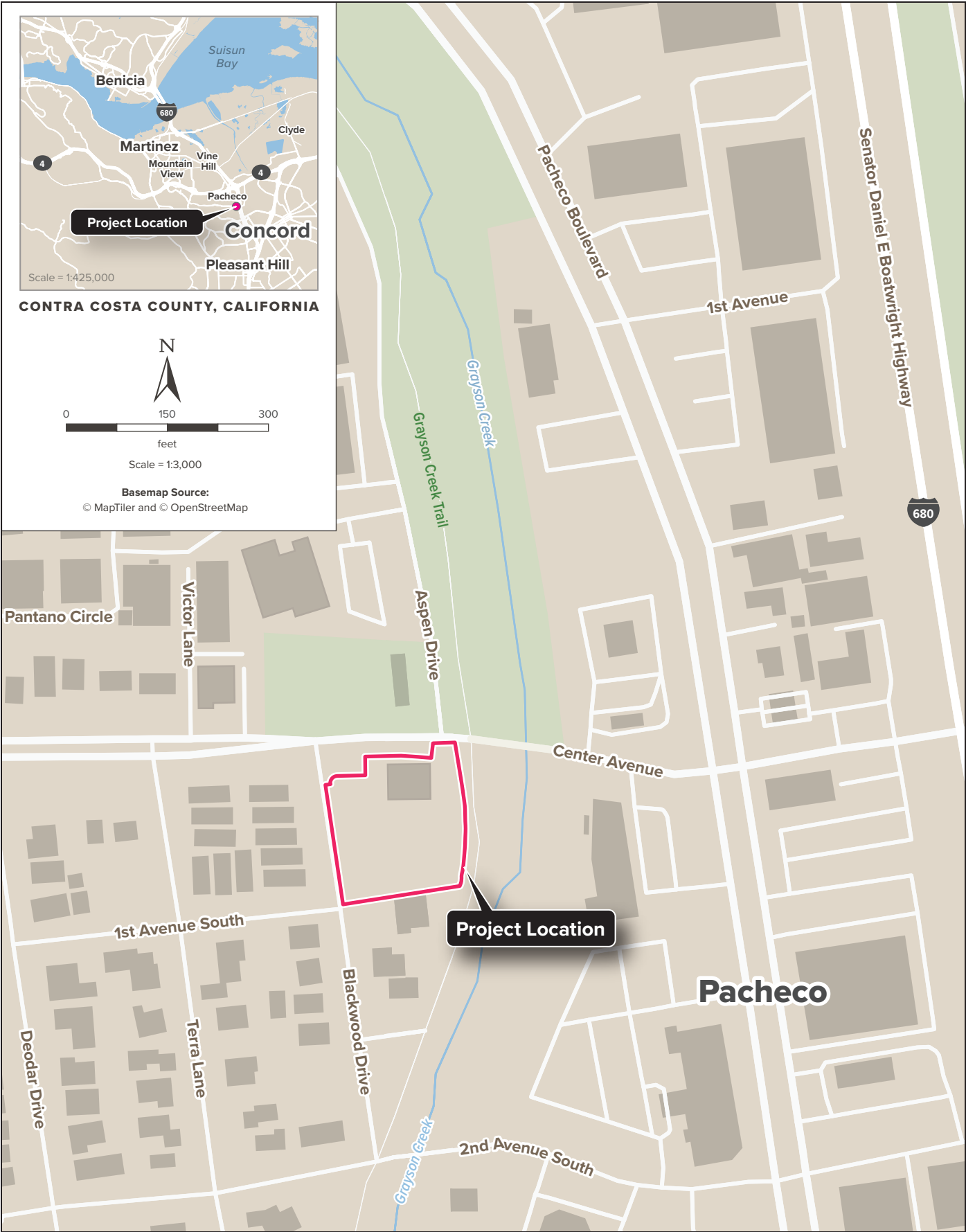


Figure 1
Project Location
Fire Station 9 Redevelopment Project

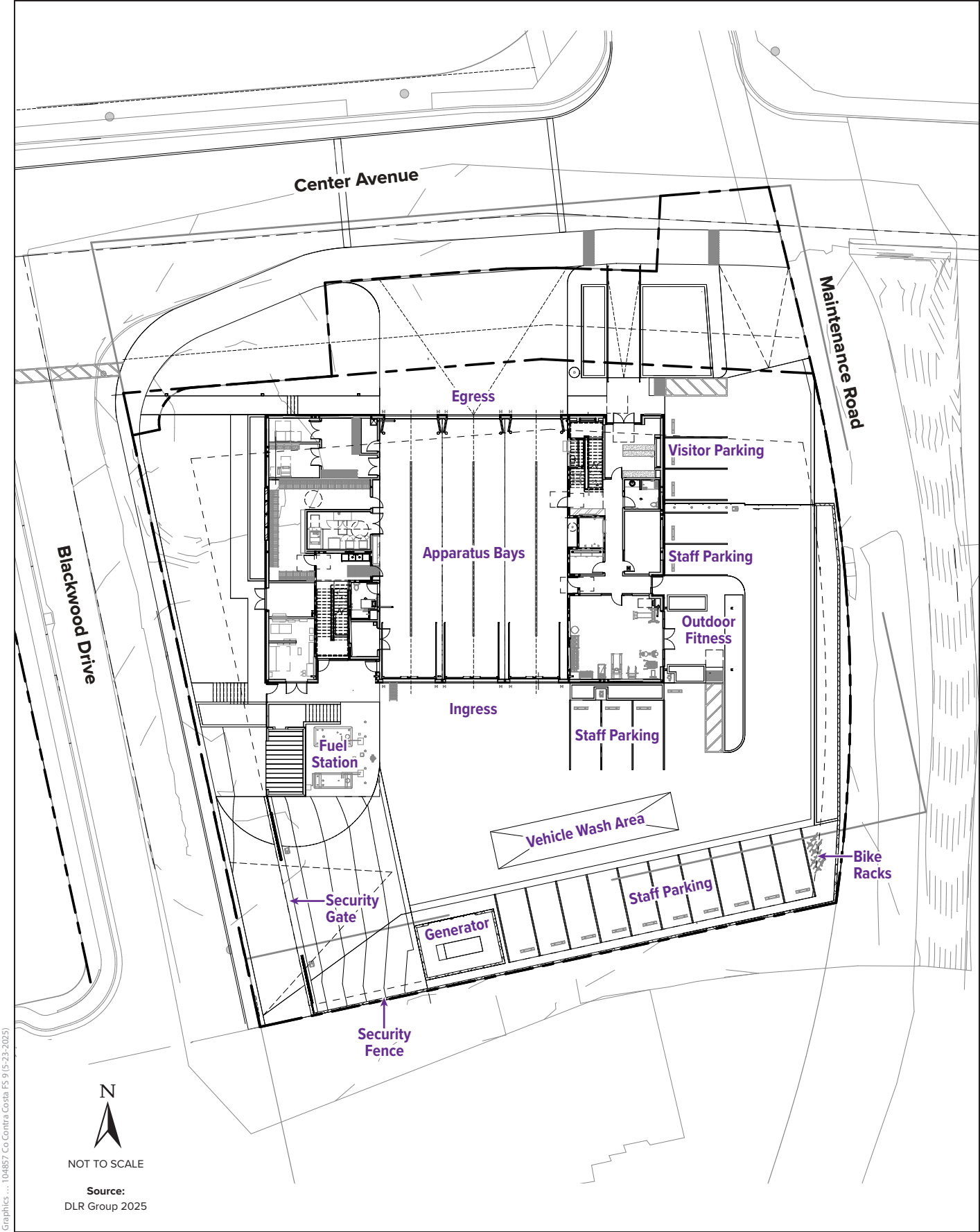


Figure 2
Conceptual Site Plan
Fire Station 9 Redevelopment Project





Street View Looking South

Note: Image is conceptual until after project approval. The proposed building height would be approximately 35 feet high.

Source: DLR Group, 2025



Figure 3
Conceptual Building Views
Fire Station 9 Redevelopment Project



Street View Looking North

Note: Image is conceptual until after project approval. The proposed building height would be approximately 35 feet high.

Source: DLR Group, 2025



Figure 3
Conceptual Building Views
Fire Station 9 Redevelopment Project

Attachment B

Air Quality/Greenhouse Gas Emissions Analysis



Memorandum

To:	Claudia Gemberling, Environmental Services Division, Contra Costa County Public Works Department
From:	Cory Matsui, Senior Air Quality/GHG Specialist, ICF Jacqueline Mansoor, Air Quality/GHG Specialist, ICF Jessica Viramontes, Project Manager, ICF Heidi Mekkelson, Project Director, ICF
Date:	September 10, 2025
Re:	Fire Station 9 Redevelopment Project (County Project No. WH728A) – Air Quality and Greenhouse Gas Analysis (Draft)

Introduction

The Contra Costa County Fire District proposes to demolish and reconstruct Fire Station 9 on the same site. The purpose of this memorandum is to evaluate the potential noise impacts associated with the Fire Station 9 Redevelopment Project (project) at 209 Center Avenue in Pacheco, Contra Costa County (project site).

This memorandum consists of the following: (1) description of the environmental setting; (2) description of the regulatory setting; (2) overview of the criteria for determining significance; (3) overview of the methodology; and (4) description of the results of the air quality and greenhouse gas (GHG) analysis for the project. This memorandum provides support for the California Environmental Quality Act (CEQA) environmental review.

Project Description

The Contra Costa County Fire District proposes demolition of the existing Fire Station 9 and construction of a new fire station on the same site (see Figure 1). The existing station is a 2,215-square-foot, one-story station for a single company. Employed there is a three-person crew with

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one captain, one engineer, and one firefighter that work 48-hour shifts. The station houses two fire engines. The proposed project would construct a larger fire station. The proposed approximately 15,400-square-foot, two-story station with a double company would include offices and crew quarters that would house up to nine fire personnel during the 48-hour shifts. An apparatus bay would store three fire engines when not on call. The project would also include sleeping quarters and an outdoor fitness area for firefighters. Figure 2 shows the conceptual site plan for the project.

Under the project, fire engines would depart the station from the existing driveway on Center Avenue and enter the station at either Center Avenue or Blackwood Drive. Three visitor parking spaces would be provided in the front parking lot, which would be accessible from Center Avenue. Up to 16 employee parking spaces and two bike racks for storing up to four bikes would be provided behind the station; these amenities would be accessible from either Center Avenue or Blackwood Drive.

Project demolition and construction is anticipated to begin in late 2026 and be completed in early 2028, a period of approximately 17 months.

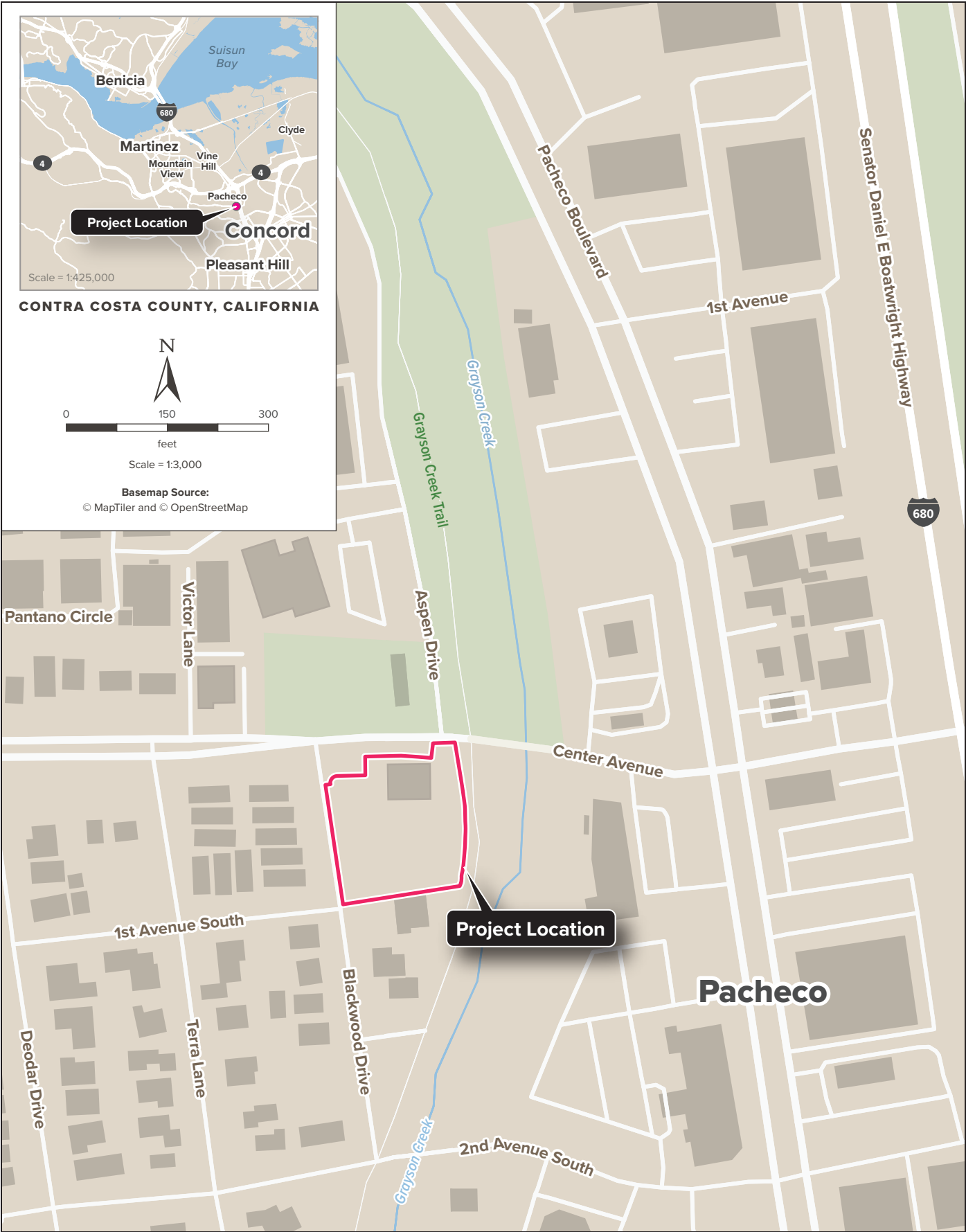


Figure 1
Project Location
Fire Station 9 Redevelopment Project

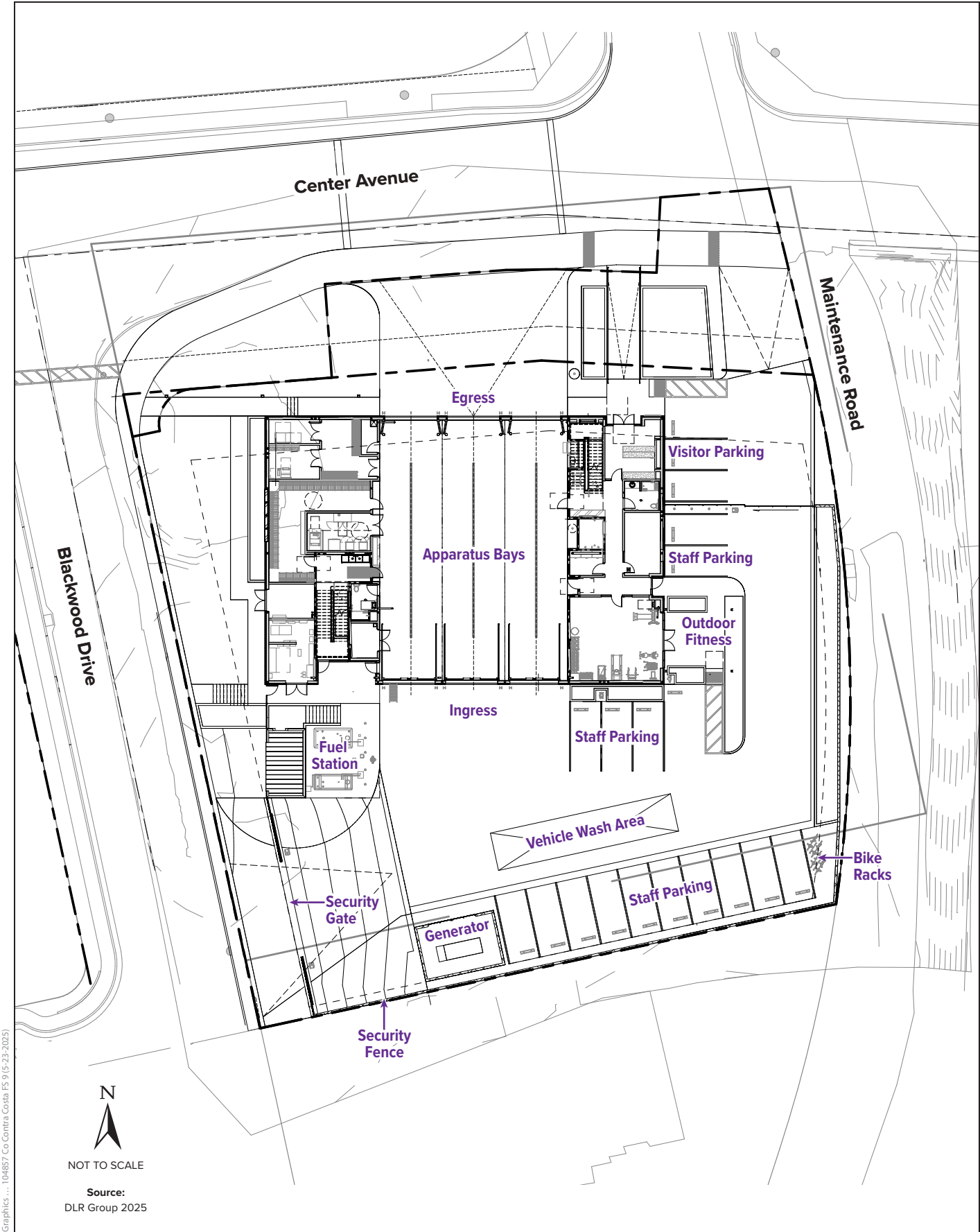


Figure 2
Conceptual Site Plan
Fire Station 9 Redevelopment Project



Environmental Setting

This section describes the primary air pollutants of concern associated with the project, summarizes local climate conditions and ambient pollutant concentrations, and identifies sensitive receptor locations that may be affected by project-generated emissions. This section also provides background information on global climate change and existing GHG inventories.

Pollutants of Concern

Air pollution is a general term used to describe undesirable amounts of particulate or gaseous matter in the atmosphere. The primary factors that influence ambient concentrations of air pollutants are the locations of emission sources and the amount of pollutants emitted from those sources. Meteorological and topographical conditions are also important—atmospheric conditions, such as wind speed, wind direction, and air temperature gradients, interact with the physical features of the landscape to determine the movement and dispersal of air pollutants.

Criteria Pollutants

Concentrations of ozone, carbon monoxide (CO), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), lead (Pb), and particulate matter (i.e., particulate matter less than or equal to 10 microns [PM₁₀] and particulate matter less than or equal to 2.5 microns [PM_{2.5}]) are commonly used as indicators of ambient air quality conditions. These pollutants are known as *criteria pollutants* and are regulated by the U.S. Environmental Protection Agency (USEPA) and California Air Resources Board (CARB) through national and California ambient air quality standards (NAAQS and CAAQS), respectively, which are discussed further in *Regulatory Setting*.

All criteria pollutants can have human health effects at certain concentrations. The ambient air quality standards for these pollutants are set to protect public health and the environment within an adequate margin of safety (Clean Air Act [CAA] Section 109). Epidemiological, controlled human exposure, and toxicology studies evaluate potential health and environmental effects of criteria pollutants and form the scientific basis for new and revised ambient air quality standards.

Ozone and NO₂ are considered regional pollutants because they (or their precursors) affect air quality on a regional scale. Pollutants such as CO, SO₂, and Pb are considered local pollutants that tend to accumulate in the air locally. Particulate matter is both a regional and local pollutant. The primary criteria pollutants that would be generated by the project are ozone precursors (nitrogen oxides [NO_x] and reactive organic gases [ROG]), CO, PM₁₀, and PM_{2.5}. Ozone, or smog, is a photochemical oxidant that forms when ROGs and NO_x (both byproducts of the internal combustion engine) react with sunlight. ROGs are compounds made up primarily of hydrogen and carbon atoms. Internal combustion associated with motor vehicle usage is the major source of hydrocarbons. Other sources of ROGs are emissions associated with the use of paints and solvents, the application of asphalt paving, and the use of household consumer products such as aerosols. The two major forms of NO_x are nitric oxide (NO) and NO₂. NO is a colorless, odorless gas formed from atmospheric nitrogen and oxygen when combustion takes place under high temperature and/or high pressure. NO₂ is a reddish-brown irritating gas formed by the

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combination of NO and oxygen. In addition to serving as an integral participant in ozone formation, NO_x also directly acts as an acute respiratory irritant and increases susceptibility to respiratory pathogens.

Ozone poses a higher risk to those who already suffer from respiratory diseases (e.g., asthma), children, older adults, and people who are active outdoors. Exposure to ozone at certain concentrations can make breathing more difficult, cause shortness of breath and coughing, inflame and damage the airways, aggregate lung diseases, increase the frequency of asthma attacks, and cause chronic obstructive pulmonary disease (COPD). Studies show associations between short-term ozone exposure and non-accidental mortality, including deaths from respiratory issues. Studies also suggest long-term exposure to ozone may increase the risk of respiratory-related deaths (USEPA 2019).

The concentration of ozone at which health effects are observed depends on an individual's sensitivity, level of exertion (i.e., breathing rate), and duration of exposure. Studies show large individual differences in the intensity of symptomatic responses, with one study finding no symptoms to the least responsive individual after a 2-hour exposure to 400 parts per billion of ozone and a 50 percent decrease in forced airway volume in the most responsive individual. Although the results vary, evidence suggest that sensitive populations (e.g., asthmatics) may be affected on days when the 8-hour maximum ozone concentration reaches 80 parts per billion (USEPA 2019). For context, the average background level of ozone in the Bay Area is approximately 45 parts per billion (BAAQMD 2017a).

In addition to human health effects, ozone has been tied to crop damage, typically in the form of stunted growth and premature loss. Ozone can also act as a corrosive, resulting in property damage such as the degradation of rubber products.

Carbon Monoxide (CO) is a colorless, odorless, toxic gas produced by incomplete combustion of carbon substances, such as gasoline or diesel fuel. The primary adverse health effect associated with CO is interference with normal oxygen transfer to the blood, which may result in tissue oxygen deprivation. Exposure to CO at high concentrations can also cause fatigue, headaches, confusion, dizziness, and chest pain. There are no ecological or environmental effects of ambient CO (CARB 2019).

Particulate Matter (PM₁₀ and PM_{2.5}) consists of finely divided solids or liquids such as soot, dust, aerosols, fumes, and mists. Two forms of fine particulates are now recognized—inhalable coarse particles, or PM₁₀, and inhalable fine particles, or PM_{2.5}. Particulate discharge into the atmosphere results primarily from industrial, agricultural, construction, and transportation activities. However, wind on arid landscapes also contributes substantially to local particulate loading.

Particulate pollution can be transported over long distances and may adversely affect human health, especially for people who are naturally sensitive or susceptible to breathing problems. Numerous studies have linked particulate matter exposure to premature death in people with preexisting heart or lung disease, nonfatal heart attacks, irregular heartbeat, aggravated asthma, decreased lung function, and increased respiratory symptoms. Studies show that every 1 microgram per cubic meter reduction in PM_{2.5} results in a 1 percent reduction in mortality rate for individuals over 30 years old (BAAQMD 2017a). Depending on its composition, both PM₁₀ and PM_{2.5} can also affect water quality and acidity, deplete soil nutrients, damage sensitive forests and crops, affect ecosystem diversity, and contribute to acid rain (USEPA 2019).

Toxic Air Contaminants

Although NAAQS and CAAQS have been established for criteria pollutants, no ambient standards exist for toxic air contaminants (TACs). A TAC is defined by California law as an air pollutant that “may cause or contribute to an increase in mortality or an increase in serious illness, or which may pose a present or potential hazard to human health” (OEHHA n.d.). The primary TACs of concern associated with the project are asbestos and diesel particulate matter (DPM).

Asbestos is the name given to several naturally occurring fibrous silicate minerals. Before the adverse health effects of asbestos were identified, asbestos was widely used as insulation and fireproofing in buildings, and it can still be found in some older buildings. It is also found in its natural state in rock or soil. The inhalation of asbestos fibers into the lungs can result in a variety of adverse health effects, including inflammation of the lungs, respiratory ailments (e.g., asbestosis, which is scarring of lung tissue that results in constricted breathing), and cancer (e.g., lung cancer and mesothelioma, which is cancer of the linings of the lungs and abdomen).

DPM is generated by diesel-fueled equipment and vehicles. CARB estimates that DPM emissions are responsible for about 70 percent of the total ambient air toxics risk in California (CARB 2019). Within the San Francisco Bay Area, the Bay Area Air District (formerly the Bay Area Air Quality Management District [BAAQMD]) has found that of all controlled TACs, emissions of DPM are responsible for about 82 percent of the total ambient cancer risk (BAAQMD 2017a). Short-term exposure to DPM can cause acute irritation (e.g., eye, throat, and bronchial), neurophysiological symptoms (e.g., lightheadedness and nausea), and respiratory symptoms (e.g., cough and phlegm). USEPA has determined that diesel exhaust is “likely to be carcinogenic to humans by inhalation” (USEPA 2002).

Odors

Offensive odors can be unpleasant and lead to citizen complaints to local governments and air districts. According to CARB’s *Air Quality and Land Use Handbook* and uses associated with odor complaints typically include sewage treatment plants, landfills, recycling facilities, manufacturing, and agricultural activities (CARB 2005). CARB provides recommended screening distances for siting new receptors near existing odor sources. Potential sources of odors generated by the project include diesel exhaust and asphalt paving.

Greenhouse Gases

The principle anthropogenic (human-made) GHGs contributing to global warming are carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), and fluorinated compounds, including sulfur hexafluoride (SF₆), hydrofluorocarbons (HFCs), and perfluorocarbons (PFCs). Water vapor, the most abundant GHG, is not included in this list because its natural concentrations and fluctuations far outweigh its anthropogenic sources.

The primary GHGs of concern that would be generated by the project are CO₂, CH₄, and N₂O.

Carbon dioxide (CO₂) enters the atmosphere through fossil fuels (oil, natural gas, and coal) combustion, solid waste decomposition, plant and animal respiration, and chemical reactions (e.g., manufacture of cement). CO₂ is also removed from the atmosphere (or *sequestered*) when it is absorbed by plants as part of the biological carbon cycle.

Methane (CH₄) is emitted during the production and transport of coal, natural gas, and oil. Methane emissions also result from livestock and other agricultural practices and from the decay of organic waste in municipal solid waste landfills.

Nitrous oxide (N₂O) is emitted during agricultural and industrial activities, as well as during combustion of fossil fuels and solid waste.

Methods have been set forth to describe emissions of GHGs in terms of a single gas to simplify reporting and analysis. The most commonly accepted method to compare GHG emissions is the global warming potential (GWP) methodology defined in Intergovernmental Panel on Climate Change (IPCC) reference documents. IPCC defines the GWP of various GHG emissions on a normalized scale (e.g., a 100-year timescale) that recasts all GHG emissions in terms of carbon dioxide equivalent (CO₂e), which compares the gas in question to that of the same mass of CO₂ (CO₂ has a global warming potential of 1 by definition).

Table 1 lists the GWP of CO₂, CH₄, and N₂O and their lifetimes in the atmosphere. The GWPs are from the IPCC’s fourth assessment report, consistent with statewide GHG emissions reporting protocol (CARB 2024a).

Table 1. Global Warming Potential and Lifetime of Key Greenhouse Gases

Greenhouse Gas	Global Warming Potential (100 years)	Lifetime (years)
Carbon Dioxide	1	— ^a
Methane	25	12
Nitrous Oxide	298	114

Source: CARB 2024a.

^a Carbon dioxide can persist in the atmosphere for centuries to millennia, making it difficult to assign a specific value.

Existing Air Quality Conditions

Ambient Air Quality

Existing air quality conditions for the proposed project can be characterized by local monitoring data. CARB collects ambient air quality data through a network of air monitoring stations throughout the state. The nearest station to the project site is the 2975 Treat Boulevard station in Contra Costa County, approximately 4 miles southeast of the site. This station monitors concentrations of ozone, PM_{2.5}, PM₁₀, CO and NO₂. Table 2 presents the results of the ambient monitoring results at the 2975 Treat Boulevard Station for the most recent 3 years of data availability (2022 to 2024).

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During this time, monitored PM₁₀, NO₂, and CO concentrations did not exceed any federal or state standards. However, the state and federal standards for ozone and PM_{2.5} were exceeded. The ambient air quality standards define clean air and represent the maximum amount of pollution that can be present in outdoor air without any harmful effects on people and the environment. Existing violations of the ozone and PM_{2.5} ambient air quality standards indicate that certain individuals exposed to these pollutants may experience certain health effects, including increased incidence of cardiovascular and respiratory ailments.

Table 2. Localized Air Quality Concentrations for the Past 3 Years Measured at the 2975 Treat Boulevard Station

Pollutant Standards	2022	2023	2024
Ozone			
Maximum 1-Hour Concentration (ppm)	0.079	0.065	0.048
Maximum 8-Hour Concentration (ppm)	0.062	0.055	0.043
Number of Days Standard Exceeded			
CAAQS 1-Hour (>0.09 ppm)	0	0	0
CAAQS 8-Hour (>0.070 ppm)	0	0	0
NAAQS 8-Hour (>0.070 ppm)	0	0	0
Nitrogen Dioxide			
National Maximum 1-Hour Concentration (ppm)	28.6	31.4	19.7
State Maximum 1-Hour Concentration (ppm)	28	31	19
Annual Average Concentration (ppm)	5	4	-
Number of Days Standard Exceeded			
CAAQS 1-Hour (0.18 ppm)	0	0	0
NAAQS 1-Hour (0.10 ppm)	0	0	0
Particulate Matter (PM_{2.5})			
National Maximum 24-Hour Concentration (µg/m ³)	28.7	39.3	16.4
National Second-Highest 24-Hour Concentration (µg/m ³)	25.4	29.4	12.4
State Maximum 24-Hour Concentration (µg/m ³)	32.7	39.3	16.4
State Second-Highest 24-Hour Concentration (µg/m ³)	28.7	29.7	12.4
State Annual Average Concentration (µg/m ³)	-	6.2	-
Number of Days Standard Exceeded			
NAAQS 24-Hour (>35 µg/m ³)	0	1	-
NAAQS/CAAQS Annual (>12 µg/m ³) ^a	-	-	-
Particulate Matter (PM₁₀)			
Maximum State 24-Hour Concentration (mg/m ³)	35	39.7	-
Maximum National 24-Hour Concentration (mg/m ³)	33.4	38.8	-
National Annual Average Concentration	6.5	6.7	-
Number of Days Standard Exceeded			
CAAQS 24-Hour Standard (50 µg/m ³)	0	0	0
NAAQS 24-Hour Standard (150 µg/m ³)	0	0	0

Pollutant Standards	2022	2023	2024
Carbon Monoxide (CO)			
Maximum 8-hour concentration (ppm)	0.7	0.7	0.5
Maximum 1-hour concentration (ppm)	1.1	1.1	0.7
<i>Measured Number of Days Standard Exceeded</i>			
NAAQS 8-hour standard (> 9 ppm)	0	0	0
CAAQS 8-hour standard (> 9.0 ppm)	0	0	0
NAAQS 1-hour standard (> 35 ppm)	0	0	0
CAAQS 1-hour standard (> 20 ppm)	0	0	0

Sources: CARB 2024b; USEPA 2024a.
µg/m³ = micrograms per cubic meter; CAAQS = California ambient air quality standards; mg/m³ = milligrams per cubic meter; NAAQS = national ambient air quality standards; ppm = parts per million; > = greater than; – = not applicable or there was insufficient or no data available to determine the value.
^a EPA lowered the annual NAAQS to 9.0 µg/m³ on February 7, 2024 (see Table 5). However, the 2012 standard of 12 µg/m³ was in effect during the 2022 to 2024 monitoring period and, therefore, is used as the standard by which violations of the PM2.5 annual NAAQS time are assessed.

Attainment Status

Local monitoring data (Table 2) are used to designate areas as nonattainment, maintenance, attainment, or unclassified for the NAAQS and CAAQS. The four designations are further defined as follows.

- **Nonattainment:** Assigned to areas where monitored pollutant concentrations consistently violate the standard in question.
- **Maintenance:** Assigned to areas where monitored pollutant concentrations exceeded the standard in question in the past but are no longer in violation of that standard.
- **Attainment:** Assigned to areas where pollutant concentrations meet the standard in question over a designated period.
- **Unclassified:** Assigned to areas where data are insufficient to determine whether a pollutant is violating the standard in question.

Table 3 summarizes the attainment status of SFBAAB with regard to the NAAQS and CAAQS.

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Table 3. Federal and State Attainment Status for Contra Costa Portion of San Francisco Bay Area Air Basin

Pollutant	Federal Attainment Status (NAAQS)	State Attainment Status (CAAQS)
Ozone (8-hour concentration)	Marginal nonattainment	Nonattainment
Carbon monoxide	Attainment	Attainment
Particulate matter (PM ₁₀)	Attainment	Nonattainment
Fine particulate matter (PM _{2.5}) ^a	Moderate nonattainment	Nonattainment
Nitrogen dioxide	Attainment	Attainment
Sulfur dioxide	Attainment	Attainment
Lead	Attainment	Attainment
Sulfates	(no federal standard)	Attainment
Hydrogen sulfide	(no federal standard)	Unclassified
Visibility-reducing particles	(no federal standard)	Unclassified

Sources: CARB 2023; USEPA 2024b.

^a Federal designation reflects the 2006 PM_{2.5} standard, which is more stringent than the 2012 standard. The area's status under the 2006 standard is worse than under the 2012 standard.**Sensitive Receptors**

Sensitive land uses are generally considered to include those land uses where exposure to pollutants could result in health-related risks to sensitive individuals, including children and the elderly.

According to the Bay Area Air District (BAAQMD 2023):

...sensitive receptors include children, the elderly, offsite workers, students, and those with preexisting medical conditions. They are typically found in residences, schools, parks and playgrounds, daycare centers, nursing homes, and medical facilities, but some receptors are overlooked because they are found in an unlikely location...encampments for the unhoused, warehouses with indoor sports facilities for children and youth, privately operated indoor playgrounds for young children, and privately operated youth-serving facilities.

Sensitive receptors within 1,000 feet of the project site are residences, a church, and worker receptors. The closest single-family residences to the project site are located along Blackwood Drive. Across Blackwood Drive and Center Avenue, single-family residences are 65 and 70 feet away, respectively. Multi-family residences are approximately 255 feet northwest of the project site. The Gospel Light Church is approximately 230 feet north of the project Site. To the east, worker receptors are 200 feet from the site.

Global Climate Change

The process known as the *greenhouse effect* keeps the atmosphere near Earth's surface warm enough for the successful habitation of humans and other life forms. The greenhouse effect is created by sunlight that passes through the atmosphere. Some of the sunlight striking Earth is absorbed and converted to heat, which warms the surface. The surface emits a portion of this heat as infrared radiation, some of which is re-emitted toward the surface by GHGs. Human activities that generate GHGs increase the amount of infrared radiation absorbed by the atmosphere, thus enhancing the greenhouse effect and amplifying the warming of Earth.

Increases in fossil fuel combustion and deforestation have exponentially increased concentrations of GHGs in the atmosphere since the Industrial Revolution (IPCC 2007). Rising atmospheric concentrations of GHGs in excess of natural levels result in increasing global surface temperatures—a process commonly referred to as *global warming*. Higher global surface temperatures, in turn, result in changes to Earth’s climate system, including increased ocean temperature and acidity, reduced sea ice, variable precipitation, and increased frequency and intensity of extreme weather events (IPCC 2018a). Large-scale changes to Earth’s system are collectively referred to as *climate change*.

The IPCC was established by the World Meteorological Organization and United Nations Environment Programme to assess scientific, technical, and socioeconomic information relevant to the understanding of climate change, its potential impacts, and options for adaptation and mitigation. The IPCC estimates that human-induced warming reached approximately 1degree Celsius (°C) above pre-industrial levels in 2017, increasing at 0.2°C per decade. Under the current nationally determined contributions of mitigation from each country until 2030, global warming is expected to rise to 3°C by 2100, with warming to continue afterwards (IPCC 2018a). Large increases in global temperatures could have substantial adverse effects on the natural and human environments worldwide and in California.

Greenhouse Gas Emission Inventories

A GHG inventory is a quantification of all GHG emissions and sinks¹ within a selected physical and/or economic boundary. GHG inventories can be performed on a large scale (e.g., for global and national entities) or on a small scale (e.g., for a building or person). Although many processes are difficult to evaluate, several agencies have developed tools to quantify emissions from certain sources. Table 4 outlines the most recent global, national, statewide, and local GHG inventories to help contextualize the magnitude of potential project-related GHG emissions, which are discussed in *Impacts and Mitigation Measures*, Impact GHG-1.

Table 4. Global, National, State, and Local Greenhouse Gas Emissions Inventories

Emissions Inventory	Carbon Dioxide Equivalent (metric tons)
2023 IPCC Global GHG Emissions Inventory	53,000,000,000
2022 USEPA National GHG Emissions Inventory	6,343,200,000
2022 CARB State GHG Emissions Inventory	371,100,000
2011 Bay Area Air District GHG Emissions Inventory	86,600,000
2019 Unincorporated Contra Costa County GHG Emissions Inventory	986,310

Sources: IPCC 2018b; USEPA 2024c; CARB 2024a; JRC 2024; BAAQMD 2011; Contra Costa County 2024a.
CARB = California Air Resources Board; GHG =greenhouse gas; IPCC =International Panel on Climate Change; USEPA = U.S. Environmental Protection Agency.

¹ A *GHG sink* is a process, activity, or mechanism that removes a GHG from the atmosphere.

Potential Climate Change Effects

Climate change is a complex process that has the potential to alter local climatic patterns and meteorology. Although modeling indicates that climate change will result in sea level rise (both globally and regionally), as well as changes in climate and rainfall, among other effects, there remains uncertainty about characterizing precise local climate characteristics and predicting precisely how various ecological and social systems will react to any changes in the existing climate at the local level. Regardless of this uncertainty, it is widely understood that substantial climate change is expected to occur in the future, although the precise extent will take further research to define. Specifically, climate change could affect the natural environment in California in the following ways, among others (Bedsworth and Cayan, et al.).

- Rising sea levels along the California coastline, particularly in San Francisco and the San Joaquin Delta due to ocean expansion.
- Extreme-heat conditions, such as heat waves and very high temperatures, that could last longer and become more frequent.
- An increase in heat-related human deaths and infectious diseases and a higher risk of respiratory problems caused by deteriorating air quality.
- Reduced snowpack and stream flow in the Sierra Nevada Mountains that could affect water supplies and winter recreation.
- Potential increase in the severity of winter storms that could affect peak stream flows and flooding.
- Changes in growing season conditions that could affect California agriculture, causing variations in crop quality and yield.
- Changes in distribution of plant and wildlife species due to changes in temperature, competition from colonizing species, changes in hydrologic cycles, changes in sea levels, and other climate related effects.

With respect to central-western California, including the project site, climate change effects will be similar to those California-wide and are expected to include the following conditions (PRBO Conservation Science 2011).

- Hotter and drier climate, with average annual temperatures increasing 1.6–1.9 degrees Fahrenheit (°F) by 2070 and mean annual rainfall decreasing by 2.4–7.4 inches.
- Sea level rise by 3.4–5 inches by 2020–2050 and by 7.6–16 inches by 2070–2099, which could potentially affect or inundate coastal development.
- More frequent and intense wildfires, with the area burned projected to increase by an estimated 10–50 percent by 2070–2090.
- Decreases in chaparral/coastal scrub (19–43 percent by 2070) and blue oak woodland/foothill pine (44–55 percent by 2070) and increases in grassland (85–140 percent by 2070).
- Increased salinity in the San Francisco Bay, with salinity increasing by 1–3 practical salinity units during dry years.

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- Increase in estuarine flows into the San Francisco Bay estuary, with winter gains approximately balancing spring-summer losses.
- Increased heat and decreased air quality that could result in public health risks, native plant and animal species loss, and an estimated 60 percent growth in electricity consumption.

Regulatory Setting

The federal CAA and its subsequent amendments form the basis for the nation's air pollution control effort. USEPA is responsible for implementing most aspects of the CAA. A key element of the CAA is the NAAQS for criteria pollutants. The CAA delegates enforcement of the NAAQS to the states. In California, CARB is responsible for enforcing air pollution regulations and ensuring the NAAQS and CAAQS are met. CARB, in turn, delegates regulatory authority for stationary sources and other air quality management responsibilities to local air agencies. The Bay Area Air District is the local air agency for the project area. This section provides detailed information on federal, state, and local air quality and GHG regulations that apply to the project.

Federal

Clean Air Act and Ambient Air Quality Standards

The CAA was first enacted in 1963 and has been amended numerous times in subsequent years (1965, 1967, 1970, 1977, and 1990). The CAA establishes federal air quality standards, known as NAAQS, for six criteria pollutants, and specifies future dates for achieving compliance. The CAA also mandates that the states submit and implement a state implementation plan (SIP) for local areas not meeting those standards. The plans must include pollution control measures that demonstrate how the standards will be met.

The 1990 amendments to the CAA identify specific emission-reduction goals for areas not meeting the NAAQS. These amendments require both a demonstration of reasonable further progress toward attainment and incorporation of additional sanctions for failure to attain or meet interim milestones. Table 5 shows the NAAQS and CAAQS currently in effect for each criteria pollutant.

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Table 5. Federal and State Ambient Air Quality Standards

Criteria Pollutant and Average Time	California Standards	National Standards ^a	
		Primary	Secondary
Ozone: 1-Hour	0.09 ppm	–	–
Ozone: 8-Hour	0.070 ppm	0.070 ppm	0.070 ppm
Particulate Matter (PM ₁₀): 24-Hour	50 mg/m ³	150 mg/m ³	150 mg/m ³
Particulate Matter (PM ₁₀): Annual Mean	20 mg/m ³	–	–
Fine Particulate Matter (PM _{2.5}): 24-Hour ^b	–	35 mg/m ³	35 mg/m ³
Fine Particulate Matter (PM _{2.5}): Annual Mean ^b	12 mg/m ³	9.0 mg/m ³	15.0 mg/m ³
Carbon Monoxide: 8-Hour	9.0 ppm	9 ppm	–
Carbon Monoxide: 1-Hour	20 ppm	35 ppm	–
Nitrogen Dioxide: Annual Mean ^c	0.030 ppm	0.053 ppm	0.053 ppm
Nitrogen Dioxide: 1-Hour ^c	0.18 ppm	0.100 ppm	–
Sulfur Dioxide: Annual mean ^d	–	0.030 ppm	–
Sulfur Dioxide: 24-Hour ^d	0.04 ppm	0.14 ppm	–
Sulfur Dioxide: 3-Hour	–	–	0.5 ppm
Sulfur Dioxide: 1-Hour	0.25 ppm	0.075 ppm	–
Lead: 30-Day Average	1.5 mg/m ³	–	–
Lead: Calendar Quarter	–	1.5 mg/m ³	1.5 mg/m ³
Lead: 3-Month Average	–	0.15 mg/m ³	0.15 mg/m ³
Sulfates: 24-Hour	25 mg/m ³	–	–
Visibility-Reducing Particles: 8-Hour	–	–	–
Hydrogen Sulfide: 1-Hour	0.03 ppm	–	–
Vinyl Chloride: 24-hour	0.01 ppm	–	–

Source: CARB 2024c.

mg/m³ = milligrams per cubic meter; µg/m³ = micrograms per cubic meter; ppm= parts per million; ppb = parts per billion; Dashed values (–) = no standard exists.

^a National standards are divided into primary and secondary standards. Primary standards are intended to protect public health, whereas secondary standards are intended to protect public welfare and the environment.

^b On February 7, 2024, the national annual PM_{2.5} primary standard was lowered from 12.0 µg/m³ to 9.0 µg/m³. The existing national 24-hour PM_{2.5} standards (primary and secondary) were retained at 35 µg/m³, as was the annual secondary standard of 15.0 µg/m³. The existing 24-hour PM₁₀ standards (primary and secondary) of 150 µg/m³ were also retained. The form of the annual primary and secondary standards is the annual mean averaged over 3 years.

^c To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of ppb, and California standards are in units of ppm. To directly compare the national 1-hour standard to the California standards, the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.

^d On June 2, 2010, a new 1-hour SO₂ standard was established, and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 sulfur dioxide national standards (24-hour and annual) remain in effect until 1 year after an area is designated for the 2010 standard except, that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved. In this case, the national standard of 75 ppb is identical to the California standard of 0.075 ppm.

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Vehicle Emission Standards

The National Highway Traffic Safety Administration (NHTSA) and USEPA set corporate average fuel economy (CAFE) standards for passenger cars and for light trucks (collectively, light-duty vehicles), and separately sets fuel consumption standards for medium- and heavy-duty trucks and engines. The existing CAFE standards require an industry-wide fleet average of approximately 49 miles per gallon for passenger cars and light trucks in model year 2026, by increasing fuel efficiency by 8 percent annually for model years 2024 and 2025, and 10 percent annually for model year 2026. Phase 2 of the *Greenhouse Gas Emissions Standards and Fuel Efficiency Standards for Medium- and Heavy-Duty Engines and Vehicles* applies to model years 2019 through 2027 medium- and heavy-duty vehicles (USEPA 2016).

In June 2024, NHTSA issued the final CAFE standards for passenger cars and light trucks and fuel efficiency standards for model years 2027 through 2031 that increase at a rate of 2 percent per year for passenger cars and light trucks. The final standards also include new fuel efficiency standards for heavy-duty pickup trucks and vans for model years 2030 through 2032 and 2033 through 2035 that increase at a rate of 10 percent per year and 8 percent per year, respectively (NHTSA 2024).

With the change in federal administration in January 2025, it is likely that NHTSA will propose changes to the CAFE standards. However, no revisions have been formally proposed yet because revisions will need to go through the lengthy rule-making process, recent federal legislation has removed fines that vehicle manufacturers were subject to for non-compliance with the standards. Thus, it is likely that current CAFE standards will not be enforced while the standards are being revised.

Executive Action and Congressionally Authorized Funding Related to Greenhouse Gas Emissions

Several federal executive orders (EOs) were signed by former President Joe Biden related to GHG emissions and climate resiliency. EO 13990, signed in January 2021, set a national goal to achieve a 50 to 52 percent reduction from 2005 levels in economy-wide net GHG pollution in 2030. EO 14057, signed in December 2021, requires federal agencies to develop strategic processes for achieving, among other things, carbon-free electricity by 2030 and 100 percent zero-emissions vehicle (ZEV) acquisitions by 2035. Former President Biden also signed two bills, the Infrastructure Investment and Jobs Act (2021) and Inflation Reduction Act (2022), that provide funding for infrastructure improvements to reduce GHG emissions and bolster resilience to climate change.

Recent actions by President Donald Trump have significantly altered the federal climate policy landscape. On January 20, 2025, Trump signed EO 14154, which includes pausing the disbursement of funds appropriated through the Inflation Reduction Act, targeting incentives for electric vehicles and other clean energy technologies. While some of the former administration's policies remain, the new EOs represent a shift away from the previous focus on reducing GHG emissions and increasing climate resiliency.

There is currently no federal law or legislatively mandated national GHG reduction target.

State

California Clean Air Act and Ambient Air Quality Standards

The California Clean Air Act (CCAA) established a statewide air pollution control program in 1988. The CCAA requires all air districts in the state to endeavor to meet the CAAQS by the earliest practical date. Unlike the federal CAA, the CCAA does not set precise attainment deadlines. Instead, the CCAA establishes increasingly stringent requirements for areas that require more time to achieve the standards. The CAAQS are generally more stringent than the NAAQS and incorporate additional standards for sulfates, hydrogen sulfide, visibility-reducing particles, and vinyl chloride. The CAAQS and NAAQS are both listed in Table 5.

CARB and local air districts bear responsibility for achieving California's air quality standards, which are to be achieved through district-level air quality management plans to be incorporated into the SIP. In California, USEPA has delegated authority to prepare SIPs to CARB, which, in turn, has delegated that authority to individual air districts. CARB traditionally has established state air quality standards, maintaining oversight authority in air quality planning, developing programs for reducing emissions from motor vehicles, developing air emission inventories, collecting air quality and meteorological data, and approving SIPs.

The CCAA substantially adds to the authority and responsibilities of air districts. The CCAA designates air districts as lead air quality planning agencies, requires air districts to prepare air quality plans, and grants air districts authority to implement transportation control measures.

The CCAA also emphasizes the control of indirect and area-wide sources of air pollutant emissions. An indirect source is a facility or land use that attracts or generates motor vehicle traffic. The CCAA gives local air pollution control districts explicit authority to regulate indirect sources of air pollution and to establish traffic control measures.

State Tailpipe Emission Standards

CARB established a series of increasingly strict emission standards for new off-road diesel equipment, on-road diesel trucks, and harbor craft. Construction equipment used for the proposed project, including heavy-duty trucks and off-road construction equipment, will be required to comply with the standards applicable to the model year of manufacture.

CARB also has established emissions standards for on-road vehicles and is responsible for the certification and production audit of new passenger vehicles and heavy-duty vehicles. Vehicles are not legal for sale in California until they are CARB certified. Violation of the requirement for certification can subject the vehicle manufacturers and/or selling dealers to enforcement actions, including a fine of up to \$37,500 (United States dollars [\$]) per vehicle.

Carl Moyer Program

The Carl Moyer Memorial Air Quality Standards Attainment Program (Carl Moyer Program) is a voluntary program that offers grants to owners of heavy-duty vehicles and equipment. The program is a partnership between CARB and the local air districts throughout the state to reduce air pollution emissions from heavy-duty engines. Locally, the air districts administer the Carl Moyer Program.

Toxic Air Contaminant Regulations

California regulates TACs (equivalent to hazardous air pollutants at the federal level) primarily through the Toxic Air Contaminant Identification and Control Act of 1983 (Tanner Act) and the Air Toxics Hot Spots Information and Assessment Act of 1987 (Hot Spots Act). In the early 1980s, CARB established a statewide comprehensive air toxics program to reduce exposure to air toxics. The Tanner Act created California's program to reduce exposure to air toxics. The Hot Spots Act supplements the Tanner Act by requiring a statewide air toxics inventory, notification of people exposed to a significant health risk, and facility plans to reduce these risks.

Greenhouse Gas Regulation

California has taken proactive steps, briefly described in this section, to address the issues associated with GHG emissions and climate change.

State Legislative Reduction Targets

Senate Bill (SB) 32 requires the state to reduce emissions to 40 percent below the 1990 level by 2030. Assembly Bill (AB) 1279 requires California to achieve net-zero GHG emissions (i.e., reach a balance between the GHGs emitted and removed from the atmosphere) by no later than 2045 and to achieve and maintain net-negative GHG emissions from then forward. It also mandates an 85-percent reduction in statewide anthropogenic GHG emissions (from 1990 levels) by 2045. AB 1279 requires state agencies to achieve net-zero GHG emissions resulting from their operations by no later than 2035, or as soon as feasible thereafter.

The state's plans to reach these targets are presented in periodic scoping plans. CARB adopted *California's 2017 Climate Change Scoping Plan* in November 2017 to meet the GHG reduction requirement set forth in SB 32. It proposes continuing the major programs of the previous scoping plan, including cap-and-trade regulation; low carbon fuel standards; more efficient cars, trucks, and freight movement; Renewables Portfolio Standard; and reducing CH₄ emissions from agricultural and other wastes (CARB 2017). CARB completed the 2022 scoping plan in November 2022 to identify a technologically feasible, cost-effective, and equity-focused path to achieve carbon neutrality by 2045, pursuant to AB 1279 (CARB 2022). The plan also assesses the state's progress toward meeting the GHG emissions reduction goal stated in SB 32.

Vehicle Efficiency and Zero-Emissions Standards

AB 1493 (Pavley I) required CARB to develop and implement regulations to reduce automobile and light truck GHG emissions. These stricter emissions standards were designed to apply to automobiles and light trucks beginning with model year 2009. The Pavley I standards were strengthened in 2012, originally referred to as Pavley II and now known as the Advanced Clean Cars Program, which was adopted for vehicle model years 2017 through 2025. Together, the Pavley I and Pavley II/Advanced Clean Cars Program standards are expected to increase average fuel economy to roughly 54.5 miles per gallon in 2025.

In August 2022, CARB board members voted to approve the Advanced Clean Cars II proposal, which will dramatically reduce emissions from passenger cars for model years 2026 through 2035. This proposal requires an increasing proportion of new vehicles to be ZE vehicles, with the goal of 100 percent of new vehicles sold by 2035 to be ZE vehicles. However, the future status of this proposal is uncertain because of the change in federal administration.

CARB also adopted the Advanced Clean Truck Regulation to accelerate a large-scale transition of ZE medium- and heavy-duty vehicles. The regulation required the sale of ZE medium- and heavy-duty vehicles as an increasing percentage of total annual California sales from 2024 to 2035. By 2035, ZE truck/chassis sales were required to be 55 percent of Class 2b and Class 3 truck sales, 75 percent of Class 4 to Class 8 straight truck sales, and 40 percent of truck tractor sales. By 2045, every new medium- and heavy-duty truck sold in California would have needed to be ZE. However, due to the change in federal administration, this regulation was also withdrawn by CARB in January 2025 (CalMatters 2025).

Low Carbon Fuel Standard

Former governor Arnold Schwarzenegger set forth the Low Carbon Fuel Standard for California in 2007 under EO S-01-07. The EO requires the carbon intensity of California's transportation fuels to be reduced by at least 20 percent by 2030.

Sustainable Land Use Planning and Vehicle Miles Traveled

SB 375 provides a planning process that coordinates land use planning, Regional Transportation Plans (RTPs), and funding priorities to help California meet the GHG reduction goals. SB 375 requires that the RTPs developed by metropolitan planning organizations include a sustainable communities strategy (SCS). The goal of an SCS is to reduce regional vehicle miles traveled (VMT) through land use planning and consequent transportation patterns. CARB first released the regional targets in September 2010 and updated them in March 2018.

SB 743 required revisions to the CEQA Guidelines that establish new impact analysis criteria for the assessment of a project's transportation impacts. The intent behind SB 743 and revising the CEQA Guidelines was to integrate and better balance the needs of congestion management, infill development, active transportation, and GHG emissions reduction.

Electricity Generation and Building Efficiency

The state passed legislation that requires increasing use of renewables to produce electricity for consumers. Specifically, California utilities are required to generate 44 percent of their electricity from renewables by 2024 (SB 100), 50 percent by 2026 (SB 100), 52 percent by 2027 (SB 100), 60 percent by 2030 (SB 100), 90 percent by 2035 (SB 1020), 95 percent by 2040 (SB 1020), and 100 percent by 2045 (SB 100/SB 1020). SB 1020 also requires state agencies to rely on 100 percent of renewable energy and zero-carbon resources to serve their own facilities by 2035.

California has also adopted aggressive energy efficiency standards for new buildings and is continuously updating the standards. In 2008, the California Building Standards Commission adopted the nation's first green, or sustainable, building standards, which included standards for many aspects of the built environment apart from energy efficiency. The existing standards were adopted on August 1, 2022, and became effective on January 1, 2023.

Local

Bay Area Air District

At the local level, responsibilities of air quality districts include overseeing stationary-source emissions, approving permits, maintaining emissions inventories, maintaining air quality stations, overseeing agricultural burning permits, and reviewing air quality-related sections of environmental documents required by CEQA. The air quality districts are also responsible for establishing and enforcing local air quality rules and regulations that address the requirements of federal and state air quality laws and for ensuring that the NAAQS and CAAQS are met.

The Bay Area Air District has local air quality jurisdiction over projects in the SFBAAB, including Contra Costa County. The district has adopted advisory emission thresholds to assist CEQA lead agencies in determining the level of significance of a project's emissions, which are outlined in its *California Environmental Quality Act Air Quality Guidelines* (District CEQA Guidelines) (BAAQMD 2023). The District CEQA Guidelines outline advisory thresholds for stationary source and land use development projects. The district has also adopted air quality plans to improve air quality, protect public health, and protect the climate, including the *2017 Clean Air Plan: Spare the Air, Cool the Climate* (2017 Clean Air Plan).

The project may be subject to the following Bay Area Air District rules.

- **Regulation 2, Rule 2 (New Source Review)**—This regulation contains requirements for Best Available Control Technology and emission offsets.
- **Regulation 2, Rule 5 (New Source Review of Toxic Air Contaminants)**—This regulation outlines guidance for evaluating TAC emissions and their potential health risks.
- **Regulation 6, Rule 1 (Particulate Matter)**—This regulation restricts emissions of particulate matter darker than No. 1 on the Ringlemann Chart to less than 3 minutes in any 1 hour.
- **Regulation 7 (Odorous Substances)**—This regulation establishes general odor limitations on odorous substances and specific emission limitations on certain odorous compounds.
- **Regulation 8, Rule 3 (Architectural Coatings)**—This regulation limits the quantity of ROG in architectural coatings.
- **Regulation 9, Rule 6 (Nitrogen Oxides Emission from Natural Gas-Fired Boilers and Water Heaters)**—This regulation limits emissions of NO_x generated by natural gas-fired boilers.
- **Regulation 9, Rule 8 (Stationary Internal Combustion Engines)**—This regulation limits emissions of NO_x and CO from stationary internal combustion engines of more than 50 horsepower.

Contra Costa County General Plan

The *Contra Costa County 2045 General Plan* includes the following goals and policies associated with air quality and greenhouse gases that are relevant to the project (Contra Costa County 2024b).

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Air Quality

Policy HS-P1.3: Require new development to adhere to BAAQMD's ² Planning Healthy Places guidance when local conditions warrant.

Policy HS-P1.5: Require new sources of air pollution that will generate significant new air quality impacts or expose sensitive receptors to substantial increases in harmful emissions of TACs to prepare a Health Risk Assessment that identifies appropriate mitigation consistent with BAAQMD California Environmental Quality Act (CEQA) Air Quality Guidelines, based on the findings of the Health Risk Assessment.

Policy HS-P1.6: Require that any mitigation of air quality impacts occur on-site to the extent feasible to provide the greatest benefit to residents in neighboring communities most impacted.

Policy HS-P1.10: Prohibit nonessential diesel engine idling countywide and nonessential idling of all vehicles within 100 feet of sensitive receptors.

Greenhouse Gases

Policy HS-P3.2: Facilitate carbon-neutral development projects and communities that support a circular economy, zero-emission modes of transportation, reliable and renewable energy resources, energy-efficient buildings, zero waste, water efficiency and conservation, green infrastructure, soil conservation, and a system of natural and working lands that support natural carbon sequestration and climate resilience.

Policy HS-P3.3: Require new development projects using the Contra Costa County Climate Action and Adaptation Plan to streamline their environmental review of GHG emissions, as permitted by CEQA Guidelines Section 15183.5, to demonstrate consistency with the Climate Action and Adaptation Plan and incorporate applicable GHG reduction and climate change adaptation measures.

Policy COS-P14.3: Encourage installation of battery storage systems in new and existing buildings, especially buildings with solar energy systems and buildings that provide essential community services.

Contra Costa County Climate Action and Adaptation Plan

In 2024, the County adopted an update to previous climate action planning efforts, the *Climate Action and Adaptation Plan 2024 Update*. The plan outlines strategies to reduce greenhouse gas emissions and adapt to climate impacts. It includes measures to improve energy efficiency, develop renewable energy, reduce VMT, and expand green infrastructure. The plan sets targets to reduce emissions 40 percent below 1990 levels by 2030 and 85 percent below 1990 levels by 2045, and it calls for the County to be on a pathway to support statewide carbon neutrality by 2045 (Contra Costa County 2024a).

² The Bay Area Air District was formerly known as the Bay Area Air Quality Management District, or BAAQMD, when this plan was published.

Criteria for Determining Significance

In accordance with Appendix G of the State CEQA Guidelines (California Code of Regulations Title 14), the project would be considered to have a significant effect on air quality if it were to result in any of the following conditions.

- Conflict with or obstruct implementation of the applicable air quality plan.
- Result in a cumulatively considerable net increase in any criteria pollutant for which the project region is a nonattainment area for an applicable federal or state ambient air quality standard.
- Expose sensitive receptors to substantial pollutant concentrations.
- Result in other emissions (such as those leading to odors) that would adversely affect a substantial number of people.

The project would be considered to have a significant effect on greenhouse gases if it were to result in any of the following conditions.

- Generation of greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.
- Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

The District CEQA Guidelines were prepared to assist in the evaluation of the air quality and GHG impacts of projects and plans proposed in the Bay Area. The District CEQA Guidelines provide recommended procedures for evaluating potential air quality and GHG impacts during the environmental review process, consistent with CEQA requirements, and include recommended thresholds of significance, mitigation measures, and background air quality information. They also include recommended assessment methodologies for air toxics and odors. The Bay Area Air District published the most recent version of the District CEQA Guidelines in April 2023 (BAAQMD 2023). The 2022 District CEQA Guidelines include guidance for evaluating plan- and project-level air quality and climate impacts, as well as best practices for centering environmental justice, health, and equity thresholds for evaluating a project's impact on air quality.

Criteria Pollutants

Appendix G of the State CEQA Guidelines states that, where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon for CEQA determinations. The Bay Area Air District has adopted thresholds for criteria pollutants to assist lead agencies in determining the significance of environmental effects associated with local attainment of state and federal ambient air quality standards. The thresholds are based on the emissions levels identified under the New Source Review (NSR) program, which is a permitting program established by Congress as part of the CAA Amendments of 1990 to ensure that air quality is not significantly degraded by new sources of emissions. The NSR program requires stationary sources to receive permits before construction and/or use of equipment. By permitting large stationary sources, the NSR program ensures that new emissions will not slow regional progress toward attaining the NAAQS. The district has concluded that the stationary pollutants described

under the NSR program are equally significant to those pollutants generated with land use projects. The district's regional thresholds were set as the total emission thresholds associated within the NSR program to help attain the NAAQS (BAAQMD 2017b).

The Bay Area Air District criteria pollutant thresholds are presented in Table 6. These thresholds represent the emissions that a project may generate before contributing to a cumulative impact on air quality. Therefore, exceedances of the project-level thresholds, as identified in Table 6, would be cumulatively considerable.

Table 6. Bay Area Air District Criteria Pollutant Significance Thresholds

Analysis	Threshold
Regional Criteria Pollutants (Construction)	ROGs: 54 pounds/day NO _x : 54 pounds/day PM ₁₀ : 82 pounds/day (exhaust only) PM _{2.5} : 54 pounds/day (exhaust only)
Regional Criteria Pollutants (Operations)	ROGs: Same as construction NO _x : Same as construction PM ₁₀ : 82 pounds/day (total) PM _{2.5} : 54 pounds/day (total)
Localized Carbon Monoxide	Violation of CAAQS (per screening criteria)
Localized Particulate Matter	Failure to implement emissions control practices PM _{2.5} increase greater than 0.3 µg/m ³ (project) PM _{2.5} increase greater than 0.8 µg/m ³ (cumulative)

Source: BAAQMD 2017b.

µg/m³ = micrograms per cubic meter; CAAQS = California ambient air quality standards; HI = hazard index; NO_x = nitrogen oxide; PM_{2.5} = particulate matter less than or equal to 2.5 microns in diameter; PM₁₀ = particulate matter less than or equal to 10 microns in diameter; ROGs = reactive organic gases.

The Bay Area Air District screening criteria for localized CO provides a conservative indication of whether project-generated traffic would cause a potential CO hot spot. If the screening criteria are not met, a quantitative analysis, involving site-specific dispersion modeling of project-related CO concentrations, would not be necessary, and the project would not cause localized violations of the CAAQS for CO. Projects that would not generate CO concentrations in excess of the health-based CAAQS would not contribute a significant level of CO such that localized air quality and human health would be substantially degraded. The district's CO screening criteria are summarized below.

1. Project traffic would not increase traffic volumes at affected intersections beyond 44,000 vehicles per hour.
2. Project traffic would not increase traffic volumes at affected intersections beyond 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited (e.g., a tunnel, parking garage, bridge underpass, natural or urban street canyon, below-grade roadway).
3. The project would be consistent with the applicable congestion management program established by the county congestion management agency for designated roads or highways, a regional transportation plan, and local congestion management agency plans.

The thresholds presented in Table 6 consider existing air quality concentrations and attainment or nonattainment designations under the NAAQS and CAAQS. The NAAQS and CAAQS are informed by a wide range of scientific evidence that demonstrates that there are known safe concentrations of criteria pollutants. Although recognizing that air quality is a cumulative problem, the Bay Area Air District considers projects that generate criteria pollutant and ozone precursor emissions that are below the thresholds to be minor in nature; they would not adversely affect air quality such that the health-protective NAAQS or CAAQS would be exceeded. Regional emissions generated by the project could increase photochemical reactions and the formation of tropospheric ozone and secondary particulate matter, which, at certain concentrations, could lead to increased incidences of specific health consequences. Although these health effects are associated with ozone and particulate pollution, the effects are a result of cumulative and regional emissions.

Toxic Air Contaminants

The Bay Area Air District has adopted incremental cancer and hazard thresholds to evaluate receptor exposure to single sources of DPM emissions. The “substantial” DPM threshold defined by the district is any exposure of a sensitive receptor to an individual emissions source resulting in an excess cancer risk level of more than 10 in 1 million or a non-cancer (i.e., chronic or acute) hazard index (HI) greater than 1.0.

The district considers projects to have a cumulatively considerable DPM impact if they contribute DPM emissions that, when combined with cumulative sources within 1,000 feet of sensitive receptors, result in excess cancer risk levels of more than 100 in 1 million or an HI greater than 10.0. The district considers a project to have a significant cumulative impact if it introduces new receptors at a location where the combined exposure to all cumulative sources within 1,000 feet is in excess of the cumulative thresholds.

The district considers a project to have a significant impact if it does not comply with the applicable regulatory requirements outlined in Regulation 11, Rule 2 of the District CEQA Guidelines.

Greenhouse Gas Emissions

Construction-Generated Emissions of Greenhouse Gases

The Bay Area Air District’s CEQA Guidelines do not identify a threshold for construction-related GHG emissions (BAAQMD 2023). However, the District CEQA Guidelines still recommend quantifying and disclosing construction GHG emissions. Even though the significance of construction GHG emissions is not determined in this memorandum, the District CEQA Guidelines recommend best management practices (BMPs) that projects should incorporate to reduce construction GHG emissions (BAAQMD 2023).

Operational Emissions of Greenhouse Gases

The current Bay Area Air District CEQA GHG thresholds consider the 2030 state reduction target (e.g., SB 32) and 2045 carbon neutrality target (e.g., EO B-55-18), as well as evolving case law. The district recommends that a GHG analysis focus on a project’s impact on the state’s efforts to meet long-term

climate goals. If a project would contribute its “fair share” of what will be required to achieve those long-term climate goals, then a reviewing agency can find that the impact would not be significant because the project would help to solve the problem of global climate change (BAAQMD 2023).

In summary, the district’s GHG thresholds for land use projects emphasize (1) avoiding wasting electricity and developing fossil fuel infrastructure in new buildings that will be in place for decades and, thus, conflict with carbon neutrality by 2045; (2) compliance with the 2022 California Green Building Standards Code, Title 24, Part 11 (CALGreen) Tier 2 electric vehicle requirements and per capita VMT reductions consistent with SB 743; and (3) consistency with a qualified greenhouse reduction strategy (also known as a Climate Action Plan). These thresholds are summarized in Table 7.

Table 7. Bay Area Air Quality Management District Greenhouse Gas Thresholds for Land Use Projects

Thresholds for Land Use Projects (Must Include A or B)	
A.	Projects must include, at a minimum, the following project design elements:
1.	Buildings
a.	The project will not include natural gas appliances or natural gas plumbing (in both residential and nonresidential development).
b.	The project will not result in any wasteful, inefficient, or unnecessary electrical usage as determined by the analysis required under CEQA Section 21100(b)(3) and Section 15126.2(b) of the CEQA Guidelines.
2.	Transportation
a.	Achieve a reduction in project-generated VMT below the regional average consistent with the current version of the California Climate Change Scoping Plan (currently 15 percent) or meet a locally adopted Senate Bill 743 VMT target, reflecting the recommendations provided in the Governor’s Office of Planning and Research’s Technical Advisory on Evaluating Transportation Impacts in CEQA:
i.	Residential projects: 15 percent below the existing VMT per capita
ii.	Office projects: 15 percent below the existing VMT per employee
iii.	Retail projects: no net increase in existing VMT
b.	Achieve compliance with off-street electric vehicle requirements in the most recently adopted version of CALGreen Tier 2.
B.	Projects must be consistent with a local GHG reduction strategy that meets the criteria under CEQA Guidelines Section 15183.5(b).

Source: BAAQMD 2022a.
CALGreen = California Green Building Standards Code; CEQA = California Environmental Policy Act; GHG = greenhouse gas; VMT = vehicle miles traveled.

If a project is designed and built to incorporate the design elements listed in Table 7 (Threshold Option A) or is consistent with a local GHG reduction strategy under State CEQA Guidelines Section 15183.5 (Threshold Option B), then it would contribute its portion of what is necessary to achieve California’s long-term climate goals—its fair share—and would not make a cumulatively considerable contribution to global climate change. If the project does not incorporate these design elements and is not consistent with a local GHG reduction strategy, then it should be found to have a significant climate impact because it would hinder the state’s efforts to address climate change.

This analysis evaluates the project's consistency with (Threshold Option A or B) to determine the significance of the project's GHG emissions. **[Note to Reviewers: This analysis will be completed once the County provides guidance related to the project's consistency with the CAP]**

Methodology

Construction Assumptions

It is assumed that construction of the project would generate emissions of ROG_s, NO_x, CO, PM₁₀, and PM_{2.5}, resulting in short-term impacts on ambient air quality in the air quality study area (i.e., the SFBAAB). Construction would also generate emissions of CO₂, CH₄, and N₂O that would result in long-term impacts on atmospheric GHG concentrations. Emissions would originate from mobile and stationary construction equipment, employee vehicles, asphalt paving, land clearing, and the application of architectural coatings.

Criteria pollutant emissions from heavy-duty equipment, on-road vehicles, asphalt paving, architectural coatings, demolition and land disturbance were estimated using the California Emissions Estimator Model (CalEEMod), version 2022.1.1.29. CalEEMod was also used to estimate GHG emissions from heavy-duty equipment and on-road vehicles. Based on input provided by the Contra Costa County Fire Protection District, it is expected that construction would occur over six construction phases during an approximately 17-month period between October 2026 and March 2028: (1) demolition, (2) site preparation, (3) trenching/utilities, (4) building shell construction, (5) architectural coatings, and (6) paving/hardscape/landscaping.

CalEEMod default input values were used for most construction parameters; however, the Contra Costa County Fire Protection District provided some construction details and confirmed the use of all CalEEMod default information. Following is a summary of the construction assumptions for the project.

- **Heavy-Duty Construction Equipment.** The CalEEMod defaults were used to estimate the number of pieces of equipment, equipment horsepower, fuel type, and hours per day for each construction phase, except for the trenching/utilities phase. The equipment data for trenching/utilities was informed by the prior analysis for an earlier version of the project and verified by the Contra Costa County Fire Protection District.
- **Construction Vehicle Trips.** Emissions calculations were based on the average number of daily worker trips per construction phase, based on CalEEMod default values. Default trip lengths of 12 miles for workers, 8 miles for vendors, and 20 miles for hauling were used. The default vehicle fleet mix was also used: light-duty autos and light-duty trucks for worker trips, heavy-duty trucks and medium-duty trucks for vendor trips, and heavy-duty trucks for hauling trips.
- **Paving.** Paving activities during the paving/hardscape/landscaping construction category would result in emissions of ROG_s. Emissions were estimated using CalEEMod default assumptions, which assumed a pave surface area of 0.5 acre.

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- **Architectural Coating.** Architectural coating activities would result in emissions of ROG_s. During the architectural coating phase, the proposed parking lot would receive a coating (i.e., the painting of parking spaces), and the proposed buildings would receive a coating (i.e., the painting of interior and exterior surfaces). The coated areas are automatically calculated in CalEEMod based on the building and parking lot square footage.
- **Earthmoving.** Earthmoving activities would result in emissions of particulate matter (i.e., dust). Earthmoving, which would occur during the site preparation phase of construction, include the grading of the 0.4-acre project site and exportation of approximately 2,000 cubic yards of material.
- **Demolition.** The existing fire station on the project site, which has a footprint of approximately 2,215 square feet, would be demolished and result in fugitive dust emissions. Emissions from this source are calculated by CalEEMod using the square footage of the demolished structure(s).

For more detail, refer to Attachment A, *Air Quality Modeling Output Materials*, which includes construction modeling output files and a comprehensive list of assumptions.

Operations Assumptions

Operation of the project would generate emissions of ROG_s, NO_x, CO, PM₁₀, and PM_{2.5} that could result in long-term impacts on ambient air quality. Project operation would also generate emissions of CO₂, CH₄, and N₂O that could result in long-term impacts on atmospheric GHG concentrations. Criteria pollutant and GHG emissions from motor vehicles associated with development of the project were evaluated using CalEEMod. To calculate emissions from mobile sources during operations, vehicle trip estimates from the 2025 *Transportation Analysis for the Pacheco Fire Station 9 Redevelopment Project* were used (Fehr & Peers 2025). Additionally, water consumption results in indirect GHG emissions from energy used to convey and treat water, and waste disposed of at the fire station ultimately results in fugitive CH₄ and N₂O emissions from the decomposition of organic matter once the waste reaches a landfill. Both water- and waste-related GHG emissions were estimated using CalEEMod. Similarly, area-, energy-, and stationary-source emissions associated with the project were estimated using CalEEMod. Energy sources result in emissions from the combustion of natural gas and electricity usage, and area sources result in emissions from off-gassing from the reapplication of architectural coatings and use of consumer products, and fuel combustion in gas-powered landscaping equipment. Stationary sources include the diesel-powered emergency generator. Following is a summary of the operational assumptions for the project.

- **Area Sources.** Normal facility operation and maintenance associated with the project would include landscaping activities that would require the use of gasoline-powered mowers and trimmers and result in criteria pollutant and GHG emissions. Additionally, off-gassing from the reapplication of architectural coatings and use of consumer products would result in criteria pollutant emissions (i.e. ROG_s). Area-source emissions were calculated using CalEEMod, based on the size of the proposed building and the proposed parking lot.
- **Electricity.** CalEEMod calculates GHG emissions but not criteria pollutant emissions associated with electricity consumption. Natural gas use at the project site, however, results in criteria pollutant and GHG emissions. Electricity and natural gas at the project site would be provided by Pacific Gas and Electric. To estimate the future energy use of the project, CalEEMod default energy usage for a government office building land use type was assumed.

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- **Water and Wastewater.** Water consumption at the project site requires electricity to supply, treat, and distribute the water prior to being consumed. Additionally, electricity is required to treat wastewater after being used at the site. The electricity required for these processes results in indirect GHG emissions but not criteria pollutant emissions. CalEEMod default water and wastewater usage for a government office building land use type was assumed.
- **Waste.** Solid waste results in fugitive GHG emissions during decomposition of the waste once it is deposited in a landfill. The CalEEMod default waste generation rate for a government office building land use type was assumed.
- **Mobile Sources.** Vehicle trips generated by the project would include daily employee trips associated with commuting to and from the project site, visitor trips, and trips associated with fire station vehicles and trucks during operations. The default vehicle category fleet mix in CalEEMod presumes that the majority of the fleet is comprised of light-duty vehicle types, which may not be representative of the fleet mix associated with a fire station. As such, the fleet mix modeled in CalEEMod was selected to be 100 percent heavy-duty trucks to represent operational vehicle trips. Although some vehicle trips will involve smaller vehicles than heavy-duty trucks, trip data by vehicle type is not currently available, and the analysis thus conservatively quantifies emissions from mobile sources.
- **Stationary Sources.** One 268-horsepower emergency diesel generator would be used to provide power during grid outages. The generator would regularly undergo maintenance testing once weekly for 30 minutes, once annually for 2 hours, and once every three years for 4 hours. Additionally, in accordance with the Bay Area Air District guidance, the generator is assumed to operate up to 100 hours per year for emergency purposes (BAAQMD 2023).

Because the new fire station would replace the existing fire station, net operational emissions associated with the project were estimated by subtracting emissions generated by the existing fire station from emissions generated by the project at full buildout in 2028. For more detail, refer to Attachment A, which includes operational modeling output files.

Health Risk Assessment

The project would generate emissions of DPM (a TAC)³ and PM_{2.5} during construction. These emissions would primarily result from the use of off-road diesel-powered equipment and heavy-duty trucks. PM_{2.5} emissions, including both diesel and non-diesel exhaust and fugitive dust, would be generated by off-road equipment, on-site soil disturbance, and vehicle travel by heavy-duty trucks and construction workers. During project operation, additional DPM emissions would occur from the testing, maintenance, and emergency use of the proposed backup generator. Given the proximity of sensitive receptors to the project site, a health risk assessment (HRA) was conducted to evaluate potential impacts from these emissions.

The project may also result in the continuation of DPM emissions from fire truck activity and PM_{2.5} emissions from employee vehicle trips during operation. However, because the project does not expand the response area, future fire truck trips would be consistent with existing patterns.

³ Per Bay Area Air District guidance, PM₁₀ exhaust is used as a surrogate for DPM.

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Therefore, emissions from fire truck activity associated with the facility are considered part of existing conditions and would occur regardless of the project. Additionally, employee commute vehicle trips would be made by passenger cars and light-duty trucks, which typically emit negligible levels of DPM. Finally, since operational activities would not coincide with construction, and PM_{2.5} emissions from mobile sources during operation would be substantially lower than those during construction, operational emissions are not expected to influence the maximum annual PM_{2.5} concentration resulting from the project. As such, the HRA focuses on construction sources and operation of the emergency generator.

The HRA was prepared using the AERMOD View 13.0.0 air dispersion model and incorporates the most current methodology outlined in the District CEQA Guidelines (BAAQMD 2022b). The HRA applies the most recent guidance and calculation methods from the Office of Environmental Health Hazard Assessment's (OEHHA) *Air Toxics Hot Spots Program Guidance Manual for the Preparation of Risk Assessments* (OEHHA 2015). The HRA consists of three parts: an emissions inventory, air dispersion modeling, and risk calculations.

Emissions Inventory

The construction emissions inventory includes PM₁₀ exhaust emissions from off-road equipment and on-road trucks, and PM_{2.5} emissions from onsite soil movement and the travel of trucks and construction worker vehicles on roadways. PM₁₀ exhaust emissions are assumed to be representative of DPM in this analysis, in accordance with Bay Area Air District guidance. The operational emissions inventory includes PM₁₀ exhaust emissions from maintenance, testing, and emergency use of the proposed diesel-fueled generator. The DPM and PM_{2.5} emission inventories were quantified using the results from CalEEMod.

Air Dispersion Modeling

To conduct the HRA, the AERMOD View 13.0.0 air dispersion model was used to determine annual average DPM and PM_{2.5} concentrations at receptors. Modeling inputs, including emissions rates in grams of pollutant emitted per second, and source characteristics (e.g., release height, stack diameter, plume width) were based on guidance provided by OEHHA, the Bay Area Air District, and the Sacramento Metropolitan Air Quality Management District (SMAQMD). The Concord-Buchanan Field (KCCR) monitoring station is the closest station to project site; thus, meteorological data from KCCR for 2013 to 2017 were used to model pollutant concentrations at existing off-site sensitive receptors (BAAQMD 2022b).

Emissions from off-road equipment were characterized as a polygon area source to outline the footprint of the areas in which activities would occur. For exhaust sources of emissions, a release height⁴ of 5.0 meters was used to represent emissions from off-road equipment, and a release height of 3.4 meters was used to represent emissions from on-site trucks (SCAQMD 2008; BAAQMD 2023). A release height of 0 meters was used to represent fugitive dust PM_{2.5} emissions from off-road equipment and onsite and on-road vehicles. On-road travel emissions from haul trucks and vendor trucks for the DPM and PM_{2.5} analysis were characterized as line volume sources.⁵

⁴ The release height represents the height above the ground at which pollutants are emitted.

⁵ Line volume sources represent a series of individual volumes sources.

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Plume rise is the height that pollutants rise above a release height. For exhaust, plume rise occurs because of the temperature of the exhaust gas. Exhaust gas temperatures can be high, which causes the plume to rise. For dust, plume rise accounts for the mechanical entrainment of dust in the wheels of equipment and trucks. To account for the plume rise associated with mechanically generated air turbulence from construction emissions for the AERMOD run, the initial vertical dimensions of the sources representing off-road equipment and trucks (both on site and on road) were modeled as 4.7 and 3.2 meters, respectively (BAAQMD 2023). For fugitive dust, plume rise accounts for the mechanical entrainment of dust in the wheels of equipment and trucks and was set as 0.9 meter. The proposed diesel-fueled generator was modeled as a point source consistent with its anticipated location on the site and Bay Area Air District-recommended input parameters (BAAQMD 2023). For more detail, refer to Attachment A, which includes a list of source parameters used in the HRA.

Construction activities were modeled to reflect that construction would occur Monday through Friday between 7:30 a.m. and 5:30 p.m., given that there is County ordinance limiting grader operations to weekdays between 7:30 a.m. and 5:30 p.m. The urban dispersion option was used because of the site's characteristics and because surrounding areas are developed with buildings and paved surfaces that can influence how pollutants are dispersed in the area. Off-site sensitive receptors were placed at residences, schools, including day-care facilities, and places of employment within approximately 1,000 feet of the project site using a 20- by 20-meter receptor grid. Receptors were given a height of 1.5 meters to represent the average human breathing zone (BAAQMD 2023).

Risk Calculations

The risk calculations incorporate OEHHA's age sensitivity factors, which account for increased sensitivity to carcinogens during early-in-life exposure. The approach for estimating cancer risk from long-term inhalation, including exposure to carcinogens, requires calculating a range of potential doses and multiplying by cancer potency factors in units corresponding to the inverse dose to obtain a range of cancer risks. For cancer risk, the risk for each age group is calculated using the appropriate daily breathing rates, age sensitivity factors, and exposure durations. The cancer risks calculated for individual age groups are summed to estimate the cancer risk for each receptor. Chronic cancer and hazard risks were calculated using values from OEHHA's 2015 HRA guidance and the District CEQA Guidelines (OEHHA 2015; BAAQMD 2023). Cancer risks from construction are based on a total construction duration of approximately 1.42 years (i.e., 17 months), consistent with the project's construction schedule.

Impacts and Mitigation Measures

Impact AQ-1: The project would not conflict with or obstruct implementation of an applicable air quality plan (Less than Significant)

As noted previously in *Bay Area Air District*, the current air quality attainment plan for the SFBAAB is the 2017 Clean Air Plan, which defines control strategies to reduce emissions and ambient concentrations of air pollutants; safeguards public health by reducing exposure to air pollutants that pose the greatest health risk, with an emphasis on protecting the communities most heavily affected

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by air pollution; and reduces GHG emissions to protect the climate (BAAQMD 2017b). According to the District CEQA Guidelines, the determination of 2017 Clean Air Plan consistency should consider the following for project-level analyses (BAAQMD 2017b).

- Does the project support the primary goals of the 2017 Clean Air Plan? Does the project include all applicable control measures from the 2017 Clean Air Plan?
- Does the project disrupt or hinder implementation of any 2017 Clean Air Plan control measures?

Support of 2017 Clean Air Plan Goals

The primary goals of the 2017 Clean Air Plan are to reduce emissions and decrease concentrations of harmful pollutants, safeguard public health by reducing exposure to air pollutants that pose the greatest health risk, and reduce GHG emissions to protect the climate.

The project is necessary for the County to provide critical emergency services, and it will be constructed and operated, as shown in this memorandum without resulting in significant emissions of criteria pollutants or causing significant increases in health risks. As a fire station, the project serves a critical role for safeguarding public health because uncontrolled fires and the corresponding smoke are detrimental to human health; thus, the project supports a primary goal of the 2017 Clean Air Plan.

Include Applicable 2017 Clean Air Plan Control Measures

Control strategies in the 2017 Clean Air Plan include measures in the following categories: stationary source control measures, transportation control measures, energy control measures, building control measures, agriculture control measures, natural and working lands control measures, waste management control measures, and water control measures.

Stationary Source Control Measures

The project would include a diesel-powered emergency generator, which is a stationary source that would require a permit to operate from the Bay Area Air District. As part of the permit review process, operation of the emergency generators would be required to comply with district permitting requirements, which incorporate stationary-source control measures from the 2017 Clean Air Plan; therefore, the project would be consistent with the stationary-source control measures of the 2017 Clean Air Plan through compliance with the current regulatory process.

Energy Control Measures

The 2017 Clean Air Plan also includes energy control measures, which are designed to reduce emissions of criteria air pollutants, TACs, and GHGs by decreasing the amount of electricity consumed in the Bay Area, and the carbon intensity of electricity used by switching to less GHG-intensive fuel sources for electricity generation. Because 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. Nevertheless, the project would include photovoltaic panels to generate renewable energy on site, which would support implementation of these measures.

Waste Management, Water, and Other Control Measures

The waste management control measures aim to cut methane emissions by diverting organic waste from landfills and increasing recycling. Thus, these measures apply to the managers of waste collection, such as landfill operators and waste collection services, and do not apply to the project. The water control measures aim to reduce emissions through conservation, limiting GHGs from public treatment facilities, and promoting biogas recovery. Since these measures apply to public agencies, not individual projects, they do not apply to the project. Regarding other measures, the Bay Area Air District regulates emissions from building equipment like boilers and water heaters but has limited authority over buildings themselves. As a result, building control measures in the 2017 Clean Air Plan focus on supporting local governments and do not apply to the project. Similarly, agriculture control measures target methane emissions from farming, which are not relevant since the project includes no agricultural activities.

Disrupt or Hinder Implementation of 2017 Clean Air Plan Control Measures

As discussed previously, the project would incorporate design features to reduce emissions. As a result, the project would not disrupt, delay, or otherwise hinder implementation of any applicable control measures from the 2017 Clean Air Plan.

Accordingly, the project would not conflict with or obstruct implementation of the 2017 Clean Air Plan and would have a **less than significant** impact.

Impact AQ-2: The project would result in a cumulatively considerable net increase in any criteria pollutant for which the project region is a non-attainment area under an applicable federal or state ambient air quality standard (Less than Significant with Mitigation)

Construction

Construction of the project would generate ROG, NO_x, PM10, and PM2.5 emissions that could result in short-term air quality effects during the construction period of 2026 to 2028. Emissions would be released in the form of exhaust from off-road equipment, employee vehicles, vendor trucks, and haul trucks; fugitive dust from site grading and earthmoving; suspended road dust from vehicle travel; and off-gassing from architectural coatings and paving. Table 8 summarizes the results of the emissions modeling.

Table 8. Criteria Pollutant Emissions from Project Construction (average pounds per day)

Construction Year	ROGs	NO _x	CO	PM10		PM2.5	
				Dust	Exhaust	Dust	Exhaust
2026	<1	4	6	<1	<1	<1	<1
2027	<1	4	6	<1	<1	<1	<1
2028	3	7	10	1	<1	<1	<1
<i>Air District Threshold</i>	<i>54</i>	<i>54</i>	<i>-</i>	<i>BMPs</i>	<i>82</i>	<i>BMPs</i>	<i>54</i>
<i>Exceed Threshold?</i>	<i>No</i>	<i>No</i>	<i>-</i>	<i>-</i>	<i>No</i>	<i>-</i>	<i>No</i>

Source: See Attachment A, Air Quality Modeling Output Materials.
BMPs = best management practices; CO = carbon monoxide; NO_x = nitrogen oxide; PM2.5 = particulate matter no more than 2.5 microns in diameter; PM10 = particulate matter no more than 10 microns in diameter; ROGs= reactive organic gases.

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As shown in Table 8, construction of the project would not generate ROG_s, NO_x, or PM exhaust in excess of the Bay Area Air District's numeric thresholds. However, the district considers emissions of fugitive dust to be potentially significant unless BMPs are implemented to minimize the generation of fugitive dust. As such, this impact is potentially significant.

The project would incorporate **Mitigation Measure AQ-1**, below, which will require implementation of the Bay Area Air District's Basic Best Management Practices for Construction-Related Fugitive Dust Emissions to reduce construction-related fugitive dust impacts during all phases of construction. With this measure, fugitive dust emissions would be minimized.

Because construction-related criteria pollutant emissions associated with the project would be below the district's significance thresholds, and the project would incorporate Mitigation Measure AQ-1, criteria pollutant emission impacts of project construction would be **less than significant with mitigation incorporated**. As such, construction emissions would not be expected to contribute a significant level of air pollution that would degrade regional air quality within the SFBAAB.

Mitigation Measure AQ-1: Implement the Bay Area Air District's Basic Best Management Practices for Construction-Related Fugitive Dust Emissions

The project sponsor shall require its contractor(s) to implement the Basic Best Management Practices for Construction-Related Fugitive Dust Emissions recommended by the Bay Area Air District. The emissions reduction measures shall include, at a minimum, the following.

- 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 trackout 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.
- All excavation, grading, and/or demolition activities shall be suspended when average wind speeds exceed 20 mph.
- All trucks and equipment, including their tires, shall be washed off prior to leaving the site.

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- Unpaved roads providing access to sites located 100 feet or further from a paved road shall be treated with a 6- to 12-inch layer of compacted layer of wood chips, mulch, or gravel. Publicly visible signs shall be posted with the telephone number and name of the person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Bay Area Air District's General Air Pollution Complaints number shall also be visible to ensure compliance with applicable regulations.

Operations

As noted previously in *Operations Assumptions*, project operations would result in criteria air pollutant emissions from area, energy (i.e., natural gas), mobile, and stationary sources. These sources of emissions are the same as the existing fire station; however, it was assumed that there is no emergency generator located at the existing fire station. Table 9 summarizes the estimated criteria pollutant operational emissions from the existing Fire Station 9, the project, and the net emissions, which are compared to the Bay Area Air District's operational criteria pollutant thresholds.

Table 9. Existing Conditions (2025), Project Conditions (2028), and Net Criteria Pollutant Emissions during Project Operation (average daily pounds per day)

Emission Source	ROG	NO _x	CO	PM10			PM2.5		
				Dust	Exhaust	Total	Dust	Exhaust	Total
Existing Fire Station 9 (Existing Conditions, 2025)									
Area	<1	<1	<1	-	<1	<1	-	<1	<1
Energy	<1	<1	<1	-	<1	<1	-	<1	<1
Mobile	<1	1	<1	<1	<1	<1	<1	<1	<1
Stationary ^a	-	-	-	-	-	-	-	-	-
Total Existing	<1	1	<1	<1	<1	<1	<1	<1	<1
Proposed Fire Station 9 (Project Conditions, 2028)									
Area	<1	<1	<1	-	<1	<1	-	<1	<1
Energy	<1	<1	<1	-	<1	<1	-	<1	<1
Mobile	<1	1	1	<1	<1	<1	<1	<1	<1
Stationary	<1	<1	<1	-	<1	<1	-	<1	<1
Total Project	<1	2	2	<1	<1	<1	<1	<1	<1
Net Emissions	<1	1	2	<1	<1	<1	<1	<1	<1
Air District Threshold ^b	54	54	—	—	—	82	—	—	54
Exceed Threshold?	No	No	—	—	—	No	—	—	No

Source: See Attachment A, *Air Quality Modeling Output Materials*.

CO = carbon monoxide; NO_x = nitrogen oxide; PM2.5 = particulate matter no more than 2.5 microns in diameter; PM10 = particulate matter no more than 10 microns in diameter; ROG= reactive organic gases.

^a The existing analysis conservatively assumed there was no existing emergency generator.

^b The Bay Area Air District has no threshold of significance for CO; CO emissions presented for informational purposes.

Operation of the project would not generate ROG, NO_x, or particulate matter that would exceed the Bay Area Air District's thresholds, as shown in Table 9. As such, operational emissions would not be expected to contribute a significant level of air pollution that would degrade regional air quality within the SFBAAB. The criteria emissions impact of project operations would be **less than significant**.

Impact AQ-3: The project would expose sensitive receptors to substantial pollutant concentrations (Less than Significant with Mitigation)

Criteria Pollutants

As discussed above, the Bay Area Air District has developed District-specific CEQA thresholds of significance for use in consideration of existing air quality concentrations and attainment designations under the NAAQS and CAAQS. The NAAQS and CAAQS are informed by a wide range of scientific evidence regarding safe concentrations of criteria pollutants. Recognizing that air quality is a cumulative problem, the Bay Area Air District typically considers projects that generate criteria pollutant and ozone precursor emissions that are below the thresholds to be minor in nature. Such projects would not adversely affect air quality or exceed the NAAQS or CAAQS. As shown in Table 8, construction and operation of the project would not generate ROG, NO_x, or particulate matter that would be in excess of the Bay Area Air District's numeric thresholds. As such, project operation would not be expected to contribute a significant level of air pollution that would degrade regional air quality within the SFBAAB. Consequently, the impact of criteria pollutant emissions would be **less than significant** and would not expose receptors to substantial pollutant concentrations or risk.

Diesel Particulate Matter and PM_{2.5}

The project would generate emissions of DPM,⁶ (a TAC) and PM_{2.5} during construction. These emissions would primarily stem from the use of off-road diesel-powered equipment and heavy-duty trucks. PM_{2.5} emissions, including both diesel and non-diesel exhaust and fugitive dust, would be generated by off-road equipment, on-site soil disturbance, and vehicle travel by heavy-duty trucks and construction workers. During project operation, additional DPM emissions would occur from the testing, maintenance, and emergency use of the proposed backup generator.

The HRA evaluates potential impacts from these emissions and was prepared using the AERMOD View 13.0.0 air dispersion model. It incorporates the most current methodology outlined in the District CEQA Guidelines (BAAQMD 2023). Table 10 presents the unmitigated incremental health risk estimates for offsite residential, student, and worker receptors located within 1,000 feet of the project site. Because **Mitigation Measure AQ-1** under Impact AQ-2, above, is required to mitigate fugitive dust emissions, the HRA results presented here assume implementation of this measure. Based on the HRA results, the residential maximally exposed individual receptor (MEIR) is located at a single-family home on Blackwood Drive, directly south of the project site; the student MEIR is located at a daycare facility on 2nd Avenue, southwest of the site; and the off-site worker MEIR is located in the retail center at the intersection of Center Avenue and Pacheco Boulevard, east of the project site.⁷ For more detail, refer to Attachment A, which includes a comprehensive list of modeling parameters, calculations, and output files.

⁶ Per Bay Area Air District guidance, PM₁₀ exhaust is used as a surrogate for DPM.

⁷ These results reflect the implementation of the Bay Area Air District's basic dust-reducing BMPs, as written in the District CEQA Guidelines. Because these BMPs are required for a project to be considered less than significant with

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Table 10. Estimated Unmitigated Project-Level Health Risk Results

Offsite Receptor Type	Cancer Risk (cases per million) ^a	Non-Cancer Chronic Risk	Annual PM2.5 Concentrations (µg/m ³) ^b
MEIR - Resident			
Construction	2.4	<0.01	0.01
Generator Operation	<0.1	<0.01	<0.01
Project – Total (resident)	2.4	<0.01	0.01
Threshold	10	1.0	0.3
<i>Exceeds Threshold?</i>	<i>No</i>	<i>No</i>	<i>No</i>
MEIR - Student			
Construction	0.1	<0.01	<0.01
Generator Operation	<0.1	<0.01	<0.01
Project – Total (student)	0.1	<0.01	<0.01
Threshold	10	1.0	0.3
<i>Exceeds Threshold?</i>	<i>No</i>	<i>No</i>	<i>No</i>
MEIR - Worker			
Construction	<0.1	<0.01	<0.01
Generator Operation	<0.1	<0.01	<0.01
Project - Total (worker)	<0.1	<0.01	<0.01
Threshold	10	1.0	0.3
<i>Exceeds Threshold?</i>	<i>No</i>	<i>No</i>	<i>No</i>

Source: See Attachment A, *Air Quality Modeling Output Materials*. MEIR = maximally exposed individual receptor; µg/m³ = micrograms per cubic meter; PM2.5 = particulate matter with an aerodynamic diameter of 2.5 or less. Exceedances are bolded and underlined.

^a The evaluation of cancer risks in the HRA was based on an exposure duration of 1.42 years for project construction.

^b Because construction activities and generator operation would not occur simultaneously, their annual PM2.5 concentrations are not combined. Instead, the “Project – Total” value reflects the highest annual PM2.5 concentration from either source.

As shown in Table 10, cancer risks and annual PM2.5 concentrations would be below the applicable thresholds at all receptor locations. The highest values would occur for the residential receptor, but all results would be considerably less than the thresholds. Therefore, project-generated emissions would not expose sensitive receptors to substantial pollutant concentrations or associated health risks. With implementation of Mitigation Measure AQ-1, the DPM and PM2.5 impact of the project would be **less than significant with mitigation incorporated**.

Cumulative Health Risk Assessment

According to the District CEQA Guidelines, risk levels from project-generated sources and existing sources within 1,000 feet of a project site should be combined and compared to the district’s cumulative health risk thresholds (BAAQMD 2023).

respect to mass emissions of fugitive dust, their implementation is required regardless of the HRA results. Therefore, the scenario shown in Table 10 is considered unmitigated for the purposes of the HRA.

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Under the project, existing and project-generated health risks could contribute to a cumulative health risk for sensitive receptors near the project site. Potential existing TAC sources include permitted stationary sources (e.g., generators and gas dispensing facilities), roadways, and other development projects in the surrounding area. There are no railways in the project area. As described previously, there are two permitted facilities within 1,000 feet of the project site. The district's inventory of stationary health risks was used to estimate the combined health risks from the existing permitted facilities in combination with the project's contributions. Mobile sources on nearby roadways like State Route 4 would also generate TAC emissions. Geographic information system (GIS) raster files provided by the district were used to estimate roadway emissions within 1,000 feet of the project site (BAAQMD 2022b).

Table 11 summarizes the mitigated health risks for the project's MEIRs, in addition to the contributions from existing stationary and mobile sources within 1,000 feet of the site. The combined health risk values are compared to the district's cumulative thresholds. Additional details on individual background source contributions are provided in Attachment A.

Table 11. Cumulative Mitigated Health Risk Results

Pollutant/Receptor Type	Cancer Risk (cases per million)	Non-Cancer Chronic Risk	Annual PM _{2.5} Concentration (µg/m ³)
MEIR - Resident			
Existing Sources	12.5	0.04	0.24
Stationary Sources	1.6	<0.01	<0.01
Roadway Sources	10.9	0.03	0.24
Rail Sources ^a	-	-	-
Project Sources	2.4	<0.01	0.01
Total cumulative (resident)	14.9	0.04	0.25
Threshold	100	10	0.8
<i>Exceeds threshold?</i>	<i>No</i>	<i>No</i>	<i>No</i>
MEIR - Student			
Existing Sources	7.1	0.02	0.15
Stationary Sources	0.3	<0.01	<0.01
Roadway Sources	6.7	0.02	0.15
Rail Sources ^a	-	-	-
Project Sources	0.1	<0.01	<0.01
Total cumulative (student)	7.2	0.02	0.16
Threshold	100	10	0.8
<i>Exceeds threshold?</i>	<i>No</i>	<i>No</i>	<i>No</i>
MEIR - Worker			
Existing Sources	16.5	0.05	0.27
Stationary Sources	2.6	0.01	<0.01
Roadway Sources	13.8	0.04	0.27
Rail Sources ^a	-	-	-

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Pollutant/Receptor Type	Cancer Risk (cases per million)	Non-Cancer Chronic Risk	Annual PM2.5 Concentration ($\mu\text{g}/\text{m}^3$)
Project Sources	0.0	<0.01	<0.01
Total cumulative (worker)	16.5	0.05	0.27
Threshold	100	10	0.8
<i>Exceeds threshold?</i>	<i>No</i>	<i>No</i>	<i>No</i>

Source: See Attachment A, *Air Quality Modeling Output Materials*.

MEIR = maximally exposed individual receptor; $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter; PM2.5 = particulate matter with an aerodynamic diameter of 2.5 or less.

^a Because there are no railways in the project area, rail sources do not contribute to cumulative health risks.

As shown in Table 11, health risks associated with existing stationary and roadway sources in combination with the project would not exceed the Bay Area Air District's cumulative thresholds. All results would be below the district's thresholds by a substantial margin. Therefore, the cumulative effect of health risks associated with TACs emitted by the project in combination with health risks associated with existing TAC sources would not result in cumulatively considerable local health risks at sensitive land uses. The cumulative health impact of the project would be **less than significant**.

Naturally Occurring Asbestos

Depending on a project's size and geographic location, a project may be subject to CARB's Asbestos Airborne Toxic Control Measure for Construction, Grading, Quarrying, and Surface Mining Operations. Projects in areas that are known to contain naturally occurring asbestos or projects that may disturb asbestos in soil or building materials must comply with this measure. For projects that are not in an area that is known to contain naturally occurring asbestos or projects that would not involve earth-disturbing activity, it can be assumed that the projects would not have the potential to expose people to airborne asbestos particles.

The project site is not in an area that is known to contain naturally occurring asbestos (USGS and CGS 2011). Accordingly, the project is not required to comply with CARB's notification requirements regarding asbestos. Demolition of the existing asphalt surface and building on the project site may expose workers and nearby receptors to asbestos if it was used during construction of the original hardscape and building. However, the project would comply with Bay Area Air District Regulation 11, Rule 2, Asbestos, Demolition, Renovation, and Manufacturing. The purpose of this rule is to control emissions of asbestos into the atmosphere during demolition and building renovation. In addition, implementation of the Bay Area Air District's Basic Construction Mitigation Measures would reduce and control dust emissions. Therefore, impacts associated with asbestos emissions would be **less than significant**, and construction of the project would not expose receptors to substantial public health risks related to asbestos.

Localized Carbon Monoxide Impacts

Continuous engine exhaust may elevate localized CO concentrations, resulting in hot spots. Receptors exposed to these CO hot spots may have a greater likelihood of developing adverse health effects. CO hot spots are typically observed at heavily congested intersections where a substantial number of gasoline-powered vehicles idle for prolonged durations throughout the day.

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Peak-hour traffic volumes at the Center Avenue and Pacheco Boulevard intersection in the transportation study area were analyzed (Fehr & Peers 2025). The peak-hour volumes at this intersection are less than 2,500 vehicles per hour, and thus the minimal increase in peak hour trips from the project at this intersection would not result in volumes greater than the 24,000 or 44,000-vehicle-per-hour screening threshold. The project would not result in an exceedance of the Bay Area Air District screening criteria, and CO concentrations would not exceed the CAAQS. The localized CO impact of the project would be **less than significant**.

Impact AQ-4: The project would not result in other emissions (such as those leading to odors) that would adversely affect a substantial number of people (Less than Significant)

As discussed previously in *Criteria for Determining Significance*, odor impacts could occur if a project proposes a new odor source near existing receptors. There are many sensitive receptors within 1,000 feet of the project site. Potential odor emitters during construction include diesel exhaust, asphalt paving, and architectural coatings and solvents. Construction-related activities would be temporary, and construction activities would not be likely to result in nuisance odors that would violate Bay Area Air District Regulation 7 (Odorous Substances), described in *Regulatory Setting*. Odors during operation could result from emergency generator testing and maintenance, activities at the project site, and from vehicle exhaust and the reapplication of architectural coatings. These odors would be limited to areas adjacent to the building. Although such brief exhaust- and paint-related odors may be considered adverse, they would not affect a substantial number of people. Additionally, emergency generator testing would be minimal, occurring weekly for 30 minutes and up to 2 hours on one day per year. The project does not propose any changes that would include odor-generating facilities, such as those identified in the District CEQA Guidelines (Table 5-4) (BAAQMD 2023). The impact of the project related to odor-producing emissions would be **less than significant**.

Impact GHG-1: The project would **not generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment (XX)**

[Note to Reviewers: This analysis will be completed once the County provides guidance related to the project's consistency with the CAP]

GHG emissions worldwide contribute, on a cumulative basis, to the significant adverse environmental impacts of global climate change. Although no single land use project could generate enough GHG emissions on its own to noticeably change the global average temperature, the combination of GHG emissions from past, present, and future projects in the county, the entire state, and across the nation and around the world contribute cumulatively to global climate change and its associated environmental impacts.

Environmental impacts associated with GHG emissions are exclusively cumulative in nature according to contemporary scientific knowledge of their effects on climate change. It is not feasible to determine the extent to which an individual project would cause changes in climate. Therefore, emissions are considered in the context of GHG emission reduction efforts.

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Although there is an established quantitative threshold to evaluate GHG emissions from stationary sources, which is applicable to the project's emergency generator, there is no established quantitative GHG emissions threshold that is applicable to the project's emissions from construction, energy,⁸ mobile, area, waste, and water-related sources. As such, this impact analysis evaluates the project's consistency with Threshold Option A or B (Table 7).

Construction

The project would replace the existing Fire Station 9 at 209 Center Avenue. Construction of the project would result in direct GHG emissions generated by vehicle trips (i.e., construction worker trips and haul truck trips) and operation of construction equipment. Project construction would result in GHG emissions that would generate approximately 231 metric tons (MT) of carbon dioxide equivalent (CO₂e) over the course of the approximately 17-month project construction period. This is equivalent to the annual GHGs from 54 average gasoline-powered passenger vehicles, based on EPA estimates that account for fuel economy, vehicle miles traveled, and emissions from both carbon dioxide and other gases like methane and nitrous oxide (see Attachment A for modeling outputs) (USEPA 2021). Because construction emissions would cease once construction is complete, they are considered short term. The District CEQA Guidelines do not identify a GHG emission threshold for construction-related emissions. Instead, the Bay Area Air District recommends that GHG emissions from construction be quantified and disclosed. The district further recommends incorporation of BMPs to reduce GHG emissions during construction, as feasible and applicable. The project would include design features that would implement the following BMPs recommended by the district to reduce GHG emissions during construction, as feasible and applicable.

- Use alternative-fuel (e.g., biodiesel, electric) construction vehicles/equipment (at least 15 percent of the fleet).
- Use local building materials (at least 10 percent).
- Recycle at least 50 percent of construction waste or demolition materials.

The project would ensure that GHG emissions during construction would be minimized and that the impact would be **less than significant**.

Operations

Project operations would result in GHG emissions from area, energy, mobile, stationary, solid waste generation, and water and wastewater use sources. Table 12 summarizes the estimated operational GHG emissions from the existing fire station and the proposed project, as well as the net emissions associated with the project.

⁸ Energy includes both electricity use and natural gas consumption.

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Table 12. Existing Conditions (2025), Project Conditions (2028), and Net GHG Emissions during Project Operation (metric tons per year)

Emission Source	CO ₂	CH ₄	N ₂ O	CO ₂ e
Existing Fire Station 9 (Existing Conditions, 2025)				
Area	< 1	< 1	< 1	< 1
Energy	14	< 1	< 1	14
Mobile	43	< 1	< 1	44
Stationary ^a	-	-	-	-
Solid Waste Generation	1	< 1	< 1	2
Water and Wastewater Use	1	< 1	< 1	1
<i>Total Existing</i>	<i>61</i>	<i>< 1</i>	<i>< 1</i>	<i>63</i>
New Fire Station 9 (Project Conditions, 2028)				
Area	< 1	< 1	< 1	< 1
Energy	51	< 1	< 1	52
Mobile	147	< 1	< 1	155
Stationary	13	< 1	< 1	14
Solid Waste Generation	1	< 1	< 1	4
Water and Wastewater Use	3	< 1	< 1	6
<i>Total Project</i>	<i>216</i>	<i>< 1</i>	<i>< 1</i>	<i>231</i>
Net Emissions	155	< 1	< 1	168

Source: See Attachment A.

^a The existing analysis conservatively assumed there was no existing emergency generator.

CH₄ = methane; CO₂ = carbon dioxide; CO₂e = carbon dioxide equivalent; N₂O = nitrous oxide.

As shown in Table 12, the project would generate approximately 168 MT CO₂e of net emissions during its first year of full buildout. These emissions quantities are not directly used to evaluate GHG impacts but are included here to provide a fully comprehensive assessment. The following discussion evaluate the project's consistency with Bay Area Air District's land use Threshold Option A or B (Table 7).

[Note to Reviewers: This analysis will be completed once the County provides guidance related to the project's consistency with the CAP]

Impact GHG-2: The project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases (XX)

[Note to Reviewers: This analysis will be completed once the County provides guidance related to the project's consistency with the CAP]

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Summary

The project would be below the Bay Area Air District's construction-related screening criteria, and the project would incorporate Mitigation Measure AQ-1, which would require implementation of the Bay Area Air District's Basic Construction Mitigation Measures, as well as Contra Costa County's Standard Construction Best Management Practices. In addition, operations-related criteria pollutant emissions associated with the project would be below the district's significance thresholds. Thus, construction-related and operations-related criteria pollutant emissions associated with the project would be less than the District CEQA Guidelines significance thresholds. Accordingly, criteria pollutant emission impacts would be less than significant. As such, construction and operational emissions would not be expected to contribute a significant level of air pollution that would degrade regional air quality within the SFBAAB. In addition, as indicated by the HRA, DPM and PM_{2.5} emitted during construction would remain below Bay Area Air District thresholds, both individually and cumulatively with nearby sources. The site is not located in a NOA zone, and demolition activities would comply with applicable asbestos regulations. Localized CO concentrations would also remain below screening thresholds. As such, the project would not expose sensitive receptors to substantial pollutant concentrations.

[Note to Reviewers: This summary will be completed once the County provides guidance related to the project's consistency with the CAP]

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Air Quality Modeling Output Materials

CalEEMod Output Files

CCCCPWD Fire Station 9_15400sqft_08272025 Detailed Report

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1.1. Basic Project Information

Data Field	Value
Project Name	CCCCPWD Fire Station 9_15400sqft_08272025
Construction Start Date	10/28/2026
Operational Year	2028
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.60
Precipitation (days)	36.0
Location	37.983260907855595, -122.06916693700686
County	Contra Costa
City	Unincorporated
Air District	Bay Area AQMD
Air Basin	San Francisco Bay Area
TAZ	1323
EDFZ	1
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.30

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
Government Office Building	15.4	1000sqft	0.35	15,400	6,886	—	—	—

Parking Lot	21.0	1000sqft	0.48	0.00	0.00	—	—	—
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1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

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

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.59	0.49	4.65	7.12	0.01	0.17	0.23	0.40	0.15	0.06	0.21	—	1,412	1,412	0.06	0.02	0.28	1,420
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	34.6	34.4	9.37	14.1	0.02	0.34	1.50	1.84	0.30	0.35	0.65	—	2,668	2,668	0.14	0.15	0.06	2,718
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.62	0.59	2.99	4.55	0.01	0.11	0.20	0.31	0.10	0.05	0.15	—	928	928	0.04	0.02	0.12	935
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.11	0.11	0.55	0.83	< 0.005	0.02	0.04	0.06	0.02	0.01	0.03	—	154	154	0.01	< 0.005	0.02	155

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

2027	0.59	0.49	4.65	7.12	0.01	0.17	0.23	0.40	0.15	0.06	0.21	—	1,412	1,412	0.06	0.02	0.28	1,420
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	1.18	0.94	8.97	12.1	0.02	0.34	1.50	1.84	0.30	0.35	0.65	—	2,668	2,668	0.14	0.15	0.06	2,718
2027	0.59	0.49	4.65	7.09	0.01	0.18	1.09	1.27	0.16	0.25	0.41	—	1,677	1,677	0.09	0.13	0.04	1,719
2028	34.6	34.4	9.37	14.1	0.02	0.32	0.91	1.23	0.29	0.23	0.52	—	2,554	2,554	0.10	0.04	0.02	2,570
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.07	0.06	0.54	0.76	< 0.005	0.02	0.06	0.07	0.02	0.01	0.03	—	131	131	0.01	< 0.005	0.03	132
2027	0.38	0.31	2.99	4.55	0.01	0.11	0.20	0.31	0.10	0.05	0.15	—	928	928	0.04	0.02	0.12	935
2028	0.62	0.59	1.14	1.74	< 0.005	0.04	0.11	0.15	0.04	0.03	0.06	—	324	324	0.01	0.01	0.04	326
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.01	0.01	0.10	0.14	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	0.01	—	21.6	21.6	< 0.005	< 0.005	< 0.005	21.8
2027	0.07	0.06	0.55	0.83	< 0.005	0.02	0.04	0.06	0.02	0.01	0.03	—	154	154	0.01	< 0.005	0.02	155
2028	0.11	0.11	0.21	0.32	< 0.005	0.01	0.02	0.03	0.01	< 0.005	0.01	—	53.7	53.7	< 0.005	< 0.005	0.01	54.0

2.4. Operations Emissions Compared Against Thresholds

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

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.89	0.79	2.03	6.05	0.02	0.05	0.23	0.28	0.05	0.06	0.11	13.6	2,112	2,126	1.53	0.17	1.58	2,216
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.76	0.67	2.10	5.39	0.02	0.05	0.23	0.28	0.05	0.06	0.11	13.6	2,111	2,124	1.53	0.17	0.08	2,213
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unmit.	0.59	0.49	1.62	1.63	0.01	0.02	0.23	0.25	0.02	0.06	0.09	13.6	1,293	1,306	1.50	0.16	0.70	1,393
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.11	0.09	0.30	0.30	< 0.005	< 0.005	0.04	0.05	< 0.005	0.01	0.02	2.25	214	216	0.25	0.03	0.12	231

2.5. Operations Emissions by Sector, Unmitigated

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

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.12	0.04	1.43	0.81	0.01	0.01	0.23	0.25	0.01	0.06	0.08	—	889	889	0.08	0.14	1.54	935
Area	0.50	0.49	0.01	0.67	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.75	2.75	< 0.005	< 0.005	—	2.76
Energy	0.01	0.01	0.10	0.08	< 0.005	0.01	—	0.01	0.01	—	0.01	—	310	310	0.04	< 0.005	—	312
Water	—	—	—	—	—	—	—	—	—	—	—	5.86	11.3	17.2	0.60	0.01	—	36.6
Waste	—	—	—	—	—	—	—	—	—	—	—	7.72	0.00	7.72	0.77	0.00	—	27.0
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.04	0.04
Stationary	0.26	0.26	0.50	4.49	0.01	0.03	0.00	0.03	0.03	0.00	0.03	0.00	900	900	0.04	0.01	0.00	903
Total	0.89	0.79	2.03	6.05	0.02	0.05	0.23	0.28	0.05	0.06	0.11	13.6	2,112	2,126	1.53	0.17	1.58	2,216
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.12	0.03	1.50	0.82	0.01	0.01	0.23	0.25	0.01	0.06	0.08	—	890	890	0.08	0.14	0.04	934
Area	0.38	0.38	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.01	0.01	0.10	0.08	< 0.005	0.01	—	0.01	0.01	—	0.01	—	310	310	0.04	< 0.005	—	312
Water	—	—	—	—	—	—	—	—	—	—	—	5.86	11.3	17.2	0.60	0.01	—	36.6
Waste	—	—	—	—	—	—	—	—	—	—	—	7.72	0.00	7.72	0.77	0.00	—	27.0
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.04	0.04
Stationary	0.26	0.26	0.50	4.49	0.01	0.03	0.00	0.03	0.03	0.00	0.03	0.00	900	900	0.04	0.01	0.00	903

Total	0.76	0.67	2.10	5.39	0.02	0.05	0.23	0.28	0.05	0.06	0.11	13.6	2,111	2,124	1.53	0.17	0.08	2,213
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.12	0.03	1.47	0.82	0.01	0.01	0.23	0.24	0.01	0.06	0.07	—	889	889	0.08	0.14	0.67	934
Area	0.44	0.43	< 0.005	0.33	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.36	1.36	< 0.005	< 0.005	—	1.36
Energy	0.01	0.01	0.10	0.08	< 0.005	0.01	—	0.01	0.01	—	0.01	—	310	310	0.04	< 0.005	—	312
Water	—	—	—	—	—	—	—	—	—	—	—	5.86	11.3	17.2	0.60	0.01	—	36.6
Waste	—	—	—	—	—	—	—	—	—	—	—	7.72	0.00	7.72	0.77	0.00	—	27.0
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.04	0.04
Stationary	0.02	0.02	0.05	0.41	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	81.4	81.4	< 0.005	< 0.005	0.00	81.6
Total	0.59	0.49	1.62	1.63	0.01	0.02	0.23	0.25	0.02	0.06	0.09	13.6	1,293	1,306	1.50	0.16	0.70	1,393
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.02	0.01	0.27	0.15	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	147	147	0.01	0.02	0.11	155
Area	0.08	0.08	< 0.005	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.22	0.22	< 0.005	< 0.005	—	0.23
Energy	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	51.3	51.3	0.01	< 0.005	—	51.6
Water	—	—	—	—	—	—	—	—	—	—	—	0.97	1.87	2.84	0.10	< 0.005	—	6.05
Waste	—	—	—	—	—	—	—	—	—	—	—	1.28	0.00	1.28	0.13	0.00	—	4.47
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Stationary	< 0.005	< 0.005	0.01	0.07	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	13.5	13.5	< 0.005	< 0.005	0.00	13.5
Total	0.11	0.09	0.30	0.30	< 0.005	< 0.005	0.04	0.05	< 0.005	0.01	0.02	2.25	214	216	0.25	0.03	0.12	231

3. Construction Emissions Details

3.1. Demolition (2026) - 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	0.53	0.44	4.09	5.58	0.01	0.13	—	0.13	0.12	—	0.12	—	852	852	0.03	0.01	—	855
Demolition	—	—	—	—	—	—	0.03	0.03	—	0.01	0.01	—	—	—	—	—	—	—
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	0.06	0.05	0.49	0.67	< 0.005	0.02	—	0.02	0.01	—	0.01	—	103	103	< 0.005	< 0.005	—	103
Demolition	—	—	—	—	—	—	< 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	0.01	0.01	0.09	0.12	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	17.0	17.0	< 0.005	< 0.005	—	17.1
Demolition	—	—	—	—	—	—	< 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	0.03	0.03	0.03	0.33	0.00	0.00	0.34	0.34	0.00	0.08	0.08	—	79.1	79.1	< 0.005	< 0.005	0.01	80.2
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	< 0.005	< 0.005	0.05	0.03	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	41.5	41.5	< 0.005	0.01	< 0.005	43.5
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	9.64	9.64	< 0.005	< 0.005	0.02	9.78
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	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	5.00	5.00	< 0.005	< 0.005	< 0.005	5.25
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	1.60	1.60	< 0.005	< 0.005	< 0.005	1.62
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	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.83	0.83	< 0.005	< 0.005	< 0.005	0.87

3.3. Site Preparation (2026) - 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	0.52	0.44	3.74	5.54	0.01	0.19	—	0.19	0.17	—	0.17	—	858	858	0.03	0.01	—	861

Dust From Material Movement	—	—	—	—	—	—	0.21	0.21	—	0.02	0.02	—	—	—	—	—	—	—
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	0.03	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.72	6.72	< 0.005	< 0.005	—	6.74
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	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.11	1.11	< 0.005	< 0.005	—	1.12
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	0.02	0.01	0.01	0.17	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	39.5	39.5	< 0.005	< 0.005	< 0.005	40.1

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	0.08	0.02	1.04	0.49	0.01	0.02	0.71	0.73	0.01	0.18	0.19	—	798	798	0.06	0.13	0.04	837
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.31	0.31	< 0.005	< 0.005	< 0.005	0.32
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	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	6.24	6.24	< 0.005	< 0.005	0.01	6.56
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.05	0.05	< 0.005	< 0.005	< 0.005	0.05
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	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.03	1.03	< 0.005	< 0.005	< 0.005	1.09

3.5. Site Preparation (2027) - 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	0.49	0.41	3.44	5.56	0.01	0.17	—	0.17	0.15	—	0.15	—	859	859	0.03	0.01	—	862
Dust From Material Movement	—	—	—	—	—	—	0.21	0.21	—	0.02	0.02	—	—	—	—	—	—	—
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	0.02	0.17	0.28	< 0.005	0.01	—	0.01	0.01	—	0.01	—	43.7	43.7	< 0.005	< 0.005	—	43.8
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	< 0.005	< 0.005	0.03	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.23	7.23	< 0.005	< 0.005	—	7.26
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	0.02	0.01	0.01	0.16	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	38.8	38.8	< 0.005	< 0.005	< 0.005	39.3
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	0.07	0.02	1.01	0.48	0.01	0.01	0.71	0.72	0.01	0.18	0.19	—	780	780	0.06	0.12	0.04	818
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	2.00	2.00	< 0.005	< 0.005	< 0.005	2.02

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	< 0.005	< 0.005	0.05	0.02	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	39.7	39.7	< 0.005	0.01	0.03	41.6
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.33	0.33	< 0.005	< 0.005	< 0.005	0.34
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	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	6.57	6.57	< 0.005	< 0.005	0.01	6.89

3.7. Trenching/Utilities (2027) - 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	0.12	0.10	0.99	1.91	< 0.005	0.03	—	0.03	0.03	—	0.03	—	290	290	0.01	< 0.005	—	291
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	0.06	0.12	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	17.5	17.5	< 0.005	< 0.005	—	17.6
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	< 0.005	< 0.005	0.01	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.90	2.90	< 0.005	< 0.005	—	2.91
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	0.01	0.01	0.01	0.08	0.00	0.00	0.09	0.09	0.00	0.02	0.02	—	19.4	19.4	< 0.005	< 0.005	< 0.005	19.7
Vendor	0.01	< 0.005	0.17	0.08	< 0.005	< 0.005	0.13	0.13	< 0.005	0.03	0.03	—	130	130	0.01	0.02	0.01	136
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	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	1.18	1.18	< 0.005	< 0.005	< 0.005	1.20
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	7.83	7.83	< 0.005	< 0.005	0.01	8.20
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	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.20	0.20	< 0.005	< 0.005	< 0.005	0.20
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.30	1.30	< 0.005	< 0.005	< 0.005	1.36
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

3.9. Building Shell (2027) - 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	0.57	0.48	4.56	6.90	0.01	0.17	—	0.17	0.15	—	0.15	—	1,304	1,304	0.05	0.01	—	1,309
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	0.57	0.48	4.56	6.90	0.01	0.17	—	0.17	0.15	—	0.15	—	1,304	1,304	0.05	0.01	—	1,309
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	0.33	0.28	2.64	4.00	0.01	0.10	—	0.10	0.09	—	0.09	—	756	756	0.03	0.01	—	758
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	0.06	0.05	0.48	0.73	< 0.005	0.02	—	0.02	0.02	—	0.02	—	125	125	0.01	< 0.005	—	126
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	0.02	0.02	0.01	0.18	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	41.8	41.8	< 0.005	< 0.005	0.14	42.4
Vendor	0.01	< 0.005	0.08	0.04	< 0.005	< 0.005	0.06	0.07	< 0.005	0.02	0.02	—	65.6	65.6	< 0.005	0.01	0.14	68.7
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	0.02	0.01	0.01	0.15	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	38.2	38.2	< 0.005	< 0.005	< 0.005	38.8
Vendor	0.01	< 0.005	0.09	0.04	< 0.005	< 0.005	0.06	0.07	< 0.005	0.02	0.02	—	65.6	65.6	< 0.005	0.01	< 0.005	68.6
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	0.01	0.01	0.01	0.09	0.00	0.00	0.09	0.09	0.00	0.02	0.02	—	22.4	22.4	< 0.005	< 0.005	0.04	22.7
Vendor	< 0.005	< 0.005	0.05	0.02	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	38.0	38.0	< 0.005	0.01	0.04	39.8
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	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	3.71	3.71	< 0.005	< 0.005	0.01	3.76
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	6.29	6.29	< 0.005	< 0.005	0.01	6.58
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. Building Shell (2028) - 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	0.55	0.46	4.30	6.91	0.01	0.15	—	0.15	0.14	—	0.14	—	1,305	1,305	0.05	0.01	—	1,309
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	0.08	0.07	0.62	1.00	< 0.005	0.02	—	0.02	0.02	—	0.02	—	189	189	0.01	< 0.005	—	190
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	0.01	0.01	0.11	0.18	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	31.3	31.3	< 0.005	< 0.005	—	31.4
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	0.02	0.01	0.01	0.14	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	37.6	37.6	< 0.005	< 0.005	< 0.005	38.1
Vendor	0.01	< 0.005	0.08	0.04	< 0.005	< 0.005	0.06	0.07	< 0.005	0.02	0.02	—	64.0	64.0	< 0.005	0.01	< 0.005	66.9
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	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	5.50	5.50	< 0.005	< 0.005	0.01	5.58
Vendor	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	9.27	9.27	< 0.005	< 0.005	0.01	9.69
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	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.91	0.91	< 0.005	< 0.005	< 0.005	0.92
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.53	1.53	< 0.005	< 0.005	< 0.005	1.60
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

3.13. Paving/Hardscape/Landscape (2028) - 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	0.56	0.47	4.05	5.31	0.01	0.15	—	0.15	0.14	—	0.14	—	823	823	0.03	0.01	—	826
Paving	0.03	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.07	0.06	0.49	0.64	< 0.005	0.02	—	0.02	0.02	—	0.02	—	99.2	99.2	< 0.005	< 0.005	—	99.6
Paving	< 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	0.01	0.01	0.09	0.12	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	16.4	16.4	< 0.005	< 0.005	—	16.5
Paving	< 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	0.05	0.05	0.04	0.51	0.00	0.00	0.60	0.60	0.00	0.15	0.15	—	133	133	< 0.005	0.01	0.01	135
Vendor	< 0.005	< 0.005	0.03	0.02	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	25.4	25.4	< 0.005	< 0.005	< 0.005	26.5
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	0.01	0.01	< 0.005	0.06	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	16.3	16.3	< 0.005	< 0.005	0.02	16.5
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.06	3.06	< 0.005	< 0.005	< 0.005	3.20
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	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	2.69	2.69	< 0.005	< 0.005	< 0.005	2.73
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.51	0.51	< 0.005	< 0.005	< 0.005	0.53
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

3.15. Architectural Coating (2028) - 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 Equipm	0.13	0.11	0.81	1.12	< 0.005	0.02	—	0.02	0.01	—	0.01	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	33.3	33.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.83	1.83	< 0.005	< 0.005	—	1.84
Architectural Coatings	0.46	0.46	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.30	0.30	< 0.005	< 0.005	—	0.30
Architectural Coatings	0.08	0.08	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	7.51	7.51	< 0.005	< 0.005	< 0.005	7.62
Vendor	< 0.005	< 0.005	0.03	0.02	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	25.4	25.4	< 0.005	< 0.005	< 0.005	26.5
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	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.10	0.10	< 0.005	< 0.005	< 0.005	0.11
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.35	0.35	< 0.005	< 0.005	< 0.005	0.36
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	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.02	0.02	< 0.005	< 0.005	< 0.005	0.02
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.06	0.06	< 0.005	< 0.005	< 0.005	0.06
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

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Mobile source emissions results are presented in Sections 2.6. No further detailed breakdown of emissions is available.

4.2. Energy

4.2.1. Electricity Emissions By Land Use - 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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Govern Office Building	—	—	—	—	—	—	—	—	—	—	—	—	182	182	0.03	< 0.005	—	184
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	10.3	10.3	< 0.005	< 0.005	—	10.4
Total	—	—	—	—	—	—	—	—	—	—	—	—	192	192	0.03	< 0.005	—	194
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Govern ment Office Building	—	—	—	—	—	—	—	—	—	—	—	—	182	182	0.03	< 0.005	—	184
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	10.3	10.3	< 0.005	< 0.005	—	10.4
Total	—	—	—	—	—	—	—	—	—	—	—	—	192	192	0.03	< 0.005	—	194
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Govern ment Office Building	—	—	—	—	—	—	—	—	—	—	—	—	30.2	30.2	< 0.005	< 0.005	—	30.5
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	1.70	1.70	< 0.005	< 0.005	—	1.72
Total	—	—	—	—	—	—	—	—	—	—	—	—	31.9	31.9	0.01	< 0.005	—	32.2

4.2.3. Natural Gas Emissions By Land Use - 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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Govern ment Office Building	0.01	0.01	0.10	0.08	< 0.005	0.01	—	0.01	0.01	—	0.01	—	117	117	0.01	< 0.005	—	118
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.01	0.01	0.10	0.08	< 0.005	0.01	—	0.01	0.01	—	0.01	—	117	117	0.01	< 0.005	—	118
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Govern ment Office Building	0.01	0.01	0.10	0.08	< 0.005	0.01	—	0.01	0.01	—	0.01	—	117	117	0.01	< 0.005	—	118
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.01	0.01	0.10	0.08	< 0.005	0.01	—	0.01	0.01	—	0.01	—	117	117	0.01	< 0.005	—	118
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Govern ment Office Building	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	19.4	19.4	< 0.005	< 0.005	—	19.5
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	19.4	19.4	< 0.005	< 0.005	—	19.5

4.3. Area Emissions by Source

4.3.1. Unmitigated

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

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

Consum Products	0.33	0.33	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architect ural Coating s	0.05	0.05	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landsca pe Equipm ent	0.12	0.11	0.01	0.67	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.75	2.75	< 0.005	< 0.005	—	2.76
Total	0.50	0.49	0.01	0.67	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.75	2.75	< 0.005	< 0.005	—	2.76
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consum er Product s	0.33	0.33	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architect ural Coating s	0.05	0.05	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.38	0.38	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consum er Product s	0.06	0.06	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architect ural Coating s	0.01	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landsca pe Equipm ent	0.01	0.01	< 0.005	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.22	0.22	< 0.005	< 0.005	—	0.23
Total	0.08	0.08	< 0.005	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.22	0.22	< 0.005	< 0.005	—	0.23

4.4. Water Emissions by Land Use

4.4.1. 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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Government Office Building	—	—	—	—	—	—	—	—	—	—	—	5.86	11.3	17.2	0.60	0.01	—	36.6
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	5.86	11.3	17.2	0.60	0.01	—	36.6
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Government Office Building	—	—	—	—	—	—	—	—	—	—	—	5.86	11.3	17.2	0.60	0.01	—	36.6
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	5.86	11.3	17.2	0.60	0.01	—	36.6
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Government Office Building	—	—	—	—	—	—	—	—	—	—	—	0.97	1.87	2.84	0.10	< 0.005	—	6.05
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.97	1.87	2.84	0.10	< 0.005	—	6.05

4.5. Waste Emissions by Land Use

4.5.1. 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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Government Office Building	—	—	—	—	—	—	—	—	—	—	—	7.72	0.00	7.72	0.77	0.00	—	27.0
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	7.72	0.00	7.72	0.77	0.00	—	27.0
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Government Office Building	—	—	—	—	—	—	—	—	—	—	—	7.72	0.00	7.72	0.77	0.00	—	27.0
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	7.72	0.00	7.72	0.77	0.00	—	27.0
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Government Office Building	—	—	—	—	—	—	—	—	—	—	—	1.28	0.00	1.28	0.13	0.00	—	4.47
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	1.28	0.00	1.28	0.13	0.00	—	4.47

4.6. Refrigerant Emissions by Land Use

4.6.1. 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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Government Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.04	0.04
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.04	0.04
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Government Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.04	0.04
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.04	0.04
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Government Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

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

Equipm Type	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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

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

Equipm ent Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Emergen cy Generat or	0.26	0.26	0.50	4.49	0.01	0.03	0.00	0.03	0.03	0.00	0.03	0.00	900	900	0.04	0.01	0.00	903
Total	0.26	0.26	0.50	4.49	0.01	0.03	0.00	0.03	0.03	0.00	0.03	0.00	900	900	0.04	0.01	0.00	903
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Emergen cy Generat or	0.26	0.26	0.50	4.49	0.01	0.03	0.00	0.03	0.03	0.00	0.03	0.00	900	900	0.04	0.01	0.00	903

Total	0.26	0.26	0.50	4.49	0.01	0.03	0.00	0.03	0.03	0.00	0.03	0.00	900	900	0.04	0.01	0.00	903
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	< 0.005	< 0.005	0.01	0.07	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	13.5	13.5	< 0.005	< 0.005	0.00	13.5
Total	< 0.005	< 0.005	0.01	0.07	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	13.5	13.5	< 0.005	< 0.005	0.00	13.5

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

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

Equipment Type	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. 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
Demolition	Demolition	10/28/2026	12/28/2026	5.00	44.0	—
Site Preparation	Site Preparation	12/28/2026	1/26/2027	5.00	22.0	—
Trenching/Utilities	Trenching	1/27/2027	3/5/2027	5.00	22.0	—
Building Shell	Building Construction	3/11/2027	3/14/2028	5.00	264	—
Paving/Hardscape/Landscape	Paving	1/31/2028	3/30/2028	5.00	44.0	—
Architectural Coating	Architectural Coating	3/8/2028	3/14/2028	5.00	5.00	—

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
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Demolition	Rubber Tired Dozers	Diesel	Average	1.00	1.00	367	0.40
Demolition	Tractors/Loaders/Back hoes	Diesel	Average	2.00	6.00	84.0	0.37
Site Preparation	Graders	Diesel	Average	1.00	8.00	148	0.41
Site Preparation	Tractors/Loaders/Back hoes	Diesel	Average	1.00	8.00	84.0	0.37
Trenching/Utilities	Tractors/Loaders/Back hoes	Diesel	Average	1.00	8.00	84.0	0.37
Building Shell	Cranes	Diesel	Average	1.00	4.00	367	0.29
Building Shell	Forklifts	Diesel	Average	2.00	6.00	82.0	0.20
Building Shell	Tractors/Loaders/Back hoes	Diesel	Average	2.00	8.00	84.0	0.37

Paving/Hardscape/Landscape	Pavers	Diesel	Average	1.00	7.00	81.0	0.42
Paving/Hardscape/Landscape	Rollers	Diesel	Average	1.00	7.00	36.0	0.38
Paving/Hardscape/Landscape	Cement and Mortar Mixers	Diesel	Average	4.00	6.00	10.0	0.56
Paving/Hardscape/Landscape	Tractors/Loaders/Back hoes	Diesel	Average	1.00	7.00	84.0	0.37
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	10.0	11.7	LDA,LDT1,LDT2
Demolition	Vendor	0.00	8.40	HHDT,MHDT
Demolition	Hauling	0.59	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Trenching/Utilities	—	—	—	—
Trenching/Utilities	Worker	2.50	11.7	LDA,LDT1,LDT2
Trenching/Utilities	Vendor	5.00	8.40	HHDT,MHDT
Trenching/Utilities	Hauling	0.00	20.0	HHDT
Trenching/Utilities	Onsite truck	—	—	HHDT
Building Shell	—	—	—	—
Building Shell	Worker	4.93	11.7	LDA,LDT1,LDT2
Building Shell	Vendor	2.52	8.40	HHDT,MHDT
Building Shell	Hauling	0.00	20.0	HHDT
Building Shell	Onsite truck	—	—	HHDT
Paving/Hardscape/Landscape	—	—	—	—

Paving/Hardscape/Landscape	Worker	17.5	11.7	LDA,LDT1,LDT2
Paving/Hardscape/Landscape	Vendor	1.00	8.40	HHDT,MHDT
Paving/Hardscape/Landscape	Hauling	0.00	20.0	HHDT
Paving/Hardscape/Landscape	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	0.99	11.7	LDA,LDT1,LDT2
Architectural Coating	Vendor	1.00	8.40	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	5.00	11.7	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.40	HHDT,MHDT
Site Preparation	Hauling	11.4	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Control Strategies Applied	PM10 Reduction	PM2.5 Reduction
Water unpaved roads twice daily	55%	55%
Limit vehicle speeds on unpaved roads to 25 mph	44%	44%
Sweep paved roads once per month	9%	9%

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)
Architectural Coating	0.00	0.00	23,100	7,700	1,259

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 (Building Square Footage)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	2,215	—
Site Preparation	—	2,000	11.0	0.00	—
Paving/Hardscape/Landscape	0.00	0.00	0.00	0.00	0.48

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%
Water Demolished Area	2	36%	36%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Government Office Building	0.00	0%
Parking Lot	0.48	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2026	0.00	204	0.03	< 0.005
2027	0.00	204	0.03	< 0.005
2028	0.00	204	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Total all Land Uses	42.0	42.0	42.0	15,330	252	252	252	91,980

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

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)
0	0.00	23,100	7,700	1,259

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Government Office Building	325,997	204	0.0330	0.0040	365,754
Parking Lot	18,383	204	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Government Office Building	3,059,359	82,185
Parking Lot	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Government Office Building	14.3	—
Parking Lot	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Government Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Government Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
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5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor
Emergency Generator	Diesel	1.00	4.00	132	268	0.73

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)
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5.17. User Defined

Equipment Type	Fuel Type
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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
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5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	14.2	annual days of extreme heat
Extreme Precipitation	6.60	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	13.1	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	0	0	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A

Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	1	1	3
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	16.8
AQ-PM	34.2
AQ-DPM	64.8
Drinking Water	12.4
Lead Risk Housing	17.2
Pesticides	0.00
Toxic Releases	68.7
Traffic	80.7
Effect Indicators	—
CleanUp Sites	22.6
Groundwater	41.4
Haz Waste Facilities/Generators	67.7
Impaired Water Bodies	23.9
Solid Waste	35.7
Sensitive Population	—
Asthma	32.8
Cardio-vascular	22.9
Low Birth Weights	54.6
Socioeconomic Factor Indicators	—
Education	28.1
Housing	44.5
Linguistic	53.9
Poverty	30.3
Unemployment	43.1

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	49.09534197
Employed	15.56525087
Median HI	44.02669062
Education	—
Bachelor's or higher	66.67522135
High school enrollment	100
Preschool enrollment	81.75285513
Transportation	—
Auto Access	31.27165405
Active commuting	81.04709355
Social	—
2-parent households	69.20313102
Voting	68.02258437
Neighborhood	—
Alcohol availability	60.61850379
Park access	50.2245605
Retail density	84.92236623
Supermarket access	63.37738997
Tree canopy	91.12023611
Housing	—
Homeownership	28.02515078
Housing habitability	36.67393815
Low-inc homeowner severe housing cost burden	30.73270884
Low-inc renter severe housing cost burden	25.83087386
Uncrowded housing	71.88502502
Health Outcomes	—

Insured adults	62.50481201
Arthritis	0.0
Asthma ER Admissions	49.2
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	82.9
Cognitively Disabled	10.2
Physically Disabled	23.7
Heart Attack ER Admissions	77.1
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	19.6
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	96.4
Children	93.4
Elderly	69.3

English Speaking	39.8
Foreign-born	70.6
Outdoor Workers	41.8
Climate Change Adaptive Capacity	—
Impervious Surface Cover	64.5
Traffic Density	78.8
Traffic Access	56.5
Other Indices	—
Hardship	40.1
Other Decision Support	—
2016 Voting	49.8

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	33.0
Healthy Places Index Score for Project Location (b)	60.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Construction: Construction Phases	Info based on PD, and master schedule.
Construction: Off-Road Equipment	CalEEMod Defaults were used for all equipment except for Trenching/Utilities Phase (no defaults available - info based on prior project analysis).
Construction: Dust From Material Movement	Material export info from PD. Total acres graded is CalEEMod Default.
Construction: Trips and VMT	Info from Prior Analysis
Operations: Emergency Generators and Fire Pumps	Represents worst case scenario - 4 hours/day (tri-annual testing) and 132 hours/year (100 hours for emergency use and 32 hours for maintenance activities)
Operations: Generators + Pumps EF	Tier 4 generator would be used - EF factors based on BAAQMD Tier 4 Guidance.
Construction: On-Road Fugitive Dust	Silt loading factor was changed to 0.5 g/m2 based on BAAQMD guidance.
Operations: Fleet Mix	Fleet mix modified to 100% HHD because the vehicles involved are going to be heavier than the typical EMFAC fleet (i.e. fire trucks).

HRA Calculations

Summary of Cancer and Noncancer Health Risks and PM2.5 Concentrations			
Condition	Increased Cancer Risk (per million)	Non-Cancer (HI)	Annual PM2.5 Concentration (µg/m3)
<i>Unmitigated</i>			
MEIR - Resident			
Construction	2.4	0.00	0.01
Generator Operation	0.0	0.00	0.00
Total	2.4	0.00	0.01
Threshold (Project-Level)	10	1.0	0.3
Exceed?	No	No	No
MEIR - Student			
Construction	0.1	0.00	0.00
Generator Operation	0.0	0.00	0.00
Total	0.1	0.00	0.00
Threshold (Project-Level)	10	1.0	0.3
Exceed?	No	No	No
MEIR - Worker			
Construction	0.0	0.00	0.00
Generator Operation	0.0	0.00	0.00
Total	0.0	0.00	0.00
Threshold (Project-Level)	10	1.0	0.3
Exceed?	No	No	No

Cumulative Impacts ^a				
Location	Cancer Risk Impact (per million)		Chronic Non-Cancer Hazard Index (unitless)	Annual PM2.5 Concentration (µg/m3)
MEIR - Resident				
Existing Sources				
	Stationary Source	1.6	0.00	0.00
	Roadway Source	10.9	0.03	0.24
	Rail Source	0.0	0.00	0.00
	Total	12.5	0.04	0.24
Project Sources		2.4	0.00	0.01
Total cumulative		14.9	0.04	0.25
BAAQMD threshold		100	10	0.8
Exceeds threshold?		No	No	No
MEIR - Student				
Existing Sources				
	Stationary Source	0.3	0.00	0.00
	Roadway Source	6.7	0.02	0.15
	Rail Source	0.0	0.00	0.00
	Total	7.1	0.02	0.15
Project Sources		0.1	0.00	0.00
Total cumulative		7.2	0.02	0.16
BAAQMD threshold		100	10	0.8
Exceeds threshold?		No	No	No
MEIR - Worker				
Existing Sources				
	Stationary Source	2.6	0.01	0.00
	Roadway Source	13.8	0.04	0.27
	Rail Source	0.0	0.00	0.00
	Total	16.5	0.05	0.27
Project Sources		0.0	0.00	0.00
Total cumulative		16.5	0.05	0.27
BAAQMD threshold		100	10	0.8
Exceeds threshold?		No	No	No

STATIONARY

Facility	Address	Details	NAICS Sub-Sector	Cancer Risk	Chronic Hazard Index PM2.5
Fresenius Medical Care North America	508 Contra Costa Blvd Ste D	Generator	Ambulatory Health Care Services	5.27	0 0.01
A-1 Liquor & Food	81 Center Ave	Gas Dispensing Facility	Food and Beverage Stores	15.45	0.07 0

Receptor Type	Distance to MEIR (m)*	Adjusted Cancer Risk	Adjusted Chronic Hazard Index	Adjusted PM2.5
Fresenius Medical Care North America				
RES	160	0.527	-	0.001
SCH	240	0.3162	-	0.0006
WOR	180	0.4743	-	0.0009
A-1 Liquor & Food				
RES	220	1.082	0.005	-
SCH	450	-	-	-
WOR	140	2.163	0.010	-

*BAAQMD distance multiplier only provides adjustment factors up to 280 meters.

SOURCE INPUTS

Dispersion option	Urban
Population	5,380
Receptor height	1.5
Receptor spacing	20 x 20 meters
Elevation (m)	5.5 https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/ceqa-tools/ceqa-modeling-data
PM10 exhaust = DPM	

Offroad Equipment Sources

Source Type: Area	Source Input	Source Input Documentation
Average Vehicle Height (m)	5.9	SCAQMD 2008
Vertical Dimension (m)	10.0	SCAQMD 2008
Release Height (RH) (m)	5.0	SCAQMD 2008
Initial vertical dimension (m)	4.7	SCAQMD 2008

Offroad Onsite Truck Sources

Source Type: Area	Source Input	Source Input Documentation
Average Vehicle Height (m)	4	BAAQMD 2022 CEQA Guidelines Appendix E
Vertical Dimension (m)	6.8	BAAQMD 2022 CEQA Guidelines Appendix E
Release Height (RH) (m)	3.4	BAAQMD 2022 CEQA Guidelines Appendix E
Initial vertical dimension (m)	3.2	BAAQMD 2022 CEQA Guidelines Appendix E

Onroad/Truck Sources

Source Type: Line Volume	Source Input	Source Input Documentation
Average Vehicle Height (m)	4	BAAQMD 2022 CEQA Guidelines Appendix E
Vertical Dimension (m)	6.8	BAAQMD 2022 CEQA Guidelines Appendix E
Release Height (RH) (m)	3.4	BAAQMD 2022 CEQA Guidelines Appendix E
Initial vertical dimension (m)	3.2	BAAQMD 2022 CEQA Guidelines Appendix E

Fugitive Dust Sources

Source Type: Area	Source Input	Source Input Documentation
Release Height (RH) (m)	0.0	Release height = 5 meters SCAQMD 2008
Initial vertical dimension (m)	1.0	Initial vertical dimension = vertical dimension/2.15 (AERMOD User Guide)

Generator

Source Type: Point	Source Input	Source Input Documentation
Stack Height (m)	3.66	BAAQMD 2022 CEQA Guidelines Appendix E
Stack Diameter (m)	0.183	BAAQMD 2022 CEQA Guidelines Appendix E
Exit Temperature (degrees C)	467	BAAQMD 2022 CEQA Guidelines Appendix E
Exit Velocity (m/sec)	45.3	BAAQMD 2022 CEQA Guidelines Appendix E

SUMMARY OF DPM				ONSITE DPM - OFFROAD EQUIPMENT				OFFSITE DPM - ONROAD TRUCKS							
SCHEDULE				2026				2027				2028			
Phase	Start date	End date	Days	PM10 Ex (tons)	PM10 Ex (grams)	PM10 Ex (tons)	PM10 Ex (grams)	PM10 Ex (tons)	PM10 Ex (grams)	PM10 Ex (tons)	PM10 Ex (grams)	PM10 Ex (tons)	PM10 Ex (grams)	PM10 Ex (tons)	PM10 Ex (grams)
Demolition	10/28/2026	12/28/2026	44	2.95E-03	2,680.55		0.00		0.00	1.72E-05	15.60		0.00		0.00
Site Preparation	12/28/2026	1/26/2027	22	2.64E-04	239.84	1.54E-03	1,396.58		0.00	2.15E-05	19.48	9.31E-05	84.42		0.00
Trenching/Utilities	1/27/2027	3/5/2027	22		0.00	3.28E-04	297.60		0.00		0.00	2.04E-05	18.48		0.00
Building Shell	3/11/2027	3/14/2028	264		0.00	1.77E-02	16,026.84		0.00		0.00	9.88E-05	89.65		0.00
Architectural Coatings	1/31/2028	3/30/2028	44		0.00	3.93E-03	3,567.18		0.00		0.00	2.47E-05	22.41		0.00
Paving/Hardscape/Landscaping	3/8/2028	3/14/2028	5		0.00	3.40E-03	3,082.80	3.84E-05	34.83		0.00	8.15E-06	7.39	9.26E-07	0.84
Total	10/28/2026	3/30/2028	401	3.22E-03	2,920.39	2.69E-02	24,371.01	3.84E-05	34.83	3.87E-05	35.08	2.45E-04	222.36	9.26E-07	0.84

SUMMARY

Emission Rates				
Source	2026	2027	2028	
OFFROAD EQUIPMENT (g/sec/m2)	5.88E-08	8.83E-08	5.15E-10	
OFFSITE (g/sec)	1.23E-06	1.40E-06	2.15E-08	see segment-specific rates below
Construction Year Start	10/28/2026	1/1/2027	1/1/2028	
Construction Year End	12/31/2026	12/31/2027	3/30/2028	
Workdays	47	261	64	
Total Days	64	364	89	
Exposure Duration	0.18	1.00	0.24	

ASSUMPTIONS

Work Hours per Day	
seconds/hour	3,600
work hours/day	8
seconds per work day	28,800

Onroad VMT Scalar							
Phase	Trips in Caleemod		One-Way Caleemod Trip Length		Caleemod Average Roundtrip Length	Aermod Average Roundtrip Length	VMT Scalar
	Vendor	Haul	Vendor	Haul			
Demolition		26.0	8.4	20	40.0	1.07	0.03
Site Preparation		250.0	8.4	20	40.0	1.07	0.03
Trenching/Utilities	110.0		8.4	20	16.8	1.07	0.06
Building Shell	666.4		8.4	20	16.8	1.07	0.06
Architectural Coatings	44.0		8.4	20	16.8	1.07	0.06
Paving/Hardscape/Landscaping	5.0		8.4	20	16.8	1.07	0.06
Total	825	276	8.4	20.0	22.6	1.07	0.05

-- using this to scale onroad PM10 for each phase

Source Parameters	
Onsite	
36,723.3	Area (m2)

Onroad					
Route Segment	Length (m)	Emission Rate (g/sec; 2026)	Emission Rate (g/sec; 2027)	Emission Rate (g/sec; 2028)	-- assumes 50% of trucks would travel to/from the north and 50% to/from the south.
1A_IN	109.1	3.88E-08	4.43E-08	6.83E-10	
1A_OUT	110.2	3.92E-08	4.48E-08	6.90E-10	
2A_IN	109.1	3.88E-08	4.43E-08	6.83E-10	
2A_OUT	110.2	3.92E-08	4.48E-08	6.90E-10	
1B_IN	393.4	1.40E-07	1.60E-07	2.46E-09	
1B_OUT	368.4	1.31E-07	1.50E-07	2.31E-09	
2B_IN	361.5	1.29E-07	1.47E-07	2.26E-09	
2B_OUT	394.1	1.40E-07	1.60E-07	2.47E-09	
1C_IN	744.8	2.65E-07	3.03E-07	4.66E-09	
2C_IN	739.7	2.63E-07	3.01E-07	4.63E-09	
AERMOD segment	3,440.5				
meters to mile	6.21E-04				

SUMMARY OF PM2.5				SCHEDULE				ONSITE PM2.5 Exhaust - OFFROAD EQUIPMENT						ONSITE PM2.5 Dust - MATERIAL MOVEMENT						OFFSITE PM2.5 Total - ONROAD TRUCKS					
								2026		2027		2028		2026		2027		2028		2026		2027		2028	
Phase	Start date	End date	Days	PM2.5 (tons)	PM2.5 (grams)	PM2.5 (tons)	PM2.5 (grams)	PM2.5 (tons)	PM2.5 (grams)	PM2.5 (tons)	PM2.5 (grams)	PM2.5 (tons)	PM2.5 (grams)	PM2.5 (tons)	PM2.5 (grams)	PM2.5 (tons)	PM2.5 (grams)	PM2.5 (tons)	PM2.5 (grams)	PM2.5 (tons)	PM2.5 (grams)	PM2.5 (tons)	PM2.5 (grams)	PM2.5 (tons)	PM2.5 (grams)
Demolition	10/28/2026	12/28/2026	44	2.72E-03	2,466.11		0.00							1.11E-04	100.25			0.00		2.01E-03	1,827.61			0.00	
Site Preparation	12/28/2026	1/26/2027	22	2.43E-04	220.65	1.42E-03	1,284.85							3.25E-05	29.53	2.12E-04	191.93			3.28E-04	297.74	2.13E-03	1,935.31		0.00
Trenching/Utilities	1/27/2027	3/5/2027	22		0.00	3.02E-04	273.79								0.00						0.00	5.99E-04	543.00		0.00
Building Shell	3/11/2027	3/14/2028	264		0.00	1.63E-02	14,744.70								0.00						0.00	6.07E-03	5,508.52		0.00
Architectural Coatings	1/31/2028	3/30/2028	44		0.00	3.62E-03	3,283.81								0.00						0.00	1.52E-03	1,377.13		0.00
Paving/Hardscape/Landscaping	3/8/2028	3/14/2028	5		0.00	3.13E-03	2,836.18	3.53E-05	32.04						0.00						0.00	3.30E-03	2,990.92	3.71E-05	33.69
Total	10/28/2026	3/30/2028	372	2.96E-03	2,686.76	2.47E-02	22,421.33	3.53E-05	32.04	1.43E-04	129.77			2.12E-04	191.93	0.00E+00	0.00			2.34E-03	2,125.35	1.36E-02	12,354.88	3.71E-05	33.69

SUMMARY				
Emission Rates				
Pollutant	Source	2026	2027	2028
PM2.5 Exhaust	OFFROAD EQUIPMENT (g/sec/m2)	9.73E-09	8.12E-08	1.17E-10
PM2.5 Dust	MATERIAL MOVEMENT (g/sec/m2)	4.70E-10	6.95E-10	0.00E+00
PM2.5 Total	OFFSITE (g/sec)	1.31E-05	7.60E-05	2.08E-07
		1/1/2026	1/1/2027	1/1/2028
		12/31/2026	12/31/2027	12/30/2028
Total Days		261	261	260

ASSUMPTIONS	
Work Hours per Day	
seconds/hour	3,600
work hours/day	8
seconds per work day	28,800

Onroad VMT Scalar									<-- using this to scale onroad PM2.5 for each phase
Phase	Worker	Total Trips in Caleemod		One-Way Caleemod Trip Length			Caleemod Average Roundtrip Length	Aermod Average Roundtrip Length	
		Vendor	Haul	Worker	Vendor	Haul			
Demolition	440	0	26	11.7	8.4	20.0	24.3	1.07	0.04
Site Preparation	110	0	250	11.7	8.4	20.0	34.9	1.07	0.03
Trenching/Utilities	55	110	0	11.7	8.4	20.0	19.0	1.07	0.06
Building Shell	1,301	666	0	11.7	8.4	20.0	21.2	1.07	0.05
Architectural Coatings	43	44	0	11.7	8.4	20.0	20.1	1.07	0.05
Paving/Hardscape/Landscaping	88	5	0	11.7	8.4	20.0	23.0	1.07	0.05
Total	2,037	825	276	11.7	8.4	20.0	23.1	1.07	0.05

Source Parameters	
Onsite	
36,723.3	Area (m2)

Offsite					<-- assumes 50% of trucks would travel to/from the north and 50% to/from the south.
Route Segment	Length (m)	Emission Rate (g/sec; 2026)	Emission Rate (g/sec; 2027)	Emission Rate (g/sec; 2028)	
1A_IN	109.1	4.14E-07	2.41E-06	6.59E-09	
1A_OUT	110.2	4.19E-07	2.43E-06	6.66E-09	
2A_IN	109.1	4.14E-07	2.41E-06	6.59E-09	
2A_OUT	110.2	4.19E-07	2.43E-06	6.66E-09	
1B_IN	393.4	1.49E-06	8.69E-06	2.38E-08	
1B_OUT	368.4	1.40E-06	8.14E-06	2.23E-08	
2B_IN	361.5	1.37E-06	7.98E-06	2.18E-08	
2B_OUT	394.1	1.50E-06	8.70E-06	2.38E-08	
1C_IN	744.8	2.83E-06	1.64E-05	4.50E-08	
2C_IN	739.7	2.81E-06	1.63E-05	4.47E-08	
AERMOD segment	3,440.5				
meters to mile	6.21E-04				

GENERATOR EMISSIONS

Pollutant	Total Generator Emissions (tons/year)	Emissions per Generator (g/sec)
PM2.5	4.27E-04	3.07E-06
PM10 Ex (DPM)	4.27E-04	3.07E-06

<- emissions from CalEEMod output file
<- emissions from CalEEMod output file

Generator Conversions
365 days per year
24 hours per day
60 minutes per hour
60 seconds per minute
907185 grams per ton

AERMOD Output Files

Discrete Re X	Y	Concentrat	Elevation (Z	Hill Heights	Flagpole (Z	Averagin Pe	Source Gro	Num Years	Net ID
RES	581389.2	4203991	4.00E-05	10.43	10.43	1.5 ANNUAL	DPM_26	1	
RES	581409.1	4203991	4.00E-05	10.52	10.52	1.5 ANNUAL	DPM_26	1	
RES	581428.9	4203991	5.00E-05	9.49	9.49	1.5 ANNUAL	DPM_26	1	
RES	581448.8	4203991	5.00E-05	9.32	9.32	1.5 ANNUAL	DPM_26	1	
RES	581468.6	4203991	6.00E-05	9.34	9.34	1.5 ANNUAL	DPM_26	1	
RES	581488.5	4203991	6.00E-05	9.37	9.37	1.5 ANNUAL	DPM_26	1	
RES	581508.3	4203991	6.00E-05	8.92	8.92	1.5 ANNUAL	DPM_26	1	
RES	581528.2	4203991	7.00E-05	9.17	9.17	1.5 ANNUAL	DPM_26	1	
RES	581548	4203991	7.00E-05	9.08	9.08	1.5 ANNUAL	DPM_26	1	
RES	581567.9	4203991	7.00E-05	8.66	8.66	1.5 ANNUAL	DPM_26	1	
RES	581587.7	4203991	7.00E-05	8.2	8.2	1.5 ANNUAL	DPM_26	1	
RES	581607.6	4203991	8.00E-05	7.93	7.93	1.5 ANNUAL	DPM_26	1	
RES	581627.4	4203991	8.00E-05	7.83	7.83	1.5 ANNUAL	DPM_26	1	
RES	581647.3	4203991	8.00E-05	7.68	7.68	1.5 ANNUAL	DPM_26	1	
RES	581667.1	4203991	9.00E-05	7.55	7.55	1.5 ANNUAL	DPM_26	1	
RES	581687	4203991	9.00E-05	7.55	7.55	1.5 ANNUAL	DPM_26	1	
RES	581706.8	4203991	0.0001	8.26	8.26	1.5 ANNUAL	DPM_26	1	
RES	581726.7	4203991	0.0001	7.79	7.79	1.5 ANNUAL	DPM_26	1	
RES	581746.5	4203991	0.00011	7.26	7.26	1.5 ANNUAL	DPM_26	1	
WOR	582004.6	4203991	0.0001	7.35	7.35	1.5 ANNUAL	DPM_26	1	
WOR	582024.4	4203991	9.00E-05	7.63	7.63	1.5 ANNUAL	DPM_26	1	
WOR	582044.3	4203991	9.00E-05	7.52	7.52	1.5 ANNUAL	DPM_26	1	
RES	581389.2	4204011	4.00E-05	10.76	10.76	1.5 ANNUAL	DPM_26	1	
RES	581409.1	4204011	5.00E-05	9.83	9.83	1.5 ANNUAL	DPM_26	1	
RES	581428.9	4204011	5.00E-05	8.49	8.49	1.5 ANNUAL	DPM_26	1	
RES	581448.8	4204011	5.00E-05	8.42	8.42	1.5 ANNUAL	DPM_26	1	
RES	581468.6	4204011	6.00E-05	8.61	8.61	1.5 ANNUAL	DPM_26	1	
RES	581488.5	4204011	6.00E-05	8.85	8.85	1.5 ANNUAL	DPM_26	1	
RES	581508.3	4204011	7.00E-05	8.81	8.81	1.5 ANNUAL	DPM_26	1	
RES	581528.2	4204011	7.00E-05	9.07	9.07	1.5 ANNUAL	DPM_26	1	
RES	581548	4204011	7.00E-05	9.1	9.1	1.5 ANNUAL	DPM_26	1	
RES	581567.9	4204011	8.00E-05	8.67	8.67	1.5 ANNUAL	DPM_26	1	
RES	581587.7	4204011	8.00E-05	8.19	8.19	1.5 ANNUAL	DPM_26	1	
RES	581607.6	4204011	9.00E-05	7.71	7.71	1.5 ANNUAL	DPM_26	1	
RES	581627.4	4204011	9.00E-05	8.2	8.2	1.5 ANNUAL	DPM_26	1	
RES	581647.3	4204011	9.00E-05	8.21	8.21	1.5 ANNUAL	DPM_26	1	
RES	581667.1	4204011	0.0001	7.72	7.72	1.5 ANNUAL	DPM_26	1	
RES	581687	4204011	0.0001	7.75	7.75	1.5 ANNUAL	DPM_26	1	
RES	581706.8	4204011	0.00011	8.2	8.2	1.5 ANNUAL	DPM_26	1	
RES	581726.7	4204011	0.00012	7.64	7.64	1.5 ANNUAL	DPM_26	1	
RES	581746.5	4204011	0.00012	6.81	6.81	1.5 ANNUAL	DPM_26	1	
WOR	581845.8	4204011	0.00015	6.88	6.88	1.5 ANNUAL	DPM_26	1	
WOR	581865.6	4204011	0.00015	7.09	7.09	1.5 ANNUAL	DPM_26	1	
WOR	581885.5	4204011	0.00015	7.08	7.08	1.5 ANNUAL	DPM_26	1	
WOR	581905.3	4204011	0.00015	7.06	7.06	1.5 ANNUAL	DPM_26	1	
WOR	582004.6	4204011	0.00011	7.45	7.45	1.5 ANNUAL	DPM_26	1	
WOR	582024.4	4204011	0.0001	7.54	7.54	1.5 ANNUAL	DPM_26	1	
WOR	582044.3	4204011	9.00E-05	7.58	7.58	1.5 ANNUAL	DPM_26	1	
RES	581389.2	4204030	4.00E-05	10.28	10.28	1.5 ANNUAL	DPM_26	1	

RES	581409.1	4204030	5.00E-05	9.25	9.25	1.5 ANNUAL	DPM_26	1
RES	581428.9	4204030	5.00E-05	8.41	8.41	1.5 ANNUAL	DPM_26	1
RES	581448.8	4204030	6.00E-05	8.32	8.32	1.5 ANNUAL	DPM_26	1
RES	581468.6	4204030	6.00E-05	8.1	8.1	1.5 ANNUAL	DPM_26	1
RES	581488.5	4204030	7.00E-05	8.33	8.33	1.5 ANNUAL	DPM_26	1
RES	581508.3	4204030	7.00E-05	8.53	8.53	1.5 ANNUAL	DPM_26	1
RES	581528.2	4204030	8.00E-05	8.63	8.63	1.5 ANNUAL	DPM_26	1
RES	581548	4204030	8.00E-05	8.55	8.55	1.5 ANNUAL	DPM_26	1
RES	581567.9	4204030	9.00E-05	8.43	8.43	1.5 ANNUAL	DPM_26	1
RES	581587.7	4204030	9.00E-05	8.16	8.16	1.5 ANNUAL	DPM_26	1
RES	581627.4	4204030	0.0001	8.26	8.26	1.5 ANNUAL	DPM_26	1
RES	581647.3	4204030	0.00011	8.24	8.24	1.5 ANNUAL	DPM_26	1
RES	581667.1	4204030	0.00011	7.75	7.75	1.5 ANNUAL	DPM_26	1
RES	581687	4204030	0.00012	7.58	7.58	1.5 ANNUAL	DPM_26	1
RES	581706.8	4204030	0.00012	7.98	7.98	1.5 ANNUAL	DPM_26	1
RES	581726.7	4204030	0.00013	7.98	7.98	1.5 ANNUAL	DPM_26	1
RES	581746.5	4204030	0.00014	6.98	7.33	1.5 ANNUAL	DPM_26	1
WOR	581845.8	4204030	0.00017	6.63	6.63	1.5 ANNUAL	DPM_26	1
WOR	581865.6	4204030	0.00017	6.8	6.8	1.5 ANNUAL	DPM_26	1
WOR	581885.5	4204030	0.00017	6.92	6.92	1.5 ANNUAL	DPM_26	1
WOR	581905.3	4204030	0.00016	6.97	6.97	1.5 ANNUAL	DPM_26	1
WOR	582004.6	4204030	0.00011	7.63	7.63	1.5 ANNUAL	DPM_26	1
WOR	582024.4	4204030	0.0001	7.68	7.68	1.5 ANNUAL	DPM_26	1
RES	581389.2	4204050	4.00E-05	9.84	9.84	1.5 ANNUAL	DPM_26	1
RES	581409.1	4204050	5.00E-05	9	9	1.5 ANNUAL	DPM_26	1
RES	581428.9	4204050	5.00E-05	8.69	8.69	1.5 ANNUAL	DPM_26	1
RES	581448.8	4204050	6.00E-05	8.36	8.36	1.5 ANNUAL	DPM_26	1
RES	581488.5	4204050	7.00E-05	7.98	7.98	1.5 ANNUAL	DPM_26	1
RES	581567.9	4204050	0.0001	7.75	7.75	1.5 ANNUAL	DPM_26	1
RES	581587.7	4204050	0.0001	7.69	7.69	1.5 ANNUAL	DPM_26	1
RES	581627.4	4204050	0.00011	8.12	8.12	1.5 ANNUAL	DPM_26	1
RES	581647.3	4204050	0.00012	8.13	8.13	1.5 ANNUAL	DPM_26	1
RES	581667.1	4204050	0.00013	7.72	7.72	1.5 ANNUAL	DPM_26	1
RES	581687	4204050	0.00013	7.5	7.5	1.5 ANNUAL	DPM_26	1
RES	581706.8	4204050	0.00014	8.14	8.14	1.5 ANNUAL	DPM_26	1
RES	581726.7	4204050	0.00015	8.04	8.04	1.5 ANNUAL	DPM_26	1
WOR	581825.9	4204050	0.0002	6.74	6.74	1.5 ANNUAL	DPM_26	1
WOR	581845.8	4204050	0.0002	6.79	6.79	1.5 ANNUAL	DPM_26	1
WOR	581865.6	4204050	0.0002	6.58	6.58	1.5 ANNUAL	DPM_26	1
WOR	581885.5	4204050	0.00019	6.78	6.78	1.5 ANNUAL	DPM_26	1
WOR	581905.3	4204050	0.00018	6.92	6.92	1.5 ANNUAL	DPM_26	1
WOR	582004.6	4204050	0.00012	7.66	7.66	1.5 ANNUAL	DPM_26	1
WOR	582024.4	4204050	0.00011	7.6	7.6	1.5 ANNUAL	DPM_26	1
RES	581389.2	4204070	5.00E-05	8.77	8.77	1.5 ANNUAL	DPM_26	1
RES	581409.1	4204070	5.00E-05	9.01	9.01	1.5 ANNUAL	DPM_26	1
RES	581428.9	4204070	6.00E-05	9.09	9.09	1.5 ANNUAL	DPM_26	1
RES	581448.8	4204070	6.00E-05	8.79	8.79	1.5 ANNUAL	DPM_26	1
RES	581488.5	4204070	8.00E-05	8.4	8.4	1.5 ANNUAL	DPM_26	1
RES	581508.3	4204070	8.00E-05	8.72	8.72	1.5 ANNUAL	DPM_26	1
RES	581528.2	4204070	9.00E-05	8.63	8.63	1.5 ANNUAL	DPM_26	1

RES	581548	4204070	0.0001	8.5	8.5	1.5 ANNUAL	DPM_26	1
RES	581567.9	4204070	0.00011	8.19	8.19	1.5 ANNUAL	DPM_26	1
RES	581587.7	4204070	0.00012	7.73	7.73	1.5 ANNUAL	DPM_26	1
RES	581627.4	4204070	0.00013	7.77	7.77	1.5 ANNUAL	DPM_26	1
RES	581647.3	4204070	0.00014	7.87	7.87	1.5 ANNUAL	DPM_26	1
RES	581667.1	4204070	0.00015	7.69	7.69	1.5 ANNUAL	DPM_26	1
RES	581687	4204070	0.00016	7.18	7.18	1.5 ANNUAL	DPM_26	1
RES	581706.8	4204070	0.00016	7.79	7.79	1.5 ANNUAL	DPM_26	1
RES	581726.7	4204070	0.00017	7.85	7.85	1.5 ANNUAL	DPM_26	1
WOR	581806.1	4204070	0.00022	6.83	6.83	1.5 ANNUAL	DPM_26	1
WOR	581825.9	4204070	0.00023	6.88	6.88	1.5 ANNUAL	DPM_26	1
WOR	581845.8	4204070	0.00023	6.84	6.84	1.5 ANNUAL	DPM_26	1
WOR	581865.6	4204070	0.00022	6.79	6.79	1.5 ANNUAL	DPM_26	1
WOR	581885.5	4204070	0.00021	6.83	6.83	1.5 ANNUAL	DPM_26	1
WOR	581905.3	4204070	0.0002	6.91	6.91	1.5 ANNUAL	DPM_26	1
WOR	582004.6	4204070	0.00013	7.6	7.6	1.5 ANNUAL	DPM_26	1
WOR	582024.4	4204070	0.00012	7.4	7.4	1.5 ANNUAL	DPM_26	1
WOR	582103.8	4204070	9.00E-05	6.92	6.92	1.5 ANNUAL	DPM_26	1
RES	581389.2	4204090	5.00E-05	8.25	8.25	1.5 ANNUAL	DPM_26	1
RES	581409.1	4204090	5.00E-05	8.86	8.86	1.5 ANNUAL	DPM_26	1
RES	581428.9	4204090	6.00E-05	8.89	8.89	1.5 ANNUAL	DPM_26	1
RES	581448.8	4204090	7.00E-05	8.55	8.55	1.5 ANNUAL	DPM_26	1
RES	581468.6	4204090	7.00E-05	7.88	7.88	1.5 ANNUAL	DPM_26	1
RES	581488.5	4204090	8.00E-05	8.62	8.62	1.5 ANNUAL	DPM_26	1
RES	581508.3	4204090	9.00E-05	8.12	8.12	1.5 ANNUAL	DPM_26	1
RES	581528.2	4204090	0.0001	7.71	7.71	1.5 ANNUAL	DPM_26	1
RES	581548	4204090	0.00011	7.92	7.92	1.5 ANNUAL	DPM_26	1
RES	581567.9	4204090	0.00012	8.02	8.02	1.5 ANNUAL	DPM_26	1
RES	581587.7	4204090	0.00013	7.72	7.72	1.5 ANNUAL	DPM_26	1
RES	581607.6	4204090	0.00014	6.94	6.94	1.5 ANNUAL	DPM_26	1
RES	581627.4	4204090	0.00015	7.72	7.72	1.5 ANNUAL	DPM_26	1
RES	581647.3	4204090	0.00016	7.93	7.93	1.5 ANNUAL	DPM_26	1
RES	581667.1	4204090	0.00017	7.89	7.89	1.5 ANNUAL	DPM_26	1
RES	581687	4204090	0.00018	7.77	7.77	1.5 ANNUAL	DPM_26	1
RES	581706.8	4204090	0.00019	8.07	8.07	1.5 ANNUAL	DPM_26	1
RES	581726.7	4204090	0.00021	7.27	7.27	1.5 ANNUAL	DPM_26	1
WOR	581786.2	4204090	0.00025	6.72	6.72	1.5 ANNUAL	DPM_26	1
WOR	581806.1	4204090	0.00026	6.88	6.88	1.5 ANNUAL	DPM_26	1
WOR	582024.4	4204090	0.00013	7.39	7.39	1.5 ANNUAL	DPM_26	1
WOR	582084	4204090	0.0001	7.24	7.24	1.5 ANNUAL	DPM_26	1
WOR	582103.8	4204090	9.00E-05	7.01	7.01	1.5 ANNUAL	DPM_26	1
RES	581389.2	4204110	5.00E-05	8.05	8.05	1.5 ANNUAL	DPM_26	1
RES	581409.1	4204110	5.00E-05	8.66	8.66	1.5 ANNUAL	DPM_26	1
RES	581428.9	4204110	6.00E-05	8.65	8.65	1.5 ANNUAL	DPM_26	1
RES	581448.8	4204110	7.00E-05	8.27	8.27	1.5 ANNUAL	DPM_26	1
RES	581468.6	4204110	8.00E-05	7.73	7.73	1.5 ANNUAL	DPM_26	1
RES	581488.5	4204110	9.00E-05	8.56	8.56	1.5 ANNUAL	DPM_26	1
RES	581508.3	4204110	0.0001	7.79	7.79	1.5 ANNUAL	DPM_26	1
SCH	581528.2	4204110	0.00011	7.26	7.26	1.5 ANNUAL	DPM_26	1
SCH	581548	4204110	0.00012	6.82	6.82	1.5 ANNUAL	DPM_26	1

SCH	581567.9	4204110	0.00013	6.73	6.73	1.5 ANNUAL	DPM_26	1
SCH	581584	4204105	0.00014	6.88	6.88	1.5 ANNUAL	DPM_26	1
RES	581607.6	4204110	0.00016	7.03	7.03	1.5 ANNUAL	DPM_26	1
RES	581627.4	4204110	0.00017	7.45	7.45	1.5 ANNUAL	DPM_26	1
RES	581647.3	4204110	0.00018	7.45	7.45	1.5 ANNUAL	DPM_26	1
RES	581667.1	4204110	0.0002	7.53	7.53	1.5 ANNUAL	DPM_26	1
RES	581687	4204110	0.00021	7.63	7.63	1.5 ANNUAL	DPM_26	1
RES	581706.8	4204110	0.00023	7.77	7.77	1.5 ANNUAL	DPM_26	1
RES	581726.7	4204110	0.00025	5.89	8.08	1.5 ANNUAL	DPM_26	1
WOR	581786.2	4204110	0.0003	6.63	6.63	1.5 ANNUAL	DPM_26	1
WOR	581806.1	4204110	0.00031	6.87	6.87	1.5 ANNUAL	DPM_26	1
WOR	581984.7	4204110	0.00016	7.55	7.55	1.5 ANNUAL	DPM_26	1
WOR	582004.6	4204110	0.00015	7.55	7.55	1.5 ANNUAL	DPM_26	1
WOR	582024.4	4204110	0.00014	7.51	7.51	1.5 ANNUAL	DPM_26	1
WOR	582084	4204110	0.00011	6.99	6.99	1.5 ANNUAL	DPM_26	1
WOR	582103.8	4204110	0.0001	6.99	6.99	1.5 ANNUAL	DPM_26	1
RES	581389.2	4204130	5.00E-05	7.83	7.83	1.5 ANNUAL	DPM_26	1
RES	581409.1	4204130	5.00E-05	8.02	8.02	1.5 ANNUAL	DPM_26	1
RES	581428.9	4204130	6.00E-05	8.15	8.15	1.5 ANNUAL	DPM_26	1
RES	581448.8	4204130	7.00E-05	7.85	7.85	1.5 ANNUAL	DPM_26	1
RES	581468.6	4204130	8.00E-05	7.53	7.53	1.5 ANNUAL	DPM_26	1
RES	581488.5	4204130	9.00E-05	8.14	8.14	1.5 ANNUAL	DPM_26	1
RES	581508.3	4204130	0.0001	8.19	8.19	1.5 ANNUAL	DPM_26	1
SCH	581528.2	4204130	0.00012	7.36	7.36	1.5 ANNUAL	DPM_26	1
SCH	581548	4204130	0.00013	6.92	6.92	1.5 ANNUAL	DPM_26	1
SCH	581567.9	4204130	0.00015	6.9	6.9	1.5 ANNUAL	DPM_26	1
SCH	581584	4204125	0.00016	6.71	6.71	1.5 ANNUAL	DPM_26	1
RES	581607.6	4204130	0.00018	7.26	7.26	1.5 ANNUAL	DPM_26	1
RES	581627.4	4204130	0.0002	7.58	7.58	1.5 ANNUAL	DPM_26	1
RES	581647.3	4204130	0.00022	7.62	7.62	1.5 ANNUAL	DPM_26	1
RES	581662.4	4204126	0.00022	7.1	7.1	1.5 ANNUAL	DPM_26	1
RES	581687	4204130	0.00025	7	7	1.5 ANNUAL	DPM_26	1
RES	581706.8	4204130	0.00027	7.24	7.24	1.5 ANNUAL	DPM_26	1
WOR	581766.4	4204130	0.00035	6.34	6.34	1.5 ANNUAL	DPM_26	1
WOR	581786.2	4204130	0.00036	6.48	6.48	1.5 ANNUAL	DPM_26	1
WOR	581806.1	4204130	0.00037	6.85	6.85	1.5 ANNUAL	DPM_26	1
WOR	581885.5	4204130	0.00031	6.71	6.71	1.5 ANNUAL	DPM_26	1
WOR	581905.3	4204130	0.00028	6.94	6.94	1.5 ANNUAL	DPM_26	1
WOR	581984.7	4204130	0.00018	7.54	7.54	1.5 ANNUAL	DPM_26	1
WOR	582004.6	4204130	0.00016	7.65	7.65	1.5 ANNUAL	DPM_26	1
WOR	582024.4	4204130	0.00015	7.7	7.7	1.5 ANNUAL	DPM_26	1
WOR	582084	4204130	0.00012	6.9	6.9	1.5 ANNUAL	DPM_26	1
WOR	582103.8	4204130	0.0001	7.01	7.01	1.5 ANNUAL	DPM_26	1
RES	581389.2	4204150	5.00E-05	7.96	7.96	1.5 ANNUAL	DPM_26	1
RES	581488.5	4204150	9.00E-05	7.57	7.57	1.5 ANNUAL	DPM_26	1
RES	581508.3	4204150	0.00011	7.98	7.98	1.5 ANNUAL	DPM_26	1
SCH	581528.2	4204150	0.00012	7.98	7.98	1.5 ANNUAL	DPM_26	1
SCH	581548	4204150	0.00014	8.17	8.17	1.5 ANNUAL	DPM_26	1
SCH	581567.9	4204150	0.00016	8.22	8.22	1.5 ANNUAL	DPM_26	1
RES	581607.6	4204150	0.0002	7.6	7.6	1.5 ANNUAL	DPM_26	1

RES	581627.4	4204150	0.00023	7.7	7.7	1.5 ANNUAL	DPM_26	1
RES	581647.3	4204150	0.00025	7.49	7.49	1.5 ANNUAL	DPM_26	1
RES	581687	4204150	0.00031	6.81	6.81	1.5 ANNUAL	DPM_26	1
RES	581706.8	4204150	0.00033	7.17	7.17	1.5 ANNUAL	DPM_26	1
WOR	581766.4	4204150	0.00043	6.19	6.19	1.5 ANNUAL	DPM_26	1
WOR	581786.2	4204150	0.00045	6.3	6.3	1.5 ANNUAL	DPM_26	1
WOR	581806.1	4204150	0.00046	6.84	6.84	1.5 ANNUAL	DPM_26	1
WOR	581825.9	4204150	0.00045	6.81	6.81	1.5 ANNUAL	DPM_26	1
WOR	581885.5	4204150	0.00035	6.67	6.67	1.5 ANNUAL	DPM_26	1
WOR	581905.3	4204150	0.00031	6.68	6.68	1.5 ANNUAL	DPM_26	1
WOR	582084	4204150	0.00012	6.92	6.92	1.5 ANNUAL	DPM_26	1
WOR	582103.8	4204150	0.00011	7.15	7.15	1.5 ANNUAL	DPM_26	1
RES	581389.2	4204169	5.00E-05	8.59	8.59	1.5 ANNUAL	DPM_26	1
RES	581409.1	4204169	6.00E-05	8.21	8.21	1.5 ANNUAL	DPM_26	1
RES	581428.9	4204169	6.00E-05	7.96	7.96	1.5 ANNUAL	DPM_26	1
RES	581448.8	4204169	7.00E-05	7.83	7.83	1.5 ANNUAL	DPM_26	1
RES	581468.6	4204169	8.00E-05	7.73	7.73	1.5 ANNUAL	DPM_26	1
RES	581488.5	4204169	0.0001	7.77	7.77	1.5 ANNUAL	DPM_26	1
RES	581528.8	4204174	0.00013	8.82	8.82	1.5 ANNUAL	DPM_26	1
RES	581607.6	4204167	0.00023	7.74	7.74	1.5 ANNUAL	DPM_26	1
RES	581627.4	4204167	0.00026	7.63	7.63	1.5 ANNUAL	DPM_26	1
RES	581647.3	4204167	0.00029	7.48	7.48	1.5 ANNUAL	DPM_26	1
RES	581670	4204170	0.00035	7	7	1.5 ANNUAL	DPM_26	1
RES	581687	4204169	0.00038	7.05	7.05	1.5 ANNUAL	DPM_26	1
RES	581706.8	4204169	0.00042	7.05	7.05	1.5 ANNUAL	DPM_26	1
WOR	581766.4	4204169	0.00054	6.28	6.28	1.5 ANNUAL	DPM_26	1
WOR	581786.2	4204169	0.00057	6.21	6.21	1.5 ANNUAL	DPM_26	1
WOR	581806.1	4204169	0.00057	6.63	6.63	1.5 ANNUAL	DPM_26	1
WOR	581825.9	4204169	0.00055	6.7	6.7	1.5 ANNUAL	DPM_26	1
WOR	581885.5	4204169	0.0004	6.53	6.53	1.5 ANNUAL	DPM_26	1
WOR	581905.3	4204169	0.00035	6.5	6.5	1.5 ANNUAL	DPM_26	1
WOR	581945	4204169	0.00027	6.82	6.82	1.5 ANNUAL	DPM_26	1
WOR	581964.9	4204169	0.00023	6.95	6.95	1.5 ANNUAL	DPM_26	1
WOR	581984.7	4204169	0.00021	7.13	7.13	1.5 ANNUAL	DPM_26	1
WOR	582004.6	4204169	0.00019	7.23	7.23	1.5 ANNUAL	DPM_26	1
WOR	582084	4204169	0.00013	6.93	6.93	1.5 ANNUAL	DPM_26	1
WOR	582103.8	4204169	0.00011	7.02	7.02	1.5 ANNUAL	DPM_26	1
RES	581389.2	4204189	5.00E-05	9.54	9.54	1.5 ANNUAL	DPM_26	1
RES	581409.1	4204189	6.00E-05	9.27	9.27	1.5 ANNUAL	DPM_26	1
RES	581428.9	4204189	6.00E-05	9.03	9.03	1.5 ANNUAL	DPM_26	1
RES	581448.8	4204189	7.00E-05	8.81	8.81	1.5 ANNUAL	DPM_26	1
RES	581468.6	4204189	8.00E-05	8.75	8.75	1.5 ANNUAL	DPM_26	1
RES	581488.5	4204189	0.0001	8.73	8.73	1.5 ANNUAL	DPM_26	1
RES	581528.2	4204189	0.00013	8.72	8.72	1.5 ANNUAL	DPM_26	1
RES	581548	4204189	0.00016	9.53	10.33	1.5 ANNUAL	DPM_26	1
RES	581567.9	4204189	0.00018	9.84	9.84	1.5 ANNUAL	DPM_26	1
RES	581587.7	4204189	0.00022	8.92	8.92	1.5 ANNUAL	DPM_26	1
RES	581607.6	4204189	0.00026	8.63	8.63	1.5 ANNUAL	DPM_26	1
RES	581627.4	4204189	0.00031	8.48	8.48	1.5 ANNUAL	DPM_26	1
RES	581647.3	4204189	0.00036	8.09	8.09	1.5 ANNUAL	DPM_26	1

WOR	581766.4	4204189	0.00071	5.62	5.62	1.5 ANNUAL	DPM_26	1
WOR	581786.2	4204189	0.00073	6.12	6.12	1.5 ANNUAL	DPM_26	1
WOR	581806.1	4204189	0.00072	6.18	6.18	1.5 ANNUAL	DPM_26	1
WOR	581865.6	4204189	0.00053	6.18	6.18	1.5 ANNUAL	DPM_26	1
WOR	581885.5	4204189	0.00045	6.3	6.3	1.5 ANNUAL	DPM_26	1
WOR	581945	4204189	0.00029	6.61	6.61	1.5 ANNUAL	DPM_26	1
WOR	581964.9	4204189	0.00026	6.78	6.78	1.5 ANNUAL	DPM_26	1
WOR	581984.7	4204189	0.00022	7.03	7.03	1.5 ANNUAL	DPM_26	1
WOR	582004.6	4204189	0.0002	7.32	9.81	1.5 ANNUAL	DPM_26	1
WOR	582084	4204189	0.00013	6.95	6.95	1.5 ANNUAL	DPM_26	1
WOR	582103.8	4204189	0.00011	7.04	7.04	1.5 ANNUAL	DPM_26	1
RES	581389.2	4204209	5.00E-05	9.22	9.22	1.5 ANNUAL	DPM_26	1
RES	581409.1	4204209	5.00E-05	9.04	9.04	1.5 ANNUAL	DPM_26	1
RES	581428.9	4204209	6.00E-05	8.93	8.93	1.5 ANNUAL	DPM_26	1
RES	581448.8	4204209	7.00E-05	8.87	8.87	1.5 ANNUAL	DPM_26	1
RES	581468.6	4204209	8.00E-05	9.12	9.12	1.5 ANNUAL	DPM_26	1
RES	581488.5	4204209	0.0001	9.4	9.4	1.5 ANNUAL	DPM_26	1
RES	581528.2	4204209	0.00014	9.02	12.29	1.5 ANNUAL	DPM_26	1
RES	581548	4204209	0.00016	10.81	11.71	1.5 ANNUAL	DPM_26	1
RES	581567.9	4204209	0.00019	11	11	1.5 ANNUAL	DPM_26	1
RES	581587.7	4204209	0.00024	10.26	10.26	1.5 ANNUAL	DPM_26	1
RES	581607.6	4204209	0.00029	10.01	10.01	1.5 ANNUAL	DPM_26	1
RES	581627.4	4204209	0.00035	10.25	10.25	1.5 ANNUAL	DPM_26	1
RES	581647.3	4204209	0.00042	9.61	10.32	1.5 ANNUAL	DPM_26	1
RES	581667.1	4204209	0.00051	7.56	12.69	1.5 ANNUAL	DPM_26	1
RES	581687	4204209	0.0006	6.53	12.31	1.5 ANNUAL	DPM_26	1
RES	581706.8	4204209	0.00069	6.41	6.41	1.5 ANNUAL	DPM_26	1
WOR	581865.6	4204209	0.00061	6.29	6.29	1.5 ANNUAL	DPM_26	1
WOR	581885.5	4204209	0.00051	6.75	6.75	1.5 ANNUAL	DPM_26	1
WOR	582084	4204209	0.00013	6.92	6.92	1.5 ANNUAL	DPM_26	1
WOR	582103.8	4204209	0.00012	7.01	7.01	1.5 ANNUAL	DPM_26	1
RES	581389.2	4204229	5.00E-05	9.55	9.55	1.5 ANNUAL	DPM_26	1
RES	581409.1	4204229	5.00E-05	9.3	9.3	1.5 ANNUAL	DPM_26	1
RES	581428.9	4204229	6.00E-05	9	9	1.5 ANNUAL	DPM_26	1
RES	581448.8	4204229	7.00E-05	8.9	8.9	1.5 ANNUAL	DPM_26	1
RES	581468.6	4204229	8.00E-05	9.04	9.04	1.5 ANNUAL	DPM_26	1
RES	581508.3	4204229	0.00012	9.37	9.37	1.5 ANNUAL	DPM_26	1
RES	581528.2	4204229	0.00014	9.68	12.88	1.5 ANNUAL	DPM_26	1
RES	581548	4204229	0.00016	12.07	12.07	1.5 ANNUAL	DPM_26	1
RES	581567.9	4204229	0.0002	11.93	11.93	1.5 ANNUAL	DPM_26	1
RES	581587.7	4204229	0.00025	11.71	11.71	1.5 ANNUAL	DPM_26	1
RES	581607.6	4204229	0.00031	11.63	11.63	1.5 ANNUAL	DPM_26	1
RES	581627.4	4204229	0.00039	11.82	11.82	1.5 ANNUAL	DPM_26	1
RES	581647.3	4204229	0.00049	11.1	11.78	1.5 ANNUAL	DPM_26	1
RES	581667.1	4204229	0.00061	9.11	12.69	1.5 ANNUAL	DPM_26	1
RES	581687	4204229	0.00076	7.5	12.31	1.5 ANNUAL	DPM_26	1
RES	581706.8	4204229	0.00092	6.63	6.63	1.5 ANNUAL	DPM_26	1
WOR	581865.6	4204229	0.0007	6.27	6.27	1.5 ANNUAL	DPM_26	1
WOR	581885.5	4204229	0.00058	6.67	6.67	1.5 ANNUAL	DPM_26	1
WOR	581943.7	4204234	0.00036	6.57	6.57	1.5 ANNUAL	DPM_26	1

WOR	581963.5	4204234	0.0003	6.54	6.54	1.5 ANNUAL	DPM_26	1
RES	581389.2	4204249	5.00E-05	10.31	10.31	1.5 ANNUAL	DPM_26	1
RES	581409.1	4204249	5.00E-05	9.97	9.97	1.5 ANNUAL	DPM_26	1
RES	581428.9	4204249	6.00E-05	9.57	9.57	1.5 ANNUAL	DPM_26	1
RES	581448.8	4204249	7.00E-05	9.75	11.62	1.5 ANNUAL	DPM_26	1
RES	581468.6	4204249	8.00E-05	9.86	12.45	1.5 ANNUAL	DPM_26	1
RES	581488.5	4204249	9.00E-05	9.99	11.61	1.5 ANNUAL	DPM_26	1
RES	581508.3	4204249	0.00011	10.48	10.48	1.5 ANNUAL	DPM_26	1
RES	581528.2	4204249	0.00014	10.77	12.88	1.5 ANNUAL	DPM_26	1
RES	581548	4204249	0.00016	12.81	12.81	1.5 ANNUAL	DPM_26	1
RES	581587.7	4204249	0.00026	12.75	12.75	1.5 ANNUAL	DPM_26	1
RES	581607.6	4204249	0.00033	12.91	12.91	1.5 ANNUAL	DPM_26	1
RES	581627.4	4204249	0.00042	12.92	12.92	1.5 ANNUAL	DPM_26	1
RES	581647.3	4204249	0.00056	12.08	12.08	1.5 ANNUAL	DPM_26	1
RES	581667.1	4204249	0.00075	10.41	10.41	1.5 ANNUAL	DPM_26	1
RES	581687	4204249	0.00098	8.64	8.64	1.5 ANNUAL	DPM_26	1
RES	581706.8	4204249	0.00127	7.07	7.07	1.5 ANNUAL	DPM_26	1
RES	581746.5	4204249	0.00179	6.4	6.4	1.5 ANNUAL	DPM_26	1
WOR	581865.6	4204249	0.00081	6.3	6.3	1.5 ANNUAL	DPM_26	1
WOR	581885.5	4204249	0.00065	6.65	6.65	1.5 ANNUAL	DPM_26	1
WOR	581930	4204253	0.00043	6.61	6.61	1.5 ANNUAL	DPM_26	1
WOR	582084	4204249	0.00013	6.57	10.9	1.5 ANNUAL	DPM_26	1
WOR	582103.8	4204249	0.00011	6.7	6.7	1.5 ANNUAL	DPM_26	1
RES	581389.2	4204269	4.00E-05	10.94	10.94	1.5 ANNUAL	DPM_26	1
RES	581409.1	4204269	5.00E-05	10.64	10.64	1.5 ANNUAL	DPM_26	1
RES	581428.9	4204269	6.00E-05	10.73	10.73	1.5 ANNUAL	DPM_26	1
RES	581448.8	4204269	7.00E-05	11.59	11.59	1.5 ANNUAL	DPM_26	1
RES	581468.6	4204269	8.00E-05	12.03	12.03	1.5 ANNUAL	DPM_26	1
RES	581488.5	4204269	9.00E-05	11.98	11.98	1.5 ANNUAL	DPM_26	1
RES	581508.3	4204269	0.00011	11.98	12.82	1.5 ANNUAL	DPM_26	1
RES	581528.2	4204269	0.00013	12.24	12.24	1.5 ANNUAL	DPM_26	1
RES	581548	4204269	0.00016	12.64	12.64	1.5 ANNUAL	DPM_26	1
RES	581587.7	4204269	0.00026	12.55	12.55	1.5 ANNUAL	DPM_26	1
RES	581607.6	4204269	0.00034	12.49	12.49	1.5 ANNUAL	DPM_26	1
RES	581627.4	4204269	0.00046	12.53	12.53	1.5 ANNUAL	DPM_26	1
RES	581667.1	4204269	0.00091	10.28	10.28	1.5 ANNUAL	DPM_26	1
RES	581687	4204269	0.0013	8.73	8.73	1.5 ANNUAL	DPM_26	1
RES	581706.8	4204269	0.00181	7.35	7.35	1.5 ANNUAL	DPM_26	1
RES	581726.7	4204269	0.00239	6.27	6.27	1.5 ANNUAL	DPM_26	1
RES	581746.5	4204269	0.00283	6.3	6.3	1.5 ANNUAL	DPM_26	1
WOR	581925.2	4204269	0.00047	6.6	6.6	1.5 ANNUAL	DPM_26	1
WOR	581945	4204269	0.00038	6.65	6.65	1.5 ANNUAL	DPM_26	1
WOR	581964.9	4204269	0.00032	6.52	11.12	1.5 ANNUAL	DPM_26	1
WOR	582084	4204269	0.00013	6.43	10.93	1.5 ANNUAL	DPM_26	1
WOR	582103.8	4204269	0.00011	6.57	6.57	1.5 ANNUAL	DPM_26	1
RES	581389.2	4204288	4.00E-05	11.99	14.36	1.5 ANNUAL	DPM_26	1
RES	581409.1	4204288	5.00E-05	11.52	13.42	1.5 ANNUAL	DPM_26	1
RES	581428.9	4204288	5.00E-05	11.68	11.68	1.5 ANNUAL	DPM_26	1
RES	581448.8	4204288	6.00E-05	12.15	12.15	1.5 ANNUAL	DPM_26	1
RES	581468.6	4204288	7.00E-05	13.16	13.16	1.5 ANNUAL	DPM_26	1

RES	581484.9	4204289	8.00E-05	13.25	13.25	1.5 ANNUAL	DPM_26	1
RES	581508.3	4204288	0.0001	13.48	13.48	1.5 ANNUAL	DPM_26	1
RES	581528.2	4204288	0.00012	13.39	13.39	1.5 ANNUAL	DPM_26	1
RES	581548	4204288	0.00015	12.02	12.02	1.5 ANNUAL	DPM_26	1
RES	581587.7	4204288	0.00026	11.32	11.32	1.5 ANNUAL	DPM_26	1
RES	581607.6	4204288	0.00035	10.97	10.97	1.5 ANNUAL	DPM_26	1
RES	581627.4	4204288	0.00048	11.27	11.27	1.5 ANNUAL	DPM_26	1
RES	581647.3	4204288	0.0007	10.87	10.87	1.5 ANNUAL	DPM_26	1
RES	581667.1	4204288	0.00107	9.73	9.73	1.5 ANNUAL	DPM_26	1
RES	581687	4204288	0.00173	8.06	8.06	1.5 ANNUAL	DPM_26	1
RES	581706.8	4204288	0.00275	6.72	6.72	1.5 ANNUAL	DPM_26	1
RES	581726.7	4204288	0.00399	6.05	6.05	1.5 ANNUAL	DPM_26	1
RES	581746.5	4204288	0.00483	6.11	6.11	1.5 ANNUAL	DPM_26	1
RES	581766.4	4204288	0.00463	6.13	6.13	1.5 ANNUAL	DPM_26	1
WOR	581925.2	4204288	0.00048	6.57	6.57	1.5 ANNUAL	DPM_26	1
WOR	581945	4204288	0.00039	6.56	6.56	1.5 ANNUAL	DPM_26	1
WOR	581964.9	4204288	0.00032	6.43	11.63	1.5 ANNUAL	DPM_26	1
WOR	582084	4204288	0.00013	6.39	10.91	1.5 ANNUAL	DPM_26	1
WOR	582103.8	4204288	0.00011	6.44	6.44	1.5 ANNUAL	DPM_26	1
RES	581389.2	4204308	4.00E-05	13.9	13.9	1.5 ANNUAL	DPM_26	1
RES	581409.1	4204308	4.00E-05	13.47	13.47	1.5 ANNUAL	DPM_26	1
RES	581428.9	4204308	5.00E-05	13.11	13.11	1.5 ANNUAL	DPM_26	1
RES	581448.8	4204308	6.00E-05	12.94	12.94	1.5 ANNUAL	DPM_26	1
RES	581468.6	4204308	6.00E-05	13.47	13.47	1.5 ANNUAL	DPM_26	1
RES	581508.3	4204308	9.00E-05	14.26	14.26	1.5 ANNUAL	DPM_26	1
RES	581528.2	4204308	0.00011	13.37	14.42	1.5 ANNUAL	DPM_26	1
RES	581548	4204308	0.00014	11.58	14.42	1.5 ANNUAL	DPM_26	1
RES	581570.8	4204309	0.00018	11.02	11.02	1.5 ANNUAL	DPM_26	1
RES	581587.7	4204308	0.00024	10.18	10.18	1.5 ANNUAL	DPM_26	1
RES	581607.6	4204308	0.00033	9.55	9.55	1.5 ANNUAL	DPM_26	1
RES	581627.4	4204308	0.00048	9.23	11.49	1.5 ANNUAL	DPM_26	1
RES	581652.1	4204313	0.00079	9.39	9.39	1.5 ANNUAL	DPM_26	1
RES	581672	4204313	0.00132	8.62	8.62	1.5 ANNUAL	DPM_26	1
RES	581726.7	4204308	0.00774	5.73	5.73	1.5 ANNUAL	DPM_26	1
RES	581746.5	4204308	0.00873	5.99	5.99	1.5 ANNUAL	DPM_26	1
RES	581766.4	4204308	0.00775	6.4	6.4	1.5 ANNUAL	DPM_26	1
WOR	581825.9	4204308	0.00218	6.56	6.56	1.5 ANNUAL	DPM_26	1
WOR	581845.8	4204308	0.00147	7.02	7.02	1.5 ANNUAL	DPM_26	1
WOR	582084	4204308	0.00013	6.33	11.55	1.5 ANNUAL	DPM_26	1
WOR	582103.8	4204308	0.00011	6.45	6.45	1.5 ANNUAL	DPM_26	1
RES	581389.2	4204328	3.00E-05	14.57	14.57	1.5 ANNUAL	DPM_26	1
RES	581409.1	4204328	4.00E-05	14.07	14.07	1.5 ANNUAL	DPM_26	1
RES	581428.9	4204328	4.00E-05	13.74	13.74	1.5 ANNUAL	DPM_26	1
RES	581448.8	4204328	5.00E-05	13.41	13.41	1.5 ANNUAL	DPM_26	1
RES	581468.6	4204328	6.00E-05	13.24	13.24	1.5 ANNUAL	DPM_26	1
RES	581508.3	4204328	8.00E-05	14.31	14.31	1.5 ANNUAL	DPM_26	1
RES	581528.2	4204328	0.0001	12.9	14.47	1.5 ANNUAL	DPM_26	1
RES	581548	4204328	0.00012	11.27	14.43	1.5 ANNUAL	DPM_26	1
RES	581570.8	4204329	0.00016	10.9	10.9	1.5 ANNUAL	DPM_26	1
RES	581587.7	4204328	0.00021	9.95	9.95	1.5 ANNUAL	DPM_26	1

RES	581607.6	4204328	0.00029	8.46	8.46	1.5 ANNUAL	DPM_26	1
RES	581627.4	4204328	0.00043	7.65	7.65	1.5 ANNUAL	DPM_26	1
RES	581647.3	4204328	0.00065	7.85	9.13	1.5 ANNUAL	DPM_26	1
RES	581667.1	4204328	0.00108	7.98	7.98	1.5 ANNUAL	DPM_26	1
RES	581687	4204328	0.00212	6.45	8.87	1.5 ANNUAL	DPM_26	1
WOR	581825.9	4204328	0.0023	6.27	6.27	1.5 ANNUAL	DPM_26	1
WOR	581845.8	4204328	0.0015	6.96	6.96	1.5 ANNUAL	DPM_26	1
WOR	582084	4204328	0.00013	6.37	11.53	1.5 ANNUAL	DPM_26	1
WOR	582103.8	4204328	0.00011	6.32	6.32	1.5 ANNUAL	DPM_26	1
RES	581389.2	4204348	3.00E-05	14.78	14.78	1.5 ANNUAL	DPM_26	1
RES	581409.1	4204348	3.00E-05	14.09	14.09	1.5 ANNUAL	DPM_26	1
RES	581428.9	4204348	4.00E-05	13.78	13.78	1.5 ANNUAL	DPM_26	1
RES	581448.8	4204348	4.00E-05	13.51	13.51	1.5 ANNUAL	DPM_26	1
RES	581468.6	4204348	5.00E-05	12.86	12.86	1.5 ANNUAL	DPM_26	1
RES	581492.2	4204349	6.00E-05	11.6	14.33	1.5 ANNUAL	DPM_26	1
RES	581508.3	4204348	7.00E-05	12.66	14.16	1.5 ANNUAL	DPM_26	1
RES	581528.2	4204348	9.00E-05	11.26	14.47	1.5 ANNUAL	DPM_26	1
RES	581548	4204348	0.00011	10.62	14.43	1.5 ANNUAL	DPM_26	1
RES	581587.7	4204348	0.00018	10	10	1.5 ANNUAL	DPM_26	1
RES	581607.6	4204348	0.00026	8.49	8.49	1.5 ANNUAL	DPM_26	1
RES	581627.4	4204348	0.00036	7.54	7.54	1.5 ANNUAL	DPM_26	1
RES	581647.3	4204348	0.00054	7.4	7.4	1.5 ANNUAL	DPM_26	1
RES	581667.1	4204348	0.00089	7.43	7.43	1.5 ANNUAL	DPM_26	1
RES	581687	4204348	0.00174	6.94	6.94	1.5 ANNUAL	DPM_26	1
WOR	581825.9	4204348	0.00219	6.2	6.2	1.5 ANNUAL	DPM_26	1
WOR	581845.8	4204348	0.00145	6.63	6.63	1.5 ANNUAL	DPM_26	1
WOR	581925.2	4204348	0.00046	6.13	6.13	1.5 ANNUAL	DPM_26	1
WOR	582103.8	4204348	0.00011	6.25	6.25	1.5 ANNUAL	DPM_26	1
RES	581508.3	4204363	7.00E-05	10.74	14.16	1.5 ANNUAL	DPM_26	1
RES	581528.2	4204363	8.00E-05	10.07	14.47	1.5 ANNUAL	DPM_26	1
RES	581646.9	4204364	0.00047	7.87	7.87	1.5 ANNUAL	DPM_26	1
RES	581666.8	4204364	0.00076	7.69	7.69	1.5 ANNUAL	DPM_26	1
RES	581686.6	4204364	0.0015	7.28	7.28	1.5 ANNUAL	DPM_26	1
WOR	581905.3	4204368	0.00056	6.14	6.14	1.5 ANNUAL	DPM_26	1
WOR	581925.2	4204368	0.00044	6.08	6.08	1.5 ANNUAL	DPM_26	1
WOR	582064.1	4204368	0.00014	6.05	11.91	1.5 ANNUAL	DPM_26	1
WOR	582084	4204368	0.00012	6.18	6.18	1.5 ANNUAL	DPM_26	1
WOR	582103.8	4204368	0.00011	6.15	6.15	1.5 ANNUAL	DPM_26	1
RES	581387.6	4204391	3.00E-05	14.8	14.8	1.5 ANNUAL	DPM_26	1
RES	581407.4	4204391	3.00E-05	13.52	13.52	1.5 ANNUAL	DPM_26	1
RES	581427.3	4204391	3.00E-05	11.79	12.48	1.5 ANNUAL	DPM_26	1
RES	581447.1	4204391	4.00E-05	10.79	10.79	1.5 ANNUAL	DPM_26	1
RES	581465	4204392	5.00E-05	10.41	10.41	1.5 ANNUAL	DPM_26	1
RES	581490.3	4204389	6.00E-05	9.87	9.87	1.5 ANNUAL	DPM_26	1
RES	581506.7	4204391	7.00E-05	9.64	9.64	1.5 ANNUAL	DPM_26	1
RES	581526.5	4204391	9.00E-05	9.3	9.3	1.5 ANNUAL	DPM_26	1
WOR	581825.9	4204388	0.00157	6.01	6.01	1.5 ANNUAL	DPM_26	1
WOR	581845.8	4204388	0.00112	6.11	6.11	1.5 ANNUAL	DPM_26	1
WOR	581865.6	4204388	0.00085	6.04	6.04	1.5 ANNUAL	DPM_26	1
WOR	581912.6	4204393	0.00046	6.19	6.19	1.5 ANNUAL	DPM_26	1

WOR	582064.1	4204388	0.00014	6	11.83	1.5 ANNUAL	DPM_26	1
WOR	582084	4204388	0.00012	6.06	6.06	1.5 ANNUAL	DPM_26	1
WOR	582103.8	4204388	0.00011	6.01	6.01	1.5 ANNUAL	DPM_26	1
RES	581389.2	4204408	3.00E-05	14.96	14.96	1.5 ANNUAL	DPM_26	1
RES	581409.1	4204408	3.00E-05	13.32	13.32	1.5 ANNUAL	DPM_26	1
RES	581428.9	4204408	4.00E-05	10.5	14.98	1.5 ANNUAL	DPM_26	1
RES	581448.8	4204408	4.00E-05	10.1	10.1	1.5 ANNUAL	DPM_26	1
RES	581466.6	4204408	5.00E-05	9.79	9.79	1.5 ANNUAL	DPM_26	1
RES	581492	4204405	7.00E-05	8.69	8.69	1.5 ANNUAL	DPM_26	1
RES	581508.3	4204408	8.00E-05	8.52	8.52	1.5 ANNUAL	DPM_26	1
RES	581528.2	4204408	9.00E-05	8.2	8.2	1.5 ANNUAL	DPM_26	1
RES	581548	4204408	0.00011	8.3	8.3	1.5 ANNUAL	DPM_26	1
RES	581567.9	4204408	0.00013	9.43	9.43	1.5 ANNUAL	DPM_26	1
RES	581587.7	4204408	0.00016	10.24	10.24	1.5 ANNUAL	DPM_26	1
RES	581607.6	4204408	0.00021	9.77	9.77	1.5 ANNUAL	DPM_26	1
RES	581627.4	4204408	0.00031	9.36	9.36	1.5 ANNUAL	DPM_26	1
RES	581647.3	4204408	0.00048	9.23	9.23	1.5 ANNUAL	DPM_26	1
RES	581667.1	4204408	0.00084	9.54	9.78	1.5 ANNUAL	DPM_26	1
RES	581687	4204408	0.00148	9.8	9.8	1.5 ANNUAL	DPM_26	1
RES	581706.8	4204408	0.00292	9.23	9.23	1.5 ANNUAL	DPM_26	1
RES	581726.7	4204408	0.00445	8.29	8.29	1.5 ANNUAL	DPM_26	1
RES	581746.5	4204408	0.00543	6.46	8	1.5 ANNUAL	DPM_26	1
WOR	581825.9	4204408	0.00126	6.13	6.13	1.5 ANNUAL	DPM_26	1
WOR	581845.8	4204408	0.00092	6.27	6.27	1.5 ANNUAL	DPM_26	1
WOR	581865.6	4204408	0.00072	6.06	6.06	1.5 ANNUAL	DPM_26	1
WOR	581905.3	4204408	0.00046	6.31	6.31	1.5 ANNUAL	DPM_26	1
WOR	581925.2	4204408	0.00038	6.33	6.33	1.5 ANNUAL	DPM_26	1
WOR	581945	4204408	0.00032	6.24	11.65	1.5 ANNUAL	DPM_26	1
RES	581389.2	4204427	3.00E-05	14.03	14.03	1.5 ANNUAL	DPM_26	1
RES	581409.1	4204427	3.00E-05	13.45	13.79	1.5 ANNUAL	DPM_26	1
RES	581428.9	4204427	4.00E-05	10.3	15.5	1.5 ANNUAL	DPM_26	1
RES	581448.8	4204427	5.00E-05	10.11	10.11	1.5 ANNUAL	DPM_26	1
RES	581466.6	4204428	6.00E-05	9.61	10.08	1.5 ANNUAL	DPM_26	1
RES	581492	4204425	7.00E-05	7.13	10.08	1.5 ANNUAL	DPM_26	1
RES	581508.3	4204427	8.00E-05	6.67	6.67	1.5 ANNUAL	DPM_26	1
RES	581528.2	4204427	9.00E-05	7.03	7.03	1.5 ANNUAL	DPM_26	1
RES	581548	4204427	0.00011	7.33	7.33	1.5 ANNUAL	DPM_26	1
RES	581567.9	4204427	0.00014	8.08	10.16	1.5 ANNUAL	DPM_26	1
RES	581587.7	4204427	0.00017	9.22	10.16	1.5 ANNUAL	DPM_26	1
RES	581607.6	4204427	0.00023	9.48	9.48	1.5 ANNUAL	DPM_26	1
RES	581627.4	4204427	0.00033	9.33	9.33	1.5 ANNUAL	DPM_26	1
RES	581647.3	4204427	0.00052	9.61	9.61	1.5 ANNUAL	DPM_26	1
RES	581667.1	4204427	0.00082	9.93	9.93	1.5 ANNUAL	DPM_26	1
RES	581687	4204427	0.0014	10.35	10.35	1.5 ANNUAL	DPM_26	1
RES	581706.8	4204427	0.00236	9.37	9.37	1.5 ANNUAL	DPM_26	1
WOR	581825.9	4204427	0.00106	6.3	6.3	1.5 ANNUAL	DPM_26	1
WOR	581845.8	4204427	0.00077	6.44	6.44	1.5 ANNUAL	DPM_26	1
WOR	581905.3	4204427	0.0004	6.34	6.34	1.5 ANNUAL	DPM_26	1
WOR	581925.2	4204427	0.00034	6.31	6.31	1.5 ANNUAL	DPM_26	1
WOR	581945	4204427	0.00029	6.35	11.65	1.5 ANNUAL	DPM_26	1

WOR	582069.7	4204433	0.00012	6.32	6.32	1.5 ANNUAL	DPM_26	1
RES	581389.2	4204447	3.00E-05	14.34	14.34	1.5 ANNUAL	DPM_26	1
RES	581409.1	4204447	3.00E-05	13.38	13.38	1.5 ANNUAL	DPM_26	1
RES	581428.9	4204447	4.00E-05	10.43	15.61	1.5 ANNUAL	DPM_26	1
RES	581448.8	4204447	5.00E-05	10.13	15.35	1.5 ANNUAL	DPM_26	1
RES	581466.6	4204448	6.00E-05	9.67	9.67	1.5 ANNUAL	DPM_26	1
RES	581492	4204445	7.00E-05	7.56	7.56	1.5 ANNUAL	DPM_26	1
RES	581508.3	4204447	8.00E-05	7.34	7.34	1.5 ANNUAL	DPM_26	1
RES	581528.2	4204447	9.00E-05	7.06	7.06	1.5 ANNUAL	DPM_26	1
RES	581548	4204447	0.00011	7.27	7.27	1.5 ANNUAL	DPM_26	1
RES	581567.9	4204447	0.00014	7.59	7.59	1.5 ANNUAL	DPM_26	1
RES	581587.7	4204447	0.00018	7.86	7.86	1.5 ANNUAL	DPM_26	1
RES	581607.6	4204447	0.00025	8.08	8.08	1.5 ANNUAL	DPM_26	1
RES	581627.4	4204447	0.00037	8.25	8.25	1.5 ANNUAL	DPM_26	1
RES	581647.3	4204447	0.00057	9.05	9.05	1.5 ANNUAL	DPM_26	1
RES	581667.1	4204447	0.00091	9.2	9.2	1.5 ANNUAL	DPM_26	1
RES	581687	4204447	0.0014	8.84	8.84	1.5 ANNUAL	DPM_26	1
RES	581706.8	4204447	0.00195	8.29	8.29	1.5 ANNUAL	DPM_26	1
WOR	581825.9	4204447	0.00093	6.32	6.32	1.5 ANNUAL	DPM_26	1
WOR	581845.8	4204447	0.00067	6.23	6.23	1.5 ANNUAL	DPM_26	1
WOR	581905.3	4204447	0.00035	6.22	6.22	1.5 ANNUAL	DPM_26	1
WOR	581925.2	4204447	0.0003	6.35	6.35	1.5 ANNUAL	DPM_26	1
WOR	581945	4204447	0.00025	6.29	11.65	1.5 ANNUAL	DPM_26	1
WOR	582064.1	4204447	0.00012	6.41	6.41	1.5 ANNUAL	DPM_26	1
WOR	582084	4204447	0.00011	6.51	6.51	1.5 ANNUAL	DPM_26	1
RES	581389.2	4204467	3.00E-05	15.54	15.54	1.5 ANNUAL	DPM_26	1
RES	581409.1	4204467	4.00E-05	14.89	15.35	1.5 ANNUAL	DPM_26	1
RES	581428.9	4204467	4.00E-05	10.9	15.61	1.5 ANNUAL	DPM_26	1
RES	581448.8	4204467	5.00E-05	10.09	15.5	1.5 ANNUAL	DPM_26	1
RES	581466.6	4204468	6.00E-05	9.83	9.83	1.5 ANNUAL	DPM_26	1
RES	581492	4204465	7.00E-05	8.1	8.1	1.5 ANNUAL	DPM_26	1
RES	581508.3	4204467	8.00E-05	7.82	7.82	1.5 ANNUAL	DPM_26	1
RES	581528.2	4204467	0.0001	7.43	7.43	1.5 ANNUAL	DPM_26	1
RES	581548	4204467	0.00012	7.44	7.44	1.5 ANNUAL	DPM_26	1
RES	581567.9	4204467	0.00015	7.47	7.47	1.5 ANNUAL	DPM_26	1
RES	581587.7	4204467	0.00019	7.5	7.5	1.5 ANNUAL	DPM_26	1
RES	581601.1	4204461	0.00024	7.79	7.79	1.5 ANNUAL	DPM_26	1
RES	581620.9	4204461	0.00034	7.77	7.77	1.5 ANNUAL	DPM_26	1
RES	581648.5	4204463	0.00061	8.46	8.79	1.5 ANNUAL	DPM_26	1
RES	581667.1	4204467	0.00089	8.55	8.55	1.5 ANNUAL	DPM_26	1
RES	581687	4204467	0.00124	8.57	8.57	1.5 ANNUAL	DPM_26	1
WOR	581885.5	4204467	0.00037	6.2	6.2	1.5 ANNUAL	DPM_26	1
WOR	581905.3	4204467	0.00031	5.93	5.93	1.5 ANNUAL	DPM_26	1
WOR	581925.2	4204467	0.00026	5.86	5.86	1.5 ANNUAL	DPM_26	1
WOR	581945	4204467	0.00023	5.9	11.65	1.5 ANNUAL	DPM_26	1
WOR	582064.1	4204467	0.00011	6.37	6.37	1.5 ANNUAL	DPM_26	1
WOR	582084	4204467	0.0001	6.44	6.44	1.5 ANNUAL	DPM_26	1
RES	581389.2	4204487	4.00E-05	13.84	14.7	1.5 ANNUAL	DPM_26	1
RES	581409.1	4204487	4.00E-05	13.38	15.35	1.5 ANNUAL	DPM_26	1
RES	581428.9	4204487	5.00E-05	11.93	15.35	1.5 ANNUAL	DPM_26	1

RES	581448.8	4204487	5.00E-05	11.28	11.28	1.5 ANNUAL	DPM_26	1
RES	581466.6	4204487	6.00E-05	10.26	10.26	1.5 ANNUAL	DPM_26	1
RES	581508.3	4204487	8.00E-05	8.16	8.16	1.5 ANNUAL	DPM_26	1
RES	581528.2	4204487	0.0001	7.51	7.51	1.5 ANNUAL	DPM_26	1
RES	581548	4204487	0.00012	7.24	7.24	1.5 ANNUAL	DPM_26	1
RES	581567.9	4204487	0.00016	7.1	7.1	1.5 ANNUAL	DPM_26	1
RES	581587.7	4204487	0.00021	7.14	7.14	1.5 ANNUAL	DPM_26	1
RES	581601.1	4204480	0.00025	7.23	7.23	1.5 ANNUAL	DPM_26	1
RES	581627.4	4204487	0.00042	7.19	7.19	1.5 ANNUAL	DPM_26	1
RES	581647.3	4204487	0.00061	7.14	7.14	1.5 ANNUAL	DPM_26	1
RES	581667.1	4204487	0.00085	7.14	7.14	1.5 ANNUAL	DPM_26	1
RES	581687	4204487	0.0011	6.99	6.99	1.5 ANNUAL	DPM_26	1
RES	581706.8	4204487	0.0013	6.61	6.61	1.5 ANNUAL	DPM_26	1
WOR	581885.5	4204487	0.00033	6.15	6.15	1.5 ANNUAL	DPM_26	1
WOR	581905.3	4204487	0.00027	5.85	5.85	1.5 ANNUAL	DPM_26	1
WOR	581925.2	4204487	0.00023	5.74	10.84	1.5 ANNUAL	DPM_26	1
WOR	581945	4204487	0.0002	5.69	11.58	1.5 ANNUAL	DPM_26	1
WOR	582044.3	4204487	0.00012	5.5	11.64	1.5 ANNUAL	DPM_26	1
WOR	582064.1	4204487	0.00011	5.6	5.6	1.5 ANNUAL	DPM_26	1
WOR	582084	4204487	0.0001	6.43	6.43	1.5 ANNUAL	DPM_26	1
RES	581389.2	4204507	4.00E-05	13.19	13.19	1.5 ANNUAL	DPM_26	1
RES	581409.1	4204507	4.00E-05	12.61	12.61	1.5 ANNUAL	DPM_26	1
RES	581428.9	4204507	5.00E-05	11.94	11.94	1.5 ANNUAL	DPM_26	1
RES	581448.8	4204507	5.00E-05	11.27	11.27	1.5 ANNUAL	DPM_26	1
RES	581466.6	4204507	6.00E-05	10.28	10.28	1.5 ANNUAL	DPM_26	1
RES	581488.5	4204507	7.00E-05	9.39	9.39	1.5 ANNUAL	DPM_26	1
RES	581508.3	4204507	8.00E-05	9.6	9.6	1.5 ANNUAL	DPM_26	1
RES	581528.2	4204507	0.0001	9.04	9.04	1.5 ANNUAL	DPM_26	1
RES	581548	4204507	0.00013	8.33	8.33	1.5 ANNUAL	DPM_26	1
RES	581567.9	4204507	0.00016	7.81	8.32	1.5 ANNUAL	DPM_26	1
RES	581587.7	4204507	0.00022	7.32	7.32	1.5 ANNUAL	DPM_26	1
RES	581607.6	4204507	0.00031	6.96	6.96	1.5 ANNUAL	DPM_26	1
RES	581627.4	4204507	0.00043	6.99	6.99	1.5 ANNUAL	DPM_26	1
RES	581647.3	4204507	0.00059	7.03	7.03	1.5 ANNUAL	DPM_26	1
RES	581667.1	4204507	0.00077	7.09	7.09	1.5 ANNUAL	DPM_26	1
RES	581687	4204507	0.00094	7.01	7.01	1.5 ANNUAL	DPM_26	1
RES	581706.8	4204507	0.00106	6.64	6.64	1.5 ANNUAL	DPM_26	1
RES	581726.7	4204507	0.00111	6.18	6.18	1.5 ANNUAL	DPM_26	1
WOR	581885.5	4204507	0.00031	6.05	6.05	1.5 ANNUAL	DPM_26	1
WOR	581905.3	4204507	0.00025	5.82	5.82	1.5 ANNUAL	DPM_26	1
WOR	581925.2	4204507	0.00021	5.69	10.84	1.5 ANNUAL	DPM_26	1
WOR	581945	4204507	0.00018	5.64	11.4	1.5 ANNUAL	DPM_26	1
WOR	582044.3	4204507	0.00011	5.41	11.4	1.5 ANNUAL	DPM_26	1
WOR	582064.1	4204507	0.0001	5.46	5.46	1.5 ANNUAL	DPM_26	1
WOR	582084	4204507	9.00E-05	6.41	6.41	1.5 ANNUAL	DPM_26	1
RES	581389.2	4204527	4.00E-05	13.09	13.09	1.5 ANNUAL	DPM_26	1
RES	581409.1	4204527	4.00E-05	12.35	12.35	1.5 ANNUAL	DPM_26	1
RES	581488.5	4204527	7.00E-05	10.3	10.3	1.5 ANNUAL	DPM_26	1
RES	581508.3	4204527	9.00E-05	10.58	10.58	1.5 ANNUAL	DPM_26	1
RES	581528.2	4204527	0.00011	9.65	9.65	1.5 ANNUAL	DPM_26	1

RES	581548	4204527	0.00013	9.03	9.03	1.5 ANNUAL	DPM_26	1
RES	581567.9	4204527	0.00017	8.76	8.76	1.5 ANNUAL	DPM_26	1
RES	581587.7	4204527	0.00023	8.81	8.81	1.5 ANNUAL	DPM_26	1
RES	581607.6	4204527	0.00032	8.46	8.46	1.5 ANNUAL	DPM_26	1
RES	581627.4	4204527	0.00043	7.46	7.46	1.5 ANNUAL	DPM_26	1
RES	581647.3	4204527	0.00056	7.48	7.48	1.5 ANNUAL	DPM_26	1
RES	581667.1	4204527	0.00069	7.44	7.44	1.5 ANNUAL	DPM_26	1
RES	581687	4204527	0.00081	7.02	7.02	1.5 ANNUAL	DPM_26	1
RES	581706.8	4204527	0.00088	6.6	6.6	1.5 ANNUAL	DPM_26	1
WOR	581885.5	4204527	0.0003	5.57	5.57	1.5 ANNUAL	DPM_26	1
WOR	581905.3	4204527	0.00024	5.68	5.68	1.5 ANNUAL	DPM_26	1
WOR	581925.2	4204527	0.0002	5.81	9.94	1.5 ANNUAL	DPM_26	1
WOR	581945	4204527	0.00017	5.71	11.07	1.5 ANNUAL	DPM_26	1
WOR	582044.3	4204527	0.0001	5.36	11.04	1.5 ANNUAL	DPM_26	1
WOR	582064.1	4204527	9.00E-05	5.54	5.54	1.5 ANNUAL	DPM_26	1
WOR	582084	4204527	8.00E-05	6.39	6.39	1.5 ANNUAL	DPM_26	1
RES	581389.2	4204547	4.00E-05	13.18	13.18	1.5 ANNUAL	DPM_26	1
RES	581409.1	4204547	4.00E-05	12.53	12.53	1.5 ANNUAL	DPM_26	1
RES	581428.9	4204547	5.00E-05	11.63	11.63	1.5 ANNUAL	DPM_26	1
RES	581448.8	4204547	6.00E-05	11.12	11.12	1.5 ANNUAL	DPM_26	1
RES	581468.6	4204547	6.00E-05	10.87	10.87	1.5 ANNUAL	DPM_26	1
RES	581488.5	4204547	7.00E-05	10.71	10.71	1.5 ANNUAL	DPM_26	1
RES	581508.3	4204547	9.00E-05	11.17	11.17	1.5 ANNUAL	DPM_26	1
RES	581528.2	4204547	0.00011	10.28	10.28	1.5 ANNUAL	DPM_26	1
RES	581548	4204547	0.00014	9.42	9.42	1.5 ANNUAL	DPM_26	1
RES	581567.9	4204547	0.00018	8.57	8.57	1.5 ANNUAL	DPM_26	1
RES	581587.7	4204547	0.00024	8.97	8.97	1.5 ANNUAL	DPM_26	1
RES	581607.6	4204547	0.00032	8.33	8.33	1.5 ANNUAL	DPM_26	1
RES	581627.4	4204547	0.00042	7.45	7.45	1.5 ANNUAL	DPM_26	1
RES	581647.3	4204547	0.00053	7.31	7.31	1.5 ANNUAL	DPM_26	1
RES	581667.1	4204547	0.00062	7.58	7.58	1.5 ANNUAL	DPM_26	1
RES	581687	4204547	0.00069	7.19	7.19	1.5 ANNUAL	DPM_26	1
RES	581706.8	4204547	0.00073	6.82	6.82	1.5 ANNUAL	DPM_26	1
WOR	581865.6	4204547	0.00035	5.88	5.88	1.5 ANNUAL	DPM_26	1
WOR	581885.5	4204547	0.00028	5.44	5.44	1.5 ANNUAL	DPM_26	1
WOR	581905.3	4204547	0.00023	5.8	5.8	1.5 ANNUAL	DPM_26	1
WOR	581925.2	4204547	0.00019	5.87	5.87	1.5 ANNUAL	DPM_26	1
WOR	581945	4204547	0.00016	5.76	10.79	1.5 ANNUAL	DPM_26	1
RES	582044.3	4204547	9.00E-05	5.3	10.43	1.5 ANNUAL	DPM_26	1
RES	582064.1	4204547	8.00E-05	5.3	5.3	1.5 ANNUAL	DPM_26	1
RES	582084	4204547	8.00E-05	5.47	5.47	1.5 ANNUAL	DPM_26	1
RES	582102.5	4204551	7.00E-05	5.49	5.49	1.5 ANNUAL	DPM_26	1
RES	581389.2	4204566	4.00E-05	13.42	13.42	1.5 ANNUAL	DPM_26	1
RES	581409.1	4204566	4.00E-05	12.84	12.84	1.5 ANNUAL	DPM_26	1
RES	581428.9	4204566	5.00E-05	12.16	12.16	1.5 ANNUAL	DPM_26	1
RES	581448.8	4204566	6.00E-05	11.58	11.58	1.5 ANNUAL	DPM_26	1
RES	581468.6	4204566	7.00E-05	11.16	11.16	1.5 ANNUAL	DPM_26	1
RES	581508.3	4204566	9.00E-05	11.36	11.36	1.5 ANNUAL	DPM_26	1
RES	581528.2	4204566	0.00011	10.99	10.99	1.5 ANNUAL	DPM_26	1
RES	581548	4204566	0.00014	10.31	10.31	1.5 ANNUAL	DPM_26	1

RES	581567.9	4204566	0.00019	9.34	9.34	1.5 ANNUAL	DPM_26	1
RES	581587.7	4204566	0.00025	9.59	9.59	1.5 ANNUAL	DPM_26	1
RES	581607.6	4204566	0.00032	8.49	8.49	1.5 ANNUAL	DPM_26	1
RES	581627.4	4204566	0.0004	7.64	7.64	1.5 ANNUAL	DPM_26	1
RES	581647.3	4204566	0.00049	7.25	7.25	1.5 ANNUAL	DPM_26	1
RES	581667.1	4204566	0.00055	7.62	7.62	1.5 ANNUAL	DPM_26	1
RES	581687	4204566	0.0006	7.14	7.14	1.5 ANNUAL	DPM_26	1
RES	581706.8	4204566	0.00062	7.05	7.05	1.5 ANNUAL	DPM_26	1
WOR	581865.6	4204566	0.00032	5.56	5.56	1.5 ANNUAL	DPM_26	1
WOR	581885.5	4204566	0.00027	5.42	5.42	1.5 ANNUAL	DPM_26	1
WOR	581905.3	4204566	0.00022	5.76	5.76	1.5 ANNUAL	DPM_26	1
WOR	581925.2	4204566	0.00018	5.79	5.79	1.5 ANNUAL	DPM_26	1
RES	582024.4	4204566	9.00E-05	5.3	10.6	1.5 ANNUAL	DPM_26	1
RES	582044.3	4204566	8.00E-05	5.28	5.28	1.5 ANNUAL	DPM_26	1
RES	582064.1	4204566	8.00E-05	5.13	5.13	1.5 ANNUAL	DPM_26	1
RES	582084	4204566	7.00E-05	5.08	5.08	1.5 ANNUAL	DPM_26	1
RES	582103.8	4204566	7.00E-05	5.13	5.13	1.5 ANNUAL	DPM_26	1
RES	581389.2	4204586	4.00E-05	13.12	13.12	1.5 ANNUAL	DPM_26	1
RES	581409.1	4204586	5.00E-05	12.78	12.78	1.5 ANNUAL	DPM_26	1
RES	581428.9	4204586	5.00E-05	12.45	12.45	1.5 ANNUAL	DPM_26	1
RES	581448.8	4204586	6.00E-05	12.21	12.21	1.5 ANNUAL	DPM_26	1
RES	581468.6	4204586	7.00E-05	11.83	11.83	1.5 ANNUAL	DPM_26	1
RES	581508.3	4204586	9.00E-05	11.37	11.37	1.5 ANNUAL	DPM_26	1
RES	581528.2	4204586	0.00011	11.25	11.25	1.5 ANNUAL	DPM_26	1
RES	581548	4204586	0.00014	10.78	10.78	1.5 ANNUAL	DPM_26	1
RES	581567.9	4204586	0.00018	10.39	10.39	1.5 ANNUAL	DPM_26	1
RES	581587.7	4204586	0.00023	10.49	10.49	1.5 ANNUAL	DPM_26	1
RES	581607.6	4204586	0.00031	9.41	9.41	1.5 ANNUAL	DPM_26	1
RES	581627.4	4204586	0.00038	8.58	8.58	1.5 ANNUAL	DPM_26	1
RES	581647.3	4204586	0.00044	8.23	8.23	1.5 ANNUAL	DPM_26	1
RES	581667.1	4204586	0.00049	8.16	8.16	1.5 ANNUAL	DPM_26	1
RES	581687	4204586	0.00052	7.14	7.14	1.5 ANNUAL	DPM_26	1
RES	581706.8	4204586	0.00053	7.09	7.09	1.5 ANNUAL	DPM_26	1
RES	582024.4	4204586	9.00E-05	5.26	9.94	1.5 ANNUAL	DPM_26	1
RES	582044.3	4204586	8.00E-05	5.19	5.19	1.5 ANNUAL	DPM_26	1
RES	582064.1	4204586	7.00E-05	5.07	5.07	1.5 ANNUAL	DPM_26	1
RES	582084	4204586	7.00E-05	5.02	5.02	1.5 ANNUAL	DPM_26	1
RES	582103.8	4204586	6.00E-05	5.03	5.03	1.5 ANNUAL	DPM_26	1
RES	581389.2	4204606	4.00E-05	12.72	12.72	1.5 ANNUAL	DPM_26	1
RES	581528.2	4204606	0.00012	11.35	11.35	1.5 ANNUAL	DPM_26	1
RES	581607.6	4204606	0.00029	10.15	10.15	1.5 ANNUAL	DPM_26	1
RES	581647.3	4204606	0.0004	8.95	8.95	1.5 ANNUAL	DPM_26	1
RES	581667.1	4204606	0.00044	8.36	8.36	1.5 ANNUAL	DPM_26	1
RES	581687	4204606	0.00045	7.48	7.48	1.5 ANNUAL	DPM_26	1
RES	581706.8	4204606	0.00046	6.97	6.97	1.5 ANNUAL	DPM_26	1
WOR	581905.3	4204606	0.0002	5.82	5.82	1.5 ANNUAL	DPM_26	1
WOR	581925.2	4204606	0.00017	5.74	5.74	1.5 ANNUAL	DPM_26	1
RES	582024.4	4204606	8.00E-05	5.32	5.32	1.5 ANNUAL	DPM_26	1
RES	582044.3	4204606	7.00E-05	5.18	5.18	1.5 ANNUAL	DPM_26	1
RES	582064.1	4204606	7.00E-05	5.12	5.12	1.5 ANNUAL	DPM_26	1

RES	582084	4204606	6.00E-05	5.07	5.07	1.5 ANNUAL	DPM_26	1
RES	582103.8	4204606	6.00E-05	5.02	5.02	1.5 ANNUAL	DPM_26	1
RES	581389.2	4204626	4.00E-05	12.86	12.86	1.5 ANNUAL	DPM_26	1
RES	581409.1	4204626	5.00E-05	12.41	12.41	1.5 ANNUAL	DPM_26	1
RES	581428.9	4204626	5.00E-05	12.22	12.22	1.5 ANNUAL	DPM_26	1
RES	581448.8	4204626	6.00E-05	12.1	12.1	1.5 ANNUAL	DPM_26	1
RES	581468.6	4204626	7.00E-05	11.68	11.68	1.5 ANNUAL	DPM_26	1
RES	581488.5	4204626	8.00E-05	11.16	11.16	1.5 ANNUAL	DPM_26	1
RES	581508.3	4204626	0.0001	11.21	11.21	1.5 ANNUAL	DPM_26	1
RES	581528.2	4204626	0.00012	11.65	11.65	1.5 ANNUAL	DPM_26	1
RES	581548	4204626	0.00015	11.65	11.65	1.5 ANNUAL	DPM_26	1
RES	581567.9	4204626	0.00019	11.44	11.44	1.5 ANNUAL	DPM_26	1
RES	581587.7	4204626	0.00024	10.81	10.81	1.5 ANNUAL	DPM_26	1
RES	581607.6	4204626	0.00028	10.98	10.98	1.5 ANNUAL	DPM_26	1
RES	581627.4	4204626	0.00033	9.97	9.97	1.5 ANNUAL	DPM_26	1
RES	581687	4204626	0.0004	6.5	6.5	1.5 ANNUAL	DPM_26	1
RES	581706.8	4204626	0.0004	6.22	6.22	1.5 ANNUAL	DPM_26	1
WOR	581825.9	4204626	0.00031	5.9	5.9	1.5 ANNUAL	DPM_26	1
WOR	581885.5	4204626	0.00022	5.61	5.61	1.5 ANNUAL	DPM_26	1
WOR	581905.3	4204626	0.00019	5.99	5.99	1.5 ANNUAL	DPM_26	1
WOR	581925.2	4204626	0.00016	5.83	5.83	1.5 ANNUAL	DPM_26	1
RES	582024.4	4204626	8.00E-05	5.36	5.36	1.5 ANNUAL	DPM_26	1
RES	582046.6	4204630	7.00E-05	5.13	5.13	1.5 ANNUAL	DPM_26	1
RES	582066.4	4204630	6.00E-05	5.11	5.11	1.5 ANNUAL	DPM_26	1
RES	581389.2	4204646	4.00E-05	12.04	12.04	1.5 ANNUAL	DPM_26	1
RES	581409.1	4204646	5.00E-05	11.43	11.86	1.5 ANNUAL	DPM_26	1
RES	581428.9	4204646	5.00E-05	11.78	12.06	1.5 ANNUAL	DPM_26	1
RES	581448.8	4204646	6.00E-05	11.97	11.97	1.5 ANNUAL	DPM_26	1
RES	581468.6	4204646	7.00E-05	11.26	11.26	1.5 ANNUAL	DPM_26	1
RES	581488.5	4204646	8.00E-05	10.88	10.88	1.5 ANNUAL	DPM_26	1
RES	581508.3	4204646	0.0001	10.81	10.81	1.5 ANNUAL	DPM_26	1
RES	581528.2	4204646	0.00012	11.04	11.04	1.5 ANNUAL	DPM_26	1
RES	581548	4204646	0.00015	11.11	11.11	1.5 ANNUAL	DPM_26	1
RES	581567.9	4204646	0.00019	10.97	10.97	1.5 ANNUAL	DPM_26	1
RES	581587.7	4204646	0.00023	10.76	10.76	1.5 ANNUAL	DPM_26	1
RES	581607.6	4204646	0.00027	11.23	11.23	1.5 ANNUAL	DPM_26	1
RES	581627.4	4204646	0.00031	10.26	10.26	1.5 ANNUAL	DPM_26	1
RES	581647.3	4204646	0.00033	9.48	9.48	1.5 ANNUAL	DPM_26	1
RES	581667.1	4204646	0.00035	7.82	7.82	1.5 ANNUAL	DPM_26	1
WOR	581825.9	4204646	0.00027	6.13	6.13	1.5 ANNUAL	DPM_26	1
WOR	581845.8	4204646	0.00025	6.13	6.13	1.5 ANNUAL	DPM_26	1
WOR	581865.6	4204646	0.00023	6.11	6.11	1.5 ANNUAL	DPM_26	1
WOR	581885.5	4204646	0.00021	5.71	5.71	1.5 ANNUAL	DPM_26	1
WOR	581905.3	4204646	0.00018	5.92	5.92	1.5 ANNUAL	DPM_26	1
WOR	581925.2	4204646	0.00016	5.75	5.75	1.5 ANNUAL	DPM_26	1
RES	582010.2	4204647	8.00E-05	5.47	5.47	1.5 ANNUAL	DPM_26	1
RES	582024.4	4204646	7.00E-05	5.39	5.39	1.5 ANNUAL	DPM_26	1
RES	582044.3	4204646	7.00E-05	5.24	5.24	1.5 ANNUAL	DPM_26	1
RES	582064.1	4204646	6.00E-05	5.24	5.24	1.5 ANNUAL	DPM_26	1
RES	582103.8	4204646	5.00E-05	5.06	5.06	1.5 ANNUAL	DPM_26	1

RES	581389.2	4204666	4.00E-05	11.27	11.58	1.5 ANNUAL	DPM_26	1
RES	581409.1	4204666	5.00E-05	9.53	11.86	1.5 ANNUAL	DPM_26	1
RES	581428.9	4204666	6.00E-05	9.56	12.21	1.5 ANNUAL	DPM_26	1
RES	581448.8	4204666	6.00E-05	9.71	12.23	1.5 ANNUAL	DPM_26	1
RES	581468.6	4204666	7.00E-05	10.16	10.16	1.5 ANNUAL	DPM_26	1
RES	581488.5	4204666	9.00E-05	10.01	10.01	1.5 ANNUAL	DPM_26	1
RES	581508.3	4204666	0.00011	10.29	10.29	1.5 ANNUAL	DPM_26	1
RES	581528.2	4204666	0.00013	10.65	10.65	1.5 ANNUAL	DPM_26	1
RES	581548	4204666	0.00016	10.73	10.73	1.5 ANNUAL	DPM_26	1
RES	581567.9	4204666	0.00019	10.45	10.45	1.5 ANNUAL	DPM_26	1
RES	581587.7	4204666	0.00023	10.51	10.51	1.5 ANNUAL	DPM_26	1
RES	581607.6	4204666	0.00026	10.89	10.89	1.5 ANNUAL	DPM_26	1
RES	581627.4	4204666	0.00029	9.91	9.91	1.5 ANNUAL	DPM_26	1
RES	581647.3	4204666	0.0003	9.31	9.31	1.5 ANNUAL	DPM_26	1
RES	581667.1	4204666	0.00032	7.43	9.61	1.5 ANNUAL	DPM_26	1
RES	582010.2	4204667	8.00E-05	5.52	5.52	1.5 ANNUAL	DPM_26	1
RES	582024.4	4204666	7.00E-05	5.4	5.4	1.5 ANNUAL	DPM_26	1
RES	582044.3	4204666	6.00E-05	5.35	5.35	1.5 ANNUAL	DPM_26	1
RES	582064.1	4204666	6.00E-05	5.19	5.19	1.5 ANNUAL	DPM_26	1
RES	582103.8	4204666	5.00E-05	5.12	5.12	1.5 ANNUAL	DPM_26	1
RES	581389.2	4204685	4.00E-05	11.07	11.43	1.5 ANNUAL	DPM_26	1
RES	581409.1	4204685	5.00E-05	9.48	9.48	1.5 ANNUAL	DPM_26	1
RES	581428.9	4204685	6.00E-05	9.01	9.01	1.5 ANNUAL	DPM_26	1
RES	581448.8	4204685	7.00E-05	9.25	9.25	1.5 ANNUAL	DPM_26	1
RES	581468.6	4204685	8.00E-05	9.42	9.42	1.5 ANNUAL	DPM_26	1
RES	581508.3	4204685	0.00011	9.76	9.76	1.5 ANNUAL	DPM_26	1
RES	581528.2	4204685	0.00013	10.19	10.19	1.5 ANNUAL	DPM_26	1
RES	581548	4204685	0.00016	10.38	10.38	1.5 ANNUAL	DPM_26	1
RES	581567.9	4204685	0.00019	9.77	9.77	1.5 ANNUAL	DPM_26	1
RES	581587.7	4204685	0.00022	10.27	10.27	1.5 ANNUAL	DPM_26	1
RES	581607.6	4204685	0.00025	10.44	10.44	1.5 ANNUAL	DPM_26	1
RES	581627.4	4204685	0.00027	8.95	8.95	1.5 ANNUAL	DPM_26	1
RES	581647.3	4204685	0.00028	7.67	9.09	1.5 ANNUAL	DPM_26	1
RES	581667.1	4204685	0.00029	7.01	7.01	1.5 ANNUAL	DPM_26	1
RES	582004.6	4204685	8.00E-05	5.53	5.53	1.5 ANNUAL	DPM_26	1
RES	582024.4	4204685	7.00E-05	5.34	5.34	1.5 ANNUAL	DPM_26	1
RES	582044.3	4204685	6.00E-05	5.43	5.43	1.5 ANNUAL	DPM_26	1
RES	582064.1	4204685	6.00E-05	5.05	5.05	1.5 ANNUAL	DPM_26	1
RES	582084	4204685	5.00E-05	4.84	4.84	1.5 ANNUAL	DPM_26	1
RES	582103.8	4204685	5.00E-05	5.09	5.09	1.5 ANNUAL	DPM_26	1
RES	581389.2	4204705	5.00E-05	10.65	10.94	1.5 ANNUAL	DPM_26	1
RES	581409.1	4204705	5.00E-05	9.43	9.43	1.5 ANNUAL	DPM_26	1
RES	581428.9	4204705	6.00E-05	8.92	8.92	1.5 ANNUAL	DPM_26	1
RES	581448.8	4204705	7.00E-05	8.89	8.89	1.5 ANNUAL	DPM_26	1
RES	581508.3	4204705	0.00012	9.23	9.23	1.5 ANNUAL	DPM_26	1
RES	581528.2	4204705	0.00014	9.76	9.76	1.5 ANNUAL	DPM_26	1
RES	581548	4204705	0.00016	9.84	9.84	1.5 ANNUAL	DPM_26	1
RES	581567.9	4204705	0.00019	9.08	9.08	1.5 ANNUAL	DPM_26	1
RES	581587.7	4204705	0.00021	9.69	9.69	1.5 ANNUAL	DPM_26	1
RES	581607.6	4204705	0.00023	9.48	9.48	1.5 ANNUAL	DPM_26	1

WOR	581865.6	4204705	0.00018	6.16	6.16	1.5 ANNUAL	DPM_26	1
WOR	581885.5	4204705	0.00016	6.15	6.15	1.5 ANNUAL	DPM_26	1
WOR	581905.3	4204705	0.00015	6.13	6.13	1.5 ANNUAL	DPM_26	1
RES	582004.6	4204705	8.00E-05	5.48	5.48	1.5 ANNUAL	DPM_26	1
RES	582044.3	4204705	6.00E-05	5.41	5.41	1.5 ANNUAL	DPM_26	1
RES	582064.1	4204705	5.00E-05	4.79	4.79	1.5 ANNUAL	DPM_26	1
RES	582084	4204705	5.00E-05	4.77	4.77	1.5 ANNUAL	DPM_26	1
RES	582103.8	4204705	4.00E-05	4.89	4.89	1.5 ANNUAL	DPM_26	1
WOR	581802	4204544	0.00059	6.73	6.73	1.5 ANNUAL	DPM_26	1
WOR	581822	4204544	0.00052	6.31	6.31	1.5 ANNUAL	DPM_26	1
WOR	581802	4204564	0.0005	6.78	6.78	1.5 ANNUAL	DPM_26	1

Discrete Re X	Y	Concentrat	Elevation (Z	Hill Heights	Flagpole (Z	Averagin Pe	Source Gro	Num Years	Net ID
RES	581389.2	4203991	6.00E-05	10.43	10.43	1.5 ANNUAL	DPM_27	1	
RES	581409.1	4203991	7.00E-05	10.52	10.52	1.5 ANNUAL	DPM_27	1	
RES	581428.9	4203991	7.00E-05	9.49	9.49	1.5 ANNUAL	DPM_27	1	
RES	581448.8	4203991	8.00E-05	9.32	9.32	1.5 ANNUAL	DPM_27	1	
RES	581468.6	4203991	8.00E-05	9.34	9.34	1.5 ANNUAL	DPM_27	1	
RES	581488.5	4203991	9.00E-05	9.37	9.37	1.5 ANNUAL	DPM_27	1	
RES	581508.3	4203991	9.00E-05	8.92	8.92	1.5 ANNUAL	DPM_27	1	
RES	581528.2	4203991	0.0001	9.17	9.17	1.5 ANNUAL	DPM_27	1	
RES	581548	4203991	0.0001	9.08	9.08	1.5 ANNUAL	DPM_27	1	
RES	581567.9	4203991	0.00011	8.66	8.66	1.5 ANNUAL	DPM_27	1	
RES	581587.7	4203991	0.00011	8.2	8.2	1.5 ANNUAL	DPM_27	1	
RES	581607.6	4203991	0.00012	7.93	7.93	1.5 ANNUAL	DPM_27	1	
RES	581627.4	4203991	0.00012	7.83	7.83	1.5 ANNUAL	DPM_27	1	
RES	581647.3	4203991	0.00013	7.68	7.68	1.5 ANNUAL	DPM_27	1	
RES	581667.1	4203991	0.00013	7.55	7.55	1.5 ANNUAL	DPM_27	1	
RES	581687	4203991	0.00014	7.55	7.55	1.5 ANNUAL	DPM_27	1	
RES	581706.8	4203991	0.00014	8.26	8.26	1.5 ANNUAL	DPM_27	1	
RES	581726.7	4203991	0.00015	7.79	7.79	1.5 ANNUAL	DPM_27	1	
RES	581746.5	4203991	0.00016	7.26	7.26	1.5 ANNUAL	DPM_27	1	
WOR	582004.6	4203991	0.00015	7.35	7.35	1.5 ANNUAL	DPM_27	1	
WOR	582024.4	4203991	0.00014	7.63	7.63	1.5 ANNUAL	DPM_27	1	
WOR	582044.3	4203991	0.00013	7.52	7.52	1.5 ANNUAL	DPM_27	1	
RES	581389.2	4204011	6.00E-05	10.76	10.76	1.5 ANNUAL	DPM_27	1	
RES	581409.1	4204011	7.00E-05	9.83	9.83	1.5 ANNUAL	DPM_27	1	
RES	581428.9	4204011	8.00E-05	8.49	8.49	1.5 ANNUAL	DPM_27	1	
RES	581448.8	4204011	8.00E-05	8.42	8.42	1.5 ANNUAL	DPM_27	1	
RES	581468.6	4204011	9.00E-05	8.61	8.61	1.5 ANNUAL	DPM_27	1	
RES	581488.5	4204011	9.00E-05	8.85	8.85	1.5 ANNUAL	DPM_27	1	
RES	581508.3	4204011	0.0001	8.81	8.81	1.5 ANNUAL	DPM_27	1	
RES	581528.2	4204011	0.00011	9.07	9.07	1.5 ANNUAL	DPM_27	1	
RES	581548	4204011	0.00011	9.1	9.1	1.5 ANNUAL	DPM_27	1	
RES	581567.9	4204011	0.00012	8.67	8.67	1.5 ANNUAL	DPM_27	1	
RES	581587.7	4204011	0.00012	8.19	8.19	1.5 ANNUAL	DPM_27	1	
RES	581607.6	4204011	0.00013	7.71	7.71	1.5 ANNUAL	DPM_27	1	
RES	581627.4	4204011	0.00013	8.2	8.2	1.5 ANNUAL	DPM_27	1	
RES	581647.3	4204011	0.00014	8.21	8.21	1.5 ANNUAL	DPM_27	1	
RES	581667.1	4204011	0.00015	7.72	7.72	1.5 ANNUAL	DPM_27	1	
RES	581687	4204011	0.00016	7.75	7.75	1.5 ANNUAL	DPM_27	1	
RES	581706.8	4204011	0.00016	8.2	8.2	1.5 ANNUAL	DPM_27	1	
RES	581726.7	4204011	0.00017	7.64	7.64	1.5 ANNUAL	DPM_27	1	
RES	581746.5	4204011	0.00018	6.81	6.81	1.5 ANNUAL	DPM_27	1	
WOR	581845.8	4204011	0.00023	6.88	6.88	1.5 ANNUAL	DPM_27	1	
WOR	581865.6	4204011	0.00023	7.09	7.09	1.5 ANNUAL	DPM_27	1	
WOR	581885.5	4204011	0.00023	7.08	7.08	1.5 ANNUAL	DPM_27	1	
WOR	581905.3	4204011	0.00022	7.06	7.06	1.5 ANNUAL	DPM_27	1	
WOR	582004.6	4204011	0.00016	7.45	7.45	1.5 ANNUAL	DPM_27	1	
WOR	582024.4	4204011	0.00015	7.54	7.54	1.5 ANNUAL	DPM_27	1	
WOR	582044.3	4204011	0.00014	7.58	7.58	1.5 ANNUAL	DPM_27	1	
RES	581389.2	4204030	6.00E-05	10.28	10.28	1.5 ANNUAL	DPM_27	1	

RES	581409.1	4204030	7.00E-05	9.25	9.25	1.5 ANNUAL	DPM_27	1
RES	581428.9	4204030	8.00E-05	8.41	8.41	1.5 ANNUAL	DPM_27	1
RES	581448.8	4204030	9.00E-05	8.32	8.32	1.5 ANNUAL	DPM_27	1
RES	581468.6	4204030	9.00E-05	8.1	8.1	1.5 ANNUAL	DPM_27	1
RES	581488.5	4204030	0.0001	8.33	8.33	1.5 ANNUAL	DPM_27	1
RES	581508.3	4204030	0.00011	8.53	8.53	1.5 ANNUAL	DPM_27	1
RES	581528.2	4204030	0.00012	8.63	8.63	1.5 ANNUAL	DPM_27	1
RES	581548	4204030	0.00012	8.55	8.55	1.5 ANNUAL	DPM_27	1
RES	581567.9	4204030	0.00013	8.43	8.43	1.5 ANNUAL	DPM_27	1
RES	581587.7	4204030	0.00014	8.16	8.16	1.5 ANNUAL	DPM_27	1
RES	581627.4	4204030	0.00015	8.26	8.26	1.5 ANNUAL	DPM_27	1
RES	581647.3	4204030	0.00016	8.24	8.24	1.5 ANNUAL	DPM_27	1
RES	581667.1	4204030	0.00017	7.75	7.75	1.5 ANNUAL	DPM_27	1
RES	581687	4204030	0.00018	7.58	7.58	1.5 ANNUAL	DPM_27	1
RES	581706.8	4204030	0.00019	7.98	7.98	1.5 ANNUAL	DPM_27	1
RES	581726.7	4204030	0.0002	7.98	7.98	1.5 ANNUAL	DPM_27	1
RES	581746.5	4204030	0.00021	6.98	7.33	1.5 ANNUAL	DPM_27	1
WOR	581845.8	4204030	0.00026	6.63	6.63	1.5 ANNUAL	DPM_27	1
WOR	581865.6	4204030	0.00026	6.8	6.8	1.5 ANNUAL	DPM_27	1
WOR	581885.5	4204030	0.00025	6.92	6.92	1.5 ANNUAL	DPM_27	1
WOR	581905.3	4204030	0.00025	6.97	6.97	1.5 ANNUAL	DPM_27	1
WOR	582004.6	4204030	0.00017	7.63	7.63	1.5 ANNUAL	DPM_27	1
WOR	582024.4	4204030	0.00016	7.68	7.68	1.5 ANNUAL	DPM_27	1
RES	581389.2	4204050	7.00E-05	9.84	9.84	1.5 ANNUAL	DPM_27	1
RES	581409.1	4204050	7.00E-05	9	9	1.5 ANNUAL	DPM_27	1
RES	581428.9	4204050	8.00E-05	8.69	8.69	1.5 ANNUAL	DPM_27	1
RES	581448.8	4204050	9.00E-05	8.36	8.36	1.5 ANNUAL	DPM_27	1
RES	581488.5	4204050	0.00011	7.98	7.98	1.5 ANNUAL	DPM_27	1
RES	581567.9	4204050	0.00015	7.75	7.75	1.5 ANNUAL	DPM_27	1
RES	581587.7	4204050	0.00015	7.69	7.69	1.5 ANNUAL	DPM_27	1
RES	581627.4	4204050	0.00017	8.12	8.12	1.5 ANNUAL	DPM_27	1
RES	581647.3	4204050	0.00018	8.13	8.13	1.5 ANNUAL	DPM_27	1
RES	581667.1	4204050	0.00019	7.72	7.72	1.5 ANNUAL	DPM_27	1
RES	581687	4204050	0.0002	7.5	7.5	1.5 ANNUAL	DPM_27	1
RES	581706.8	4204050	0.00021	8.14	8.14	1.5 ANNUAL	DPM_27	1
RES	581726.7	4204050	0.00023	8.04	8.04	1.5 ANNUAL	DPM_27	1
WOR	581825.9	4204050	0.00029	6.74	6.74	1.5 ANNUAL	DPM_27	1
WOR	581845.8	4204050	0.0003	6.79	6.79	1.5 ANNUAL	DPM_27	1
WOR	581865.6	4204050	0.00029	6.58	6.58	1.5 ANNUAL	DPM_27	1
WOR	581885.5	4204050	0.00029	6.78	6.78	1.5 ANNUAL	DPM_27	1
WOR	581905.3	4204050	0.00027	6.92	6.92	1.5 ANNUAL	DPM_27	1
WOR	582004.6	4204050	0.00018	7.66	7.66	1.5 ANNUAL	DPM_27	1
WOR	582024.4	4204050	0.00017	7.6	7.6	1.5 ANNUAL	DPM_27	1
RES	581389.2	4204070	7.00E-05	8.77	8.77	1.5 ANNUAL	DPM_27	1
RES	581409.1	4204070	8.00E-05	9.01	9.01	1.5 ANNUAL	DPM_27	1
RES	581428.9	4204070	8.00E-05	9.09	9.09	1.5 ANNUAL	DPM_27	1
RES	581448.8	4204070	9.00E-05	8.79	8.79	1.5 ANNUAL	DPM_27	1
RES	581488.5	4204070	0.00011	8.4	8.4	1.5 ANNUAL	DPM_27	1
RES	581508.3	4204070	0.00013	8.72	8.72	1.5 ANNUAL	DPM_27	1
RES	581528.2	4204070	0.00014	8.63	8.63	1.5 ANNUAL	DPM_27	1

RES	581548	4204070	0.00015	8.5	8.5	1.5 ANNUAL	DPM_27	1
RES	581567.9	4204070	0.00016	8.19	8.19	1.5 ANNUAL	DPM_27	1
RES	581587.7	4204070	0.00017	7.73	7.73	1.5 ANNUAL	DPM_27	1
RES	581627.4	4204070	0.0002	7.77	7.77	1.5 ANNUAL	DPM_27	1
RES	581647.3	4204070	0.00021	7.87	7.87	1.5 ANNUAL	DPM_27	1
RES	581667.1	4204070	0.00022	7.69	7.69	1.5 ANNUAL	DPM_27	1
RES	581687	4204070	0.00023	7.18	7.18	1.5 ANNUAL	DPM_27	1
RES	581706.8	4204070	0.00025	7.79	7.79	1.5 ANNUAL	DPM_27	1
RES	581726.7	4204070	0.00026	7.85	7.85	1.5 ANNUAL	DPM_27	1
WOR	581806.1	4204070	0.00033	6.83	6.83	1.5 ANNUAL	DPM_27	1
WOR	581825.9	4204070	0.00034	6.88	6.88	1.5 ANNUAL	DPM_27	1
WOR	581845.8	4204070	0.00034	6.84	6.84	1.5 ANNUAL	DPM_27	1
WOR	581865.6	4204070	0.00034	6.79	6.79	1.5 ANNUAL	DPM_27	1
WOR	581885.5	4204070	0.00032	6.83	6.83	1.5 ANNUAL	DPM_27	1
WOR	581905.3	4204070	0.0003	6.91	6.91	1.5 ANNUAL	DPM_27	1
WOR	582004.6	4204070	0.00019	7.6	7.6	1.5 ANNUAL	DPM_27	1
WOR	582024.4	4204070	0.00018	7.4	7.4	1.5 ANNUAL	DPM_27	1
WOR	582103.8	4204070	0.00013	6.92	6.92	1.5 ANNUAL	DPM_27	1
RES	581389.2	4204090	7.00E-05	8.25	8.25	1.5 ANNUAL	DPM_27	1
RES	581409.1	4204090	8.00E-05	8.86	8.86	1.5 ANNUAL	DPM_27	1
RES	581428.9	4204090	9.00E-05	8.89	8.89	1.5 ANNUAL	DPM_27	1
RES	581448.8	4204090	0.0001	8.55	8.55	1.5 ANNUAL	DPM_27	1
RES	581468.6	4204090	0.00011	7.88	7.88	1.5 ANNUAL	DPM_27	1
RES	581488.5	4204090	0.00012	8.62	8.62	1.5 ANNUAL	DPM_27	1
RES	581508.3	4204090	0.00014	8.12	8.12	1.5 ANNUAL	DPM_27	1
RES	581528.2	4204090	0.00015	7.71	7.71	1.5 ANNUAL	DPM_27	1
RES	581548	4204090	0.00016	7.92	7.92	1.5 ANNUAL	DPM_27	1
RES	581567.9	4204090	0.00018	8.02	8.02	1.5 ANNUAL	DPM_27	1
RES	581587.7	4204090	0.00019	7.72	7.72	1.5 ANNUAL	DPM_27	1
RES	581607.6	4204090	0.00021	6.94	6.94	1.5 ANNUAL	DPM_27	1
RES	581627.4	4204090	0.00022	7.72	7.72	1.5 ANNUAL	DPM_27	1
RES	581647.3	4204090	0.00024	7.93	7.93	1.5 ANNUAL	DPM_27	1
RES	581667.1	4204090	0.00025	7.89	7.89	1.5 ANNUAL	DPM_27	1
RES	581687	4204090	0.00027	7.77	7.77	1.5 ANNUAL	DPM_27	1
RES	581706.8	4204090	0.00029	8.07	8.07	1.5 ANNUAL	DPM_27	1
RES	581726.7	4204090	0.00031	7.27	7.27	1.5 ANNUAL	DPM_27	1
WOR	581786.2	4204090	0.00038	6.72	6.72	1.5 ANNUAL	DPM_27	1
WOR	581806.1	4204090	0.00039	6.88	6.88	1.5 ANNUAL	DPM_27	1
WOR	582024.4	4204090	0.00019	7.39	7.39	1.5 ANNUAL	DPM_27	1
WOR	582084	4204090	0.00015	7.24	7.24	1.5 ANNUAL	DPM_27	1
WOR	582103.8	4204090	0.00014	7.01	7.01	1.5 ANNUAL	DPM_27	1
RES	581389.2	4204110	7.00E-05	8.05	8.05	1.5 ANNUAL	DPM_27	1
RES	581409.1	4204110	8.00E-05	8.66	8.66	1.5 ANNUAL	DPM_27	1
RES	581428.9	4204110	9.00E-05	8.65	8.65	1.5 ANNUAL	DPM_27	1
RES	581448.8	4204110	0.0001	8.27	8.27	1.5 ANNUAL	DPM_27	1
RES	581468.6	4204110	0.00011	7.73	7.73	1.5 ANNUAL	DPM_27	1
RES	581488.5	4204110	0.00013	8.56	8.56	1.5 ANNUAL	DPM_27	1
RES	581508.3	4204110	0.00014	7.79	7.79	1.5 ANNUAL	DPM_27	1
SCH	581528.2	4204110	0.00016	7.26	7.26	1.5 ANNUAL	DPM_27	1
SCH	581548	4204110	0.00018	6.82	6.82	1.5 ANNUAL	DPM_27	1

SCH	581567.9	4204110	0.0002	6.73	6.73	1.5 ANNUAL	DPM_27	1
SCH	581584	4204105	0.00021	6.88	6.88	1.5 ANNUAL	DPM_27	1
RES	581607.6	4204110	0.00024	7.03	7.03	1.5 ANNUAL	DPM_27	1
RES	581627.4	4204110	0.00026	7.45	7.45	1.5 ANNUAL	DPM_27	1
RES	581647.3	4204110	0.00028	7.45	7.45	1.5 ANNUAL	DPM_27	1
RES	581667.1	4204110	0.0003	7.53	7.53	1.5 ANNUAL	DPM_27	1
RES	581687	4204110	0.00032	7.63	7.63	1.5 ANNUAL	DPM_27	1
RES	581706.8	4204110	0.00034	7.77	7.77	1.5 ANNUAL	DPM_27	1
RES	581726.7	4204110	0.00037	5.89	8.08	1.5 ANNUAL	DPM_27	1
WOR	581786.2	4204110	0.00045	6.63	6.63	1.5 ANNUAL	DPM_27	1
WOR	581806.1	4204110	0.00047	6.87	6.87	1.5 ANNUAL	DPM_27	1
WOR	581984.7	4204110	0.00024	7.55	7.55	1.5 ANNUAL	DPM_27	1
WOR	582004.6	4204110	0.00022	7.55	7.55	1.5 ANNUAL	DPM_27	1
WOR	582024.4	4204110	0.0002	7.51	7.51	1.5 ANNUAL	DPM_27	1
WOR	582084	4204110	0.00016	6.99	6.99	1.5 ANNUAL	DPM_27	1
WOR	582103.8	4204110	0.00015	6.99	6.99	1.5 ANNUAL	DPM_27	1
RES	581389.2	4204130	7.00E-05	7.83	7.83	1.5 ANNUAL	DPM_27	1
RES	581409.1	4204130	8.00E-05	8.02	8.02	1.5 ANNUAL	DPM_27	1
RES	581428.9	4204130	9.00E-05	8.15	8.15	1.5 ANNUAL	DPM_27	1
RES	581448.8	4204130	0.0001	7.85	7.85	1.5 ANNUAL	DPM_27	1
RES	581468.6	4204130	0.00012	7.53	7.53	1.5 ANNUAL	DPM_27	1
RES	581488.5	4204130	0.00013	8.14	8.14	1.5 ANNUAL	DPM_27	1
RES	581508.3	4204130	0.00015	8.19	8.19	1.5 ANNUAL	DPM_27	1
SCH	581528.2	4204130	0.00017	7.36	7.36	1.5 ANNUAL	DPM_27	1
SCH	581548	4204130	0.0002	6.92	6.92	1.5 ANNUAL	DPM_27	1
SCH	581567.9	4204130	0.00022	6.9	6.9	1.5 ANNUAL	DPM_27	1
SCH	581584	4204125	0.00023	6.71	6.71	1.5 ANNUAL	DPM_27	1
RES	581607.6	4204130	0.00027	7.26	7.26	1.5 ANNUAL	DPM_27	1
RES	581627.4	4204130	0.0003	7.58	7.58	1.5 ANNUAL	DPM_27	1
RES	581647.3	4204130	0.00032	7.62	7.62	1.5 ANNUAL	DPM_27	1
RES	581662.4	4204126	0.00034	7.1	7.1	1.5 ANNUAL	DPM_27	1
RES	581687	4204130	0.00038	7	7	1.5 ANNUAL	DPM_27	1
RES	581706.8	4204130	0.00041	7.24	7.24	1.5 ANNUAL	DPM_27	1
WOR	581766.4	4204130	0.00052	6.34	6.34	1.5 ANNUAL	DPM_27	1
WOR	581786.2	4204130	0.00055	6.48	6.48	1.5 ANNUAL	DPM_27	1
WOR	581806.1	4204130	0.00056	6.85	6.85	1.5 ANNUAL	DPM_27	1
WOR	581885.5	4204130	0.00046	6.71	6.71	1.5 ANNUAL	DPM_27	1
WOR	581905.3	4204130	0.00042	6.94	6.94	1.5 ANNUAL	DPM_27	1
WOR	581984.7	4204130	0.00026	7.54	7.54	1.5 ANNUAL	DPM_27	1
WOR	582004.6	4204130	0.00024	7.65	7.65	1.5 ANNUAL	DPM_27	1
WOR	582024.4	4204130	0.00022	7.7	7.7	1.5 ANNUAL	DPM_27	1
WOR	582084	4204130	0.00017	6.9	6.9	1.5 ANNUAL	DPM_27	1
WOR	582103.8	4204130	0.00016	7.01	7.01	1.5 ANNUAL	DPM_27	1
RES	581389.2	4204150	7.00E-05	7.96	7.96	1.5 ANNUAL	DPM_27	1
RES	581488.5	4204150	0.00014	7.57	7.57	1.5 ANNUAL	DPM_27	1
RES	581508.3	4204150	0.00016	7.98	7.98	1.5 ANNUAL	DPM_27	1
SCH	581528.2	4204150	0.00018	7.98	7.98	1.5 ANNUAL	DPM_27	1
SCH	581548	4204150	0.00021	8.17	8.17	1.5 ANNUAL	DPM_27	1
SCH	581567.9	4204150	0.00024	8.22	8.22	1.5 ANNUAL	DPM_27	1
RES	581607.6	4204150	0.00031	7.6	7.6	1.5 ANNUAL	DPM_27	1

RES	581627.4	4204150	0.00034	7.7	7.7	1.5 ANNUAL	DPM_27	1
RES	581647.3	4204150	0.00038	7.49	7.49	1.5 ANNUAL	DPM_27	1
RES	581687	4204150	0.00046	6.81	6.81	1.5 ANNUAL	DPM_27	1
RES	581706.8	4204150	0.0005	7.17	7.17	1.5 ANNUAL	DPM_27	1
WOR	581766.4	4204150	0.00064	6.19	6.19	1.5 ANNUAL	DPM_27	1
WOR	581786.2	4204150	0.00068	6.3	6.3	1.5 ANNUAL	DPM_27	1
WOR	581806.1	4204150	0.00069	6.84	6.84	1.5 ANNUAL	DPM_27	1
WOR	581825.9	4204150	0.00068	6.81	6.81	1.5 ANNUAL	DPM_27	1
WOR	581885.5	4204150	0.00053	6.67	6.67	1.5 ANNUAL	DPM_27	1
WOR	581905.3	4204150	0.00047	6.68	6.68	1.5 ANNUAL	DPM_27	1
WOR	582084	4204150	0.00018	6.92	6.92	1.5 ANNUAL	DPM_27	1
WOR	582103.8	4204150	0.00016	7.15	7.15	1.5 ANNUAL	DPM_27	1
RES	581389.2	4204169	7.00E-05	8.59	8.59	1.5 ANNUAL	DPM_27	1
RES	581409.1	4204169	8.00E-05	8.21	8.21	1.5 ANNUAL	DPM_27	1
RES	581428.9	4204169	9.00E-05	7.96	7.96	1.5 ANNUAL	DPM_27	1
RES	581448.8	4204169	0.00011	7.83	7.83	1.5 ANNUAL	DPM_27	1
RES	581468.6	4204169	0.00013	7.73	7.73	1.5 ANNUAL	DPM_27	1
RES	581488.5	4204169	0.00014	7.77	7.77	1.5 ANNUAL	DPM_27	1
RES	581528.8	4204174	0.0002	8.82	8.82	1.5 ANNUAL	DPM_27	1
RES	581607.6	4204167	0.00034	7.74	7.74	1.5 ANNUAL	DPM_27	1
RES	581627.4	4204167	0.00039	7.63	7.63	1.5 ANNUAL	DPM_27	1
RES	581647.3	4204167	0.00044	7.48	7.48	1.5 ANNUAL	DPM_27	1
RES	581670	4204170	0.00052	7	7	1.5 ANNUAL	DPM_27	1
RES	581687	4204169	0.00057	7.05	7.05	1.5 ANNUAL	DPM_27	1
RES	581706.8	4204169	0.00062	7.05	7.05	1.5 ANNUAL	DPM_27	1
WOR	581766.4	4204169	0.00081	6.28	6.28	1.5 ANNUAL	DPM_27	1
WOR	581786.2	4204169	0.00085	6.21	6.21	1.5 ANNUAL	DPM_27	1
WOR	581806.1	4204169	0.00086	6.63	6.63	1.5 ANNUAL	DPM_27	1
WOR	581825.9	4204169	0.00082	6.7	6.7	1.5 ANNUAL	DPM_27	1
WOR	581885.5	4204169	0.0006	6.53	6.53	1.5 ANNUAL	DPM_27	1
WOR	581905.3	4204169	0.00052	6.5	6.5	1.5 ANNUAL	DPM_27	1
WOR	581945	4204169	0.0004	6.82	6.82	1.5 ANNUAL	DPM_27	1
WOR	581964.9	4204169	0.00035	6.95	6.95	1.5 ANNUAL	DPM_27	1
WOR	581984.7	4204169	0.00031	7.13	7.13	1.5 ANNUAL	DPM_27	1
WOR	582004.6	4204169	0.00028	7.23	7.23	1.5 ANNUAL	DPM_27	1
WOR	582084	4204169	0.00019	6.93	6.93	1.5 ANNUAL	DPM_27	1
WOR	582103.8	4204169	0.00017	7.02	7.02	1.5 ANNUAL	DPM_27	1
RES	581389.2	4204189	7.00E-05	9.54	9.54	1.5 ANNUAL	DPM_27	1
RES	581409.1	4204189	8.00E-05	9.27	9.27	1.5 ANNUAL	DPM_27	1
RES	581428.9	4204189	9.00E-05	9.03	9.03	1.5 ANNUAL	DPM_27	1
RES	581448.8	4204189	0.00011	8.81	8.81	1.5 ANNUAL	DPM_27	1
RES	581468.6	4204189	0.00013	8.75	8.75	1.5 ANNUAL	DPM_27	1
RES	581488.5	4204189	0.00015	8.73	8.73	1.5 ANNUAL	DPM_27	1
RES	581528.2	4204189	0.0002	8.72	8.72	1.5 ANNUAL	DPM_27	1
RES	581548	4204189	0.00024	9.53	10.33	1.5 ANNUAL	DPM_27	1
RES	581567.9	4204189	0.00027	9.84	9.84	1.5 ANNUAL	DPM_27	1
RES	581587.7	4204189	0.00033	8.92	8.92	1.5 ANNUAL	DPM_27	1
RES	581607.6	4204189	0.00039	8.63	8.63	1.5 ANNUAL	DPM_27	1
RES	581627.4	4204189	0.00046	8.48	8.48	1.5 ANNUAL	DPM_27	1
RES	581647.3	4204189	0.00053	8.09	8.09	1.5 ANNUAL	DPM_27	1

WOR	581766.4	4204189	0.00107	5.62	5.62	1.5 ANNUAL	DPM_27	1
WOR	581786.2	4204189	0.0011	6.12	6.12	1.5 ANNUAL	DPM_27	1
WOR	581806.1	4204189	0.00109	6.18	6.18	1.5 ANNUAL	DPM_27	1
WOR	581865.6	4204189	0.00079	6.18	6.18	1.5 ANNUAL	DPM_27	1
WOR	581885.5	4204189	0.00068	6.3	6.3	1.5 ANNUAL	DPM_27	1
WOR	581945	4204189	0.00044	6.61	6.61	1.5 ANNUAL	DPM_27	1
WOR	581964.9	4204189	0.00038	6.78	6.78	1.5 ANNUAL	DPM_27	1
WOR	581984.7	4204189	0.00034	7.03	7.03	1.5 ANNUAL	DPM_27	1
WOR	582004.6	4204189	0.0003	7.32	9.81	1.5 ANNUAL	DPM_27	1
WOR	582084	4204189	0.00019	6.95	6.95	1.5 ANNUAL	DPM_27	1
WOR	582103.8	4204189	0.00017	7.04	7.04	1.5 ANNUAL	DPM_27	1
RES	581389.2	4204209	7.00E-05	9.22	9.22	1.5 ANNUAL	DPM_27	1
RES	581409.1	4204209	8.00E-05	9.04	9.04	1.5 ANNUAL	DPM_27	1
RES	581428.9	4204209	9.00E-05	8.93	8.93	1.5 ANNUAL	DPM_27	1
RES	581448.8	4204209	0.00011	8.87	8.87	1.5 ANNUAL	DPM_27	1
RES	581468.6	4204209	0.00013	9.12	9.12	1.5 ANNUAL	DPM_27	1
RES	581488.5	4204209	0.00015	9.4	9.4	1.5 ANNUAL	DPM_27	1
RES	581528.2	4204209	0.00021	9.02	12.29	1.5 ANNUAL	DPM_27	1
RES	581548	4204209	0.00024	10.81	11.71	1.5 ANNUAL	DPM_27	1
RES	581567.9	4204209	0.00029	11	11	1.5 ANNUAL	DPM_27	1
RES	581587.7	4204209	0.00035	10.26	10.26	1.5 ANNUAL	DPM_27	1
RES	581607.6	4204209	0.00043	10.01	10.01	1.5 ANNUAL	DPM_27	1
RES	581627.4	4204209	0.00052	10.25	10.25	1.5 ANNUAL	DPM_27	1
RES	581647.3	4204209	0.00063	9.61	10.32	1.5 ANNUAL	DPM_27	1
RES	581667.1	4204209	0.00076	7.56	12.69	1.5 ANNUAL	DPM_27	1
RES	581687	4204209	0.0009	6.53	12.31	1.5 ANNUAL	DPM_27	1
RES	581706.8	4204209	0.00104	6.41	6.41	1.5 ANNUAL	DPM_27	1
WOR	581865.6	4204209	0.00091	6.29	6.29	1.5 ANNUAL	DPM_27	1
WOR	581885.5	4204209	0.00076	6.75	6.75	1.5 ANNUAL	DPM_27	1
WOR	582084	4204209	0.00019	6.92	6.92	1.5 ANNUAL	DPM_27	1
WOR	582103.8	4204209	0.00017	7.01	7.01	1.5 ANNUAL	DPM_27	1
RES	581389.2	4204229	7.00E-05	9.55	9.55	1.5 ANNUAL	DPM_27	1
RES	581409.1	4204229	8.00E-05	9.3	9.3	1.5 ANNUAL	DPM_27	1
RES	581428.9	4204229	9.00E-05	9	9	1.5 ANNUAL	DPM_27	1
RES	581448.8	4204229	0.00011	8.9	8.9	1.5 ANNUAL	DPM_27	1
RES	581468.6	4204229	0.00012	9.04	9.04	1.5 ANNUAL	DPM_27	1
RES	581508.3	4204229	0.00018	9.37	9.37	1.5 ANNUAL	DPM_27	1
RES	581528.2	4204229	0.00021	9.68	12.88	1.5 ANNUAL	DPM_27	1
RES	581548	4204229	0.00024	12.07	12.07	1.5 ANNUAL	DPM_27	1
RES	581567.9	4204229	0.0003	11.93	11.93	1.5 ANNUAL	DPM_27	1
RES	581587.7	4204229	0.00037	11.71	11.71	1.5 ANNUAL	DPM_27	1
RES	581607.6	4204229	0.00046	11.63	11.63	1.5 ANNUAL	DPM_27	1
RES	581627.4	4204229	0.00058	11.82	11.82	1.5 ANNUAL	DPM_27	1
RES	581647.3	4204229	0.00073	11.1	11.78	1.5 ANNUAL	DPM_27	1
RES	581667.1	4204229	0.00092	9.11	12.69	1.5 ANNUAL	DPM_27	1
RES	581687	4204229	0.00115	7.5	12.31	1.5 ANNUAL	DPM_27	1
RES	581706.8	4204229	0.00138	6.63	6.63	1.5 ANNUAL	DPM_27	1
WOR	581865.6	4204229	0.00106	6.27	6.27	1.5 ANNUAL	DPM_27	1
WOR	581885.5	4204229	0.00087	6.67	6.67	1.5 ANNUAL	DPM_27	1
WOR	581943.7	4204234	0.00053	6.57	6.57	1.5 ANNUAL	DPM_27	1

WOR	581963.5	4204234	0.00045	6.54	6.54	1.5 ANNUAL	DPM_27	1
RES	581389.2	4204249	7.00E-05	10.31	10.31	1.5 ANNUAL	DPM_27	1
RES	581409.1	4204249	8.00E-05	9.97	9.97	1.5 ANNUAL	DPM_27	1
RES	581428.9	4204249	9.00E-05	9.57	9.57	1.5 ANNUAL	DPM_27	1
RES	581448.8	4204249	0.0001	9.75	11.62	1.5 ANNUAL	DPM_27	1
RES	581468.6	4204249	0.00012	9.86	12.45	1.5 ANNUAL	DPM_27	1
RES	581488.5	4204249	0.00014	9.99	11.61	1.5 ANNUAL	DPM_27	1
RES	581508.3	4204249	0.00017	10.48	10.48	1.5 ANNUAL	DPM_27	1
RES	581528.2	4204249	0.0002	10.77	12.88	1.5 ANNUAL	DPM_27	1
RES	581548	4204249	0.00024	12.81	12.81	1.5 ANNUAL	DPM_27	1
RES	581587.7	4204249	0.00038	12.75	12.75	1.5 ANNUAL	DPM_27	1
RES	581607.6	4204249	0.00049	12.91	12.91	1.5 ANNUAL	DPM_27	1
RES	581627.4	4204249	0.00064	12.92	12.92	1.5 ANNUAL	DPM_27	1
RES	581647.3	4204249	0.00084	12.08	12.08	1.5 ANNUAL	DPM_27	1
RES	581667.1	4204249	0.00112	10.41	10.41	1.5 ANNUAL	DPM_27	1
RES	581687	4204249	0.00148	8.64	8.64	1.5 ANNUAL	DPM_27	1
RES	581706.8	4204249	0.0019	7.07	7.07	1.5 ANNUAL	DPM_27	1
RES	581746.5	4204249	0.00269	6.4	6.4	1.5 ANNUAL	DPM_27	1
WOR	581865.6	4204249	0.00122	6.3	6.3	1.5 ANNUAL	DPM_27	1
WOR	581885.5	4204249	0.00098	6.65	6.65	1.5 ANNUAL	DPM_27	1
WOR	581930	4204253	0.00064	6.61	6.61	1.5 ANNUAL	DPM_27	1
WOR	582084	4204249	0.00019	6.57	10.9	1.5 ANNUAL	DPM_27	1
WOR	582103.8	4204249	0.00017	6.7	6.7	1.5 ANNUAL	DPM_27	1
RES	581389.2	4204269	7.00E-05	10.94	10.94	1.5 ANNUAL	DPM_27	1
RES	581409.1	4204269	7.00E-05	10.64	10.64	1.5 ANNUAL	DPM_27	1
RES	581428.9	4204269	9.00E-05	10.73	10.73	1.5 ANNUAL	DPM_27	1
RES	581448.8	4204269	0.0001	11.59	11.59	1.5 ANNUAL	DPM_27	1
RES	581468.6	4204269	0.00011	12.03	12.03	1.5 ANNUAL	DPM_27	1
RES	581488.5	4204269	0.00013	11.98	11.98	1.5 ANNUAL	DPM_27	1
RES	581508.3	4204269	0.00016	11.98	12.82	1.5 ANNUAL	DPM_27	1
RES	581528.2	4204269	0.0002	12.24	12.24	1.5 ANNUAL	DPM_27	1
RES	581548	4204269	0.00024	12.64	12.64	1.5 ANNUAL	DPM_27	1
RES	581587.7	4204269	0.00039	12.55	12.55	1.5 ANNUAL	DPM_27	1
RES	581607.6	4204269	0.00051	12.49	12.49	1.5 ANNUAL	DPM_27	1
RES	581627.4	4204269	0.00069	12.53	12.53	1.5 ANNUAL	DPM_27	1
RES	581667.1	4204269	0.00137	10.28	10.28	1.5 ANNUAL	DPM_27	1
RES	581687	4204269	0.00196	8.73	8.73	1.5 ANNUAL	DPM_27	1
RES	581706.8	4204269	0.00272	7.35	7.35	1.5 ANNUAL	DPM_27	1
RES	581726.7	4204269	0.00359	6.27	6.27	1.5 ANNUAL	DPM_27	1
RES	581746.5	4204269	0.00425	6.3	6.3	1.5 ANNUAL	DPM_27	1
WOR	581925.2	4204269	0.0007	6.6	6.6	1.5 ANNUAL	DPM_27	1
WOR	581945	4204269	0.00057	6.65	6.65	1.5 ANNUAL	DPM_27	1
WOR	581964.9	4204269	0.00047	6.52	11.12	1.5 ANNUAL	DPM_27	1
WOR	582084	4204269	0.00019	6.43	10.93	1.5 ANNUAL	DPM_27	1
WOR	582103.8	4204269	0.00017	6.57	6.57	1.5 ANNUAL	DPM_27	1
RES	581389.2	4204288	6.00E-05	11.99	14.36	1.5 ANNUAL	DPM_27	1
RES	581409.1	4204288	7.00E-05	11.52	13.42	1.5 ANNUAL	DPM_27	1
RES	581428.9	4204288	8.00E-05	11.68	11.68	1.5 ANNUAL	DPM_27	1
RES	581448.8	4204288	9.00E-05	12.15	12.15	1.5 ANNUAL	DPM_27	1
RES	581468.6	4204288	0.00011	13.16	13.16	1.5 ANNUAL	DPM_27	1

RES	581484.9	4204289	0.00012	13.25	13.25	1.5 ANNUAL	DPM_27	1
RES	581508.3	4204288	0.00015	13.48	13.48	1.5 ANNUAL	DPM_27	1
RES	581528.2	4204288	0.00018	13.39	13.39	1.5 ANNUAL	DPM_27	1
RES	581548	4204288	0.00023	12.02	12.02	1.5 ANNUAL	DPM_27	1
RES	581587.7	4204288	0.00038	11.32	11.32	1.5 ANNUAL	DPM_27	1
RES	581607.6	4204288	0.00052	10.97	10.97	1.5 ANNUAL	DPM_27	1
RES	581627.4	4204288	0.00072	11.27	11.27	1.5 ANNUAL	DPM_27	1
RES	581647.3	4204288	0.00105	10.87	10.87	1.5 ANNUAL	DPM_27	1
RES	581667.1	4204288	0.00161	9.73	9.73	1.5 ANNUAL	DPM_27	1
RES	581687	4204288	0.0026	8.06	8.06	1.5 ANNUAL	DPM_27	1
RES	581706.8	4204288	0.00413	6.72	6.72	1.5 ANNUAL	DPM_27	1
RES	581726.7	4204288	0.00599	6.05	6.05	1.5 ANNUAL	DPM_27	1
RES	581746.5	4204288	0.00725	6.11	6.11	1.5 ANNUAL	DPM_27	1
RES	581766.4	4204288	0.00695	6.13	6.13	1.5 ANNUAL	DPM_27	1
WOR	581925.2	4204288	0.00072	6.57	6.57	1.5 ANNUAL	DPM_27	1
WOR	581945	4204288	0.00058	6.56	6.56	1.5 ANNUAL	DPM_27	1
WOR	581964.9	4204288	0.00048	6.43	11.63	1.5 ANNUAL	DPM_27	1
WOR	582084	4204288	0.00019	6.39	10.91	1.5 ANNUAL	DPM_27	1
WOR	582103.8	4204288	0.00017	6.44	6.44	1.5 ANNUAL	DPM_27	1
RES	581389.2	4204308	6.00E-05	13.9	13.9	1.5 ANNUAL	DPM_27	1
RES	581409.1	4204308	6.00E-05	13.47	13.47	1.5 ANNUAL	DPM_27	1
RES	581428.9	4204308	7.00E-05	13.11	13.11	1.5 ANNUAL	DPM_27	1
RES	581448.8	4204308	8.00E-05	12.94	12.94	1.5 ANNUAL	DPM_27	1
RES	581468.6	4204308	0.0001	13.47	13.47	1.5 ANNUAL	DPM_27	1
RES	581508.3	4204308	0.00013	14.26	14.26	1.5 ANNUAL	DPM_27	1
RES	581528.2	4204308	0.00016	13.37	14.42	1.5 ANNUAL	DPM_27	1
RES	581548	4204308	0.00021	11.58	14.42	1.5 ANNUAL	DPM_27	1
RES	581570.8	4204309	0.00028	11.02	11.02	1.5 ANNUAL	DPM_27	1
RES	581587.7	4204308	0.00036	10.18	10.18	1.5 ANNUAL	DPM_27	1
RES	581607.6	4204308	0.0005	9.55	9.55	1.5 ANNUAL	DPM_27	1
RES	581627.4	4204308	0.00071	9.23	11.49	1.5 ANNUAL	DPM_27	1
RES	581652.1	4204313	0.00118	9.39	9.39	1.5 ANNUAL	DPM_27	1
RES	581672	4204313	0.00199	8.62	8.62	1.5 ANNUAL	DPM_27	1
RES	581726.7	4204308	0.01163	5.73	5.73	1.5 ANNUAL	DPM_27	1
RES	581746.5	4204308	0.01311	5.99	5.99	1.5 ANNUAL	DPM_27	1
RES	581766.4	4204308	0.01163	6.4	6.4	1.5 ANNUAL	DPM_27	1
WOR	581825.9	4204308	0.00327	6.56	6.56	1.5 ANNUAL	DPM_27	1
WOR	581845.8	4204308	0.00221	7.02	7.02	1.5 ANNUAL	DPM_27	1
WOR	582084	4204308	0.00019	6.33	11.55	1.5 ANNUAL	DPM_27	1
WOR	582103.8	4204308	0.00017	6.45	6.45	1.5 ANNUAL	DPM_27	1
RES	581389.2	4204328	5.00E-05	14.57	14.57	1.5 ANNUAL	DPM_27	1
RES	581409.1	4204328	6.00E-05	14.07	14.07	1.5 ANNUAL	DPM_27	1
RES	581428.9	4204328	6.00E-05	13.74	13.74	1.5 ANNUAL	DPM_27	1
RES	581448.8	4204328	7.00E-05	13.41	13.41	1.5 ANNUAL	DPM_27	1
RES	581468.6	4204328	9.00E-05	13.24	13.24	1.5 ANNUAL	DPM_27	1
RES	581508.3	4204328	0.00012	14.31	14.31	1.5 ANNUAL	DPM_27	1
RES	581528.2	4204328	0.00014	12.9	14.47	1.5 ANNUAL	DPM_27	1
RES	581548	4204328	0.00018	11.27	14.43	1.5 ANNUAL	DPM_27	1
RES	581570.8	4204329	0.00024	10.9	10.9	1.5 ANNUAL	DPM_27	1
RES	581587.7	4204328	0.00031	9.95	9.95	1.5 ANNUAL	DPM_27	1

RES	581607.6	4204328	0.00044	8.46	8.46	1.5 ANNUAL	DPM_27	1
RES	581627.4	4204328	0.00064	7.65	7.65	1.5 ANNUAL	DPM_27	1
RES	581647.3	4204328	0.00098	7.85	9.13	1.5 ANNUAL	DPM_27	1
RES	581667.1	4204328	0.00163	7.98	7.98	1.5 ANNUAL	DPM_27	1
RES	581687	4204328	0.00318	6.45	8.87	1.5 ANNUAL	DPM_27	1
WOR	581825.9	4204328	0.00345	6.27	6.27	1.5 ANNUAL	DPM_27	1
WOR	581845.8	4204328	0.00226	6.96	6.96	1.5 ANNUAL	DPM_27	1
WOR	582084	4204328	0.00019	6.37	11.53	1.5 ANNUAL	DPM_27	1
WOR	582103.8	4204328	0.00017	6.32	6.32	1.5 ANNUAL	DPM_27	1
RES	581389.2	4204348	5.00E-05	14.78	14.78	1.5 ANNUAL	DPM_27	1
RES	581409.1	4204348	5.00E-05	14.09	14.09	1.5 ANNUAL	DPM_27	1
RES	581428.9	4204348	6.00E-05	13.78	13.78	1.5 ANNUAL	DPM_27	1
RES	581448.8	4204348	7.00E-05	13.51	13.51	1.5 ANNUAL	DPM_27	1
RES	581468.6	4204348	8.00E-05	12.86	12.86	1.5 ANNUAL	DPM_27	1
RES	581492.2	4204349	9.00E-05	11.6	14.33	1.5 ANNUAL	DPM_27	1
RES	581508.3	4204348	0.00011	12.66	14.16	1.5 ANNUAL	DPM_27	1
RES	581528.2	4204348	0.00013	11.26	14.47	1.5 ANNUAL	DPM_27	1
RES	581548	4204348	0.00016	10.62	14.43	1.5 ANNUAL	DPM_27	1
RES	581587.7	4204348	0.00026	10	10	1.5 ANNUAL	DPM_27	1
RES	581607.6	4204348	0.00038	8.49	8.49	1.5 ANNUAL	DPM_27	1
RES	581627.4	4204348	0.00055	7.54	7.54	1.5 ANNUAL	DPM_27	1
RES	581647.3	4204348	0.00082	7.4	7.4	1.5 ANNUAL	DPM_27	1
RES	581667.1	4204348	0.00133	7.43	7.43	1.5 ANNUAL	DPM_27	1
RES	581687	4204348	0.00261	6.94	6.94	1.5 ANNUAL	DPM_27	1
WOR	581825.9	4204348	0.00329	6.2	6.2	1.5 ANNUAL	DPM_27	1
WOR	581845.8	4204348	0.00217	6.63	6.63	1.5 ANNUAL	DPM_27	1
WOR	581925.2	4204348	0.00069	6.13	6.13	1.5 ANNUAL	DPM_27	1
WOR	582103.8	4204348	0.00016	6.25	6.25	1.5 ANNUAL	DPM_27	1
RES	581508.3	4204363	0.0001	10.74	14.16	1.5 ANNUAL	DPM_27	1
RES	581528.2	4204363	0.00013	10.07	14.47	1.5 ANNUAL	DPM_27	1
RES	581646.9	4204364	0.00071	7.87	7.87	1.5 ANNUAL	DPM_27	1
RES	581666.8	4204364	0.00114	7.69	7.69	1.5 ANNUAL	DPM_27	1
RES	581686.6	4204364	0.00226	7.28	7.28	1.5 ANNUAL	DPM_27	1
WOR	581905.3	4204368	0.00084	6.14	6.14	1.5 ANNUAL	DPM_27	1
WOR	581925.2	4204368	0.00066	6.08	6.08	1.5 ANNUAL	DPM_27	1
WOR	582064.1	4204368	0.00021	6.05	11.91	1.5 ANNUAL	DPM_27	1
WOR	582084	4204368	0.00018	6.18	6.18	1.5 ANNUAL	DPM_27	1
WOR	582103.8	4204368	0.00016	6.15	6.15	1.5 ANNUAL	DPM_27	1
RES	581387.6	4204391	4.00E-05	14.8	14.8	1.5 ANNUAL	DPM_27	1
RES	581407.4	4204391	4.00E-05	13.52	13.52	1.5 ANNUAL	DPM_27	1
RES	581427.3	4204391	5.00E-05	11.79	12.48	1.5 ANNUAL	DPM_27	1
RES	581447.1	4204391	6.00E-05	10.79	10.79	1.5 ANNUAL	DPM_27	1
RES	581465	4204392	7.00E-05	10.41	10.41	1.5 ANNUAL	DPM_27	1
RES	581490.3	4204389	9.00E-05	9.87	9.87	1.5 ANNUAL	DPM_27	1
RES	581506.7	4204391	0.00011	9.64	9.64	1.5 ANNUAL	DPM_27	1
RES	581526.5	4204391	0.00013	9.3	9.3	1.5 ANNUAL	DPM_27	1
WOR	581825.9	4204388	0.00235	6.01	6.01	1.5 ANNUAL	DPM_27	1
WOR	581845.8	4204388	0.00168	6.11	6.11	1.5 ANNUAL	DPM_27	1
WOR	581865.6	4204388	0.00126	6.04	6.04	1.5 ANNUAL	DPM_27	1
WOR	581912.6	4204393	0.00069	6.19	6.19	1.5 ANNUAL	DPM_27	1

WOR	582064.1	4204388	0.0002	6	11.83	1.5 ANNUAL	DPM_27	1
WOR	582084	4204388	0.00018	6.06	6.06	1.5 ANNUAL	DPM_27	1
WOR	582103.8	4204388	0.00016	6.01	6.01	1.5 ANNUAL	DPM_27	1
RES	581389.2	4204408	4.00E-05	14.96	14.96	1.5 ANNUAL	DPM_27	1
RES	581409.1	4204408	5.00E-05	13.32	13.32	1.5 ANNUAL	DPM_27	1
RES	581428.9	4204408	6.00E-05	10.5	14.98	1.5 ANNUAL	DPM_27	1
RES	581448.8	4204408	6.00E-05	10.1	10.1	1.5 ANNUAL	DPM_27	1
RES	581466.6	4204408	7.00E-05	9.79	9.79	1.5 ANNUAL	DPM_27	1
RES	581492	4204405	0.0001	8.69	8.69	1.5 ANNUAL	DPM_27	1
RES	581508.3	4204408	0.00011	8.52	8.52	1.5 ANNUAL	DPM_27	1
RES	581528.2	4204408	0.00014	8.2	8.2	1.5 ANNUAL	DPM_27	1
RES	581548	4204408	0.00016	8.3	8.3	1.5 ANNUAL	DPM_27	1
RES	581567.9	4204408	0.0002	9.43	9.43	1.5 ANNUAL	DPM_27	1
RES	581587.7	4204408	0.00024	10.24	10.24	1.5 ANNUAL	DPM_27	1
RES	581607.6	4204408	0.00032	9.77	9.77	1.5 ANNUAL	DPM_27	1
RES	581627.4	4204408	0.00046	9.36	9.36	1.5 ANNUAL	DPM_27	1
RES	581647.3	4204408	0.00072	9.23	9.23	1.5 ANNUAL	DPM_27	1
RES	581667.1	4204408	0.00125	9.54	9.78	1.5 ANNUAL	DPM_27	1
RES	581687	4204408	0.00223	9.8	9.8	1.5 ANNUAL	DPM_27	1
RES	581706.8	4204408	0.00438	9.23	9.23	1.5 ANNUAL	DPM_27	1
RES	581726.7	4204408	0.00669	8.29	8.29	1.5 ANNUAL	DPM_27	1
RES	581746.5	4204408	0.00815	6.46	8	1.5 ANNUAL	DPM_27	1
WOR	581825.9	4204408	0.00189	6.13	6.13	1.5 ANNUAL	DPM_27	1
WOR	581845.8	4204408	0.00138	6.27	6.27	1.5 ANNUAL	DPM_27	1
WOR	581865.6	4204408	0.00107	6.06	6.06	1.5 ANNUAL	DPM_27	1
WOR	581905.3	4204408	0.00069	6.31	6.31	1.5 ANNUAL	DPM_27	1
WOR	581925.2	4204408	0.00056	6.33	6.33	1.5 ANNUAL	DPM_27	1
WOR	581945	4204408	0.00047	6.24	11.65	1.5 ANNUAL	DPM_27	1
RES	581389.2	4204427	4.00E-05	14.03	14.03	1.5 ANNUAL	DPM_27	1
RES	581409.1	4204427	5.00E-05	13.45	13.79	1.5 ANNUAL	DPM_27	1
RES	581428.9	4204427	6.00E-05	10.3	15.5	1.5 ANNUAL	DPM_27	1
RES	581448.8	4204427	7.00E-05	10.11	10.11	1.5 ANNUAL	DPM_27	1
RES	581466.6	4204428	8.00E-05	9.61	10.08	1.5 ANNUAL	DPM_27	1
RES	581492	4204425	0.0001	7.13	10.08	1.5 ANNUAL	DPM_27	1
RES	581508.3	4204427	0.00012	6.67	6.67	1.5 ANNUAL	DPM_27	1
RES	581528.2	4204427	0.00014	7.03	7.03	1.5 ANNUAL	DPM_27	1
RES	581548	4204427	0.00017	7.33	7.33	1.5 ANNUAL	DPM_27	1
RES	581567.9	4204427	0.00021	8.08	10.16	1.5 ANNUAL	DPM_27	1
RES	581587.7	4204427	0.00026	9.22	10.16	1.5 ANNUAL	DPM_27	1
RES	581607.6	4204427	0.00035	9.48	9.48	1.5 ANNUAL	DPM_27	1
RES	581627.4	4204427	0.0005	9.33	9.33	1.5 ANNUAL	DPM_27	1
RES	581647.3	4204427	0.00079	9.61	9.61	1.5 ANNUAL	DPM_27	1
RES	581667.1	4204427	0.00123	9.93	9.93	1.5 ANNUAL	DPM_27	1
RES	581687	4204427	0.0021	10.35	10.35	1.5 ANNUAL	DPM_27	1
RES	581706.8	4204427	0.00355	9.37	9.37	1.5 ANNUAL	DPM_27	1
WOR	581825.9	4204427	0.00158	6.3	6.3	1.5 ANNUAL	DPM_27	1
WOR	581845.8	4204427	0.00115	6.44	6.44	1.5 ANNUAL	DPM_27	1
WOR	581905.3	4204427	0.0006	6.34	6.34	1.5 ANNUAL	DPM_27	1
WOR	581925.2	4204427	0.0005	6.31	6.31	1.5 ANNUAL	DPM_27	1
WOR	581945	4204427	0.00043	6.35	11.65	1.5 ANNUAL	DPM_27	1

WOR	582069.7	4204433	0.00018	6.32	6.32	1.5 ANNUAL	DPM_27	1
RES	581389.2	4204447	5.00E-05	14.34	14.34	1.5 ANNUAL	DPM_27	1
RES	581409.1	4204447	5.00E-05	13.38	13.38	1.5 ANNUAL	DPM_27	1
RES	581428.9	4204447	6.00E-05	10.43	15.61	1.5 ANNUAL	DPM_27	1
RES	581448.8	4204447	7.00E-05	10.13	15.35	1.5 ANNUAL	DPM_27	1
RES	581466.6	4204448	8.00E-05	9.67	9.67	1.5 ANNUAL	DPM_27	1
RES	581492	4204445	0.0001	7.56	7.56	1.5 ANNUAL	DPM_27	1
RES	581508.3	4204447	0.00012	7.34	7.34	1.5 ANNUAL	DPM_27	1
RES	581528.2	4204447	0.00014	7.06	7.06	1.5 ANNUAL	DPM_27	1
RES	581548	4204447	0.00017	7.27	7.27	1.5 ANNUAL	DPM_27	1
RES	581567.9	4204447	0.00021	7.59	7.59	1.5 ANNUAL	DPM_27	1
RES	581587.7	4204447	0.00027	7.86	7.86	1.5 ANNUAL	DPM_27	1
RES	581607.6	4204447	0.00037	8.08	8.08	1.5 ANNUAL	DPM_27	1
RES	581627.4	4204447	0.00055	8.25	8.25	1.5 ANNUAL	DPM_27	1
RES	581647.3	4204447	0.00086	9.05	9.05	1.5 ANNUAL	DPM_27	1
RES	581667.1	4204447	0.00137	9.2	9.2	1.5 ANNUAL	DPM_27	1
RES	581687	4204447	0.00211	8.84	8.84	1.5 ANNUAL	DPM_27	1
RES	581706.8	4204447	0.00292	8.29	8.29	1.5 ANNUAL	DPM_27	1
WOR	581825.9	4204447	0.00139	6.32	6.32	1.5 ANNUAL	DPM_27	1
WOR	581845.8	4204447	0.001	6.23	6.23	1.5 ANNUAL	DPM_27	1
WOR	581905.3	4204447	0.00052	6.22	6.22	1.5 ANNUAL	DPM_27	1
WOR	581925.2	4204447	0.00044	6.35	6.35	1.5 ANNUAL	DPM_27	1
WOR	581945	4204447	0.00038	6.29	11.65	1.5 ANNUAL	DPM_27	1
WOR	582064.1	4204447	0.00018	6.41	6.41	1.5 ANNUAL	DPM_27	1
WOR	582084	4204447	0.00016	6.51	6.51	1.5 ANNUAL	DPM_27	1
RES	581389.2	4204467	5.00E-05	15.54	15.54	1.5 ANNUAL	DPM_27	1
RES	581409.1	4204467	6.00E-05	14.89	15.35	1.5 ANNUAL	DPM_27	1
RES	581428.9	4204467	7.00E-05	10.9	15.61	1.5 ANNUAL	DPM_27	1
RES	581448.8	4204467	8.00E-05	10.09	15.5	1.5 ANNUAL	DPM_27	1
RES	581466.6	4204468	9.00E-05	9.83	9.83	1.5 ANNUAL	DPM_27	1
RES	581492	4204465	0.00011	8.1	8.1	1.5 ANNUAL	DPM_27	1
RES	581508.3	4204467	0.00012	7.82	7.82	1.5 ANNUAL	DPM_27	1
RES	581528.2	4204467	0.00014	7.43	7.43	1.5 ANNUAL	DPM_27	1
RES	581548	4204467	0.00018	7.44	7.44	1.5 ANNUAL	DPM_27	1
RES	581567.9	4204467	0.00022	7.47	7.47	1.5 ANNUAL	DPM_27	1
RES	581587.7	4204467	0.00029	7.5	7.5	1.5 ANNUAL	DPM_27	1
RES	581601.1	4204461	0.00035	7.79	7.79	1.5 ANNUAL	DPM_27	1
RES	581620.9	4204461	0.00051	7.77	7.77	1.5 ANNUAL	DPM_27	1
RES	581648.5	4204463	0.00092	8.46	8.79	1.5 ANNUAL	DPM_27	1
RES	581667.1	4204467	0.00134	8.55	8.55	1.5 ANNUAL	DPM_27	1
RES	581687	4204467	0.00186	8.57	8.57	1.5 ANNUAL	DPM_27	1
WOR	581885.5	4204467	0.00055	6.2	6.2	1.5 ANNUAL	DPM_27	1
WOR	581905.3	4204467	0.00046	5.93	5.93	1.5 ANNUAL	DPM_27	1
WOR	581925.2	4204467	0.00039	5.86	5.86	1.5 ANNUAL	DPM_27	1
WOR	581945	4204467	0.00034	5.9	11.65	1.5 ANNUAL	DPM_27	1
WOR	582064.1	4204467	0.00017	6.37	6.37	1.5 ANNUAL	DPM_27	1
WOR	582084	4204467	0.00015	6.44	6.44	1.5 ANNUAL	DPM_27	1
RES	581389.2	4204487	5.00E-05	13.84	14.7	1.5 ANNUAL	DPM_27	1
RES	581409.1	4204487	6.00E-05	13.38	15.35	1.5 ANNUAL	DPM_27	1
RES	581428.9	4204487	7.00E-05	11.93	15.35	1.5 ANNUAL	DPM_27	1

RES	581448.8	4204487	8.00E-05	11.28	11.28	1.5 ANNUAL	DPM_27	1
RES	581466.6	4204487	9.00E-05	10.26	10.26	1.5 ANNUAL	DPM_27	1
RES	581508.3	4204487	0.00012	8.16	8.16	1.5 ANNUAL	DPM_27	1
RES	581528.2	4204487	0.00015	7.51	7.51	1.5 ANNUAL	DPM_27	1
RES	581548	4204487	0.00018	7.24	7.24	1.5 ANNUAL	DPM_27	1
RES	581567.9	4204487	0.00023	7.1	7.1	1.5 ANNUAL	DPM_27	1
RES	581587.7	4204487	0.00031	7.14	7.14	1.5 ANNUAL	DPM_27	1
RES	581601.1	4204480	0.00038	7.23	7.23	1.5 ANNUAL	DPM_27	1
RES	581627.4	4204487	0.00063	7.19	7.19	1.5 ANNUAL	DPM_27	1
RES	581647.3	4204487	0.00092	7.14	7.14	1.5 ANNUAL	DPM_27	1
RES	581667.1	4204487	0.00127	7.14	7.14	1.5 ANNUAL	DPM_27	1
RES	581687	4204487	0.00165	6.99	6.99	1.5 ANNUAL	DPM_27	1
RES	581706.8	4204487	0.00195	6.61	6.61	1.5 ANNUAL	DPM_27	1
WOR	581885.5	4204487	0.0005	6.15	6.15	1.5 ANNUAL	DPM_27	1
WOR	581905.3	4204487	0.00041	5.85	5.85	1.5 ANNUAL	DPM_27	1
WOR	581925.2	4204487	0.00035	5.74	10.84	1.5 ANNUAL	DPM_27	1
WOR	581945	4204487	0.0003	5.69	11.58	1.5 ANNUAL	DPM_27	1
WOR	582044.3	4204487	0.00018	5.5	11.64	1.5 ANNUAL	DPM_27	1
WOR	582064.1	4204487	0.00016	5.6	5.6	1.5 ANNUAL	DPM_27	1
WOR	582084	4204487	0.00014	6.43	6.43	1.5 ANNUAL	DPM_27	1
RES	581389.2	4204507	6.00E-05	13.19	13.19	1.5 ANNUAL	DPM_27	1
RES	581409.1	4204507	6.00E-05	12.61	12.61	1.5 ANNUAL	DPM_27	1
RES	581428.9	4204507	7.00E-05	11.94	11.94	1.5 ANNUAL	DPM_27	1
RES	581448.8	4204507	8.00E-05	11.27	11.27	1.5 ANNUAL	DPM_27	1
RES	581466.6	4204507	9.00E-05	10.28	10.28	1.5 ANNUAL	DPM_27	1
RES	581488.5	4204507	0.00011	9.39	9.39	1.5 ANNUAL	DPM_27	1
RES	581508.3	4204507	0.00013	9.6	9.6	1.5 ANNUAL	DPM_27	1
RES	581528.2	4204507	0.00015	9.04	9.04	1.5 ANNUAL	DPM_27	1
RES	581548	4204507	0.00019	8.33	8.33	1.5 ANNUAL	DPM_27	1
RES	581567.9	4204507	0.00025	7.81	8.32	1.5 ANNUAL	DPM_27	1
RES	581587.7	4204507	0.00033	7.32	7.32	1.5 ANNUAL	DPM_27	1
RES	581607.6	4204507	0.00046	6.96	6.96	1.5 ANNUAL	DPM_27	1
RES	581627.4	4204507	0.00065	6.99	6.99	1.5 ANNUAL	DPM_27	1
RES	581647.3	4204507	0.00089	7.03	7.03	1.5 ANNUAL	DPM_27	1
RES	581667.1	4204507	0.00116	7.09	7.09	1.5 ANNUAL	DPM_27	1
RES	581687	4204507	0.00141	7.01	7.01	1.5 ANNUAL	DPM_27	1
RES	581706.8	4204507	0.00159	6.64	6.64	1.5 ANNUAL	DPM_27	1
RES	581726.7	4204507	0.00166	6.18	6.18	1.5 ANNUAL	DPM_27	1
WOR	581885.5	4204507	0.00047	6.05	6.05	1.5 ANNUAL	DPM_27	1
WOR	581905.3	4204507	0.00038	5.82	5.82	1.5 ANNUAL	DPM_27	1
WOR	581925.2	4204507	0.00031	5.69	10.84	1.5 ANNUAL	DPM_27	1
WOR	581945	4204507	0.00027	5.64	11.4	1.5 ANNUAL	DPM_27	1
WOR	582044.3	4204507	0.00016	5.41	11.4	1.5 ANNUAL	DPM_27	1
WOR	582064.1	4204507	0.00015	5.46	5.46	1.5 ANNUAL	DPM_27	1
WOR	582084	4204507	0.00013	6.41	6.41	1.5 ANNUAL	DPM_27	1
RES	581389.2	4204527	6.00E-05	13.09	13.09	1.5 ANNUAL	DPM_27	1
RES	581409.1	4204527	7.00E-05	12.35	12.35	1.5 ANNUAL	DPM_27	1
RES	581488.5	4204527	0.00011	10.3	10.3	1.5 ANNUAL	DPM_27	1
RES	581508.3	4204527	0.00013	10.58	10.58	1.5 ANNUAL	DPM_27	1
RES	581528.2	4204527	0.00016	9.65	9.65	1.5 ANNUAL	DPM_27	1

RES	581548	4204527	0.0002	9.03	9.03	1.5 ANNUAL	DPM_27	1
RES	581567.9	4204527	0.00026	8.76	8.76	1.5 ANNUAL	DPM_27	1
RES	581587.7	4204527	0.00035	8.81	8.81	1.5 ANNUAL	DPM_27	1
RES	581607.6	4204527	0.00048	8.46	8.46	1.5 ANNUAL	DPM_27	1
RES	581627.4	4204527	0.00065	7.46	7.46	1.5 ANNUAL	DPM_27	1
RES	581647.3	4204527	0.00084	7.48	7.48	1.5 ANNUAL	DPM_27	1
RES	581667.1	4204527	0.00104	7.44	7.44	1.5 ANNUAL	DPM_27	1
RES	581687	4204527	0.00121	7.02	7.02	1.5 ANNUAL	DPM_27	1
RES	581706.8	4204527	0.00131	6.6	6.6	1.5 ANNUAL	DPM_27	1
WOR	581885.5	4204527	0.00044	5.57	5.57	1.5 ANNUAL	DPM_27	1
WOR	581905.3	4204527	0.00035	5.68	5.68	1.5 ANNUAL	DPM_27	1
WOR	581925.2	4204527	0.00029	5.81	9.94	1.5 ANNUAL	DPM_27	1
WOR	581945	4204527	0.00025	5.71	11.07	1.5 ANNUAL	DPM_27	1
WOR	582044.3	4204527	0.00015	5.36	11.04	1.5 ANNUAL	DPM_27	1
WOR	582064.1	4204527	0.00013	5.54	5.54	1.5 ANNUAL	DPM_27	1
WOR	582084	4204527	0.00012	6.39	6.39	1.5 ANNUAL	DPM_27	1
RES	581389.2	4204547	6.00E-05	13.18	13.18	1.5 ANNUAL	DPM_27	1
RES	581409.1	4204547	7.00E-05	12.53	12.53	1.5 ANNUAL	DPM_27	1
RES	581428.9	4204547	7.00E-05	11.63	11.63	1.5 ANNUAL	DPM_27	1
RES	581448.8	4204547	8.00E-05	11.12	11.12	1.5 ANNUAL	DPM_27	1
RES	581468.6	4204547	0.0001	10.87	10.87	1.5 ANNUAL	DPM_27	1
RES	581488.5	4204547	0.00011	10.71	10.71	1.5 ANNUAL	DPM_27	1
RES	581508.3	4204547	0.00013	11.17	11.17	1.5 ANNUAL	DPM_27	1
RES	581528.2	4204547	0.00016	10.28	10.28	1.5 ANNUAL	DPM_27	1
RES	581548	4204547	0.00021	9.42	9.42	1.5 ANNUAL	DPM_27	1
RES	581567.9	4204547	0.00028	8.57	8.57	1.5 ANNUAL	DPM_27	1
RES	581587.7	4204547	0.00036	8.97	8.97	1.5 ANNUAL	DPM_27	1
RES	581607.6	4204547	0.00048	8.33	8.33	1.5 ANNUAL	DPM_27	1
RES	581627.4	4204547	0.00063	7.45	7.45	1.5 ANNUAL	DPM_27	1
RES	581647.3	4204547	0.00079	7.31	7.31	1.5 ANNUAL	DPM_27	1
RES	581667.1	4204547	0.00093	7.58	7.58	1.5 ANNUAL	DPM_27	1
RES	581687	4204547	0.00104	7.19	7.19	1.5 ANNUAL	DPM_27	1
RES	581706.8	4204547	0.0011	6.82	6.82	1.5 ANNUAL	DPM_27	1
WOR	581865.6	4204547	0.00052	5.88	5.88	1.5 ANNUAL	DPM_27	1
WOR	581885.5	4204547	0.00042	5.44	5.44	1.5 ANNUAL	DPM_27	1
WOR	581905.3	4204547	0.00034	5.8	5.8	1.5 ANNUAL	DPM_27	1
WOR	581925.2	4204547	0.00028	5.87	5.87	1.5 ANNUAL	DPM_27	1
WOR	581945	4204547	0.00023	5.76	10.79	1.5 ANNUAL	DPM_27	1
RES	582044.3	4204547	0.00013	5.3	10.43	1.5 ANNUAL	DPM_27	1
RES	582064.1	4204547	0.00012	5.3	5.3	1.5 ANNUAL	DPM_27	1
RES	582084	4204547	0.00011	5.47	5.47	1.5 ANNUAL	DPM_27	1
RES	582102.5	4204551	0.0001	5.49	5.49	1.5 ANNUAL	DPM_27	1
RES	581389.2	4204566	6.00E-05	13.42	13.42	1.5 ANNUAL	DPM_27	1
RES	581409.1	4204566	7.00E-05	12.84	12.84	1.5 ANNUAL	DPM_27	1
RES	581428.9	4204566	8.00E-05	12.16	12.16	1.5 ANNUAL	DPM_27	1
RES	581448.8	4204566	9.00E-05	11.58	11.58	1.5 ANNUAL	DPM_27	1
RES	581468.6	4204566	0.0001	11.16	11.16	1.5 ANNUAL	DPM_27	1
RES	581508.3	4204566	0.00013	11.36	11.36	1.5 ANNUAL	DPM_27	1
RES	581528.2	4204566	0.00016	10.99	10.99	1.5 ANNUAL	DPM_27	1
RES	581548	4204566	0.0002	10.31	10.31	1.5 ANNUAL	DPM_27	1

RES	581567.9	4204566	0.00029	9.34	9.34	1.5 ANNUAL	DPM_27	1
RES	581587.7	4204566	0.00037	9.59	9.59	1.5 ANNUAL	DPM_27	1
RES	581607.6	4204566	0.00048	8.49	8.49	1.5 ANNUAL	DPM_27	1
RES	581627.4	4204566	0.00061	7.64	7.64	1.5 ANNUAL	DPM_27	1
RES	581647.3	4204566	0.00073	7.25	7.25	1.5 ANNUAL	DPM_27	1
RES	581667.1	4204566	0.00083	7.62	7.62	1.5 ANNUAL	DPM_27	1
RES	581687	4204566	0.0009	7.14	7.14	1.5 ANNUAL	DPM_27	1
RES	581706.8	4204566	0.00093	7.05	7.05	1.5 ANNUAL	DPM_27	1
WOR	581865.6	4204566	0.00048	5.56	5.56	1.5 ANNUAL	DPM_27	1
WOR	581885.5	4204566	0.0004	5.42	5.42	1.5 ANNUAL	DPM_27	1
WOR	581905.3	4204566	0.00032	5.76	5.76	1.5 ANNUAL	DPM_27	1
WOR	581925.2	4204566	0.00027	5.79	5.79	1.5 ANNUAL	DPM_27	1
RES	582024.4	4204566	0.00014	5.3	10.6	1.5 ANNUAL	DPM_27	1
RES	582044.3	4204566	0.00012	5.28	5.28	1.5 ANNUAL	DPM_27	1
RES	582064.1	4204566	0.00011	5.13	5.13	1.5 ANNUAL	DPM_27	1
RES	582084	4204566	0.00011	5.08	5.08	1.5 ANNUAL	DPM_27	1
RES	582103.8	4204566	0.0001	5.13	5.13	1.5 ANNUAL	DPM_27	1
RES	581389.2	4204586	6.00E-05	13.12	13.12	1.5 ANNUAL	DPM_27	1
RES	581409.1	4204586	7.00E-05	12.78	12.78	1.5 ANNUAL	DPM_27	1
RES	581428.9	4204586	8.00E-05	12.45	12.45	1.5 ANNUAL	DPM_27	1
RES	581448.8	4204586	9.00E-05	12.21	12.21	1.5 ANNUAL	DPM_27	1
RES	581468.6	4204586	0.0001	11.83	11.83	1.5 ANNUAL	DPM_27	1
RES	581508.3	4204586	0.00014	11.37	11.37	1.5 ANNUAL	DPM_27	1
RES	581528.2	4204586	0.00017	11.25	11.25	1.5 ANNUAL	DPM_27	1
RES	581548	4204586	0.00021	10.78	10.78	1.5 ANNUAL	DPM_27	1
RES	581567.9	4204586	0.00027	10.39	10.39	1.5 ANNUAL	DPM_27	1
RES	581587.7	4204586	0.00035	10.49	10.49	1.5 ANNUAL	DPM_27	1
RES	581607.6	4204586	0.00047	9.41	9.41	1.5 ANNUAL	DPM_27	1
RES	581627.4	4204586	0.00057	8.58	8.58	1.5 ANNUAL	DPM_27	1
RES	581647.3	4204586	0.00066	8.23	8.23	1.5 ANNUAL	DPM_27	1
RES	581667.1	4204586	0.00074	8.16	8.16	1.5 ANNUAL	DPM_27	1
RES	581687	4204586	0.00078	7.14	7.14	1.5 ANNUAL	DPM_27	1
RES	581706.8	4204586	0.00079	7.09	7.09	1.5 ANNUAL	DPM_27	1
RES	582024.4	4204586	0.00013	5.26	9.94	1.5 ANNUAL	DPM_27	1
RES	582044.3	4204586	0.00012	5.19	5.19	1.5 ANNUAL	DPM_27	1
RES	582064.1	4204586	0.00011	5.07	5.07	1.5 ANNUAL	DPM_27	1
RES	582084	4204586	0.0001	5.02	5.02	1.5 ANNUAL	DPM_27	1
RES	582103.8	4204586	9.00E-05	5.03	5.03	1.5 ANNUAL	DPM_27	1
RES	581389.2	4204606	6.00E-05	12.72	12.72	1.5 ANNUAL	DPM_27	1
RES	581528.2	4204606	0.00017	11.35	11.35	1.5 ANNUAL	DPM_27	1
RES	581607.6	4204606	0.00044	10.15	10.15	1.5 ANNUAL	DPM_27	1
RES	581647.3	4204606	0.0006	8.95	8.95	1.5 ANNUAL	DPM_27	1
RES	581667.1	4204606	0.00065	8.36	8.36	1.5 ANNUAL	DPM_27	1
RES	581687	4204606	0.00068	7.48	7.48	1.5 ANNUAL	DPM_27	1
RES	581706.8	4204606	0.00068	6.97	6.97	1.5 ANNUAL	DPM_27	1
WOR	581905.3	4204606	0.0003	5.82	5.82	1.5 ANNUAL	DPM_27	1
WOR	581925.2	4204606	0.00025	5.74	5.74	1.5 ANNUAL	DPM_27	1
RES	582024.4	4204606	0.00012	5.32	5.32	1.5 ANNUAL	DPM_27	1
RES	582044.3	4204606	0.00011	5.18	5.18	1.5 ANNUAL	DPM_27	1
RES	582064.1	4204606	0.0001	5.12	5.12	1.5 ANNUAL	DPM_27	1

RES	582084	4204606	9.00E-05	5.07	5.07	1.5 ANNUAL	DPM_27	1
RES	582103.8	4204606	8.00E-05	5.02	5.02	1.5 ANNUAL	DPM_27	1
RES	581389.2	4204626	6.00E-05	12.86	12.86	1.5 ANNUAL	DPM_27	1
RES	581409.1	4204626	7.00E-05	12.41	12.41	1.5 ANNUAL	DPM_27	1
RES	581428.9	4204626	8.00E-05	12.22	12.22	1.5 ANNUAL	DPM_27	1
RES	581448.8	4204626	9.00E-05	12.1	12.1	1.5 ANNUAL	DPM_27	1
RES	581468.6	4204626	0.0001	11.68	11.68	1.5 ANNUAL	DPM_27	1
RES	581488.5	4204626	0.00012	11.16	11.16	1.5 ANNUAL	DPM_27	1
RES	581508.3	4204626	0.00015	11.21	11.21	1.5 ANNUAL	DPM_27	1
RES	581528.2	4204626	0.00018	11.65	11.65	1.5 ANNUAL	DPM_27	1
RES	581548	4204626	0.00022	11.65	11.65	1.5 ANNUAL	DPM_27	1
RES	581567.9	4204626	0.00028	11.44	11.44	1.5 ANNUAL	DPM_27	1
RES	581587.7	4204626	0.00035	10.81	10.81	1.5 ANNUAL	DPM_27	1
RES	581607.6	4204626	0.00043	10.98	10.98	1.5 ANNUAL	DPM_27	1
RES	581627.4	4204626	0.0005	9.97	9.97	1.5 ANNUAL	DPM_27	1
RES	581687	4204626	0.0006	6.5	6.5	1.5 ANNUAL	DPM_27	1
RES	581706.8	4204626	0.0006	6.22	6.22	1.5 ANNUAL	DPM_27	1
WOR	581825.9	4204626	0.00046	5.9	5.9	1.5 ANNUAL	DPM_27	1
WOR	581885.5	4204626	0.00033	5.61	5.61	1.5 ANNUAL	DPM_27	1
WOR	581905.3	4204626	0.00028	5.99	5.99	1.5 ANNUAL	DPM_27	1
WOR	581925.2	4204626	0.00024	5.83	5.83	1.5 ANNUAL	DPM_27	1
RES	582024.4	4204626	0.00011	5.36	5.36	1.5 ANNUAL	DPM_27	1
RES	582046.6	4204630	0.0001	5.13	5.13	1.5 ANNUAL	DPM_27	1
RES	582066.4	4204630	9.00E-05	5.11	5.11	1.5 ANNUAL	DPM_27	1
RES	581389.2	4204646	6.00E-05	12.04	12.04	1.5 ANNUAL	DPM_27	1
RES	581409.1	4204646	7.00E-05	11.43	11.86	1.5 ANNUAL	DPM_27	1
RES	581428.9	4204646	8.00E-05	11.78	12.06	1.5 ANNUAL	DPM_27	1
RES	581448.8	4204646	9.00E-05	11.97	11.97	1.5 ANNUAL	DPM_27	1
RES	581468.6	4204646	0.00011	11.26	11.26	1.5 ANNUAL	DPM_27	1
RES	581488.5	4204646	0.00013	10.88	10.88	1.5 ANNUAL	DPM_27	1
RES	581508.3	4204646	0.00015	10.81	10.81	1.5 ANNUAL	DPM_27	1
RES	581528.2	4204646	0.00019	11.04	11.04	1.5 ANNUAL	DPM_27	1
RES	581548	4204646	0.00023	11.11	11.11	1.5 ANNUAL	DPM_27	1
RES	581567.9	4204646	0.00029	10.97	10.97	1.5 ANNUAL	DPM_27	1
RES	581587.7	4204646	0.00035	10.76	10.76	1.5 ANNUAL	DPM_27	1
RES	581607.6	4204646	0.00041	11.23	11.23	1.5 ANNUAL	DPM_27	1
RES	581627.4	4204646	0.00046	10.26	10.26	1.5 ANNUAL	DPM_27	1
RES	581647.3	4204646	0.0005	9.48	9.48	1.5 ANNUAL	DPM_27	1
RES	581667.1	4204646	0.00053	7.82	7.82	1.5 ANNUAL	DPM_27	1
WOR	581825.9	4204646	0.00041	6.13	6.13	1.5 ANNUAL	DPM_27	1
WOR	581845.8	4204646	0.00038	6.13	6.13	1.5 ANNUAL	DPM_27	1
WOR	581865.6	4204646	0.00034	6.11	6.11	1.5 ANNUAL	DPM_27	1
WOR	581885.5	4204646	0.00031	5.71	5.71	1.5 ANNUAL	DPM_27	1
WOR	581905.3	4204646	0.00027	5.92	5.92	1.5 ANNUAL	DPM_27	1
WOR	581925.2	4204646	0.00023	5.75	5.75	1.5 ANNUAL	DPM_27	1
RES	582010.2	4204647	0.00012	5.47	5.47	1.5 ANNUAL	DPM_27	1
RES	582024.4	4204646	0.00011	5.39	5.39	1.5 ANNUAL	DPM_27	1
RES	582044.3	4204646	0.0001	5.24	5.24	1.5 ANNUAL	DPM_27	1
RES	582064.1	4204646	9.00E-05	5.24	5.24	1.5 ANNUAL	DPM_27	1
RES	582103.8	4204646	7.00E-05	5.06	5.06	1.5 ANNUAL	DPM_27	1

RES	581389.2	4204666	7.00E-05	11.27	11.58	1.5 ANNUAL	DPM_27	1
RES	581409.1	4204666	8.00E-05	9.53	11.86	1.5 ANNUAL	DPM_27	1
RES	581428.9	4204666	9.00E-05	9.56	12.21	1.5 ANNUAL	DPM_27	1
RES	581448.8	4204666	0.0001	9.71	12.23	1.5 ANNUAL	DPM_27	1
RES	581468.6	4204666	0.00011	10.16	10.16	1.5 ANNUAL	DPM_27	1
RES	581488.5	4204666	0.00013	10.01	10.01	1.5 ANNUAL	DPM_27	1
RES	581508.3	4204666	0.00016	10.29	10.29	1.5 ANNUAL	DPM_27	1
RES	581528.2	4204666	0.00019	10.65	10.65	1.5 ANNUAL	DPM_27	1
RES	581548	4204666	0.00024	10.73	10.73	1.5 ANNUAL	DPM_27	1
RES	581567.9	4204666	0.00029	10.45	10.45	1.5 ANNUAL	DPM_27	1
RES	581587.7	4204666	0.00034	10.51	10.51	1.5 ANNUAL	DPM_27	1
RES	581607.6	4204666	0.00039	10.89	10.89	1.5 ANNUAL	DPM_27	1
RES	581627.4	4204666	0.00043	9.91	9.91	1.5 ANNUAL	DPM_27	1
RES	581647.3	4204666	0.00046	9.31	9.31	1.5 ANNUAL	DPM_27	1
RES	581667.1	4204666	0.00047	7.43	9.61	1.5 ANNUAL	DPM_27	1
RES	582010.2	4204667	0.00012	5.52	5.52	1.5 ANNUAL	DPM_27	1
RES	582024.4	4204666	0.00011	5.4	5.4	1.5 ANNUAL	DPM_27	1
RES	582044.3	4204666	9.00E-05	5.35	5.35	1.5 ANNUAL	DPM_27	1
RES	582064.1	4204666	8.00E-05	5.19	5.19	1.5 ANNUAL	DPM_27	1
RES	582103.8	4204666	7.00E-05	5.12	5.12	1.5 ANNUAL	DPM_27	1
RES	581389.2	4204685	7.00E-05	11.07	11.43	1.5 ANNUAL	DPM_27	1
RES	581409.1	4204685	8.00E-05	9.48	9.48	1.5 ANNUAL	DPM_27	1
RES	581428.9	4204685	9.00E-05	9.01	9.01	1.5 ANNUAL	DPM_27	1
RES	581448.8	4204685	0.00011	9.25	9.25	1.5 ANNUAL	DPM_27	1
RES	581468.6	4204685	0.00012	9.42	9.42	1.5 ANNUAL	DPM_27	1
RES	581508.3	4204685	0.00017	9.76	9.76	1.5 ANNUAL	DPM_27	1
RES	581528.2	4204685	0.0002	10.19	10.19	1.5 ANNUAL	DPM_27	1
RES	581548	4204685	0.00024	10.38	10.38	1.5 ANNUAL	DPM_27	1
RES	581567.9	4204685	0.00029	9.77	9.77	1.5 ANNUAL	DPM_27	1
RES	581587.7	4204685	0.00033	10.27	10.27	1.5 ANNUAL	DPM_27	1
RES	581607.6	4204685	0.00037	10.44	10.44	1.5 ANNUAL	DPM_27	1
RES	581627.4	4204685	0.0004	8.95	8.95	1.5 ANNUAL	DPM_27	1
RES	581647.3	4204685	0.00042	7.67	9.09	1.5 ANNUAL	DPM_27	1
RES	581667.1	4204685	0.00043	7.01	7.01	1.5 ANNUAL	DPM_27	1
RES	582004.6	4204685	0.00012	5.53	5.53	1.5 ANNUAL	DPM_27	1
RES	582024.4	4204685	0.00011	5.34	5.34	1.5 ANNUAL	DPM_27	1
RES	582044.3	4204685	9.00E-05	5.43	5.43	1.5 ANNUAL	DPM_27	1
RES	582064.1	4204685	8.00E-05	5.05	5.05	1.5 ANNUAL	DPM_27	1
RES	582084	4204685	7.00E-05	4.84	4.84	1.5 ANNUAL	DPM_27	1
RES	582103.8	4204685	7.00E-05	5.09	5.09	1.5 ANNUAL	DPM_27	1
RES	581389.2	4204705	7.00E-05	10.65	10.94	1.5 ANNUAL	DPM_27	1
RES	581409.1	4204705	8.00E-05	9.43	9.43	1.5 ANNUAL	DPM_27	1
RES	581428.9	4204705	9.00E-05	8.92	8.92	1.5 ANNUAL	DPM_27	1
RES	581448.8	4204705	0.00011	8.89	8.89	1.5 ANNUAL	DPM_27	1
RES	581508.3	4204705	0.00018	9.23	9.23	1.5 ANNUAL	DPM_27	1
RES	581528.2	4204705	0.00021	9.76	9.76	1.5 ANNUAL	DPM_27	1
RES	581548	4204705	0.00024	9.84	9.84	1.5 ANNUAL	DPM_27	1
RES	581567.9	4204705	0.00029	9.08	9.08	1.5 ANNUAL	DPM_27	1
RES	581587.7	4204705	0.00032	9.69	9.69	1.5 ANNUAL	DPM_27	1
RES	581607.6	4204705	0.00035	9.48	9.48	1.5 ANNUAL	DPM_27	1

WOR	581865.6	4204705	0.00026	6.16	6.16	1.5 ANNUAL	DPM_27	1
WOR	581885.5	4204705	0.00025	6.15	6.15	1.5 ANNUAL	DPM_27	1
WOR	581905.3	4204705	0.00023	6.13	6.13	1.5 ANNUAL	DPM_27	1
RES	582004.6	4204705	0.00012	5.48	5.48	1.5 ANNUAL	DPM_27	1
RES	582044.3	4204705	9.00E-05	5.41	5.41	1.5 ANNUAL	DPM_27	1
RES	582064.1	4204705	8.00E-05	4.79	4.79	1.5 ANNUAL	DPM_27	1
RES	582084	4204705	7.00E-05	4.77	4.77	1.5 ANNUAL	DPM_27	1
RES	582103.8	4204705	7.00E-05	4.89	4.89	1.5 ANNUAL	DPM_27	1
WOR	581802	4204544	0.00088	6.73	6.73	1.5 ANNUAL	DPM_27	1
WOR	581822	4204544	0.00078	6.31	6.31	1.5 ANNUAL	DPM_27	1
WOR	581802	4204564	0.00075	6.78	6.78	1.5 ANNUAL	DPM_27	1

Discrete Re X	Y	Concentrat	Elevation (Z	Hill Heights	Flagpole (Z	Averagin Pe	Source Gro	Num Years	Net ID
RES	581389.2	4203991	0	10.43	10.43	1.5 ANNUAL	DPM_28	1	
RES	581409.1	4203991	0	10.52	10.52	1.5 ANNUAL	DPM_28	1	
RES	581428.9	4203991	0	9.49	9.49	1.5 ANNUAL	DPM_28	1	
RES	581448.8	4203991	0	9.32	9.32	1.5 ANNUAL	DPM_28	1	
RES	581468.6	4203991	0	9.34	9.34	1.5 ANNUAL	DPM_28	1	
RES	581488.5	4203991	0	9.37	9.37	1.5 ANNUAL	DPM_28	1	
RES	581508.3	4203991	0	8.92	8.92	1.5 ANNUAL	DPM_28	1	
RES	581528.2	4203991	0	9.17	9.17	1.5 ANNUAL	DPM_28	1	
RES	581548	4203991	0	9.08	9.08	1.5 ANNUAL	DPM_28	1	
RES	581567.9	4203991	0	8.66	8.66	1.5 ANNUAL	DPM_28	1	
RES	581587.7	4203991	0	8.2	8.2	1.5 ANNUAL	DPM_28	1	
RES	581607.6	4203991	0	7.93	7.93	1.5 ANNUAL	DPM_28	1	
RES	581627.4	4203991	0	7.83	7.83	1.5 ANNUAL	DPM_28	1	
RES	581647.3	4203991	0	7.68	7.68	1.5 ANNUAL	DPM_28	1	
RES	581667.1	4203991	0	7.55	7.55	1.5 ANNUAL	DPM_28	1	
RES	581687	4203991	0	7.55	7.55	1.5 ANNUAL	DPM_28	1	
RES	581706.8	4203991	0	8.26	8.26	1.5 ANNUAL	DPM_28	1	
RES	581726.7	4203991	0	7.79	7.79	1.5 ANNUAL	DPM_28	1	
RES	581746.5	4203991	0	7.26	7.26	1.5 ANNUAL	DPM_28	1	
WOR	582004.6	4203991	0	7.35	7.35	1.5 ANNUAL	DPM_28	1	
WOR	582024.4	4203991	0	7.63	7.63	1.5 ANNUAL	DPM_28	1	
WOR	582044.3	4203991	0	7.52	7.52	1.5 ANNUAL	DPM_28	1	
RES	581389.2	4204011	0	10.76	10.76	1.5 ANNUAL	DPM_28	1	
RES	581409.1	4204011	0	9.83	9.83	1.5 ANNUAL	DPM_28	1	
RES	581428.9	4204011	0	8.49	8.49	1.5 ANNUAL	DPM_28	1	
RES	581448.8	4204011	0	8.42	8.42	1.5 ANNUAL	DPM_28	1	
RES	581468.6	4204011	0	8.61	8.61	1.5 ANNUAL	DPM_28	1	
RES	581488.5	4204011	0	8.85	8.85	1.5 ANNUAL	DPM_28	1	
RES	581508.3	4204011	0	8.81	8.81	1.5 ANNUAL	DPM_28	1	
RES	581528.2	4204011	0	9.07	9.07	1.5 ANNUAL	DPM_28	1	
RES	581548	4204011	0	9.1	9.1	1.5 ANNUAL	DPM_28	1	
RES	581567.9	4204011	0	8.67	8.67	1.5 ANNUAL	DPM_28	1	
RES	581587.7	4204011	0	8.19	8.19	1.5 ANNUAL	DPM_28	1	
RES	581607.6	4204011	0	7.71	7.71	1.5 ANNUAL	DPM_28	1	
RES	581627.4	4204011	0	8.2	8.2	1.5 ANNUAL	DPM_28	1	
RES	581647.3	4204011	0	8.21	8.21	1.5 ANNUAL	DPM_28	1	
RES	581667.1	4204011	0	7.72	7.72	1.5 ANNUAL	DPM_28	1	
RES	581687	4204011	0	7.75	7.75	1.5 ANNUAL	DPM_28	1	
RES	581706.8	4204011	0	8.2	8.2	1.5 ANNUAL	DPM_28	1	
RES	581726.7	4204011	0	7.64	7.64	1.5 ANNUAL	DPM_28	1	
RES	581746.5	4204011	0	6.81	6.81	1.5 ANNUAL	DPM_28	1	
WOR	581845.8	4204011	0	6.88	6.88	1.5 ANNUAL	DPM_28	1	
WOR	581865.6	4204011	0	7.09	7.09	1.5 ANNUAL	DPM_28	1	
WOR	581885.5	4204011	0	7.08	7.08	1.5 ANNUAL	DPM_28	1	
WOR	581905.3	4204011	0	7.06	7.06	1.5 ANNUAL	DPM_28	1	
WOR	582004.6	4204011	0	7.45	7.45	1.5 ANNUAL	DPM_28	1	
WOR	582024.4	4204011	0	7.54	7.54	1.5 ANNUAL	DPM_28	1	
WOR	582044.3	4204011	0	7.58	7.58	1.5 ANNUAL	DPM_28	1	
RES	581389.2	4204030	0	10.28	10.28	1.5 ANNUAL	DPM_28	1	

RES	581409.1	4204030	0	9.25	9.25	1.5 ANNUAL	DPM_28	1
RES	581428.9	4204030	0	8.41	8.41	1.5 ANNUAL	DPM_28	1
RES	581448.8	4204030	0	8.32	8.32	1.5 ANNUAL	DPM_28	1
RES	581468.6	4204030	0	8.1	8.1	1.5 ANNUAL	DPM_28	1
RES	581488.5	4204030	0	8.33	8.33	1.5 ANNUAL	DPM_28	1
RES	581508.3	4204030	0	8.53	8.53	1.5 ANNUAL	DPM_28	1
RES	581528.2	4204030	0	8.63	8.63	1.5 ANNUAL	DPM_28	1
RES	581548	4204030	0	8.55	8.55	1.5 ANNUAL	DPM_28	1
RES	581567.9	4204030	0	8.43	8.43	1.5 ANNUAL	DPM_28	1
RES	581587.7	4204030	0	8.16	8.16	1.5 ANNUAL	DPM_28	1
RES	581627.4	4204030	0	8.26	8.26	1.5 ANNUAL	DPM_28	1
RES	581647.3	4204030	0	8.24	8.24	1.5 ANNUAL	DPM_28	1
RES	581667.1	4204030	0	7.75	7.75	1.5 ANNUAL	DPM_28	1
RES	581687	4204030	0	7.58	7.58	1.5 ANNUAL	DPM_28	1
RES	581706.8	4204030	0	7.98	7.98	1.5 ANNUAL	DPM_28	1
RES	581726.7	4204030	0	7.98	7.98	1.5 ANNUAL	DPM_28	1
RES	581746.5	4204030	0	6.98	7.33	1.5 ANNUAL	DPM_28	1
WOR	581845.8	4204030	0	6.63	6.63	1.5 ANNUAL	DPM_28	1
WOR	581865.6	4204030	0	6.8	6.8	1.5 ANNUAL	DPM_28	1
WOR	581885.5	4204030	0	6.92	6.92	1.5 ANNUAL	DPM_28	1
WOR	581905.3	4204030	0	6.97	6.97	1.5 ANNUAL	DPM_28	1
WOR	582004.6	4204030	0	7.63	7.63	1.5 ANNUAL	DPM_28	1
WOR	582024.4	4204030	0	7.68	7.68	1.5 ANNUAL	DPM_28	1
RES	581389.2	4204050	0	9.84	9.84	1.5 ANNUAL	DPM_28	1
RES	581409.1	4204050	0	9	9	1.5 ANNUAL	DPM_28	1
RES	581428.9	4204050	0	8.69	8.69	1.5 ANNUAL	DPM_28	1
RES	581448.8	4204050	0	8.36	8.36	1.5 ANNUAL	DPM_28	1
RES	581488.5	4204050	0	7.98	7.98	1.5 ANNUAL	DPM_28	1
RES	581567.9	4204050	0	7.75	7.75	1.5 ANNUAL	DPM_28	1
RES	581587.7	4204050	0	7.69	7.69	1.5 ANNUAL	DPM_28	1
RES	581627.4	4204050	0	8.12	8.12	1.5 ANNUAL	DPM_28	1
RES	581647.3	4204050	0	8.13	8.13	1.5 ANNUAL	DPM_28	1
RES	581667.1	4204050	0	7.72	7.72	1.5 ANNUAL	DPM_28	1
RES	581687	4204050	0	7.5	7.5	1.5 ANNUAL	DPM_28	1
RES	581706.8	4204050	0	8.14	8.14	1.5 ANNUAL	DPM_28	1
RES	581726.7	4204050	0	8.04	8.04	1.5 ANNUAL	DPM_28	1
WOR	581825.9	4204050	0	6.74	6.74	1.5 ANNUAL	DPM_28	1
WOR	581845.8	4204050	0	6.79	6.79	1.5 ANNUAL	DPM_28	1
WOR	581865.6	4204050	0	6.58	6.58	1.5 ANNUAL	DPM_28	1
WOR	581885.5	4204050	0	6.78	6.78	1.5 ANNUAL	DPM_28	1
WOR	581905.3	4204050	0	6.92	6.92	1.5 ANNUAL	DPM_28	1
WOR	582004.6	4204050	0	7.66	7.66	1.5 ANNUAL	DPM_28	1
WOR	582024.4	4204050	0	7.6	7.6	1.5 ANNUAL	DPM_28	1
RES	581389.2	4204070	0	8.77	8.77	1.5 ANNUAL	DPM_28	1
RES	581409.1	4204070	0	9.01	9.01	1.5 ANNUAL	DPM_28	1
RES	581428.9	4204070	0	9.09	9.09	1.5 ANNUAL	DPM_28	1
RES	581448.8	4204070	0	8.79	8.79	1.5 ANNUAL	DPM_28	1
RES	581488.5	4204070	0	8.4	8.4	1.5 ANNUAL	DPM_28	1
RES	581508.3	4204070	0	8.72	8.72	1.5 ANNUAL	DPM_28	1
RES	581528.2	4204070	0	8.63	8.63	1.5 ANNUAL	DPM_28	1

RES	581548	4204070	0	8.5	8.5	1.5 ANNUAL	DPM_28	1
RES	581567.9	4204070	0	8.19	8.19	1.5 ANNUAL	DPM_28	1
RES	581587.7	4204070	0	7.73	7.73	1.5 ANNUAL	DPM_28	1
RES	581627.4	4204070	0	7.77	7.77	1.5 ANNUAL	DPM_28	1
RES	581647.3	4204070	0	7.87	7.87	1.5 ANNUAL	DPM_28	1
RES	581667.1	4204070	0	7.69	7.69	1.5 ANNUAL	DPM_28	1
RES	581687	4204070	0	7.18	7.18	1.5 ANNUAL	DPM_28	1
RES	581706.8	4204070	0	7.79	7.79	1.5 ANNUAL	DPM_28	1
RES	581726.7	4204070	0	7.85	7.85	1.5 ANNUAL	DPM_28	1
WOR	581806.1	4204070	0	6.83	6.83	1.5 ANNUAL	DPM_28	1
WOR	581825.9	4204070	0	6.88	6.88	1.5 ANNUAL	DPM_28	1
WOR	581845.8	4204070	0	6.84	6.84	1.5 ANNUAL	DPM_28	1
WOR	581865.6	4204070	0	6.79	6.79	1.5 ANNUAL	DPM_28	1
WOR	581885.5	4204070	0	6.83	6.83	1.5 ANNUAL	DPM_28	1
WOR	581905.3	4204070	0	6.91	6.91	1.5 ANNUAL	DPM_28	1
WOR	582004.6	4204070	0	7.6	7.6	1.5 ANNUAL	DPM_28	1
WOR	582024.4	4204070	0	7.4	7.4	1.5 ANNUAL	DPM_28	1
WOR	582103.8	4204070	0	6.92	6.92	1.5 ANNUAL	DPM_28	1
RES	581389.2	4204090	0	8.25	8.25	1.5 ANNUAL	DPM_28	1
RES	581409.1	4204090	0	8.86	8.86	1.5 ANNUAL	DPM_28	1
RES	581428.9	4204090	0	8.89	8.89	1.5 ANNUAL	DPM_28	1
RES	581448.8	4204090	0	8.55	8.55	1.5 ANNUAL	DPM_28	1
RES	581468.6	4204090	0	7.88	7.88	1.5 ANNUAL	DPM_28	1
RES	581488.5	4204090	0	8.62	8.62	1.5 ANNUAL	DPM_28	1
RES	581508.3	4204090	0	8.12	8.12	1.5 ANNUAL	DPM_28	1
RES	581528.2	4204090	0	7.71	7.71	1.5 ANNUAL	DPM_28	1
RES	581548	4204090	0	7.92	7.92	1.5 ANNUAL	DPM_28	1
RES	581567.9	4204090	0	8.02	8.02	1.5 ANNUAL	DPM_28	1
RES	581587.7	4204090	0	7.72	7.72	1.5 ANNUAL	DPM_28	1
RES	581607.6	4204090	0	6.94	6.94	1.5 ANNUAL	DPM_28	1
RES	581627.4	4204090	0	7.72	7.72	1.5 ANNUAL	DPM_28	1
RES	581647.3	4204090	0	7.93	7.93	1.5 ANNUAL	DPM_28	1
RES	581667.1	4204090	0	7.89	7.89	1.5 ANNUAL	DPM_28	1
RES	581687	4204090	0	7.77	7.77	1.5 ANNUAL	DPM_28	1
RES	581706.8	4204090	0	8.07	8.07	1.5 ANNUAL	DPM_28	1
RES	581726.7	4204090	0	7.27	7.27	1.5 ANNUAL	DPM_28	1
WOR	581786.2	4204090	0	6.72	6.72	1.5 ANNUAL	DPM_28	1
WOR	581806.1	4204090	0	6.88	6.88	1.5 ANNUAL	DPM_28	1
WOR	582024.4	4204090	0	7.39	7.39	1.5 ANNUAL	DPM_28	1
WOR	582084	4204090	0	7.24	7.24	1.5 ANNUAL	DPM_28	1
WOR	582103.8	4204090	0	7.01	7.01	1.5 ANNUAL	DPM_28	1
RES	581389.2	4204110	0	8.05	8.05	1.5 ANNUAL	DPM_28	1
RES	581409.1	4204110	0	8.66	8.66	1.5 ANNUAL	DPM_28	1
RES	581428.9	4204110	0	8.65	8.65	1.5 ANNUAL	DPM_28	1
RES	581448.8	4204110	0	8.27	8.27	1.5 ANNUAL	DPM_28	1
RES	581468.6	4204110	0	7.73	7.73	1.5 ANNUAL	DPM_28	1
RES	581488.5	4204110	0	8.56	8.56	1.5 ANNUAL	DPM_28	1
RES	581508.3	4204110	0	7.79	7.79	1.5 ANNUAL	DPM_28	1
SCH	581528.2	4204110	0	7.26	7.26	1.5 ANNUAL	DPM_28	1
SCH	581548	4204110	0	6.82	6.82	1.5 ANNUAL	DPM_28	1

SCH	581567.9	4204110	0	6.73	6.73	1.5 ANNUAL	DPM_28	1
SCH	581584	4204105	0	6.88	6.88	1.5 ANNUAL	DPM_28	1
RES	581607.6	4204110	0	7.03	7.03	1.5 ANNUAL	DPM_28	1
RES	581627.4	4204110	0	7.45	7.45	1.5 ANNUAL	DPM_28	1
RES	581647.3	4204110	0	7.45	7.45	1.5 ANNUAL	DPM_28	1
RES	581667.1	4204110	0	7.53	7.53	1.5 ANNUAL	DPM_28	1
RES	581687	4204110	0	7.63	7.63	1.5 ANNUAL	DPM_28	1
RES	581706.8	4204110	0	7.77	7.77	1.5 ANNUAL	DPM_28	1
RES	581726.7	4204110	0	5.89	8.08	1.5 ANNUAL	DPM_28	1
WOR	581786.2	4204110	0	6.63	6.63	1.5 ANNUAL	DPM_28	1
WOR	581806.1	4204110	0	6.87	6.87	1.5 ANNUAL	DPM_28	1
WOR	581984.7	4204110	0	7.55	7.55	1.5 ANNUAL	DPM_28	1
WOR	582004.6	4204110	0	7.55	7.55	1.5 ANNUAL	DPM_28	1
WOR	582024.4	4204110	0	7.51	7.51	1.5 ANNUAL	DPM_28	1
WOR	582084	4204110	0	6.99	6.99	1.5 ANNUAL	DPM_28	1
WOR	582103.8	4204110	0	6.99	6.99	1.5 ANNUAL	DPM_28	1
RES	581389.2	4204130	0	7.83	7.83	1.5 ANNUAL	DPM_28	1
RES	581409.1	4204130	0	8.02	8.02	1.5 ANNUAL	DPM_28	1
RES	581428.9	4204130	0	8.15	8.15	1.5 ANNUAL	DPM_28	1
RES	581448.8	4204130	0	7.85	7.85	1.5 ANNUAL	DPM_28	1
RES	581468.6	4204130	0	7.53	7.53	1.5 ANNUAL	DPM_28	1
RES	581488.5	4204130	0	8.14	8.14	1.5 ANNUAL	DPM_28	1
RES	581508.3	4204130	0	8.19	8.19	1.5 ANNUAL	DPM_28	1
SCH	581528.2	4204130	0	7.36	7.36	1.5 ANNUAL	DPM_28	1
SCH	581548	4204130	0	6.92	6.92	1.5 ANNUAL	DPM_28	1
SCH	581567.9	4204130	0	6.9	6.9	1.5 ANNUAL	DPM_28	1
SCH	581584	4204125	0	6.71	6.71	1.5 ANNUAL	DPM_28	1
RES	581607.6	4204130	0	7.26	7.26	1.5 ANNUAL	DPM_28	1
RES	581627.4	4204130	0	7.58	7.58	1.5 ANNUAL	DPM_28	1
RES	581647.3	4204130	0	7.62	7.62	1.5 ANNUAL	DPM_28	1
RES	581662.4	4204126	0	7.1	7.1	1.5 ANNUAL	DPM_28	1
RES	581687	4204130	0	7	7	1.5 ANNUAL	DPM_28	1
RES	581706.8	4204130	0	7.24	7.24	1.5 ANNUAL	DPM_28	1
WOR	581766.4	4204130	0	6.34	6.34	1.5 ANNUAL	DPM_28	1
WOR	581786.2	4204130	0	6.48	6.48	1.5 ANNUAL	DPM_28	1
WOR	581806.1	4204130	0	6.85	6.85	1.5 ANNUAL	DPM_28	1
WOR	581885.5	4204130	0	6.71	6.71	1.5 ANNUAL	DPM_28	1
WOR	581905.3	4204130	0	6.94	6.94	1.5 ANNUAL	DPM_28	1
WOR	581984.7	4204130	0	7.54	7.54	1.5 ANNUAL	DPM_28	1
WOR	582004.6	4204130	0	7.65	7.65	1.5 ANNUAL	DPM_28	1
WOR	582024.4	4204130	0	7.7	7.7	1.5 ANNUAL	DPM_28	1
WOR	582084	4204130	0	6.9	6.9	1.5 ANNUAL	DPM_28	1
WOR	582103.8	4204130	0	7.01	7.01	1.5 ANNUAL	DPM_28	1
RES	581389.2	4204150	0	7.96	7.96	1.5 ANNUAL	DPM_28	1
RES	581488.5	4204150	0	7.57	7.57	1.5 ANNUAL	DPM_28	1
RES	581508.3	4204150	0	7.98	7.98	1.5 ANNUAL	DPM_28	1
SCH	581528.2	4204150	0	7.98	7.98	1.5 ANNUAL	DPM_28	1
SCH	581548	4204150	0	8.17	8.17	1.5 ANNUAL	DPM_28	1
SCH	581567.9	4204150	0	8.22	8.22	1.5 ANNUAL	DPM_28	1
RES	581607.6	4204150	0	7.6	7.6	1.5 ANNUAL	DPM_28	1

RES	581627.4	4204150	0	7.7	7.7	1.5 ANNUAL	DPM_28	1
RES	581647.3	4204150	0	7.49	7.49	1.5 ANNUAL	DPM_28	1
RES	581687	4204150	0	6.81	6.81	1.5 ANNUAL	DPM_28	1
RES	581706.8	4204150	0	7.17	7.17	1.5 ANNUAL	DPM_28	1
WOR	581766.4	4204150	0	6.19	6.19	1.5 ANNUAL	DPM_28	1
WOR	581786.2	4204150	0	6.3	6.3	1.5 ANNUAL	DPM_28	1
WOR	581806.1	4204150	0	6.84	6.84	1.5 ANNUAL	DPM_28	1
WOR	581825.9	4204150	0	6.81	6.81	1.5 ANNUAL	DPM_28	1
WOR	581885.5	4204150	0	6.67	6.67	1.5 ANNUAL	DPM_28	1
WOR	581905.3	4204150	0	6.68	6.68	1.5 ANNUAL	DPM_28	1
WOR	582084	4204150	0	6.92	6.92	1.5 ANNUAL	DPM_28	1
WOR	582103.8	4204150	0	7.15	7.15	1.5 ANNUAL	DPM_28	1
RES	581389.2	4204169	0	8.59	8.59	1.5 ANNUAL	DPM_28	1
RES	581409.1	4204169	0	8.21	8.21	1.5 ANNUAL	DPM_28	1
RES	581428.9	4204169	0	7.96	7.96	1.5 ANNUAL	DPM_28	1
RES	581448.8	4204169	0	7.83	7.83	1.5 ANNUAL	DPM_28	1
RES	581468.6	4204169	0	7.73	7.73	1.5 ANNUAL	DPM_28	1
RES	581488.5	4204169	0	7.77	7.77	1.5 ANNUAL	DPM_28	1
RES	581528.8	4204174	0	8.82	8.82	1.5 ANNUAL	DPM_28	1
RES	581607.6	4204167	0	7.74	7.74	1.5 ANNUAL	DPM_28	1
RES	581627.4	4204167	0	7.63	7.63	1.5 ANNUAL	DPM_28	1
RES	581647.3	4204167	0	7.48	7.48	1.5 ANNUAL	DPM_28	1
RES	581670	4204170	0	7	7	1.5 ANNUAL	DPM_28	1
RES	581687	4204169	0	7.05	7.05	1.5 ANNUAL	DPM_28	1
RES	581706.8	4204169	0	7.05	7.05	1.5 ANNUAL	DPM_28	1
WOR	581766.4	4204169	0	6.28	6.28	1.5 ANNUAL	DPM_28	1
WOR	581786.2	4204169	0	6.21	6.21	1.5 ANNUAL	DPM_28	1
WOR	581806.1	4204169	1.00E-05	6.63	6.63	1.5 ANNUAL	DPM_28	1
WOR	581825.9	4204169	0	6.7	6.7	1.5 ANNUAL	DPM_28	1
WOR	581885.5	4204169	0	6.53	6.53	1.5 ANNUAL	DPM_28	1
WOR	581905.3	4204169	0	6.5	6.5	1.5 ANNUAL	DPM_28	1
WOR	581945	4204169	0	6.82	6.82	1.5 ANNUAL	DPM_28	1
WOR	581964.9	4204169	0	6.95	6.95	1.5 ANNUAL	DPM_28	1
WOR	581984.7	4204169	0	7.13	7.13	1.5 ANNUAL	DPM_28	1
WOR	582004.6	4204169	0	7.23	7.23	1.5 ANNUAL	DPM_28	1
WOR	582084	4204169	0	6.93	6.93	1.5 ANNUAL	DPM_28	1
WOR	582103.8	4204169	0	7.02	7.02	1.5 ANNUAL	DPM_28	1
RES	581389.2	4204189	0	9.54	9.54	1.5 ANNUAL	DPM_28	1
RES	581409.1	4204189	0	9.27	9.27	1.5 ANNUAL	DPM_28	1
RES	581428.9	4204189	0	9.03	9.03	1.5 ANNUAL	DPM_28	1
RES	581448.8	4204189	0	8.81	8.81	1.5 ANNUAL	DPM_28	1
RES	581468.6	4204189	0	8.75	8.75	1.5 ANNUAL	DPM_28	1
RES	581488.5	4204189	0	8.73	8.73	1.5 ANNUAL	DPM_28	1
RES	581528.2	4204189	0	8.72	8.72	1.5 ANNUAL	DPM_28	1
RES	581548	4204189	0	9.53	10.33	1.5 ANNUAL	DPM_28	1
RES	581567.9	4204189	0	9.84	9.84	1.5 ANNUAL	DPM_28	1
RES	581587.7	4204189	0	8.92	8.92	1.5 ANNUAL	DPM_28	1
RES	581607.6	4204189	0	8.63	8.63	1.5 ANNUAL	DPM_28	1
RES	581627.4	4204189	0	8.48	8.48	1.5 ANNUAL	DPM_28	1
RES	581647.3	4204189	0	8.09	8.09	1.5 ANNUAL	DPM_28	1

WOR	581766.4	4204189	1.00E-05	5.62	5.62	1.5 ANNUAL	DPM_28	1
WOR	581786.2	4204189	1.00E-05	6.12	6.12	1.5 ANNUAL	DPM_28	1
WOR	581806.1	4204189	1.00E-05	6.18	6.18	1.5 ANNUAL	DPM_28	1
WOR	581865.6	4204189	0	6.18	6.18	1.5 ANNUAL	DPM_28	1
WOR	581885.5	4204189	0	6.3	6.3	1.5 ANNUAL	DPM_28	1
WOR	581945	4204189	0	6.61	6.61	1.5 ANNUAL	DPM_28	1
WOR	581964.9	4204189	0	6.78	6.78	1.5 ANNUAL	DPM_28	1
WOR	581984.7	4204189	0	7.03	7.03	1.5 ANNUAL	DPM_28	1
WOR	582004.6	4204189	0	7.32	9.81	1.5 ANNUAL	DPM_28	1
WOR	582084	4204189	0	6.95	6.95	1.5 ANNUAL	DPM_28	1
WOR	582103.8	4204189	0	7.04	7.04	1.5 ANNUAL	DPM_28	1
RES	581389.2	4204209	0	9.22	9.22	1.5 ANNUAL	DPM_28	1
RES	581409.1	4204209	0	9.04	9.04	1.5 ANNUAL	DPM_28	1
RES	581428.9	4204209	0	8.93	8.93	1.5 ANNUAL	DPM_28	1
RES	581448.8	4204209	0	8.87	8.87	1.5 ANNUAL	DPM_28	1
RES	581468.6	4204209	0	9.12	9.12	1.5 ANNUAL	DPM_28	1
RES	581488.5	4204209	0	9.4	9.4	1.5 ANNUAL	DPM_28	1
RES	581528.2	4204209	0	9.02	12.29	1.5 ANNUAL	DPM_28	1
RES	581548	4204209	0	10.81	11.71	1.5 ANNUAL	DPM_28	1
RES	581567.9	4204209	0	11	11	1.5 ANNUAL	DPM_28	1
RES	581587.7	4204209	0	10.26	10.26	1.5 ANNUAL	DPM_28	1
RES	581607.6	4204209	0	10.01	10.01	1.5 ANNUAL	DPM_28	1
RES	581627.4	4204209	0	10.25	10.25	1.5 ANNUAL	DPM_28	1
RES	581647.3	4204209	0	9.61	10.32	1.5 ANNUAL	DPM_28	1
RES	581667.1	4204209	0	7.56	12.69	1.5 ANNUAL	DPM_28	1
RES	581687	4204209	1.00E-05	6.53	12.31	1.5 ANNUAL	DPM_28	1
RES	581706.8	4204209	1.00E-05	6.41	6.41	1.5 ANNUAL	DPM_28	1
WOR	581865.6	4204209	1.00E-05	6.29	6.29	1.5 ANNUAL	DPM_28	1
WOR	581885.5	4204209	0	6.75	6.75	1.5 ANNUAL	DPM_28	1
WOR	582084	4204209	0	6.92	6.92	1.5 ANNUAL	DPM_28	1
WOR	582103.8	4204209	0	7.01	7.01	1.5 ANNUAL	DPM_28	1
RES	581389.2	4204229	0	9.55	9.55	1.5 ANNUAL	DPM_28	1
RES	581409.1	4204229	0	9.3	9.3	1.5 ANNUAL	DPM_28	1
RES	581428.9	4204229	0	9	9	1.5 ANNUAL	DPM_28	1
RES	581448.8	4204229	0	8.9	8.9	1.5 ANNUAL	DPM_28	1
RES	581468.6	4204229	0	9.04	9.04	1.5 ANNUAL	DPM_28	1
RES	581508.3	4204229	0	9.37	9.37	1.5 ANNUAL	DPM_28	1
RES	581528.2	4204229	0	9.68	12.88	1.5 ANNUAL	DPM_28	1
RES	581548	4204229	0	12.07	12.07	1.5 ANNUAL	DPM_28	1
RES	581567.9	4204229	0	11.93	11.93	1.5 ANNUAL	DPM_28	1
RES	581587.7	4204229	0	11.71	11.71	1.5 ANNUAL	DPM_28	1
RES	581607.6	4204229	0	11.63	11.63	1.5 ANNUAL	DPM_28	1
RES	581627.4	4204229	0	11.82	11.82	1.5 ANNUAL	DPM_28	1
RES	581647.3	4204229	0	11.1	11.78	1.5 ANNUAL	DPM_28	1
RES	581667.1	4204229	1.00E-05	9.11	12.69	1.5 ANNUAL	DPM_28	1
RES	581687	4204229	1.00E-05	7.5	12.31	1.5 ANNUAL	DPM_28	1
RES	581706.8	4204229	1.00E-05	6.63	6.63	1.5 ANNUAL	DPM_28	1
WOR	581865.6	4204229	1.00E-05	6.27	6.27	1.5 ANNUAL	DPM_28	1
WOR	581885.5	4204229	1.00E-05	6.67	6.67	1.5 ANNUAL	DPM_28	1
WOR	581943.7	4204234	0	6.57	6.57	1.5 ANNUAL	DPM_28	1

WOR	581963.5	4204234	0	6.54	6.54	1.5 ANNUAL	DPM_28	1
RES	581389.2	4204249	0	10.31	10.31	1.5 ANNUAL	DPM_28	1
RES	581409.1	4204249	0	9.97	9.97	1.5 ANNUAL	DPM_28	1
RES	581428.9	4204249	0	9.57	9.57	1.5 ANNUAL	DPM_28	1
RES	581448.8	4204249	0	9.75	11.62	1.5 ANNUAL	DPM_28	1
RES	581468.6	4204249	0	9.86	12.45	1.5 ANNUAL	DPM_28	1
RES	581488.5	4204249	0	9.99	11.61	1.5 ANNUAL	DPM_28	1
RES	581508.3	4204249	0	10.48	10.48	1.5 ANNUAL	DPM_28	1
RES	581528.2	4204249	0	10.77	12.88	1.5 ANNUAL	DPM_28	1
RES	581548	4204249	0	12.81	12.81	1.5 ANNUAL	DPM_28	1
RES	581587.7	4204249	0	12.75	12.75	1.5 ANNUAL	DPM_28	1
RES	581607.6	4204249	0	12.91	12.91	1.5 ANNUAL	DPM_28	1
RES	581627.4	4204249	0	12.92	12.92	1.5 ANNUAL	DPM_28	1
RES	581647.3	4204249	0	12.08	12.08	1.5 ANNUAL	DPM_28	1
RES	581667.1	4204249	1.00E-05	10.41	10.41	1.5 ANNUAL	DPM_28	1
RES	581687	4204249	1.00E-05	8.64	8.64	1.5 ANNUAL	DPM_28	1
RES	581706.8	4204249	1.00E-05	7.07	7.07	1.5 ANNUAL	DPM_28	1
RES	581746.5	4204249	2.00E-05	6.4	6.4	1.5 ANNUAL	DPM_28	1
WOR	581865.6	4204249	1.00E-05	6.3	6.3	1.5 ANNUAL	DPM_28	1
WOR	581885.5	4204249	1.00E-05	6.65	6.65	1.5 ANNUAL	DPM_28	1
WOR	581930	4204253	0	6.61	6.61	1.5 ANNUAL	DPM_28	1
WOR	582084	4204249	0	6.57	10.9	1.5 ANNUAL	DPM_28	1
WOR	582103.8	4204249	0	6.7	6.7	1.5 ANNUAL	DPM_28	1
RES	581389.2	4204269	0	10.94	10.94	1.5 ANNUAL	DPM_28	1
RES	581409.1	4204269	0	10.64	10.64	1.5 ANNUAL	DPM_28	1
RES	581428.9	4204269	0	10.73	10.73	1.5 ANNUAL	DPM_28	1
RES	581448.8	4204269	0	11.59	11.59	1.5 ANNUAL	DPM_28	1
RES	581468.6	4204269	0	12.03	12.03	1.5 ANNUAL	DPM_28	1
RES	581488.5	4204269	0	11.98	11.98	1.5 ANNUAL	DPM_28	1
RES	581508.3	4204269	0	11.98	12.82	1.5 ANNUAL	DPM_28	1
RES	581528.2	4204269	0	12.24	12.24	1.5 ANNUAL	DPM_28	1
RES	581548	4204269	0	12.64	12.64	1.5 ANNUAL	DPM_28	1
RES	581587.7	4204269	0	12.55	12.55	1.5 ANNUAL	DPM_28	1
RES	581607.6	4204269	0	12.49	12.49	1.5 ANNUAL	DPM_28	1
RES	581627.4	4204269	0	12.53	12.53	1.5 ANNUAL	DPM_28	1
RES	581667.1	4204269	1.00E-05	10.28	10.28	1.5 ANNUAL	DPM_28	1
RES	581687	4204269	1.00E-05	8.73	8.73	1.5 ANNUAL	DPM_28	1
RES	581706.8	4204269	2.00E-05	7.35	7.35	1.5 ANNUAL	DPM_28	1
RES	581726.7	4204269	2.00E-05	6.27	6.27	1.5 ANNUAL	DPM_28	1
RES	581746.5	4204269	2.00E-05	6.3	6.3	1.5 ANNUAL	DPM_28	1
WOR	581925.2	4204269	0	6.6	6.6	1.5 ANNUAL	DPM_28	1
WOR	581945	4204269	0	6.65	6.65	1.5 ANNUAL	DPM_28	1
WOR	581964.9	4204269	0	6.52	11.12	1.5 ANNUAL	DPM_28	1
WOR	582084	4204269	0	6.43	10.93	1.5 ANNUAL	DPM_28	1
WOR	582103.8	4204269	0	6.57	6.57	1.5 ANNUAL	DPM_28	1
RES	581389.2	4204288	0	11.99	14.36	1.5 ANNUAL	DPM_28	1
RES	581409.1	4204288	0	11.52	13.42	1.5 ANNUAL	DPM_28	1
RES	581428.9	4204288	0	11.68	11.68	1.5 ANNUAL	DPM_28	1
RES	581448.8	4204288	0	12.15	12.15	1.5 ANNUAL	DPM_28	1
RES	581468.6	4204288	0	13.16	13.16	1.5 ANNUAL	DPM_28	1

RES	581484.9	4204289	0	13.25	13.25	1.5 ANNUAL	DPM_28	1
RES	581508.3	4204288	0	13.48	13.48	1.5 ANNUAL	DPM_28	1
RES	581528.2	4204288	0	13.39	13.39	1.5 ANNUAL	DPM_28	1
RES	581548	4204288	0	12.02	12.02	1.5 ANNUAL	DPM_28	1
RES	581587.7	4204288	0	11.32	11.32	1.5 ANNUAL	DPM_28	1
RES	581607.6	4204288	0	10.97	10.97	1.5 ANNUAL	DPM_28	1
RES	581627.4	4204288	0	11.27	11.27	1.5 ANNUAL	DPM_28	1
RES	581647.3	4204288	1.00E-05	10.87	10.87	1.5 ANNUAL	DPM_28	1
RES	581667.1	4204288	1.00E-05	9.73	9.73	1.5 ANNUAL	DPM_28	1
RES	581687	4204288	2.00E-05	8.06	8.06	1.5 ANNUAL	DPM_28	1
RES	581706.8	4204288	2.00E-05	6.72	6.72	1.5 ANNUAL	DPM_28	1
RES	581726.7	4204288	3.00E-05	6.05	6.05	1.5 ANNUAL	DPM_28	1
RES	581746.5	4204288	4.00E-05	6.11	6.11	1.5 ANNUAL	DPM_28	1
RES	581766.4	4204288	4.00E-05	6.13	6.13	1.5 ANNUAL	DPM_28	1
WOR	581925.2	4204288	0	6.57	6.57	1.5 ANNUAL	DPM_28	1
WOR	581945	4204288	0	6.56	6.56	1.5 ANNUAL	DPM_28	1
WOR	581964.9	4204288	0	6.43	11.63	1.5 ANNUAL	DPM_28	1
WOR	582084	4204288	0	6.39	10.91	1.5 ANNUAL	DPM_28	1
WOR	582103.8	4204288	0	6.44	6.44	1.5 ANNUAL	DPM_28	1
RES	581389.2	4204308	0	13.9	13.9	1.5 ANNUAL	DPM_28	1
RES	581409.1	4204308	0	13.47	13.47	1.5 ANNUAL	DPM_28	1
RES	581428.9	4204308	0	13.11	13.11	1.5 ANNUAL	DPM_28	1
RES	581448.8	4204308	0	12.94	12.94	1.5 ANNUAL	DPM_28	1
RES	581468.6	4204308	0	13.47	13.47	1.5 ANNUAL	DPM_28	1
RES	581508.3	4204308	0	14.26	14.26	1.5 ANNUAL	DPM_28	1
RES	581528.2	4204308	0	13.37	14.42	1.5 ANNUAL	DPM_28	1
RES	581548	4204308	0	11.58	14.42	1.5 ANNUAL	DPM_28	1
RES	581570.8	4204309	0	11.02	11.02	1.5 ANNUAL	DPM_28	1
RES	581587.7	4204308	0	10.18	10.18	1.5 ANNUAL	DPM_28	1
RES	581607.6	4204308	0	9.55	9.55	1.5 ANNUAL	DPM_28	1
RES	581627.4	4204308	0	9.23	11.49	1.5 ANNUAL	DPM_28	1
RES	581652.1	4204313	1.00E-05	9.39	9.39	1.5 ANNUAL	DPM_28	1
RES	581672	4204313	1.00E-05	8.62	8.62	1.5 ANNUAL	DPM_28	1
RES	581726.7	4204308	7.00E-05	5.73	5.73	1.5 ANNUAL	DPM_28	1
RES	581746.5	4204308	8.00E-05	5.99	5.99	1.5 ANNUAL	DPM_28	1
RES	581766.4	4204308	7.00E-05	6.4	6.4	1.5 ANNUAL	DPM_28	1
WOR	581825.9	4204308	2.00E-05	6.56	6.56	1.5 ANNUAL	DPM_28	1
WOR	581845.8	4204308	1.00E-05	7.02	7.02	1.5 ANNUAL	DPM_28	1
WOR	582084	4204308	0	6.33	11.55	1.5 ANNUAL	DPM_28	1
WOR	582103.8	4204308	0	6.45	6.45	1.5 ANNUAL	DPM_28	1
RES	581389.2	4204328	0	14.57	14.57	1.5 ANNUAL	DPM_28	1
RES	581409.1	4204328	0	14.07	14.07	1.5 ANNUAL	DPM_28	1
RES	581428.9	4204328	0	13.74	13.74	1.5 ANNUAL	DPM_28	1
RES	581448.8	4204328	0	13.41	13.41	1.5 ANNUAL	DPM_28	1
RES	581468.6	4204328	0	13.24	13.24	1.5 ANNUAL	DPM_28	1
RES	581508.3	4204328	0	14.31	14.31	1.5 ANNUAL	DPM_28	1
RES	581528.2	4204328	0	12.9	14.47	1.5 ANNUAL	DPM_28	1
RES	581548	4204328	0	11.27	14.43	1.5 ANNUAL	DPM_28	1
RES	581570.8	4204329	0	10.9	10.9	1.5 ANNUAL	DPM_28	1
RES	581587.7	4204328	0	9.95	9.95	1.5 ANNUAL	DPM_28	1

RES	581607.6	4204328	0	8.46	8.46	1.5 ANNUAL	DPM_28	1
RES	581627.4	4204328	0	7.65	7.65	1.5 ANNUAL	DPM_28	1
RES	581647.3	4204328	1.00E-05	7.85	9.13	1.5 ANNUAL	DPM_28	1
RES	581667.1	4204328	1.00E-05	7.98	7.98	1.5 ANNUAL	DPM_28	1
RES	581687	4204328	2.00E-05	6.45	8.87	1.5 ANNUAL	DPM_28	1
WOR	581825.9	4204328	2.00E-05	6.27	6.27	1.5 ANNUAL	DPM_28	1
WOR	581845.8	4204328	1.00E-05	6.96	6.96	1.5 ANNUAL	DPM_28	1
WOR	582084	4204328	0	6.37	11.53	1.5 ANNUAL	DPM_28	1
WOR	582103.8	4204328	0	6.32	6.32	1.5 ANNUAL	DPM_28	1
RES	581389.2	4204348	0	14.78	14.78	1.5 ANNUAL	DPM_28	1
RES	581409.1	4204348	0	14.09	14.09	1.5 ANNUAL	DPM_28	1
RES	581428.9	4204348	0	13.78	13.78	1.5 ANNUAL	DPM_28	1
RES	581448.8	4204348	0	13.51	13.51	1.5 ANNUAL	DPM_28	1
RES	581468.6	4204348	0	12.86	12.86	1.5 ANNUAL	DPM_28	1
RES	581492.2	4204349	0	11.6	14.33	1.5 ANNUAL	DPM_28	1
RES	581508.3	4204348	0	12.66	14.16	1.5 ANNUAL	DPM_28	1
RES	581528.2	4204348	0	11.26	14.47	1.5 ANNUAL	DPM_28	1
RES	581548	4204348	0	10.62	14.43	1.5 ANNUAL	DPM_28	1
RES	581587.7	4204348	0	10	10	1.5 ANNUAL	DPM_28	1
RES	581607.6	4204348	0	8.49	8.49	1.5 ANNUAL	DPM_28	1
RES	581627.4	4204348	0	7.54	7.54	1.5 ANNUAL	DPM_28	1
RES	581647.3	4204348	0	7.4	7.4	1.5 ANNUAL	DPM_28	1
RES	581667.1	4204348	1.00E-05	7.43	7.43	1.5 ANNUAL	DPM_28	1
RES	581687	4204348	2.00E-05	6.94	6.94	1.5 ANNUAL	DPM_28	1
WOR	581825.9	4204348	2.00E-05	6.2	6.2	1.5 ANNUAL	DPM_28	1
WOR	581845.8	4204348	1.00E-05	6.63	6.63	1.5 ANNUAL	DPM_28	1
WOR	581925.2	4204348	0	6.13	6.13	1.5 ANNUAL	DPM_28	1
WOR	582103.8	4204348	0	6.25	6.25	1.5 ANNUAL	DPM_28	1
RES	581508.3	4204363	0	10.74	14.16	1.5 ANNUAL	DPM_28	1
RES	581528.2	4204363	0	10.07	14.47	1.5 ANNUAL	DPM_28	1
RES	581646.9	4204364	0	7.87	7.87	1.5 ANNUAL	DPM_28	1
RES	581666.8	4204364	1.00E-05	7.69	7.69	1.5 ANNUAL	DPM_28	1
RES	581686.6	4204364	1.00E-05	7.28	7.28	1.5 ANNUAL	DPM_28	1
WOR	581905.3	4204368	0	6.14	6.14	1.5 ANNUAL	DPM_28	1
WOR	581925.2	4204368	0	6.08	6.08	1.5 ANNUAL	DPM_28	1
WOR	582064.1	4204368	0	6.05	11.91	1.5 ANNUAL	DPM_28	1
WOR	582084	4204368	0	6.18	6.18	1.5 ANNUAL	DPM_28	1
WOR	582103.8	4204368	0	6.15	6.15	1.5 ANNUAL	DPM_28	1
RES	581387.6	4204391	0	14.8	14.8	1.5 ANNUAL	DPM_28	1
RES	581407.4	4204391	0	13.52	13.52	1.5 ANNUAL	DPM_28	1
RES	581427.3	4204391	0	11.79	12.48	1.5 ANNUAL	DPM_28	1
RES	581447.1	4204391	0	10.79	10.79	1.5 ANNUAL	DPM_28	1
RES	581465	4204392	0	10.41	10.41	1.5 ANNUAL	DPM_28	1
RES	581490.3	4204389	0	9.87	9.87	1.5 ANNUAL	DPM_28	1
RES	581506.7	4204391	0	9.64	9.64	1.5 ANNUAL	DPM_28	1
RES	581526.5	4204391	0	9.3	9.3	1.5 ANNUAL	DPM_28	1
WOR	581825.9	4204388	1.00E-05	6.01	6.01	1.5 ANNUAL	DPM_28	1
WOR	581845.8	4204388	1.00E-05	6.11	6.11	1.5 ANNUAL	DPM_28	1
WOR	581865.6	4204388	1.00E-05	6.04	6.04	1.5 ANNUAL	DPM_28	1
WOR	581912.6	4204393	0	6.19	6.19	1.5 ANNUAL	DPM_28	1

WOR	582064.1	4204388	0	6	11.83	1.5 ANNUAL	DPM_28	1
WOR	582084	4204388	0	6.06	6.06	1.5 ANNUAL	DPM_28	1
WOR	582103.8	4204388	0	6.01	6.01	1.5 ANNUAL	DPM_28	1
RES	581389.2	4204408	0	14.96	14.96	1.5 ANNUAL	DPM_28	1
RES	581409.1	4204408	0	13.32	13.32	1.5 ANNUAL	DPM_28	1
RES	581428.9	4204408	0	10.5	14.98	1.5 ANNUAL	DPM_28	1
RES	581448.8	4204408	0	10.1	10.1	1.5 ANNUAL	DPM_28	1
RES	581466.6	4204408	0	9.79	9.79	1.5 ANNUAL	DPM_28	1
RES	581492	4204405	0	8.69	8.69	1.5 ANNUAL	DPM_28	1
RES	581508.3	4204408	0	8.52	8.52	1.5 ANNUAL	DPM_28	1
RES	581528.2	4204408	0	8.2	8.2	1.5 ANNUAL	DPM_28	1
RES	581548	4204408	0	8.3	8.3	1.5 ANNUAL	DPM_28	1
RES	581567.9	4204408	0	9.43	9.43	1.5 ANNUAL	DPM_28	1
RES	581587.7	4204408	0	10.24	10.24	1.5 ANNUAL	DPM_28	1
RES	581607.6	4204408	0	9.77	9.77	1.5 ANNUAL	DPM_28	1
RES	581627.4	4204408	0	9.36	9.36	1.5 ANNUAL	DPM_28	1
RES	581647.3	4204408	0	9.23	9.23	1.5 ANNUAL	DPM_28	1
RES	581667.1	4204408	1.00E-05	9.54	9.78	1.5 ANNUAL	DPM_28	1
RES	581687	4204408	1.00E-05	9.8	9.8	1.5 ANNUAL	DPM_28	1
RES	581706.8	4204408	3.00E-05	9.23	9.23	1.5 ANNUAL	DPM_28	1
RES	581726.7	4204408	4.00E-05	8.29	8.29	1.5 ANNUAL	DPM_28	1
RES	581746.5	4204408	5.00E-05	6.46	8	1.5 ANNUAL	DPM_28	1
WOR	581825.9	4204408	1.00E-05	6.13	6.13	1.5 ANNUAL	DPM_28	1
WOR	581845.8	4204408	1.00E-05	6.27	6.27	1.5 ANNUAL	DPM_28	1
WOR	581865.6	4204408	1.00E-05	6.06	6.06	1.5 ANNUAL	DPM_28	1
WOR	581905.3	4204408	0	6.31	6.31	1.5 ANNUAL	DPM_28	1
WOR	581925.2	4204408	0	6.33	6.33	1.5 ANNUAL	DPM_28	1
WOR	581945	4204408	0	6.24	11.65	1.5 ANNUAL	DPM_28	1
RES	581389.2	4204427	0	14.03	14.03	1.5 ANNUAL	DPM_28	1
RES	581409.1	4204427	0	13.45	13.79	1.5 ANNUAL	DPM_28	1
RES	581428.9	4204427	0	10.3	15.5	1.5 ANNUAL	DPM_28	1
RES	581448.8	4204427	0	10.11	10.11	1.5 ANNUAL	DPM_28	1
RES	581466.6	4204428	0	9.61	10.08	1.5 ANNUAL	DPM_28	1
RES	581492	4204425	0	7.13	10.08	1.5 ANNUAL	DPM_28	1
RES	581508.3	4204427	0	6.67	6.67	1.5 ANNUAL	DPM_28	1
RES	581528.2	4204427	0	7.03	7.03	1.5 ANNUAL	DPM_28	1
RES	581548	4204427	0	7.33	7.33	1.5 ANNUAL	DPM_28	1
RES	581567.9	4204427	0	8.08	10.16	1.5 ANNUAL	DPM_28	1
RES	581587.7	4204427	0	9.22	10.16	1.5 ANNUAL	DPM_28	1
RES	581607.6	4204427	0	9.48	9.48	1.5 ANNUAL	DPM_28	1
RES	581627.4	4204427	0	9.33	9.33	1.5 ANNUAL	DPM_28	1
RES	581647.3	4204427	0	9.61	9.61	1.5 ANNUAL	DPM_28	1
RES	581667.1	4204427	1.00E-05	9.93	9.93	1.5 ANNUAL	DPM_28	1
RES	581687	4204427	1.00E-05	10.35	10.35	1.5 ANNUAL	DPM_28	1
RES	581706.8	4204427	2.00E-05	9.37	9.37	1.5 ANNUAL	DPM_28	1
WOR	581825.9	4204427	1.00E-05	6.3	6.3	1.5 ANNUAL	DPM_28	1
WOR	581845.8	4204427	1.00E-05	6.44	6.44	1.5 ANNUAL	DPM_28	1
WOR	581905.3	4204427	0	6.34	6.34	1.5 ANNUAL	DPM_28	1
WOR	581925.2	4204427	0	6.31	6.31	1.5 ANNUAL	DPM_28	1
WOR	581945	4204427	0	6.35	11.65	1.5 ANNUAL	DPM_28	1

WOR	582069.7	4204433	0	6.32	6.32	1.5 ANNUAL	DPM_28	1
RES	581389.2	4204447	0	14.34	14.34	1.5 ANNUAL	DPM_28	1
RES	581409.1	4204447	0	13.38	13.38	1.5 ANNUAL	DPM_28	1
RES	581428.9	4204447	0	10.43	15.61	1.5 ANNUAL	DPM_28	1
RES	581448.8	4204447	0	10.13	15.35	1.5 ANNUAL	DPM_28	1
RES	581466.6	4204448	0	9.67	9.67	1.5 ANNUAL	DPM_28	1
RES	581492	4204445	0	7.56	7.56	1.5 ANNUAL	DPM_28	1
RES	581508.3	4204447	0	7.34	7.34	1.5 ANNUAL	DPM_28	1
RES	581528.2	4204447	0	7.06	7.06	1.5 ANNUAL	DPM_28	1
RES	581548	4204447	0	7.27	7.27	1.5 ANNUAL	DPM_28	1
RES	581567.9	4204447	0	7.59	7.59	1.5 ANNUAL	DPM_28	1
RES	581587.7	4204447	0	7.86	7.86	1.5 ANNUAL	DPM_28	1
RES	581607.6	4204447	0	8.08	8.08	1.5 ANNUAL	DPM_28	1
RES	581627.4	4204447	0	8.25	8.25	1.5 ANNUAL	DPM_28	1
RES	581647.3	4204447	1.00E-05	9.05	9.05	1.5 ANNUAL	DPM_28	1
RES	581667.1	4204447	1.00E-05	9.2	9.2	1.5 ANNUAL	DPM_28	1
RES	581687	4204447	1.00E-05	8.84	8.84	1.5 ANNUAL	DPM_28	1
RES	581706.8	4204447	2.00E-05	8.29	8.29	1.5 ANNUAL	DPM_28	1
WOR	581825.9	4204447	1.00E-05	6.32	6.32	1.5 ANNUAL	DPM_28	1
WOR	581845.8	4204447	1.00E-05	6.23	6.23	1.5 ANNUAL	DPM_28	1
WOR	581905.3	4204447	0	6.22	6.22	1.5 ANNUAL	DPM_28	1
WOR	581925.2	4204447	0	6.35	6.35	1.5 ANNUAL	DPM_28	1
WOR	581945	4204447	0	6.29	11.65	1.5 ANNUAL	DPM_28	1
WOR	582064.1	4204447	0	6.41	6.41	1.5 ANNUAL	DPM_28	1
WOR	582084	4204447	0	6.51	6.51	1.5 ANNUAL	DPM_28	1
RES	581389.2	4204467	0	15.54	15.54	1.5 ANNUAL	DPM_28	1
RES	581409.1	4204467	0	14.89	15.35	1.5 ANNUAL	DPM_28	1
RES	581428.9	4204467	0	10.9	15.61	1.5 ANNUAL	DPM_28	1
RES	581448.8	4204467	0	10.09	15.5	1.5 ANNUAL	DPM_28	1
RES	581466.6	4204468	0	9.83	9.83	1.5 ANNUAL	DPM_28	1
RES	581492	4204465	0	8.1	8.1	1.5 ANNUAL	DPM_28	1
RES	581508.3	4204467	0	7.82	7.82	1.5 ANNUAL	DPM_28	1
RES	581528.2	4204467	0	7.43	7.43	1.5 ANNUAL	DPM_28	1
RES	581548	4204467	0	7.44	7.44	1.5 ANNUAL	DPM_28	1
RES	581567.9	4204467	0	7.47	7.47	1.5 ANNUAL	DPM_28	1
RES	581587.7	4204467	0	7.5	7.5	1.5 ANNUAL	DPM_28	1
RES	581601.1	4204461	0	7.79	7.79	1.5 ANNUAL	DPM_28	1
RES	581620.9	4204461	0	7.77	7.77	1.5 ANNUAL	DPM_28	1
RES	581648.5	4204463	1.00E-05	8.46	8.79	1.5 ANNUAL	DPM_28	1
RES	581667.1	4204467	1.00E-05	8.55	8.55	1.5 ANNUAL	DPM_28	1
RES	581687	4204467	1.00E-05	8.57	8.57	1.5 ANNUAL	DPM_28	1
WOR	581885.5	4204467	0	6.2	6.2	1.5 ANNUAL	DPM_28	1
WOR	581905.3	4204467	0	5.93	5.93	1.5 ANNUAL	DPM_28	1
WOR	581925.2	4204467	0	5.86	5.86	1.5 ANNUAL	DPM_28	1
WOR	581945	4204467	0	5.9	11.65	1.5 ANNUAL	DPM_28	1
WOR	582064.1	4204467	0	6.37	6.37	1.5 ANNUAL	DPM_28	1
WOR	582084	4204467	0	6.44	6.44	1.5 ANNUAL	DPM_28	1
RES	581389.2	4204487	0	13.84	14.7	1.5 ANNUAL	DPM_28	1
RES	581409.1	4204487	0	13.38	15.35	1.5 ANNUAL	DPM_28	1
RES	581428.9	4204487	0	11.93	15.35	1.5 ANNUAL	DPM_28	1

RES	581448.8	4204487	0	11.28	11.28	1.5 ANNUAL	DPM_28	1
RES	581466.6	4204487	0	10.26	10.26	1.5 ANNUAL	DPM_28	1
RES	581508.3	4204487	0	8.16	8.16	1.5 ANNUAL	DPM_28	1
RES	581528.2	4204487	0	7.51	7.51	1.5 ANNUAL	DPM_28	1
RES	581548	4204487	0	7.24	7.24	1.5 ANNUAL	DPM_28	1
RES	581567.9	4204487	0	7.1	7.1	1.5 ANNUAL	DPM_28	1
RES	581587.7	4204487	0	7.14	7.14	1.5 ANNUAL	DPM_28	1
RES	581601.1	4204480	0	7.23	7.23	1.5 ANNUAL	DPM_28	1
RES	581627.4	4204487	0	7.19	7.19	1.5 ANNUAL	DPM_28	1
RES	581647.3	4204487	1.00E-05	7.14	7.14	1.5 ANNUAL	DPM_28	1
RES	581667.1	4204487	1.00E-05	7.14	7.14	1.5 ANNUAL	DPM_28	1
RES	581687	4204487	1.00E-05	6.99	6.99	1.5 ANNUAL	DPM_28	1
RES	581706.8	4204487	1.00E-05	6.61	6.61	1.5 ANNUAL	DPM_28	1
WOR	581885.5	4204487	0	6.15	6.15	1.5 ANNUAL	DPM_28	1
WOR	581905.3	4204487	0	5.85	5.85	1.5 ANNUAL	DPM_28	1
WOR	581925.2	4204487	0	5.74	10.84	1.5 ANNUAL	DPM_28	1
WOR	581945	4204487	0	5.69	11.58	1.5 ANNUAL	DPM_28	1
WOR	582044.3	4204487	0	5.5	11.64	1.5 ANNUAL	DPM_28	1
WOR	582064.1	4204487	0	5.6	5.6	1.5 ANNUAL	DPM_28	1
WOR	582084	4204487	0	6.43	6.43	1.5 ANNUAL	DPM_28	1
RES	581389.2	4204507	0	13.19	13.19	1.5 ANNUAL	DPM_28	1
RES	581409.1	4204507	0	12.61	12.61	1.5 ANNUAL	DPM_28	1
RES	581428.9	4204507	0	11.94	11.94	1.5 ANNUAL	DPM_28	1
RES	581448.8	4204507	0	11.27	11.27	1.5 ANNUAL	DPM_28	1
RES	581466.6	4204507	0	10.28	10.28	1.5 ANNUAL	DPM_28	1
RES	581488.5	4204507	0	9.39	9.39	1.5 ANNUAL	DPM_28	1
RES	581508.3	4204507	0	9.6	9.6	1.5 ANNUAL	DPM_28	1
RES	581528.2	4204507	0	9.04	9.04	1.5 ANNUAL	DPM_28	1
RES	581548	4204507	0	8.33	8.33	1.5 ANNUAL	DPM_28	1
RES	581567.9	4204507	0	7.81	8.32	1.5 ANNUAL	DPM_28	1
RES	581587.7	4204507	0	7.32	7.32	1.5 ANNUAL	DPM_28	1
RES	581607.6	4204507	0	6.96	6.96	1.5 ANNUAL	DPM_28	1
RES	581627.4	4204507	0	6.99	6.99	1.5 ANNUAL	DPM_28	1
RES	581647.3	4204507	1.00E-05	7.03	7.03	1.5 ANNUAL	DPM_28	1
RES	581667.1	4204507	1.00E-05	7.09	7.09	1.5 ANNUAL	DPM_28	1
RES	581687	4204507	1.00E-05	7.01	7.01	1.5 ANNUAL	DPM_28	1
RES	581706.8	4204507	1.00E-05	6.64	6.64	1.5 ANNUAL	DPM_28	1
RES	581726.7	4204507	1.00E-05	6.18	6.18	1.5 ANNUAL	DPM_28	1
WOR	581885.5	4204507	0	6.05	6.05	1.5 ANNUAL	DPM_28	1
WOR	581905.3	4204507	0	5.82	5.82	1.5 ANNUAL	DPM_28	1
WOR	581925.2	4204507	0	5.69	10.84	1.5 ANNUAL	DPM_28	1
WOR	581945	4204507	0	5.64	11.4	1.5 ANNUAL	DPM_28	1
WOR	582044.3	4204507	0	5.41	11.4	1.5 ANNUAL	DPM_28	1
WOR	582064.1	4204507	0	5.46	5.46	1.5 ANNUAL	DPM_28	1
WOR	582084	4204507	0	6.41	6.41	1.5 ANNUAL	DPM_28	1
RES	581389.2	4204527	0	13.09	13.09	1.5 ANNUAL	DPM_28	1
RES	581409.1	4204527	0	12.35	12.35	1.5 ANNUAL	DPM_28	1
RES	581488.5	4204527	0	10.3	10.3	1.5 ANNUAL	DPM_28	1
RES	581508.3	4204527	0	10.58	10.58	1.5 ANNUAL	DPM_28	1
RES	581528.2	4204527	0	9.65	9.65	1.5 ANNUAL	DPM_28	1

RES	581548	4204527	0	9.03	9.03	1.5 ANNUAL	DPM_28	1
RES	581567.9	4204527	0	8.76	8.76	1.5 ANNUAL	DPM_28	1
RES	581587.7	4204527	0	8.81	8.81	1.5 ANNUAL	DPM_28	1
RES	581607.6	4204527	0	8.46	8.46	1.5 ANNUAL	DPM_28	1
RES	581627.4	4204527	0	7.46	7.46	1.5 ANNUAL	DPM_28	1
RES	581647.3	4204527	0	7.48	7.48	1.5 ANNUAL	DPM_28	1
RES	581667.1	4204527	1.00E-05	7.44	7.44	1.5 ANNUAL	DPM_28	1
RES	581687	4204527	1.00E-05	7.02	7.02	1.5 ANNUAL	DPM_28	1
RES	581706.8	4204527	1.00E-05	6.6	6.6	1.5 ANNUAL	DPM_28	1
WOR	581885.5	4204527	0	5.57	5.57	1.5 ANNUAL	DPM_28	1
WOR	581905.3	4204527	0	5.68	5.68	1.5 ANNUAL	DPM_28	1
WOR	581925.2	4204527	0	5.81	9.94	1.5 ANNUAL	DPM_28	1
WOR	581945	4204527	0	5.71	11.07	1.5 ANNUAL	DPM_28	1
WOR	582044.3	4204527	0	5.36	11.04	1.5 ANNUAL	DPM_28	1
WOR	582064.1	4204527	0	5.54	5.54	1.5 ANNUAL	DPM_28	1
WOR	582084	4204527	0	6.39	6.39	1.5 ANNUAL	DPM_28	1
RES	581389.2	4204547	0	13.18	13.18	1.5 ANNUAL	DPM_28	1
RES	581409.1	4204547	0	12.53	12.53	1.5 ANNUAL	DPM_28	1
RES	581428.9	4204547	0	11.63	11.63	1.5 ANNUAL	DPM_28	1
RES	581448.8	4204547	0	11.12	11.12	1.5 ANNUAL	DPM_28	1
RES	581468.6	4204547	0	10.87	10.87	1.5 ANNUAL	DPM_28	1
RES	581488.5	4204547	0	10.71	10.71	1.5 ANNUAL	DPM_28	1
RES	581508.3	4204547	0	11.17	11.17	1.5 ANNUAL	DPM_28	1
RES	581528.2	4204547	0	10.28	10.28	1.5 ANNUAL	DPM_28	1
RES	581548	4204547	0	9.42	9.42	1.5 ANNUAL	DPM_28	1
RES	581567.9	4204547	0	8.57	8.57	1.5 ANNUAL	DPM_28	1
RES	581587.7	4204547	0	8.97	8.97	1.5 ANNUAL	DPM_28	1
RES	581607.6	4204547	0	8.33	8.33	1.5 ANNUAL	DPM_28	1
RES	581627.4	4204547	0	7.45	7.45	1.5 ANNUAL	DPM_28	1
RES	581647.3	4204547	0	7.31	7.31	1.5 ANNUAL	DPM_28	1
RES	581667.1	4204547	1.00E-05	7.58	7.58	1.5 ANNUAL	DPM_28	1
RES	581687	4204547	1.00E-05	7.19	7.19	1.5 ANNUAL	DPM_28	1
RES	581706.8	4204547	1.00E-05	6.82	6.82	1.5 ANNUAL	DPM_28	1
WOR	581865.6	4204547	0	5.88	5.88	1.5 ANNUAL	DPM_28	1
WOR	581885.5	4204547	0	5.44	5.44	1.5 ANNUAL	DPM_28	1
WOR	581905.3	4204547	0	5.8	5.8	1.5 ANNUAL	DPM_28	1
WOR	581925.2	4204547	0	5.87	5.87	1.5 ANNUAL	DPM_28	1
WOR	581945	4204547	0	5.76	10.79	1.5 ANNUAL	DPM_28	1
RES	582044.3	4204547	0	5.3	10.43	1.5 ANNUAL	DPM_28	1
RES	582064.1	4204547	0	5.3	5.3	1.5 ANNUAL	DPM_28	1
RES	582084	4204547	0	5.47	5.47	1.5 ANNUAL	DPM_28	1
RES	582102.5	4204551	0	5.49	5.49	1.5 ANNUAL	DPM_28	1
RES	581389.2	4204566	0	13.42	13.42	1.5 ANNUAL	DPM_28	1
RES	581409.1	4204566	0	12.84	12.84	1.5 ANNUAL	DPM_28	1
RES	581428.9	4204566	0	12.16	12.16	1.5 ANNUAL	DPM_28	1
RES	581448.8	4204566	0	11.58	11.58	1.5 ANNUAL	DPM_28	1
RES	581468.6	4204566	0	11.16	11.16	1.5 ANNUAL	DPM_28	1
RES	581508.3	4204566	0	11.36	11.36	1.5 ANNUAL	DPM_28	1
RES	581528.2	4204566	0	10.99	10.99	1.5 ANNUAL	DPM_28	1
RES	581548	4204566	0	10.31	10.31	1.5 ANNUAL	DPM_28	1

RES	581567.9	4204566	0	9.34	9.34	1.5 ANNUAL	DPM_28	1
RES	581587.7	4204566	0	9.59	9.59	1.5 ANNUAL	DPM_28	1
RES	581607.6	4204566	0	8.49	8.49	1.5 ANNUAL	DPM_28	1
RES	581627.4	4204566	0	7.64	7.64	1.5 ANNUAL	DPM_28	1
RES	581647.3	4204566	0	7.25	7.25	1.5 ANNUAL	DPM_28	1
RES	581667.1	4204566	0	7.62	7.62	1.5 ANNUAL	DPM_28	1
RES	581687	4204566	1.00E-05	7.14	7.14	1.5 ANNUAL	DPM_28	1
RES	581706.8	4204566	1.00E-05	7.05	7.05	1.5 ANNUAL	DPM_28	1
WOR	581865.6	4204566	0	5.56	5.56	1.5 ANNUAL	DPM_28	1
WOR	581885.5	4204566	0	5.42	5.42	1.5 ANNUAL	DPM_28	1
WOR	581905.3	4204566	0	5.76	5.76	1.5 ANNUAL	DPM_28	1
WOR	581925.2	4204566	0	5.79	5.79	1.5 ANNUAL	DPM_28	1
RES	582024.4	4204566	0	5.3	10.6	1.5 ANNUAL	DPM_28	1
RES	582044.3	4204566	0	5.28	5.28	1.5 ANNUAL	DPM_28	1
RES	582064.1	4204566	0	5.13	5.13	1.5 ANNUAL	DPM_28	1
RES	582084	4204566	0	5.08	5.08	1.5 ANNUAL	DPM_28	1
RES	582103.8	4204566	0	5.13	5.13	1.5 ANNUAL	DPM_28	1
RES	581389.2	4204586	0	13.12	13.12	1.5 ANNUAL	DPM_28	1
RES	581409.1	4204586	0	12.78	12.78	1.5 ANNUAL	DPM_28	1
RES	581428.9	4204586	0	12.45	12.45	1.5 ANNUAL	DPM_28	1
RES	581448.8	4204586	0	12.21	12.21	1.5 ANNUAL	DPM_28	1
RES	581468.6	4204586	0	11.83	11.83	1.5 ANNUAL	DPM_28	1
RES	581508.3	4204586	0	11.37	11.37	1.5 ANNUAL	DPM_28	1
RES	581528.2	4204586	0	11.25	11.25	1.5 ANNUAL	DPM_28	1
RES	581548	4204586	0	10.78	10.78	1.5 ANNUAL	DPM_28	1
RES	581567.9	4204586	0	10.39	10.39	1.5 ANNUAL	DPM_28	1
RES	581587.7	4204586	0	10.49	10.49	1.5 ANNUAL	DPM_28	1
RES	581607.6	4204586	0	9.41	9.41	1.5 ANNUAL	DPM_28	1
RES	581627.4	4204586	0	8.58	8.58	1.5 ANNUAL	DPM_28	1
RES	581647.3	4204586	0	8.23	8.23	1.5 ANNUAL	DPM_28	1
RES	581667.1	4204586	0	8.16	8.16	1.5 ANNUAL	DPM_28	1
RES	581687	4204586	0	7.14	7.14	1.5 ANNUAL	DPM_28	1
RES	581706.8	4204586	0	7.09	7.09	1.5 ANNUAL	DPM_28	1
RES	582024.4	4204586	0	5.26	9.94	1.5 ANNUAL	DPM_28	1
RES	582044.3	4204586	0	5.19	5.19	1.5 ANNUAL	DPM_28	1
RES	582064.1	4204586	0	5.07	5.07	1.5 ANNUAL	DPM_28	1
RES	582084	4204586	0	5.02	5.02	1.5 ANNUAL	DPM_28	1
RES	582103.8	4204586	0	5.03	5.03	1.5 ANNUAL	DPM_28	1
RES	581389.2	4204606	0	12.72	12.72	1.5 ANNUAL	DPM_28	1
RES	581528.2	4204606	0	11.35	11.35	1.5 ANNUAL	DPM_28	1
RES	581607.6	4204606	0	10.15	10.15	1.5 ANNUAL	DPM_28	1
RES	581647.3	4204606	0	8.95	8.95	1.5 ANNUAL	DPM_28	1
RES	581667.1	4204606	0	8.36	8.36	1.5 ANNUAL	DPM_28	1
RES	581687	4204606	0	7.48	7.48	1.5 ANNUAL	DPM_28	1
RES	581706.8	4204606	0	6.97	6.97	1.5 ANNUAL	DPM_28	1
WOR	581905.3	4204606	0	5.82	5.82	1.5 ANNUAL	DPM_28	1
WOR	581925.2	4204606	0	5.74	5.74	1.5 ANNUAL	DPM_28	1
RES	582024.4	4204606	0	5.32	5.32	1.5 ANNUAL	DPM_28	1
RES	582044.3	4204606	0	5.18	5.18	1.5 ANNUAL	DPM_28	1
RES	582064.1	4204606	0	5.12	5.12	1.5 ANNUAL	DPM_28	1

RES	582084	4204606	0	5.07	5.07	1.5 ANNUAL	DPM_28	1
RES	582103.8	4204606	0	5.02	5.02	1.5 ANNUAL	DPM_28	1
RES	581389.2	4204626	0	12.86	12.86	1.5 ANNUAL	DPM_28	1
RES	581409.1	4204626	0	12.41	12.41	1.5 ANNUAL	DPM_28	1
RES	581428.9	4204626	0	12.22	12.22	1.5 ANNUAL	DPM_28	1
RES	581448.8	4204626	0	12.1	12.1	1.5 ANNUAL	DPM_28	1
RES	581468.6	4204626	0	11.68	11.68	1.5 ANNUAL	DPM_28	1
RES	581488.5	4204626	0	11.16	11.16	1.5 ANNUAL	DPM_28	1
RES	581508.3	4204626	0	11.21	11.21	1.5 ANNUAL	DPM_28	1
RES	581528.2	4204626	0	11.65	11.65	1.5 ANNUAL	DPM_28	1
RES	581548	4204626	0	11.65	11.65	1.5 ANNUAL	DPM_28	1
RES	581567.9	4204626	0	11.44	11.44	1.5 ANNUAL	DPM_28	1
RES	581587.7	4204626	0	10.81	10.81	1.5 ANNUAL	DPM_28	1
RES	581607.6	4204626	0	10.98	10.98	1.5 ANNUAL	DPM_28	1
RES	581627.4	4204626	0	9.97	9.97	1.5 ANNUAL	DPM_28	1
RES	581687	4204626	0	6.5	6.5	1.5 ANNUAL	DPM_28	1
RES	581706.8	4204626	0	6.22	6.22	1.5 ANNUAL	DPM_28	1
WOR	581825.9	4204626	0	5.9	5.9	1.5 ANNUAL	DPM_28	1
WOR	581885.5	4204626	0	5.61	5.61	1.5 ANNUAL	DPM_28	1
WOR	581905.3	4204626	0	5.99	5.99	1.5 ANNUAL	DPM_28	1
WOR	581925.2	4204626	0	5.83	5.83	1.5 ANNUAL	DPM_28	1
RES	582024.4	4204626	0	5.36	5.36	1.5 ANNUAL	DPM_28	1
RES	582046.6	4204630	0	5.13	5.13	1.5 ANNUAL	DPM_28	1
RES	582066.4	4204630	0	5.11	5.11	1.5 ANNUAL	DPM_28	1
RES	581389.2	4204646	0	12.04	12.04	1.5 ANNUAL	DPM_28	1
RES	581409.1	4204646	0	11.43	11.86	1.5 ANNUAL	DPM_28	1
RES	581428.9	4204646	0	11.78	12.06	1.5 ANNUAL	DPM_28	1
RES	581448.8	4204646	0	11.97	11.97	1.5 ANNUAL	DPM_28	1
RES	581468.6	4204646	0	11.26	11.26	1.5 ANNUAL	DPM_28	1
RES	581488.5	4204646	0	10.88	10.88	1.5 ANNUAL	DPM_28	1
RES	581508.3	4204646	0	10.81	10.81	1.5 ANNUAL	DPM_28	1
RES	581528.2	4204646	0	11.04	11.04	1.5 ANNUAL	DPM_28	1
RES	581548	4204646	0	11.11	11.11	1.5 ANNUAL	DPM_28	1
RES	581567.9	4204646	0	10.97	10.97	1.5 ANNUAL	DPM_28	1
RES	581587.7	4204646	0	10.76	10.76	1.5 ANNUAL	DPM_28	1
RES	581607.6	4204646	0	11.23	11.23	1.5 ANNUAL	DPM_28	1
RES	581627.4	4204646	0	10.26	10.26	1.5 ANNUAL	DPM_28	1
RES	581647.3	4204646	0	9.48	9.48	1.5 ANNUAL	DPM_28	1
RES	581667.1	4204646	0	7.82	7.82	1.5 ANNUAL	DPM_28	1
WOR	581825.9	4204646	0	6.13	6.13	1.5 ANNUAL	DPM_28	1
WOR	581845.8	4204646	0	6.13	6.13	1.5 ANNUAL	DPM_28	1
WOR	581865.6	4204646	0	6.11	6.11	1.5 ANNUAL	DPM_28	1
WOR	581885.5	4204646	0	5.71	5.71	1.5 ANNUAL	DPM_28	1
WOR	581905.3	4204646	0	5.92	5.92	1.5 ANNUAL	DPM_28	1
WOR	581925.2	4204646	0	5.75	5.75	1.5 ANNUAL	DPM_28	1
RES	582010.2	4204647	0	5.47	5.47	1.5 ANNUAL	DPM_28	1
RES	582024.4	4204646	0	5.39	5.39	1.5 ANNUAL	DPM_28	1
RES	582044.3	4204646	0	5.24	5.24	1.5 ANNUAL	DPM_28	1
RES	582064.1	4204646	0	5.24	5.24	1.5 ANNUAL	DPM_28	1
RES	582103.8	4204646	0	5.06	5.06	1.5 ANNUAL	DPM_28	1

RES	581389.2	4204666	0	11.27	11.58	1.5 ANNUAL	DPM_28	1
RES	581409.1	4204666	0	9.53	11.86	1.5 ANNUAL	DPM_28	1
RES	581428.9	4204666	0	9.56	12.21	1.5 ANNUAL	DPM_28	1
RES	581448.8	4204666	0	9.71	12.23	1.5 ANNUAL	DPM_28	1
RES	581468.6	4204666	0	10.16	10.16	1.5 ANNUAL	DPM_28	1
RES	581488.5	4204666	0	10.01	10.01	1.5 ANNUAL	DPM_28	1
RES	581508.3	4204666	0	10.29	10.29	1.5 ANNUAL	DPM_28	1
RES	581528.2	4204666	0	10.65	10.65	1.5 ANNUAL	DPM_28	1
RES	581548	4204666	0	10.73	10.73	1.5 ANNUAL	DPM_28	1
RES	581567.9	4204666	0	10.45	10.45	1.5 ANNUAL	DPM_28	1
RES	581587.7	4204666	0	10.51	10.51	1.5 ANNUAL	DPM_28	1
RES	581607.6	4204666	0	10.89	10.89	1.5 ANNUAL	DPM_28	1
RES	581627.4	4204666	0	9.91	9.91	1.5 ANNUAL	DPM_28	1
RES	581647.3	4204666	0	9.31	9.31	1.5 ANNUAL	DPM_28	1
RES	581667.1	4204666	0	7.43	9.61	1.5 ANNUAL	DPM_28	1
RES	582010.2	4204667	0	5.52	5.52	1.5 ANNUAL	DPM_28	1
RES	582024.4	4204666	0	5.4	5.4	1.5 ANNUAL	DPM_28	1
RES	582044.3	4204666	0	5.35	5.35	1.5 ANNUAL	DPM_28	1
RES	582064.1	4204666	0	5.19	5.19	1.5 ANNUAL	DPM_28	1
RES	582103.8	4204666	0	5.12	5.12	1.5 ANNUAL	DPM_28	1
RES	581389.2	4204685	0	11.07	11.43	1.5 ANNUAL	DPM_28	1
RES	581409.1	4204685	0	9.48	9.48	1.5 ANNUAL	DPM_28	1
RES	581428.9	4204685	0	9.01	9.01	1.5 ANNUAL	DPM_28	1
RES	581448.8	4204685	0	9.25	9.25	1.5 ANNUAL	DPM_28	1
RES	581468.6	4204685	0	9.42	9.42	1.5 ANNUAL	DPM_28	1
RES	581508.3	4204685	0	9.76	9.76	1.5 ANNUAL	DPM_28	1
RES	581528.2	4204685	0	10.19	10.19	1.5 ANNUAL	DPM_28	1
RES	581548	4204685	0	10.38	10.38	1.5 ANNUAL	DPM_28	1
RES	581567.9	4204685	0	9.77	9.77	1.5 ANNUAL	DPM_28	1
RES	581587.7	4204685	0	10.27	10.27	1.5 ANNUAL	DPM_28	1
RES	581607.6	4204685	0	10.44	10.44	1.5 ANNUAL	DPM_28	1
RES	581627.4	4204685	0	8.95	8.95	1.5 ANNUAL	DPM_28	1
RES	581647.3	4204685	0	7.67	9.09	1.5 ANNUAL	DPM_28	1
RES	581667.1	4204685	0	7.01	7.01	1.5 ANNUAL	DPM_28	1
RES	582004.6	4204685	0	5.53	5.53	1.5 ANNUAL	DPM_28	1
RES	582024.4	4204685	0	5.34	5.34	1.5 ANNUAL	DPM_28	1
RES	582044.3	4204685	0	5.43	5.43	1.5 ANNUAL	DPM_28	1
RES	582064.1	4204685	0	5.05	5.05	1.5 ANNUAL	DPM_28	1
RES	582084	4204685	0	4.84	4.84	1.5 ANNUAL	DPM_28	1
RES	582103.8	4204685	0	5.09	5.09	1.5 ANNUAL	DPM_28	1
RES	581389.2	4204705	0	10.65	10.94	1.5 ANNUAL	DPM_28	1
RES	581409.1	4204705	0	9.43	9.43	1.5 ANNUAL	DPM_28	1
RES	581428.9	4204705	0	8.92	8.92	1.5 ANNUAL	DPM_28	1
RES	581448.8	4204705	0	8.89	8.89	1.5 ANNUAL	DPM_28	1
RES	581508.3	4204705	0	9.23	9.23	1.5 ANNUAL	DPM_28	1
RES	581528.2	4204705	0	9.76	9.76	1.5 ANNUAL	DPM_28	1
RES	581548	4204705	0	9.84	9.84	1.5 ANNUAL	DPM_28	1
RES	581567.9	4204705	0	9.08	9.08	1.5 ANNUAL	DPM_28	1
RES	581587.7	4204705	0	9.69	9.69	1.5 ANNUAL	DPM_28	1
RES	581607.6	4204705	0	9.48	9.48	1.5 ANNUAL	DPM_28	1

WOR	581865.6	4204705	0	6.16	6.16	1.5 ANNUAL	DPM_28	1
WOR	581885.5	4204705	0	6.15	6.15	1.5 ANNUAL	DPM_28	1
WOR	581905.3	4204705	0	6.13	6.13	1.5 ANNUAL	DPM_28	1
RES	582004.6	4204705	0	5.48	5.48	1.5 ANNUAL	DPM_28	1
RES	582044.3	4204705	0	5.41	5.41	1.5 ANNUAL	DPM_28	1
RES	582064.1	4204705	0	4.79	4.79	1.5 ANNUAL	DPM_28	1
RES	582084	4204705	0	4.77	4.77	1.5 ANNUAL	DPM_28	1
RES	582103.8	4204705	0	4.89	4.89	1.5 ANNUAL	DPM_28	1
WOR	581802	4204544	1.00E-05	6.73	6.73	1.5 ANNUAL	DPM_28	1
WOR	581822	4204544	0	6.31	6.31	1.5 ANNUAL	DPM_28	1
WOR	581802	4204564	0	6.78	6.78	1.5 ANNUAL	DPM_28	1

Discrete Re X	Y	Concentrat	Elevation (Z	Hill Heights	Flagpole (Z)	Averagin	Pe	Source Gro	Num Years	Net ID
RES	581389.2	4203991	581389.21	0	10.43	10.43	1.5 ANNUAL	OPS_DPM	1	
RES	581409.1	4203991	581409.06	0	10.52	10.52	1.5 ANNUAL	OPS_DPM	1	
RES	581428.9	4203991	581428.91	0	9.49	9.49	1.5 ANNUAL	OPS_DPM	1	
RES	581448.8	4203991	581448.76	0	9.32	9.32	1.5 ANNUAL	OPS_DPM	1	
RES	581468.6	4203991	581468.61	0	9.34	9.34	1.5 ANNUAL	OPS_DPM	1	
RES	581488.5	4203991	581488.46	0	9.37	9.37	1.5 ANNUAL	OPS_DPM	1	
RES	581508.3	4203991	581508.31	0	8.92	8.92	1.5 ANNUAL	OPS_DPM	1	
RES	581528.2	4203991	581528.16	0	9.17	9.17	1.5 ANNUAL	OPS_DPM	1	
RES	581548	4203991	581548.01	0	9.08	9.08	1.5 ANNUAL	OPS_DPM	1	
RES	581567.9	4203991	581567.86	0	8.66	8.66	1.5 ANNUAL	OPS_DPM	1	
RES	581587.7	4203991	581587.71	0	8.2	8.2	1.5 ANNUAL	OPS_DPM	1	
RES	581607.6	4203991	581607.56	0	7.93	7.93	1.5 ANNUAL	OPS_DPM	1	
RES	581627.4	4203991	581627.41	0	7.83	7.83	1.5 ANNUAL	OPS_DPM	1	
RES	581647.3	4203991	581647.26	0	7.68	7.68	1.5 ANNUAL	OPS_DPM	1	
RES	581667.1	4203991	581667.11	0	7.55	7.55	1.5 ANNUAL	OPS_DPM	1	
RES	581687	4203991	581686.96	0	7.55	7.55	1.5 ANNUAL	OPS_DPM	1	
RES	581706.8	4203991	581706.81	0	8.26	8.26	1.5 ANNUAL	OPS_DPM	1	
RES	581726.7	4203991	581726.66	0	7.79	7.79	1.5 ANNUAL	OPS_DPM	1	
RES	581746.5	4203991	581746.51	0	7.26	7.26	1.5 ANNUAL	OPS_DPM	1	
WOR	582004.6	4203991	582004.56	0	7.35	7.35	1.5 ANNUAL	OPS_DPM	1	
WOR	582024.4	4203991	582024.41	0	7.63	7.63	1.5 ANNUAL	OPS_DPM	1	
WOR	582044.3	4203991	582044.26	0	7.52	7.52	1.5 ANNUAL	OPS_DPM	1	
RES	581389.2	4204011	581389.21	0	10.76	10.76	1.5 ANNUAL	OPS_DPM	1	
RES	581409.1	4204011	581409.06	0	9.83	9.83	1.5 ANNUAL	OPS_DPM	1	
RES	581428.9	4204011	581428.91	0	8.49	8.49	1.5 ANNUAL	OPS_DPM	1	
RES	581448.8	4204011	581448.76	0	8.42	8.42	1.5 ANNUAL	OPS_DPM	1	
RES	581468.6	4204011	581468.61	0	8.61	8.61	1.5 ANNUAL	OPS_DPM	1	
RES	581488.5	4204011	581488.46	0	8.85	8.85	1.5 ANNUAL	OPS_DPM	1	
RES	581508.3	4204011	581508.31	0	8.81	8.81	1.5 ANNUAL	OPS_DPM	1	
RES	581528.2	4204011	581528.16	0	9.07	9.07	1.5 ANNUAL	OPS_DPM	1	
RES	581548	4204011	581548.01	0	9.1	9.1	1.5 ANNUAL	OPS_DPM	1	
RES	581567.9	4204011	581567.86	0	8.67	8.67	1.5 ANNUAL	OPS_DPM	1	
RES	581587.7	4204011	581587.71	0	8.19	8.19	1.5 ANNUAL	OPS_DPM	1	
RES	581607.6	4204011	581607.56	0	7.71	7.71	1.5 ANNUAL	OPS_DPM	1	
RES	581627.4	4204011	581627.41	0	8.2	8.2	1.5 ANNUAL	OPS_DPM	1	
RES	581647.3	4204011	581647.26	0	8.21	8.21	1.5 ANNUAL	OPS_DPM	1	
RES	581667.1	4204011	581667.11	0	7.72	7.72	1.5 ANNUAL	OPS_DPM	1	
RES	581687	4204011	581686.96	0	7.75	7.75	1.5 ANNUAL	OPS_DPM	1	
RES	581706.8	4204011	581706.81	0	8.2	8.2	1.5 ANNUAL	OPS_DPM	1	
RES	581726.7	4204011	581726.66	0	7.64	7.64	1.5 ANNUAL	OPS_DPM	1	
RES	581746.5	4204011	581746.51	1.00E-05	6.81	6.81	1.5 ANNUAL	OPS_DPM	1	
WOR	581845.8	4204011	581845.76	1.00E-05	6.88	6.88	1.5 ANNUAL	OPS_DPM	1	
WOR	581865.6	4204011	581865.61	1.00E-05	7.09	7.09	1.5 ANNUAL	OPS_DPM	1	
WOR	581885.5	4204011	581885.46	1.00E-05	7.08	7.08	1.5 ANNUAL	OPS_DPM	1	
WOR	581905.3	4204011	581905.31	1.00E-05	7.06	7.06	1.5 ANNUAL	OPS_DPM	1	
WOR	582004.6	4204011	582004.56	0	7.45	7.45	1.5 ANNUAL	OPS_DPM	1	
WOR	582024.4	4204011	582024.41	0	7.54	7.54	1.5 ANNUAL	OPS_DPM	1	
WOR	582044.3	4204011	582044.26	0	7.58	7.58	1.5 ANNUAL	OPS_DPM	1	
RES	581389.2	4204030	581389.21	0	10.28	10.28	1.5 ANNUAL	OPS_DPM	1	
RES	581409.1	4204030	581409.06	0	9.25	9.25	1.5 ANNUAL	OPS_DPM	1	
RES	581428.9	4204030	581428.91	0	8.41	8.41	1.5 ANNUAL	OPS_DPM	1	
RES	581448.8	4204030	581448.76	0	8.32	8.32	1.5 ANNUAL	OPS_DPM	1	
RES	581468.6	4204030	581468.61	0	8.1	8.1	1.5 ANNUAL	OPS_DPM	1	

RES	581488.5	4204030	581488.46	0	8.33	8.33	1.5 ANNUAL	OPS_DPM	1
RES	581508.3	4204030	581508.31	0	8.53	8.53	1.5 ANNUAL	OPS_DPM	1
RES	581528.2	4204030	581528.16	0	8.63	8.63	1.5 ANNUAL	OPS_DPM	1
RES	581548	4204030	581548.01	0	8.55	8.55	1.5 ANNUAL	OPS_DPM	1
RES	581567.9	4204030	581567.86	0	8.43	8.43	1.5 ANNUAL	OPS_DPM	1
RES	581587.7	4204030	581587.71	0	8.16	8.16	1.5 ANNUAL	OPS_DPM	1
RES	581627.4	4204030	581627.41	0	8.26	8.26	1.5 ANNUAL	OPS_DPM	1
RES	581647.3	4204030	581647.26	0	8.24	8.24	1.5 ANNUAL	OPS_DPM	1
RES	581667.1	4204030	581667.11	0	7.75	7.75	1.5 ANNUAL	OPS_DPM	1
RES	581687	4204030	581686.96	0	7.58	7.58	1.5 ANNUAL	OPS_DPM	1
RES	581706.8	4204030	581706.81	0	7.98	7.98	1.5 ANNUAL	OPS_DPM	1
RES	581726.7	4204030	581726.66	1.00E-05	7.98	7.98	1.5 ANNUAL	OPS_DPM	1
RES	581746.5	4204030	581746.51	1.00E-05	6.98	7.33	1.5 ANNUAL	OPS_DPM	1
WOR	581845.8	4204030	581845.76	1.00E-05	6.63	6.63	1.5 ANNUAL	OPS_DPM	1
WOR	581865.6	4204030	581865.61	1.00E-05	6.8	6.8	1.5 ANNUAL	OPS_DPM	1
WOR	581885.5	4204030	581885.46	1.00E-05	6.92	6.92	1.5 ANNUAL	OPS_DPM	1
WOR	581905.3	4204030	581905.31	1.00E-05	6.97	6.97	1.5 ANNUAL	OPS_DPM	1
WOR	582004.6	4204030	582004.56	0	7.63	7.63	1.5 ANNUAL	OPS_DPM	1
WOR	582024.4	4204030	582024.41	0	7.68	7.68	1.5 ANNUAL	OPS_DPM	1
RES	581389.2	4204050	581389.21	0	9.84	9.84	1.5 ANNUAL	OPS_DPM	1
RES	581409.1	4204050	581409.06	0	9	9	1.5 ANNUAL	OPS_DPM	1
RES	581428.9	4204050	581428.91	0	8.69	8.69	1.5 ANNUAL	OPS_DPM	1
RES	581448.8	4204050	581448.76	0	8.36	8.36	1.5 ANNUAL	OPS_DPM	1
RES	581488.5	4204050	581488.46	0	7.98	7.98	1.5 ANNUAL	OPS_DPM	1
RES	581567.9	4204050	581567.86	0	7.75	7.75	1.5 ANNUAL	OPS_DPM	1
RES	581587.7	4204050	581587.71	0	7.69	7.69	1.5 ANNUAL	OPS_DPM	1
RES	581627.4	4204050	581627.41	0	8.12	8.12	1.5 ANNUAL	OPS_DPM	1
RES	581647.3	4204050	581647.26	0	8.13	8.13	1.5 ANNUAL	OPS_DPM	1
RES	581667.1	4204050	581667.11	0	7.72	7.72	1.5 ANNUAL	OPS_DPM	1
RES	581687	4204050	581686.96	0	7.5	7.5	1.5 ANNUAL	OPS_DPM	1
RES	581706.8	4204050	581706.81	0	8.14	8.14	1.5 ANNUAL	OPS_DPM	1
RES	581726.7	4204050	581726.66	1.00E-05	8.04	8.04	1.5 ANNUAL	OPS_DPM	1
WOR	581825.9	4204050	581825.91	1.00E-05	6.74	6.74	1.5 ANNUAL	OPS_DPM	1
WOR	581845.8	4204050	581845.76	1.00E-05	6.79	6.79	1.5 ANNUAL	OPS_DPM	1
WOR	581865.6	4204050	581865.61	1.00E-05	6.58	6.58	1.5 ANNUAL	OPS_DPM	1
WOR	581885.5	4204050	581885.46	1.00E-05	6.78	6.78	1.5 ANNUAL	OPS_DPM	1
WOR	581905.3	4204050	581905.31	1.00E-05	6.92	6.92	1.5 ANNUAL	OPS_DPM	1
WOR	582004.6	4204050	582004.56	0	7.66	7.66	1.5 ANNUAL	OPS_DPM	1
WOR	582024.4	4204050	582024.41	0	7.6	7.6	1.5 ANNUAL	OPS_DPM	1
RES	581389.2	4204070	581389.21	0	8.77	8.77	1.5 ANNUAL	OPS_DPM	1
RES	581409.1	4204070	581409.06	0	9.01	9.01	1.5 ANNUAL	OPS_DPM	1
RES	581428.9	4204070	581428.91	0	9.09	9.09	1.5 ANNUAL	OPS_DPM	1
RES	581448.8	4204070	581448.76	0	8.79	8.79	1.5 ANNUAL	OPS_DPM	1
RES	581488.5	4204070	581488.46	0	8.4	8.4	1.5 ANNUAL	OPS_DPM	1
RES	581508.3	4204070	581508.31	0	8.72	8.72	1.5 ANNUAL	OPS_DPM	1
RES	581528.2	4204070	581528.16	0	8.63	8.63	1.5 ANNUAL	OPS_DPM	1
RES	581548	4204070	581548.01	0	8.5	8.5	1.5 ANNUAL	OPS_DPM	1
RES	581567.9	4204070	581567.86	0	8.19	8.19	1.5 ANNUAL	OPS_DPM	1
RES	581587.7	4204070	581587.71	0	7.73	7.73	1.5 ANNUAL	OPS_DPM	1
RES	581627.4	4204070	581627.41	0	7.77	7.77	1.5 ANNUAL	OPS_DPM	1
RES	581647.3	4204070	581647.26	0	7.87	7.87	1.5 ANNUAL	OPS_DPM	1
RES	581667.1	4204070	581667.11	0	7.69	7.69	1.5 ANNUAL	OPS_DPM	1
RES	581687	4204070	581686.96	0	7.18	7.18	1.5 ANNUAL	OPS_DPM	1
RES	581706.8	4204070	581706.81	1.00E-05	7.79	7.79	1.5 ANNUAL	OPS_DPM	1

RES	581726.7	4204070	581726.66	1.00E-05	7.85	7.85	1.5 ANNUAL	OPS_DPM	1
WOR	581806.1	4204070	581806.06	1.00E-05	6.83	6.83	1.5 ANNUAL	OPS_DPM	1
WOR	581825.9	4204070	581825.91	1.00E-05	6.88	6.88	1.5 ANNUAL	OPS_DPM	1
WOR	581845.8	4204070	581845.76	1.00E-05	6.84	6.84	1.5 ANNUAL	OPS_DPM	1
WOR	581865.6	4204070	581865.61	1.00E-05	6.79	6.79	1.5 ANNUAL	OPS_DPM	1
WOR	581885.5	4204070	581885.46	1.00E-05	6.83	6.83	1.5 ANNUAL	OPS_DPM	1
WOR	581905.3	4204070	581905.31	1.00E-05	6.91	6.91	1.5 ANNUAL	OPS_DPM	1
WOR	582004.6	4204070	582004.56	0	7.6	7.6	1.5 ANNUAL	OPS_DPM	1
WOR	582024.4	4204070	582024.41	0	7.4	7.4	1.5 ANNUAL	OPS_DPM	1
WOR	582103.8	4204070	582103.81	0	6.92	6.92	1.5 ANNUAL	OPS_DPM	1
RES	581389.2	4204090	581389.21	0	8.25	8.25	1.5 ANNUAL	OPS_DPM	1
RES	581409.1	4204090	581409.06	0	8.86	8.86	1.5 ANNUAL	OPS_DPM	1
RES	581428.9	4204090	581428.91	0	8.89	8.89	1.5 ANNUAL	OPS_DPM	1
RES	581448.8	4204090	581448.76	0	8.55	8.55	1.5 ANNUAL	OPS_DPM	1
RES	581468.6	4204090	581468.61	0	7.88	7.88	1.5 ANNUAL	OPS_DPM	1
RES	581488.5	4204090	581488.46	0	8.62	8.62	1.5 ANNUAL	OPS_DPM	1
RES	581508.3	4204090	581508.31	0	8.12	8.12	1.5 ANNUAL	OPS_DPM	1
RES	581528.2	4204090	581528.16	0	7.71	7.71	1.5 ANNUAL	OPS_DPM	1
RES	581548	4204090	581548.01	0	7.92	7.92	1.5 ANNUAL	OPS_DPM	1
RES	581567.9	4204090	581567.86	0	8.02	8.02	1.5 ANNUAL	OPS_DPM	1
RES	581587.7	4204090	581587.71	0	7.72	7.72	1.5 ANNUAL	OPS_DPM	1
RES	581607.6	4204090	581607.56	0	6.94	6.94	1.5 ANNUAL	OPS_DPM	1
RES	581627.4	4204090	581627.41	0	7.72	7.72	1.5 ANNUAL	OPS_DPM	1
RES	581647.3	4204090	581647.26	0	7.93	7.93	1.5 ANNUAL	OPS_DPM	1
RES	581667.1	4204090	581667.11	0	7.89	7.89	1.5 ANNUAL	OPS_DPM	1
RES	581687	4204090	581686.96	1.00E-05	7.77	7.77	1.5 ANNUAL	OPS_DPM	1
RES	581706.8	4204090	581706.81	1.00E-05	8.07	8.07	1.5 ANNUAL	OPS_DPM	1
RES	581726.7	4204090	581726.66	1.00E-05	7.27	7.27	1.5 ANNUAL	OPS_DPM	1
WOR	581786.2	4204090	581786.21	1.00E-05	6.72	6.72	1.5 ANNUAL	OPS_DPM	1
WOR	581806.1	4204090	581806.06	1.00E-05	6.88	6.88	1.5 ANNUAL	OPS_DPM	1
WOR	582024.4	4204090	582024.41	0	7.39	7.39	1.5 ANNUAL	OPS_DPM	1
WOR	582084	4204090	582083.96	0	7.24	7.24	1.5 ANNUAL	OPS_DPM	1
WOR	582103.8	4204090	582103.81	0	7.01	7.01	1.5 ANNUAL	OPS_DPM	1
RES	581389.2	4204110	581389.21	0	8.05	8.05	1.5 ANNUAL	OPS_DPM	1
RES	581409.1	4204110	581409.06	0	8.66	8.66	1.5 ANNUAL	OPS_DPM	1
RES	581428.9	4204110	581428.91	0	8.65	8.65	1.5 ANNUAL	OPS_DPM	1
RES	581448.8	4204110	581448.76	0	8.27	8.27	1.5 ANNUAL	OPS_DPM	1
RES	581468.6	4204110	581468.61	0	7.73	7.73	1.5 ANNUAL	OPS_DPM	1
RES	581488.5	4204110	581488.46	0	8.56	8.56	1.5 ANNUAL	OPS_DPM	1
RES	581508.3	4204110	581508.31	0	7.79	7.79	1.5 ANNUAL	OPS_DPM	1
SCH	581528.2	4204110	581528.16	0	7.26	7.26	1.5 ANNUAL	OPS_DPM	1
SCH	581548	4204110	581548.01	0	6.82	6.82	1.5 ANNUAL	OPS_DPM	1
SCH	581567.9	4204110	581567.86	0	6.73	6.73	1.5 ANNUAL	OPS_DPM	1
SCH	581584	4204105	581584.04	0	6.88	6.88	1.5 ANNUAL	OPS_DPM	1
RES	581607.6	4204110	581607.56	0	7.03	7.03	1.5 ANNUAL	OPS_DPM	1
RES	581627.4	4204110	581627.41	0	7.45	7.45	1.5 ANNUAL	OPS_DPM	1
RES	581647.3	4204110	581647.26	1.00E-05	7.45	7.45	1.5 ANNUAL	OPS_DPM	1
RES	581667.1	4204110	581667.11	1.00E-05	7.53	7.53	1.5 ANNUAL	OPS_DPM	1
RES	581687	4204110	581686.96	1.00E-05	7.63	7.63	1.5 ANNUAL	OPS_DPM	1
RES	581706.8	4204110	581706.81	1.00E-05	7.77	7.77	1.5 ANNUAL	OPS_DPM	1
RES	581726.7	4204110	581726.66	1.00E-05	5.89	8.08	1.5 ANNUAL	OPS_DPM	1
WOR	581786.2	4204110	581786.21	1.00E-05	6.63	6.63	1.5 ANNUAL	OPS_DPM	1
WOR	581806.1	4204110	581806.06	1.00E-05	6.87	6.87	1.5 ANNUAL	OPS_DPM	1
WOR	581984.7	4204110	581984.71	1.00E-05	7.55	7.55	1.5 ANNUAL	OPS_DPM	1

WOR	582004.6	4204110	582004.56	1.00E-05	7.55	7.55	1.5 ANNUAL	OPS_DPM	1
WOR	582024.4	4204110	582024.41	1.00E-05	7.51	7.51	1.5 ANNUAL	OPS_DPM	1
WOR	582084	4204110	582083.96	0	6.99	6.99	1.5 ANNUAL	OPS_DPM	1
WOR	582103.8	4204110	582103.81	0	6.99	6.99	1.5 ANNUAL	OPS_DPM	1
RES	581389.2	4204130	581389.21	0	7.83	7.83	1.5 ANNUAL	OPS_DPM	1
RES	581409.1	4204130	581409.06	0	8.02	8.02	1.5 ANNUAL	OPS_DPM	1
RES	581428.9	4204130	581428.91	0	8.15	8.15	1.5 ANNUAL	OPS_DPM	1
RES	581448.8	4204130	581448.76	0	7.85	7.85	1.5 ANNUAL	OPS_DPM	1
RES	581468.6	4204130	581468.61	0	7.53	7.53	1.5 ANNUAL	OPS_DPM	1
RES	581488.5	4204130	581488.46	0	8.14	8.14	1.5 ANNUAL	OPS_DPM	1
RES	581508.3	4204130	581508.31	0	8.19	8.19	1.5 ANNUAL	OPS_DPM	1
SCH	581528.2	4204130	581528.16	0	7.36	7.36	1.5 ANNUAL	OPS_DPM	1
SCH	581548	4204130	581548.01	0	6.92	6.92	1.5 ANNUAL	OPS_DPM	1
SCH	581567.9	4204130	581567.86	0	6.9	6.9	1.5 ANNUAL	OPS_DPM	1
SCH	581584	4204125	581584.04	0	6.71	6.71	1.5 ANNUAL	OPS_DPM	1
RES	581607.6	4204130	581607.56	0	7.26	7.26	1.5 ANNUAL	OPS_DPM	1
RES	581627.4	4204130	581627.41	1.00E-05	7.58	7.58	1.5 ANNUAL	OPS_DPM	1
RES	581647.3	4204130	581647.26	1.00E-05	7.62	7.62	1.5 ANNUAL	OPS_DPM	1
RES	581662.4	4204126	581662.44	1.00E-05	7.1	7.1	1.5 ANNUAL	OPS_DPM	1
RES	581687	4204130	581686.96	1.00E-05	7	7	1.5 ANNUAL	OPS_DPM	1
RES	581706.8	4204130	581706.81	1.00E-05	7.24	7.24	1.5 ANNUAL	OPS_DPM	1
WOR	581766.4	4204130	581766.36	1.00E-05	6.34	6.34	1.5 ANNUAL	OPS_DPM	1
WOR	581786.2	4204130	581786.21	1.00E-05	6.48	6.48	1.5 ANNUAL	OPS_DPM	1
WOR	581806.1	4204130	581806.06	1.00E-05	6.85	6.85	1.5 ANNUAL	OPS_DPM	1
WOR	581885.5	4204130	581885.46	1.00E-05	6.71	6.71	1.5 ANNUAL	OPS_DPM	1
WOR	581905.3	4204130	581905.31	1.00E-05	6.94	6.94	1.5 ANNUAL	OPS_DPM	1
WOR	581984.7	4204130	581984.71	1.00E-05	7.54	7.54	1.5 ANNUAL	OPS_DPM	1
WOR	582004.6	4204130	582004.56	1.00E-05	7.65	7.65	1.5 ANNUAL	OPS_DPM	1
WOR	582024.4	4204130	582024.41	1.00E-05	7.7	7.7	1.5 ANNUAL	OPS_DPM	1
WOR	582084	4204130	582083.96	1.00E-05	6.9	6.9	1.5 ANNUAL	OPS_DPM	1
WOR	582103.8	4204130	582103.81	0	7.01	7.01	1.5 ANNUAL	OPS_DPM	1
RES	581389.2	4204150	581389.21	0	7.96	7.96	1.5 ANNUAL	OPS_DPM	1
RES	581488.5	4204150	581488.46	0	7.57	7.57	1.5 ANNUAL	OPS_DPM	1
RES	581508.3	4204150	581508.31	0	7.98	7.98	1.5 ANNUAL	OPS_DPM	1
SCH	581528.2	4204150	581528.16	0	7.98	7.98	1.5 ANNUAL	OPS_DPM	1
SCH	581548	4204150	581548.01	0	8.17	8.17	1.5 ANNUAL	OPS_DPM	1
SCH	581567.9	4204150	581567.86	0	8.22	8.22	1.5 ANNUAL	OPS_DPM	1
RES	581607.6	4204150	581607.56	1.00E-05	7.6	7.6	1.5 ANNUAL	OPS_DPM	1
RES	581627.4	4204150	581627.41	1.00E-05	7.7	7.7	1.5 ANNUAL	OPS_DPM	1
RES	581647.3	4204150	581647.26	1.00E-05	7.49	7.49	1.5 ANNUAL	OPS_DPM	1
RES	581687	4204150	581686.96	1.00E-05	6.81	6.81	1.5 ANNUAL	OPS_DPM	1
RES	581706.8	4204150	581706.81	1.00E-05	7.17	7.17	1.5 ANNUAL	OPS_DPM	1
WOR	581766.4	4204150	581766.36	1.00E-05	6.19	6.19	1.5 ANNUAL	OPS_DPM	1
WOR	581786.2	4204150	581786.21	1.00E-05	6.3	6.3	1.5 ANNUAL	OPS_DPM	1
WOR	581806.1	4204150	581806.06	1.00E-05	6.84	6.84	1.5 ANNUAL	OPS_DPM	1
WOR	581825.9	4204150	581825.91	1.00E-05	6.81	6.81	1.5 ANNUAL	OPS_DPM	1
WOR	581885.5	4204150	581885.46	1.00E-05	6.67	6.67	1.5 ANNUAL	OPS_DPM	1
WOR	581905.3	4204150	581905.31	1.00E-05	6.68	6.68	1.5 ANNUAL	OPS_DPM	1
WOR	582084	4204150	582083.96	1.00E-05	6.92	6.92	1.5 ANNUAL	OPS_DPM	1
WOR	582103.8	4204150	582103.81	1.00E-05	7.15	7.15	1.5 ANNUAL	OPS_DPM	1
RES	581389.2	4204169	581389.21	0	8.59	8.59	1.5 ANNUAL	OPS_DPM	1
RES	581409.1	4204169	581409.06	0	8.21	8.21	1.5 ANNUAL	OPS_DPM	1
RES	581428.9	4204169	581428.91	0	7.96	7.96	1.5 ANNUAL	OPS_DPM	1
RES	581448.8	4204169	581448.76	0	7.83	7.83	1.5 ANNUAL	OPS_DPM	1

RES	581468.6	4204169	581468.61	0	7.73	7.73	1.5 ANNUAL	OPS_DPM	1
RES	581488.5	4204169	581488.46	0	7.77	7.77	1.5 ANNUAL	OPS_DPM	1
RES	581528.8	4204174	581528.84	0	8.82	8.82	1.5 ANNUAL	OPS_DPM	1
RES	581607.6	4204167	581607.56	1.00E-05	7.74	7.74	1.5 ANNUAL	OPS_DPM	1
RES	581627.4	4204167	581627.41	1.00E-05	7.63	7.63	1.5 ANNUAL	OPS_DPM	1
RES	581647.3	4204167	581647.26	1.00E-05	7.48	7.48	1.5 ANNUAL	OPS_DPM	1
RES	581670	4204170	581669.95	1.00E-05	7	7	1.5 ANNUAL	OPS_DPM	1
RES	581687	4204169	581686.96	1.00E-05	7.05	7.05	1.5 ANNUAL	OPS_DPM	1
RES	581706.8	4204169	581706.81	1.00E-05	7.05	7.05	1.5 ANNUAL	OPS_DPM	1
WOR	581766.4	4204169	581766.36	1.00E-05	6.28	6.28	1.5 ANNUAL	OPS_DPM	1
WOR	581786.2	4204169	581786.21	1.00E-05	6.21	6.21	1.5 ANNUAL	OPS_DPM	1
WOR	581806.1	4204169	581806.06	1.00E-05	6.63	6.63	1.5 ANNUAL	OPS_DPM	1
WOR	581825.9	4204169	581825.91	1.00E-05	6.7	6.7	1.5 ANNUAL	OPS_DPM	1
WOR	581885.5	4204169	581885.46	1.00E-05	6.53	6.53	1.5 ANNUAL	OPS_DPM	1
WOR	581905.3	4204169	581905.31	1.00E-05	6.5	6.5	1.5 ANNUAL	OPS_DPM	1
WOR	581945	4204169	581945.01	1.00E-05	6.82	6.82	1.5 ANNUAL	OPS_DPM	1
WOR	581964.9	4204169	581964.86	1.00E-05	6.95	6.95	1.5 ANNUAL	OPS_DPM	1
WOR	581984.7	4204169	581984.71	1.00E-05	7.13	7.13	1.5 ANNUAL	OPS_DPM	1
WOR	582004.6	4204169	582004.56	1.00E-05	7.23	7.23	1.5 ANNUAL	OPS_DPM	1
WOR	582084	4204169	582083.96	1.00E-05	6.93	6.93	1.5 ANNUAL	OPS_DPM	1
WOR	582103.8	4204169	582103.81	1.00E-05	7.02	7.02	1.5 ANNUAL	OPS_DPM	1
RES	581389.2	4204189	581389.21	0	9.54	9.54	1.5 ANNUAL	OPS_DPM	1
RES	581409.1	4204189	581409.06	0	9.27	9.27	1.5 ANNUAL	OPS_DPM	1
RES	581428.9	4204189	581428.91	0	9.03	9.03	1.5 ANNUAL	OPS_DPM	1
RES	581448.8	4204189	581448.76	0	8.81	8.81	1.5 ANNUAL	OPS_DPM	1
RES	581468.6	4204189	581468.61	0	8.75	8.75	1.5 ANNUAL	OPS_DPM	1
RES	581488.5	4204189	581488.46	0	8.73	8.73	1.5 ANNUAL	OPS_DPM	1
RES	581528.2	4204189	581528.16	0	8.72	8.72	1.5 ANNUAL	OPS_DPM	1
RES	581548	4204189	581548.01	0	9.53	10.33	1.5 ANNUAL	OPS_DPM	1
RES	581567.9	4204189	581567.86	0	9.84	9.84	1.5 ANNUAL	OPS_DPM	1
RES	581587.7	4204189	581587.71	1.00E-05	8.92	8.92	1.5 ANNUAL	OPS_DPM	1
RES	581607.6	4204189	581607.56	1.00E-05	8.63	8.63	1.5 ANNUAL	OPS_DPM	1
RES	581627.4	4204189	581627.41	1.00E-05	8.48	8.48	1.5 ANNUAL	OPS_DPM	1
RES	581647.3	4204189	581647.26	1.00E-05	8.09	8.09	1.5 ANNUAL	OPS_DPM	1
WOR	581766.4	4204189	581766.36	1.00E-05	5.62	5.62	1.5 ANNUAL	OPS_DPM	1
WOR	581786.2	4204189	581786.21	1.00E-05	6.12	6.12	1.5 ANNUAL	OPS_DPM	1
WOR	581806.1	4204189	581806.06	1.00E-05	6.18	6.18	1.5 ANNUAL	OPS_DPM	1
WOR	581865.6	4204189	581865.61	1.00E-05	6.18	6.18	1.5 ANNUAL	OPS_DPM	1
WOR	581885.5	4204189	581885.46	1.00E-05	6.3	6.3	1.5 ANNUAL	OPS_DPM	1
WOR	581945	4204189	581945.01	1.00E-05	6.61	6.61	1.5 ANNUAL	OPS_DPM	1
WOR	581964.9	4204189	581964.86	1.00E-05	6.78	6.78	1.5 ANNUAL	OPS_DPM	1
WOR	581984.7	4204189	581984.71	1.00E-05	7.03	7.03	1.5 ANNUAL	OPS_DPM	1
WOR	582004.6	4204189	582004.56	1.00E-05	7.32	9.81	1.5 ANNUAL	OPS_DPM	1
WOR	582084	4204189	582083.96	1.00E-05	6.95	6.95	1.5 ANNUAL	OPS_DPM	1
WOR	582103.8	4204189	582103.81	1.00E-05	7.04	7.04	1.5 ANNUAL	OPS_DPM	1
RES	581389.2	4204209	581389.21	0	9.22	9.22	1.5 ANNUAL	OPS_DPM	1
RES	581409.1	4204209	581409.06	0	9.04	9.04	1.5 ANNUAL	OPS_DPM	1
RES	581428.9	4204209	581428.91	0	8.93	8.93	1.5 ANNUAL	OPS_DPM	1
RES	581448.8	4204209	581448.76	0	8.87	8.87	1.5 ANNUAL	OPS_DPM	1
RES	581468.6	4204209	581468.61	0	9.12	9.12	1.5 ANNUAL	OPS_DPM	1
RES	581488.5	4204209	581488.46	0	9.4	9.4	1.5 ANNUAL	OPS_DPM	1
RES	581528.2	4204209	581528.16	0	9.02	12.29	1.5 ANNUAL	OPS_DPM	1
RES	581548	4204209	581548.01	0	10.81	11.71	1.5 ANNUAL	OPS_DPM	1
RES	581567.9	4204209	581567.86	0	11	11	1.5 ANNUAL	OPS_DPM	1

RES	581587.7	4204209	581587.71	1.00E-05	10.26	10.26	1.5 ANNUAL	OPS_DPM	1
RES	581607.6	4204209	581607.56	1.00E-05	10.01	10.01	1.5 ANNUAL	OPS_DPM	1
RES	581627.4	4204209	581627.41	1.00E-05	10.25	10.25	1.5 ANNUAL	OPS_DPM	1
RES	581647.3	4204209	581647.26	1.00E-05	9.61	10.32	1.5 ANNUAL	OPS_DPM	1
RES	581667.1	4204209	581667.11	1.00E-05	7.56	12.69	1.5 ANNUAL	OPS_DPM	1
RES	581687	4204209	581686.96	1.00E-05	6.53	12.31	1.5 ANNUAL	OPS_DPM	1
RES	581706.8	4204209	581706.81	1.00E-05	6.41	6.41	1.5 ANNUAL	OPS_DPM	1
WOR	581865.6	4204209	581865.61	1.00E-05	6.29	6.29	1.5 ANNUAL	OPS_DPM	1
WOR	581885.5	4204209	581885.46	1.00E-05	6.75	6.75	1.5 ANNUAL	OPS_DPM	1
WOR	582084	4204209	582083.96	1.00E-05	6.92	6.92	1.5 ANNUAL	OPS_DPM	1
WOR	582103.8	4204209	582103.81	1.00E-05	7.01	7.01	1.5 ANNUAL	OPS_DPM	1
RES	581389.2	4204229	581389.21	0	9.55	9.55	1.5 ANNUAL	OPS_DPM	1
RES	581409.1	4204229	581409.06	0	9.3	9.3	1.5 ANNUAL	OPS_DPM	1
RES	581428.9	4204229	581428.91	0	9	9	1.5 ANNUAL	OPS_DPM	1
RES	581448.8	4204229	581448.76	0	8.9	8.9	1.5 ANNUAL	OPS_DPM	1
RES	581468.6	4204229	581468.61	0	9.04	9.04	1.5 ANNUAL	OPS_DPM	1
RES	581508.3	4204229	581508.31	0	9.37	9.37	1.5 ANNUAL	OPS_DPM	1
RES	581528.2	4204229	581528.16	0	9.68	12.88	1.5 ANNUAL	OPS_DPM	1
RES	581548	4204229	581548.01	0	12.07	12.07	1.5 ANNUAL	OPS_DPM	1
RES	581567.9	4204229	581567.86	0	11.93	11.93	1.5 ANNUAL	OPS_DPM	1
RES	581587.7	4204229	581587.71	1.00E-05	11.71	11.71	1.5 ANNUAL	OPS_DPM	1
RES	581607.6	4204229	581607.56	1.00E-05	11.63	11.63	1.5 ANNUAL	OPS_DPM	1
RES	581627.4	4204229	581627.41	1.00E-05	11.82	11.82	1.5 ANNUAL	OPS_DPM	1
RES	581647.3	4204229	581647.26	1.00E-05	11.1	11.78	1.5 ANNUAL	OPS_DPM	1
RES	581667.1	4204229	581667.11	1.00E-05	9.11	12.69	1.5 ANNUAL	OPS_DPM	1
RES	581687	4204229	581686.96	1.00E-05	7.5	12.31	1.5 ANNUAL	OPS_DPM	1
RES	581706.8	4204229	581706.81	1.00E-05	6.63	6.63	1.5 ANNUAL	OPS_DPM	1
WOR	581865.6	4204229	581865.61	1.00E-05	6.27	6.27	1.5 ANNUAL	OPS_DPM	1
WOR	581885.5	4204229	581885.46	1.00E-05	6.67	6.67	1.5 ANNUAL	OPS_DPM	1
WOR	581943.7	4204234	581943.67	1.00E-05	6.57	6.57	1.5 ANNUAL	OPS_DPM	1
WOR	581963.5	4204234	581963.52	1.00E-05	6.54	6.54	1.5 ANNUAL	OPS_DPM	1
RES	581389.2	4204249	581389.21	0	10.31	10.31	1.5 ANNUAL	OPS_DPM	1
RES	581409.1	4204249	581409.06	0	9.97	9.97	1.5 ANNUAL	OPS_DPM	1
RES	581428.9	4204249	581428.91	0	9.57	9.57	1.5 ANNUAL	OPS_DPM	1
RES	581448.8	4204249	581448.76	0	9.75	11.62	1.5 ANNUAL	OPS_DPM	1
RES	581468.6	4204249	581468.61	0	9.86	12.45	1.5 ANNUAL	OPS_DPM	1
RES	581488.5	4204249	581488.46	0	9.99	11.61	1.5 ANNUAL	OPS_DPM	1
RES	581508.3	4204249	581508.31	0	10.48	10.48	1.5 ANNUAL	OPS_DPM	1
RES	581528.2	4204249	581528.16	0	10.77	12.88	1.5 ANNUAL	OPS_DPM	1
RES	581548	4204249	581548.01	0	12.81	12.81	1.5 ANNUAL	OPS_DPM	1
RES	581587.7	4204249	581587.71	1.00E-05	12.75	12.75	1.5 ANNUAL	OPS_DPM	1
RES	581607.6	4204249	581607.56	1.00E-05	12.91	12.91	1.5 ANNUAL	OPS_DPM	1
RES	581627.4	4204249	581627.41	1.00E-05	12.92	12.92	1.5 ANNUAL	OPS_DPM	1
RES	581647.3	4204249	581647.26	1.00E-05	12.08	12.08	1.5 ANNUAL	OPS_DPM	1
RES	581667.1	4204249	581667.11	1.00E-05	10.41	10.41	1.5 ANNUAL	OPS_DPM	1
RES	581687	4204249	581686.96	1.00E-05	8.64	8.64	1.5 ANNUAL	OPS_DPM	1
RES	581706.8	4204249	581706.81	2.00E-05	7.07	7.07	1.5 ANNUAL	OPS_DPM	1
RES	581746.5	4204249	581746.51	2.00E-05	6.4	6.4	1.5 ANNUAL	OPS_DPM	1
WOR	581865.6	4204249	581865.61	2.00E-05	6.3	6.3	1.5 ANNUAL	OPS_DPM	1
WOR	581885.5	4204249	581885.46	2.00E-05	6.65	6.65	1.5 ANNUAL	OPS_DPM	1
WOR	581930	4204253	581929.97	1.00E-05	6.61	6.61	1.5 ANNUAL	OPS_DPM	1
WOR	582084	4204249	582083.96	1.00E-05	6.57	10.9	1.5 ANNUAL	OPS_DPM	1
WOR	582103.8	4204249	582103.81	1.00E-05	6.7	6.7	1.5 ANNUAL	OPS_DPM	1
RES	581389.2	4204269	581389.21	0	10.94	10.94	1.5 ANNUAL	OPS_DPM	1

RES	581409.1	4204269	581409.064	0	10.64	10.64	1.5 ANNUAL	OPS_DPM	1
RES	581428.9	4204269	581428.914	0	10.73	10.73	1.5 ANNUAL	OPS_DPM	1
RES	581448.8	4204269	581448.764	0	11.59	11.59	1.5 ANNUAL	OPS_DPM	1
RES	581468.6	4204269	581468.614	0	12.03	12.03	1.5 ANNUAL	OPS_DPM	1
RES	581488.5	4204269	581488.464	0	11.98	11.98	1.5 ANNUAL	OPS_DPM	1
RES	581508.3	4204269	581508.314	0	11.98	12.82	1.5 ANNUAL	OPS_DPM	1
RES	581528.2	4204269	581528.164	0	12.24	12.24	1.5 ANNUAL	OPS_DPM	1
RES	581548	4204269	581548.014	0	12.64	12.64	1.5 ANNUAL	OPS_DPM	1
RES	581587.7	4204269	581587.714	0	12.55	12.55	1.5 ANNUAL	OPS_DPM	1
RES	581607.6	4204269	581607.564	1.00E-05	12.49	12.49	1.5 ANNUAL	OPS_DPM	1
RES	581627.4	4204269	581627.414	1.00E-05	12.53	12.53	1.5 ANNUAL	OPS_DPM	1
RES	581667.1	4204269	581667.114	1.00E-05	10.28	10.28	1.5 ANNUAL	OPS_DPM	1
RES	581687	4204269	581686.964	1.00E-05	8.73	8.73	1.5 ANNUAL	OPS_DPM	1
RES	581706.8	4204269	581706.814	2.00E-05	7.35	7.35	1.5 ANNUAL	OPS_DPM	1
RES	581726.7	4204269	581726.664	2.00E-05	6.27	6.27	1.5 ANNUAL	OPS_DPM	1
RES	581746.5	4204269	581746.514	2.00E-05	6.3	6.3	1.5 ANNUAL	OPS_DPM	1
WOR	581925.2	4204269	581925.164	2.00E-05	6.6	6.6	1.5 ANNUAL	OPS_DPM	1
WOR	581945	4204269	581945.014	1.00E-05	6.65	6.65	1.5 ANNUAL	OPS_DPM	1
WOR	581964.9	4204269	581964.864	1.00E-05	6.52	11.12	1.5 ANNUAL	OPS_DPM	1
WOR	582084	4204269	582083.964	1.00E-05	6.43	10.93	1.5 ANNUAL	OPS_DPM	1
WOR	582103.8	4204269	582103.814	1.00E-05	6.57	6.57	1.5 ANNUAL	OPS_DPM	1
RES	581389.2	4204288	581389.214	0	11.99	14.36	1.5 ANNUAL	OPS_DPM	1
RES	581409.1	4204288	581409.064	0	11.52	13.42	1.5 ANNUAL	OPS_DPM	1
RES	581428.9	4204288	581428.914	0	11.68	11.68	1.5 ANNUAL	OPS_DPM	1
RES	581448.8	4204288	581448.764	0	12.15	12.15	1.5 ANNUAL	OPS_DPM	1
RES	581468.6	4204288	581468.614	0	13.16	13.16	1.5 ANNUAL	OPS_DPM	1
RES	581484.9	4204289	581484.924	0	13.25	13.25	1.5 ANNUAL	OPS_DPM	1
RES	581508.3	4204288	581508.314	0	13.48	13.48	1.5 ANNUAL	OPS_DPM	1
RES	581528.2	4204288	581528.164	0	13.39	13.39	1.5 ANNUAL	OPS_DPM	1
RES	581548	4204288	581548.014	0	12.02	12.02	1.5 ANNUAL	OPS_DPM	1
RES	581587.7	4204288	581587.714	0	11.32	11.32	1.5 ANNUAL	OPS_DPM	1
RES	581607.6	4204288	581607.564	1.00E-05	10.97	10.97	1.5 ANNUAL	OPS_DPM	1
RES	581627.4	4204288	581627.414	1.00E-05	11.27	11.27	1.5 ANNUAL	OPS_DPM	1
RES	581647.3	4204288	581647.264	1.00E-05	10.87	10.87	1.5 ANNUAL	OPS_DPM	1
RES	581667.1	4204288	581667.114	1.00E-05	9.73	9.73	1.5 ANNUAL	OPS_DPM	1
RES	581687	4204288	581686.964	2.00E-05	8.06	8.06	1.5 ANNUAL	OPS_DPM	1
RES	581706.8	4204288	581706.814	2.00E-05	6.72	6.72	1.5 ANNUAL	OPS_DPM	1
RES	581726.7	4204288	581726.664	2.00E-05	6.05	6.05	1.5 ANNUAL	OPS_DPM	1
RES	581746.5	4204288	581746.514	2.00E-05	6.11	6.11	1.5 ANNUAL	OPS_DPM	1
RES	581766.4	4204288	581766.364	3.00E-05	6.13	6.13	1.5 ANNUAL	OPS_DPM	1
WOR	581925.2	4204288	581925.164	2.00E-05	6.57	6.57	1.5 ANNUAL	OPS_DPM	1
WOR	581945	4204288	581945.014	1.00E-05	6.56	6.56	1.5 ANNUAL	OPS_DPM	1
WOR	581964.9	4204288	581964.864	1.00E-05	6.43	11.63	1.5 ANNUAL	OPS_DPM	1
WOR	582084	4204288	582083.964	1.00E-05	6.39	10.91	1.5 ANNUAL	OPS_DPM	1
WOR	582103.8	4204288	582103.814	1.00E-05	6.44	6.44	1.5 ANNUAL	OPS_DPM	1
RES	581389.2	4204308	581389.214	0	13.9	13.9	1.5 ANNUAL	OPS_DPM	1
RES	581409.1	4204308	581409.064	0	13.47	13.47	1.5 ANNUAL	OPS_DPM	1
RES	581428.9	4204308	581428.914	0	13.11	13.11	1.5 ANNUAL	OPS_DPM	1
RES	581448.8	4204308	581448.764	0	12.94	12.94	1.5 ANNUAL	OPS_DPM	1
RES	581468.6	4204308	581468.614	0	13.47	13.47	1.5 ANNUAL	OPS_DPM	1
RES	581508.3	4204308	581508.314	0	14.26	14.26	1.5 ANNUAL	OPS_DPM	1
RES	581528.2	4204308	581528.164	0	13.37	14.42	1.5 ANNUAL	OPS_DPM	1
RES	581548	4204308	581548.014	0	11.58	14.42	1.5 ANNUAL	OPS_DPM	1
RES	581570.8	4204309	581570.754	0	11.02	11.02	1.5 ANNUAL	OPS_DPM	1

RES	581587.7	4204308	581587.71	0	10.18	10.18	1.5 ANNUAL	OPS_DPM	1
RES	581607.6	4204308	581607.56	0	9.55	9.55	1.5 ANNUAL	OPS_DPM	1
RES	581627.4	4204308	581627.41	1.00E-05	9.23	11.49	1.5 ANNUAL	OPS_DPM	1
RES	581652.1	4204313	581652.13	1.00E-05	9.39	9.39	1.5 ANNUAL	OPS_DPM	1
RES	581672	4204313	581671.98	1.00E-05	8.62	8.62	1.5 ANNUAL	OPS_DPM	1
RES	581726.7	4204308	581726.66	0	5.73	5.73	1.5 ANNUAL	OPS_DPM	1
RES	581746.5	4204308	581746.51	1.00E-05	5.99	5.99	1.5 ANNUAL	OPS_DPM	1
RES	581766.4	4204308	581766.36	4.00E-05	6.4	6.4	1.5 ANNUAL	OPS_DPM	1
WOR	581825.9	4204308	581825.91	4.00E-05	6.56	6.56	1.5 ANNUAL	OPS_DPM	1
WOR	581845.8	4204308	581845.76	3.00E-05	7.02	7.02	1.5 ANNUAL	OPS_DPM	1
WOR	582084	4204308	582083.96	1.00E-05	6.33	11.55	1.5 ANNUAL	OPS_DPM	1
WOR	582103.8	4204308	582103.81	1.00E-05	6.45	6.45	1.5 ANNUAL	OPS_DPM	1
RES	581389.2	4204328	581389.21	0	14.57	14.57	1.5 ANNUAL	OPS_DPM	1
RES	581409.1	4204328	581409.06	0	14.07	14.07	1.5 ANNUAL	OPS_DPM	1
RES	581428.9	4204328	581428.91	0	13.74	13.74	1.5 ANNUAL	OPS_DPM	1
RES	581448.8	4204328	581448.76	0	13.41	13.41	1.5 ANNUAL	OPS_DPM	1
RES	581468.6	4204328	581468.61	0	13.24	13.24	1.5 ANNUAL	OPS_DPM	1
RES	581508.3	4204328	581508.31	0	14.31	14.31	1.5 ANNUAL	OPS_DPM	1
RES	581528.2	4204328	581528.16	0	12.9	14.47	1.5 ANNUAL	OPS_DPM	1
RES	581548	4204328	581548.01	0	11.27	14.43	1.5 ANNUAL	OPS_DPM	1
RES	581570.8	4204329	581570.75	0	10.9	10.9	1.5 ANNUAL	OPS_DPM	1
RES	581587.7	4204328	581587.71	0	9.95	9.95	1.5 ANNUAL	OPS_DPM	1
RES	581607.6	4204328	581607.56	0	8.46	8.46	1.5 ANNUAL	OPS_DPM	1
RES	581627.4	4204328	581627.41	0	7.65	7.65	1.5 ANNUAL	OPS_DPM	1
RES	581647.3	4204328	581647.26	1.00E-05	7.85	9.13	1.5 ANNUAL	OPS_DPM	1
RES	581667.1	4204328	581667.11	1.00E-05	7.98	7.98	1.5 ANNUAL	OPS_DPM	1
RES	581687	4204328	581686.96	1.00E-05	6.45	8.87	1.5 ANNUAL	OPS_DPM	1
WOR	581825.9	4204328	581825.91	4.00E-05	6.27	6.27	1.5 ANNUAL	OPS_DPM	1
WOR	581845.8	4204328	581845.76	3.00E-05	6.96	6.96	1.5 ANNUAL	OPS_DPM	1
WOR	582084	4204328	582083.96	1.00E-05	6.37	11.53	1.5 ANNUAL	OPS_DPM	1
WOR	582103.8	4204328	582103.81	1.00E-05	6.32	6.32	1.5 ANNUAL	OPS_DPM	1
RES	581389.2	4204348	581389.2	0	14.78	14.78	1.5 ANNUAL	OPS_DPM	1
RES	581409.1	4204348	581409.1	0	14.09	14.09	1.5 ANNUAL	OPS_DPM	1
RES	581428.9	4204348	581428.9	0	13.78	13.78	1.5 ANNUAL	OPS_DPM	1
RES	581448.8	4204348	581448.8	0	13.51	13.51	1.5 ANNUAL	OPS_DPM	1
RES	581468.6	4204348	581468.6	0	12.86	12.86	1.5 ANNUAL	OPS_DPM	1
RES	581492.2	4204349	581492.19	0	11.6	14.33	1.5 ANNUAL	OPS_DPM	1
RES	581508.3	4204348	581508.3	0	12.66	14.16	1.5 ANNUAL	OPS_DPM	1
RES	581528.2	4204348	581528.2	0	11.26	14.47	1.5 ANNUAL	OPS_DPM	1
RES	581548	4204348	581548	0	10.62	14.43	1.5 ANNUAL	OPS_DPM	1
RES	581587.7	4204348	581587.7	0	10	10	1.5 ANNUAL	OPS_DPM	1
RES	581607.6	4204348	581607.6	0	8.49	8.49	1.5 ANNUAL	OPS_DPM	1
RES	581627.4	4204348	581627.4	0	7.54	7.54	1.5 ANNUAL	OPS_DPM	1
RES	581647.3	4204348	581647.3	1.00E-05	7.4	7.4	1.5 ANNUAL	OPS_DPM	1
RES	581667.1	4204348	581667.1	1.00E-05	7.43	7.43	1.5 ANNUAL	OPS_DPM	1
RES	581687	4204348	581687	1.00E-05	6.94	6.94	1.5 ANNUAL	OPS_DPM	1
WOR	581825.9	4204348	581825.9	4.00E-05	6.2	6.2	1.5 ANNUAL	OPS_DPM	1
WOR	581845.8	4204348	581845.8	3.00E-05	6.63	6.63	1.5 ANNUAL	OPS_DPM	1
WOR	581925.2	4204348	581925.2	2.00E-05	6.13	6.13	1.5 ANNUAL	OPS_DPM	1
WOR	582103.8	4204348	582103.8	1.00E-05	6.25	6.25	1.5 ANNUAL	OPS_DPM	1
RES	581508.3	4204363	581508.31	0	10.74	14.16	1.5 ANNUAL	OPS_DPM	1
RES	581528.2	4204363	581528.16	0	10.07	14.47	1.5 ANNUAL	OPS_DPM	1
RES	581646.9	4204364	581646.91	0	7.87	7.87	1.5 ANNUAL	OPS_DPM	1
RES	581666.8	4204364	581666.76	1.00E-05	7.69	7.69	1.5 ANNUAL	OPS_DPM	1

RES	581686.6	4204364	581686.61	1.00E-05	7.28	7.28	1.5 ANNUAL	OPS_DPM	1
WOR	581905.3	4204368	581905.31	2.00E-05	6.14	6.14	1.5 ANNUAL	OPS_DPM	1
WOR	581925.2	4204368	581925.16	2.00E-05	6.08	6.08	1.5 ANNUAL	OPS_DPM	1
WOR	582064.1	4204368	582064.11	1.00E-05	6.05	11.91	1.5 ANNUAL	OPS_DPM	1
WOR	582084	4204368	582083.96	1.00E-05	6.18	6.18	1.5 ANNUAL	OPS_DPM	1
WOR	582103.8	4204368	582103.81	1.00E-05	6.15	6.15	1.5 ANNUAL	OPS_DPM	1
RES	581387.6	4204391	581387.58	0	14.8	14.8	1.5 ANNUAL	OPS_DPM	1
RES	581407.4	4204391	581407.43	0	13.52	13.52	1.5 ANNUAL	OPS_DPM	1
RES	581427.3	4204391	581427.28	0	11.79	12.48	1.5 ANNUAL	OPS_DPM	1
RES	581447.1	4204391	581447.13	0	10.79	10.79	1.5 ANNUAL	OPS_DPM	1
RES	581465	4204392	581464.98	0	10.41	10.41	1.5 ANNUAL	OPS_DPM	1
RES	581490.3	4204389	581490.33	0	9.87	9.87	1.5 ANNUAL	OPS_DPM	1
RES	581506.7	4204391	581506.68	0	9.64	9.64	1.5 ANNUAL	OPS_DPM	1
RES	581526.5	4204391	581526.53	0	9.3	9.3	1.5 ANNUAL	OPS_DPM	1
WOR	581825.9	4204388	581825.91	3.00E-05	6.01	6.01	1.5 ANNUAL	OPS_DPM	1
WOR	581845.8	4204388	581845.76	2.00E-05	6.11	6.11	1.5 ANNUAL	OPS_DPM	1
WOR	581865.6	4204388	581865.61	2.00E-05	6.04	6.04	1.5 ANNUAL	OPS_DPM	1
WOR	581912.6	4204393	581912.63	2.00E-05	6.19	6.19	1.5 ANNUAL	OPS_DPM	1
WOR	582064.1	4204388	582064.11	1.00E-05	6	11.83	1.5 ANNUAL	OPS_DPM	1
WOR	582084	4204388	582083.96	1.00E-05	6.06	6.06	1.5 ANNUAL	OPS_DPM	1
WOR	582103.8	4204388	582103.81	1.00E-05	6.01	6.01	1.5 ANNUAL	OPS_DPM	1
RES	581389.2	4204408	581389.21	0	14.96	14.96	1.5 ANNUAL	OPS_DPM	1
RES	581409.1	4204408	581409.06	0	13.32	13.32	1.5 ANNUAL	OPS_DPM	1
RES	581428.9	4204408	581428.91	0	10.5	14.98	1.5 ANNUAL	OPS_DPM	1
RES	581448.8	4204408	581448.76	0	10.1	10.1	1.5 ANNUAL	OPS_DPM	1
RES	581466.6	4204408	581466.61	0	9.79	9.79	1.5 ANNUAL	OPS_DPM	1
RES	581492	4204405	581491.96	0	8.69	8.69	1.5 ANNUAL	OPS_DPM	1
RES	581508.3	4204408	581508.31	0	8.52	8.52	1.5 ANNUAL	OPS_DPM	1
RES	581528.2	4204408	581528.16	0	8.2	8.2	1.5 ANNUAL	OPS_DPM	1
RES	581548	4204408	581548.01	0	8.3	8.3	1.5 ANNUAL	OPS_DPM	1
RES	581567.9	4204408	581567.86	0	9.43	9.43	1.5 ANNUAL	OPS_DPM	1
RES	581587.7	4204408	581587.71	0	10.24	10.24	1.5 ANNUAL	OPS_DPM	1
RES	581607.6	4204408	581607.56	0	9.77	9.77	1.5 ANNUAL	OPS_DPM	1
RES	581627.4	4204408	581627.41	0	9.36	9.36	1.5 ANNUAL	OPS_DPM	1
RES	581647.3	4204408	581647.26	1.00E-05	9.23	9.23	1.5 ANNUAL	OPS_DPM	1
RES	581667.1	4204408	581667.11	1.00E-05	9.54	9.78	1.5 ANNUAL	OPS_DPM	1
RES	581687	4204408	581686.96	1.00E-05	9.8	9.8	1.5 ANNUAL	OPS_DPM	1
RES	581706.8	4204408	581706.81	2.00E-05	9.23	9.23	1.5 ANNUAL	OPS_DPM	1
RES	581726.7	4204408	581726.66	4.00E-05	8.29	8.29	1.5 ANNUAL	OPS_DPM	1
RES	581746.5	4204408	581746.51	7.00E-05	6.46	8	1.5 ANNUAL	OPS_DPM	1
WOR	581825.9	4204408	581825.91	3.00E-05	6.13	6.13	1.5 ANNUAL	OPS_DPM	1
WOR	581845.8	4204408	581845.76	2.00E-05	6.27	6.27	1.5 ANNUAL	OPS_DPM	1
WOR	581865.6	4204408	581865.61	2.00E-05	6.06	6.06	1.5 ANNUAL	OPS_DPM	1
WOR	581905.3	4204408	581905.31	2.00E-05	6.31	6.31	1.5 ANNUAL	OPS_DPM	1
WOR	581925.2	4204408	581925.16	2.00E-05	6.33	6.33	1.5 ANNUAL	OPS_DPM	1
WOR	581945	4204408	581945.01	1.00E-05	6.24	11.65	1.5 ANNUAL	OPS_DPM	1
RES	581389.2	4204427	581389.21	0	14.03	14.03	1.5 ANNUAL	OPS_DPM	1
RES	581409.1	4204427	581409.06	0	13.45	13.79	1.5 ANNUAL	OPS_DPM	1
RES	581428.9	4204427	581428.91	0	10.3	15.5	1.5 ANNUAL	OPS_DPM	1
RES	581448.8	4204427	581448.76	0	10.11	10.11	1.5 ANNUAL	OPS_DPM	1
RES	581466.6	4204428	581466.61	0	9.61	10.08	1.5 ANNUAL	OPS_DPM	1
RES	581492	4204425	581491.96	0	7.13	10.08	1.5 ANNUAL	OPS_DPM	1
RES	581508.3	4204427	581508.31	0	6.67	6.67	1.5 ANNUAL	OPS_DPM	1
RES	581528.2	4204427	581528.16	0	7.03	7.03	1.5 ANNUAL	OPS_DPM	1

RES	581548	4204427	581548.01	0	7.33	7.33	1.5 ANNUAL	OPS_DPM	1
RES	581567.9	4204427	581567.86	0	8.08	10.16	1.5 ANNUAL	OPS_DPM	1
RES	581587.7	4204427	581587.71	0	9.22	10.16	1.5 ANNUAL	OPS_DPM	1
RES	581607.6	4204427	581607.56	0	9.48	9.48	1.5 ANNUAL	OPS_DPM	1
RES	581627.4	4204427	581627.41	0	9.33	9.33	1.5 ANNUAL	OPS_DPM	1
RES	581647.3	4204427	581647.26	1.00E-05	9.61	9.61	1.5 ANNUAL	OPS_DPM	1
RES	581667.1	4204427	581667.11	1.00E-05	9.93	9.93	1.5 ANNUAL	OPS_DPM	1
RES	581687	4204427	581686.96	1.00E-05	10.35	10.35	1.5 ANNUAL	OPS_DPM	1
RES	581706.8	4204427	581706.81	2.00E-05	9.37	9.37	1.5 ANNUAL	OPS_DPM	1
WOR	581825.9	4204427	581825.91	3.00E-05	6.3	6.3	1.5 ANNUAL	OPS_DPM	1
WOR	581845.8	4204427	581845.76	2.00E-05	6.44	6.44	1.5 ANNUAL	OPS_DPM	1
WOR	581905.3	4204427	581905.31	2.00E-05	6.34	6.34	1.5 ANNUAL	OPS_DPM	1
WOR	581925.2	4204427	581925.16	1.00E-05	6.31	6.31	1.5 ANNUAL	OPS_DPM	1
WOR	581945	4204427	581945.01	1.00E-05	6.35	11.65	1.5 ANNUAL	OPS_DPM	1
WOR	582069.7	4204433	582069.73	1.00E-05	6.32	6.32	1.5 ANNUAL	OPS_DPM	1
RES	581389.2	4204447	581389.21	0	14.34	14.34	1.5 ANNUAL	OPS_DPM	1
RES	581409.1	4204447	581409.06	0	13.38	13.38	1.5 ANNUAL	OPS_DPM	1
RES	581428.9	4204447	581428.91	0	10.43	15.61	1.5 ANNUAL	OPS_DPM	1
RES	581448.8	4204447	581448.76	0	10.13	15.35	1.5 ANNUAL	OPS_DPM	1
RES	581466.6	4204448	581466.61	0	9.67	9.67	1.5 ANNUAL	OPS_DPM	1
RES	581492	4204445	581492	0	7.56	7.56	1.5 ANNUAL	OPS_DPM	1
RES	581508.3	4204447	581508.31	0	7.34	7.34	1.5 ANNUAL	OPS_DPM	1
RES	581528.2	4204447	581528.16	0	7.06	7.06	1.5 ANNUAL	OPS_DPM	1
RES	581548	4204447	581548.01	0	7.27	7.27	1.5 ANNUAL	OPS_DPM	1
RES	581567.9	4204447	581567.86	0	7.59	7.59	1.5 ANNUAL	OPS_DPM	1
RES	581587.7	4204447	581587.71	0	7.86	7.86	1.5 ANNUAL	OPS_DPM	1
RES	581607.6	4204447	581607.56	0	8.08	8.08	1.5 ANNUAL	OPS_DPM	1
RES	581627.4	4204447	581627.41	1.00E-05	8.25	8.25	1.5 ANNUAL	OPS_DPM	1
RES	581647.3	4204447	581647.26	1.00E-05	9.05	9.05	1.5 ANNUAL	OPS_DPM	1
RES	581667.1	4204447	581667.11	1.00E-05	9.2	9.2	1.5 ANNUAL	OPS_DPM	1
RES	581687	4204447	581686.96	1.00E-05	8.84	8.84	1.5 ANNUAL	OPS_DPM	1
RES	581706.8	4204447	581706.81	2.00E-05	8.29	8.29	1.5 ANNUAL	OPS_DPM	1
WOR	581825.9	4204447	581825.91	3.00E-05	6.32	6.32	1.5 ANNUAL	OPS_DPM	1
WOR	581845.8	4204447	581845.76	2.00E-05	6.23	6.23	1.5 ANNUAL	OPS_DPM	1
WOR	581905.3	4204447	581905.31	1.00E-05	6.22	6.22	1.5 ANNUAL	OPS_DPM	1
WOR	581925.2	4204447	581925.16	1.00E-05	6.35	6.35	1.5 ANNUAL	OPS_DPM	1
WOR	581945	4204447	581945.01	1.00E-05	6.29	11.65	1.5 ANNUAL	OPS_DPM	1
WOR	582064.1	4204447	582064.11	1.00E-05	6.41	6.41	1.5 ANNUAL	OPS_DPM	1
WOR	582084	4204447	582083.96	1.00E-05	6.51	6.51	1.5 ANNUAL	OPS_DPM	1
RES	581389.2	4204467	581389.21	0	15.54	15.54	1.5 ANNUAL	OPS_DPM	1
RES	581409.1	4204467	581409.06	0	14.89	15.35	1.5 ANNUAL	OPS_DPM	1
RES	581428.9	4204467	581428.91	0	10.9	15.61	1.5 ANNUAL	OPS_DPM	1
RES	581448.8	4204467	581448.76	0	10.09	15.5	1.5 ANNUAL	OPS_DPM	1
RES	581466.6	4204468	581466.61	0	9.83	9.83	1.5 ANNUAL	OPS_DPM	1
RES	581492	4204465	581491.96	0	8.1	8.1	1.5 ANNUAL	OPS_DPM	1
RES	581508.3	4204467	581508.31	0	7.82	7.82	1.5 ANNUAL	OPS_DPM	1
RES	581528.2	4204467	581528.16	0	7.43	7.43	1.5 ANNUAL	OPS_DPM	1
RES	581548	4204467	581548.01	0	7.44	7.44	1.5 ANNUAL	OPS_DPM	1
RES	581567.9	4204467	581567.86	0	7.47	7.47	1.5 ANNUAL	OPS_DPM	1
RES	581587.7	4204467	581587.71	0	7.5	7.5	1.5 ANNUAL	OPS_DPM	1
RES	581601.1	4204461	581601.06	0	7.79	7.79	1.5 ANNUAL	OPS_DPM	1
RES	581620.9	4204461	581620.91	1.00E-05	7.77	7.77	1.5 ANNUAL	OPS_DPM	1
RES	581648.5	4204463	581648.48	1.00E-05	8.46	8.79	1.5 ANNUAL	OPS_DPM	1
RES	581667.1	4204467	581667.11	1.00E-05	8.55	8.55	1.5 ANNUAL	OPS_DPM	1

RES	581687	4204467	581686.96	1.00E-05	8.57	8.57	1.5 ANNUAL	OPS_DPM	1
WOR	581885.5	4204467	581885.46	2.00E-05	6.2	6.2	1.5 ANNUAL	OPS_DPM	1
WOR	581905.3	4204467	581905.31	1.00E-05	5.93	5.93	1.5 ANNUAL	OPS_DPM	1
WOR	581925.2	4204467	581925.16	1.00E-05	5.86	5.86	1.5 ANNUAL	OPS_DPM	1
WOR	581945	4204467	581945.01	1.00E-05	5.9	11.65	1.5 ANNUAL	OPS_DPM	1
WOR	582064.1	4204467	582064.11	1.00E-05	6.37	6.37	1.5 ANNUAL	OPS_DPM	1
WOR	582084	4204467	582083.96	1.00E-05	6.44	6.44	1.5 ANNUAL	OPS_DPM	1
RES	581389.2	4204487	581389.21	0	13.84	14.7	1.5 ANNUAL	OPS_DPM	1
RES	581409.1	4204487	581409.06	0	13.38	15.35	1.5 ANNUAL	OPS_DPM	1
RES	581428.9	4204487	581428.91	0	11.93	15.35	1.5 ANNUAL	OPS_DPM	1
RES	581448.8	4204487	581448.76	0	11.28	11.28	1.5 ANNUAL	OPS_DPM	1
RES	581466.6	4204487	581466.61	0	10.26	10.26	1.5 ANNUAL	OPS_DPM	1
RES	581508.3	4204487	581508.31	0	8.16	8.16	1.5 ANNUAL	OPS_DPM	1
RES	581528.2	4204487	581528.16	0	7.51	7.51	1.5 ANNUAL	OPS_DPM	1
RES	581548	4204487	581548.01	0	7.24	7.24	1.5 ANNUAL	OPS_DPM	1
RES	581567.9	4204487	581567.86	0	7.1	7.1	1.5 ANNUAL	OPS_DPM	1
RES	581587.7	4204487	581587.71	1.00E-05	7.14	7.14	1.5 ANNUAL	OPS_DPM	1
RES	581601.1	4204480	581601.06	1.00E-05	7.23	7.23	1.5 ANNUAL	OPS_DPM	1
RES	581627.4	4204487	581627.41	1.00E-05	7.19	7.19	1.5 ANNUAL	OPS_DPM	1
RES	581647.3	4204487	581647.26	1.00E-05	7.14	7.14	1.5 ANNUAL	OPS_DPM	1
RES	581667.1	4204487	581667.11	1.00E-05	7.14	7.14	1.5 ANNUAL	OPS_DPM	1
RES	581687	4204487	581686.96	1.00E-05	6.99	6.99	1.5 ANNUAL	OPS_DPM	1
RES	581706.8	4204487	581706.81	2.00E-05	6.61	6.61	1.5 ANNUAL	OPS_DPM	1
WOR	581885.5	4204487	581885.46	2.00E-05	6.15	6.15	1.5 ANNUAL	OPS_DPM	1
WOR	581905.3	4204487	581905.31	1.00E-05	5.85	5.85	1.5 ANNUAL	OPS_DPM	1
WOR	581925.2	4204487	581925.16	1.00E-05	5.74	10.84	1.5 ANNUAL	OPS_DPM	1
WOR	581945	4204487	581945.01	1.00E-05	5.69	11.58	1.5 ANNUAL	OPS_DPM	1
WOR	582044.3	4204487	582044.26	1.00E-05	5.5	11.64	1.5 ANNUAL	OPS_DPM	1
WOR	582064.1	4204487	582064.11	1.00E-05	5.6	5.6	1.5 ANNUAL	OPS_DPM	1
WOR	582084	4204487	582083.96	1.00E-05	6.43	6.43	1.5 ANNUAL	OPS_DPM	1
RES	581389.2	4204507	581389.21	0	13.19	13.19	1.5 ANNUAL	OPS_DPM	1
RES	581409.1	4204507	581409.06	0	12.61	12.61	1.5 ANNUAL	OPS_DPM	1
RES	581428.9	4204507	581428.91	0	11.94	11.94	1.5 ANNUAL	OPS_DPM	1
RES	581448.8	4204507	581448.76	0	11.27	11.27	1.5 ANNUAL	OPS_DPM	1
RES	581466.6	4204507	581466.61	0	10.28	10.28	1.5 ANNUAL	OPS_DPM	1
RES	581488.5	4204507	581488.46	0	9.39	9.39	1.5 ANNUAL	OPS_DPM	1
RES	581508.3	4204507	581508.31	0	9.6	9.6	1.5 ANNUAL	OPS_DPM	1
RES	581528.2	4204507	581528.16	0	9.04	9.04	1.5 ANNUAL	OPS_DPM	1
RES	581548	4204507	581548.01	0	8.33	8.33	1.5 ANNUAL	OPS_DPM	1
RES	581567.9	4204507	581567.86	1.00E-05	7.81	8.32	1.5 ANNUAL	OPS_DPM	1
RES	581587.7	4204507	581587.71	1.00E-05	7.32	7.32	1.5 ANNUAL	OPS_DPM	1
RES	581607.6	4204507	581607.56	1.00E-05	6.96	6.96	1.5 ANNUAL	OPS_DPM	1
RES	581627.4	4204507	581627.41	1.00E-05	6.99	6.99	1.5 ANNUAL	OPS_DPM	1
RES	581647.3	4204507	581647.26	1.00E-05	7.03	7.03	1.5 ANNUAL	OPS_DPM	1
RES	581667.1	4204507	581667.11	1.00E-05	7.09	7.09	1.5 ANNUAL	OPS_DPM	1
RES	581687	4204507	581686.96	1.00E-05	7.01	7.01	1.5 ANNUAL	OPS_DPM	1
RES	581706.8	4204507	581706.81	2.00E-05	6.64	6.64	1.5 ANNUAL	OPS_DPM	1
RES	581726.7	4204507	581726.66	2.00E-05	6.18	6.18	1.5 ANNUAL	OPS_DPM	1
WOR	581885.5	4204507	581885.46	2.00E-05	6.05	6.05	1.5 ANNUAL	OPS_DPM	1
WOR	581905.3	4204507	581905.31	1.00E-05	5.82	5.82	1.5 ANNUAL	OPS_DPM	1
WOR	581925.2	4204507	581925.16	1.00E-05	5.69	10.84	1.5 ANNUAL	OPS_DPM	1
WOR	581945	4204507	581945.01	1.00E-05	5.64	11.4	1.5 ANNUAL	OPS_DPM	1
WOR	582044.3	4204507	582044.26	1.00E-05	5.41	11.4	1.5 ANNUAL	OPS_DPM	1
WOR	582064.1	4204507	582064.11	1.00E-05	5.46	5.46	1.5 ANNUAL	OPS_DPM	1

WOR	582084	4204507	582083.96	1.00E-05	6.41	6.41	1.5 ANNUAL	OPS_DPM	1
RES	581389.2	4204527	581389.21	0	13.09	13.09	1.5 ANNUAL	OPS_DPM	1
RES	581409.1	4204527	581409.06	0	12.35	12.35	1.5 ANNUAL	OPS_DPM	1
RES	581488.5	4204527	581488.46	0	10.3	10.3	1.5 ANNUAL	OPS_DPM	1
RES	581508.3	4204527	581508.31	0	10.58	10.58	1.5 ANNUAL	OPS_DPM	1
RES	581528.2	4204527	581528.16	0	9.65	9.65	1.5 ANNUAL	OPS_DPM	1
RES	581548	4204527	581548.01	1.00E-05	9.03	9.03	1.5 ANNUAL	OPS_DPM	1
RES	581567.9	4204527	581567.86	1.00E-05	8.76	8.76	1.5 ANNUAL	OPS_DPM	1
RES	581587.7	4204527	581587.71	1.00E-05	8.81	8.81	1.5 ANNUAL	OPS_DPM	1
RES	581607.6	4204527	581607.56	1.00E-05	8.46	8.46	1.5 ANNUAL	OPS_DPM	1
RES	581627.4	4204527	581627.41	1.00E-05	7.46	7.46	1.5 ANNUAL	OPS_DPM	1
RES	581647.3	4204527	581647.26	1.00E-05	7.48	7.48	1.5 ANNUAL	OPS_DPM	1
RES	581667.1	4204527	581667.11	1.00E-05	7.44	7.44	1.5 ANNUAL	OPS_DPM	1
RES	581687	4204527	581686.96	1.00E-05	7.02	7.02	1.5 ANNUAL	OPS_DPM	1
RES	581706.8	4204527	581706.81	2.00E-05	6.6	6.6	1.5 ANNUAL	OPS_DPM	1
WOR	581885.5	4204527	581885.46	2.00E-05	5.57	5.57	1.5 ANNUAL	OPS_DPM	1
WOR	581905.3	4204527	581905.31	1.00E-05	5.68	5.68	1.5 ANNUAL	OPS_DPM	1
WOR	581925.2	4204527	581925.16	1.00E-05	5.81	9.94	1.5 ANNUAL	OPS_DPM	1
WOR	581945	4204527	581945.01	1.00E-05	5.71	11.07	1.5 ANNUAL	OPS_DPM	1
WOR	582044.3	4204527	582044.26	1.00E-05	5.36	11.04	1.5 ANNUAL	OPS_DPM	1
WOR	582064.1	4204527	582064.11	1.00E-05	5.54	5.54	1.5 ANNUAL	OPS_DPM	1
WOR	582084	4204527	582083.96	1.00E-05	6.39	6.39	1.5 ANNUAL	OPS_DPM	1
RES	581389.2	4204547	581389.21	0	13.18	13.18	1.5 ANNUAL	OPS_DPM	1
RES	581409.1	4204547	581409.06	0	12.53	12.53	1.5 ANNUAL	OPS_DPM	1
RES	581428.9	4204547	581428.91	0	11.63	11.63	1.5 ANNUAL	OPS_DPM	1
RES	581448.8	4204547	581448.76	0	11.12	11.12	1.5 ANNUAL	OPS_DPM	1
RES	581468.6	4204547	581468.61	0	10.87	10.87	1.5 ANNUAL	OPS_DPM	1
RES	581488.5	4204547	581488.46	0	10.71	10.71	1.5 ANNUAL	OPS_DPM	1
RES	581508.3	4204547	581508.31	0	11.17	11.17	1.5 ANNUAL	OPS_DPM	1
RES	581528.2	4204547	581528.16	1.00E-05	10.28	10.28	1.5 ANNUAL	OPS_DPM	1
RES	581548	4204547	581548.01	1.00E-05	9.42	9.42	1.5 ANNUAL	OPS_DPM	1
RES	581567.9	4204547	581567.86	1.00E-05	8.57	8.57	1.5 ANNUAL	OPS_DPM	1
RES	581587.7	4204547	581587.71	1.00E-05	8.97	8.97	1.5 ANNUAL	OPS_DPM	1
RES	581607.6	4204547	581607.56	1.00E-05	8.33	8.33	1.5 ANNUAL	OPS_DPM	1
RES	581627.4	4204547	581627.41	1.00E-05	7.45	7.45	1.5 ANNUAL	OPS_DPM	1
RES	581647.3	4204547	581647.26	1.00E-05	7.31	7.31	1.5 ANNUAL	OPS_DPM	1
RES	581667.1	4204547	581667.11	1.00E-05	7.58	7.58	1.5 ANNUAL	OPS_DPM	1
RES	581687	4204547	581686.96	1.00E-05	7.19	7.19	1.5 ANNUAL	OPS_DPM	1
RES	581706.8	4204547	581706.81	2.00E-05	6.82	6.82	1.5 ANNUAL	OPS_DPM	1
WOR	581865.6	4204547	581865.61	2.00E-05	5.88	5.88	1.5 ANNUAL	OPS_DPM	1
WOR	581885.5	4204547	581885.46	2.00E-05	5.44	5.44	1.5 ANNUAL	OPS_DPM	1
WOR	581905.3	4204547	581905.31	1.00E-05	5.8	5.8	1.5 ANNUAL	OPS_DPM	1
WOR	581925.2	4204547	581925.16	1.00E-05	5.87	5.87	1.5 ANNUAL	OPS_DPM	1
WOR	581945	4204547	581945.01	1.00E-05	5.76	10.79	1.5 ANNUAL	OPS_DPM	1
RES	582044.3	4204547	582044.26	1.00E-05	5.3	10.43	1.5 ANNUAL	OPS_DPM	1
RES	582064.1	4204547	582064.11	1.00E-05	5.3	5.3	1.5 ANNUAL	OPS_DPM	1
RES	582084	4204547	582083.96	1.00E-05	5.47	5.47	1.5 ANNUAL	OPS_DPM	1
RES	582102.5	4204551	582102.54	1.00E-05	5.49	5.49	1.5 ANNUAL	OPS_DPM	1
RES	581389.2	4204566	581389.21	0	13.42	13.42	1.5 ANNUAL	OPS_DPM	1
RES	581409.1	4204566	581409.06	0	12.84	12.84	1.5 ANNUAL	OPS_DPM	1
RES	581428.9	4204566	581428.91	0	12.16	12.16	1.5 ANNUAL	OPS_DPM	1
RES	581448.8	4204566	581448.76	0	11.58	11.58	1.5 ANNUAL	OPS_DPM	1
RES	581468.6	4204566	581468.61	0	11.16	11.16	1.5 ANNUAL	OPS_DPM	1
RES	581508.3	4204566	581508.31	0	11.36	11.36	1.5 ANNUAL	OPS_DPM	1

RES	581528.2	4204566	581528.16	1.00E-05	10.99	10.99	1.5 ANNUAL	OPS_DPM	1
RES	581548	4204566	581548.01	1.00E-05	10.31	10.31	1.5 ANNUAL	OPS_DPM	1
RES	581567.9	4204566	581567.86	1.00E-05	9.34	9.34	1.5 ANNUAL	OPS_DPM	1
RES	581587.7	4204566	581587.71	1.00E-05	9.59	9.59	1.5 ANNUAL	OPS_DPM	1
RES	581607.6	4204566	581607.56	1.00E-05	8.49	8.49	1.5 ANNUAL	OPS_DPM	1
RES	581627.4	4204566	581627.41	1.00E-05	7.64	7.64	1.5 ANNUAL	OPS_DPM	1
RES	581647.3	4204566	581647.26	1.00E-05	7.25	7.25	1.5 ANNUAL	OPS_DPM	1
RES	581667.1	4204566	581667.11	1.00E-05	7.62	7.62	1.5 ANNUAL	OPS_DPM	1
RES	581687	4204566	581686.96	1.00E-05	7.14	7.14	1.5 ANNUAL	OPS_DPM	1
RES	581706.8	4204566	581706.81	2.00E-05	7.05	7.05	1.5 ANNUAL	OPS_DPM	1
WOR	581865.6	4204566	581865.61	2.00E-05	5.56	5.56	1.5 ANNUAL	OPS_DPM	1
WOR	581885.5	4204566	581885.46	2.00E-05	5.42	5.42	1.5 ANNUAL	OPS_DPM	1
WOR	581905.3	4204566	581905.31	1.00E-05	5.76	5.76	1.5 ANNUAL	OPS_DPM	1
WOR	581925.2	4204566	581925.16	1.00E-05	5.79	5.79	1.5 ANNUAL	OPS_DPM	1
RES	582024.4	4204566	582024.41	1.00E-05	5.3	10.6	1.5 ANNUAL	OPS_DPM	1
RES	582044.3	4204566	582044.26	1.00E-05	5.28	5.28	1.5 ANNUAL	OPS_DPM	1
RES	582064.1	4204566	582064.11	1.00E-05	5.13	5.13	1.5 ANNUAL	OPS_DPM	1
RES	582084	4204566	582083.96	1.00E-05	5.08	5.08	1.5 ANNUAL	OPS_DPM	1
RES	582103.8	4204566	582103.81	1.00E-05	5.13	5.13	1.5 ANNUAL	OPS_DPM	1
RES	581389.2	4204586	581389.21	0	13.12	13.12	1.5 ANNUAL	OPS_DPM	1
RES	581409.1	4204586	581409.06	0	12.78	12.78	1.5 ANNUAL	OPS_DPM	1
RES	581428.9	4204586	581428.91	0	12.45	12.45	1.5 ANNUAL	OPS_DPM	1
RES	581448.8	4204586	581448.76	0	12.21	12.21	1.5 ANNUAL	OPS_DPM	1
RES	581468.6	4204586	581468.61	0	11.83	11.83	1.5 ANNUAL	OPS_DPM	1
RES	581508.3	4204586	581508.31	1.00E-05	11.37	11.37	1.5 ANNUAL	OPS_DPM	1
RES	581528.2	4204586	581528.16	1.00E-05	11.25	11.25	1.5 ANNUAL	OPS_DPM	1
RES	581548	4204586	581548.01	1.00E-05	10.78	10.78	1.5 ANNUAL	OPS_DPM	1
RES	581567.9	4204586	581567.86	1.00E-05	10.39	10.39	1.5 ANNUAL	OPS_DPM	1
RES	581587.7	4204586	581587.71	1.00E-05	10.49	10.49	1.5 ANNUAL	OPS_DPM	1
RES	581607.6	4204586	581607.56	1.00E-05	9.41	9.41	1.5 ANNUAL	OPS_DPM	1
RES	581627.4	4204586	581627.41	1.00E-05	8.58	8.58	1.5 ANNUAL	OPS_DPM	1
RES	581647.3	4204586	581647.26	1.00E-05	8.23	8.23	1.5 ANNUAL	OPS_DPM	1
RES	581667.1	4204586	581667.11	1.00E-05	8.16	8.16	1.5 ANNUAL	OPS_DPM	1
RES	581687	4204586	581686.96	1.00E-05	7.14	7.14	1.5 ANNUAL	OPS_DPM	1
RES	581706.8	4204586	581706.81	2.00E-05	7.09	7.09	1.5 ANNUAL	OPS_DPM	1
RES	582024.4	4204586	582024.41	1.00E-05	5.26	9.94	1.5 ANNUAL	OPS_DPM	1
RES	582044.3	4204586	582044.26	1.00E-05	5.19	5.19	1.5 ANNUAL	OPS_DPM	1
RES	582064.1	4204586	582064.11	1.00E-05	5.07	5.07	1.5 ANNUAL	OPS_DPM	1
RES	582084	4204586	582083.96	1.00E-05	5.02	5.02	1.5 ANNUAL	OPS_DPM	1
RES	582103.8	4204586	582103.81	1.00E-05	5.03	5.03	1.5 ANNUAL	OPS_DPM	1
RES	581389.2	4204606	581389.21	0	12.72	12.72	1.5 ANNUAL	OPS_DPM	1
RES	581528.2	4204606	581528.16	1.00E-05	11.35	11.35	1.5 ANNUAL	OPS_DPM	1
RES	581607.6	4204606	581607.56	1.00E-05	10.15	10.15	1.5 ANNUAL	OPS_DPM	1
RES	581647.3	4204606	581647.26	1.00E-05	8.95	8.95	1.5 ANNUAL	OPS_DPM	1
RES	581667.1	4204606	581667.11	1.00E-05	8.36	8.36	1.5 ANNUAL	OPS_DPM	1
RES	581687	4204606	581686.96	1.00E-05	7.48	7.48	1.5 ANNUAL	OPS_DPM	1
RES	581706.8	4204606	581706.81	2.00E-05	6.97	6.97	1.5 ANNUAL	OPS_DPM	1
WOR	581905.3	4204606	581905.31	1.00E-05	5.82	5.82	1.5 ANNUAL	OPS_DPM	1
WOR	581925.2	4204606	581925.16	1.00E-05	5.74	5.74	1.5 ANNUAL	OPS_DPM	1
RES	582024.4	4204606	582024.41	1.00E-05	5.32	5.32	1.5 ANNUAL	OPS_DPM	1
RES	582044.3	4204606	582044.26	1.00E-05	5.18	5.18	1.5 ANNUAL	OPS_DPM	1
RES	582064.1	4204606	582064.11	1.00E-05	5.12	5.12	1.5 ANNUAL	OPS_DPM	1
RES	582084	4204606	582083.96	1.00E-05	5.07	5.07	1.5 ANNUAL	OPS_DPM	1
RES	582103.8	4204606	582103.81	1.00E-05	5.02	5.02	1.5 ANNUAL	OPS_DPM	1

RES	581389.2	4204626	581389.21	0	12.86	12.86	1.5 ANNUAL	OPS_DPM	1
RES	581409.1	4204626	581409.06	0	12.41	12.41	1.5 ANNUAL	OPS_DPM	1
RES	581428.9	4204626	581428.91	0	12.22	12.22	1.5 ANNUAL	OPS_DPM	1
RES	581448.8	4204626	581448.76	0	12.1	12.1	1.5 ANNUAL	OPS_DPM	1
RES	581468.6	4204626	581468.61	0	11.68	11.68	1.5 ANNUAL	OPS_DPM	1
RES	581488.5	4204626	581488.46	1.00E-05	11.16	11.16	1.5 ANNUAL	OPS_DPM	1
RES	581508.3	4204626	581508.31	1.00E-05	11.21	11.21	1.5 ANNUAL	OPS_DPM	1
RES	581528.2	4204626	581528.16	1.00E-05	11.65	11.65	1.5 ANNUAL	OPS_DPM	1
RES	581548	4204626	581548.01	1.00E-05	11.65	11.65	1.5 ANNUAL	OPS_DPM	1
RES	581567.9	4204626	581567.86	1.00E-05	11.44	11.44	1.5 ANNUAL	OPS_DPM	1
RES	581587.7	4204626	581587.71	1.00E-05	10.81	10.81	1.5 ANNUAL	OPS_DPM	1
RES	581607.6	4204626	581607.56	1.00E-05	10.98	10.98	1.5 ANNUAL	OPS_DPM	1
RES	581627.4	4204626	581627.41	1.00E-05	9.97	9.97	1.5 ANNUAL	OPS_DPM	1
RES	581687	4204626	581686.96	1.00E-05	6.5	6.5	1.5 ANNUAL	OPS_DPM	1
RES	581706.8	4204626	581706.81	2.00E-05	6.22	6.22	1.5 ANNUAL	OPS_DPM	1
WOR	581825.9	4204626	581825.91	2.00E-05	5.9	5.9	1.5 ANNUAL	OPS_DPM	1
WOR	581885.5	4204626	581885.46	2.00E-05	5.61	5.61	1.5 ANNUAL	OPS_DPM	1
WOR	581905.3	4204626	581905.31	1.00E-05	5.99	5.99	1.5 ANNUAL	OPS_DPM	1
WOR	581925.2	4204626	581925.16	1.00E-05	5.83	5.83	1.5 ANNUAL	OPS_DPM	1
RES	582024.4	4204626	582024.41	1.00E-05	5.36	5.36	1.5 ANNUAL	OPS_DPM	1
RES	582046.6	4204630	582046.56	1.00E-05	5.13	5.13	1.5 ANNUAL	OPS_DPM	1
RES	582066.4	4204630	582066.41	1.00E-05	5.11	5.11	1.5 ANNUAL	OPS_DPM	1
RES	581389.2	4204646	581389.21	0	12.04	12.04	1.5 ANNUAL	OPS_DPM	1
RES	581409.1	4204646	581409.06	0	11.43	11.86	1.5 ANNUAL	OPS_DPM	1
RES	581428.9	4204646	581428.91	0	11.78	12.06	1.5 ANNUAL	OPS_DPM	1
RES	581448.8	4204646	581448.76	0	11.97	11.97	1.5 ANNUAL	OPS_DPM	1
RES	581468.6	4204646	581468.61	1.00E-05	11.26	11.26	1.5 ANNUAL	OPS_DPM	1
RES	581488.5	4204646	581488.46	1.00E-05	10.88	10.88	1.5 ANNUAL	OPS_DPM	1
RES	581508.3	4204646	581508.31	1.00E-05	10.81	10.81	1.5 ANNUAL	OPS_DPM	1
RES	581528.2	4204646	581528.16	1.00E-05	11.04	11.04	1.5 ANNUAL	OPS_DPM	1
RES	581548	4204646	581548.01	1.00E-05	11.11	11.11	1.5 ANNUAL	OPS_DPM	1
RES	581567.9	4204646	581567.86	1.00E-05	10.97	10.97	1.5 ANNUAL	OPS_DPM	1
RES	581587.7	4204646	581587.71	1.00E-05	10.76	10.76	1.5 ANNUAL	OPS_DPM	1
RES	581607.6	4204646	581607.56	1.00E-05	11.23	11.23	1.5 ANNUAL	OPS_DPM	1
RES	581627.4	4204646	581627.41	1.00E-05	10.26	10.26	1.5 ANNUAL	OPS_DPM	1
RES	581647.3	4204646	581647.26	1.00E-05	9.48	9.48	1.5 ANNUAL	OPS_DPM	1
RES	581667.1	4204646	581667.11	1.00E-05	7.82	7.82	1.5 ANNUAL	OPS_DPM	1
WOR	581825.9	4204646	581825.91	2.00E-05	6.13	6.13	1.5 ANNUAL	OPS_DPM	1
WOR	581845.8	4204646	581845.76	2.00E-05	6.13	6.13	1.5 ANNUAL	OPS_DPM	1
WOR	581865.6	4204646	581865.61	2.00E-05	6.11	6.11	1.5 ANNUAL	OPS_DPM	1
WOR	581885.5	4204646	581885.46	2.00E-05	5.71	5.71	1.5 ANNUAL	OPS_DPM	1
WOR	581905.3	4204646	581905.31	1.00E-05	5.92	5.92	1.5 ANNUAL	OPS_DPM	1
WOR	581925.2	4204646	581925.16	1.00E-05	5.75	5.75	1.5 ANNUAL	OPS_DPM	1
RES	582010.2	4204647	582010.16	1.00E-05	5.47	5.47	1.5 ANNUAL	OPS_DPM	1
RES	582024.4	4204646	582024.41	1.00E-05	5.39	5.39	1.5 ANNUAL	OPS_DPM	1
RES	582044.3	4204646	582044.26	1.00E-05	5.24	5.24	1.5 ANNUAL	OPS_DPM	1
RES	582064.1	4204646	582064.11	1.00E-05	5.24	5.24	1.5 ANNUAL	OPS_DPM	1
RES	582103.8	4204646	582103.81	1.00E-05	5.06	5.06	1.5 ANNUAL	OPS_DPM	1
RES	581389.2	4204666	581389.21	0	11.27	11.58	1.5 ANNUAL	OPS_DPM	1
RES	581409.1	4204666	581409.06	0	9.53	11.86	1.5 ANNUAL	OPS_DPM	1
RES	581428.9	4204666	581428.91	0	9.56	12.21	1.5 ANNUAL	OPS_DPM	1
RES	581448.8	4204666	581448.76	1.00E-05	9.71	12.23	1.5 ANNUAL	OPS_DPM	1
RES	581468.6	4204666	581468.61	1.00E-05	10.16	10.16	1.5 ANNUAL	OPS_DPM	1
RES	581488.5	4204666	581488.46	1.00E-05	10.01	10.01	1.5 ANNUAL	OPS_DPM	1

RES	581508.3	4204666	581508.31	1.00E-05	10.29	10.29	1.5 ANNUAL	OPS_DPM	1
RES	581528.2	4204666	581528.16	1.00E-05	10.65	10.65	1.5 ANNUAL	OPS_DPM	1
RES	581548	4204666	581548.01	1.00E-05	10.73	10.73	1.5 ANNUAL	OPS_DPM	1
RES	581567.9	4204666	581567.86	1.00E-05	10.45	10.45	1.5 ANNUAL	OPS_DPM	1
RES	581587.7	4204666	581587.71	1.00E-05	10.51	10.51	1.5 ANNUAL	OPS_DPM	1
RES	581607.6	4204666	581607.56	1.00E-05	10.89	10.89	1.5 ANNUAL	OPS_DPM	1
RES	581627.4	4204666	581627.41	1.00E-05	9.91	9.91	1.5 ANNUAL	OPS_DPM	1
RES	581647.3	4204666	581647.26	1.00E-05	9.31	9.31	1.5 ANNUAL	OPS_DPM	1
RES	581667.1	4204666	581667.11	1.00E-05	7.43	9.61	1.5 ANNUAL	OPS_DPM	1
RES	582010.2	4204667	582010.16	1.00E-05	5.52	5.52	1.5 ANNUAL	OPS_DPM	1
RES	582024.4	4204666	582024.41	1.00E-05	5.4	5.4	1.5 ANNUAL	OPS_DPM	1
RES	582044.3	4204666	582044.26	1.00E-05	5.35	5.35	1.5 ANNUAL	OPS_DPM	1
RES	582064.1	4204666	582064.11	1.00E-05	5.19	5.19	1.5 ANNUAL	OPS_DPM	1
RES	582103.8	4204666	582103.81	1.00E-05	5.12	5.12	1.5 ANNUAL	OPS_DPM	1
RES	581389.2	4204685	581389.21	0	11.07	11.43	1.5 ANNUAL	OPS_DPM	1
RES	581409.1	4204685	581409.06	0	9.48	9.48	1.5 ANNUAL	OPS_DPM	1
RES	581428.9	4204685	581428.91	1.00E-05	9.01	9.01	1.5 ANNUAL	OPS_DPM	1
RES	581448.8	4204685	581448.76	1.00E-05	9.25	9.25	1.5 ANNUAL	OPS_DPM	1
RES	581468.6	4204685	581468.61	1.00E-05	9.42	9.42	1.5 ANNUAL	OPS_DPM	1
RES	581508.3	4204685	581508.31	1.00E-05	9.76	9.76	1.5 ANNUAL	OPS_DPM	1
RES	581528.2	4204685	581528.16	1.00E-05	10.19	10.19	1.5 ANNUAL	OPS_DPM	1
RES	581548	4204685	581548.01	1.00E-05	10.38	10.38	1.5 ANNUAL	OPS_DPM	1
RES	581567.9	4204685	581567.86	1.00E-05	9.77	9.77	1.5 ANNUAL	OPS_DPM	1
RES	581587.7	4204685	581587.71	1.00E-05	10.27	10.27	1.5 ANNUAL	OPS_DPM	1
RES	581607.6	4204685	581607.56	1.00E-05	10.44	10.44	1.5 ANNUAL	OPS_DPM	1
RES	581627.4	4204685	581627.41	1.00E-05	8.95	8.95	1.5 ANNUAL	OPS_DPM	1
RES	581647.3	4204685	581647.26	1.00E-05	7.67	9.09	1.5 ANNUAL	OPS_DPM	1
RES	581667.1	4204685	581667.11	1.00E-05	7.01	7.01	1.5 ANNUAL	OPS_DPM	1
RES	582004.6	4204685	582004.56	1.00E-05	5.53	5.53	1.5 ANNUAL	OPS_DPM	1
RES	582024.4	4204685	582024.41	1.00E-05	5.34	5.34	1.5 ANNUAL	OPS_DPM	1
RES	582044.3	4204685	582044.26	1.00E-05	5.43	5.43	1.5 ANNUAL	OPS_DPM	1
RES	582064.1	4204685	582064.11	1.00E-05	5.05	5.05	1.5 ANNUAL	OPS_DPM	1
RES	582084	4204685	582083.96	1.00E-05	4.84	4.84	1.5 ANNUAL	OPS_DPM	1
RES	582103.8	4204685	582103.81	1.00E-05	5.09	5.09	1.5 ANNUAL	OPS_DPM	1
RES	581389.2	4204705	581389.21	0	10.65	10.94	1.5 ANNUAL	OPS_DPM	1
RES	581409.1	4204705	581409.06	0	9.43	9.43	1.5 ANNUAL	OPS_DPM	1
RES	581428.9	4204705	581428.91	1.00E-05	8.92	8.92	1.5 ANNUAL	OPS_DPM	1
RES	581448.8	4204705	581448.76	1.00E-05	8.89	8.89	1.5 ANNUAL	OPS_DPM	1
RES	581508.3	4204705	581508.31	1.00E-05	9.23	9.23	1.5 ANNUAL	OPS_DPM	1
RES	581528.2	4204705	581528.16	1.00E-05	9.76	9.76	1.5 ANNUAL	OPS_DPM	1
RES	581548	4204705	581548.01	1.00E-05	9.84	9.84	1.5 ANNUAL	OPS_DPM	1
RES	581567.9	4204705	581567.86	1.00E-05	9.08	9.08	1.5 ANNUAL	OPS_DPM	1
RES	581587.7	4204705	581587.71	1.00E-05	9.69	9.69	1.5 ANNUAL	OPS_DPM	1
RES	581607.6	4204705	581607.56	1.00E-05	9.48	9.48	1.5 ANNUAL	OPS_DPM	1
WOR	581865.6	4204705	581865.61	1.00E-05	6.16	6.16	1.5 ANNUAL	OPS_DPM	1
WOR	581885.5	4204705	581885.46	1.00E-05	6.15	6.15	1.5 ANNUAL	OPS_DPM	1
WOR	581905.3	4204705	581905.31	1.00E-05	6.13	6.13	1.5 ANNUAL	OPS_DPM	1
RES	582004.6	4204705	582004.56	1.00E-05	5.48	5.48	1.5 ANNUAL	OPS_DPM	1
RES	582044.3	4204705	582044.26	1.00E-05	5.41	5.41	1.5 ANNUAL	OPS_DPM	1
RES	582064.1	4204705	582064.11	1.00E-05	4.79	4.79	1.5 ANNUAL	OPS_DPM	1
RES	582084	4204705	582083.96	1.00E-05	4.77	4.77	1.5 ANNUAL	OPS_DPM	1
RES	582103.8	4204705	582103.81	1.00E-05	4.89	4.89	1.5 ANNUAL	OPS_DPM	1
WOR	581802	4204544	5.82E+12	3.00E-05	6.73	6.73	1.5 ANNUAL	OPS_DPM	1
WOR	581822	4204544	5.82E+12	3.00E-05	6.31	6.31	1.5 ANNUAL	OPS_DPM	1

WOR	581802	4204564	5.82E+12	3.00E-05	6.78	6.78	1.5 ANNUAL	OPS_DPM	1
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Discrete Re X	Y	Concentrat	Elevation (Z	Hill Heights	Flagpole (Z)	Averagin Pe	Source Gro	Num Years	Net ID
RES	581389.2	4203991	581389.21	1.00E-05	10.43	10.43	1.5 ANNUAL	PM_26	1
RES	581409.1	4203991	581409.06	1.00E-05	10.52	10.52	1.5 ANNUAL	PM_26	1
RES	581428.9	4203991	581428.91	1.00E-05	9.49	9.49	1.5 ANNUAL	PM_26	1
RES	581448.8	4203991	581448.76	1.00E-05	9.32	9.32	1.5 ANNUAL	PM_26	1
RES	581468.6	4203991	581468.61	1.00E-05	9.34	9.34	1.5 ANNUAL	PM_26	1
RES	581488.5	4203991	581488.46	1.00E-05	9.37	9.37	1.5 ANNUAL	PM_26	1
RES	581508.3	4203991	581508.31	1.00E-05	8.92	8.92	1.5 ANNUAL	PM_26	1
RES	581528.2	4203991	581528.16	1.00E-05	9.17	9.17	1.5 ANNUAL	PM_26	1
RES	581548	4203991	581548.01	1.00E-05	9.08	9.08	1.5 ANNUAL	PM_26	1
RES	581567.9	4203991	581567.86	1.00E-05	8.66	8.66	1.5 ANNUAL	PM_26	1
RES	581587.7	4203991	581587.71	2.00E-05	8.2	8.2	1.5 ANNUAL	PM_26	1
RES	581607.6	4203991	581607.56	2.00E-05	7.93	7.93	1.5 ANNUAL	PM_26	1
RES	581627.4	4203991	581627.41	2.00E-05	7.83	7.83	1.5 ANNUAL	PM_26	1
RES	581647.3	4203991	581647.26	2.00E-05	7.68	7.68	1.5 ANNUAL	PM_26	1
RES	581667.1	4203991	581667.11	2.00E-05	7.55	7.55	1.5 ANNUAL	PM_26	1
RES	581687	4203991	581686.96	2.00E-05	7.55	7.55	1.5 ANNUAL	PM_26	1
RES	581706.8	4203991	581706.81	2.00E-05	8.26	8.26	1.5 ANNUAL	PM_26	1
RES	581726.7	4203991	581726.66	2.00E-05	7.79	7.79	1.5 ANNUAL	PM_26	1
RES	581746.5	4203991	581746.51	2.00E-05	7.26	7.26	1.5 ANNUAL	PM_26	1
WOR	582004.6	4203991	582004.56	5.00E-05	7.35	7.35	1.5 ANNUAL	PM_26	1
WOR	582024.4	4203991	582024.41	5.00E-05	7.63	7.63	1.5 ANNUAL	PM_26	1
WOR	582044.3	4203991	582044.26	5.00E-05	7.52	7.52	1.5 ANNUAL	PM_26	1
RES	581389.2	4204011	581389.21	1.00E-05	10.76	10.76	1.5 ANNUAL	PM_26	1
RES	581409.1	4204011	581409.06	1.00E-05	9.83	9.83	1.5 ANNUAL	PM_26	1
RES	581428.9	4204011	581428.91	1.00E-05	8.49	8.49	1.5 ANNUAL	PM_26	1
RES	581448.8	4204011	581448.76	1.00E-05	8.42	8.42	1.5 ANNUAL	PM_26	1
RES	581468.6	4204011	581468.61	1.00E-05	8.61	8.61	1.5 ANNUAL	PM_26	1
RES	581488.5	4204011	581488.46	1.00E-05	8.85	8.85	1.5 ANNUAL	PM_26	1
RES	581508.3	4204011	581508.31	1.00E-05	8.81	8.81	1.5 ANNUAL	PM_26	1
RES	581528.2	4204011	581528.16	1.00E-05	9.07	9.07	1.5 ANNUAL	PM_26	1
RES	581548	4204011	581548.01	2.00E-05	9.1	9.1	1.5 ANNUAL	PM_26	1
RES	581567.9	4204011	581567.86	2.00E-05	8.67	8.67	1.5 ANNUAL	PM_26	1
RES	581587.7	4204011	581587.71	2.00E-05	8.19	8.19	1.5 ANNUAL	PM_26	1
RES	581607.6	4204011	581607.56	2.00E-05	7.71	7.71	1.5 ANNUAL	PM_26	1
RES	581627.4	4204011	581627.41	2.00E-05	8.2	8.2	1.5 ANNUAL	PM_26	1
RES	581647.3	4204011	581647.26	2.00E-05	8.21	8.21	1.5 ANNUAL	PM_26	1
RES	581667.1	4204011	581667.11	2.00E-05	7.72	7.72	1.5 ANNUAL	PM_26	1
RES	581687	4204011	581686.96	2.00E-05	7.75	7.75	1.5 ANNUAL	PM_26	1
RES	581706.8	4204011	581706.81	2.00E-05	8.2	8.2	1.5 ANNUAL	PM_26	1
RES	581726.7	4204011	581726.66	2.00E-05	7.64	7.64	1.5 ANNUAL	PM_26	1
RES	581746.5	4204011	581746.51	3.00E-05	6.81	6.81	1.5 ANNUAL	PM_26	1
WOR	581845.8	4204011	581845.76	4.00E-05	6.88	6.88	1.5 ANNUAL	PM_26	1
WOR	581865.6	4204011	581865.61	4.00E-05	7.09	7.09	1.5 ANNUAL	PM_26	1
WOR	581885.5	4204011	581885.46	4.00E-05	7.08	7.08	1.5 ANNUAL	PM_26	1
WOR	581905.3	4204011	581905.31	5.00E-05	7.06	7.06	1.5 ANNUAL	PM_26	1
WOR	582004.6	4204011	582004.56	5.00E-05	7.45	7.45	1.5 ANNUAL	PM_26	1
WOR	582024.4	4204011	582024.41	5.00E-05	7.54	7.54	1.5 ANNUAL	PM_26	1
WOR	582044.3	4204011	582044.26	6.00E-05	7.58	7.58	1.5 ANNUAL	PM_26	1
RES	581389.2	4204030	581389.21	1.00E-05	10.28	10.28	1.5 ANNUAL	PM_26	1
RES	581409.1	4204030	581409.06	1.00E-05	9.25	9.25	1.5 ANNUAL	PM_26	1
RES	581428.9	4204030	581428.91	1.00E-05	8.41	8.41	1.5 ANNUAL	PM_26	1
RES	581448.8	4204030	581448.76	1.00E-05	8.32	8.32	1.5 ANNUAL	PM_26	1
RES	581468.6	4204030	581468.61	1.00E-05	8.1	8.1	1.5 ANNUAL	PM_26	1

RES	581488.5	4204030	581488.46	1.00E-05	8.33	8.33	1.5 ANNUAL	PM_26	1
RES	581508.3	4204030	581508.31	1.00E-05	8.53	8.53	1.5 ANNUAL	PM_26	1
RES	581528.2	4204030	581528.16	2.00E-05	8.63	8.63	1.5 ANNUAL	PM_26	1
RES	581548	4204030	581548.01	2.00E-05	8.55	8.55	1.5 ANNUAL	PM_26	1
RES	581567.9	4204030	581567.86	2.00E-05	8.43	8.43	1.5 ANNUAL	PM_26	1
RES	581587.7	4204030	581587.71	2.00E-05	8.16	8.16	1.5 ANNUAL	PM_26	1
RES	581627.4	4204030	581627.41	2.00E-05	8.26	8.26	1.5 ANNUAL	PM_26	1
RES	581647.3	4204030	581647.26	2.00E-05	8.24	8.24	1.5 ANNUAL	PM_26	1
RES	581667.1	4204030	581667.11	2.00E-05	7.75	7.75	1.5 ANNUAL	PM_26	1
RES	581687	4204030	581686.96	2.00E-05	7.58	7.58	1.5 ANNUAL	PM_26	1
RES	581706.8	4204030	581706.81	3.00E-05	7.98	7.98	1.5 ANNUAL	PM_26	1
RES	581726.7	4204030	581726.66	3.00E-05	7.98	7.98	1.5 ANNUAL	PM_26	1
RES	581746.5	4204030	581746.51	3.00E-05	6.98	7.33	1.5 ANNUAL	PM_26	1
WOR	581845.8	4204030	581845.76	4.00E-05	6.63	6.63	1.5 ANNUAL	PM_26	1
WOR	581865.6	4204030	581865.61	4.00E-05	6.8	6.8	1.5 ANNUAL	PM_26	1
WOR	581885.5	4204030	581885.46	5.00E-05	6.92	6.92	1.5 ANNUAL	PM_26	1
WOR	581905.3	4204030	581905.31	6.00E-05	6.97	6.97	1.5 ANNUAL	PM_26	1
WOR	582004.6	4204030	582004.56	6.00E-05	7.63	7.63	1.5 ANNUAL	PM_26	1
WOR	582024.4	4204030	582024.41	6.00E-05	7.68	7.68	1.5 ANNUAL	PM_26	1
RES	581389.2	4204050	581389.21	1.00E-05	9.84	9.84	1.5 ANNUAL	PM_26	1
RES	581409.1	4204050	581409.06	1.00E-05	9	9	1.5 ANNUAL	PM_26	1
RES	581428.9	4204050	581428.91	1.00E-05	8.69	8.69	1.5 ANNUAL	PM_26	1
RES	581448.8	4204050	581448.76	1.00E-05	8.36	8.36	1.5 ANNUAL	PM_26	1
RES	581488.5	4204050	581488.46	1.00E-05	7.98	7.98	1.5 ANNUAL	PM_26	1
RES	581567.9	4204050	581567.86	2.00E-05	7.75	7.75	1.5 ANNUAL	PM_26	1
RES	581587.7	4204050	581587.71	2.00E-05	7.69	7.69	1.5 ANNUAL	PM_26	1
RES	581627.4	4204050	581627.41	2.00E-05	8.12	8.12	1.5 ANNUAL	PM_26	1
RES	581647.3	4204050	581647.26	2.00E-05	8.13	8.13	1.5 ANNUAL	PM_26	1
RES	581667.1	4204050	581667.11	3.00E-05	7.72	7.72	1.5 ANNUAL	PM_26	1
RES	581687	4204050	581686.96	3.00E-05	7.5	7.5	1.5 ANNUAL	PM_26	1
RES	581706.8	4204050	581706.81	3.00E-05	8.14	8.14	1.5 ANNUAL	PM_26	1
RES	581726.7	4204050	581726.66	3.00E-05	8.04	8.04	1.5 ANNUAL	PM_26	1
WOR	581825.9	4204050	581825.91	4.00E-05	6.74	6.74	1.5 ANNUAL	PM_26	1
WOR	581845.8	4204050	581845.76	5.00E-05	6.79	6.79	1.5 ANNUAL	PM_26	1
WOR	581865.6	4204050	581865.61	5.00E-05	6.58	6.58	1.5 ANNUAL	PM_26	1
WOR	581885.5	4204050	581885.46	5.00E-05	6.78	6.78	1.5 ANNUAL	PM_26	1
WOR	581905.3	4204050	581905.31	7.00E-05	6.92	6.92	1.5 ANNUAL	PM_26	1
WOR	582004.6	4204050	582004.56	6.00E-05	7.66	7.66	1.5 ANNUAL	PM_26	1
WOR	582024.4	4204050	582024.41	6.00E-05	7.6	7.6	1.5 ANNUAL	PM_26	1
RES	581389.2	4204070	581389.21	1.00E-05	8.77	8.77	1.5 ANNUAL	PM_26	1
RES	581409.1	4204070	581409.06	1.00E-05	9.01	9.01	1.5 ANNUAL	PM_26	1
RES	581428.9	4204070	581428.91	1.00E-05	9.09	9.09	1.5 ANNUAL	PM_26	1
RES	581448.8	4204070	581448.76	1.00E-05	8.79	8.79	1.5 ANNUAL	PM_26	1
RES	581488.5	4204070	581488.46	2.00E-05	8.4	8.4	1.5 ANNUAL	PM_26	1
RES	581508.3	4204070	581508.31	2.00E-05	8.72	8.72	1.5 ANNUAL	PM_26	1
RES	581528.2	4204070	581528.16	2.00E-05	8.63	8.63	1.5 ANNUAL	PM_26	1
RES	581548	4204070	581548.01	2.00E-05	8.5	8.5	1.5 ANNUAL	PM_26	1
RES	581567.9	4204070	581567.86	2.00E-05	8.19	8.19	1.5 ANNUAL	PM_26	1
RES	581587.7	4204070	581587.71	2.00E-05	7.73	7.73	1.5 ANNUAL	PM_26	1
RES	581627.4	4204070	581627.41	3.00E-05	7.77	7.77	1.5 ANNUAL	PM_26	1
RES	581647.3	4204070	581647.26	3.00E-05	7.87	7.87	1.5 ANNUAL	PM_26	1
RES	581667.1	4204070	581667.11	3.00E-05	7.69	7.69	1.5 ANNUAL	PM_26	1
RES	581687	4204070	581686.96	3.00E-05	7.18	7.18	1.5 ANNUAL	PM_26	1
RES	581706.8	4204070	581706.81	3.00E-05	7.79	7.79	1.5 ANNUAL	PM_26	1

RES	581726.7	4204070	581726.66	4.00E-05	7.85	7.85	1.5 ANNUAL	PM_26	1
WOR	581806.1	4204070	581806.06	5.00E-05	6.83	6.83	1.5 ANNUAL	PM_26	1
WOR	581825.9	4204070	581825.91	5.00E-05	6.88	6.88	1.5 ANNUAL	PM_26	1
WOR	581845.8	4204070	581845.76	5.00E-05	6.84	6.84	1.5 ANNUAL	PM_26	1
WOR	581865.6	4204070	581865.61	6.00E-05	6.79	6.79	1.5 ANNUAL	PM_26	1
WOR	581885.5	4204070	581885.46	6.00E-05	6.83	6.83	1.5 ANNUAL	PM_26	1
WOR	581905.3	4204070	581905.31	8.00E-05	6.91	6.91	1.5 ANNUAL	PM_26	1
WOR	582004.6	4204070	582004.56	6.00E-05	7.6	7.6	1.5 ANNUAL	PM_26	1
WOR	582024.4	4204070	582024.41	7.00E-05	7.4	7.4	1.5 ANNUAL	PM_26	1
WOR	582103.8	4204070	582103.81	7.00E-05	6.92	6.92	1.5 ANNUAL	PM_26	1
RES	581389.2	4204090	581389.21	1.00E-05	8.25	8.25	1.5 ANNUAL	PM_26	1
RES	581409.1	4204090	581409.06	1.00E-05	8.86	8.86	1.5 ANNUAL	PM_26	1
RES	581428.9	4204090	581428.91	1.00E-05	8.89	8.89	1.5 ANNUAL	PM_26	1
RES	581448.8	4204090	581448.76	1.00E-05	8.55	8.55	1.5 ANNUAL	PM_26	1
RES	581468.6	4204090	581468.61	1.00E-05	7.88	7.88	1.5 ANNUAL	PM_26	1
RES	581488.5	4204090	581488.46	2.00E-05	8.62	8.62	1.5 ANNUAL	PM_26	1
RES	581508.3	4204090	581508.31	2.00E-05	8.12	8.12	1.5 ANNUAL	PM_26	1
RES	581528.2	4204090	581528.16	2.00E-05	7.71	7.71	1.5 ANNUAL	PM_26	1
RES	581548	4204090	581548.01	2.00E-05	7.92	7.92	1.5 ANNUAL	PM_26	1
RES	581567.9	4204090	581567.86	2.00E-05	8.02	8.02	1.5 ANNUAL	PM_26	1
RES	581587.7	4204090	581587.71	3.00E-05	7.72	7.72	1.5 ANNUAL	PM_26	1
RES	581607.6	4204090	581607.56	3.00E-05	6.94	6.94	1.5 ANNUAL	PM_26	1
RES	581627.4	4204090	581627.41	3.00E-05	7.72	7.72	1.5 ANNUAL	PM_26	1
RES	581647.3	4204090	581647.26	3.00E-05	7.93	7.93	1.5 ANNUAL	PM_26	1
RES	581667.1	4204090	581667.11	3.00E-05	7.89	7.89	1.5 ANNUAL	PM_26	1
RES	581687	4204090	581686.96	4.00E-05	7.77	7.77	1.5 ANNUAL	PM_26	1
RES	581706.8	4204090	581706.81	4.00E-05	8.07	8.07	1.5 ANNUAL	PM_26	1
RES	581726.7	4204090	581726.66	4.00E-05	7.27	7.27	1.5 ANNUAL	PM_26	1
WOR	581786.2	4204090	581786.21	5.00E-05	6.72	6.72	1.5 ANNUAL	PM_26	1
WOR	581806.1	4204090	581806.06	5.00E-05	6.88	6.88	1.5 ANNUAL	PM_26	1
WOR	582024.4	4204090	582024.41	8.00E-05	7.39	7.39	1.5 ANNUAL	PM_26	1
WOR	582084	4204090	582083.96	9.00E-05	7.24	7.24	1.5 ANNUAL	PM_26	1
WOR	582103.8	4204090	582103.81	6.00E-05	7.01	7.01	1.5 ANNUAL	PM_26	1
RES	581389.2	4204110	581389.21	1.00E-05	8.05	8.05	1.5 ANNUAL	PM_26	1
RES	581409.1	4204110	581409.06	1.00E-05	8.66	8.66	1.5 ANNUAL	PM_26	1
RES	581428.9	4204110	581428.91	1.00E-05	8.65	8.65	1.5 ANNUAL	PM_26	1
RES	581448.8	4204110	581448.76	1.00E-05	8.27	8.27	1.5 ANNUAL	PM_26	1
RES	581468.6	4204110	581468.61	2.00E-05	7.73	7.73	1.5 ANNUAL	PM_26	1
RES	581488.5	4204110	581488.46	2.00E-05	8.56	8.56	1.5 ANNUAL	PM_26	1
RES	581508.3	4204110	581508.31	2.00E-05	7.79	7.79	1.5 ANNUAL	PM_26	1
SCH	581528.2	4204110	581528.16	2.00E-05	7.26	7.26	1.5 ANNUAL	PM_26	1
SCH	581548	4204110	581548.01	2.00E-05	6.82	6.82	1.5 ANNUAL	PM_26	1
SCH	581567.9	4204110	581567.86	3.00E-05	6.73	6.73	1.5 ANNUAL	PM_26	1
SCH	581584	4204105	581584.04	3.00E-05	6.88	6.88	1.5 ANNUAL	PM_26	1
RES	581607.6	4204110	581607.56	3.00E-05	7.03	7.03	1.5 ANNUAL	PM_26	1
RES	581627.4	4204110	581627.41	3.00E-05	7.45	7.45	1.5 ANNUAL	PM_26	1
RES	581647.3	4204110	581647.26	4.00E-05	7.45	7.45	1.5 ANNUAL	PM_26	1
RES	581667.1	4204110	581667.11	4.00E-05	7.53	7.53	1.5 ANNUAL	PM_26	1
RES	581687	4204110	581686.96	4.00E-05	7.63	7.63	1.5 ANNUAL	PM_26	1
RES	581706.8	4204110	581706.81	4.00E-05	7.77	7.77	1.5 ANNUAL	PM_26	1
RES	581726.7	4204110	581726.66	5.00E-05	5.89	8.08	1.5 ANNUAL	PM_26	1
WOR	581786.2	4204110	581786.21	6.00E-05	6.63	6.63	1.5 ANNUAL	PM_26	1
WOR	581806.1	4204110	581806.06	6.00E-05	6.87	6.87	1.5 ANNUAL	PM_26	1
WOR	581984.7	4204110	581984.71	8.00E-05	7.55	7.55	1.5 ANNUAL	PM_26	1

WOR	582004.6	4204110	582004.56	7.00E-05	7.55	7.55	1.5 ANNUAL	PM_26	1
WOR	582024.4	4204110	582024.41	8.00E-05	7.51	7.51	1.5 ANNUAL	PM_26	1
WOR	582084	4204110	582083.96	8.00E-05	6.99	6.99	1.5 ANNUAL	PM_26	1
WOR	582103.8	4204110	582103.81	6.00E-05	6.99	6.99	1.5 ANNUAL	PM_26	1
RES	581389.2	4204130	581389.21	1.00E-05	7.83	7.83	1.5 ANNUAL	PM_26	1
RES	581409.1	4204130	581409.06	1.00E-05	8.02	8.02	1.5 ANNUAL	PM_26	1
RES	581428.9	4204130	581428.91	1.00E-05	8.15	8.15	1.5 ANNUAL	PM_26	1
RES	581448.8	4204130	581448.76	1.00E-05	7.85	7.85	1.5 ANNUAL	PM_26	1
RES	581468.6	4204130	581468.61	2.00E-05	7.53	7.53	1.5 ANNUAL	PM_26	1
RES	581488.5	4204130	581488.46	2.00E-05	8.14	8.14	1.5 ANNUAL	PM_26	1
RES	581508.3	4204130	581508.31	2.00E-05	8.19	8.19	1.5 ANNUAL	PM_26	1
SCH	581528.2	4204130	581528.16	2.00E-05	7.36	7.36	1.5 ANNUAL	PM_26	1
SCH	581548	4204130	581548.01	3.00E-05	6.92	6.92	1.5 ANNUAL	PM_26	1
SCH	581567.9	4204130	581567.86	3.00E-05	6.9	6.9	1.5 ANNUAL	PM_26	1
SCH	581584	4204125	581584.04	3.00E-05	6.71	6.71	1.5 ANNUAL	PM_26	1
RES	581607.6	4204130	581607.56	4.00E-05	7.26	7.26	1.5 ANNUAL	PM_26	1
RES	581627.4	4204130	581627.41	4.00E-05	7.58	7.58	1.5 ANNUAL	PM_26	1
RES	581647.3	4204130	581647.26	4.00E-05	7.62	7.62	1.5 ANNUAL	PM_26	1
RES	581662.4	4204126	581662.44	4.00E-05	7.1	7.1	1.5 ANNUAL	PM_26	1
RES	581687	4204130	581686.96	5.00E-05	7	7	1.5 ANNUAL	PM_26	1
RES	581706.8	4204130	581706.81	5.00E-05	7.24	7.24	1.5 ANNUAL	PM_26	1
WOR	581766.4	4204130	581766.36	7.00E-05	6.34	6.34	1.5 ANNUAL	PM_26	1
WOR	581786.2	4204130	581786.21	7.00E-05	6.48	6.48	1.5 ANNUAL	PM_26	1
WOR	581806.1	4204130	581806.06	8.00E-05	6.85	6.85	1.5 ANNUAL	PM_26	1
WOR	581885.5	4204130	581885.46	9.00E-05	6.71	6.71	1.5 ANNUAL	PM_26	1
WOR	581905.3	4204130	581905.31	0.00011	6.94	6.94	1.5 ANNUAL	PM_26	1
WOR	581984.7	4204130	581984.71	8.00E-05	7.54	7.54	1.5 ANNUAL	PM_26	1
WOR	582004.6	4204130	582004.56	8.00E-05	7.65	7.65	1.5 ANNUAL	PM_26	1
WOR	582024.4	4204130	582024.41	9.00E-05	7.7	7.7	1.5 ANNUAL	PM_26	1
WOR	582084	4204130	582083.96	9.00E-05	6.9	6.9	1.5 ANNUAL	PM_26	1
WOR	582103.8	4204130	582103.81	6.00E-05	7.01	7.01	1.5 ANNUAL	PM_26	1
RES	581389.2	4204150	581389.21	1.00E-05	7.96	7.96	1.5 ANNUAL	PM_26	1
RES	581488.5	4204150	581488.46	2.00E-05	7.57	7.57	1.5 ANNUAL	PM_26	1
RES	581508.3	4204150	581508.31	2.00E-05	7.98	7.98	1.5 ANNUAL	PM_26	1
SCH	581528.2	4204150	581528.16	2.00E-05	7.98	7.98	1.5 ANNUAL	PM_26	1
SCH	581548	4204150	581548.01	3.00E-05	8.17	8.17	1.5 ANNUAL	PM_26	1
SCH	581567.9	4204150	581567.86	3.00E-05	8.22	8.22	1.5 ANNUAL	PM_26	1
RES	581607.6	4204150	581607.56	4.00E-05	7.6	7.6	1.5 ANNUAL	PM_26	1
RES	581627.4	4204150	581627.41	4.00E-05	7.7	7.7	1.5 ANNUAL	PM_26	1
RES	581647.3	4204150	581647.26	5.00E-05	7.49	7.49	1.5 ANNUAL	PM_26	1
RES	581687	4204150	581686.96	6.00E-05	6.81	6.81	1.5 ANNUAL	PM_26	1
RES	581706.8	4204150	581706.81	6.00E-05	7.17	7.17	1.5 ANNUAL	PM_26	1
WOR	581766.4	4204150	581766.36	8.00E-05	6.19	6.19	1.5 ANNUAL	PM_26	1
WOR	581786.2	4204150	581786.21	9.00E-05	6.3	6.3	1.5 ANNUAL	PM_26	1
WOR	581806.1	4204150	581806.06	9.00E-05	6.84	6.84	1.5 ANNUAL	PM_26	1
WOR	581825.9	4204150	581825.91	9.00E-05	6.81	6.81	1.5 ANNUAL	PM_26	1
WOR	581885.5	4204150	581885.46	0.0001	6.67	6.67	1.5 ANNUAL	PM_26	1
WOR	581905.3	4204150	581905.31	0.00012	6.68	6.68	1.5 ANNUAL	PM_26	1
WOR	582084	4204150	582083.96	9.00E-05	6.92	6.92	1.5 ANNUAL	PM_26	1
WOR	582103.8	4204150	582103.81	6.00E-05	7.15	7.15	1.5 ANNUAL	PM_26	1
RES	581389.2	4204169	581389.21	1.00E-05	8.59	8.59	1.5 ANNUAL	PM_26	1
RES	581409.1	4204169	581409.06	1.00E-05	8.21	8.21	1.5 ANNUAL	PM_26	1
RES	581428.9	4204169	581428.91	1.00E-05	7.96	7.96	1.5 ANNUAL	PM_26	1
RES	581448.8	4204169	581448.76	1.00E-05	7.83	7.83	1.5 ANNUAL	PM_26	1

RES	581468.6	4204169	581468.61	2.00E-05	7.73	7.73	1.5 ANNUAL	PM_26	1
RES	581488.5	4204169	581488.46	2.00E-05	7.77	7.77	1.5 ANNUAL	PM_26	1
RES	581528.8	4204174	581528.84	3.00E-05	8.82	8.82	1.5 ANNUAL	PM_26	1
RES	581607.6	4204167	581607.56	4.00E-05	7.74	7.74	1.5 ANNUAL	PM_26	1
RES	581627.4	4204167	581627.41	5.00E-05	7.63	7.63	1.5 ANNUAL	PM_26	1
RES	581647.3	4204167	581647.26	6.00E-05	7.48	7.48	1.5 ANNUAL	PM_26	1
RES	581670	4204170	581669.95	7.00E-05	7	7	1.5 ANNUAL	PM_26	1
RES	581687	4204169	581686.96	7.00E-05	7.05	7.05	1.5 ANNUAL	PM_26	1
RES	581706.8	4204169	581706.81	8.00E-05	7.05	7.05	1.5 ANNUAL	PM_26	1
WOR	581766.4	4204169	581766.36	0.0001	6.28	6.28	1.5 ANNUAL	PM_26	1
WOR	581786.2	4204169	581786.21	0.00011	6.21	6.21	1.5 ANNUAL	PM_26	1
WOR	581806.1	4204169	581806.06	0.00011	6.63	6.63	1.5 ANNUAL	PM_26	1
WOR	581825.9	4204169	581825.91	0.00011	6.7	6.7	1.5 ANNUAL	PM_26	1
WOR	581885.5	4204169	581885.46	0.00011	6.53	6.53	1.5 ANNUAL	PM_26	1
WOR	581905.3	4204169	581905.31	0.00013	6.5	6.5	1.5 ANNUAL	PM_26	1
WOR	581945	4204169	581945.01	0.00013	6.82	6.82	1.5 ANNUAL	PM_26	1
WOR	581964.9	4204169	581964.86	0.0001	6.95	6.95	1.5 ANNUAL	PM_26	1
WOR	581984.7	4204169	581984.71	9.00E-05	7.13	7.13	1.5 ANNUAL	PM_26	1
WOR	582004.6	4204169	582004.56	9.00E-05	7.23	7.23	1.5 ANNUAL	PM_26	1
WOR	582084	4204169	582083.96	8.00E-05	6.93	6.93	1.5 ANNUAL	PM_26	1
WOR	582103.8	4204169	582103.81	6.00E-05	7.02	7.02	1.5 ANNUAL	PM_26	1
RES	581389.2	4204189	581389.21	1.00E-05	9.54	9.54	1.5 ANNUAL	PM_26	1
RES	581409.1	4204189	581409.06	1.00E-05	9.27	9.27	1.5 ANNUAL	PM_26	1
RES	581428.9	4204189	581428.91	1.00E-05	9.03	9.03	1.5 ANNUAL	PM_26	1
RES	581448.8	4204189	581448.76	1.00E-05	8.81	8.81	1.5 ANNUAL	PM_26	1
RES	581468.6	4204189	581468.61	2.00E-05	8.75	8.75	1.5 ANNUAL	PM_26	1
RES	581488.5	4204189	581488.46	2.00E-05	8.73	8.73	1.5 ANNUAL	PM_26	1
RES	581528.2	4204189	581528.16	3.00E-05	8.72	8.72	1.5 ANNUAL	PM_26	1
RES	581548	4204189	581548.01	3.00E-05	9.53	10.33	1.5 ANNUAL	PM_26	1
RES	581567.9	4204189	581567.86	3.00E-05	9.84	9.84	1.5 ANNUAL	PM_26	1
RES	581587.7	4204189	581587.71	4.00E-05	8.92	8.92	1.5 ANNUAL	PM_26	1
RES	581607.6	4204189	581607.56	5.00E-05	8.63	8.63	1.5 ANNUAL	PM_26	1
RES	581627.4	4204189	581627.41	6.00E-05	8.48	8.48	1.5 ANNUAL	PM_26	1
RES	581647.3	4204189	581647.26	7.00E-05	8.09	8.09	1.5 ANNUAL	PM_26	1
WOR	581766.4	4204189	581766.36	0.00013	5.62	5.62	1.5 ANNUAL	PM_26	1
WOR	581786.2	4204189	581786.21	0.00014	6.12	6.12	1.5 ANNUAL	PM_26	1
WOR	581806.1	4204189	581806.06	0.00014	6.18	6.18	1.5 ANNUAL	PM_26	1
WOR	581865.6	4204189	581865.61	0.00012	6.18	6.18	1.5 ANNUAL	PM_26	1
WOR	581885.5	4204189	581885.46	0.00013	6.3	6.3	1.5 ANNUAL	PM_26	1
WOR	581945	4204189	581945.01	0.00013	6.61	6.61	1.5 ANNUAL	PM_26	1
WOR	581964.9	4204189	581964.86	0.0001	6.78	6.78	1.5 ANNUAL	PM_26	1
WOR	581984.7	4204189	581984.71	9.00E-05	7.03	7.03	1.5 ANNUAL	PM_26	1
WOR	582004.6	4204189	582004.56	9.00E-05	7.32	9.81	1.5 ANNUAL	PM_26	1
WOR	582084	4204189	582083.96	8.00E-05	6.95	6.95	1.5 ANNUAL	PM_26	1
WOR	582103.8	4204189	582103.81	6.00E-05	7.04	7.04	1.5 ANNUAL	PM_26	1
RES	581389.2	4204209	581389.21	1.00E-05	9.22	9.22	1.5 ANNUAL	PM_26	1
RES	581409.1	4204209	581409.06	1.00E-05	9.04	9.04	1.5 ANNUAL	PM_26	1
RES	581428.9	4204209	581428.91	1.00E-05	8.93	8.93	1.5 ANNUAL	PM_26	1
RES	581448.8	4204209	581448.76	1.00E-05	8.87	8.87	1.5 ANNUAL	PM_26	1
RES	581468.6	4204209	581468.61	2.00E-05	9.12	9.12	1.5 ANNUAL	PM_26	1
RES	581488.5	4204209	581488.46	2.00E-05	9.4	9.4	1.5 ANNUAL	PM_26	1
RES	581528.2	4204209	581528.16	3.00E-05	9.02	12.29	1.5 ANNUAL	PM_26	1
RES	581548	4204209	581548.01	3.00E-05	10.81	11.71	1.5 ANNUAL	PM_26	1
RES	581567.9	4204209	581567.86	4.00E-05	11	11	1.5 ANNUAL	PM_26	1

RES	581587.7	4204209	581587.71	4.00E-05	10.26	10.26	1.5 ANNUAL	PM_26	1
RES	581607.6	4204209	581607.56	5.00E-05	10.01	10.01	1.5 ANNUAL	PM_26	1
RES	581627.4	4204209	581627.41	7.00E-05	10.25	10.25	1.5 ANNUAL	PM_26	1
RES	581647.3	4204209	581647.26	8.00E-05	9.61	10.32	1.5 ANNUAL	PM_26	1
RES	581667.1	4204209	581667.11	9.00E-05	7.56	12.69	1.5 ANNUAL	PM_26	1
RES	581687	4204209	581686.96	0.00011	6.53	12.31	1.5 ANNUAL	PM_26	1
RES	581706.8	4204209	581706.81	0.00013	6.41	6.41	1.5 ANNUAL	PM_26	1
WOR	581865.6	4204209	581865.61	0.00014	6.29	6.29	1.5 ANNUAL	PM_26	1
WOR	581885.5	4204209	581885.46	0.00014	6.75	6.75	1.5 ANNUAL	PM_26	1
WOR	582084	4204209	582083.96	8.00E-05	6.92	6.92	1.5 ANNUAL	PM_26	1
WOR	582103.8	4204209	582103.81	6.00E-05	7.01	7.01	1.5 ANNUAL	PM_26	1
RES	581389.2	4204229	581389.21	1.00E-05	9.55	9.55	1.5 ANNUAL	PM_26	1
RES	581409.1	4204229	581409.06	1.00E-05	9.3	9.3	1.5 ANNUAL	PM_26	1
RES	581428.9	4204229	581428.91	1.00E-05	9	9	1.5 ANNUAL	PM_26	1
RES	581448.8	4204229	581448.76	1.00E-05	8.9	8.9	1.5 ANNUAL	PM_26	1
RES	581468.6	4204229	581468.61	2.00E-05	9.04	9.04	1.5 ANNUAL	PM_26	1
RES	581508.3	4204229	581508.31	2.00E-05	9.37	9.37	1.5 ANNUAL	PM_26	1
RES	581528.2	4204229	581528.16	3.00E-05	9.68	12.88	1.5 ANNUAL	PM_26	1
RES	581548	4204229	581548.01	3.00E-05	12.07	12.07	1.5 ANNUAL	PM_26	1
RES	581567.9	4204229	581567.86	4.00E-05	11.93	11.93	1.5 ANNUAL	PM_26	1
RES	581587.7	4204229	581587.71	5.00E-05	11.71	11.71	1.5 ANNUAL	PM_26	1
RES	581607.6	4204229	581607.56	6.00E-05	11.63	11.63	1.5 ANNUAL	PM_26	1
RES	581627.4	4204229	581627.41	7.00E-05	11.82	11.82	1.5 ANNUAL	PM_26	1
RES	581647.3	4204229	581647.26	9.00E-05	11.1	11.78	1.5 ANNUAL	PM_26	1
RES	581667.1	4204229	581667.11	0.00011	9.11	12.69	1.5 ANNUAL	PM_26	1
RES	581687	4204229	581686.96	0.00014	7.5	12.31	1.5 ANNUAL	PM_26	1
RES	581706.8	4204229	581706.81	0.00017	6.63	6.63	1.5 ANNUAL	PM_26	1
WOR	581865.6	4204229	581865.61	0.00016	6.27	6.27	1.5 ANNUAL	PM_26	1
WOR	581885.5	4204229	581885.46	0.00016	6.67	6.67	1.5 ANNUAL	PM_26	1
WOR	581943.7	4204234	581943.67	0.00014	6.57	6.57	1.5 ANNUAL	PM_26	1
WOR	581963.5	4204234	581963.52	0.00011	6.54	6.54	1.5 ANNUAL	PM_26	1
RES	581389.2	4204249	581389.21	1.00E-05	10.31	10.31	1.5 ANNUAL	PM_26	1
RES	581409.1	4204249	581409.06	1.00E-05	9.97	9.97	1.5 ANNUAL	PM_26	1
RES	581428.9	4204249	581428.91	1.00E-05	9.57	9.57	1.5 ANNUAL	PM_26	1
RES	581448.8	4204249	581448.76	1.00E-05	9.75	11.62	1.5 ANNUAL	PM_26	1
RES	581468.6	4204249	581468.61	2.00E-05	9.86	12.45	1.5 ANNUAL	PM_26	1
RES	581488.5	4204249	581488.46	2.00E-05	9.99	11.61	1.5 ANNUAL	PM_26	1
RES	581508.3	4204249	581508.31	2.00E-05	10.48	10.48	1.5 ANNUAL	PM_26	1
RES	581528.2	4204249	581528.16	3.00E-05	10.77	12.88	1.5 ANNUAL	PM_26	1
RES	581548	4204249	581548.01	3.00E-05	12.81	12.81	1.5 ANNUAL	PM_26	1
RES	581587.7	4204249	581587.71	5.00E-05	12.75	12.75	1.5 ANNUAL	PM_26	1
RES	581607.6	4204249	581607.56	6.00E-05	12.91	12.91	1.5 ANNUAL	PM_26	1
RES	581627.4	4204249	581627.41	8.00E-05	12.92	12.92	1.5 ANNUAL	PM_26	1
RES	581647.3	4204249	581647.26	0.0001	12.08	12.08	1.5 ANNUAL	PM_26	1
RES	581667.1	4204249	581667.11	0.00014	10.41	10.41	1.5 ANNUAL	PM_26	1
RES	581687	4204249	581686.96	0.00018	8.64	8.64	1.5 ANNUAL	PM_26	1
RES	581706.8	4204249	581706.81	0.00023	7.07	7.07	1.5 ANNUAL	PM_26	1
RES	581746.5	4204249	581746.51	0.00032	6.4	6.4	1.5 ANNUAL	PM_26	1
WOR	581865.6	4204249	581865.61	0.00018	6.3	6.3	1.5 ANNUAL	PM_26	1
WOR	581885.5	4204249	581885.46	0.00019	6.65	6.65	1.5 ANNUAL	PM_26	1
WOR	581930	4204253	581929.97	0.00017	6.61	6.61	1.5 ANNUAL	PM_26	1
WOR	582084	4204249	582083.96	7.00E-05	6.57	10.9	1.5 ANNUAL	PM_26	1
WOR	582103.8	4204249	582103.81	5.00E-05	6.7	6.7	1.5 ANNUAL	PM_26	1
RES	581389.2	4204269	581389.21	1.00E-05	10.94	10.94	1.5 ANNUAL	PM_26	1

RES	581409.1	4204269	581409.06	1.00E-05	10.64	10.64	1.5 ANNUAL	PM_26	1
RES	581428.9	4204269	581428.91	1.00E-05	10.73	10.73	1.5 ANNUAL	PM_26	1
RES	581448.8	4204269	581448.76	1.00E-05	11.59	11.59	1.5 ANNUAL	PM_26	1
RES	581468.6	4204269	581468.61	2.00E-05	12.03	12.03	1.5 ANNUAL	PM_26	1
RES	581488.5	4204269	581488.46	2.00E-05	11.98	11.98	1.5 ANNUAL	PM_26	1
RES	581508.3	4204269	581508.31	2.00E-05	11.98	12.82	1.5 ANNUAL	PM_26	1
RES	581528.2	4204269	581528.16	3.00E-05	12.24	12.24	1.5 ANNUAL	PM_26	1
RES	581548	4204269	581548.01	3.00E-05	12.64	12.64	1.5 ANNUAL	PM_26	1
RES	581587.7	4204269	581587.71	5.00E-05	12.55	12.55	1.5 ANNUAL	PM_26	1
RES	581607.6	4204269	581607.56	6.00E-05	12.49	12.49	1.5 ANNUAL	PM_26	1
RES	581627.4	4204269	581627.41	8.00E-05	12.53	12.53	1.5 ANNUAL	PM_26	1
RES	581667.1	4204269	581667.11	0.00017	10.28	10.28	1.5 ANNUAL	PM_26	1
RES	581687	4204269	581686.96	0.00024	8.73	8.73	1.5 ANNUAL	PM_26	1
RES	581706.8	4204269	581706.81	0.00033	7.35	7.35	1.5 ANNUAL	PM_26	1
RES	581726.7	4204269	581726.66	0.00043	6.27	6.27	1.5 ANNUAL	PM_26	1
RES	581746.5	4204269	581746.51	0.00051	6.3	6.3	1.5 ANNUAL	PM_26	1
WOR	581925.2	4204269	581925.16	0.00018	6.6	6.6	1.5 ANNUAL	PM_26	1
WOR	581945	4204269	581945.01	0.00013	6.65	6.65	1.5 ANNUAL	PM_26	1
WOR	581964.9	4204269	581964.86	0.00011	6.52	11.12	1.5 ANNUAL	PM_26	1
WOR	582084	4204269	582083.96	7.00E-05	6.43	10.93	1.5 ANNUAL	PM_26	1
WOR	582103.8	4204269	582103.81	5.00E-05	6.57	6.57	1.5 ANNUAL	PM_26	1
RES	581389.2	4204288	581389.21	1.00E-05	11.99	14.36	1.5 ANNUAL	PM_26	1
RES	581409.1	4204288	581409.06	1.00E-05	11.52	13.42	1.5 ANNUAL	PM_26	1
RES	581428.9	4204288	581428.91	1.00E-05	11.68	11.68	1.5 ANNUAL	PM_26	1
RES	581448.8	4204288	581448.76	1.00E-05	12.15	12.15	1.5 ANNUAL	PM_26	1
RES	581468.6	4204288	581468.61	1.00E-05	13.16	13.16	1.5 ANNUAL	PM_26	1
RES	581484.9	4204289	581484.92	2.00E-05	13.25	13.25	1.5 ANNUAL	PM_26	1
RES	581508.3	4204288	581508.31	2.00E-05	13.48	13.48	1.5 ANNUAL	PM_26	1
RES	581528.2	4204288	581528.16	2.00E-05	13.39	13.39	1.5 ANNUAL	PM_26	1
RES	581548	4204288	581548.01	3.00E-05	12.02	12.02	1.5 ANNUAL	PM_26	1
RES	581587.7	4204288	581587.71	5.00E-05	11.32	11.32	1.5 ANNUAL	PM_26	1
RES	581607.6	4204288	581607.56	6.00E-05	10.97	10.97	1.5 ANNUAL	PM_26	1
RES	581627.4	4204288	581627.41	9.00E-05	11.27	11.27	1.5 ANNUAL	PM_26	1
RES	581647.3	4204288	581647.26	0.00013	10.87	10.87	1.5 ANNUAL	PM_26	1
RES	581667.1	4204288	581667.11	0.00019	9.73	9.73	1.5 ANNUAL	PM_26	1
RES	581687	4204288	581686.96	0.00031	8.06	8.06	1.5 ANNUAL	PM_26	1
RES	581706.8	4204288	581706.81	0.00049	6.72	6.72	1.5 ANNUAL	PM_26	1
RES	581726.7	4204288	581726.66	0.00072	6.05	6.05	1.5 ANNUAL	PM_26	1
RES	581746.5	4204288	581746.51	0.00087	6.11	6.11	1.5 ANNUAL	PM_26	1
RES	581766.4	4204288	581766.36	0.00083	6.13	6.13	1.5 ANNUAL	PM_26	1
WOR	581925.2	4204288	581925.16	0.00018	6.57	6.57	1.5 ANNUAL	PM_26	1
WOR	581945	4204288	581945.01	0.00013	6.56	6.56	1.5 ANNUAL	PM_26	1
WOR	581964.9	4204288	581964.86	0.00011	6.43	11.63	1.5 ANNUAL	PM_26	1
WOR	582084	4204288	582083.96	6.00E-05	6.39	10.91	1.5 ANNUAL	PM_26	1
WOR	582103.8	4204288	582103.81	5.00E-05	6.44	6.44	1.5 ANNUAL	PM_26	1
RES	581389.2	4204308	581389.21	1.00E-05	13.9	13.9	1.5 ANNUAL	PM_26	1
RES	581409.1	4204308	581409.06	1.00E-05	13.47	13.47	1.5 ANNUAL	PM_26	1
RES	581428.9	4204308	581428.91	1.00E-05	13.11	13.11	1.5 ANNUAL	PM_26	1
RES	581448.8	4204308	581448.76	1.00E-05	12.94	12.94	1.5 ANNUAL	PM_26	1
RES	581468.6	4204308	581468.61	1.00E-05	13.47	13.47	1.5 ANNUAL	PM_26	1
RES	581508.3	4204308	581508.31	2.00E-05	14.26	14.26	1.5 ANNUAL	PM_26	1
RES	581528.2	4204308	581528.16	2.00E-05	13.37	14.42	1.5 ANNUAL	PM_26	1
RES	581548	4204308	581548.01	3.00E-05	11.58	14.42	1.5 ANNUAL	PM_26	1
RES	581570.8	4204309	581570.75	4.00E-05	11.02	11.02	1.5 ANNUAL	PM_26	1

RES	581587.7	4204308	581587.71	5.00E-05	10.18	10.18	1.5 ANNUAL	PM_26	1
RES	581607.6	4204308	581607.56	6.00E-05	9.55	9.55	1.5 ANNUAL	PM_26	1
RES	581627.4	4204308	581627.41	9.00E-05	9.23	11.49	1.5 ANNUAL	PM_26	1
RES	581652.1	4204313	581652.13	0.00014	9.39	9.39	1.5 ANNUAL	PM_26	1
RES	581672	4204313	581671.98	0.00024	8.62	8.62	1.5 ANNUAL	PM_26	1
RES	581726.7	4204308	581726.66	0.00142	5.73	5.73	1.5 ANNUAL	PM_26	1
RES	581746.5	4204308	581746.51	0.00159	5.99	5.99	1.5 ANNUAL	PM_26	1
RES	581766.4	4204308	581766.36	0.00141	6.4	6.4	1.5 ANNUAL	PM_26	1
WOR	581825.9	4204308	581825.91	0.00042	6.56	6.56	1.5 ANNUAL	PM_26	1
WOR	581845.8	4204308	581845.76	0.00031	7.02	7.02	1.5 ANNUAL	PM_26	1
WOR	582084	4204308	582083.96	6.00E-05	6.33	11.55	1.5 ANNUAL	PM_26	1
WOR	582103.8	4204308	582103.81	5.00E-05	6.45	6.45	1.5 ANNUAL	PM_26	1
RES	581389.2	4204328	581389.21	1.00E-05	14.57	14.57	1.5 ANNUAL	PM_26	1
RES	581409.1	4204328	581409.06	1.00E-05	14.07	14.07	1.5 ANNUAL	PM_26	1
RES	581428.9	4204328	581428.91	1.00E-05	13.74	13.74	1.5 ANNUAL	PM_26	1
RES	581448.8	4204328	581448.76	1.00E-05	13.41	13.41	1.5 ANNUAL	PM_26	1
RES	581468.6	4204328	581468.61	1.00E-05	13.24	13.24	1.5 ANNUAL	PM_26	1
RES	581508.3	4204328	581508.31	2.00E-05	14.31	14.31	1.5 ANNUAL	PM_26	1
RES	581528.2	4204328	581528.16	2.00E-05	12.9	14.47	1.5 ANNUAL	PM_26	1
RES	581548	4204328	581548.01	2.00E-05	11.27	14.43	1.5 ANNUAL	PM_26	1
RES	581570.8	4204329	581570.75	3.00E-05	10.9	10.9	1.5 ANNUAL	PM_26	1
RES	581587.7	4204328	581587.71	4.00E-05	9.95	9.95	1.5 ANNUAL	PM_26	1
RES	581607.6	4204328	581607.56	6.00E-05	8.46	8.46	1.5 ANNUAL	PM_26	1
RES	581627.4	4204328	581627.41	8.00E-05	7.65	7.65	1.5 ANNUAL	PM_26	1
RES	581647.3	4204328	581647.26	0.00012	7.85	9.13	1.5 ANNUAL	PM_26	1
RES	581667.1	4204328	581667.11	0.0002	7.98	7.98	1.5 ANNUAL	PM_26	1
RES	581687	4204328	581686.96	0.00038	6.45	8.87	1.5 ANNUAL	PM_26	1
WOR	581825.9	4204328	581825.91	0.00046	6.27	6.27	1.5 ANNUAL	PM_26	1
WOR	581845.8	4204328	581845.76	0.00033	6.96	6.96	1.5 ANNUAL	PM_26	1
WOR	582084	4204328	582083.96	6.00E-05	6.37	11.53	1.5 ANNUAL	PM_26	1
WOR	582103.8	4204328	582103.81	5.00E-05	6.32	6.32	1.5 ANNUAL	PM_26	1
RES	581389.2	4204348	581389.2	1.00E-05	14.78	14.78	1.5 ANNUAL	PM_26	1
RES	581409.1	4204348	581409.1	1.00E-05	14.09	14.09	1.5 ANNUAL	PM_26	1
RES	581428.9	4204348	581428.9	1.00E-05	13.78	13.78	1.5 ANNUAL	PM_26	1
RES	581448.8	4204348	581448.8	1.00E-05	13.51	13.51	1.5 ANNUAL	PM_26	1
RES	581468.6	4204348	581468.6	1.00E-05	12.86	12.86	1.5 ANNUAL	PM_26	1
RES	581492.2	4204349	581492.19	1.00E-05	11.6	14.33	1.5 ANNUAL	PM_26	1
RES	581508.3	4204348	581508.3	1.00E-05	12.66	14.16	1.5 ANNUAL	PM_26	1
RES	581528.2	4204348	581528.2	2.00E-05	11.26	14.47	1.5 ANNUAL	PM_26	1
RES	581548	4204348	581548	2.00E-05	10.62	14.43	1.5 ANNUAL	PM_26	1
RES	581587.7	4204348	581587.7	3.00E-05	10	10	1.5 ANNUAL	PM_26	1
RES	581607.6	4204348	581607.6	5.00E-05	8.49	8.49	1.5 ANNUAL	PM_26	1
RES	581627.4	4204348	581627.4	7.00E-05	7.54	7.54	1.5 ANNUAL	PM_26	1
RES	581647.3	4204348	581647.3	0.0001	7.4	7.4	1.5 ANNUAL	PM_26	1
RES	581667.1	4204348	581667.1	0.00016	7.43	7.43	1.5 ANNUAL	PM_26	1
RES	581687	4204348	581687	0.00032	6.94	6.94	1.5 ANNUAL	PM_26	1
WOR	581825.9	4204348	581825.9	0.00048	6.2	6.2	1.5 ANNUAL	PM_26	1
WOR	581845.8	4204348	581845.8	0.00036	6.63	6.63	1.5 ANNUAL	PM_26	1
WOR	581925.2	4204348	581925.2	0.00016	6.13	6.13	1.5 ANNUAL	PM_26	1
WOR	582103.8	4204348	582103.8	5.00E-05	6.25	6.25	1.5 ANNUAL	PM_26	1
RES	581508.3	4204363	581508.31	1.00E-05	10.74	14.16	1.5 ANNUAL	PM_26	1
RES	581528.2	4204363	581528.16	2.00E-05	10.07	14.47	1.5 ANNUAL	PM_26	1
RES	581646.9	4204364	581646.91	9.00E-05	7.87	7.87	1.5 ANNUAL	PM_26	1
RES	581666.8	4204364	581666.76	0.00014	7.69	7.69	1.5 ANNUAL	PM_26	1

RES	581686.6	4204364	581686.61	0.00027	7.28	7.28	1.5 ANNUAL	PM_26	1
WOR	581905.3	4204368	581905.31	0.00021	6.14	6.14	1.5 ANNUAL	PM_26	1
WOR	581925.2	4204368	581925.16	0.00016	6.08	6.08	1.5 ANNUAL	PM_26	1
WOR	582064.1	4204368	582064.11	7.00E-05	6.05	11.91	1.5 ANNUAL	PM_26	1
WOR	582084	4204368	582083.96	6.00E-05	6.18	6.18	1.5 ANNUAL	PM_26	1
WOR	582103.8	4204368	582103.81	5.00E-05	6.15	6.15	1.5 ANNUAL	PM_26	1
RES	581387.6	4204391	581387.58	1.00E-05	14.8	14.8	1.5 ANNUAL	PM_26	1
RES	581407.4	4204391	581407.43	1.00E-05	13.52	13.52	1.5 ANNUAL	PM_26	1
RES	581427.3	4204391	581427.28	1.00E-05	11.79	12.48	1.5 ANNUAL	PM_26	1
RES	581447.1	4204391	581447.13	1.00E-05	10.79	10.79	1.5 ANNUAL	PM_26	1
RES	581465	4204392	581464.98	1.00E-05	10.41	10.41	1.5 ANNUAL	PM_26	1
RES	581490.3	4204389	581490.33	1.00E-05	9.87	9.87	1.5 ANNUAL	PM_26	1
RES	581506.7	4204391	581506.68	2.00E-05	9.64	9.64	1.5 ANNUAL	PM_26	1
RES	581526.5	4204391	581526.53	2.00E-05	9.3	9.3	1.5 ANNUAL	PM_26	1
WOR	581825.9	4204388	581825.91	0.00041	6.01	6.01	1.5 ANNUAL	PM_26	1
WOR	581845.8	4204388	581845.76	0.00035	6.11	6.11	1.5 ANNUAL	PM_26	1
WOR	581865.6	4204388	581865.61	0.00029	6.04	6.04	1.5 ANNUAL	PM_26	1
WOR	581912.6	4204393	581912.63	0.00017	6.19	6.19	1.5 ANNUAL	PM_26	1
WOR	582064.1	4204388	582064.11	7.00E-05	6	11.83	1.5 ANNUAL	PM_26	1
WOR	582084	4204388	582083.96	5.00E-05	6.06	6.06	1.5 ANNUAL	PM_26	1
WOR	582103.8	4204388	582103.81	4.00E-05	6.01	6.01	1.5 ANNUAL	PM_26	1
RES	581389.2	4204408	581389.21	1.00E-05	14.96	14.96	1.5 ANNUAL	PM_26	1
RES	581409.1	4204408	581409.06	1.00E-05	13.32	13.32	1.5 ANNUAL	PM_26	1
RES	581428.9	4204408	581428.91	1.00E-05	10.5	14.98	1.5 ANNUAL	PM_26	1
RES	581448.8	4204408	581448.76	1.00E-05	10.1	10.1	1.5 ANNUAL	PM_26	1
RES	581466.6	4204408	581466.61	1.00E-05	9.79	9.79	1.5 ANNUAL	PM_26	1
RES	581492	4204405	581491.96	1.00E-05	8.69	8.69	1.5 ANNUAL	PM_26	1
RES	581508.3	4204408	581508.31	2.00E-05	8.52	8.52	1.5 ANNUAL	PM_26	1
RES	581528.2	4204408	581528.16	2.00E-05	8.2	8.2	1.5 ANNUAL	PM_26	1
RES	581548	4204408	581548.01	2.00E-05	8.3	8.3	1.5 ANNUAL	PM_26	1
RES	581567.9	4204408	581567.86	3.00E-05	9.43	9.43	1.5 ANNUAL	PM_26	1
RES	581587.7	4204408	581587.71	3.00E-05	10.24	10.24	1.5 ANNUAL	PM_26	1
RES	581607.6	4204408	581607.56	4.00E-05	9.77	9.77	1.5 ANNUAL	PM_26	1
RES	581627.4	4204408	581627.41	6.00E-05	9.36	9.36	1.5 ANNUAL	PM_26	1
RES	581647.3	4204408	581647.26	9.00E-05	9.23	9.23	1.5 ANNUAL	PM_26	1
RES	581667.1	4204408	581667.11	0.00015	9.54	9.78	1.5 ANNUAL	PM_26	1
RES	581687	4204408	581686.96	0.00027	9.8	9.8	1.5 ANNUAL	PM_26	1
RES	581706.8	4204408	581706.81	0.00053	9.23	9.23	1.5 ANNUAL	PM_26	1
RES	581726.7	4204408	581726.66	0.0008	8.29	8.29	1.5 ANNUAL	PM_26	1
RES	581746.5	4204408	581746.51	0.00099	6.46	8	1.5 ANNUAL	PM_26	1
WOR	581825.9	4204408	581825.91	0.00033	6.13	6.13	1.5 ANNUAL	PM_26	1
WOR	581845.8	4204408	581845.76	0.00027	6.27	6.27	1.5 ANNUAL	PM_26	1
WOR	581865.6	4204408	581865.61	0.00025	6.06	6.06	1.5 ANNUAL	PM_26	1
WOR	581905.3	4204408	581905.31	0.00018	6.31	6.31	1.5 ANNUAL	PM_26	1
WOR	581925.2	4204408	581925.16	0.00014	6.33	6.33	1.5 ANNUAL	PM_26	1
WOR	581945	4204408	581945.01	0.00012	6.24	11.65	1.5 ANNUAL	PM_26	1
RES	581389.2	4204427	581389.21	1.00E-05	14.03	14.03	1.5 ANNUAL	PM_26	1
RES	581409.1	4204427	581409.06	1.00E-05	13.45	13.79	1.5 ANNUAL	PM_26	1
RES	581428.9	4204427	581428.91	1.00E-05	10.3	15.5	1.5 ANNUAL	PM_26	1
RES	581448.8	4204427	581448.76	1.00E-05	10.11	10.11	1.5 ANNUAL	PM_26	1
RES	581466.6	4204428	581466.61	1.00E-05	9.61	10.08	1.5 ANNUAL	PM_26	1
RES	581492	4204425	581491.96	1.00E-05	7.13	10.08	1.5 ANNUAL	PM_26	1
RES	581508.3	4204427	581508.31	2.00E-05	6.67	6.67	1.5 ANNUAL	PM_26	1
RES	581528.2	4204427	581528.16	2.00E-05	7.03	7.03	1.5 ANNUAL	PM_26	1

RES	581548	4204427	581548.01	2.00E-05	7.33	7.33	1.5 ANNUAL	PM_26	1
RES	581567.9	4204427	581567.86	3.00E-05	8.08	10.16	1.5 ANNUAL	PM_26	1
RES	581587.7	4204427	581587.71	3.00E-05	9.22	10.16	1.5 ANNUAL	PM_26	1
RES	581607.6	4204427	581607.56	4.00E-05	9.48	9.48	1.5 ANNUAL	PM_26	1
RES	581627.4	4204427	581627.41	6.00E-05	9.33	9.33	1.5 ANNUAL	PM_26	1
RES	581647.3	4204427	581647.26	0.0001	9.61	9.61	1.5 ANNUAL	PM_26	1
RES	581667.1	4204427	581667.11	0.00015	9.93	9.93	1.5 ANNUAL	PM_26	1
RES	581687	4204427	581686.96	0.00025	10.35	10.35	1.5 ANNUAL	PM_26	1
RES	581706.8	4204427	581706.81	0.00043	9.37	9.37	1.5 ANNUAL	PM_26	1
WOR	581825.9	4204427	581825.91	0.00026	6.3	6.3	1.5 ANNUAL	PM_26	1
WOR	581845.8	4204427	581845.76	0.00022	6.44	6.44	1.5 ANNUAL	PM_26	1
WOR	581905.3	4204427	581905.31	0.00016	6.34	6.34	1.5 ANNUAL	PM_26	1
WOR	581925.2	4204427	581925.16	0.00013	6.31	6.31	1.5 ANNUAL	PM_26	1
WOR	581945	4204427	581945.01	0.00011	6.35	11.65	1.5 ANNUAL	PM_26	1
WOR	582069.7	4204433	582069.73	6.00E-05	6.32	6.32	1.5 ANNUAL	PM_26	1
RES	581389.2	4204447	581389.21	1.00E-05	14.34	14.34	1.5 ANNUAL	PM_26	1
RES	581409.1	4204447	581409.06	1.00E-05	13.38	13.38	1.5 ANNUAL	PM_26	1
RES	581428.9	4204447	581428.91	1.00E-05	10.43	15.61	1.5 ANNUAL	PM_26	1
RES	581448.8	4204447	581448.76	1.00E-05	10.13	15.35	1.5 ANNUAL	PM_26	1
RES	581466.6	4204448	581466.61	1.00E-05	9.67	9.67	1.5 ANNUAL	PM_26	1
RES	581492	4204445	581492	1.00E-05	7.56	7.56	1.5 ANNUAL	PM_26	1
RES	581508.3	4204447	581508.31	2.00E-05	7.34	7.34	1.5 ANNUAL	PM_26	1
RES	581528.2	4204447	581528.16	2.00E-05	7.06	7.06	1.5 ANNUAL	PM_26	1
RES	581548	4204447	581548.01	2.00E-05	7.27	7.27	1.5 ANNUAL	PM_26	1
RES	581567.9	4204447	581567.86	3.00E-05	7.59	7.59	1.5 ANNUAL	PM_26	1
RES	581587.7	4204447	581587.71	4.00E-05	7.86	7.86	1.5 ANNUAL	PM_26	1
RES	581607.6	4204447	581607.56	5.00E-05	8.08	8.08	1.5 ANNUAL	PM_26	1
RES	581627.4	4204447	581627.41	7.00E-05	8.25	8.25	1.5 ANNUAL	PM_26	1
RES	581647.3	4204447	581647.26	0.00011	9.05	9.05	1.5 ANNUAL	PM_26	1
RES	581667.1	4204447	581667.11	0.00017	9.2	9.2	1.5 ANNUAL	PM_26	1
RES	581687	4204447	581686.96	0.00025	8.84	8.84	1.5 ANNUAL	PM_26	1
RES	581706.8	4204447	581706.81	0.00035	8.29	8.29	1.5 ANNUAL	PM_26	1
WOR	581825.9	4204447	581825.91	0.00022	6.32	6.32	1.5 ANNUAL	PM_26	1
WOR	581845.8	4204447	581845.76	0.0002	6.23	6.23	1.5 ANNUAL	PM_26	1
WOR	581905.3	4204447	581905.31	0.00015	6.22	6.22	1.5 ANNUAL	PM_26	1
WOR	581925.2	4204447	581925.16	0.00011	6.35	6.35	1.5 ANNUAL	PM_26	1
WOR	581945	4204447	581945.01	0.0001	6.29	11.65	1.5 ANNUAL	PM_26	1
WOR	582064.1	4204447	582064.11	6.00E-05	6.41	6.41	1.5 ANNUAL	PM_26	1
WOR	582084	4204447	582083.96	5.00E-05	6.51	6.51	1.5 ANNUAL	PM_26	1
RES	581389.2	4204467	581389.21	1.00E-05	15.54	15.54	1.5 ANNUAL	PM_26	1
RES	581409.1	4204467	581409.06	1.00E-05	14.89	15.35	1.5 ANNUAL	PM_26	1
RES	581428.9	4204467	581428.91	1.00E-05	10.9	15.61	1.5 ANNUAL	PM_26	1
RES	581448.8	4204467	581448.76	1.00E-05	10.09	15.5	1.5 ANNUAL	PM_26	1
RES	581466.6	4204468	581466.61	1.00E-05	9.83	9.83	1.5 ANNUAL	PM_26	1
RES	581492	4204465	581491.96	1.00E-05	8.1	8.1	1.5 ANNUAL	PM_26	1
RES	581508.3	4204467	581508.31	2.00E-05	7.82	7.82	1.5 ANNUAL	PM_26	1
RES	581528.2	4204467	581528.16	2.00E-05	7.43	7.43	1.5 ANNUAL	PM_26	1
RES	581548	4204467	581548.01	2.00E-05	7.44	7.44	1.5 ANNUAL	PM_26	1
RES	581567.9	4204467	581567.86	3.00E-05	7.47	7.47	1.5 ANNUAL	PM_26	1
RES	581587.7	4204467	581587.71	4.00E-05	7.5	7.5	1.5 ANNUAL	PM_26	1
RES	581601.1	4204461	581601.06	5.00E-05	7.79	7.79	1.5 ANNUAL	PM_26	1
RES	581620.9	4204461	581620.91	6.00E-05	7.77	7.77	1.5 ANNUAL	PM_26	1
RES	581648.5	4204463	581648.48	0.00011	8.46	8.79	1.5 ANNUAL	PM_26	1
RES	581667.1	4204467	581667.11	0.00016	8.55	8.55	1.5 ANNUAL	PM_26	1

RES	581687	4204467	581686.96	0.00023	8.57	8.57	1.5 ANNUAL	PM_26	1
WOR	581885.5	4204467	581885.46	0.00016	6.2	6.2	1.5 ANNUAL	PM_26	1
WOR	581905.3	4204467	581905.31	0.00013	5.93	5.93	1.5 ANNUAL	PM_26	1
WOR	581925.2	4204467	581925.16	0.00011	5.86	5.86	1.5 ANNUAL	PM_26	1
WOR	581945	4204467	581945.01	0.0001	5.9	11.65	1.5 ANNUAL	PM_26	1
WOR	582064.1	4204467	582064.11	6.00E-05	6.37	6.37	1.5 ANNUAL	PM_26	1
WOR	582084	4204467	582083.96	5.00E-05	6.44	6.44	1.5 ANNUAL	PM_26	1
RES	581389.2	4204487	581389.21	1.00E-05	13.84	14.7	1.5 ANNUAL	PM_26	1
RES	581409.1	4204487	581409.06	1.00E-05	13.38	15.35	1.5 ANNUAL	PM_26	1
RES	581428.9	4204487	581428.91	1.00E-05	11.93	15.35	1.5 ANNUAL	PM_26	1
RES	581448.8	4204487	581448.76	1.00E-05	11.28	11.28	1.5 ANNUAL	PM_26	1
RES	581466.6	4204487	581466.61	1.00E-05	10.26	10.26	1.5 ANNUAL	PM_26	1
RES	581508.3	4204487	581508.31	2.00E-05	8.16	8.16	1.5 ANNUAL	PM_26	1
RES	581528.2	4204487	581528.16	2.00E-05	7.51	7.51	1.5 ANNUAL	PM_26	1
RES	581548	4204487	581548.01	2.00E-05	7.24	7.24	1.5 ANNUAL	PM_26	1
RES	581567.9	4204487	581567.86	3.00E-05	7.1	7.1	1.5 ANNUAL	PM_26	1
RES	581587.7	4204487	581587.71	4.00E-05	7.14	7.14	1.5 ANNUAL	PM_26	1
RES	581601.1	4204480	581601.06	5.00E-05	7.23	7.23	1.5 ANNUAL	PM_26	1
RES	581627.4	4204487	581627.41	8.00E-05	7.19	7.19	1.5 ANNUAL	PM_26	1
RES	581647.3	4204487	581647.26	0.00011	7.14	7.14	1.5 ANNUAL	PM_26	1
RES	581667.1	4204487	581667.11	0.00016	7.14	7.14	1.5 ANNUAL	PM_26	1
RES	581687	4204487	581686.96	0.0002	6.99	6.99	1.5 ANNUAL	PM_26	1
RES	581706.8	4204487	581706.81	0.00024	6.61	6.61	1.5 ANNUAL	PM_26	1
WOR	581885.5	4204487	581885.46	0.00016	6.15	6.15	1.5 ANNUAL	PM_26	1
WOR	581905.3	4204487	581905.31	0.00012	5.85	5.85	1.5 ANNUAL	PM_26	1
WOR	581925.2	4204487	581925.16	0.0001	5.74	10.84	1.5 ANNUAL	PM_26	1
WOR	581945	4204487	581945.01	9.00E-05	5.69	11.58	1.5 ANNUAL	PM_26	1
WOR	582044.3	4204487	582044.26	7.00E-05	5.5	11.64	1.5 ANNUAL	PM_26	1
WOR	582064.1	4204487	582064.11	5.00E-05	5.6	5.6	1.5 ANNUAL	PM_26	1
WOR	582084	4204487	582083.96	4.00E-05	6.43	6.43	1.5 ANNUAL	PM_26	1
RES	581389.2	4204507	581389.21	1.00E-05	13.19	13.19	1.5 ANNUAL	PM_26	1
RES	581409.1	4204507	581409.06	1.00E-05	12.61	12.61	1.5 ANNUAL	PM_26	1
RES	581428.9	4204507	581428.91	1.00E-05	11.94	11.94	1.5 ANNUAL	PM_26	1
RES	581448.8	4204507	581448.76	1.00E-05	11.27	11.27	1.5 ANNUAL	PM_26	1
RES	581466.6	4204507	581466.61	1.00E-05	10.28	10.28	1.5 ANNUAL	PM_26	1
RES	581488.5	4204507	581488.46	1.00E-05	9.39	9.39	1.5 ANNUAL	PM_26	1
RES	581508.3	4204507	581508.31	2.00E-05	9.6	9.6	1.5 ANNUAL	PM_26	1
RES	581528.2	4204507	581528.16	2.00E-05	9.04	9.04	1.5 ANNUAL	PM_26	1
RES	581548	4204507	581548.01	3.00E-05	8.33	8.33	1.5 ANNUAL	PM_26	1
RES	581567.9	4204507	581567.86	3.00E-05	7.81	8.32	1.5 ANNUAL	PM_26	1
RES	581587.7	4204507	581587.71	4.00E-05	7.32	7.32	1.5 ANNUAL	PM_26	1
RES	581607.6	4204507	581607.56	6.00E-05	6.96	6.96	1.5 ANNUAL	PM_26	1
RES	581627.4	4204507	581627.41	8.00E-05	6.99	6.99	1.5 ANNUAL	PM_26	1
RES	581647.3	4204507	581647.26	0.00011	7.03	7.03	1.5 ANNUAL	PM_26	1
RES	581667.1	4204507	581667.11	0.00014	7.09	7.09	1.5 ANNUAL	PM_26	1
RES	581687	4204507	581686.96	0.00017	7.01	7.01	1.5 ANNUAL	PM_26	1
RES	581706.8	4204507	581706.81	0.0002	6.64	6.64	1.5 ANNUAL	PM_26	1
RES	581726.7	4204507	581726.66	0.00021	6.18	6.18	1.5 ANNUAL	PM_26	1
WOR	581885.5	4204507	581885.46	0.00015	6.05	6.05	1.5 ANNUAL	PM_26	1
WOR	581905.3	4204507	581905.31	0.00011	5.82	5.82	1.5 ANNUAL	PM_26	1
WOR	581925.2	4204507	581925.16	9.00E-05	5.69	10.84	1.5 ANNUAL	PM_26	1
WOR	581945	4204507	581945.01	9.00E-05	5.64	11.4	1.5 ANNUAL	PM_26	1
WOR	582044.3	4204507	582044.26	6.00E-05	5.41	11.4	1.5 ANNUAL	PM_26	1
WOR	582064.1	4204507	582064.11	5.00E-05	5.46	5.46	1.5 ANNUAL	PM_26	1

WOR	582084	4204507	582083.96	4.00E-05	6.41	6.41	1.5 ANNUAL	PM_26	1
RES	581389.2	4204527	581389.21	1.00E-05	13.09	13.09	1.5 ANNUAL	PM_26	1
RES	581409.1	4204527	581409.06	1.00E-05	12.35	12.35	1.5 ANNUAL	PM_26	1
RES	581488.5	4204527	581488.46	2.00E-05	10.3	10.3	1.5 ANNUAL	PM_26	1
RES	581508.3	4204527	581508.31	2.00E-05	10.58	10.58	1.5 ANNUAL	PM_26	1
RES	581528.2	4204527	581528.16	2.00E-05	9.65	9.65	1.5 ANNUAL	PM_26	1
RES	581548	4204527	581548.01	3.00E-05	9.03	9.03	1.5 ANNUAL	PM_26	1
RES	581567.9	4204527	581567.86	3.00E-05	8.76	8.76	1.5 ANNUAL	PM_26	1
RES	581587.7	4204527	581587.71	4.00E-05	8.81	8.81	1.5 ANNUAL	PM_26	1
RES	581607.6	4204527	581607.56	6.00E-05	8.46	8.46	1.5 ANNUAL	PM_26	1
RES	581627.4	4204527	581627.41	8.00E-05	7.46	7.46	1.5 ANNUAL	PM_26	1
RES	581647.3	4204527	581647.26	0.0001	7.48	7.48	1.5 ANNUAL	PM_26	1
RES	581667.1	4204527	581667.11	0.00013	7.44	7.44	1.5 ANNUAL	PM_26	1
RES	581687	4204527	581686.96	0.00015	7.02	7.02	1.5 ANNUAL	PM_26	1
RES	581706.8	4204527	581706.81	0.00017	6.6	6.6	1.5 ANNUAL	PM_26	1
WOR	581885.5	4204527	581885.46	0.00013	5.57	5.57	1.5 ANNUAL	PM_26	1
WOR	581905.3	4204527	581905.31	0.0001	5.68	5.68	1.5 ANNUAL	PM_26	1
WOR	581925.2	4204527	581925.16	9.00E-05	5.81	9.94	1.5 ANNUAL	PM_26	1
WOR	581945	4204527	581945.01	9.00E-05	5.71	11.07	1.5 ANNUAL	PM_26	1
WOR	582044.3	4204527	582044.26	6.00E-05	5.36	11.04	1.5 ANNUAL	PM_26	1
WOR	582064.1	4204527	582064.11	5.00E-05	5.54	5.54	1.5 ANNUAL	PM_26	1
WOR	582084	4204527	582083.96	4.00E-05	6.39	6.39	1.5 ANNUAL	PM_26	1
RES	581389.2	4204547	581389.21	1.00E-05	13.18	13.18	1.5 ANNUAL	PM_26	1
RES	581409.1	4204547	581409.06	1.00E-05	12.53	12.53	1.5 ANNUAL	PM_26	1
RES	581428.9	4204547	581428.91	1.00E-05	11.63	11.63	1.5 ANNUAL	PM_26	1
RES	581448.8	4204547	581448.76	1.00E-05	11.12	11.12	1.5 ANNUAL	PM_26	1
RES	581468.6	4204547	581468.61	1.00E-05	10.87	10.87	1.5 ANNUAL	PM_26	1
RES	581488.5	4204547	581488.46	2.00E-05	10.71	10.71	1.5 ANNUAL	PM_26	1
RES	581508.3	4204547	581508.31	2.00E-05	11.17	11.17	1.5 ANNUAL	PM_26	1
RES	581528.2	4204547	581528.16	2.00E-05	10.28	10.28	1.5 ANNUAL	PM_26	1
RES	581548	4204547	581548.01	3.00E-05	9.42	9.42	1.5 ANNUAL	PM_26	1
RES	581567.9	4204547	581567.86	4.00E-05	8.57	8.57	1.5 ANNUAL	PM_26	1
RES	581587.7	4204547	581587.71	5.00E-05	8.97	8.97	1.5 ANNUAL	PM_26	1
RES	581607.6	4204547	581607.56	6.00E-05	8.33	8.33	1.5 ANNUAL	PM_26	1
RES	581627.4	4204547	581627.41	8.00E-05	7.45	7.45	1.5 ANNUAL	PM_26	1
RES	581647.3	4204547	581647.26	0.0001	7.31	7.31	1.5 ANNUAL	PM_26	1
RES	581667.1	4204547	581667.11	0.00012	7.58	7.58	1.5 ANNUAL	PM_26	1
RES	581687	4204547	581686.96	0.00013	7.19	7.19	1.5 ANNUAL	PM_26	1
RES	581706.8	4204547	581706.81	0.00014	6.82	6.82	1.5 ANNUAL	PM_26	1
WOR	581865.6	4204547	581865.61	0.00016	5.88	5.88	1.5 ANNUAL	PM_26	1
WOR	581885.5	4204547	581885.46	0.00011	5.44	5.44	1.5 ANNUAL	PM_26	1
WOR	581905.3	4204547	581905.31	9.00E-05	5.8	5.8	1.5 ANNUAL	PM_26	1
WOR	581925.2	4204547	581925.16	8.00E-05	5.87	5.87	1.5 ANNUAL	PM_26	1
WOR	581945	4204547	581945.01	9.00E-05	5.76	10.79	1.5 ANNUAL	PM_26	1
RES	582044.3	4204547	582044.26	5.00E-05	5.3	10.43	1.5 ANNUAL	PM_26	1
RES	582064.1	4204547	582064.11	4.00E-05	5.3	5.3	1.5 ANNUAL	PM_26	1
RES	582084	4204547	582083.96	4.00E-05	5.47	5.47	1.5 ANNUAL	PM_26	1
RES	582102.5	4204551	582102.54	3.00E-05	5.49	5.49	1.5 ANNUAL	PM_26	1
RES	581389.2	4204566	581389.21	1.00E-05	13.42	13.42	1.5 ANNUAL	PM_26	1
RES	581409.1	4204566	581409.06	1.00E-05	12.84	12.84	1.5 ANNUAL	PM_26	1
RES	581428.9	4204566	581428.91	1.00E-05	12.16	12.16	1.5 ANNUAL	PM_26	1
RES	581448.8	4204566	581448.76	1.00E-05	11.58	11.58	1.5 ANNUAL	PM_26	1
RES	581468.6	4204566	581468.61	1.00E-05	11.16	11.16	1.5 ANNUAL	PM_26	1
RES	581508.3	4204566	581508.31	2.00E-05	11.36	11.36	1.5 ANNUAL	PM_26	1

RES	581528.2	4204566	581528.16	2.00E-05	10.99	10.99	1.5 ANNUAL	PM_26	1
RES	581548	4204566	581548.01	3.00E-05	10.31	10.31	1.5 ANNUAL	PM_26	1
RES	581567.9	4204566	581567.86	4.00E-05	9.34	9.34	1.5 ANNUAL	PM_26	1
RES	581587.7	4204566	581587.71	5.00E-05	9.59	9.59	1.5 ANNUAL	PM_26	1
RES	581607.6	4204566	581607.56	6.00E-05	8.49	8.49	1.5 ANNUAL	PM_26	1
RES	581627.4	4204566	581627.41	8.00E-05	7.64	7.64	1.5 ANNUAL	PM_26	1
RES	581647.3	4204566	581647.26	9.00E-05	7.25	7.25	1.5 ANNUAL	PM_26	1
RES	581667.1	4204566	581667.11	0.00011	7.62	7.62	1.5 ANNUAL	PM_26	1
RES	581687	4204566	581686.96	0.00012	7.14	7.14	1.5 ANNUAL	PM_26	1
RES	581706.8	4204566	581706.81	0.00012	7.05	7.05	1.5 ANNUAL	PM_26	1
WOR	581865.6	4204566	581865.61	0.00014	5.56	5.56	1.5 ANNUAL	PM_26	1
WOR	581885.5	4204566	581885.46	0.0001	5.42	5.42	1.5 ANNUAL	PM_26	1
WOR	581905.3	4204566	581905.31	9.00E-05	5.76	5.76	1.5 ANNUAL	PM_26	1
WOR	581925.2	4204566	581925.16	8.00E-05	5.79	5.79	1.5 ANNUAL	PM_26	1
RES	582024.4	4204566	582024.41	6.00E-05	5.3	10.6	1.5 ANNUAL	PM_26	1
RES	582044.3	4204566	582044.26	5.00E-05	5.28	5.28	1.5 ANNUAL	PM_26	1
RES	582064.1	4204566	582064.11	4.00E-05	5.13	5.13	1.5 ANNUAL	PM_26	1
RES	582084	4204566	582083.96	3.00E-05	5.08	5.08	1.5 ANNUAL	PM_26	1
RES	582103.8	4204566	582103.81	3.00E-05	5.13	5.13	1.5 ANNUAL	PM_26	1
RES	581389.2	4204586	581389.21	1.00E-05	13.12	13.12	1.5 ANNUAL	PM_26	1
RES	581409.1	4204586	581409.06	1.00E-05	12.78	12.78	1.5 ANNUAL	PM_26	1
RES	581428.9	4204586	581428.91	1.00E-05	12.45	12.45	1.5 ANNUAL	PM_26	1
RES	581448.8	4204586	581448.76	1.00E-05	12.21	12.21	1.5 ANNUAL	PM_26	1
RES	581468.6	4204586	581468.61	1.00E-05	11.83	11.83	1.5 ANNUAL	PM_26	1
RES	581508.3	4204586	581508.31	2.00E-05	11.37	11.37	1.5 ANNUAL	PM_26	1
RES	581528.2	4204586	581528.16	2.00E-05	11.25	11.25	1.5 ANNUAL	PM_26	1
RES	581548	4204586	581548.01	3.00E-05	10.78	10.78	1.5 ANNUAL	PM_26	1
RES	581567.9	4204586	581567.86	3.00E-05	10.39	10.39	1.5 ANNUAL	PM_26	1
RES	581587.7	4204586	581587.71	4.00E-05	10.49	10.49	1.5 ANNUAL	PM_26	1
RES	581607.6	4204586	581607.56	6.00E-05	9.41	9.41	1.5 ANNUAL	PM_26	1
RES	581627.4	4204586	581627.41	7.00E-05	8.58	8.58	1.5 ANNUAL	PM_26	1
RES	581647.3	4204586	581647.26	8.00E-05	8.23	8.23	1.5 ANNUAL	PM_26	1
RES	581667.1	4204586	581667.11	9.00E-05	8.16	8.16	1.5 ANNUAL	PM_26	1
RES	581687	4204586	581686.96	0.0001	7.14	7.14	1.5 ANNUAL	PM_26	1
RES	581706.8	4204586	581706.81	0.00011	7.09	7.09	1.5 ANNUAL	PM_26	1
RES	582024.4	4204586	582024.41	6.00E-05	5.26	9.94	1.5 ANNUAL	PM_26	1
RES	582044.3	4204586	582044.26	5.00E-05	5.19	5.19	1.5 ANNUAL	PM_26	1
RES	582064.1	4204586	582064.11	4.00E-05	5.07	5.07	1.5 ANNUAL	PM_26	1
RES	582084	4204586	582083.96	3.00E-05	5.02	5.02	1.5 ANNUAL	PM_26	1
RES	582103.8	4204586	582103.81	3.00E-05	5.03	5.03	1.5 ANNUAL	PM_26	1
RES	581389.2	4204606	581389.21	1.00E-05	12.72	12.72	1.5 ANNUAL	PM_26	1
RES	581528.2	4204606	581528.16	2.00E-05	11.35	11.35	1.5 ANNUAL	PM_26	1
RES	581607.6	4204606	581607.56	6.00E-05	10.15	10.15	1.5 ANNUAL	PM_26	1
RES	581647.3	4204606	581647.26	8.00E-05	8.95	8.95	1.5 ANNUAL	PM_26	1
RES	581667.1	4204606	581667.11	8.00E-05	8.36	8.36	1.5 ANNUAL	PM_26	1
RES	581687	4204606	581686.96	9.00E-05	7.48	7.48	1.5 ANNUAL	PM_26	1
RES	581706.8	4204606	581706.81	9.00E-05	6.97	6.97	1.5 ANNUAL	PM_26	1
WOR	581905.3	4204606	581905.31	8.00E-05	5.82	5.82	1.5 ANNUAL	PM_26	1
WOR	581925.2	4204606	581925.16	8.00E-05	5.74	5.74	1.5 ANNUAL	PM_26	1
RES	582024.4	4204606	582024.41	6.00E-05	5.32	5.32	1.5 ANNUAL	PM_26	1
RES	582044.3	4204606	582044.26	4.00E-05	5.18	5.18	1.5 ANNUAL	PM_26	1
RES	582064.1	4204606	582064.11	3.00E-05	5.12	5.12	1.5 ANNUAL	PM_26	1
RES	582084	4204606	582083.96	3.00E-05	5.07	5.07	1.5 ANNUAL	PM_26	1
RES	582103.8	4204606	582103.81	3.00E-05	5.02	5.02	1.5 ANNUAL	PM_26	1

RES	581389.2	4204626	581389.21	1.00E-05	12.86	12.86	1.5 ANNUAL	PM_26	1
RES	581409.1	4204626	581409.06	1.00E-05	12.41	12.41	1.5 ANNUAL	PM_26	1
RES	581428.9	4204626	581428.91	1.00E-05	12.22	12.22	1.5 ANNUAL	PM_26	1
RES	581448.8	4204626	581448.76	1.00E-05	12.1	12.1	1.5 ANNUAL	PM_26	1
RES	581468.6	4204626	581468.61	1.00E-05	11.68	11.68	1.5 ANNUAL	PM_26	1
RES	581488.5	4204626	581488.46	2.00E-05	11.16	11.16	1.5 ANNUAL	PM_26	1
RES	581508.3	4204626	581508.31	2.00E-05	11.21	11.21	1.5 ANNUAL	PM_26	1
RES	581528.2	4204626	581528.16	2.00E-05	11.65	11.65	1.5 ANNUAL	PM_26	1
RES	581548	4204626	581548.01	3.00E-05	11.65	11.65	1.5 ANNUAL	PM_26	1
RES	581567.9	4204626	581567.86	4.00E-05	11.44	11.44	1.5 ANNUAL	PM_26	1
RES	581587.7	4204626	581587.71	4.00E-05	10.81	10.81	1.5 ANNUAL	PM_26	1
RES	581607.6	4204626	581607.56	5.00E-05	10.98	10.98	1.5 ANNUAL	PM_26	1
RES	581627.4	4204626	581627.41	6.00E-05	9.97	9.97	1.5 ANNUAL	PM_26	1
RES	581687	4204626	581686.96	8.00E-05	6.5	6.5	1.5 ANNUAL	PM_26	1
RES	581706.8	4204626	581706.81	8.00E-05	6.22	6.22	1.5 ANNUAL	PM_26	1
WOR	581825.9	4204626	581825.91	0.00014	5.9	5.9	1.5 ANNUAL	PM_26	1
WOR	581885.5	4204626	581885.46	8.00E-05	5.61	5.61	1.5 ANNUAL	PM_26	1
WOR	581905.3	4204626	581905.31	7.00E-05	5.99	5.99	1.5 ANNUAL	PM_26	1
WOR	581925.2	4204626	581925.16	8.00E-05	5.83	5.83	1.5 ANNUAL	PM_26	1
RES	582024.4	4204626	582024.41	5.00E-05	5.36	5.36	1.5 ANNUAL	PM_26	1
RES	582046.6	4204630	582046.56	4.00E-05	5.13	5.13	1.5 ANNUAL	PM_26	1
RES	582066.4	4204630	582066.41	3.00E-05	5.11	5.11	1.5 ANNUAL	PM_26	1
RES	581389.2	4204646	581389.21	1.00E-05	12.04	12.04	1.5 ANNUAL	PM_26	1
RES	581409.1	4204646	581409.06	1.00E-05	11.43	11.86	1.5 ANNUAL	PM_26	1
RES	581428.9	4204646	581428.91	1.00E-05	11.78	12.06	1.5 ANNUAL	PM_26	1
RES	581448.8	4204646	581448.76	1.00E-05	11.97	11.97	1.5 ANNUAL	PM_26	1
RES	581468.6	4204646	581468.61	1.00E-05	11.26	11.26	1.5 ANNUAL	PM_26	1
RES	581488.5	4204646	581488.46	2.00E-05	10.88	10.88	1.5 ANNUAL	PM_26	1
RES	581508.3	4204646	581508.31	2.00E-05	10.81	10.81	1.5 ANNUAL	PM_26	1
RES	581528.2	4204646	581528.16	2.00E-05	11.04	11.04	1.5 ANNUAL	PM_26	1
RES	581548	4204646	581548.01	3.00E-05	11.11	11.11	1.5 ANNUAL	PM_26	1
RES	581567.9	4204646	581567.86	4.00E-05	10.97	10.97	1.5 ANNUAL	PM_26	1
RES	581587.7	4204646	581587.71	4.00E-05	10.76	10.76	1.5 ANNUAL	PM_26	1
RES	581607.6	4204646	581607.56	5.00E-05	11.23	11.23	1.5 ANNUAL	PM_26	1
RES	581627.4	4204646	581627.41	6.00E-05	10.26	10.26	1.5 ANNUAL	PM_26	1
RES	581647.3	4204646	581647.26	6.00E-05	9.48	9.48	1.5 ANNUAL	PM_26	1
RES	581667.1	4204646	581667.11	7.00E-05	7.82	7.82	1.5 ANNUAL	PM_26	1
WOR	581825.9	4204646	581825.91	0.00012	6.13	6.13	1.5 ANNUAL	PM_26	1
WOR	581845.8	4204646	581845.76	9.00E-05	6.13	6.13	1.5 ANNUAL	PM_26	1
WOR	581865.6	4204646	581865.61	8.00E-05	6.11	6.11	1.5 ANNUAL	PM_26	1
WOR	581885.5	4204646	581885.46	7.00E-05	5.71	5.71	1.5 ANNUAL	PM_26	1
WOR	581905.3	4204646	581905.31	7.00E-05	5.92	5.92	1.5 ANNUAL	PM_26	1
WOR	581925.2	4204646	581925.16	8.00E-05	5.75	5.75	1.5 ANNUAL	PM_26	1
RES	582010.2	4204647	582010.16	6.00E-05	5.47	5.47	1.5 ANNUAL	PM_26	1
RES	582024.4	4204646	582024.41	5.00E-05	5.39	5.39	1.5 ANNUAL	PM_26	1
RES	582044.3	4204646	582044.26	4.00E-05	5.24	5.24	1.5 ANNUAL	PM_26	1
RES	582064.1	4204646	582064.11	3.00E-05	5.24	5.24	1.5 ANNUAL	PM_26	1
RES	582103.8	4204646	582103.81	2.00E-05	5.06	5.06	1.5 ANNUAL	PM_26	1
RES	581389.2	4204666	581389.21	1.00E-05	11.27	11.58	1.5 ANNUAL	PM_26	1
RES	581409.1	4204666	581409.06	1.00E-05	9.53	11.86	1.5 ANNUAL	PM_26	1
RES	581428.9	4204666	581428.91	1.00E-05	9.56	12.21	1.5 ANNUAL	PM_26	1
RES	581448.8	4204666	581448.76	1.00E-05	9.71	12.23	1.5 ANNUAL	PM_26	1
RES	581468.6	4204666	581468.61	1.00E-05	10.16	10.16	1.5 ANNUAL	PM_26	1
RES	581488.5	4204666	581488.46	2.00E-05	10.01	10.01	1.5 ANNUAL	PM_26	1

RES	581508.3	4204666	581508.31	2.00E-05	10.29	10.29	1.5 ANNUAL	PM_26	1
RES	581528.2	4204666	581528.16	2.00E-05	10.65	10.65	1.5 ANNUAL	PM_26	1
RES	581548	4204666	581548.01	3.00E-05	10.73	10.73	1.5 ANNUAL	PM_26	1
RES	581567.9	4204666	581567.86	4.00E-05	10.45	10.45	1.5 ANNUAL	PM_26	1
RES	581587.7	4204666	581587.71	4.00E-05	10.51	10.51	1.5 ANNUAL	PM_26	1
RES	581607.6	4204666	581607.56	5.00E-05	10.89	10.89	1.5 ANNUAL	PM_26	1
RES	581627.4	4204666	581627.41	6.00E-05	9.91	9.91	1.5 ANNUAL	PM_26	1
RES	581647.3	4204666	581647.26	6.00E-05	9.31	9.31	1.5 ANNUAL	PM_26	1
RES	581667.1	4204666	581667.11	6.00E-05	7.43	9.61	1.5 ANNUAL	PM_26	1
RES	582010.2	4204667	582010.16	5.00E-05	5.52	5.52	1.5 ANNUAL	PM_26	1
RES	582024.4	4204666	582024.41	4.00E-05	5.4	5.4	1.5 ANNUAL	PM_26	1
RES	582044.3	4204666	582044.26	3.00E-05	5.35	5.35	1.5 ANNUAL	PM_26	1
RES	582064.1	4204666	582064.11	3.00E-05	5.19	5.19	1.5 ANNUAL	PM_26	1
RES	582103.8	4204666	582103.81	2.00E-05	5.12	5.12	1.5 ANNUAL	PM_26	1
RES	581389.2	4204685	581389.21	1.00E-05	11.07	11.43	1.5 ANNUAL	PM_26	1
RES	581409.1	4204685	581409.06	1.00E-05	9.48	9.48	1.5 ANNUAL	PM_26	1
RES	581428.9	4204685	581428.91	1.00E-05	9.01	9.01	1.5 ANNUAL	PM_26	1
RES	581448.8	4204685	581448.76	1.00E-05	9.25	9.25	1.5 ANNUAL	PM_26	1
RES	581468.6	4204685	581468.61	2.00E-05	9.42	9.42	1.5 ANNUAL	PM_26	1
RES	581508.3	4204685	581508.31	2.00E-05	9.76	9.76	1.5 ANNUAL	PM_26	1
RES	581528.2	4204685	581528.16	3.00E-05	10.19	10.19	1.5 ANNUAL	PM_26	1
RES	581548	4204685	581548.01	3.00E-05	10.38	10.38	1.5 ANNUAL	PM_26	1
RES	581567.9	4204685	581567.86	4.00E-05	9.77	9.77	1.5 ANNUAL	PM_26	1
RES	581587.7	4204685	581587.71	4.00E-05	10.27	10.27	1.5 ANNUAL	PM_26	1
RES	581607.6	4204685	581607.56	5.00E-05	10.44	10.44	1.5 ANNUAL	PM_26	1
RES	581627.4	4204685	581627.41	5.00E-05	8.95	8.95	1.5 ANNUAL	PM_26	1
RES	581647.3	4204685	581647.26	6.00E-05	7.67	9.09	1.5 ANNUAL	PM_26	1
RES	581667.1	4204685	581667.11	6.00E-05	7.01	7.01	1.5 ANNUAL	PM_26	1
RES	582004.6	4204685	582004.56	5.00E-05	5.53	5.53	1.5 ANNUAL	PM_26	1
RES	582024.4	4204685	582024.41	4.00E-05	5.34	5.34	1.5 ANNUAL	PM_26	1
RES	582044.3	4204685	582044.26	3.00E-05	5.43	5.43	1.5 ANNUAL	PM_26	1
RES	582064.1	4204685	582064.11	3.00E-05	5.05	5.05	1.5 ANNUAL	PM_26	1
RES	582084	4204685	582083.96	2.00E-05	4.84	4.84	1.5 ANNUAL	PM_26	1
RES	582103.8	4204685	582103.81	2.00E-05	5.09	5.09	1.5 ANNUAL	PM_26	1
RES	581389.2	4204705	581389.21	1.00E-05	10.65	10.94	1.5 ANNUAL	PM_26	1
RES	581409.1	4204705	581409.06	1.00E-05	9.43	9.43	1.5 ANNUAL	PM_26	1
RES	581428.9	4204705	581428.91	1.00E-05	8.92	8.92	1.5 ANNUAL	PM_26	1
RES	581448.8	4204705	581448.76	1.00E-05	8.89	8.89	1.5 ANNUAL	PM_26	1
RES	581508.3	4204705	581508.31	2.00E-05	9.23	9.23	1.5 ANNUAL	PM_26	1
RES	581528.2	4204705	581528.16	3.00E-05	9.76	9.76	1.5 ANNUAL	PM_26	1
RES	581548	4204705	581548.01	3.00E-05	9.84	9.84	1.5 ANNUAL	PM_26	1
RES	581567.9	4204705	581567.86	4.00E-05	9.08	9.08	1.5 ANNUAL	PM_26	1
RES	581587.7	4204705	581587.71	4.00E-05	9.69	9.69	1.5 ANNUAL	PM_26	1
RES	581607.6	4204705	581607.56	5.00E-05	9.48	9.48	1.5 ANNUAL	PM_26	1
WOR	581865.6	4204705	581865.61	6.00E-05	6.16	6.16	1.5 ANNUAL	PM_26	1
WOR	581885.5	4204705	581885.46	6.00E-05	6.15	6.15	1.5 ANNUAL	PM_26	1
WOR	581905.3	4204705	581905.31	6.00E-05	6.13	6.13	1.5 ANNUAL	PM_26	1
RES	582004.6	4204705	582004.56	5.00E-05	5.48	5.48	1.5 ANNUAL	PM_26	1
RES	582044.3	4204705	582044.26	3.00E-05	5.41	5.41	1.5 ANNUAL	PM_26	1
RES	582064.1	4204705	582064.11	2.00E-05	4.79	4.79	1.5 ANNUAL	PM_26	1
RES	582084	4204705	582083.96	2.00E-05	4.77	4.77	1.5 ANNUAL	PM_26	1
RES	582103.8	4204705	582103.81	2.00E-05	4.89	4.89	1.5 ANNUAL	PM_26	1
WOR	581802	4204544	5.82E+12	0.00015	6.73	6.73	1.5 ANNUAL	PM_26	1
WOR	581822	4204544	5.82E+12	0.00016	6.31	6.31	1.5 ANNUAL	PM_26	1

WOR	581802	4204564	5.82E+12	0.00014	6.78	6.78	1.5 ANNUAL	PM_26	1
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Discrete Re X	Y	Concentrat	Elevation (Z Hill Heights Flagpole (Z)	Averagin Pe	Source Gro	Num Years	Net ID
RES	581389.2	4203991 581389.21	6.00E-05	10.43	10.43	1.5 ANNUAL	PM_27 1
RES	581409.1	4203991 581409.06	7.00E-05	10.52	10.52	1.5 ANNUAL	PM_27 1
RES	581428.9	4203991 581428.91	8.00E-05	9.49	9.49	1.5 ANNUAL	PM_27 1
RES	581448.8	4203991 581448.76	8.00E-05	9.32	9.32	1.5 ANNUAL	PM_27 1
RES	581468.6	4203991 581468.61	9.00E-05	9.34	9.34	1.5 ANNUAL	PM_27 1
RES	581488.5	4203991 581488.46	9.00E-05	9.37	9.37	1.5 ANNUAL	PM_27 1
RES	581508.3	4203991 581508.31	0.0001	8.92	8.92	1.5 ANNUAL	PM_27 1
RES	581528.2	4203991 581528.16	0.0001	9.17	9.17	1.5 ANNUAL	PM_27 1
RES	581548	4203991 581548.01	0.00011	9.08	9.08	1.5 ANNUAL	PM_27 1
RES	581567.9	4203991 581567.86	0.00011	8.66	8.66	1.5 ANNUAL	PM_27 1
RES	581587.7	4203991 581587.71	0.00012	8.2	8.2	1.5 ANNUAL	PM_27 1
RES	581607.6	4203991 581607.56	0.00012	7.93	7.93	1.5 ANNUAL	PM_27 1
RES	581627.4	4203991 581627.41	0.00013	7.83	7.83	1.5 ANNUAL	PM_27 1
RES	581647.3	4203991 581647.26	0.00014	7.68	7.68	1.5 ANNUAL	PM_27 1
RES	581667.1	4203991 581667.11	0.00014	7.55	7.55	1.5 ANNUAL	PM_27 1
RES	581687	4203991 581686.96	0.00015	7.55	7.55	1.5 ANNUAL	PM_27 1
RES	581706.8	4203991 581706.81	0.00016	8.26	8.26	1.5 ANNUAL	PM_27 1
RES	581726.7	4203991 581726.66	0.00017	7.79	7.79	1.5 ANNUAL	PM_27 1
RES	581746.5	4203991 581746.51	0.00018	7.26	7.26	1.5 ANNUAL	PM_27 1
WOR	582004.6	4203991 582004.56	0.00032	7.35	7.35	1.5 ANNUAL	PM_27 1
WOR	582024.4	4203991 582024.41	0.0003	7.63	7.63	1.5 ANNUAL	PM_27 1
WOR	582044.3	4203991 582044.26	0.0003	7.52	7.52	1.5 ANNUAL	PM_27 1
RES	581389.2	4204011 581389.21	7.00E-05	10.76	10.76	1.5 ANNUAL	PM_27 1
RES	581409.1	4204011 581409.06	7.00E-05	9.83	9.83	1.5 ANNUAL	PM_27 1
RES	581428.9	4204011 581428.91	8.00E-05	8.49	8.49	1.5 ANNUAL	PM_27 1
RES	581448.8	4204011 581448.76	9.00E-05	8.42	8.42	1.5 ANNUAL	PM_27 1
RES	581468.6	4204011 581468.61	9.00E-05	8.61	8.61	1.5 ANNUAL	PM_27 1
RES	581488.5	4204011 581488.46	0.0001	8.85	8.85	1.5 ANNUAL	PM_27 1
RES	581508.3	4204011 581508.31	0.00011	8.81	8.81	1.5 ANNUAL	PM_27 1
RES	581528.2	4204011 581528.16	0.00011	9.07	9.07	1.5 ANNUAL	PM_27 1
RES	581548	4204011 581548.01	0.00012	9.1	9.1	1.5 ANNUAL	PM_27 1
RES	581567.9	4204011 581567.86	0.00012	8.67	8.67	1.5 ANNUAL	PM_27 1
RES	581587.7	4204011 581587.71	0.00013	8.19	8.19	1.5 ANNUAL	PM_27 1
RES	581607.6	4204011 581607.56	0.00014	7.71	7.71	1.5 ANNUAL	PM_27 1
RES	581627.4	4204011 581627.41	0.00014	8.2	8.2	1.5 ANNUAL	PM_27 1
RES	581647.3	4204011 581647.26	0.00015	8.21	8.21	1.5 ANNUAL	PM_27 1
RES	581667.1	4204011 581667.11	0.00016	7.72	7.72	1.5 ANNUAL	PM_27 1
RES	581687	4204011 581686.96	0.00017	7.75	7.75	1.5 ANNUAL	PM_27 1
RES	581706.8	4204011 581706.81	0.00018	8.2	8.2	1.5 ANNUAL	PM_27 1
RES	581726.7	4204011 581726.66	0.00019	7.64	7.64	1.5 ANNUAL	PM_27 1
RES	581746.5	4204011 581746.51	0.0002	6.81	6.81	1.5 ANNUAL	PM_27 1
WOR	581845.8	4204011 581845.76	0.00027	6.88	6.88	1.5 ANNUAL	PM_27 1
WOR	581865.6	4204011 581865.61	0.00029	7.09	7.09	1.5 ANNUAL	PM_27 1
WOR	581885.5	4204011 581885.46	0.00031	7.08	7.08	1.5 ANNUAL	PM_27 1
WOR	581905.3	4204011 581905.31	0.00034	7.06	7.06	1.5 ANNUAL	PM_27 1
WOR	582004.6	4204011 582004.56	0.00035	7.45	7.45	1.5 ANNUAL	PM_27 1
WOR	582024.4	4204011 582024.41	0.00034	7.54	7.54	1.5 ANNUAL	PM_27 1
WOR	582044.3	4204011 582044.26	0.00037	7.58	7.58	1.5 ANNUAL	PM_27 1
RES	581389.2	4204030 581389.21	7.00E-05	10.28	10.28	1.5 ANNUAL	PM_27 1
RES	581409.1	4204030 581409.06	8.00E-05	9.25	9.25	1.5 ANNUAL	PM_27 1
RES	581428.9	4204030 581428.91	8.00E-05	8.41	8.41	1.5 ANNUAL	PM_27 1
RES	581448.8	4204030 581448.76	9.00E-05	8.32	8.32	1.5 ANNUAL	PM_27 1
RES	581468.6	4204030 581468.61	0.0001	8.1	8.1	1.5 ANNUAL	PM_27 1

RES	581488.5	4204030	581488.46	0.00011	8.33	8.33	1.5 ANNUAL	PM_27	1
RES	581508.3	4204030	581508.31	0.00011	8.53	8.53	1.5 ANNUAL	PM_27	1
RES	581528.2	4204030	581528.16	0.00012	8.63	8.63	1.5 ANNUAL	PM_27	1
RES	581548	4204030	581548.01	0.00013	8.55	8.55	1.5 ANNUAL	PM_27	1
RES	581567.9	4204030	581567.86	0.00014	8.43	8.43	1.5 ANNUAL	PM_27	1
RES	581587.7	4204030	581587.71	0.00014	8.16	8.16	1.5 ANNUAL	PM_27	1
RES	581627.4	4204030	581627.41	0.00016	8.26	8.26	1.5 ANNUAL	PM_27	1
RES	581647.3	4204030	581647.26	0.00017	8.24	8.24	1.5 ANNUAL	PM_27	1
RES	581667.1	4204030	581667.11	0.00018	7.75	7.75	1.5 ANNUAL	PM_27	1
RES	581687	4204030	581686.96	0.00019	7.58	7.58	1.5 ANNUAL	PM_27	1
RES	581706.8	4204030	581706.81	0.0002	7.98	7.98	1.5 ANNUAL	PM_27	1
RES	581726.7	4204030	581726.66	0.00021	7.98	7.98	1.5 ANNUAL	PM_27	1
RES	581746.5	4204030	581746.51	0.00023	6.98	7.33	1.5 ANNUAL	PM_27	1
WOR	581845.8	4204030	581845.76	0.00031	6.63	6.63	1.5 ANNUAL	PM_27	1
WOR	581865.6	4204030	581865.61	0.00032	6.8	6.8	1.5 ANNUAL	PM_27	1
WOR	581885.5	4204030	581885.46	0.00035	6.92	6.92	1.5 ANNUAL	PM_27	1
WOR	581905.3	4204030	581905.31	0.00039	6.97	6.97	1.5 ANNUAL	PM_27	1
WOR	582004.6	4204030	582004.56	0.00037	7.63	7.63	1.5 ANNUAL	PM_27	1
WOR	582024.4	4204030	582024.41	0.00037	7.68	7.68	1.5 ANNUAL	PM_27	1
RES	581389.2	4204050	581389.21	7.00E-05	9.84	9.84	1.5 ANNUAL	PM_27	1
RES	581409.1	4204050	581409.06	8.00E-05	9	9	1.5 ANNUAL	PM_27	1
RES	581428.9	4204050	581428.91	9.00E-05	8.69	8.69	1.5 ANNUAL	PM_27	1
RES	581448.8	4204050	581448.76	9.00E-05	8.36	8.36	1.5 ANNUAL	PM_27	1
RES	581488.5	4204050	581488.46	0.00011	7.98	7.98	1.5 ANNUAL	PM_27	1
RES	581567.9	4204050	581567.86	0.00015	7.75	7.75	1.5 ANNUAL	PM_27	1
RES	581587.7	4204050	581587.71	0.00016	7.69	7.69	1.5 ANNUAL	PM_27	1
RES	581627.4	4204050	581627.41	0.00018	8.12	8.12	1.5 ANNUAL	PM_27	1
RES	581647.3	4204050	581647.26	0.00019	8.13	8.13	1.5 ANNUAL	PM_27	1
RES	581667.1	4204050	581667.11	0.0002	7.72	7.72	1.5 ANNUAL	PM_27	1
RES	581687	4204050	581686.96	0.00021	7.5	7.5	1.5 ANNUAL	PM_27	1
RES	581706.8	4204050	581706.81	0.00022	8.14	8.14	1.5 ANNUAL	PM_27	1
RES	581726.7	4204050	581726.66	0.00024	8.04	8.04	1.5 ANNUAL	PM_27	1
WOR	581825.9	4204050	581825.91	0.00033	6.74	6.74	1.5 ANNUAL	PM_27	1
WOR	581845.8	4204050	581845.76	0.00035	6.79	6.79	1.5 ANNUAL	PM_27	1
WOR	581865.6	4204050	581865.61	0.00037	6.58	6.58	1.5 ANNUAL	PM_27	1
WOR	581885.5	4204050	581885.46	0.00039	6.78	6.78	1.5 ANNUAL	PM_27	1
WOR	581905.3	4204050	581905.31	0.00045	6.92	6.92	1.5 ANNUAL	PM_27	1
WOR	582004.6	4204050	582004.56	0.0004	7.66	7.66	1.5 ANNUAL	PM_27	1
WOR	582024.4	4204050	582024.41	0.00041	7.6	7.6	1.5 ANNUAL	PM_27	1
RES	581389.2	4204070	581389.21	7.00E-05	8.77	8.77	1.5 ANNUAL	PM_27	1
RES	581409.1	4204070	581409.06	8.00E-05	9.01	9.01	1.5 ANNUAL	PM_27	1
RES	581428.9	4204070	581428.91	9.00E-05	9.09	9.09	1.5 ANNUAL	PM_27	1
RES	581448.8	4204070	581448.76	0.0001	8.79	8.79	1.5 ANNUAL	PM_27	1
RES	581488.5	4204070	581488.46	0.00012	8.4	8.4	1.5 ANNUAL	PM_27	1
RES	581508.3	4204070	581508.31	0.00013	8.72	8.72	1.5 ANNUAL	PM_27	1
RES	581528.2	4204070	581528.16	0.00014	8.63	8.63	1.5 ANNUAL	PM_27	1
RES	581548	4204070	581548.01	0.00015	8.5	8.5	1.5 ANNUAL	PM_27	1
RES	581567.9	4204070	581567.86	0.00017	8.19	8.19	1.5 ANNUAL	PM_27	1
RES	581587.7	4204070	581587.71	0.00018	7.73	7.73	1.5 ANNUAL	PM_27	1
RES	581627.4	4204070	581627.41	0.0002	7.77	7.77	1.5 ANNUAL	PM_27	1
RES	581647.3	4204070	581647.26	0.00021	7.87	7.87	1.5 ANNUAL	PM_27	1
RES	581667.1	4204070	581667.11	0.00023	7.69	7.69	1.5 ANNUAL	PM_27	1
RES	581687	4204070	581686.96	0.00024	7.18	7.18	1.5 ANNUAL	PM_27	1
RES	581706.8	4204070	581706.81	0.00026	7.79	7.79	1.5 ANNUAL	PM_27	1

RES	581726.7	4204070	581726.66	0.00027	7.85	7.85	1.5 ANNUAL	PM_27	1
WOR	581806.1	4204070	581806.06	0.00036	6.83	6.83	1.5 ANNUAL	PM_27	1
WOR	581825.9	4204070	581825.91	0.00038	6.88	6.88	1.5 ANNUAL	PM_27	1
WOR	581845.8	4204070	581845.76	0.00039	6.84	6.84	1.5 ANNUAL	PM_27	1
WOR	581865.6	4204070	581865.61	0.00041	6.79	6.79	1.5 ANNUAL	PM_27	1
WOR	581885.5	4204070	581885.46	0.00044	6.83	6.83	1.5 ANNUAL	PM_27	1
WOR	581905.3	4204070	581905.31	0.00051	6.91	6.91	1.5 ANNUAL	PM_27	1
WOR	582004.6	4204070	582004.56	0.00042	7.6	7.6	1.5 ANNUAL	PM_27	1
WOR	582024.4	4204070	582024.41	0.00045	7.4	7.4	1.5 ANNUAL	PM_27	1
WOR	582103.8	4204070	582103.81	0.00041	6.92	6.92	1.5 ANNUAL	PM_27	1
RES	581389.2	4204090	581389.21	7.00E-05	8.25	8.25	1.5 ANNUAL	PM_27	1
RES	581409.1	4204090	581409.06	8.00E-05	8.86	8.86	1.5 ANNUAL	PM_27	1
RES	581428.9	4204090	581428.91	9.00E-05	8.89	8.89	1.5 ANNUAL	PM_27	1
RES	581448.8	4204090	581448.76	0.0001	8.55	8.55	1.5 ANNUAL	PM_27	1
RES	581468.6	4204090	581468.61	0.00011	7.88	7.88	1.5 ANNUAL	PM_27	1
RES	581488.5	4204090	581488.46	0.00012	8.62	8.62	1.5 ANNUAL	PM_27	1
RES	581508.3	4204090	581508.31	0.00014	8.12	8.12	1.5 ANNUAL	PM_27	1
RES	581528.2	4204090	581528.16	0.00015	7.71	7.71	1.5 ANNUAL	PM_27	1
RES	581548	4204090	581548.01	0.00017	7.92	7.92	1.5 ANNUAL	PM_27	1
RES	581567.9	4204090	581567.86	0.00018	8.02	8.02	1.5 ANNUAL	PM_27	1
RES	581587.7	4204090	581587.71	0.0002	7.72	7.72	1.5 ANNUAL	PM_27	1
RES	581607.6	4204090	581607.56	0.00021	6.94	6.94	1.5 ANNUAL	PM_27	1
RES	581627.4	4204090	581627.41	0.00023	7.72	7.72	1.5 ANNUAL	PM_27	1
RES	581647.3	4204090	581647.26	0.00024	7.93	7.93	1.5 ANNUAL	PM_27	1
RES	581667.1	4204090	581667.11	0.00026	7.89	7.89	1.5 ANNUAL	PM_27	1
RES	581687	4204090	581686.96	0.00028	7.77	7.77	1.5 ANNUAL	PM_27	1
RES	581706.8	4204090	581706.81	0.0003	8.07	8.07	1.5 ANNUAL	PM_27	1
RES	581726.7	4204090	581726.66	0.00032	7.27	7.27	1.5 ANNUAL	PM_27	1
WOR	581786.2	4204090	581786.21	0.0004	6.72	6.72	1.5 ANNUAL	PM_27	1
WOR	581806.1	4204090	581806.06	0.00042	6.88	6.88	1.5 ANNUAL	PM_27	1
WOR	582024.4	4204090	582024.41	0.0005	7.39	7.39	1.5 ANNUAL	PM_27	1
WOR	582084	4204090	582083.96	0.00054	7.24	7.24	1.5 ANNUAL	PM_27	1
WOR	582103.8	4204090	582103.81	0.00041	7.01	7.01	1.5 ANNUAL	PM_27	1
RES	581389.2	4204110	581389.21	8.00E-05	8.05	8.05	1.5 ANNUAL	PM_27	1
RES	581409.1	4204110	581409.06	8.00E-05	8.66	8.66	1.5 ANNUAL	PM_27	1
RES	581428.9	4204110	581428.91	9.00E-05	8.65	8.65	1.5 ANNUAL	PM_27	1
RES	581448.8	4204110	581448.76	0.0001	8.27	8.27	1.5 ANNUAL	PM_27	1
RES	581468.6	4204110	581468.61	0.00012	7.73	7.73	1.5 ANNUAL	PM_27	1
RES	581488.5	4204110	581488.46	0.00013	8.56	8.56	1.5 ANNUAL	PM_27	1
RES	581508.3	4204110	581508.31	0.00015	7.79	7.79	1.5 ANNUAL	PM_27	1
SCH	581528.2	4204110	581528.16	0.00016	7.26	7.26	1.5 ANNUAL	PM_27	1
SCH	581548	4204110	581548.01	0.00018	6.82	6.82	1.5 ANNUAL	PM_27	1
SCH	581567.9	4204110	581567.86	0.0002	6.73	6.73	1.5 ANNUAL	PM_27	1
SCH	581584	4204105	581584.04	0.00021	6.88	6.88	1.5 ANNUAL	PM_27	1
RES	581607.6	4204110	581607.56	0.00024	7.03	7.03	1.5 ANNUAL	PM_27	1
RES	581627.4	4204110	581627.41	0.00026	7.45	7.45	1.5 ANNUAL	PM_27	1
RES	581647.3	4204110	581647.26	0.00028	7.45	7.45	1.5 ANNUAL	PM_27	1
RES	581667.1	4204110	581667.11	0.0003	7.53	7.53	1.5 ANNUAL	PM_27	1
RES	581687	4204110	581686.96	0.00032	7.63	7.63	1.5 ANNUAL	PM_27	1
RES	581706.8	4204110	581706.81	0.00035	7.77	7.77	1.5 ANNUAL	PM_27	1
RES	581726.7	4204110	581726.66	0.00038	5.89	8.08	1.5 ANNUAL	PM_27	1
WOR	581786.2	4204110	581786.21	0.00047	6.63	6.63	1.5 ANNUAL	PM_27	1
WOR	581806.1	4204110	581806.06	0.00049	6.87	6.87	1.5 ANNUAL	PM_27	1
WOR	581984.7	4204110	581984.71	0.00051	7.55	7.55	1.5 ANNUAL	PM_27	1

WOR	582004.6	4204110	582004.56	0.00048	7.55	7.55	1.5 ANNUAL	PM_27	1
WOR	582024.4	4204110	582024.41	0.00051	7.51	7.51	1.5 ANNUAL	PM_27	1
WOR	582084	4204110	582083.96	0.00053	6.99	6.99	1.5 ANNUAL	PM_27	1
WOR	582103.8	4204110	582103.81	0.0004	6.99	6.99	1.5 ANNUAL	PM_27	1
RES	581389.2	4204130	581389.21	8.00E-05	7.83	7.83	1.5 ANNUAL	PM_27	1
RES	581409.1	4204130	581409.06	9.00E-05	8.02	8.02	1.5 ANNUAL	PM_27	1
RES	581428.9	4204130	581428.91	0.0001	8.15	8.15	1.5 ANNUAL	PM_27	1
RES	581448.8	4204130	581448.76	0.00011	7.85	7.85	1.5 ANNUAL	PM_27	1
RES	581468.6	4204130	581468.61	0.00012	7.53	7.53	1.5 ANNUAL	PM_27	1
RES	581488.5	4204130	581488.46	0.00014	8.14	8.14	1.5 ANNUAL	PM_27	1
RES	581508.3	4204130	581508.31	0.00015	8.19	8.19	1.5 ANNUAL	PM_27	1
SCH	581528.2	4204130	581528.16	0.00018	7.36	7.36	1.5 ANNUAL	PM_27	1
SCH	581548	4204130	581548.01	0.0002	6.92	6.92	1.5 ANNUAL	PM_27	1
SCH	581567.9	4204130	581567.86	0.00022	6.9	6.9	1.5 ANNUAL	PM_27	1
SCH	581584	4204125	581584.04	0.00024	6.71	6.71	1.5 ANNUAL	PM_27	1
RES	581607.6	4204130	581607.56	0.00027	7.26	7.26	1.5 ANNUAL	PM_27	1
RES	581627.4	4204130	581627.41	0.0003	7.58	7.58	1.5 ANNUAL	PM_27	1
RES	581647.3	4204130	581647.26	0.00032	7.62	7.62	1.5 ANNUAL	PM_27	1
RES	581662.4	4204126	581662.44	0.00034	7.1	7.1	1.5 ANNUAL	PM_27	1
RES	581687	4204130	581686.96	0.00038	7	7	1.5 ANNUAL	PM_27	1
RES	581706.8	4204130	581706.81	0.00041	7.24	7.24	1.5 ANNUAL	PM_27	1
WOR	581766.4	4204130	581766.36	0.00053	6.34	6.34	1.5 ANNUAL	PM_27	1
WOR	581786.2	4204130	581786.21	0.00056	6.48	6.48	1.5 ANNUAL	PM_27	1
WOR	581806.1	4204130	581806.06	0.00059	6.85	6.85	1.5 ANNUAL	PM_27	1
WOR	581885.5	4204130	581885.46	0.00063	6.71	6.71	1.5 ANNUAL	PM_27	1
WOR	581905.3	4204130	581905.31	0.00076	6.94	6.94	1.5 ANNUAL	PM_27	1
WOR	581984.7	4204130	581984.71	0.00053	7.54	7.54	1.5 ANNUAL	PM_27	1
WOR	582004.6	4204130	582004.56	0.00051	7.65	7.65	1.5 ANNUAL	PM_27	1
WOR	582024.4	4204130	582024.41	0.00055	7.7	7.7	1.5 ANNUAL	PM_27	1
WOR	582084	4204130	582083.96	0.00057	6.9	6.9	1.5 ANNUAL	PM_27	1
WOR	582103.8	4204130	582103.81	0.0004	7.01	7.01	1.5 ANNUAL	PM_27	1
RES	581389.2	4204150	581389.21	8.00E-05	7.96	7.96	1.5 ANNUAL	PM_27	1
RES	581488.5	4204150	581488.46	0.00014	7.57	7.57	1.5 ANNUAL	PM_27	1
RES	581508.3	4204150	581508.31	0.00016	7.98	7.98	1.5 ANNUAL	PM_27	1
SCH	581528.2	4204150	581528.16	0.00019	7.98	7.98	1.5 ANNUAL	PM_27	1
SCH	581548	4204150	581548.01	0.00021	8.17	8.17	1.5 ANNUAL	PM_27	1
SCH	581567.9	4204150	581567.86	0.00024	8.22	8.22	1.5 ANNUAL	PM_27	1
RES	581607.6	4204150	581607.56	0.00031	7.6	7.6	1.5 ANNUAL	PM_27	1
RES	581627.4	4204150	581627.41	0.00034	7.7	7.7	1.5 ANNUAL	PM_27	1
RES	581647.3	4204150	581647.26	0.00038	7.49	7.49	1.5 ANNUAL	PM_27	1
RES	581687	4204150	581686.96	0.00046	6.81	6.81	1.5 ANNUAL	PM_27	1
RES	581706.8	4204150	581706.81	0.0005	7.17	7.17	1.5 ANNUAL	PM_27	1
WOR	581766.4	4204150	581766.36	0.00065	6.19	6.19	1.5 ANNUAL	PM_27	1
WOR	581786.2	4204150	581786.21	0.00069	6.3	6.3	1.5 ANNUAL	PM_27	1
WOR	581806.1	4204150	581806.06	0.00071	6.84	6.84	1.5 ANNUAL	PM_27	1
WOR	581825.9	4204150	581825.91	0.00071	6.81	6.81	1.5 ANNUAL	PM_27	1
WOR	581885.5	4204150	581885.46	0.00071	6.67	6.67	1.5 ANNUAL	PM_27	1
WOR	581905.3	4204150	581905.31	0.00082	6.68	6.68	1.5 ANNUAL	PM_27	1
WOR	582084	4204150	582083.96	0.00054	6.92	6.92	1.5 ANNUAL	PM_27	1
WOR	582103.8	4204150	582103.81	0.0004	7.15	7.15	1.5 ANNUAL	PM_27	1
RES	581389.2	4204169	581389.21	8.00E-05	8.59	8.59	1.5 ANNUAL	PM_27	1
RES	581409.1	4204169	581409.06	9.00E-05	8.21	8.21	1.5 ANNUAL	PM_27	1
RES	581428.9	4204169	581428.91	0.0001	7.96	7.96	1.5 ANNUAL	PM_27	1
RES	581448.8	4204169	581448.76	0.00011	7.83	7.83	1.5 ANNUAL	PM_27	1

RES	581468.6	4204169	581468.61	0.00013	7.73	7.73	1.5 ANNUAL	PM_27	1
RES	581488.5	4204169	581488.46	0.00015	7.77	7.77	1.5 ANNUAL	PM_27	1
RES	581528.8	4204174	581528.84	0.0002	8.82	8.82	1.5 ANNUAL	PM_27	1
RES	581607.6	4204167	581607.56	0.00034	7.74	7.74	1.5 ANNUAL	PM_27	1
RES	581627.4	4204167	581627.41	0.00039	7.63	7.63	1.5 ANNUAL	PM_27	1
RES	581647.3	4204167	581647.26	0.00044	7.48	7.48	1.5 ANNUAL	PM_27	1
RES	581670	4204170	581669.95	0.00051	7	7	1.5 ANNUAL	PM_27	1
RES	581687	4204169	581686.96	0.00056	7.05	7.05	1.5 ANNUAL	PM_27	1
RES	581706.8	4204169	581706.81	0.00062	7.05	7.05	1.5 ANNUAL	PM_27	1
WOR	581766.4	4204169	581766.36	0.00081	6.28	6.28	1.5 ANNUAL	PM_27	1
WOR	581786.2	4204169	581786.21	0.00086	6.21	6.21	1.5 ANNUAL	PM_27	1
WOR	581806.1	4204169	581806.06	0.00087	6.63	6.63	1.5 ANNUAL	PM_27	1
WOR	581825.9	4204169	581825.91	0.00086	6.7	6.7	1.5 ANNUAL	PM_27	1
WOR	581885.5	4204169	581885.46	0.00081	6.53	6.53	1.5 ANNUAL	PM_27	1
WOR	581905.3	4204169	581905.31	0.00088	6.5	6.5	1.5 ANNUAL	PM_27	1
WOR	581945	4204169	581945.01	0.00087	6.82	6.82	1.5 ANNUAL	PM_27	1
WOR	581964.9	4204169	581964.86	0.00066	6.95	6.95	1.5 ANNUAL	PM_27	1
WOR	581984.7	4204169	581984.71	0.00058	7.13	7.13	1.5 ANNUAL	PM_27	1
WOR	582004.6	4204169	582004.56	0.00058	7.23	7.23	1.5 ANNUAL	PM_27	1
WOR	582084	4204169	582083.96	0.00052	6.93	6.93	1.5 ANNUAL	PM_27	1
WOR	582103.8	4204169	582103.81	0.00039	7.02	7.02	1.5 ANNUAL	PM_27	1
RES	581389.2	4204189	581389.21	8.00E-05	9.54	9.54	1.5 ANNUAL	PM_27	1
RES	581409.1	4204189	581409.06	9.00E-05	9.27	9.27	1.5 ANNUAL	PM_27	1
RES	581428.9	4204189	581428.91	0.0001	9.03	9.03	1.5 ANNUAL	PM_27	1
RES	581448.8	4204189	581448.76	0.00011	8.81	8.81	1.5 ANNUAL	PM_27	1
RES	581468.6	4204189	581468.61	0.00013	8.75	8.75	1.5 ANNUAL	PM_27	1
RES	581488.5	4204189	581488.46	0.00015	8.73	8.73	1.5 ANNUAL	PM_27	1
RES	581528.2	4204189	581528.16	0.0002	8.72	8.72	1.5 ANNUAL	PM_27	1
RES	581548	4204189	581548.01	0.00024	9.53	10.33	1.5 ANNUAL	PM_27	1
RES	581567.9	4204189	581567.86	0.00027	9.84	9.84	1.5 ANNUAL	PM_27	1
RES	581587.7	4204189	581587.71	0.00033	8.92	8.92	1.5 ANNUAL	PM_27	1
RES	581607.6	4204189	581607.56	0.00039	8.63	8.63	1.5 ANNUAL	PM_27	1
RES	581627.4	4204189	581627.41	0.00045	8.48	8.48	1.5 ANNUAL	PM_27	1
RES	581647.3	4204189	581647.26	0.00052	8.09	8.09	1.5 ANNUAL	PM_27	1
WOR	581766.4	4204189	581766.36	0.00105	5.62	5.62	1.5 ANNUAL	PM_27	1
WOR	581786.2	4204189	581786.21	0.00109	6.12	6.12	1.5 ANNUAL	PM_27	1
WOR	581806.1	4204189	581806.06	0.00109	6.18	6.18	1.5 ANNUAL	PM_27	1
WOR	581865.6	4204189	581865.61	0.00091	6.18	6.18	1.5 ANNUAL	PM_27	1
WOR	581885.5	4204189	581885.46	0.00092	6.3	6.3	1.5 ANNUAL	PM_27	1
WOR	581945	4204189	581945.01	0.00087	6.61	6.61	1.5 ANNUAL	PM_27	1
WOR	581964.9	4204189	581964.86	0.00069	6.78	6.78	1.5 ANNUAL	PM_27	1
WOR	581984.7	4204189	581984.71	0.00061	7.03	7.03	1.5 ANNUAL	PM_27	1
WOR	582004.6	4204189	582004.56	0.00062	7.32	9.81	1.5 ANNUAL	PM_27	1
WOR	582084	4204189	582083.96	0.0005	6.95	6.95	1.5 ANNUAL	PM_27	1
WOR	582103.8	4204189	582103.81	0.00038	7.04	7.04	1.5 ANNUAL	PM_27	1
RES	581389.2	4204209	581389.21	8.00E-05	9.22	9.22	1.5 ANNUAL	PM_27	1
RES	581409.1	4204209	581409.06	9.00E-05	9.04	9.04	1.5 ANNUAL	PM_27	1
RES	581428.9	4204209	581428.91	0.0001	8.93	8.93	1.5 ANNUAL	PM_27	1
RES	581448.8	4204209	581448.76	0.00011	8.87	8.87	1.5 ANNUAL	PM_27	1
RES	581468.6	4204209	581468.61	0.00013	9.12	9.12	1.5 ANNUAL	PM_27	1
RES	581488.5	4204209	581488.46	0.00015	9.4	9.4	1.5 ANNUAL	PM_27	1
RES	581528.2	4204209	581528.16	0.00021	9.02	12.29	1.5 ANNUAL	PM_27	1
RES	581548	4204209	581548.01	0.00024	10.81	11.71	1.5 ANNUAL	PM_27	1
RES	581567.9	4204209	581567.86	0.00029	11	11	1.5 ANNUAL	PM_27	1

RES	581587.7	4204209	581587.71	0.00035	10.26	10.26	1.5 ANNUAL	PM_27	1
RES	581607.6	4204209	581607.56	0.00042	10.01	10.01	1.5 ANNUAL	PM_27	1
RES	581627.4	4204209	581627.41	0.00051	10.25	10.25	1.5 ANNUAL	PM_27	1
RES	581647.3	4204209	581647.26	0.00061	9.61	10.32	1.5 ANNUAL	PM_27	1
RES	581667.1	4204209	581667.11	0.00074	7.56	12.69	1.5 ANNUAL	PM_27	1
RES	581687	4204209	581686.96	0.00087	6.53	12.31	1.5 ANNUAL	PM_27	1
RES	581706.8	4204209	581706.81	0.001	6.41	6.41	1.5 ANNUAL	PM_27	1
WOR	581865.6	4204209	581865.61	0.00105	6.29	6.29	1.5 ANNUAL	PM_27	1
WOR	581885.5	4204209	581885.46	0.00103	6.75	6.75	1.5 ANNUAL	PM_27	1
WOR	582084	4204209	582083.96	0.00048	6.92	6.92	1.5 ANNUAL	PM_27	1
WOR	582103.8	4204209	582103.81	0.00037	7.01	7.01	1.5 ANNUAL	PM_27	1
RES	581389.2	4204229	581389.21	7.00E-05	9.55	9.55	1.5 ANNUAL	PM_27	1
RES	581409.1	4204229	581409.06	8.00E-05	9.3	9.3	1.5 ANNUAL	PM_27	1
RES	581428.9	4204229	581428.91	0.0001	9	9	1.5 ANNUAL	PM_27	1
RES	581448.8	4204229	581448.76	0.00011	8.9	8.9	1.5 ANNUAL	PM_27	1
RES	581468.6	4204229	581468.61	0.00013	9.04	9.04	1.5 ANNUAL	PM_27	1
RES	581508.3	4204229	581508.31	0.00018	9.37	9.37	1.5 ANNUAL	PM_27	1
RES	581528.2	4204229	581528.16	0.00021	9.68	12.88	1.5 ANNUAL	PM_27	1
RES	581548	4204229	581548.01	0.00024	12.07	12.07	1.5 ANNUAL	PM_27	1
RES	581567.9	4204229	581567.86	0.0003	11.93	11.93	1.5 ANNUAL	PM_27	1
RES	581587.7	4204229	581587.71	0.00037	11.71	11.71	1.5 ANNUAL	PM_27	1
RES	581607.6	4204229	581607.56	0.00045	11.63	11.63	1.5 ANNUAL	PM_27	1
RES	581627.4	4204229	581627.41	0.00057	11.82	11.82	1.5 ANNUAL	PM_27	1
RES	581647.3	4204229	581647.26	0.00071	11.1	11.78	1.5 ANNUAL	PM_27	1
RES	581667.1	4204229	581667.11	0.00089	9.11	12.69	1.5 ANNUAL	PM_27	1
RES	581687	4204229	581686.96	0.0011	7.5	12.31	1.5 ANNUAL	PM_27	1
RES	581706.8	4204229	581706.81	0.00133	6.63	6.63	1.5 ANNUAL	PM_27	1
WOR	581865.6	4204229	581865.61	0.00121	6.27	6.27	1.5 ANNUAL	PM_27	1
WOR	581885.5	4204229	581885.46	0.00117	6.67	6.67	1.5 ANNUAL	PM_27	1
WOR	581943.7	4204234	581943.67	0.00092	6.57	6.57	1.5 ANNUAL	PM_27	1
WOR	581963.5	4204234	581963.52	0.00075	6.54	6.54	1.5 ANNUAL	PM_27	1
RES	581389.2	4204249	581389.21	7.00E-05	10.31	10.31	1.5 ANNUAL	PM_27	1
RES	581409.1	4204249	581409.06	8.00E-05	9.97	9.97	1.5 ANNUAL	PM_27	1
RES	581428.9	4204249	581428.91	9.00E-05	9.57	9.57	1.5 ANNUAL	PM_27	1
RES	581448.8	4204249	581448.76	0.00011	9.75	11.62	1.5 ANNUAL	PM_27	1
RES	581468.6	4204249	581468.61	0.00012	9.86	12.45	1.5 ANNUAL	PM_27	1
RES	581488.5	4204249	581488.46	0.00014	9.99	11.61	1.5 ANNUAL	PM_27	1
RES	581508.3	4204249	581508.31	0.00017	10.48	10.48	1.5 ANNUAL	PM_27	1
RES	581528.2	4204249	581528.16	0.0002	10.77	12.88	1.5 ANNUAL	PM_27	1
RES	581548	4204249	581548.01	0.00024	12.81	12.81	1.5 ANNUAL	PM_27	1
RES	581587.7	4204249	581587.71	0.00038	12.75	12.75	1.5 ANNUAL	PM_27	1
RES	581607.6	4204249	581607.56	0.00048	12.91	12.91	1.5 ANNUAL	PM_27	1
RES	581627.4	4204249	581627.41	0.00062	12.92	12.92	1.5 ANNUAL	PM_27	1
RES	581647.3	4204249	581647.26	0.00081	12.08	12.08	1.5 ANNUAL	PM_27	1
RES	581667.1	4204249	581667.11	0.00108	10.41	10.41	1.5 ANNUAL	PM_27	1
RES	581687	4204249	581686.96	0.00141	8.64	8.64	1.5 ANNUAL	PM_27	1
RES	581706.8	4204249	581706.81	0.00181	7.07	7.07	1.5 ANNUAL	PM_27	1
RES	581746.5	4204249	581746.51	0.00256	6.4	6.4	1.5 ANNUAL	PM_27	1
WOR	581865.6	4204249	581865.61	0.00138	6.3	6.3	1.5 ANNUAL	PM_27	1
WOR	581885.5	4204249	581885.46	0.00133	6.65	6.65	1.5 ANNUAL	PM_27	1
WOR	581930	4204253	581929.97	0.00114	6.61	6.61	1.5 ANNUAL	PM_27	1
WOR	582084	4204249	582083.96	0.00045	6.57	10.9	1.5 ANNUAL	PM_27	1
WOR	582103.8	4204249	582103.81	0.00035	6.7	6.7	1.5 ANNUAL	PM_27	1
RES	581389.2	4204269	581389.21	7.00E-05	10.94	10.94	1.5 ANNUAL	PM_27	1

RES	581409.1	4204269	581409.06	8.00E-05	10.64	10.64	1.5 ANNUAL	PM_27	1
RES	581428.9	4204269	581428.91	9.00E-05	10.73	10.73	1.5 ANNUAL	PM_27	1
RES	581448.8	4204269	581448.76	0.0001	11.59	11.59	1.5 ANNUAL	PM_27	1
RES	581468.6	4204269	581468.61	0.00012	12.03	12.03	1.5 ANNUAL	PM_27	1
RES	581488.5	4204269	581488.46	0.00014	11.98	11.98	1.5 ANNUAL	PM_27	1
RES	581508.3	4204269	581508.31	0.00016	11.98	12.82	1.5 ANNUAL	PM_27	1
RES	581528.2	4204269	581528.16	0.0002	12.24	12.24	1.5 ANNUAL	PM_27	1
RES	581548	4204269	581548.01	0.00024	12.64	12.64	1.5 ANNUAL	PM_27	1
RES	581587.7	4204269	581587.71	0.00038	12.55	12.55	1.5 ANNUAL	PM_27	1
RES	581607.6	4204269	581607.56	0.0005	12.49	12.49	1.5 ANNUAL	PM_27	1
RES	581627.4	4204269	581627.41	0.00067	12.53	12.53	1.5 ANNUAL	PM_27	1
RES	581667.1	4204269	581667.11	0.00131	10.28	10.28	1.5 ANNUAL	PM_27	1
RES	581687	4204269	581686.96	0.00186	8.73	8.73	1.5 ANNUAL	PM_27	1
RES	581706.8	4204269	581706.81	0.00258	7.35	7.35	1.5 ANNUAL	PM_27	1
RES	581726.7	4204269	581726.66	0.0034	6.27	6.27	1.5 ANNUAL	PM_27	1
RES	581746.5	4204269	581746.51	0.00402	6.3	6.3	1.5 ANNUAL	PM_27	1
WOR	581925.2	4204269	581925.16	0.00124	6.6	6.6	1.5 ANNUAL	PM_27	1
WOR	581945	4204269	581945.01	0.00092	6.65	6.65	1.5 ANNUAL	PM_27	1
WOR	581964.9	4204269	581964.86	0.00077	6.52	11.12	1.5 ANNUAL	PM_27	1
WOR	582084	4204269	582083.96	0.00043	6.43	10.93	1.5 ANNUAL	PM_27	1
WOR	582103.8	4204269	582103.81	0.00035	6.57	6.57	1.5 ANNUAL	PM_27	1
RES	581389.2	4204288	581389.21	7.00E-05	11.99	14.36	1.5 ANNUAL	PM_27	1
RES	581409.1	4204288	581409.06	7.00E-05	11.52	13.42	1.5 ANNUAL	PM_27	1
RES	581428.9	4204288	581428.91	8.00E-05	11.68	11.68	1.5 ANNUAL	PM_27	1
RES	581448.8	4204288	581448.76	0.0001	12.15	12.15	1.5 ANNUAL	PM_27	1
RES	581468.6	4204288	581468.61	0.00011	13.16	13.16	1.5 ANNUAL	PM_27	1
RES	581484.9	4204289	581484.92	0.00012	13.25	13.25	1.5 ANNUAL	PM_27	1
RES	581508.3	4204288	581508.31	0.00015	13.48	13.48	1.5 ANNUAL	PM_27	1
RES	581528.2	4204288	581528.16	0.00018	13.39	13.39	1.5 ANNUAL	PM_27	1
RES	581548	4204288	581548.01	0.00023	12.02	12.02	1.5 ANNUAL	PM_27	1
RES	581587.7	4204288	581587.71	0.00038	11.32	11.32	1.5 ANNUAL	PM_27	1
RES	581607.6	4204288	581607.56	0.00051	10.97	10.97	1.5 ANNUAL	PM_27	1
RES	581627.4	4204288	581627.41	0.0007	11.27	11.27	1.5 ANNUAL	PM_27	1
RES	581647.3	4204288	581647.26	0.00101	10.87	10.87	1.5 ANNUAL	PM_27	1
RES	581667.1	4204288	581667.11	0.00153	9.73	9.73	1.5 ANNUAL	PM_27	1
RES	581687	4204288	581686.96	0.00247	8.06	8.06	1.5 ANNUAL	PM_27	1
RES	581706.8	4204288	581706.81	0.0039	6.72	6.72	1.5 ANNUAL	PM_27	1
RES	581726.7	4204288	581726.66	0.00565	6.05	6.05	1.5 ANNUAL	PM_27	1
RES	581746.5	4204288	581746.51	0.00684	6.11	6.11	1.5 ANNUAL	PM_27	1
RES	581766.4	4204288	581766.36	0.00657	6.13	6.13	1.5 ANNUAL	PM_27	1
WOR	581925.2	4204288	581925.16	0.00121	6.57	6.57	1.5 ANNUAL	PM_27	1
WOR	581945	4204288	581945.01	0.00092	6.56	6.56	1.5 ANNUAL	PM_27	1
WOR	581964.9	4204288	581964.86	0.00077	6.43	11.63	1.5 ANNUAL	PM_27	1
WOR	582084	4204288	582083.96	0.00042	6.39	10.91	1.5 ANNUAL	PM_27	1
WOR	582103.8	4204288	582103.81	0.00034	6.44	6.44	1.5 ANNUAL	PM_27	1
RES	581389.2	4204308	581389.21	6.00E-05	13.9	13.9	1.5 ANNUAL	PM_27	1
RES	581409.1	4204308	581409.06	7.00E-05	13.47	13.47	1.5 ANNUAL	PM_27	1
RES	581428.9	4204308	581428.91	8.00E-05	13.11	13.11	1.5 ANNUAL	PM_27	1
RES	581448.8	4204308	581448.76	9.00E-05	12.94	12.94	1.5 ANNUAL	PM_27	1
RES	581468.6	4204308	581468.61	0.0001	13.47	13.47	1.5 ANNUAL	PM_27	1
RES	581508.3	4204308	581508.31	0.00014	14.26	14.26	1.5 ANNUAL	PM_27	1
RES	581528.2	4204308	581528.16	0.00017	13.37	14.42	1.5 ANNUAL	PM_27	1
RES	581548	4204308	581548.01	0.00021	11.58	14.42	1.5 ANNUAL	PM_27	1
RES	581570.8	4204309	581570.75	0.00028	11.02	11.02	1.5 ANNUAL	PM_27	1

RES	581587.7	4204308	581587.71	0.00035	10.18	10.18	1.5 ANNUAL	PM_27	1
RES	581607.6	4204308	581607.56	0.00049	9.55	9.55	1.5 ANNUAL	PM_27	1
RES	581627.4	4204308	581627.41	0.00069	9.23	11.49	1.5 ANNUAL	PM_27	1
RES	581652.1	4204313	581652.13	0.00113	9.39	9.39	1.5 ANNUAL	PM_27	1
RES	581672	4204313	581671.98	0.00189	8.62	8.62	1.5 ANNUAL	PM_27	1
RES	581726.7	4204308	581726.66	0.01096	5.73	5.73	1.5 ANNUAL	PM_27	1
RES	581746.5	4204308	581746.51	0.01236	5.99	5.99	1.5 ANNUAL	PM_27	1
RES	581766.4	4204308	581766.36	0.01099	6.4	6.4	1.5 ANNUAL	PM_27	1
WOR	581825.9	4204308	581825.91	0.00329	6.56	6.56	1.5 ANNUAL	PM_27	1
WOR	581845.8	4204308	581845.76	0.00235	7.02	7.02	1.5 ANNUAL	PM_27	1
WOR	582084	4204308	582083.96	0.00041	6.33	11.55	1.5 ANNUAL	PM_27	1
WOR	582103.8	4204308	582103.81	0.00033	6.45	6.45	1.5 ANNUAL	PM_27	1
RES	581389.2	4204328	581389.21	5.00E-05	14.57	14.57	1.5 ANNUAL	PM_27	1
RES	581409.1	4204328	581409.06	6.00E-05	14.07	14.07	1.5 ANNUAL	PM_27	1
RES	581428.9	4204328	581428.91	7.00E-05	13.74	13.74	1.5 ANNUAL	PM_27	1
RES	581448.8	4204328	581448.76	8.00E-05	13.41	13.41	1.5 ANNUAL	PM_27	1
RES	581468.6	4204328	581468.61	9.00E-05	13.24	13.24	1.5 ANNUAL	PM_27	1
RES	581508.3	4204328	581508.31	0.00012	14.31	14.31	1.5 ANNUAL	PM_27	1
RES	581528.2	4204328	581528.16	0.00015	12.9	14.47	1.5 ANNUAL	PM_27	1
RES	581548	4204328	581548.01	0.00019	11.27	14.43	1.5 ANNUAL	PM_27	1
RES	581570.8	4204329	581570.75	0.00024	10.9	10.9	1.5 ANNUAL	PM_27	1
RES	581587.7	4204328	581587.71	0.00031	9.95	9.95	1.5 ANNUAL	PM_27	1
RES	581607.6	4204328	581607.56	0.00044	8.46	8.46	1.5 ANNUAL	PM_27	1
RES	581627.4	4204328	581627.41	0.00063	7.65	7.65	1.5 ANNUAL	PM_27	1
RES	581647.3	4204328	581647.26	0.00094	7.85	9.13	1.5 ANNUAL	PM_27	1
RES	581667.1	4204328	581667.11	0.00155	7.98	7.98	1.5 ANNUAL	PM_27	1
RES	581687	4204328	581686.96	0.00302	6.45	8.87	1.5 ANNUAL	PM_27	1
WOR	581825.9	4204328	581825.91	0.00355	6.27	6.27	1.5 ANNUAL	PM_27	1
WOR	581845.8	4204328	581845.76	0.00249	6.96	6.96	1.5 ANNUAL	PM_27	1
WOR	582084	4204328	582083.96	0.00039	6.37	11.53	1.5 ANNUAL	PM_27	1
WOR	582103.8	4204328	582103.81	0.00032	6.32	6.32	1.5 ANNUAL	PM_27	1
RES	581389.2	4204348	581389.2	5.00E-05	14.78	14.78	1.5 ANNUAL	PM_27	1
RES	581409.1	4204348	581409.1	6.00E-05	14.09	14.09	1.5 ANNUAL	PM_27	1
RES	581428.9	4204348	581428.9	6.00E-05	13.78	13.78	1.5 ANNUAL	PM_27	1
RES	581448.8	4204348	581448.8	7.00E-05	13.51	13.51	1.5 ANNUAL	PM_27	1
RES	581468.6	4204348	581468.6	8.00E-05	12.86	12.86	1.5 ANNUAL	PM_27	1
RES	581492.2	4204349	581492.19	0.0001	11.6	14.33	1.5 ANNUAL	PM_27	1
RES	581508.3	4204348	581508.3	0.00011	12.66	14.16	1.5 ANNUAL	PM_27	1
RES	581528.2	4204348	581528.2	0.00014	11.26	14.47	1.5 ANNUAL	PM_27	1
RES	581548	4204348	581548	0.00017	10.62	14.43	1.5 ANNUAL	PM_27	1
RES	581587.7	4204348	581587.7	0.00027	10	10	1.5 ANNUAL	PM_27	1
RES	581607.6	4204348	581607.6	0.00038	8.49	8.49	1.5 ANNUAL	PM_27	1
RES	581627.4	4204348	581627.4	0.00054	7.54	7.54	1.5 ANNUAL	PM_27	1
RES	581647.3	4204348	581647.3	0.0008	7.4	7.4	1.5 ANNUAL	PM_27	1
RES	581667.1	4204348	581667.1	0.00128	7.43	7.43	1.5 ANNUAL	PM_27	1
RES	581687	4204348	581687	0.00249	6.94	6.94	1.5 ANNUAL	PM_27	1
WOR	581825.9	4204348	581825.9	0.00359	6.2	6.2	1.5 ANNUAL	PM_27	1
WOR	581845.8	4204348	581845.8	0.00262	6.63	6.63	1.5 ANNUAL	PM_27	1
WOR	581925.2	4204348	581925.2	0.00113	6.13	6.13	1.5 ANNUAL	PM_27	1
WOR	582103.8	4204348	582103.8	0.00032	6.25	6.25	1.5 ANNUAL	PM_27	1
RES	581508.3	4204363	581508.31	0.00011	10.74	14.16	1.5 ANNUAL	PM_27	1
RES	581528.2	4204363	581528.16	0.00013	10.07	14.47	1.5 ANNUAL	PM_27	1
RES	581646.9	4204364	581646.91	0.00069	7.87	7.87	1.5 ANNUAL	PM_27	1
RES	581666.8	4204364	581666.76	0.0011	7.69	7.69	1.5 ANNUAL	PM_27	1

RES	581686.6	4204364	581686.61	0.00215	7.28	7.28	1.5 ANNUAL	PM_27	1
WOR	581905.3	4204368	581905.31	0.00144	6.14	6.14	1.5 ANNUAL	PM_27	1
WOR	581925.2	4204368	581925.16	0.00108	6.08	6.08	1.5 ANNUAL	PM_27	1
WOR	582064.1	4204368	582064.11	0.00046	6.05	11.91	1.5 ANNUAL	PM_27	1
WOR	582084	4204368	582083.96	0.00037	6.18	6.18	1.5 ANNUAL	PM_27	1
WOR	582103.8	4204368	582103.81	0.00031	6.15	6.15	1.5 ANNUAL	PM_27	1
RES	581387.6	4204391	581387.58	4.00E-05	14.8	14.8	1.5 ANNUAL	PM_27	1
RES	581407.4	4204391	581407.43	5.00E-05	13.52	13.52	1.5 ANNUAL	PM_27	1
RES	581427.3	4204391	581427.28	6.00E-05	11.79	12.48	1.5 ANNUAL	PM_27	1
RES	581447.1	4204391	581447.13	7.00E-05	10.79	10.79	1.5 ANNUAL	PM_27	1
RES	581465	4204392	581464.98	8.00E-05	10.41	10.41	1.5 ANNUAL	PM_27	1
RES	581490.3	4204389	581490.33	9.00E-05	9.87	9.87	1.5 ANNUAL	PM_27	1
RES	581506.7	4204391	581506.68	0.00012	9.64	9.64	1.5 ANNUAL	PM_27	1
RES	581526.5	4204391	581526.53	0.00014	9.3	9.3	1.5 ANNUAL	PM_27	1
WOR	581825.9	4204388	581825.91	0.00297	6.01	6.01	1.5 ANNUAL	PM_27	1
WOR	581845.8	4204388	581845.76	0.00246	6.11	6.11	1.5 ANNUAL	PM_27	1
WOR	581865.6	4204388	581865.61	0.00202	6.04	6.04	1.5 ANNUAL	PM_27	1
WOR	581912.6	4204393	581912.63	0.00119	6.19	6.19	1.5 ANNUAL	PM_27	1
WOR	582064.1	4204388	582064.11	0.00045	6	11.83	1.5 ANNUAL	PM_27	1
WOR	582084	4204388	582083.96	0.00036	6.06	6.06	1.5 ANNUAL	PM_27	1
WOR	582103.8	4204388	582103.81	0.0003	6.01	6.01	1.5 ANNUAL	PM_27	1
RES	581389.2	4204408	581389.21	4.00E-05	14.96	14.96	1.5 ANNUAL	PM_27	1
RES	581409.1	4204408	581409.06	5.00E-05	13.32	13.32	1.5 ANNUAL	PM_27	1
RES	581428.9	4204408	581428.91	6.00E-05	10.5	14.98	1.5 ANNUAL	PM_27	1
RES	581448.8	4204408	581448.76	7.00E-05	10.1	10.1	1.5 ANNUAL	PM_27	1
RES	581466.6	4204408	581466.61	8.00E-05	9.79	9.79	1.5 ANNUAL	PM_27	1
RES	581492	4204405	581491.96	0.0001	8.69	8.69	1.5 ANNUAL	PM_27	1
RES	581508.3	4204408	581508.31	0.00012	8.52	8.52	1.5 ANNUAL	PM_27	1
RES	581528.2	4204408	581528.16	0.00014	8.2	8.2	1.5 ANNUAL	PM_27	1
RES	581548	4204408	581548.01	0.00017	8.3	8.3	1.5 ANNUAL	PM_27	1
RES	581567.9	4204408	581567.86	0.00021	9.43	9.43	1.5 ANNUAL	PM_27	1
RES	581587.7	4204408	581587.71	0.00025	10.24	10.24	1.5 ANNUAL	PM_27	1
RES	581607.6	4204408	581607.56	0.00032	9.77	9.77	1.5 ANNUAL	PM_27	1
RES	581627.4	4204408	581627.41	0.00046	9.36	9.36	1.5 ANNUAL	PM_27	1
RES	581647.3	4204408	581647.26	0.0007	9.23	9.23	1.5 ANNUAL	PM_27	1
RES	581667.1	4204408	581667.11	0.00121	9.54	9.78	1.5 ANNUAL	PM_27	1
RES	581687	4204408	581686.96	0.00212	9.8	9.8	1.5 ANNUAL	PM_27	1
RES	581706.8	4204408	581706.81	0.00414	9.23	9.23	1.5 ANNUAL	PM_27	1
RES	581726.7	4204408	581726.66	0.00632	8.29	8.29	1.5 ANNUAL	PM_27	1
RES	581746.5	4204408	581746.51	0.00776	6.46	8	1.5 ANNUAL	PM_27	1
WOR	581825.9	4204408	581825.91	0.00237	6.13	6.13	1.5 ANNUAL	PM_27	1
WOR	581845.8	4204408	581845.76	0.00194	6.27	6.27	1.5 ANNUAL	PM_27	1
WOR	581865.6	4204408	581865.61	0.00174	6.06	6.06	1.5 ANNUAL	PM_27	1
WOR	581905.3	4204408	581905.31	0.00125	6.31	6.31	1.5 ANNUAL	PM_27	1
WOR	581925.2	4204408	581925.16	0.00094	6.33	6.33	1.5 ANNUAL	PM_27	1
WOR	581945	4204408	581945.01	0.00079	6.24	11.65	1.5 ANNUAL	PM_27	1
RES	581389.2	4204427	581389.21	5.00E-05	14.03	14.03	1.5 ANNUAL	PM_27	1
RES	581409.1	4204427	581409.06	5.00E-05	13.45	13.79	1.5 ANNUAL	PM_27	1
RES	581428.9	4204427	581428.91	6.00E-05	10.3	15.5	1.5 ANNUAL	PM_27	1
RES	581448.8	4204427	581448.76	7.00E-05	10.11	10.11	1.5 ANNUAL	PM_27	1
RES	581466.6	4204428	581466.61	9.00E-05	9.61	10.08	1.5 ANNUAL	PM_27	1
RES	581492	4204425	581491.96	0.00011	7.13	10.08	1.5 ANNUAL	PM_27	1
RES	581508.3	4204427	581508.31	0.00012	6.67	6.67	1.5 ANNUAL	PM_27	1
RES	581528.2	4204427	581528.16	0.00014	7.03	7.03	1.5 ANNUAL	PM_27	1

RES	581548	4204427	581548.01	0.00017	7.33	7.33	1.5 ANNUAL	PM_27	1
RES	581567.9	4204427	581567.86	0.00021	8.08	10.16	1.5 ANNUAL	PM_27	1
RES	581587.7	4204427	581587.71	0.00026	9.22	10.16	1.5 ANNUAL	PM_27	1
RES	581607.6	4204427	581607.56	0.00035	9.48	9.48	1.5 ANNUAL	PM_27	1
RES	581627.4	4204427	581627.41	0.00049	9.33	9.33	1.5 ANNUAL	PM_27	1
RES	581647.3	4204427	581647.26	0.00076	9.61	9.61	1.5 ANNUAL	PM_27	1
RES	581667.1	4204427	581667.11	0.00119	9.93	9.93	1.5 ANNUAL	PM_27	1
RES	581687	4204427	581686.96	0.00201	10.35	10.35	1.5 ANNUAL	PM_27	1
RES	581706.8	4204427	581706.81	0.00336	9.37	9.37	1.5 ANNUAL	PM_27	1
WOR	581825.9	4204427	581825.91	0.00192	6.3	6.3	1.5 ANNUAL	PM_27	1
WOR	581845.8	4204427	581845.76	0.00158	6.44	6.44	1.5 ANNUAL	PM_27	1
WOR	581905.3	4204427	581905.31	0.0011	6.34	6.34	1.5 ANNUAL	PM_27	1
WOR	581925.2	4204427	581925.16	0.00086	6.31	6.31	1.5 ANNUAL	PM_27	1
WOR	581945	4204427	581945.01	0.00074	6.35	11.65	1.5 ANNUAL	PM_27	1
WOR	582069.7	4204433	582069.73	0.00038	6.32	6.32	1.5 ANNUAL	PM_27	1
RES	581389.2	4204447	581389.21	5.00E-05	14.34	14.34	1.5 ANNUAL	PM_27	1
RES	581409.1	4204447	581409.06	6.00E-05	13.38	13.38	1.5 ANNUAL	PM_27	1
RES	581428.9	4204447	581428.91	7.00E-05	10.43	15.61	1.5 ANNUAL	PM_27	1
RES	581448.8	4204447	581448.76	8.00E-05	10.13	15.35	1.5 ANNUAL	PM_27	1
RES	581466.6	4204448	581466.61	9.00E-05	9.67	9.67	1.5 ANNUAL	PM_27	1
RES	581492	4204445	581492	0.00011	7.56	7.56	1.5 ANNUAL	PM_27	1
RES	581508.3	4204447	581508.31	0.00012	7.34	7.34	1.5 ANNUAL	PM_27	1
RES	581528.2	4204447	581528.16	0.00015	7.06	7.06	1.5 ANNUAL	PM_27	1
RES	581548	4204447	581548.01	0.00018	7.27	7.27	1.5 ANNUAL	PM_27	1
RES	581567.9	4204447	581567.86	0.00022	7.59	7.59	1.5 ANNUAL	PM_27	1
RES	581587.7	4204447	581587.71	0.00028	7.86	7.86	1.5 ANNUAL	PM_27	1
RES	581607.6	4204447	581607.56	0.00037	8.08	8.08	1.5 ANNUAL	PM_27	1
RES	581627.4	4204447	581627.41	0.00054	8.25	8.25	1.5 ANNUAL	PM_27	1
RES	581647.3	4204447	581647.26	0.00083	9.05	9.05	1.5 ANNUAL	PM_27	1
RES	581667.1	4204447	581667.11	0.00131	9.2	9.2	1.5 ANNUAL	PM_27	1
RES	581687	4204447	581686.96	0.00201	8.84	8.84	1.5 ANNUAL	PM_27	1
RES	581706.8	4204447	581706.81	0.00278	8.29	8.29	1.5 ANNUAL	PM_27	1
WOR	581825.9	4204447	581825.91	0.00166	6.32	6.32	1.5 ANNUAL	PM_27	1
WOR	581845.8	4204447	581845.76	0.0014	6.23	6.23	1.5 ANNUAL	PM_27	1
WOR	581905.3	4204447	581905.31	0.00098	6.22	6.22	1.5 ANNUAL	PM_27	1
WOR	581925.2	4204447	581925.16	0.00078	6.35	6.35	1.5 ANNUAL	PM_27	1
WOR	581945	4204447	581945.01	0.00069	6.29	11.65	1.5 ANNUAL	PM_27	1
WOR	582064.1	4204447	582064.11	0.00039	6.41	6.41	1.5 ANNUAL	PM_27	1
WOR	582084	4204447	582083.96	0.00032	6.51	6.51	1.5 ANNUAL	PM_27	1
RES	581389.2	4204467	581389.21	5.00E-05	15.54	15.54	1.5 ANNUAL	PM_27	1
RES	581409.1	4204467	581409.06	6.00E-05	14.89	15.35	1.5 ANNUAL	PM_27	1
RES	581428.9	4204467	581428.91	7.00E-05	10.9	15.61	1.5 ANNUAL	PM_27	1
RES	581448.8	4204467	581448.76	8.00E-05	10.09	15.5	1.5 ANNUAL	PM_27	1
RES	581466.6	4204468	581466.61	9.00E-05	9.83	9.83	1.5 ANNUAL	PM_27	1
RES	581492	4204465	581491.96	0.00011	8.1	8.1	1.5 ANNUAL	PM_27	1
RES	581508.3	4204467	581508.31	0.00013	7.82	7.82	1.5 ANNUAL	PM_27	1
RES	581528.2	4204467	581528.16	0.00015	7.43	7.43	1.5 ANNUAL	PM_27	1
RES	581548	4204467	581548.01	0.00018	7.44	7.44	1.5 ANNUAL	PM_27	1
RES	581567.9	4204467	581567.86	0.00023	7.47	7.47	1.5 ANNUAL	PM_27	1
RES	581587.7	4204467	581587.71	0.00029	7.5	7.5	1.5 ANNUAL	PM_27	1
RES	581601.1	4204461	581601.06	0.00035	7.79	7.79	1.5 ANNUAL	PM_27	1
RES	581620.9	4204461	581620.91	0.0005	7.77	7.77	1.5 ANNUAL	PM_27	1
RES	581648.5	4204463	581648.48	0.00089	8.46	8.79	1.5 ANNUAL	PM_27	1
RES	581667.1	4204467	581667.11	0.00128	8.55	8.55	1.5 ANNUAL	PM_27	1

RES	581687	4204467	581686.96	0.00178	8.57	8.57	1.5 ANNUAL	PM_27	1
WOR	581885.5	4204467	581885.46	0.00109	6.2	6.2	1.5 ANNUAL	PM_27	1
WOR	581905.3	4204467	581905.31	0.00088	5.93	5.93	1.5 ANNUAL	PM_27	1
WOR	581925.2	4204467	581925.16	0.00071	5.86	5.86	1.5 ANNUAL	PM_27	1
WOR	581945	4204467	581945.01	0.00065	5.9	11.65	1.5 ANNUAL	PM_27	1
WOR	582064.1	4204467	582064.11	0.00036	6.37	6.37	1.5 ANNUAL	PM_27	1
WOR	582084	4204467	582083.96	0.0003	6.44	6.44	1.5 ANNUAL	PM_27	1
RES	581389.2	4204487	581389.21	6.00E-05	13.84	14.7	1.5 ANNUAL	PM_27	1
RES	581409.1	4204487	581409.06	6.00E-05	13.38	15.35	1.5 ANNUAL	PM_27	1
RES	581428.9	4204487	581428.91	7.00E-05	11.93	15.35	1.5 ANNUAL	PM_27	1
RES	581448.8	4204487	581448.76	8.00E-05	11.28	11.28	1.5 ANNUAL	PM_27	1
RES	581466.6	4204487	581466.61	0.0001	10.26	10.26	1.5 ANNUAL	PM_27	1
RES	581508.3	4204487	581508.31	0.00013	8.16	8.16	1.5 ANNUAL	PM_27	1
RES	581528.2	4204487	581528.16	0.00015	7.51	7.51	1.5 ANNUAL	PM_27	1
RES	581548	4204487	581548.01	0.00019	7.24	7.24	1.5 ANNUAL	PM_27	1
RES	581567.9	4204487	581567.86	0.00024	7.1	7.1	1.5 ANNUAL	PM_27	1
RES	581587.7	4204487	581587.71	0.00031	7.14	7.14	1.5 ANNUAL	PM_27	1
RES	581601.1	4204480	581601.06	0.00038	7.23	7.23	1.5 ANNUAL	PM_27	1
RES	581627.4	4204487	581627.41	0.00062	7.19	7.19	1.5 ANNUAL	PM_27	1
RES	581647.3	4204487	581647.26	0.00089	7.14	7.14	1.5 ANNUAL	PM_27	1
RES	581667.1	4204487	581667.11	0.00123	7.14	7.14	1.5 ANNUAL	PM_27	1
RES	581687	4204487	581686.96	0.00158	6.99	6.99	1.5 ANNUAL	PM_27	1
RES	581706.8	4204487	581706.81	0.00188	6.61	6.61	1.5 ANNUAL	PM_27	1
WOR	581885.5	4204487	581885.46	0.00104	6.15	6.15	1.5 ANNUAL	PM_27	1
WOR	581905.3	4204487	581905.31	0.00079	5.85	5.85	1.5 ANNUAL	PM_27	1
WOR	581925.2	4204487	581925.16	0.00065	5.74	10.84	1.5 ANNUAL	PM_27	1
WOR	581945	4204487	581945.01	0.00061	5.69	11.58	1.5 ANNUAL	PM_27	1
WOR	582044.3	4204487	582044.26	0.00042	5.5	11.64	1.5 ANNUAL	PM_27	1
WOR	582064.1	4204487	582064.11	0.00034	5.6	5.6	1.5 ANNUAL	PM_27	1
WOR	582084	4204487	582083.96	0.00029	6.43	6.43	1.5 ANNUAL	PM_27	1
RES	581389.2	4204507	581389.21	6.00E-05	13.19	13.19	1.5 ANNUAL	PM_27	1
RES	581409.1	4204507	581409.06	7.00E-05	12.61	12.61	1.5 ANNUAL	PM_27	1
RES	581428.9	4204507	581428.91	8.00E-05	11.94	11.94	1.5 ANNUAL	PM_27	1
RES	581448.8	4204507	581448.76	9.00E-05	11.27	11.27	1.5 ANNUAL	PM_27	1
RES	581466.6	4204507	581466.61	0.0001	10.28	10.28	1.5 ANNUAL	PM_27	1
RES	581488.5	4204507	581488.46	0.00011	9.39	9.39	1.5 ANNUAL	PM_27	1
RES	581508.3	4204507	581508.31	0.00013	9.6	9.6	1.5 ANNUAL	PM_27	1
RES	581528.2	4204507	581528.16	0.00016	9.04	9.04	1.5 ANNUAL	PM_27	1
RES	581548	4204507	581548.01	0.00019	8.33	8.33	1.5 ANNUAL	PM_27	1
RES	581567.9	4204507	581567.86	0.00025	7.81	8.32	1.5 ANNUAL	PM_27	1
RES	581587.7	4204507	581587.71	0.00033	7.32	7.32	1.5 ANNUAL	PM_27	1
RES	581607.6	4204507	581607.56	0.00046	6.96	6.96	1.5 ANNUAL	PM_27	1
RES	581627.4	4204507	581627.41	0.00063	6.99	6.99	1.5 ANNUAL	PM_27	1
RES	581647.3	4204507	581647.26	0.00086	7.03	7.03	1.5 ANNUAL	PM_27	1
RES	581667.1	4204507	581667.11	0.00112	7.09	7.09	1.5 ANNUAL	PM_27	1
RES	581687	4204507	581686.96	0.00137	7.01	7.01	1.5 ANNUAL	PM_27	1
RES	581706.8	4204507	581706.81	0.00155	6.64	6.64	1.5 ANNUAL	PM_27	1
RES	581726.7	4204507	581726.66	0.00164	6.18	6.18	1.5 ANNUAL	PM_27	1
WOR	581885.5	4204507	581885.46	0.00096	6.05	6.05	1.5 ANNUAL	PM_27	1
WOR	581905.3	4204507	581905.31	0.00072	5.82	5.82	1.5 ANNUAL	PM_27	1
WOR	581925.2	4204507	581925.16	0.00061	5.69	10.84	1.5 ANNUAL	PM_27	1
WOR	581945	4204507	581945.01	0.00058	5.64	11.4	1.5 ANNUAL	PM_27	1
WOR	582044.3	4204507	582044.26	0.00039	5.41	11.4	1.5 ANNUAL	PM_27	1
WOR	582064.1	4204507	582064.11	0.00032	5.46	5.46	1.5 ANNUAL	PM_27	1

WOR	582084	4204507	582083.96	0.00027	6.41	6.41	1.5 ANNUAL	PM_27	1
RES	581389.2	4204527	581389.21	6.00E-05	13.09	13.09	1.5 ANNUAL	PM_27	1
RES	581409.1	4204527	581409.06	7.00E-05	12.35	12.35	1.5 ANNUAL	PM_27	1
RES	581488.5	4204527	581488.46	0.00012	10.3	10.3	1.5 ANNUAL	PM_27	1
RES	581508.3	4204527	581508.31	0.00013	10.58	10.58	1.5 ANNUAL	PM_27	1
RES	581528.2	4204527	581528.16	0.00016	9.65	9.65	1.5 ANNUAL	PM_27	1
RES	581548	4204527	581548.01	0.0002	9.03	9.03	1.5 ANNUAL	PM_27	1
RES	581567.9	4204527	581567.86	0.00026	8.76	8.76	1.5 ANNUAL	PM_27	1
RES	581587.7	4204527	581587.71	0.00035	8.81	8.81	1.5 ANNUAL	PM_27	1
RES	581607.6	4204527	581607.56	0.00047	8.46	8.46	1.5 ANNUAL	PM_27	1
RES	581627.4	4204527	581627.41	0.00063	7.46	7.46	1.5 ANNUAL	PM_27	1
RES	581647.3	4204527	581647.26	0.00082	7.48	7.48	1.5 ANNUAL	PM_27	1
RES	581667.1	4204527	581667.11	0.00102	7.44	7.44	1.5 ANNUAL	PM_27	1
RES	581687	4204527	581686.96	0.00118	7.02	7.02	1.5 ANNUAL	PM_27	1
RES	581706.8	4204527	581706.81	0.0013	6.6	6.6	1.5 ANNUAL	PM_27	1
WOR	581885.5	4204527	581885.46	0.00086	5.57	5.57	1.5 ANNUAL	PM_27	1
WOR	581905.3	4204527	581905.31	0.00066	5.68	5.68	1.5 ANNUAL	PM_27	1
WOR	581925.2	4204527	581925.16	0.00057	5.81	9.94	1.5 ANNUAL	PM_27	1
WOR	581945	4204527	581945.01	0.00057	5.71	11.07	1.5 ANNUAL	PM_27	1
WOR	582044.3	4204527	582044.26	0.00037	5.36	11.04	1.5 ANNUAL	PM_27	1
WOR	582064.1	4204527	582064.11	0.0003	5.54	5.54	1.5 ANNUAL	PM_27	1
WOR	582084	4204527	582083.96	0.00025	6.39	6.39	1.5 ANNUAL	PM_27	1
RES	581389.2	4204547	581389.21	6.00E-05	13.18	13.18	1.5 ANNUAL	PM_27	1
RES	581409.1	4204547	581409.06	7.00E-05	12.53	12.53	1.5 ANNUAL	PM_27	1
RES	581428.9	4204547	581428.91	8.00E-05	11.63	11.63	1.5 ANNUAL	PM_27	1
RES	581448.8	4204547	581448.76	9.00E-05	11.12	11.12	1.5 ANNUAL	PM_27	1
RES	581468.6	4204547	581468.61	0.0001	10.87	10.87	1.5 ANNUAL	PM_27	1
RES	581488.5	4204547	581488.46	0.00012	10.71	10.71	1.5 ANNUAL	PM_27	1
RES	581508.3	4204547	581508.31	0.00014	11.17	11.17	1.5 ANNUAL	PM_27	1
RES	581528.2	4204547	581528.16	0.00016	10.28	10.28	1.5 ANNUAL	PM_27	1
RES	581548	4204547	581548.01	0.00021	9.42	9.42	1.5 ANNUAL	PM_27	1
RES	581567.9	4204547	581567.86	0.00028	8.57	8.57	1.5 ANNUAL	PM_27	1
RES	581587.7	4204547	581587.71	0.00036	8.97	8.97	1.5 ANNUAL	PM_27	1
RES	581607.6	4204547	581607.56	0.00047	8.33	8.33	1.5 ANNUAL	PM_27	1
RES	581627.4	4204547	581627.41	0.00062	7.45	7.45	1.5 ANNUAL	PM_27	1
RES	581647.3	4204547	581647.26	0.00077	7.31	7.31	1.5 ANNUAL	PM_27	1
RES	581667.1	4204547	581667.11	0.00091	7.58	7.58	1.5 ANNUAL	PM_27	1
RES	581687	4204547	581686.96	0.00103	7.19	7.19	1.5 ANNUAL	PM_27	1
RES	581706.8	4204547	581706.81	0.00109	6.82	6.82	1.5 ANNUAL	PM_27	1
WOR	581865.6	4204547	581865.61	0.00105	5.88	5.88	1.5 ANNUAL	PM_27	1
WOR	581885.5	4204547	581885.46	0.00077	5.44	5.44	1.5 ANNUAL	PM_27	1
WOR	581905.3	4204547	581905.31	0.00062	5.8	5.8	1.5 ANNUAL	PM_27	1
WOR	581925.2	4204547	581925.16	0.00055	5.87	5.87	1.5 ANNUAL	PM_27	1
WOR	581945	4204547	581945.01	0.00057	5.76	10.79	1.5 ANNUAL	PM_27	1
RES	582044.3	4204547	582044.26	0.00034	5.3	10.43	1.5 ANNUAL	PM_27	1
RES	582064.1	4204547	582064.11	0.00028	5.3	5.3	1.5 ANNUAL	PM_27	1
RES	582084	4204547	582083.96	0.00024	5.47	5.47	1.5 ANNUAL	PM_27	1
RES	582102.5	4204551	582102.54	0.0002	5.49	5.49	1.5 ANNUAL	PM_27	1
RES	581389.2	4204566	581389.21	6.00E-05	13.42	13.42	1.5 ANNUAL	PM_27	1
RES	581409.1	4204566	581409.06	7.00E-05	12.84	12.84	1.5 ANNUAL	PM_27	1
RES	581428.9	4204566	581428.91	8.00E-05	12.16	12.16	1.5 ANNUAL	PM_27	1
RES	581448.8	4204566	581448.76	9.00E-05	11.58	11.58	1.5 ANNUAL	PM_27	1
RES	581468.6	4204566	581468.61	0.0001	11.16	11.16	1.5 ANNUAL	PM_27	1
RES	581508.3	4204566	581508.31	0.00014	11.36	11.36	1.5 ANNUAL	PM_27	1

RES	581528.2	4204566	581528.16	0.00017	10.99	10.99	1.5 ANNUAL	PM_27	1
RES	581548	4204566	581548.01	0.00021	10.31	10.31	1.5 ANNUAL	PM_27	1
RES	581567.9	4204566	581567.86	0.00029	9.34	9.34	1.5 ANNUAL	PM_27	1
RES	581587.7	4204566	581587.71	0.00037	9.59	9.59	1.5 ANNUAL	PM_27	1
RES	581607.6	4204566	581607.56	0.00047	8.49	8.49	1.5 ANNUAL	PM_27	1
RES	581627.4	4204566	581627.41	0.0006	7.64	7.64	1.5 ANNUAL	PM_27	1
RES	581647.3	4204566	581647.26	0.00072	7.25	7.25	1.5 ANNUAL	PM_27	1
RES	581667.1	4204566	581667.11	0.00082	7.62	7.62	1.5 ANNUAL	PM_27	1
RES	581687	4204566	581686.96	0.0009	7.14	7.14	1.5 ANNUAL	PM_27	1
RES	581706.8	4204566	581706.81	0.00094	7.05	7.05	1.5 ANNUAL	PM_27	1
WOR	581865.6	4204566	581865.61	0.00091	5.56	5.56	1.5 ANNUAL	PM_27	1
WOR	581885.5	4204566	581885.46	0.0007	5.42	5.42	1.5 ANNUAL	PM_27	1
WOR	581905.3	4204566	581905.31	0.00058	5.76	5.76	1.5 ANNUAL	PM_27	1
WOR	581925.2	4204566	581925.16	0.00053	5.79	5.79	1.5 ANNUAL	PM_27	1
RES	582024.4	4204566	582024.41	0.00041	5.3	10.6	1.5 ANNUAL	PM_27	1
RES	582044.3	4204566	582044.26	0.00032	5.28	5.28	1.5 ANNUAL	PM_27	1
RES	582064.1	4204566	582064.11	0.00026	5.13	5.13	1.5 ANNUAL	PM_27	1
RES	582084	4204566	582083.96	0.00022	5.08	5.08	1.5 ANNUAL	PM_27	1
RES	582103.8	4204566	582103.81	0.00019	5.13	5.13	1.5 ANNUAL	PM_27	1
RES	581389.2	4204586	581389.21	6.00E-05	13.12	13.12	1.5 ANNUAL	PM_27	1
RES	581409.1	4204586	581409.06	7.00E-05	12.78	12.78	1.5 ANNUAL	PM_27	1
RES	581428.9	4204586	581428.91	8.00E-05	12.45	12.45	1.5 ANNUAL	PM_27	1
RES	581448.8	4204586	581448.76	9.00E-05	12.21	12.21	1.5 ANNUAL	PM_27	1
RES	581468.6	4204586	581468.61	0.0001	11.83	11.83	1.5 ANNUAL	PM_27	1
RES	581508.3	4204586	581508.31	0.00014	11.37	11.37	1.5 ANNUAL	PM_27	1
RES	581528.2	4204586	581528.16	0.00017	11.25	11.25	1.5 ANNUAL	PM_27	1
RES	581548	4204586	581548.01	0.00021	10.78	10.78	1.5 ANNUAL	PM_27	1
RES	581567.9	4204586	581567.86	0.00027	10.39	10.39	1.5 ANNUAL	PM_27	1
RES	581587.7	4204586	581587.71	0.00035	10.49	10.49	1.5 ANNUAL	PM_27	1
RES	581607.6	4204586	581607.56	0.00046	9.41	9.41	1.5 ANNUAL	PM_27	1
RES	581627.4	4204586	581627.41	0.00056	8.58	8.58	1.5 ANNUAL	PM_27	1
RES	581647.3	4204586	581647.26	0.00066	8.23	8.23	1.5 ANNUAL	PM_27	1
RES	581667.1	4204586	581667.11	0.00073	8.16	8.16	1.5 ANNUAL	PM_27	1
RES	581687	4204586	581686.96	0.00079	7.14	7.14	1.5 ANNUAL	PM_27	1
RES	581706.8	4204586	581706.81	0.00081	7.09	7.09	1.5 ANNUAL	PM_27	1
RES	582024.4	4204586	582024.41	0.00038	5.26	9.94	1.5 ANNUAL	PM_27	1
RES	582044.3	4204586	582044.26	0.00029	5.19	5.19	1.5 ANNUAL	PM_27	1
RES	582064.1	4204586	582064.11	0.00024	5.07	5.07	1.5 ANNUAL	PM_27	1
RES	582084	4204586	582083.96	0.00021	5.02	5.02	1.5 ANNUAL	PM_27	1
RES	582103.8	4204586	582103.81	0.00018	5.03	5.03	1.5 ANNUAL	PM_27	1
RES	581389.2	4204606	581389.21	7.00E-05	12.72	12.72	1.5 ANNUAL	PM_27	1
RES	581528.2	4204606	581528.16	0.00018	11.35	11.35	1.5 ANNUAL	PM_27	1
RES	581607.6	4204606	581607.56	0.00044	10.15	10.15	1.5 ANNUAL	PM_27	1
RES	581647.3	4204606	581647.26	0.0006	8.95	8.95	1.5 ANNUAL	PM_27	1
RES	581667.1	4204606	581667.11	0.00066	8.36	8.36	1.5 ANNUAL	PM_27	1
RES	581687	4204606	581686.96	0.0007	7.48	7.48	1.5 ANNUAL	PM_27	1
RES	581706.8	4204606	581706.81	0.00071	6.97	6.97	1.5 ANNUAL	PM_27	1
WOR	581905.3	4204606	581905.31	0.00052	5.82	5.82	1.5 ANNUAL	PM_27	1
WOR	581925.2	4204606	581925.16	0.00052	5.74	5.74	1.5 ANNUAL	PM_27	1
RES	582024.4	4204606	582024.41	0.00035	5.32	5.32	1.5 ANNUAL	PM_27	1
RES	582044.3	4204606	582044.26	0.00027	5.18	5.18	1.5 ANNUAL	PM_27	1
RES	582064.1	4204606	582064.11	0.00023	5.12	5.12	1.5 ANNUAL	PM_27	1
RES	582084	4204606	582083.96	0.00019	5.07	5.07	1.5 ANNUAL	PM_27	1
RES	582103.8	4204606	582103.81	0.00017	5.02	5.02	1.5 ANNUAL	PM_27	1

RES	581389.2	4204626	581389.21	7.00E-05	12.86	12.86	1.5 ANNUAL	PM_27	1
RES	581409.1	4204626	581409.06	7.00E-05	12.41	12.41	1.5 ANNUAL	PM_27	1
RES	581428.9	4204626	581428.91	8.00E-05	12.22	12.22	1.5 ANNUAL	PM_27	1
RES	581448.8	4204626	581448.76	9.00E-05	12.1	12.1	1.5 ANNUAL	PM_27	1
RES	581468.6	4204626	581468.61	0.00011	11.68	11.68	1.5 ANNUAL	PM_27	1
RES	581488.5	4204626	581488.46	0.00013	11.16	11.16	1.5 ANNUAL	PM_27	1
RES	581508.3	4204626	581508.31	0.00015	11.21	11.21	1.5 ANNUAL	PM_27	1
RES	581528.2	4204626	581528.16	0.00018	11.65	11.65	1.5 ANNUAL	PM_27	1
RES	581548	4204626	581548.01	0.00022	11.65	11.65	1.5 ANNUAL	PM_27	1
RES	581567.9	4204626	581567.86	0.00028	11.44	11.44	1.5 ANNUAL	PM_27	1
RES	581587.7	4204626	581587.71	0.00035	10.81	10.81	1.5 ANNUAL	PM_27	1
RES	581607.6	4204626	581607.56	0.00042	10.98	10.98	1.5 ANNUAL	PM_27	1
RES	581627.4	4204626	581627.41	0.0005	9.97	9.97	1.5 ANNUAL	PM_27	1
RES	581687	4204626	581686.96	0.00062	6.5	6.5	1.5 ANNUAL	PM_27	1
RES	581706.8	4204626	581706.81	0.00064	6.22	6.22	1.5 ANNUAL	PM_27	1
WOR	581825.9	4204626	581825.91	0.00094	5.9	5.9	1.5 ANNUAL	PM_27	1
WOR	581885.5	4204626	581885.46	0.00054	5.61	5.61	1.5 ANNUAL	PM_27	1
WOR	581905.3	4204626	581905.31	0.0005	5.99	5.99	1.5 ANNUAL	PM_27	1
WOR	581925.2	4204626	581925.16	0.00051	5.83	5.83	1.5 ANNUAL	PM_27	1
RES	582024.4	4204626	582024.41	0.00033	5.36	5.36	1.5 ANNUAL	PM_27	1
RES	582046.6	4204630	582046.56	0.00025	5.13	5.13	1.5 ANNUAL	PM_27	1
RES	582066.4	4204630	582066.41	0.0002	5.11	5.11	1.5 ANNUAL	PM_27	1
RES	581389.2	4204646	581389.21	7.00E-05	12.04	12.04	1.5 ANNUAL	PM_27	1
RES	581409.1	4204646	581409.06	8.00E-05	11.43	11.86	1.5 ANNUAL	PM_27	1
RES	581428.9	4204646	581428.91	8.00E-05	11.78	12.06	1.5 ANNUAL	PM_27	1
RES	581448.8	4204646	581448.76	0.0001	11.97	11.97	1.5 ANNUAL	PM_27	1
RES	581468.6	4204646	581468.61	0.00011	11.26	11.26	1.5 ANNUAL	PM_27	1
RES	581488.5	4204646	581488.46	0.00013	10.88	10.88	1.5 ANNUAL	PM_27	1
RES	581508.3	4204646	581508.31	0.00015	10.81	10.81	1.5 ANNUAL	PM_27	1
RES	581528.2	4204646	581528.16	0.00019	11.04	11.04	1.5 ANNUAL	PM_27	1
RES	581548	4204646	581548.01	0.00023	11.11	11.11	1.5 ANNUAL	PM_27	1
RES	581567.9	4204646	581567.86	0.00029	10.97	10.97	1.5 ANNUAL	PM_27	1
RES	581587.7	4204646	581587.71	0.00035	10.76	10.76	1.5 ANNUAL	PM_27	1
RES	581607.6	4204646	581607.56	0.00041	11.23	11.23	1.5 ANNUAL	PM_27	1
RES	581627.4	4204646	581627.41	0.00046	10.26	10.26	1.5 ANNUAL	PM_27	1
RES	581647.3	4204646	581647.26	0.0005	9.48	9.48	1.5 ANNUAL	PM_27	1
RES	581667.1	4204646	581667.11	0.00054	7.82	7.82	1.5 ANNUAL	PM_27	1
WOR	581825.9	4204646	581825.91	0.00081	6.13	6.13	1.5 ANNUAL	PM_27	1
WOR	581845.8	4204646	581845.76	0.00065	6.13	6.13	1.5 ANNUAL	PM_27	1
WOR	581865.6	4204646	581865.61	0.00055	6.11	6.11	1.5 ANNUAL	PM_27	1
WOR	581885.5	4204646	581885.46	0.0005	5.71	5.71	1.5 ANNUAL	PM_27	1
WOR	581905.3	4204646	581905.31	0.00047	5.92	5.92	1.5 ANNUAL	PM_27	1
WOR	581925.2	4204646	581925.16	0.00051	5.75	5.75	1.5 ANNUAL	PM_27	1
RES	582010.2	4204647	582010.16	0.00037	5.47	5.47	1.5 ANNUAL	PM_27	1
RES	582024.4	4204646	582024.41	0.0003	5.39	5.39	1.5 ANNUAL	PM_27	1
RES	582044.3	4204646	582044.26	0.00024	5.24	5.24	1.5 ANNUAL	PM_27	1
RES	582064.1	4204646	582064.11	0.0002	5.24	5.24	1.5 ANNUAL	PM_27	1
RES	582103.8	4204646	582103.81	0.00015	5.06	5.06	1.5 ANNUAL	PM_27	1
RES	581389.2	4204666	581389.21	7.00E-05	11.27	11.58	1.5 ANNUAL	PM_27	1
RES	581409.1	4204666	581409.06	8.00E-05	9.53	11.86	1.5 ANNUAL	PM_27	1
RES	581428.9	4204666	581428.91	9.00E-05	9.56	12.21	1.5 ANNUAL	PM_27	1
RES	581448.8	4204666	581448.76	0.0001	9.71	12.23	1.5 ANNUAL	PM_27	1
RES	581468.6	4204666	581468.61	0.00011	10.16	10.16	1.5 ANNUAL	PM_27	1
RES	581488.5	4204666	581488.46	0.00013	10.01	10.01	1.5 ANNUAL	PM_27	1

RES	581508.3	4204666	581508.31	0.00016	10.29	10.29	1.5 ANNUAL	PM_27	1
RES	581528.2	4204666	581528.16	0.0002	10.65	10.65	1.5 ANNUAL	PM_27	1
RES	581548	4204666	581548.01	0.00024	10.73	10.73	1.5 ANNUAL	PM_27	1
RES	581567.9	4204666	581567.86	0.00029	10.45	10.45	1.5 ANNUAL	PM_27	1
RES	581587.7	4204666	581587.71	0.00034	10.51	10.51	1.5 ANNUAL	PM_27	1
RES	581607.6	4204666	581607.56	0.00039	10.89	10.89	1.5 ANNUAL	PM_27	1
RES	581627.4	4204666	581627.41	0.00044	9.91	9.91	1.5 ANNUAL	PM_27	1
RES	581647.3	4204666	581647.26	0.00046	9.31	9.31	1.5 ANNUAL	PM_27	1
RES	581667.1	4204666	581667.11	0.00049	7.43	9.61	1.5 ANNUAL	PM_27	1
RES	582010.2	4204667	582010.16	0.00034	5.52	5.52	1.5 ANNUAL	PM_27	1
RES	582024.4	4204666	582024.41	0.00028	5.4	5.4	1.5 ANNUAL	PM_27	1
RES	582044.3	4204666	582044.26	0.00022	5.35	5.35	1.5 ANNUAL	PM_27	1
RES	582064.1	4204666	582064.11	0.00018	5.19	5.19	1.5 ANNUAL	PM_27	1
RES	582103.8	4204666	582103.81	0.00014	5.12	5.12	1.5 ANNUAL	PM_27	1
RES	581389.2	4204685	581389.21	7.00E-05	11.07	11.43	1.5 ANNUAL	PM_27	1
RES	581409.1	4204685	581409.06	8.00E-05	9.48	9.48	1.5 ANNUAL	PM_27	1
RES	581428.9	4204685	581428.91	9.00E-05	9.01	9.01	1.5 ANNUAL	PM_27	1
RES	581448.8	4204685	581448.76	0.00011	9.25	9.25	1.5 ANNUAL	PM_27	1
RES	581468.6	4204685	581468.61	0.00013	9.42	9.42	1.5 ANNUAL	PM_27	1
RES	581508.3	4204685	581508.31	0.00017	9.76	9.76	1.5 ANNUAL	PM_27	1
RES	581528.2	4204685	581528.16	0.0002	10.19	10.19	1.5 ANNUAL	PM_27	1
RES	581548	4204685	581548.01	0.00024	10.38	10.38	1.5 ANNUAL	PM_27	1
RES	581567.9	4204685	581567.86	0.00029	9.77	9.77	1.5 ANNUAL	PM_27	1
RES	581587.7	4204685	581587.71	0.00033	10.27	10.27	1.5 ANNUAL	PM_27	1
RES	581607.6	4204685	581607.56	0.00037	10.44	10.44	1.5 ANNUAL	PM_27	1
RES	581627.4	4204685	581627.41	0.0004	8.95	8.95	1.5 ANNUAL	PM_27	1
RES	581647.3	4204685	581647.26	0.00043	7.67	9.09	1.5 ANNUAL	PM_27	1
RES	581667.1	4204685	581667.11	0.00044	7.01	7.01	1.5 ANNUAL	PM_27	1
RES	582004.6	4204685	582004.56	0.00034	5.53	5.53	1.5 ANNUAL	PM_27	1
RES	582024.4	4204685	582024.41	0.00026	5.34	5.34	1.5 ANNUAL	PM_27	1
RES	582044.3	4204685	582044.26	0.00021	5.43	5.43	1.5 ANNUAL	PM_27	1
RES	582064.1	4204685	582064.11	0.00017	5.05	5.05	1.5 ANNUAL	PM_27	1
RES	582084	4204685	582083.96	0.00015	4.84	4.84	1.5 ANNUAL	PM_27	1
RES	582103.8	4204685	582103.81	0.00013	5.09	5.09	1.5 ANNUAL	PM_27	1
RES	581389.2	4204705	581389.21	7.00E-05	10.65	10.94	1.5 ANNUAL	PM_27	1
RES	581409.1	4204705	581409.06	8.00E-05	9.43	9.43	1.5 ANNUAL	PM_27	1
RES	581428.9	4204705	581428.91	0.0001	8.92	8.92	1.5 ANNUAL	PM_27	1
RES	581448.8	4204705	581448.76	0.00011	8.89	8.89	1.5 ANNUAL	PM_27	1
RES	581508.3	4204705	581508.31	0.00018	9.23	9.23	1.5 ANNUAL	PM_27	1
RES	581528.2	4204705	581528.16	0.00021	9.76	9.76	1.5 ANNUAL	PM_27	1
RES	581548	4204705	581548.01	0.00024	9.84	9.84	1.5 ANNUAL	PM_27	1
RES	581567.9	4204705	581567.86	0.00029	9.08	9.08	1.5 ANNUAL	PM_27	1
RES	581587.7	4204705	581587.71	0.00032	9.69	9.69	1.5 ANNUAL	PM_27	1
RES	581607.6	4204705	581607.56	0.00035	9.48	9.48	1.5 ANNUAL	PM_27	1
WOR	581865.6	4204705	581865.61	0.0004	6.16	6.16	1.5 ANNUAL	PM_27	1
WOR	581885.5	4204705	581885.46	0.00038	6.15	6.15	1.5 ANNUAL	PM_27	1
WOR	581905.3	4204705	581905.31	0.00039	6.13	6.13	1.5 ANNUAL	PM_27	1
RES	582004.6	4204705	582004.56	0.0003	5.48	5.48	1.5 ANNUAL	PM_27	1
RES	582044.3	4204705	582044.26	0.00019	5.41	5.41	1.5 ANNUAL	PM_27	1
RES	582064.1	4204705	582064.11	0.00016	4.79	4.79	1.5 ANNUAL	PM_27	1
RES	582084	4204705	582083.96	0.00014	4.77	4.77	1.5 ANNUAL	PM_27	1
RES	582103.8	4204705	582103.81	0.00012	4.89	4.89	1.5 ANNUAL	PM_27	1
WOR	581802	4204544	5.82E+12	0.00108	6.73	6.73	1.5 ANNUAL	PM_27	1
WOR	581822	4204544	5.82E+12	0.00114	6.31	6.31	1.5 ANNUAL	PM_27	1

WOR	581802	4204564	5.82E+12	0.00101	6.78	6.78	1.5 ANNUAL	PM_27	1
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Discrete Re X	Y	Concentrat	Elevation (Z	Hill Heights	Flagpole (Z)	Averagin	Pe	Source Gro	Num Years	Net ID
RES	581389.2	4203991	581389.21	0	10.43	10.43	1.5 ANNUAL	PM_28	1	
RES	581409.1	4203991	581409.06	0	10.52	10.52	1.5 ANNUAL	PM_28	1	
RES	581428.9	4203991	581428.91	0	9.49	9.49	1.5 ANNUAL	PM_28	1	
RES	581448.8	4203991	581448.76	0	9.32	9.32	1.5 ANNUAL	PM_28	1	
RES	581468.6	4203991	581468.61	0	9.34	9.34	1.5 ANNUAL	PM_28	1	
RES	581488.5	4203991	581488.46	0	9.37	9.37	1.5 ANNUAL	PM_28	1	
RES	581508.3	4203991	581508.31	0	8.92	8.92	1.5 ANNUAL	PM_28	1	
RES	581528.2	4203991	581528.16	0	9.17	9.17	1.5 ANNUAL	PM_28	1	
RES	581548	4203991	581548.01	0	9.08	9.08	1.5 ANNUAL	PM_28	1	
RES	581567.9	4203991	581567.86	0	8.66	8.66	1.5 ANNUAL	PM_28	1	
RES	581587.7	4203991	581587.71	0	8.2	8.2	1.5 ANNUAL	PM_28	1	
RES	581607.6	4203991	581607.56	0	7.93	7.93	1.5 ANNUAL	PM_28	1	
RES	581627.4	4203991	581627.41	0	7.83	7.83	1.5 ANNUAL	PM_28	1	
RES	581647.3	4203991	581647.26	0	7.68	7.68	1.5 ANNUAL	PM_28	1	
RES	581667.1	4203991	581667.11	0	7.55	7.55	1.5 ANNUAL	PM_28	1	
RES	581687	4203991	581686.96	0	7.55	7.55	1.5 ANNUAL	PM_28	1	
RES	581706.8	4203991	581706.81	0	8.26	8.26	1.5 ANNUAL	PM_28	1	
RES	581726.7	4203991	581726.66	0	7.79	7.79	1.5 ANNUAL	PM_28	1	
RES	581746.5	4203991	581746.51	0	7.26	7.26	1.5 ANNUAL	PM_28	1	
WOR	582004.6	4203991	582004.56	0	7.35	7.35	1.5 ANNUAL	PM_28	1	
WOR	582024.4	4203991	582024.41	0	7.63	7.63	1.5 ANNUAL	PM_28	1	
WOR	582044.3	4203991	582044.26	0	7.52	7.52	1.5 ANNUAL	PM_28	1	
RES	581389.2	4204011	581389.21	0	10.76	10.76	1.5 ANNUAL	PM_28	1	
RES	581409.1	4204011	581409.06	0	9.83	9.83	1.5 ANNUAL	PM_28	1	
RES	581428.9	4204011	581428.91	0	8.49	8.49	1.5 ANNUAL	PM_28	1	
RES	581448.8	4204011	581448.76	0	8.42	8.42	1.5 ANNUAL	PM_28	1	
RES	581468.6	4204011	581468.61	0	8.61	8.61	1.5 ANNUAL	PM_28	1	
RES	581488.5	4204011	581488.46	0	8.85	8.85	1.5 ANNUAL	PM_28	1	
RES	581508.3	4204011	581508.31	0	8.81	8.81	1.5 ANNUAL	PM_28	1	
RES	581528.2	4204011	581528.16	0	9.07	9.07	1.5 ANNUAL	PM_28	1	
RES	581548	4204011	581548.01	0	9.1	9.1	1.5 ANNUAL	PM_28	1	
RES	581567.9	4204011	581567.86	0	8.67	8.67	1.5 ANNUAL	PM_28	1	
RES	581587.7	4204011	581587.71	0	8.19	8.19	1.5 ANNUAL	PM_28	1	
RES	581607.6	4204011	581607.56	0	7.71	7.71	1.5 ANNUAL	PM_28	1	
RES	581627.4	4204011	581627.41	0	8.2	8.2	1.5 ANNUAL	PM_28	1	
RES	581647.3	4204011	581647.26	0	8.21	8.21	1.5 ANNUAL	PM_28	1	
RES	581667.1	4204011	581667.11	0	7.72	7.72	1.5 ANNUAL	PM_28	1	
RES	581687	4204011	581686.96	0	7.75	7.75	1.5 ANNUAL	PM_28	1	
RES	581706.8	4204011	581706.81	0	8.2	8.2	1.5 ANNUAL	PM_28	1	
RES	581726.7	4204011	581726.66	0	7.64	7.64	1.5 ANNUAL	PM_28	1	
RES	581746.5	4204011	581746.51	0	6.81	6.81	1.5 ANNUAL	PM_28	1	
WOR	581845.8	4204011	581845.76	0	6.88	6.88	1.5 ANNUAL	PM_28	1	
WOR	581865.6	4204011	581865.61	0	7.09	7.09	1.5 ANNUAL	PM_28	1	
WOR	581885.5	4204011	581885.46	0	7.08	7.08	1.5 ANNUAL	PM_28	1	
WOR	581905.3	4204011	581905.31	0	7.06	7.06	1.5 ANNUAL	PM_28	1	
WOR	582004.6	4204011	582004.56	0	7.45	7.45	1.5 ANNUAL	PM_28	1	
WOR	582024.4	4204011	582024.41	0	7.54	7.54	1.5 ANNUAL	PM_28	1	
WOR	582044.3	4204011	582044.26	0	7.58	7.58	1.5 ANNUAL	PM_28	1	
RES	581389.2	4204030	581389.21	0	10.28	10.28	1.5 ANNUAL	PM_28	1	
RES	581409.1	4204030	581409.06	0	9.25	9.25	1.5 ANNUAL	PM_28	1	
RES	581428.9	4204030	581428.91	0	8.41	8.41	1.5 ANNUAL	PM_28	1	
RES	581448.8	4204030	581448.76	0	8.32	8.32	1.5 ANNUAL	PM_28	1	
RES	581468.6	4204030	581468.61	0	8.1	8.1	1.5 ANNUAL	PM_28	1	

RES	581488.5	4204030	581488.46	0	8.33	8.33	1.5 ANNUAL	PM_28	1
RES	581508.3	4204030	581508.31	0	8.53	8.53	1.5 ANNUAL	PM_28	1
RES	581528.2	4204030	581528.16	0	8.63	8.63	1.5 ANNUAL	PM_28	1
RES	581548	4204030	581548.01	0	8.55	8.55	1.5 ANNUAL	PM_28	1
RES	581567.9	4204030	581567.86	0	8.43	8.43	1.5 ANNUAL	PM_28	1
RES	581587.7	4204030	581587.71	0	8.16	8.16	1.5 ANNUAL	PM_28	1
RES	581627.4	4204030	581627.41	0	8.26	8.26	1.5 ANNUAL	PM_28	1
RES	581647.3	4204030	581647.26	0	8.24	8.24	1.5 ANNUAL	PM_28	1
RES	581667.1	4204030	581667.11	0	7.75	7.75	1.5 ANNUAL	PM_28	1
RES	581687	4204030	581686.96	0	7.58	7.58	1.5 ANNUAL	PM_28	1
RES	581706.8	4204030	581706.81	0	7.98	7.98	1.5 ANNUAL	PM_28	1
RES	581726.7	4204030	581726.66	0	7.98	7.98	1.5 ANNUAL	PM_28	1
RES	581746.5	4204030	581746.51	0	6.98	7.33	1.5 ANNUAL	PM_28	1
WOR	581845.8	4204030	581845.76	0	6.63	6.63	1.5 ANNUAL	PM_28	1
WOR	581865.6	4204030	581865.61	0	6.8	6.8	1.5 ANNUAL	PM_28	1
WOR	581885.5	4204030	581885.46	0	6.92	6.92	1.5 ANNUAL	PM_28	1
WOR	581905.3	4204030	581905.31	0	6.97	6.97	1.5 ANNUAL	PM_28	1
WOR	582004.6	4204030	582004.56	0	7.63	7.63	1.5 ANNUAL	PM_28	1
WOR	582024.4	4204030	582024.41	0	7.68	7.68	1.5 ANNUAL	PM_28	1
RES	581389.2	4204050	581389.21	0	9.84	9.84	1.5 ANNUAL	PM_28	1
RES	581409.1	4204050	581409.06	0	9	9	1.5 ANNUAL	PM_28	1
RES	581428.9	4204050	581428.91	0	8.69	8.69	1.5 ANNUAL	PM_28	1
RES	581448.8	4204050	581448.76	0	8.36	8.36	1.5 ANNUAL	PM_28	1
RES	581488.5	4204050	581488.46	0	7.98	7.98	1.5 ANNUAL	PM_28	1
RES	581567.9	4204050	581567.86	0	7.75	7.75	1.5 ANNUAL	PM_28	1
RES	581587.7	4204050	581587.71	0	7.69	7.69	1.5 ANNUAL	PM_28	1
RES	581627.4	4204050	581627.41	0	8.12	8.12	1.5 ANNUAL	PM_28	1
RES	581647.3	4204050	581647.26	0	8.13	8.13	1.5 ANNUAL	PM_28	1
RES	581667.1	4204050	581667.11	0	7.72	7.72	1.5 ANNUAL	PM_28	1
RES	581687	4204050	581686.96	0	7.5	7.5	1.5 ANNUAL	PM_28	1
RES	581706.8	4204050	581706.81	0	8.14	8.14	1.5 ANNUAL	PM_28	1
RES	581726.7	4204050	581726.66	0	8.04	8.04	1.5 ANNUAL	PM_28	1
WOR	581825.9	4204050	581825.91	0	6.74	6.74	1.5 ANNUAL	PM_28	1
WOR	581845.8	4204050	581845.76	0	6.79	6.79	1.5 ANNUAL	PM_28	1
WOR	581865.6	4204050	581865.61	0	6.58	6.58	1.5 ANNUAL	PM_28	1
WOR	581885.5	4204050	581885.46	0	6.78	6.78	1.5 ANNUAL	PM_28	1
WOR	581905.3	4204050	581905.31	0	6.92	6.92	1.5 ANNUAL	PM_28	1
WOR	582004.6	4204050	582004.56	0	7.66	7.66	1.5 ANNUAL	PM_28	1
WOR	582024.4	4204050	582024.41	0	7.6	7.6	1.5 ANNUAL	PM_28	1
RES	581389.2	4204070	581389.21	0	8.77	8.77	1.5 ANNUAL	PM_28	1
RES	581409.1	4204070	581409.06	0	9.01	9.01	1.5 ANNUAL	PM_28	1
RES	581428.9	4204070	581428.91	0	9.09	9.09	1.5 ANNUAL	PM_28	1
RES	581448.8	4204070	581448.76	0	8.79	8.79	1.5 ANNUAL	PM_28	1
RES	581488.5	4204070	581488.46	0	8.4	8.4	1.5 ANNUAL	PM_28	1
RES	581508.3	4204070	581508.31	0	8.72	8.72	1.5 ANNUAL	PM_28	1
RES	581528.2	4204070	581528.16	0	8.63	8.63	1.5 ANNUAL	PM_28	1
RES	581548	4204070	581548.01	0	8.5	8.5	1.5 ANNUAL	PM_28	1
RES	581567.9	4204070	581567.86	0	8.19	8.19	1.5 ANNUAL	PM_28	1
RES	581587.7	4204070	581587.71	0	7.73	7.73	1.5 ANNUAL	PM_28	1
RES	581627.4	4204070	581627.41	0	7.77	7.77	1.5 ANNUAL	PM_28	1
RES	581647.3	4204070	581647.26	0	7.87	7.87	1.5 ANNUAL	PM_28	1
RES	581667.1	4204070	581667.11	0	7.69	7.69	1.5 ANNUAL	PM_28	1
RES	581687	4204070	581686.96	0	7.18	7.18	1.5 ANNUAL	PM_28	1
RES	581706.8	4204070	581706.81	0	7.79	7.79	1.5 ANNUAL	PM_28	1

RES	581726.7	4204070	581726.664	0	7.85	7.85	1.5 ANNUAL	PM_28	1
WOR	581806.1	4204070	581806.064	0	6.83	6.83	1.5 ANNUAL	PM_28	1
WOR	581825.9	4204070	581825.914	0	6.88	6.88	1.5 ANNUAL	PM_28	1
WOR	581845.8	4204070	581845.764	0	6.84	6.84	1.5 ANNUAL	PM_28	1
WOR	581865.6	4204070	581865.614	0	6.79	6.79	1.5 ANNUAL	PM_28	1
WOR	581885.5	4204070	581885.464	0	6.83	6.83	1.5 ANNUAL	PM_28	1
WOR	581905.3	4204070	581905.314	0	6.91	6.91	1.5 ANNUAL	PM_28	1
WOR	582004.6	4204070	582004.564	0	7.6	7.6	1.5 ANNUAL	PM_28	1
WOR	582024.4	4204070	582024.414	0	7.4	7.4	1.5 ANNUAL	PM_28	1
WOR	582103.8	4204070	582103.814	0	6.92	6.92	1.5 ANNUAL	PM_28	1
RES	581389.2	4204090	581389.214	0	8.25	8.25	1.5 ANNUAL	PM_28	1
RES	581409.1	4204090	581409.064	0	8.86	8.86	1.5 ANNUAL	PM_28	1
RES	581428.9	4204090	581428.914	0	8.89	8.89	1.5 ANNUAL	PM_28	1
RES	581448.8	4204090	581448.764	0	8.55	8.55	1.5 ANNUAL	PM_28	1
RES	581468.6	4204090	581468.614	0	7.88	7.88	1.5 ANNUAL	PM_28	1
RES	581488.5	4204090	581488.464	0	8.62	8.62	1.5 ANNUAL	PM_28	1
RES	581508.3	4204090	581508.314	0	8.12	8.12	1.5 ANNUAL	PM_28	1
RES	581528.2	4204090	581528.164	0	7.71	7.71	1.5 ANNUAL	PM_28	1
RES	581548	4204090	581548.014	0	7.92	7.92	1.5 ANNUAL	PM_28	1
RES	581567.9	4204090	581567.864	0	8.02	8.02	1.5 ANNUAL	PM_28	1
RES	581587.7	4204090	581587.714	0	7.72	7.72	1.5 ANNUAL	PM_28	1
RES	581607.6	4204090	581607.564	0	6.94	6.94	1.5 ANNUAL	PM_28	1
RES	581627.4	4204090	581627.414	0	7.72	7.72	1.5 ANNUAL	PM_28	1
RES	581647.3	4204090	581647.264	0	7.93	7.93	1.5 ANNUAL	PM_28	1
RES	581667.1	4204090	581667.114	0	7.89	7.89	1.5 ANNUAL	PM_28	1
RES	581687	4204090	581686.964	0	7.77	7.77	1.5 ANNUAL	PM_28	1
RES	581706.8	4204090	581706.814	0	8.07	8.07	1.5 ANNUAL	PM_28	1
RES	581726.7	4204090	581726.664	0	7.27	7.27	1.5 ANNUAL	PM_28	1
WOR	581786.2	4204090	581786.214	0	6.72	6.72	1.5 ANNUAL	PM_28	1
WOR	581806.1	4204090	581806.064	0	6.88	6.88	1.5 ANNUAL	PM_28	1
WOR	582024.4	4204090	582024.414	0	7.39	7.39	1.5 ANNUAL	PM_28	1
WOR	582084	4204090	582083.964	0	7.24	7.24	1.5 ANNUAL	PM_28	1
WOR	582103.8	4204090	582103.814	0	7.01	7.01	1.5 ANNUAL	PM_28	1
RES	581389.2	4204110	581389.214	0	8.05	8.05	1.5 ANNUAL	PM_28	1
RES	581409.1	4204110	581409.064	0	8.66	8.66	1.5 ANNUAL	PM_28	1
RES	581428.9	4204110	581428.914	0	8.65	8.65	1.5 ANNUAL	PM_28	1
RES	581448.8	4204110	581448.764	0	8.27	8.27	1.5 ANNUAL	PM_28	1
RES	581468.6	4204110	581468.614	0	7.73	7.73	1.5 ANNUAL	PM_28	1
RES	581488.5	4204110	581488.464	0	8.56	8.56	1.5 ANNUAL	PM_28	1
RES	581508.3	4204110	581508.314	0	7.79	7.79	1.5 ANNUAL	PM_28	1
SCH	581528.2	4204110	581528.164	0	7.26	7.26	1.5 ANNUAL	PM_28	1
SCH	581548	4204110	581548.014	0	6.82	6.82	1.5 ANNUAL	PM_28	1
SCH	581567.9	4204110	581567.864	0	6.73	6.73	1.5 ANNUAL	PM_28	1
SCH	581584	4204105	581584.044	0	6.88	6.88	1.5 ANNUAL	PM_28	1
RES	581607.6	4204110	581607.564	0	7.03	7.03	1.5 ANNUAL	PM_28	1
RES	581627.4	4204110	581627.414	0	7.45	7.45	1.5 ANNUAL	PM_28	1
RES	581647.3	4204110	581647.264	0	7.45	7.45	1.5 ANNUAL	PM_28	1
RES	581667.1	4204110	581667.114	0	7.53	7.53	1.5 ANNUAL	PM_28	1
RES	581687	4204110	581686.964	0	7.63	7.63	1.5 ANNUAL	PM_28	1
RES	581706.8	4204110	581706.814	0	7.77	7.77	1.5 ANNUAL	PM_28	1
RES	581726.7	4204110	581726.664	0	5.89	8.08	1.5 ANNUAL	PM_28	1
WOR	581786.2	4204110	581786.214	0	6.63	6.63	1.5 ANNUAL	PM_28	1
WOR	581806.1	4204110	581806.064	0	6.87	6.87	1.5 ANNUAL	PM_28	1
WOR	581984.7	4204110	581984.714	0	7.55	7.55	1.5 ANNUAL	PM_28	1

WOR	582004.6	4204110	582004.56	0	7.55	7.55	1.5 ANNUAL	PM_28	1
WOR	582024.4	4204110	582024.41	0	7.51	7.51	1.5 ANNUAL	PM_28	1
WOR	582084	4204110	582083.96	0	6.99	6.99	1.5 ANNUAL	PM_28	1
WOR	582103.8	4204110	582103.81	0	6.99	6.99	1.5 ANNUAL	PM_28	1
RES	581389.2	4204130	581389.21	0	7.83	7.83	1.5 ANNUAL	PM_28	1
RES	581409.1	4204130	581409.06	0	8.02	8.02	1.5 ANNUAL	PM_28	1
RES	581428.9	4204130	581428.91	0	8.15	8.15	1.5 ANNUAL	PM_28	1
RES	581448.8	4204130	581448.76	0	7.85	7.85	1.5 ANNUAL	PM_28	1
RES	581468.6	4204130	581468.61	0	7.53	7.53	1.5 ANNUAL	PM_28	1
RES	581488.5	4204130	581488.46	0	8.14	8.14	1.5 ANNUAL	PM_28	1
RES	581508.3	4204130	581508.31	0	8.19	8.19	1.5 ANNUAL	PM_28	1
SCH	581528.2	4204130	581528.16	0	7.36	7.36	1.5 ANNUAL	PM_28	1
SCH	581548	4204130	581548.01	0	6.92	6.92	1.5 ANNUAL	PM_28	1
SCH	581567.9	4204130	581567.86	0	6.9	6.9	1.5 ANNUAL	PM_28	1
SCH	581584	4204125	581584.04	0	6.71	6.71	1.5 ANNUAL	PM_28	1
RES	581607.6	4204130	581607.56	0	7.26	7.26	1.5 ANNUAL	PM_28	1
RES	581627.4	4204130	581627.41	0	7.58	7.58	1.5 ANNUAL	PM_28	1
RES	581647.3	4204130	581647.26	0	7.62	7.62	1.5 ANNUAL	PM_28	1
RES	581662.4	4204126	581662.44	0	7.1	7.1	1.5 ANNUAL	PM_28	1
RES	581687	4204130	581686.96	0	7	7	1.5 ANNUAL	PM_28	1
RES	581706.8	4204130	581706.81	0	7.24	7.24	1.5 ANNUAL	PM_28	1
WOR	581766.4	4204130	581766.36	0	6.34	6.34	1.5 ANNUAL	PM_28	1
WOR	581786.2	4204130	581786.21	0	6.48	6.48	1.5 ANNUAL	PM_28	1
WOR	581806.1	4204130	581806.06	0	6.85	6.85	1.5 ANNUAL	PM_28	1
WOR	581885.5	4204130	581885.46	0	6.71	6.71	1.5 ANNUAL	PM_28	1
WOR	581905.3	4204130	581905.31	0	6.94	6.94	1.5 ANNUAL	PM_28	1
WOR	581984.7	4204130	581984.71	0	7.54	7.54	1.5 ANNUAL	PM_28	1
WOR	582004.6	4204130	582004.56	0	7.65	7.65	1.5 ANNUAL	PM_28	1
WOR	582024.4	4204130	582024.41	0	7.7	7.7	1.5 ANNUAL	PM_28	1
WOR	582084	4204130	582083.96	0	6.9	6.9	1.5 ANNUAL	PM_28	1
WOR	582103.8	4204130	582103.81	0	7.01	7.01	1.5 ANNUAL	PM_28	1
RES	581389.2	4204150	581389.21	0	7.96	7.96	1.5 ANNUAL	PM_28	1
RES	581488.5	4204150	581488.46	0	7.57	7.57	1.5 ANNUAL	PM_28	1
RES	581508.3	4204150	581508.31	0	7.98	7.98	1.5 ANNUAL	PM_28	1
SCH	581528.2	4204150	581528.16	0	7.98	7.98	1.5 ANNUAL	PM_28	1
SCH	581548	4204150	581548.01	0	8.17	8.17	1.5 ANNUAL	PM_28	1
SCH	581567.9	4204150	581567.86	0	8.22	8.22	1.5 ANNUAL	PM_28	1
RES	581607.6	4204150	581607.56	0	7.6	7.6	1.5 ANNUAL	PM_28	1
RES	581627.4	4204150	581627.41	0	7.7	7.7	1.5 ANNUAL	PM_28	1
RES	581647.3	4204150	581647.26	0	7.49	7.49	1.5 ANNUAL	PM_28	1
RES	581687	4204150	581686.96	0	6.81	6.81	1.5 ANNUAL	PM_28	1
RES	581706.8	4204150	581706.81	0	7.17	7.17	1.5 ANNUAL	PM_28	1
WOR	581766.4	4204150	581766.36	0	6.19	6.19	1.5 ANNUAL	PM_28	1
WOR	581786.2	4204150	581786.21	0	6.3	6.3	1.5 ANNUAL	PM_28	1
WOR	581806.1	4204150	581806.06	0	6.84	6.84	1.5 ANNUAL	PM_28	1
WOR	581825.9	4204150	581825.91	0	6.81	6.81	1.5 ANNUAL	PM_28	1
WOR	581885.5	4204150	581885.46	0	6.67	6.67	1.5 ANNUAL	PM_28	1
WOR	581905.3	4204150	581905.31	0	6.68	6.68	1.5 ANNUAL	PM_28	1
WOR	582084	4204150	582083.96	0	6.92	6.92	1.5 ANNUAL	PM_28	1
WOR	582103.8	4204150	582103.81	0	7.15	7.15	1.5 ANNUAL	PM_28	1
RES	581389.2	4204169	581389.21	0	8.59	8.59	1.5 ANNUAL	PM_28	1
RES	581409.1	4204169	581409.06	0	8.21	8.21	1.5 ANNUAL	PM_28	1
RES	581428.9	4204169	581428.91	0	7.96	7.96	1.5 ANNUAL	PM_28	1
RES	581448.8	4204169	581448.76	0	7.83	7.83	1.5 ANNUAL	PM_28	1

RES	581468.6	4204169	581468.61	0	7.73	7.73	1.5 ANNUAL	PM_28	1
RES	581488.5	4204169	581488.46	0	7.77	7.77	1.5 ANNUAL	PM_28	1
RES	581528.8	4204174	581528.84	0	8.82	8.82	1.5 ANNUAL	PM_28	1
RES	581607.6	4204167	581607.56	0	7.74	7.74	1.5 ANNUAL	PM_28	1
RES	581627.4	4204167	581627.41	0	7.63	7.63	1.5 ANNUAL	PM_28	1
RES	581647.3	4204167	581647.26	0	7.48	7.48	1.5 ANNUAL	PM_28	1
RES	581670	4204170	581669.95	0	7	7	1.5 ANNUAL	PM_28	1
RES	581687	4204169	581686.96	0	7.05	7.05	1.5 ANNUAL	PM_28	1
RES	581706.8	4204169	581706.81	0	7.05	7.05	1.5 ANNUAL	PM_28	1
WOR	581766.4	4204169	581766.36	0	6.28	6.28	1.5 ANNUAL	PM_28	1
WOR	581786.2	4204169	581786.21	0	6.21	6.21	1.5 ANNUAL	PM_28	1
WOR	581806.1	4204169	581806.06	0	6.63	6.63	1.5 ANNUAL	PM_28	1
WOR	581825.9	4204169	581825.91	0	6.7	6.7	1.5 ANNUAL	PM_28	1
WOR	581885.5	4204169	581885.46	0	6.53	6.53	1.5 ANNUAL	PM_28	1
WOR	581905.3	4204169	581905.31	0	6.5	6.5	1.5 ANNUAL	PM_28	1
WOR	581945	4204169	581945.01	0	6.82	6.82	1.5 ANNUAL	PM_28	1
WOR	581964.9	4204169	581964.86	0	6.95	6.95	1.5 ANNUAL	PM_28	1
WOR	581984.7	4204169	581984.71	0	7.13	7.13	1.5 ANNUAL	PM_28	1
WOR	582004.6	4204169	582004.56	0	7.23	7.23	1.5 ANNUAL	PM_28	1
WOR	582084	4204169	582083.96	0	6.93	6.93	1.5 ANNUAL	PM_28	1
WOR	582103.8	4204169	582103.81	0	7.02	7.02	1.5 ANNUAL	PM_28	1
RES	581389.2	4204189	581389.21	0	9.54	9.54	1.5 ANNUAL	PM_28	1
RES	581409.1	4204189	581409.06	0	9.27	9.27	1.5 ANNUAL	PM_28	1
RES	581428.9	4204189	581428.91	0	9.03	9.03	1.5 ANNUAL	PM_28	1
RES	581448.8	4204189	581448.76	0	8.81	8.81	1.5 ANNUAL	PM_28	1
RES	581468.6	4204189	581468.61	0	8.75	8.75	1.5 ANNUAL	PM_28	1
RES	581488.5	4204189	581488.46	0	8.73	8.73	1.5 ANNUAL	PM_28	1
RES	581528.2	4204189	581528.16	0	8.72	8.72	1.5 ANNUAL	PM_28	1
RES	581548	4204189	581548.01	0	9.53	10.33	1.5 ANNUAL	PM_28	1
RES	581567.9	4204189	581567.86	0	9.84	9.84	1.5 ANNUAL	PM_28	1
RES	581587.7	4204189	581587.71	0	8.92	8.92	1.5 ANNUAL	PM_28	1
RES	581607.6	4204189	581607.56	0	8.63	8.63	1.5 ANNUAL	PM_28	1
RES	581627.4	4204189	581627.41	0	8.48	8.48	1.5 ANNUAL	PM_28	1
RES	581647.3	4204189	581647.26	0	8.09	8.09	1.5 ANNUAL	PM_28	1
WOR	581766.4	4204189	581766.36	0	5.62	5.62	1.5 ANNUAL	PM_28	1
WOR	581786.2	4204189	581786.21	0	6.12	6.12	1.5 ANNUAL	PM_28	1
WOR	581806.1	4204189	581806.06	0	6.18	6.18	1.5 ANNUAL	PM_28	1
WOR	581865.6	4204189	581865.61	0	6.18	6.18	1.5 ANNUAL	PM_28	1
WOR	581885.5	4204189	581885.46	0	6.3	6.3	1.5 ANNUAL	PM_28	1
WOR	581945	4204189	581945.01	0	6.61	6.61	1.5 ANNUAL	PM_28	1
WOR	581964.9	4204189	581964.86	0	6.78	6.78	1.5 ANNUAL	PM_28	1
WOR	581984.7	4204189	581984.71	0	7.03	7.03	1.5 ANNUAL	PM_28	1
WOR	582004.6	4204189	582004.56	0	7.32	9.81	1.5 ANNUAL	PM_28	1
WOR	582084	4204189	582083.96	0	6.95	6.95	1.5 ANNUAL	PM_28	1
WOR	582103.8	4204189	582103.81	0	7.04	7.04	1.5 ANNUAL	PM_28	1
RES	581389.2	4204209	581389.21	0	9.22	9.22	1.5 ANNUAL	PM_28	1
RES	581409.1	4204209	581409.06	0	9.04	9.04	1.5 ANNUAL	PM_28	1
RES	581428.9	4204209	581428.91	0	8.93	8.93	1.5 ANNUAL	PM_28	1
RES	581448.8	4204209	581448.76	0	8.87	8.87	1.5 ANNUAL	PM_28	1
RES	581468.6	4204209	581468.61	0	9.12	9.12	1.5 ANNUAL	PM_28	1
RES	581488.5	4204209	581488.46	0	9.4	9.4	1.5 ANNUAL	PM_28	1
RES	581528.2	4204209	581528.16	0	9.02	12.29	1.5 ANNUAL	PM_28	1
RES	581548	4204209	581548.01	0	10.81	11.71	1.5 ANNUAL	PM_28	1
RES	581567.9	4204209	581567.86	0	11	11	1.5 ANNUAL	PM_28	1

RES	581587.7	4204209	581587.71	0	10.26	10.26	1.5 ANNUAL	PM_28	1
RES	581607.6	4204209	581607.56	0	10.01	10.01	1.5 ANNUAL	PM_28	1
RES	581627.4	4204209	581627.41	0	10.25	10.25	1.5 ANNUAL	PM_28	1
RES	581647.3	4204209	581647.26	0	9.61	10.32	1.5 ANNUAL	PM_28	1
RES	581667.1	4204209	581667.11	0	7.56	12.69	1.5 ANNUAL	PM_28	1
RES	581687	4204209	581686.96	0	6.53	12.31	1.5 ANNUAL	PM_28	1
RES	581706.8	4204209	581706.81	0	6.41	6.41	1.5 ANNUAL	PM_28	1
WOR	581865.6	4204209	581865.61	0	6.29	6.29	1.5 ANNUAL	PM_28	1
WOR	581885.5	4204209	581885.46	0	6.75	6.75	1.5 ANNUAL	PM_28	1
WOR	582084	4204209	582083.96	0	6.92	6.92	1.5 ANNUAL	PM_28	1
WOR	582103.8	4204209	582103.81	0	7.01	7.01	1.5 ANNUAL	PM_28	1
RES	581389.2	4204229	581389.21	0	9.55	9.55	1.5 ANNUAL	PM_28	1
RES	581409.1	4204229	581409.06	0	9.3	9.3	1.5 ANNUAL	PM_28	1
RES	581428.9	4204229	581428.91	0	9	9	1.5 ANNUAL	PM_28	1
RES	581448.8	4204229	581448.76	0	8.9	8.9	1.5 ANNUAL	PM_28	1
RES	581468.6	4204229	581468.61	0	9.04	9.04	1.5 ANNUAL	PM_28	1
RES	581508.3	4204229	581508.31	0	9.37	9.37	1.5 ANNUAL	PM_28	1
RES	581528.2	4204229	581528.16	0	9.68	12.88	1.5 ANNUAL	PM_28	1
RES	581548	4204229	581548.01	0	12.07	12.07	1.5 ANNUAL	PM_28	1
RES	581567.9	4204229	581567.86	0	11.93	11.93	1.5 ANNUAL	PM_28	1
RES	581587.7	4204229	581587.71	0	11.71	11.71	1.5 ANNUAL	PM_28	1
RES	581607.6	4204229	581607.56	0	11.63	11.63	1.5 ANNUAL	PM_28	1
RES	581627.4	4204229	581627.41	0	11.82	11.82	1.5 ANNUAL	PM_28	1
RES	581647.3	4204229	581647.26	0	11.1	11.78	1.5 ANNUAL	PM_28	1
RES	581667.1	4204229	581667.11	0	9.11	12.69	1.5 ANNUAL	PM_28	1
RES	581687	4204229	581686.96	0	7.5	12.31	1.5 ANNUAL	PM_28	1
RES	581706.8	4204229	581706.81	0	6.63	6.63	1.5 ANNUAL	PM_28	1
WOR	581865.6	4204229	581865.61	0	6.27	6.27	1.5 ANNUAL	PM_28	1
WOR	581885.5	4204229	581885.46	0	6.67	6.67	1.5 ANNUAL	PM_28	1
WOR	581943.7	4204234	581943.67	0	6.57	6.57	1.5 ANNUAL	PM_28	1
WOR	581963.5	4204234	581963.52	0	6.54	6.54	1.5 ANNUAL	PM_28	1
RES	581389.2	4204249	581389.21	0	10.31	10.31	1.5 ANNUAL	PM_28	1
RES	581409.1	4204249	581409.06	0	9.97	9.97	1.5 ANNUAL	PM_28	1
RES	581428.9	4204249	581428.91	0	9.57	9.57	1.5 ANNUAL	PM_28	1
RES	581448.8	4204249	581448.76	0	9.75	11.62	1.5 ANNUAL	PM_28	1
RES	581468.6	4204249	581468.61	0	9.86	12.45	1.5 ANNUAL	PM_28	1
RES	581488.5	4204249	581488.46	0	9.99	11.61	1.5 ANNUAL	PM_28	1
RES	581508.3	4204249	581508.31	0	10.48	10.48	1.5 ANNUAL	PM_28	1
RES	581528.2	4204249	581528.16	0	10.77	12.88	1.5 ANNUAL	PM_28	1
RES	581548	4204249	581548.01	0	12.81	12.81	1.5 ANNUAL	PM_28	1
RES	581587.7	4204249	581587.71	0	12.75	12.75	1.5 ANNUAL	PM_28	1
RES	581607.6	4204249	581607.56	0	12.91	12.91	1.5 ANNUAL	PM_28	1
RES	581627.4	4204249	581627.41	0	12.92	12.92	1.5 ANNUAL	PM_28	1
RES	581647.3	4204249	581647.26	0	12.08	12.08	1.5 ANNUAL	PM_28	1
RES	581667.1	4204249	581667.11	0	10.41	10.41	1.5 ANNUAL	PM_28	1
RES	581687	4204249	581686.96	0	8.64	8.64	1.5 ANNUAL	PM_28	1
RES	581706.8	4204249	581706.81	0	7.07	7.07	1.5 ANNUAL	PM_28	1
RES	581746.5	4204249	581746.51	0	6.4	6.4	1.5 ANNUAL	PM_28	1
WOR	581865.6	4204249	581865.61	0	6.3	6.3	1.5 ANNUAL	PM_28	1
WOR	581885.5	4204249	581885.46	0	6.65	6.65	1.5 ANNUAL	PM_28	1
WOR	581930	4204253	581929.97	0	6.61	6.61	1.5 ANNUAL	PM_28	1
WOR	582084	4204249	582083.96	0	6.57	10.9	1.5 ANNUAL	PM_28	1
WOR	582103.8	4204249	582103.81	0	6.7	6.7	1.5 ANNUAL	PM_28	1
RES	581389.2	4204269	581389.21	0	10.94	10.94	1.5 ANNUAL	PM_28	1

RES	581409.1	4204269	581409.064	0	10.64	10.64	1.5 ANNUAL	PM_28	1
RES	581428.9	4204269	581428.914	0	10.73	10.73	1.5 ANNUAL	PM_28	1
RES	581448.8	4204269	581448.764	0	11.59	11.59	1.5 ANNUAL	PM_28	1
RES	581468.6	4204269	581468.614	0	12.03	12.03	1.5 ANNUAL	PM_28	1
RES	581488.5	4204269	581488.464	0	11.98	11.98	1.5 ANNUAL	PM_28	1
RES	581508.3	4204269	581508.314	0	11.98	12.82	1.5 ANNUAL	PM_28	1
RES	581528.2	4204269	581528.164	0	12.24	12.24	1.5 ANNUAL	PM_28	1
RES	581548	4204269	581548.014	0	12.64	12.64	1.5 ANNUAL	PM_28	1
RES	581587.7	4204269	581587.714	0	12.55	12.55	1.5 ANNUAL	PM_28	1
RES	581607.6	4204269	581607.564	0	12.49	12.49	1.5 ANNUAL	PM_28	1
RES	581627.4	4204269	581627.414	0	12.53	12.53	1.5 ANNUAL	PM_28	1
RES	581667.1	4204269	581667.114	0	10.28	10.28	1.5 ANNUAL	PM_28	1
RES	581687	4204269	581686.964	0	8.73	8.73	1.5 ANNUAL	PM_28	1
RES	581706.8	4204269	581706.814	0	7.35	7.35	1.5 ANNUAL	PM_28	1
RES	581726.7	4204269	581726.664	0	6.27	6.27	1.5 ANNUAL	PM_28	1
RES	581746.5	4204269	581746.514	1.00E-05	6.3	6.3	1.5 ANNUAL	PM_28	1
WOR	581925.2	4204269	581925.164	0	6.6	6.6	1.5 ANNUAL	PM_28	1
WOR	581945	4204269	581945.014	0	6.65	6.65	1.5 ANNUAL	PM_28	1
WOR	581964.9	4204269	581964.864	0	6.52	11.12	1.5 ANNUAL	PM_28	1
WOR	582084	4204269	582083.964	0	6.43	10.93	1.5 ANNUAL	PM_28	1
WOR	582103.8	4204269	582103.814	0	6.57	6.57	1.5 ANNUAL	PM_28	1
RES	581389.2	4204288	581389.214	0	11.99	14.36	1.5 ANNUAL	PM_28	1
RES	581409.1	4204288	581409.064	0	11.52	13.42	1.5 ANNUAL	PM_28	1
RES	581428.9	4204288	581428.914	0	11.68	11.68	1.5 ANNUAL	PM_28	1
RES	581448.8	4204288	581448.764	0	12.15	12.15	1.5 ANNUAL	PM_28	1
RES	581468.6	4204288	581468.614	0	13.16	13.16	1.5 ANNUAL	PM_28	1
RES	581484.9	4204289	581484.924	0	13.25	13.25	1.5 ANNUAL	PM_28	1
RES	581508.3	4204288	581508.314	0	13.48	13.48	1.5 ANNUAL	PM_28	1
RES	581528.2	4204288	581528.164	0	13.39	13.39	1.5 ANNUAL	PM_28	1
RES	581548	4204288	581548.014	0	12.02	12.02	1.5 ANNUAL	PM_28	1
RES	581587.7	4204288	581587.714	0	11.32	11.32	1.5 ANNUAL	PM_28	1
RES	581607.6	4204288	581607.564	0	10.97	10.97	1.5 ANNUAL	PM_28	1
RES	581627.4	4204288	581627.414	0	11.27	11.27	1.5 ANNUAL	PM_28	1
RES	581647.3	4204288	581647.264	0	10.87	10.87	1.5 ANNUAL	PM_28	1
RES	581667.1	4204288	581667.114	0	9.73	9.73	1.5 ANNUAL	PM_28	1
RES	581687	4204288	581686.964	0	8.06	8.06	1.5 ANNUAL	PM_28	1
RES	581706.8	4204288	581706.814	1.00E-05	6.72	6.72	1.5 ANNUAL	PM_28	1
RES	581726.7	4204288	581726.664	1.00E-05	6.05	6.05	1.5 ANNUAL	PM_28	1
RES	581746.5	4204288	581746.514	1.00E-05	6.11	6.11	1.5 ANNUAL	PM_28	1
RES	581766.4	4204288	581766.364	1.00E-05	6.13	6.13	1.5 ANNUAL	PM_28	1
WOR	581925.2	4204288	581925.164	0	6.57	6.57	1.5 ANNUAL	PM_28	1
WOR	581945	4204288	581945.014	0	6.56	6.56	1.5 ANNUAL	PM_28	1
WOR	581964.9	4204288	581964.864	0	6.43	11.63	1.5 ANNUAL	PM_28	1
WOR	582084	4204288	582083.964	0	6.39	10.91	1.5 ANNUAL	PM_28	1
WOR	582103.8	4204288	582103.814	0	6.44	6.44	1.5 ANNUAL	PM_28	1
RES	581389.2	4204308	581389.214	0	13.9	13.9	1.5 ANNUAL	PM_28	1
RES	581409.1	4204308	581409.064	0	13.47	13.47	1.5 ANNUAL	PM_28	1
RES	581428.9	4204308	581428.914	0	13.11	13.11	1.5 ANNUAL	PM_28	1
RES	581448.8	4204308	581448.764	0	12.94	12.94	1.5 ANNUAL	PM_28	1
RES	581468.6	4204308	581468.614	0	13.47	13.47	1.5 ANNUAL	PM_28	1
RES	581508.3	4204308	581508.314	0	14.26	14.26	1.5 ANNUAL	PM_28	1
RES	581528.2	4204308	581528.164	0	13.37	14.42	1.5 ANNUAL	PM_28	1
RES	581548	4204308	581548.014	0	11.58	14.42	1.5 ANNUAL	PM_28	1
RES	581570.8	4204309	581570.754	0	11.02	11.02	1.5 ANNUAL	PM_28	1

RES	581587.7	4204308	581587.71	0	10.18	10.18	1.5 ANNUAL	PM_28	1
RES	581607.6	4204308	581607.56	0	9.55	9.55	1.5 ANNUAL	PM_28	1
RES	581627.4	4204308	581627.41	0	9.23	11.49	1.5 ANNUAL	PM_28	1
RES	581652.1	4204313	581652.13	0	9.39	9.39	1.5 ANNUAL	PM_28	1
RES	581672	4204313	581671.98	0	8.62	8.62	1.5 ANNUAL	PM_28	1
RES	581726.7	4204308	581726.66	2.00E-05	5.73	5.73	1.5 ANNUAL	PM_28	1
RES	581746.5	4204308	581746.51	2.00E-05	5.99	5.99	1.5 ANNUAL	PM_28	1
RES	581766.4	4204308	581766.36	2.00E-05	6.4	6.4	1.5 ANNUAL	PM_28	1
WOR	581825.9	4204308	581825.91	1.00E-05	6.56	6.56	1.5 ANNUAL	PM_28	1
WOR	581845.8	4204308	581845.76	0	7.02	7.02	1.5 ANNUAL	PM_28	1
WOR	582084	4204308	582083.96	0	6.33	11.55	1.5 ANNUAL	PM_28	1
WOR	582103.8	4204308	582103.81	0	6.45	6.45	1.5 ANNUAL	PM_28	1
RES	581389.2	4204328	581389.21	0	14.57	14.57	1.5 ANNUAL	PM_28	1
RES	581409.1	4204328	581409.06	0	14.07	14.07	1.5 ANNUAL	PM_28	1
RES	581428.9	4204328	581428.91	0	13.74	13.74	1.5 ANNUAL	PM_28	1
RES	581448.8	4204328	581448.76	0	13.41	13.41	1.5 ANNUAL	PM_28	1
RES	581468.6	4204328	581468.61	0	13.24	13.24	1.5 ANNUAL	PM_28	1
RES	581508.3	4204328	581508.31	0	14.31	14.31	1.5 ANNUAL	PM_28	1
RES	581528.2	4204328	581528.16	0	12.9	14.47	1.5 ANNUAL	PM_28	1
RES	581548	4204328	581548.01	0	11.27	14.43	1.5 ANNUAL	PM_28	1
RES	581570.8	4204329	581570.75	0	10.9	10.9	1.5 ANNUAL	PM_28	1
RES	581587.7	4204328	581587.71	0	9.95	9.95	1.5 ANNUAL	PM_28	1
RES	581607.6	4204328	581607.56	0	8.46	8.46	1.5 ANNUAL	PM_28	1
RES	581627.4	4204328	581627.41	0	7.65	7.65	1.5 ANNUAL	PM_28	1
RES	581647.3	4204328	581647.26	0	7.85	9.13	1.5 ANNUAL	PM_28	1
RES	581667.1	4204328	581667.11	0	7.98	7.98	1.5 ANNUAL	PM_28	1
RES	581687	4204328	581686.96	0	6.45	8.87	1.5 ANNUAL	PM_28	1
WOR	581825.9	4204328	581825.91	1.00E-05	6.27	6.27	1.5 ANNUAL	PM_28	1
WOR	581845.8	4204328	581845.76	0	6.96	6.96	1.5 ANNUAL	PM_28	1
WOR	582084	4204328	582083.96	0	6.37	11.53	1.5 ANNUAL	PM_28	1
WOR	582103.8	4204328	582103.81	0	6.32	6.32	1.5 ANNUAL	PM_28	1
RES	581389.2	4204348	581389.2	0	14.78	14.78	1.5 ANNUAL	PM_28	1
RES	581409.1	4204348	581409.1	0	14.09	14.09	1.5 ANNUAL	PM_28	1
RES	581428.9	4204348	581428.9	0	13.78	13.78	1.5 ANNUAL	PM_28	1
RES	581448.8	4204348	581448.8	0	13.51	13.51	1.5 ANNUAL	PM_28	1
RES	581468.6	4204348	581468.6	0	12.86	12.86	1.5 ANNUAL	PM_28	1
RES	581492.2	4204349	581492.19	0	11.6	14.33	1.5 ANNUAL	PM_28	1
RES	581508.3	4204348	581508.3	0	12.66	14.16	1.5 ANNUAL	PM_28	1
RES	581528.2	4204348	581528.2	0	11.26	14.47	1.5 ANNUAL	PM_28	1
RES	581548	4204348	581548	0	10.62	14.43	1.5 ANNUAL	PM_28	1
RES	581587.7	4204348	581587.7	0	10	10	1.5 ANNUAL	PM_28	1
RES	581607.6	4204348	581607.6	0	8.49	8.49	1.5 ANNUAL	PM_28	1
RES	581627.4	4204348	581627.4	0	7.54	7.54	1.5 ANNUAL	PM_28	1
RES	581647.3	4204348	581647.3	0	7.4	7.4	1.5 ANNUAL	PM_28	1
RES	581667.1	4204348	581667.1	0	7.43	7.43	1.5 ANNUAL	PM_28	1
RES	581687	4204348	581687	0	6.94	6.94	1.5 ANNUAL	PM_28	1
WOR	581825.9	4204348	581825.9	1.00E-05	6.2	6.2	1.5 ANNUAL	PM_28	1
WOR	581845.8	4204348	581845.8	0	6.63	6.63	1.5 ANNUAL	PM_28	1
WOR	581925.2	4204348	581925.2	0	6.13	6.13	1.5 ANNUAL	PM_28	1
WOR	582103.8	4204348	582103.8	0	6.25	6.25	1.5 ANNUAL	PM_28	1
RES	581508.3	4204363	581508.31	0	10.74	14.16	1.5 ANNUAL	PM_28	1
RES	581528.2	4204363	581528.16	0	10.07	14.47	1.5 ANNUAL	PM_28	1
RES	581646.9	4204364	581646.91	0	7.87	7.87	1.5 ANNUAL	PM_28	1
RES	581666.8	4204364	581666.76	0	7.69	7.69	1.5 ANNUAL	PM_28	1

RES	581686.6	4204364	581686.61	0	7.28	7.28	1.5 ANNUAL	PM_28	1
WOR	581905.3	4204368	581905.31	0	6.14	6.14	1.5 ANNUAL	PM_28	1
WOR	581925.2	4204368	581925.16	0	6.08	6.08	1.5 ANNUAL	PM_28	1
WOR	582064.1	4204368	582064.11	0	6.05	11.91	1.5 ANNUAL	PM_28	1
WOR	582084	4204368	582083.96	0	6.18	6.18	1.5 ANNUAL	PM_28	1
WOR	582103.8	4204368	582103.81	0	6.15	6.15	1.5 ANNUAL	PM_28	1
RES	581387.6	4204391	581387.58	0	14.8	14.8	1.5 ANNUAL	PM_28	1
RES	581407.4	4204391	581407.43	0	13.52	13.52	1.5 ANNUAL	PM_28	1
RES	581427.3	4204391	581427.28	0	11.79	12.48	1.5 ANNUAL	PM_28	1
RES	581447.1	4204391	581447.13	0	10.79	10.79	1.5 ANNUAL	PM_28	1
RES	581465	4204392	581464.98	0	10.41	10.41	1.5 ANNUAL	PM_28	1
RES	581490.3	4204389	581490.33	0	9.87	9.87	1.5 ANNUAL	PM_28	1
RES	581506.7	4204391	581506.68	0	9.64	9.64	1.5 ANNUAL	PM_28	1
RES	581526.5	4204391	581526.53	0	9.3	9.3	1.5 ANNUAL	PM_28	1
WOR	581825.9	4204388	581825.91	1.00E-05	6.01	6.01	1.5 ANNUAL	PM_28	1
WOR	581845.8	4204388	581845.76	0	6.11	6.11	1.5 ANNUAL	PM_28	1
WOR	581865.6	4204388	581865.61	0	6.04	6.04	1.5 ANNUAL	PM_28	1
WOR	581912.6	4204393	581912.63	0	6.19	6.19	1.5 ANNUAL	PM_28	1
WOR	582064.1	4204388	582064.11	0	6	11.83	1.5 ANNUAL	PM_28	1
WOR	582084	4204388	582083.96	0	6.06	6.06	1.5 ANNUAL	PM_28	1
WOR	582103.8	4204388	582103.81	0	6.01	6.01	1.5 ANNUAL	PM_28	1
RES	581389.2	4204408	581389.21	0	14.96	14.96	1.5 ANNUAL	PM_28	1
RES	581409.1	4204408	581409.06	0	13.32	13.32	1.5 ANNUAL	PM_28	1
RES	581428.9	4204408	581428.91	0	10.5	14.98	1.5 ANNUAL	PM_28	1
RES	581448.8	4204408	581448.76	0	10.1	10.1	1.5 ANNUAL	PM_28	1
RES	581466.6	4204408	581466.61	0	9.79	9.79	1.5 ANNUAL	PM_28	1
RES	581492	4204405	581491.96	0	8.69	8.69	1.5 ANNUAL	PM_28	1
RES	581508.3	4204408	581508.31	0	8.52	8.52	1.5 ANNUAL	PM_28	1
RES	581528.2	4204408	581528.16	0	8.2	8.2	1.5 ANNUAL	PM_28	1
RES	581548	4204408	581548.01	0	8.3	8.3	1.5 ANNUAL	PM_28	1
RES	581567.9	4204408	581567.86	0	9.43	9.43	1.5 ANNUAL	PM_28	1
RES	581587.7	4204408	581587.71	0	10.24	10.24	1.5 ANNUAL	PM_28	1
RES	581607.6	4204408	581607.56	0	9.77	9.77	1.5 ANNUAL	PM_28	1
RES	581627.4	4204408	581627.41	0	9.36	9.36	1.5 ANNUAL	PM_28	1
RES	581647.3	4204408	581647.26	0	9.23	9.23	1.5 ANNUAL	PM_28	1
RES	581667.1	4204408	581667.11	0	9.54	9.78	1.5 ANNUAL	PM_28	1
RES	581687	4204408	581686.96	0	9.8	9.8	1.5 ANNUAL	PM_28	1
RES	581706.8	4204408	581706.81	1.00E-05	9.23	9.23	1.5 ANNUAL	PM_28	1
RES	581726.7	4204408	581726.66	1.00E-05	8.29	8.29	1.5 ANNUAL	PM_28	1
RES	581746.5	4204408	581746.51	1.00E-05	6.46	8	1.5 ANNUAL	PM_28	1
WOR	581825.9	4204408	581825.91	0	6.13	6.13	1.5 ANNUAL	PM_28	1
WOR	581845.8	4204408	581845.76	0	6.27	6.27	1.5 ANNUAL	PM_28	1
WOR	581865.6	4204408	581865.61	0	6.06	6.06	1.5 ANNUAL	PM_28	1
WOR	581905.3	4204408	581905.31	0	6.31	6.31	1.5 ANNUAL	PM_28	1
WOR	581925.2	4204408	581925.16	0	6.33	6.33	1.5 ANNUAL	PM_28	1
WOR	581945	4204408	581945.01	0	6.24	11.65	1.5 ANNUAL	PM_28	1
RES	581389.2	4204427	581389.21	0	14.03	14.03	1.5 ANNUAL	PM_28	1
RES	581409.1	4204427	581409.06	0	13.45	13.79	1.5 ANNUAL	PM_28	1
RES	581428.9	4204427	581428.91	0	10.3	15.5	1.5 ANNUAL	PM_28	1
RES	581448.8	4204427	581448.76	0	10.11	10.11	1.5 ANNUAL	PM_28	1
RES	581466.6	4204428	581466.61	0	9.61	10.08	1.5 ANNUAL	PM_28	1
RES	581492	4204425	581491.96	0	7.13	10.08	1.5 ANNUAL	PM_28	1
RES	581508.3	4204427	581508.31	0	6.67	6.67	1.5 ANNUAL	PM_28	1
RES	581528.2	4204427	581528.16	0	7.03	7.03	1.5 ANNUAL	PM_28	1

RES	581548	4204427	581548.01	0	7.33	7.33	1.5 ANNUAL	PM_28	1
RES	581567.9	4204427	581567.86	0	8.08	10.16	1.5 ANNUAL	PM_28	1
RES	581587.7	4204427	581587.71	0	9.22	10.16	1.5 ANNUAL	PM_28	1
RES	581607.6	4204427	581607.56	0	9.48	9.48	1.5 ANNUAL	PM_28	1
RES	581627.4	4204427	581627.41	0	9.33	9.33	1.5 ANNUAL	PM_28	1
RES	581647.3	4204427	581647.26	0	9.61	9.61	1.5 ANNUAL	PM_28	1
RES	581667.1	4204427	581667.11	0	9.93	9.93	1.5 ANNUAL	PM_28	1
RES	581687	4204427	581686.96	0	10.35	10.35	1.5 ANNUAL	PM_28	1
RES	581706.8	4204427	581706.81	0	9.37	9.37	1.5 ANNUAL	PM_28	1
WOR	581825.9	4204427	581825.91	0	6.3	6.3	1.5 ANNUAL	PM_28	1
WOR	581845.8	4204427	581845.76	0	6.44	6.44	1.5 ANNUAL	PM_28	1
WOR	581905.3	4204427	581905.31	0	6.34	6.34	1.5 ANNUAL	PM_28	1
WOR	581925.2	4204427	581925.16	0	6.31	6.31	1.5 ANNUAL	PM_28	1
WOR	581945	4204427	581945.01	0	6.35	11.65	1.5 ANNUAL	PM_28	1
WOR	582069.7	4204433	582069.73	0	6.32	6.32	1.5 ANNUAL	PM_28	1
RES	581389.2	4204447	581389.21	0	14.34	14.34	1.5 ANNUAL	PM_28	1
RES	581409.1	4204447	581409.06	0	13.38	13.38	1.5 ANNUAL	PM_28	1
RES	581428.9	4204447	581428.91	0	10.43	15.61	1.5 ANNUAL	PM_28	1
RES	581448.8	4204447	581448.76	0	10.13	15.35	1.5 ANNUAL	PM_28	1
RES	581466.6	4204448	581466.61	0	9.67	9.67	1.5 ANNUAL	PM_28	1
RES	581492	4204445	581492	0	7.56	7.56	1.5 ANNUAL	PM_28	1
RES	581508.3	4204447	581508.31	0	7.34	7.34	1.5 ANNUAL	PM_28	1
RES	581528.2	4204447	581528.16	0	7.06	7.06	1.5 ANNUAL	PM_28	1
RES	581548	4204447	581548.01	0	7.27	7.27	1.5 ANNUAL	PM_28	1
RES	581567.9	4204447	581567.86	0	7.59	7.59	1.5 ANNUAL	PM_28	1
RES	581587.7	4204447	581587.71	0	7.86	7.86	1.5 ANNUAL	PM_28	1
RES	581607.6	4204447	581607.56	0	8.08	8.08	1.5 ANNUAL	PM_28	1
RES	581627.4	4204447	581627.41	0	8.25	8.25	1.5 ANNUAL	PM_28	1
RES	581647.3	4204447	581647.26	0	9.05	9.05	1.5 ANNUAL	PM_28	1
RES	581667.1	4204447	581667.11	0	9.2	9.2	1.5 ANNUAL	PM_28	1
RES	581687	4204447	581686.96	0	8.84	8.84	1.5 ANNUAL	PM_28	1
RES	581706.8	4204447	581706.81	0	8.29	8.29	1.5 ANNUAL	PM_28	1
WOR	581825.9	4204447	581825.91	0	6.32	6.32	1.5 ANNUAL	PM_28	1
WOR	581845.8	4204447	581845.76	0	6.23	6.23	1.5 ANNUAL	PM_28	1
WOR	581905.3	4204447	581905.31	0	6.22	6.22	1.5 ANNUAL	PM_28	1
WOR	581925.2	4204447	581925.16	0	6.35	6.35	1.5 ANNUAL	PM_28	1
WOR	581945	4204447	581945.01	0	6.29	11.65	1.5 ANNUAL	PM_28	1
WOR	582064.1	4204447	582064.11	0	6.41	6.41	1.5 ANNUAL	PM_28	1
WOR	582084	4204447	582083.96	0	6.51	6.51	1.5 ANNUAL	PM_28	1
RES	581389.2	4204467	581389.21	0	15.54	15.54	1.5 ANNUAL	PM_28	1
RES	581409.1	4204467	581409.06	0	14.89	15.35	1.5 ANNUAL	PM_28	1
RES	581428.9	4204467	581428.91	0	10.9	15.61	1.5 ANNUAL	PM_28	1
RES	581448.8	4204467	581448.76	0	10.09	15.5	1.5 ANNUAL	PM_28	1
RES	581466.6	4204468	581466.61	0	9.83	9.83	1.5 ANNUAL	PM_28	1
RES	581492	4204465	581491.96	0	8.1	8.1	1.5 ANNUAL	PM_28	1
RES	581508.3	4204467	581508.31	0	7.82	7.82	1.5 ANNUAL	PM_28	1
RES	581528.2	4204467	581528.16	0	7.43	7.43	1.5 ANNUAL	PM_28	1
RES	581548	4204467	581548.01	0	7.44	7.44	1.5 ANNUAL	PM_28	1
RES	581567.9	4204467	581567.86	0	7.47	7.47	1.5 ANNUAL	PM_28	1
RES	581587.7	4204467	581587.71	0	7.5	7.5	1.5 ANNUAL	PM_28	1
RES	581601.1	4204461	581601.06	0	7.79	7.79	1.5 ANNUAL	PM_28	1
RES	581620.9	4204461	581620.91	0	7.77	7.77	1.5 ANNUAL	PM_28	1
RES	581648.5	4204463	581648.48	0	8.46	8.79	1.5 ANNUAL	PM_28	1
RES	581667.1	4204467	581667.11	0	8.55	8.55	1.5 ANNUAL	PM_28	1

RES	581687	4204467	581686.96	0	8.57	8.57	1.5 ANNUAL	PM_28	1
WOR	581885.5	4204467	581885.46	0	6.2	6.2	1.5 ANNUAL	PM_28	1
WOR	581905.3	4204467	581905.31	0	5.93	5.93	1.5 ANNUAL	PM_28	1
WOR	581925.2	4204467	581925.16	0	5.86	5.86	1.5 ANNUAL	PM_28	1
WOR	581945	4204467	581945.01	0	5.9	11.65	1.5 ANNUAL	PM_28	1
WOR	582064.1	4204467	582064.11	0	6.37	6.37	1.5 ANNUAL	PM_28	1
WOR	582084	4204467	582083.96	0	6.44	6.44	1.5 ANNUAL	PM_28	1
RES	581389.2	4204487	581389.21	0	13.84	14.7	1.5 ANNUAL	PM_28	1
RES	581409.1	4204487	581409.06	0	13.38	15.35	1.5 ANNUAL	PM_28	1
RES	581428.9	4204487	581428.91	0	11.93	15.35	1.5 ANNUAL	PM_28	1
RES	581448.8	4204487	581448.76	0	11.28	11.28	1.5 ANNUAL	PM_28	1
RES	581466.6	4204487	581466.61	0	10.26	10.26	1.5 ANNUAL	PM_28	1
RES	581508.3	4204487	581508.31	0	8.16	8.16	1.5 ANNUAL	PM_28	1
RES	581528.2	4204487	581528.16	0	7.51	7.51	1.5 ANNUAL	PM_28	1
RES	581548	4204487	581548.01	0	7.24	7.24	1.5 ANNUAL	PM_28	1
RES	581567.9	4204487	581567.86	0	7.1	7.1	1.5 ANNUAL	PM_28	1
RES	581587.7	4204487	581587.71	0	7.14	7.14	1.5 ANNUAL	PM_28	1
RES	581601.1	4204480	581601.06	0	7.23	7.23	1.5 ANNUAL	PM_28	1
RES	581627.4	4204487	581627.41	0	7.19	7.19	1.5 ANNUAL	PM_28	1
RES	581647.3	4204487	581647.26	0	7.14	7.14	1.5 ANNUAL	PM_28	1
RES	581667.1	4204487	581667.11	0	7.14	7.14	1.5 ANNUAL	PM_28	1
RES	581687	4204487	581686.96	0	6.99	6.99	1.5 ANNUAL	PM_28	1
RES	581706.8	4204487	581706.81	0	6.61	6.61	1.5 ANNUAL	PM_28	1
WOR	581885.5	4204487	581885.46	0	6.15	6.15	1.5 ANNUAL	PM_28	1
WOR	581905.3	4204487	581905.31	0	5.85	5.85	1.5 ANNUAL	PM_28	1
WOR	581925.2	4204487	581925.16	0	5.74	10.84	1.5 ANNUAL	PM_28	1
WOR	581945	4204487	581945.01	0	5.69	11.58	1.5 ANNUAL	PM_28	1
WOR	582044.3	4204487	582044.26	0	5.5	11.64	1.5 ANNUAL	PM_28	1
WOR	582064.1	4204487	582064.11	0	5.6	5.6	1.5 ANNUAL	PM_28	1
WOR	582084	4204487	582083.96	0	6.43	6.43	1.5 ANNUAL	PM_28	1
RES	581389.2	4204507	581389.21	0	13.19	13.19	1.5 ANNUAL	PM_28	1
RES	581409.1	4204507	581409.06	0	12.61	12.61	1.5 ANNUAL	PM_28	1
RES	581428.9	4204507	581428.91	0	11.94	11.94	1.5 ANNUAL	PM_28	1
RES	581448.8	4204507	581448.76	0	11.27	11.27	1.5 ANNUAL	PM_28	1
RES	581466.6	4204507	581466.61	0	10.28	10.28	1.5 ANNUAL	PM_28	1
RES	581488.5	4204507	581488.46	0	9.39	9.39	1.5 ANNUAL	PM_28	1
RES	581508.3	4204507	581508.31	0	9.6	9.6	1.5 ANNUAL	PM_28	1
RES	581528.2	4204507	581528.16	0	9.04	9.04	1.5 ANNUAL	PM_28	1
RES	581548	4204507	581548.01	0	8.33	8.33	1.5 ANNUAL	PM_28	1
RES	581567.9	4204507	581567.86	0	7.81	8.32	1.5 ANNUAL	PM_28	1
RES	581587.7	4204507	581587.71	0	7.32	7.32	1.5 ANNUAL	PM_28	1
RES	581607.6	4204507	581607.56	0	6.96	6.96	1.5 ANNUAL	PM_28	1
RES	581627.4	4204507	581627.41	0	6.99	6.99	1.5 ANNUAL	PM_28	1
RES	581647.3	4204507	581647.26	0	7.03	7.03	1.5 ANNUAL	PM_28	1
RES	581667.1	4204507	581667.11	0	7.09	7.09	1.5 ANNUAL	PM_28	1
RES	581687	4204507	581686.96	0	7.01	7.01	1.5 ANNUAL	PM_28	1
RES	581706.8	4204507	581706.81	0	6.64	6.64	1.5 ANNUAL	PM_28	1
RES	581726.7	4204507	581726.66	0	6.18	6.18	1.5 ANNUAL	PM_28	1
WOR	581885.5	4204507	581885.46	0	6.05	6.05	1.5 ANNUAL	PM_28	1
WOR	581905.3	4204507	581905.31	0	5.82	5.82	1.5 ANNUAL	PM_28	1
WOR	581925.2	4204507	581925.16	0	5.69	10.84	1.5 ANNUAL	PM_28	1
WOR	581945	4204507	581945.01	0	5.64	11.4	1.5 ANNUAL	PM_28	1
WOR	582044.3	4204507	582044.26	0	5.41	11.4	1.5 ANNUAL	PM_28	1
WOR	582064.1	4204507	582064.11	0	5.46	5.46	1.5 ANNUAL	PM_28	1

WOR	582084	4204507	582083.96	0	6.41	6.41	1.5 ANNUAL	PM_28	1
RES	581389.2	4204527	581389.21	0	13.09	13.09	1.5 ANNUAL	PM_28	1
RES	581409.1	4204527	581409.06	0	12.35	12.35	1.5 ANNUAL	PM_28	1
RES	581488.5	4204527	581488.46	0	10.3	10.3	1.5 ANNUAL	PM_28	1
RES	581508.3	4204527	581508.31	0	10.58	10.58	1.5 ANNUAL	PM_28	1
RES	581528.2	4204527	581528.16	0	9.65	9.65	1.5 ANNUAL	PM_28	1
RES	581548	4204527	581548.01	0	9.03	9.03	1.5 ANNUAL	PM_28	1
RES	581567.9	4204527	581567.86	0	8.76	8.76	1.5 ANNUAL	PM_28	1
RES	581587.7	4204527	581587.71	0	8.81	8.81	1.5 ANNUAL	PM_28	1
RES	581607.6	4204527	581607.56	0	8.46	8.46	1.5 ANNUAL	PM_28	1
RES	581627.4	4204527	581627.41	0	7.46	7.46	1.5 ANNUAL	PM_28	1
RES	581647.3	4204527	581647.26	0	7.48	7.48	1.5 ANNUAL	PM_28	1
RES	581667.1	4204527	581667.11	0	7.44	7.44	1.5 ANNUAL	PM_28	1
RES	581687	4204527	581686.96	0	7.02	7.02	1.5 ANNUAL	PM_28	1
RES	581706.8	4204527	581706.81	0	6.6	6.6	1.5 ANNUAL	PM_28	1
WOR	581885.5	4204527	581885.46	0	5.57	5.57	1.5 ANNUAL	PM_28	1
WOR	581905.3	4204527	581905.31	0	5.68	5.68	1.5 ANNUAL	PM_28	1
WOR	581925.2	4204527	581925.16	0	5.81	9.94	1.5 ANNUAL	PM_28	1
WOR	581945	4204527	581945.01	0	5.71	11.07	1.5 ANNUAL	PM_28	1
WOR	582044.3	4204527	582044.26	0	5.36	11.04	1.5 ANNUAL	PM_28	1
WOR	582064.1	4204527	582064.11	0	5.54	5.54	1.5 ANNUAL	PM_28	1
WOR	582084	4204527	582083.96	0	6.39	6.39	1.5 ANNUAL	PM_28	1
RES	581389.2	4204547	581389.21	0	13.18	13.18	1.5 ANNUAL	PM_28	1
RES	581409.1	4204547	581409.06	0	12.53	12.53	1.5 ANNUAL	PM_28	1
RES	581428.9	4204547	581428.91	0	11.63	11.63	1.5 ANNUAL	PM_28	1
RES	581448.8	4204547	581448.76	0	11.12	11.12	1.5 ANNUAL	PM_28	1
RES	581468.6	4204547	581468.61	0	10.87	10.87	1.5 ANNUAL	PM_28	1
RES	581488.5	4204547	581488.46	0	10.71	10.71	1.5 ANNUAL	PM_28	1
RES	581508.3	4204547	581508.31	0	11.17	11.17	1.5 ANNUAL	PM_28	1
RES	581528.2	4204547	581528.16	0	10.28	10.28	1.5 ANNUAL	PM_28	1
RES	581548	4204547	581548.01	0	9.42	9.42	1.5 ANNUAL	PM_28	1
RES	581567.9	4204547	581567.86	0	8.57	8.57	1.5 ANNUAL	PM_28	1
RES	581587.7	4204547	581587.71	0	8.97	8.97	1.5 ANNUAL	PM_28	1
RES	581607.6	4204547	581607.56	0	8.33	8.33	1.5 ANNUAL	PM_28	1
RES	581627.4	4204547	581627.41	0	7.45	7.45	1.5 ANNUAL	PM_28	1
RES	581647.3	4204547	581647.26	0	7.31	7.31	1.5 ANNUAL	PM_28	1
RES	581667.1	4204547	581667.11	0	7.58	7.58	1.5 ANNUAL	PM_28	1
RES	581687	4204547	581686.96	0	7.19	7.19	1.5 ANNUAL	PM_28	1
RES	581706.8	4204547	581706.81	0	6.82	6.82	1.5 ANNUAL	PM_28	1
WOR	581865.6	4204547	581865.61	0	5.88	5.88	1.5 ANNUAL	PM_28	1
WOR	581885.5	4204547	581885.46	0	5.44	5.44	1.5 ANNUAL	PM_28	1
WOR	581905.3	4204547	581905.31	0	5.8	5.8	1.5 ANNUAL	PM_28	1
WOR	581925.2	4204547	581925.16	0	5.87	5.87	1.5 ANNUAL	PM_28	1
WOR	581945	4204547	581945.01	0	5.76	10.79	1.5 ANNUAL	PM_28	1
RES	582044.3	4204547	582044.26	0	5.3	10.43	1.5 ANNUAL	PM_28	1
RES	582064.1	4204547	582064.11	0	5.3	5.3	1.5 ANNUAL	PM_28	1
RES	582084	4204547	582083.96	0	5.47	5.47	1.5 ANNUAL	PM_28	1
RES	582102.5	4204551	582102.54	0	5.49	5.49	1.5 ANNUAL	PM_28	1
RES	581389.2	4204566	581389.21	0	13.42	13.42	1.5 ANNUAL	PM_28	1
RES	581409.1	4204566	581409.06	0	12.84	12.84	1.5 ANNUAL	PM_28	1
RES	581428.9	4204566	581428.91	0	12.16	12.16	1.5 ANNUAL	PM_28	1
RES	581448.8	4204566	581448.76	0	11.58	11.58	1.5 ANNUAL	PM_28	1
RES	581468.6	4204566	581468.61	0	11.16	11.16	1.5 ANNUAL	PM_28	1
RES	581508.3	4204566	581508.31	0	11.36	11.36	1.5 ANNUAL	PM_28	1

RES	581528.2	4204566	581528.16	0	10.99	10.99	1.5 ANNUAL	PM_28	1
RES	581548	4204566	581548.01	0	10.31	10.31	1.5 ANNUAL	PM_28	1
RES	581567.9	4204566	581567.86	0	9.34	9.34	1.5 ANNUAL	PM_28	1
RES	581587.7	4204566	581587.71	0	9.59	9.59	1.5 ANNUAL	PM_28	1
RES	581607.6	4204566	581607.56	0	8.49	8.49	1.5 ANNUAL	PM_28	1
RES	581627.4	4204566	581627.41	0	7.64	7.64	1.5 ANNUAL	PM_28	1
RES	581647.3	4204566	581647.26	0	7.25	7.25	1.5 ANNUAL	PM_28	1
RES	581667.1	4204566	581667.11	0	7.62	7.62	1.5 ANNUAL	PM_28	1
RES	581687	4204566	581686.96	0	7.14	7.14	1.5 ANNUAL	PM_28	1
RES	581706.8	4204566	581706.81	0	7.05	7.05	1.5 ANNUAL	PM_28	1
WOR	581865.6	4204566	581865.61	0	5.56	5.56	1.5 ANNUAL	PM_28	1
WOR	581885.5	4204566	581885.46	0	5.42	5.42	1.5 ANNUAL	PM_28	1
WOR	581905.3	4204566	581905.31	0	5.76	5.76	1.5 ANNUAL	PM_28	1
WOR	581925.2	4204566	581925.16	0	5.79	5.79	1.5 ANNUAL	PM_28	1
RES	582024.4	4204566	582024.41	0	5.3	10.6	1.5 ANNUAL	PM_28	1
RES	582044.3	4204566	582044.26	0	5.28	5.28	1.5 ANNUAL	PM_28	1
RES	582064.1	4204566	582064.11	0	5.13	5.13	1.5 ANNUAL	PM_28	1
RES	582084	4204566	582083.96	0	5.08	5.08	1.5 ANNUAL	PM_28	1
RES	582103.8	4204566	582103.81	0	5.13	5.13	1.5 ANNUAL	PM_28	1
RES	581389.2	4204586	581389.21	0	13.12	13.12	1.5 ANNUAL	PM_28	1
RES	581409.1	4204586	581409.06	0	12.78	12.78	1.5 ANNUAL	PM_28	1
RES	581428.9	4204586	581428.91	0	12.45	12.45	1.5 ANNUAL	PM_28	1
RES	581448.8	4204586	581448.76	0	12.21	12.21	1.5 ANNUAL	PM_28	1
RES	581468.6	4204586	581468.61	0	11.83	11.83	1.5 ANNUAL	PM_28	1
RES	581508.3	4204586	581508.31	0	11.37	11.37	1.5 ANNUAL	PM_28	1
RES	581528.2	4204586	581528.16	0	11.25	11.25	1.5 ANNUAL	PM_28	1
RES	581548	4204586	581548.01	0	10.78	10.78	1.5 ANNUAL	PM_28	1
RES	581567.9	4204586	581567.86	0	10.39	10.39	1.5 ANNUAL	PM_28	1
RES	581587.7	4204586	581587.71	0	10.49	10.49	1.5 ANNUAL	PM_28	1
RES	581607.6	4204586	581607.56	0	9.41	9.41	1.5 ANNUAL	PM_28	1
RES	581627.4	4204586	581627.41	0	8.58	8.58	1.5 ANNUAL	PM_28	1
RES	581647.3	4204586	581647.26	0	8.23	8.23	1.5 ANNUAL	PM_28	1
RES	581667.1	4204586	581667.11	0	8.16	8.16	1.5 ANNUAL	PM_28	1
RES	581687	4204586	581686.96	0	7.14	7.14	1.5 ANNUAL	PM_28	1
RES	581706.8	4204586	581706.81	0	7.09	7.09	1.5 ANNUAL	PM_28	1
RES	582024.4	4204586	582024.41	0	5.26	9.94	1.5 ANNUAL	PM_28	1
RES	582044.3	4204586	582044.26	0	5.19	5.19	1.5 ANNUAL	PM_28	1
RES	582064.1	4204586	582064.11	0	5.07	5.07	1.5 ANNUAL	PM_28	1
RES	582084	4204586	582083.96	0	5.02	5.02	1.5 ANNUAL	PM_28	1
RES	582103.8	4204586	582103.81	0	5.03	5.03	1.5 ANNUAL	PM_28	1
RES	581389.2	4204606	581389.21	0	12.72	12.72	1.5 ANNUAL	PM_28	1
RES	581528.2	4204606	581528.16	0	11.35	11.35	1.5 ANNUAL	PM_28	1
RES	581607.6	4204606	581607.56	0	10.15	10.15	1.5 ANNUAL	PM_28	1
RES	581647.3	4204606	581647.26	0	8.95	8.95	1.5 ANNUAL	PM_28	1
RES	581667.1	4204606	581667.11	0	8.36	8.36	1.5 ANNUAL	PM_28	1
RES	581687	4204606	581686.96	0	7.48	7.48	1.5 ANNUAL	PM_28	1
RES	581706.8	4204606	581706.81	0	6.97	6.97	1.5 ANNUAL	PM_28	1
WOR	581905.3	4204606	581905.31	0	5.82	5.82	1.5 ANNUAL	PM_28	1
WOR	581925.2	4204606	581925.16	0	5.74	5.74	1.5 ANNUAL	PM_28	1
RES	582024.4	4204606	582024.41	0	5.32	5.32	1.5 ANNUAL	PM_28	1
RES	582044.3	4204606	582044.26	0	5.18	5.18	1.5 ANNUAL	PM_28	1
RES	582064.1	4204606	582064.11	0	5.12	5.12	1.5 ANNUAL	PM_28	1
RES	582084	4204606	582083.96	0	5.07	5.07	1.5 ANNUAL	PM_28	1
RES	582103.8	4204606	582103.81	0	5.02	5.02	1.5 ANNUAL	PM_28	1

RES	581389.2	4204626	581389.21	0	12.86	12.86	1.5 ANNUAL	PM_28	1
RES	581409.1	4204626	581409.06	0	12.41	12.41	1.5 ANNUAL	PM_28	1
RES	581428.9	4204626	581428.91	0	12.22	12.22	1.5 ANNUAL	PM_28	1
RES	581448.8	4204626	581448.76	0	12.1	12.1	1.5 ANNUAL	PM_28	1
RES	581468.6	4204626	581468.61	0	11.68	11.68	1.5 ANNUAL	PM_28	1
RES	581488.5	4204626	581488.46	0	11.16	11.16	1.5 ANNUAL	PM_28	1
RES	581508.3	4204626	581508.31	0	11.21	11.21	1.5 ANNUAL	PM_28	1
RES	581528.2	4204626	581528.16	0	11.65	11.65	1.5 ANNUAL	PM_28	1
RES	581548	4204626	581548.01	0	11.65	11.65	1.5 ANNUAL	PM_28	1
RES	581567.9	4204626	581567.86	0	11.44	11.44	1.5 ANNUAL	PM_28	1
RES	581587.7	4204626	581587.71	0	10.81	10.81	1.5 ANNUAL	PM_28	1
RES	581607.6	4204626	581607.56	0	10.98	10.98	1.5 ANNUAL	PM_28	1
RES	581627.4	4204626	581627.41	0	9.97	9.97	1.5 ANNUAL	PM_28	1
RES	581687	4204626	581686.96	0	6.5	6.5	1.5 ANNUAL	PM_28	1
RES	581706.8	4204626	581706.81	0	6.22	6.22	1.5 ANNUAL	PM_28	1
WOR	581825.9	4204626	581825.91	0	5.9	5.9	1.5 ANNUAL	PM_28	1
WOR	581885.5	4204626	581885.46	0	5.61	5.61	1.5 ANNUAL	PM_28	1
WOR	581905.3	4204626	581905.31	0	5.99	5.99	1.5 ANNUAL	PM_28	1
WOR	581925.2	4204626	581925.16	0	5.83	5.83	1.5 ANNUAL	PM_28	1
RES	582024.4	4204626	582024.41	0	5.36	5.36	1.5 ANNUAL	PM_28	1
RES	582046.6	4204630	582046.56	0	5.13	5.13	1.5 ANNUAL	PM_28	1
RES	582066.4	4204630	582066.41	0	5.11	5.11	1.5 ANNUAL	PM_28	1
RES	581389.2	4204646	581389.21	0	12.04	12.04	1.5 ANNUAL	PM_28	1
RES	581409.1	4204646	581409.06	0	11.43	11.86	1.5 ANNUAL	PM_28	1
RES	581428.9	4204646	581428.91	0	11.78	12.06	1.5 ANNUAL	PM_28	1
RES	581448.8	4204646	581448.76	0	11.97	11.97	1.5 ANNUAL	PM_28	1
RES	581468.6	4204646	581468.61	0	11.26	11.26	1.5 ANNUAL	PM_28	1
RES	581488.5	4204646	581488.46	0	10.88	10.88	1.5 ANNUAL	PM_28	1
RES	581508.3	4204646	581508.31	0	10.81	10.81	1.5 ANNUAL	PM_28	1
RES	581528.2	4204646	581528.16	0	11.04	11.04	1.5 ANNUAL	PM_28	1
RES	581548	4204646	581548.01	0	11.11	11.11	1.5 ANNUAL	PM_28	1
RES	581567.9	4204646	581567.86	0	10.97	10.97	1.5 ANNUAL	PM_28	1
RES	581587.7	4204646	581587.71	0	10.76	10.76	1.5 ANNUAL	PM_28	1
RES	581607.6	4204646	581607.56	0	11.23	11.23	1.5 ANNUAL	PM_28	1
RES	581627.4	4204646	581627.41	0	10.26	10.26	1.5 ANNUAL	PM_28	1
RES	581647.3	4204646	581647.26	0	9.48	9.48	1.5 ANNUAL	PM_28	1
RES	581667.1	4204646	581667.11	0	7.82	7.82	1.5 ANNUAL	PM_28	1
WOR	581825.9	4204646	581825.91	0	6.13	6.13	1.5 ANNUAL	PM_28	1
WOR	581845.8	4204646	581845.76	0	6.13	6.13	1.5 ANNUAL	PM_28	1
WOR	581865.6	4204646	581865.61	0	6.11	6.11	1.5 ANNUAL	PM_28	1
WOR	581885.5	4204646	581885.46	0	5.71	5.71	1.5 ANNUAL	PM_28	1
WOR	581905.3	4204646	581905.31	0	5.92	5.92	1.5 ANNUAL	PM_28	1
WOR	581925.2	4204646	581925.16	0	5.75	5.75	1.5 ANNUAL	PM_28	1
RES	582010.2	4204647	582010.16	0	5.47	5.47	1.5 ANNUAL	PM_28	1
RES	582024.4	4204646	582024.41	0	5.39	5.39	1.5 ANNUAL	PM_28	1
RES	582044.3	4204646	582044.26	0	5.24	5.24	1.5 ANNUAL	PM_28	1
RES	582064.1	4204646	582064.11	0	5.24	5.24	1.5 ANNUAL	PM_28	1
RES	582103.8	4204646	582103.81	0	5.06	5.06	1.5 ANNUAL	PM_28	1
RES	581389.2	4204666	581389.21	0	11.27	11.58	1.5 ANNUAL	PM_28	1
RES	581409.1	4204666	581409.06	0	9.53	11.86	1.5 ANNUAL	PM_28	1
RES	581428.9	4204666	581428.91	0	9.56	12.21	1.5 ANNUAL	PM_28	1
RES	581448.8	4204666	581448.76	0	9.71	12.23	1.5 ANNUAL	PM_28	1
RES	581468.6	4204666	581468.61	0	10.16	10.16	1.5 ANNUAL	PM_28	1
RES	581488.5	4204666	581488.46	0	10.01	10.01	1.5 ANNUAL	PM_28	1

RES	581508.3	4204666	581508.314	0	10.29	10.29	1.5 ANNUAL	PM_28	1
RES	581528.2	4204666	581528.164	0	10.65	10.65	1.5 ANNUAL	PM_28	1
RES	581548	4204666	581548.014	0	10.73	10.73	1.5 ANNUAL	PM_28	1
RES	581567.9	4204666	581567.864	0	10.45	10.45	1.5 ANNUAL	PM_28	1
RES	581587.7	4204666	581587.714	0	10.51	10.51	1.5 ANNUAL	PM_28	1
RES	581607.6	4204666	581607.564	0	10.89	10.89	1.5 ANNUAL	PM_28	1
RES	581627.4	4204666	581627.414	0	9.91	9.91	1.5 ANNUAL	PM_28	1
RES	581647.3	4204666	581647.264	0	9.31	9.31	1.5 ANNUAL	PM_28	1
RES	581667.1	4204666	581667.114	0	7.43	9.61	1.5 ANNUAL	PM_28	1
RES	582010.2	4204667	582010.164	0	5.52	5.52	1.5 ANNUAL	PM_28	1
RES	582024.4	4204666	582024.414	0	5.4	5.4	1.5 ANNUAL	PM_28	1
RES	582044.3	4204666	582044.264	0	5.35	5.35	1.5 ANNUAL	PM_28	1
RES	582064.1	4204666	582064.114	0	5.19	5.19	1.5 ANNUAL	PM_28	1
RES	582103.8	4204666	582103.814	0	5.12	5.12	1.5 ANNUAL	PM_28	1
RES	581389.2	4204685	581389.214	0	11.07	11.43	1.5 ANNUAL	PM_28	1
RES	581409.1	4204685	581409.064	0	9.48	9.48	1.5 ANNUAL	PM_28	1
RES	581428.9	4204685	581428.914	0	9.01	9.01	1.5 ANNUAL	PM_28	1
RES	581448.8	4204685	581448.764	0	9.25	9.25	1.5 ANNUAL	PM_28	1
RES	581468.6	4204685	581468.614	0	9.42	9.42	1.5 ANNUAL	PM_28	1
RES	581508.3	4204685	581508.314	0	9.76	9.76	1.5 ANNUAL	PM_28	1
RES	581528.2	4204685	581528.164	0	10.19	10.19	1.5 ANNUAL	PM_28	1
RES	581548	4204685	581548.014	0	10.38	10.38	1.5 ANNUAL	PM_28	1
RES	581567.9	4204685	581567.864	0	9.77	9.77	1.5 ANNUAL	PM_28	1
RES	581587.7	4204685	581587.714	0	10.27	10.27	1.5 ANNUAL	PM_28	1
RES	581607.6	4204685	581607.564	0	10.44	10.44	1.5 ANNUAL	PM_28	1
RES	581627.4	4204685	581627.414	0	8.95	8.95	1.5 ANNUAL	PM_28	1
RES	581647.3	4204685	581647.264	0	7.67	9.09	1.5 ANNUAL	PM_28	1
RES	581667.1	4204685	581667.114	0	7.01	7.01	1.5 ANNUAL	PM_28	1
RES	582004.6	4204685	582004.564	0	5.53	5.53	1.5 ANNUAL	PM_28	1
RES	582024.4	4204685	582024.414	0	5.34	5.34	1.5 ANNUAL	PM_28	1
RES	582044.3	4204685	582044.264	0	5.43	5.43	1.5 ANNUAL	PM_28	1
RES	582064.1	4204685	582064.114	0	5.05	5.05	1.5 ANNUAL	PM_28	1
RES	582084	4204685	582083.964	0	4.84	4.84	1.5 ANNUAL	PM_28	1
RES	582103.8	4204685	582103.814	0	5.09	5.09	1.5 ANNUAL	PM_28	1
RES	581389.2	4204705	581389.214	0	10.65	10.94	1.5 ANNUAL	PM_28	1
RES	581409.1	4204705	581409.064	0	9.43	9.43	1.5 ANNUAL	PM_28	1
RES	581428.9	4204705	581428.914	0	8.92	8.92	1.5 ANNUAL	PM_28	1
RES	581448.8	4204705	581448.764	0	8.89	8.89	1.5 ANNUAL	PM_28	1
RES	581508.3	4204705	581508.314	0	9.23	9.23	1.5 ANNUAL	PM_28	1
RES	581528.2	4204705	581528.164	0	9.76	9.76	1.5 ANNUAL	PM_28	1
RES	581548	4204705	581548.014	0	9.84	9.84	1.5 ANNUAL	PM_28	1
RES	581567.9	4204705	581567.864	0	9.08	9.08	1.5 ANNUAL	PM_28	1
RES	581587.7	4204705	581587.714	0	9.69	9.69	1.5 ANNUAL	PM_28	1
RES	581607.6	4204705	581607.564	0	9.48	9.48	1.5 ANNUAL	PM_28	1
WOR	581865.6	4204705	581865.614	0	6.16	6.16	1.5 ANNUAL	PM_28	1
WOR	581885.5	4204705	581885.464	0	6.15	6.15	1.5 ANNUAL	PM_28	1
WOR	581905.3	4204705	581905.314	0	6.13	6.13	1.5 ANNUAL	PM_28	1
RES	582004.6	4204705	582004.564	0	5.48	5.48	1.5 ANNUAL	PM_28	1
RES	582044.3	4204705	582044.264	0	5.41	5.41	1.5 ANNUAL	PM_28	1
RES	582064.1	4204705	582064.114	0	4.79	4.79	1.5 ANNUAL	PM_28	1
RES	582084	4204705	582083.964	0	4.77	4.77	1.5 ANNUAL	PM_28	1
RES	582103.8	4204705	582103.814	0	4.89	4.89	1.5 ANNUAL	PM_28	1
WOR	581802	4204544	5.82E+12	0	6.73	6.73	1.5 ANNUAL	PM_28	1
WOR	581822	4204544	5.82E+12	0	6.31	6.31	1.5 ANNUAL	PM_28	1

WOR	581802	4204564	5.82E+12	0	6.78	6.78	1.5 ANNUAL	PM_28	1
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AERMOD input files available upon request.

HARP Output Files

HARP2 - HRACalc (dated 22118) 8/7/2025 1:21:02 PM - Output Log

GLCs loaded successfully

Pollutants loaded successfully

RISK SCENARIO SETTINGS

Receptor Type: Resident

Scenario: All

Calculation Method: HighEnd

EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: 0

Total Exposure Duration: 0.18

Exposure Duration Bin Distribution

3rd Trimester Bin: 0

0<2 Years Bin: 0.18

2<9 Years Bin: 0

2<16 Years Bin: 0

16<30 Years Bin: 0

16 to 70 Years Bin: 0

PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True

Soil: False

Dermal: False

Mother's milk: False

Water: False

Fish: False

Homegrown crops: False

Beef: False

Dairy: False

Pig: False

Chicken: False

Egg: False

INHALATION

Daily breathing rate: LongTerm24HR

****Worker Adjustment Factors****

Worker adjustment factors enabled: NO

****Fraction at time at home****

3rd Trimester to 16 years: OFF
16 years to 70 years: ON

TIER 2 SETTINGS

Tier2 adjustments were used in this assessment. Please see the input file for details.

Tier2 - What was changed: ED or start age changed|DBRs changed|

Calculating cancer risk

Cancer risk saved to: C:\Users\57986\OneDrive - ICF\Desktop\HARP

Output\FireStation#9_HARP_RES_26_CancerRisk.csv

Calculating chronic risk

Chronic risk saved to: C:\Users\57986\OneDrive - ICF\Desktop\HARP

Output\FireStation#9_HARP_RES_26_NCChronicRisk.csv

Calculating acute risk

Acute risk saved to: C:\Users\57986\OneDrive - ICF\Desktop\HARP

Output\FireStation#9_HARP_RES_26_NCAcuteRisk.csv

HRA ran successfully

HARP2 - HRACalc (dated 22118) 8/7/2025 1:24:13 PM - Output Log

GLCs loaded successfully

Pollutants loaded successfully

RISK SCENARIO SETTINGS

Receptor Type: Resident

Scenario: All

Calculation Method: HighEnd

EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: 0.18

Total Exposure Duration: 1

Exposure Duration Bin Distribution

3rd Trimester Bin: 0

0<2 Years Bin: 1

2<9 Years Bin: 0

2<16 Years Bin: 0

16<30 Years Bin: 0

16 to 70 Years Bin: 0

PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True

Soil: False

Dermal: False

Mother's milk: False

Water: False

Fish: False

Homegrown crops: False

Beef: False

Dairy: False

Pig: False

Chicken: False

Egg: False

INHALATION

Daily breathing rate: LongTerm24HR

****Worker Adjustment Factors****

Worker adjustment factors enabled: NO

****Fraction at time at home****

3rd Trimester to 16 years: OFF
16 years to 70 years: ON

TIER 2 SETTINGS

Tier2 adjustments were used in this assessment. Please see the input file for details.

Tier2 - What was changed: ED or start age changed|DBRs changed|

Calculating cancer risk

Cancer risk saved to: C:\Users\57986\OneDrive - ICF\Desktop\HARP

Output\FireStation#9_HARP_RES_27_CancerRisk.csv

Calculating chronic risk

Chronic risk saved to: C:\Users\57986\OneDrive - ICF\Desktop\HARP

Output\FireStation#9_HARP_RES_27_NCChronicRisk.csv

Calculating acute risk

Acute risk saved to: C:\Users\57986\OneDrive - ICF\Desktop\HARP

Output\FireStation#9_HARP_RES_27_NCAcuteRisk.csv

HRA ran successfully

HARP2 - HRACalc (dated 22118) 8/7/2025 1:27:36 PM - Output Log

GLCs loaded successfully

Pollutants loaded successfully

RISK SCENARIO SETTINGS

Receptor Type: Resident

Scenario: All

Calculation Method: HighEnd

EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: 1.17

Total Exposure Duration: 0.24

Exposure Duration Bin Distribution

3rd Trimester Bin: 0

0<2 Years Bin: 0.24

2<9 Years Bin: 0

2<16 Years Bin: 0

16<30 Years Bin: 0

16 to 70 Years Bin: 0

PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True

Soil: False

Dermal: False

Mother's milk: False

Water: False

Fish: False

Homegrown crops: False

Beef: False

Dairy: False

Pig: False

Chicken: False

Egg: False

INHALATION

Daily breathing rate: LongTerm24HR

****Worker Adjustment Factors****

Worker adjustment factors enabled: NO

****Fraction at time at home****

3rd Trimester to 16 years: OFF
16 years to 70 years: ON

TIER 2 SETTINGS

Tier2 adjustments were used in this assessment. Please see the input file for details.

Tier2 - What was changed: ED or start age changed|DBRs changed|

Calculating cancer risk

Cancer risk saved to: C:\Users\57986\OneDrive - ICF\Desktop\HARP

Output\FireStation#9_HARP_RES_28_CancerRisk.csv

Calculating chronic risk

Chronic risk saved to: C:\Users\57986\OneDrive - ICF\Desktop\HARP

Output\FireStation#9_HARP_RES_28_NCChronicRisk.csv

Calculating acute risk

Acute risk saved to: C:\Users\57986\OneDrive - ICF\Desktop\HARP

Output\FireStation#9_HARP_RES_28_NCAcuteRisk.csv

HRA ran successfully

HARP2 - HRACalc (dated 22118) 8/7/2025 1:28:50 PM - Output Log

GLCs loaded successfully

Pollutants loaded successfully

RISK SCENARIO SETTINGS

Receptor Type: Resident

Scenario: All

Calculation Method: HighEnd

EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: 1.42

Total Exposure Duration: 28.58

Exposure Duration Bin Distribution

3rd Trimester Bin: 0

0<2 Years Bin: 0.58

2<9 Years Bin: 0

2<16 Years Bin: 14

16<30 Years Bin: 14

16 to 70 Years Bin: -1.192093E-07

PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True

Soil: False

Dermal: False

Mother's milk: False

Water: False

Fish: False

Homegrown crops: False

Beef: False

Dairy: False

Pig: False

Chicken: False

Egg: False

INHALATION

Daily breathing rate: LongTerm24HR

****Worker Adjustment Factors****

Worker adjustment factors enabled: NO

****Fraction at time at home****

3rd Trimester to 16 years: OFF
16 years to 70 years: ON

TIER 2 SETTINGS

Tier2 adjustments were used in this assessment. Please see the input file for details.

Tier2 - What was changed: ED or start age changed|DBRs changed|

Calculating cancer risk

Cancer risk saved to: C:\Users\57986\OneDrive - ICF\Desktop\HARP

Output\FireStation#9_HARP_RES_OPS_CancerRisk.csv

Calculating chronic risk

Chronic risk saved to: C:\Users\57986\OneDrive - ICF\Desktop\HARP

Output\FireStation#9_HARP_RES_OPS_NCChronicRisk.csv

Calculating acute risk

Acute risk saved to: C:\Users\57986\OneDrive - ICF\Desktop\HARP

Output\FireStation#9_HARP_RES_OPS_NCAcuteRisk.csv

HRA ran successfully

HARP2 - HRACalc (dated 22118) 8/13/2025 9:35:05 AM - Output Log

GLCs loaded successfully

Pollutants loaded successfully

RISK SCENARIO SETTINGS

Receptor Type: Worker

Scenario: All

Calculation Method: HighEnd

EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: 0.5

Total Exposure Duration: 0.18

Exposure Duration Bin Distribution

3rd Trimester Bin: 0

0<2 Years Bin: 0.18

2<9 Years Bin: 0

2<16 Years Bin: 0

16<30 Years Bin: 0

16 to 70 Years Bin: 0

PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True

Soil: False

Dermal: False

Mother's milk: False

Water: False

Fish: False

Homegrown crops: False

Beef: False

Dairy: False

Pig: False

Chicken: False

Egg: False

INHALATION

Daily breathing rate: LongTerm24HR

Worker Adjustment Factors

NOTE: The worker adjustment factors below are only used for cancer assessments. However, the GLC adjustment factor is also applied to 8-hr noncancer chronic assessments.

Worker adjustments factors enabled: YES

GLC adjustment factor: 2.4
Exposure frequency: 350

****Fraction at time at home****
3rd Trimester to 16 years: OFF
16 years to 70 years: OFF

TIER 2 SETTINGS

Tier2 adjustments were used in this assessment. Please see the input file for details.

Tier2 - What was changed: ED or start age changed|DBRs changed|

Calculating cancer risk

Cancer risk saved to: C:\Users\57986\OneDrive - ICF\Desktop\HARP
Output\FireStation#9_HARP_SCH_26_CancerRisk.csv

Calculating chronic risk

Chronic risk saved to: C:\Users\57986\OneDrive - ICF\Desktop\HARP
Output\FireStation#9_HARP_SCH_26_NCChronicRisk.csv

Calculating acute risk

Acute risk saved to: C:\Users\57986\OneDrive - ICF\Desktop\HARP
Output\FireStation#9_HARP_SCH_26_NCAcuteRisk.csv

HRA ran successfully

HARP2 - HRACalc (dated 22118) 8/13/2025 9:37:14 AM - Output Log

GLCs loaded successfully

Pollutants loaded successfully

RISK SCENARIO SETTINGS

Receptor Type: Worker

Scenario: All

Calculation Method: HighEnd

EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: 0.68

Total Exposure Duration: 1

Exposure Duration Bin Distribution

3rd Trimester Bin: 0

0<2 Years Bin: 1

2<9 Years Bin: 0

2<16 Years Bin: 0

16<30 Years Bin: 0

16 to 70 Years Bin: 0

PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True

Soil: False

Dermal: False

Mother's milk: False

Water: False

Fish: False

Homegrown crops: False

Beef: False

Dairy: False

Pig: False

Chicken: False

Egg: False

INHALATION

Daily breathing rate: LongTerm24HR

****Worker Adjustment Factors****

NOTE: The worker adjustment factors below are only used for cancer assessments. However, the GLC adjustment factor is also applied to 8-hr noncancer chronic assessments.

Worker adjustments factors enabled: YES

GLC adjustment factor: 2.4

Exposure frequency: 350

****Fraction at time at home****

3rd Trimester to 16 years: OFF

16 years to 70 years: OFF

TIER 2 SETTINGS

Tier2 adjustments were used in this assessment. Please see the input file for details.

Tier2 - What was changed: ED or start age changed|DBRs changed|

Calculating cancer risk

Cancer risk saved to: C:\Users\57986\OneDrive - ICF\Desktop\HARP

Output\FireStation#9_HARP_SCH_27_CancerRisk.csv

Calculating chronic risk

Chronic risk saved to: C:\Users\57986\OneDrive - ICF\Desktop\HARP

Output\FireStation#9_HARP_SCH_27_NCChronicRisk.csv

Calculating acute risk

Acute risk saved to: C:\Users\57986\OneDrive - ICF\Desktop\HARP

Output\FireStation#9_HARP_SCH_27_NCAcuteRisk.csv

HRA ran successfully

HARP2 - HRACalc (dated 22118) 8/13/2025 9:39:36 AM - Output Log

GLCs loaded successfully

Pollutants loaded successfully

RISK SCENARIO SETTINGS

Receptor Type: Worker

Scenario: All

Calculation Method: HighEnd

EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: 1.67

Total Exposure Duration: 0.24

Exposure Duration Bin Distribution

3rd Trimester Bin: 0

0<2 Years Bin: 0.24

2<9 Years Bin: 0

2<16 Years Bin: 0

16<30 Years Bin: 0

16 to 70 Years Bin: 0

PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True

Soil: False

Dermal: False

Mother's milk: False

Water: False

Fish: False

Homegrown crops: False

Beef: False

Dairy: False

Pig: False

Chicken: False

Egg: False

INHALATION

Daily breathing rate: LongTerm24HR

Worker Adjustment Factors

NOTE: The worker adjustment factors below are only used for cancer assessments. However, the GLC adjustment factor is also applied to 8-hr noncancer chronic assessments.

Worker adjustments factors enabled: YES

GLC adjustment factor: 2.4

Exposure frequency: 350

****Fraction at time at home****

3rd Trimester to 16 years: OFF

16 years to 70 years: OFF

TIER 2 SETTINGS

Tier2 adjustments were used in this assessment. Please see the input file for details.

Tier2 - What was changed: ED or start age changed|DBRs changed|

Calculating cancer risk

Cancer risk saved to: C:\Users\57986\OneDrive - ICF\Desktop\HARP

Output\FireStation#9_HARP_SCH_28_CancerRisk.csv

Calculating chronic risk

Chronic risk saved to: C:\Users\57986\OneDrive - ICF\Desktop\HARP

Output\FireStation#9_HARP_SCH_28_NCChronicRisk.csv

Calculating acute risk

Acute risk saved to: C:\Users\57986\OneDrive - ICF\Desktop\HARP

Output\FireStation#9_HARP_SCH_28_NCAcuteRisk.csv

HRA ran successfully

HARP2 - HRACalc (dated 22118) 8/13/2025 9:40:24 AM - Output Log

GLCs loaded successfully

Pollutants loaded successfully

RISK SCENARIO SETTINGS

Receptor Type: Worker

Scenario: All

Calculation Method: HighEnd

EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: 1.92

Total Exposure Duration: 16.58

Exposure Duration Bin Distribution

3rd Trimester Bin: 0

0<2 Years Bin: 0.08000004

2<9 Years Bin: 0

2<16 Years Bin: 14

16<30 Years Bin: 2.5

16 to 70 Years Bin: -1.192093E-07

PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True

Soil: False

Dermal: False

Mother's milk: False

Water: False

Fish: False

Homegrown crops: False

Beef: False

Dairy: False

Pig: False

Chicken: False

Egg: False

INHALATION

Daily breathing rate: LongTerm24HR

****Worker Adjustment Factors****

NOTE: The worker adjustment factors below are only used for cancer assessments. However, the GLC adjustment factor is also applied to 8-hr noncancer chronic assessments.

Worker adjustments factors enabled: YES

GLC adjustment factor: 1
Exposure frequency: 350

****Fraction at time at home****
3rd Trimester to 16 years: OFF
16 years to 70 years: OFF

TIER 2 SETTINGS

Tier2 adjustments were used in this assessment. Please see the input file for details.

Tier2 - What was changed: ED or start age changed|DBRs changed|

Calculating cancer risk

Cancer risk saved to: C:\Users\57986\OneDrive - ICF\Desktop\HARP
Output\FireStation#9_HARP_SCH_OPS_CancerRisk.csv

Calculating chronic risk

Chronic risk saved to: C:\Users\57986\OneDrive - ICF\Desktop\HARP
Output\FireStation#9_HARP_SCH_OPS_NCChronicRisk.csv

Calculating acute risk

Acute risk saved to: C:\Users\57986\OneDrive - ICF\Desktop\HARP
Output\FireStation#9_HARP_SCH_OPS_NCAcuteRisk.csv

HRA ran successfully

HARP2 - HRACalc (dated 22118) 8/7/2025 1:34:04 PM - Output Log

GLCs loaded successfully

Pollutants loaded successfully

RISK SCENARIO SETTINGS

Receptor Type: Worker

Scenario: All

Calculation Method: HighEnd

EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: 16

Total Exposure Duration: 0.18

Exposure Duration Bin Distribution

3rd Trimester Bin: 0

0<2 Years Bin: 0

2<9 Years Bin: 0

2<16 Years Bin: 0

16<30 Years Bin: 0.18

16 to 70 Years Bin: 0

PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True

Soil: False

Dermal: False

Mother's milk: False

Water: False

Fish: False

Homegrown crops: False

Beef: False

Dairy: False

Pig: False

Chicken: False

Egg: False

INHALATION

Daily breathing rate: LongTerm24HR

****Worker Adjustment Factors****

NOTE: The worker adjustment factors below are only used for cancer assessments. However, the GLC adjustment factor is also applied to 8-hr noncancer chronic assessments.

Worker adjustments factors enabled: YES

GLC adjustment factor: 4.2

Exposure frequency: 250

****Fraction at time at home****

3rd Trimester to 16 years: OFF

16 years to 70 years: OFF

TIER 2 SETTINGS

Tier2 adjustments were used in this assessment. Please see the input file for details.

Tier2 - What was changed: ED or start age changed|DBRs changed|

Calculating cancer risk

Cancer risk saved to: C:\Users\57986\OneDrive - ICF\Desktop\HARP

Output\FireStation#9_HARP_WOR_26_CancerRisk.csv

Calculating chronic risk

Chronic risk saved to: C:\Users\57986\OneDrive - ICF\Desktop\HARP

Output\FireStation#9_HARP_WOR_26_NCChronicRisk.csv

Calculating acute risk

Acute risk saved to: C:\Users\57986\OneDrive - ICF\Desktop\HARP

Output\FireStation#9_HARP_WOR_26_NCAcuteRisk.csv

HRA ran successfully

HARP2 - HRACalc (dated 22118) 8/7/2025 2:10:10 PM - Output Log

GLCs loaded successfully

Pollutants loaded successfully

RISK SCENARIO SETTINGS

Receptor Type: Worker

Scenario: All

Calculation Method: HighEnd

EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: 16.18

Total Exposure Duration: 1

Exposure Duration Bin Distribution

3rd Trimester Bin: 0

0<2 Years Bin: 0

2<9 Years Bin: 0

2<16 Years Bin: 0

16<30 Years Bin: 1

16 to 70 Years Bin: 0

PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True

Soil: False

Dermal: False

Mother's milk: False

Water: False

Fish: False

Homegrown crops: False

Beef: False

Dairy: False

Pig: False

Chicken: False

Egg: False

INHALATION

Daily breathing rate: Moderate8HR

****Worker Adjustment Factors****

NOTE: The worker adjustment factors below are only used for cancer assessments. However, the GLC adjustment factor is also applied to 8-hr noncancer chronic assessments.

Worker adjustments factors enabled: YES

GLC adjustment factor: 4.2

Exposure frequency: 250

****Fraction at time at home****

3rd Trimester to 16 years: OFF

16 years to 70 years: OFF

TIER 2 SETTINGS

Tier2 adjustments were used in this assessment. Please see the input file for details.

Tier2 - What was changed: ED or start age changed|DBRs changed|

Calculating cancer risk

Cancer risk saved to: C:\Users\57986\OneDrive - ICF\Desktop\HARP Output\WOR_CancerRisk.csv

Calculating chronic risk

Chronic risk saved to: C:\Users\57986\OneDrive - ICF\Desktop\HARP Output\WOR_NCChronicRisk.csv

Calculating acute risk

Acute risk saved to: C:\Users\57986\OneDrive - ICF\Desktop\HARP Output\WOR_NCAcuteRisk.csv

HRA ran successfully

HARP2 - HRACalc (dated 22118) 8/7/2025 2:18:49 PM - Output Log

GLCs loaded successfully

Pollutants loaded successfully

RISK SCENARIO SETTINGS

Receptor Type: Worker

Scenario: All

Calculation Method: HighEnd

EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: 17.17

Total Exposure Duration: 0.24

Exposure Duration Bin Distribution

3rd Trimester Bin: 0

0<2 Years Bin: 0

2<9 Years Bin: 0

2<16 Years Bin: 0

16<30 Years Bin: 0.24

16 to 70 Years Bin: 0

PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True

Soil: False

Dermal: False

Mother's milk: False

Water: False

Fish: False

Homegrown crops: False

Beef: False

Dairy: False

Pig: False

Chicken: False

Egg: False

INHALATION

Daily breathing rate: Moderate8HR

****Worker Adjustment Factors****

NOTE: The worker adjustment factors below are only used for cancer assessments. However, the GLC adjustment factor is also applied to 8-hr noncancer chronic assessments.

Worker adjustments factors enabled: YES

GLC adjustment factor: 4.2

Exposure frequency: 250

****Fraction at time at home****

3rd Trimester to 16 years: OFF

16 years to 70 years: OFF

TIER 2 SETTINGS

Tier2 adjustments were used in this assessment. Please see the input file for details.

Tier2 - What was changed: ED or start age changed|DBRs changed|

Calculating cancer risk

Cancer risk saved to: C:\Users\57986\OneDrive - ICF\Desktop\HARP Output\28_CancerRisk.csv

Calculating chronic risk

Chronic risk saved to: C:\Users\57986\OneDrive - ICF\Desktop\HARP Output\28_NCChronicRisk.csv

Calculating acute risk

Acute risk saved to: C:\Users\57986\OneDrive - ICF\Desktop\HARP Output\28_NCAcuteRisk.csv

HRA ran successfully

HARP2 - HRACalc (dated 22118) 8/13/2025 9:49:48 AM - Output Log

GLCs loaded successfully

Pollutants loaded successfully

RISK SCENARIO SETTINGS

Receptor Type: Worker

Scenario: All

Calculation Method: HighEnd

EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: 17.42

Total Exposure Duration: 23.58

Exposure Duration Bin Distribution

3rd Trimester Bin: 0

0<2 Years Bin: 0

2<9 Years Bin: 0

2<16 Years Bin: 0

16<30 Years Bin: 0

16 to 70 Years Bin: 23.58

PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True

Soil: False

Dermal: False

Mother's milk: False

Water: False

Fish: False

Homegrown crops: False

Beef: False

Dairy: False

Pig: False

Chicken: False

Egg: False

INHALATION

Daily breathing rate: Moderate8HR

Worker Adjustment Factors

NOTE: The worker adjustment factors below are only used for cancer assessments. However, the GLC adjustment factor is also applied to 8-hr noncancer chronic assessments.

Worker adjustments factors enabled: YES

GLC adjustment factor: 1
Exposure frequency: 250

****Fraction at time at home****
3rd Trimester to 16 years: OFF
16 years to 70 years: OFF

TIER 2 SETTINGS

Tier2 adjustments were used in this assessment. Please see the input file for details.

Tier2 - What was changed: ED or start age changed|DBRs changed|

Calculating cancer risk

Cancer risk saved to: C:\Users\57986\OneDrive - ICF\Desktop\HARP

Output\FireStation#9_HARP_WOR_OPS_CancerRisk.csv

Calculating chronic risk

Chronic risk saved to: C:\Users\57986\OneDrive - ICF\Desktop\HARP

Output\FireStation#9_HARP_WOR_OPS_NCChronicRisk.csv

Calculating acute risk

Acute risk saved to: C:\Users\57986\OneDrive - ICF\Desktop\HARP

Output\FireStation#9_HARP_WOR_OPS_NCAcuteRisk.csv

HRA ran successfully

Attachment C

Cultural and Historic Resources Evaluation

Fire Station 9 Project No. WH728

Cultural and Historic Resources Evaluation

Prepared for:

Contra Costa County Public Works Department

255 Glacier Drive
Martinez, CA 94553

Prepared by:

HELIX Environmental Planning, Inc.

1180 Iron Point Road, Suite 130
Folsom, CA 95630

February 2025 | 03891.00024.003

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EXECUTIVE SUMMARY

This report summarizes the findings of a Cultural and Historic Resources Evaluation (CHRE) completed by HELIX Environmental Planning, Inc. (HELIX) for the Fire Station 9 Project No. WH728 (project) located at 209 Center Avenue, Pacheco, Contra Costa County, California. As proposed by the Contra Costa County Public Works Department (County), the project would consist of the demolition and reconstruction of Fire Station 9.

This CHRE has been prepared for the County to ensure the project is in compliance with State and local laws and regulations as they relate to cultural resources, including the California Environmental Quality Act (CEQA).

As part of this CHRE, HELIX requested a records search at the Northwest Information Center (NWIC) on July 22, 2024, which revealed that eighteen (18) studies have previously been conducted within a 0.25-mile radius of the project site, and that none of these studies included the project site. The records search also revealed that ten (10) cultural resources are located within a 0.25-mile radius of the project site, but that none of these resources lie within the project site itself.

A search of the Sacred Lands File (SLF) maintained by the Native American Heritage Commission (NAHC) returned positive results, and the NAHC provided a list of forty (40) Native American points of contact who might have additional information to provide regarding cultural resources in the vicinity of the project site. The County will handle all outreach with individual Native American points of contact for the purposes of Assembly Bill 52 compliance.

HELIX cultural resources staff conducted a systematic pedestrian survey of the entirety of the project site and photographed the existing Fire Station 9 building and complex. This survey did not identify any archaeological cultural resources within the project site, nor is the project site considered sensitive for the occurrence of unidentified archaeological cultural resources.

Because of its age and its proposed demolition, HELIX Senior Architectural Historian Nelson White conducted an eligibility evaluation of the existing Fire Station 9 building and complex for inclusion in the National Register of Historic Places (NRHP) and/or the California Register of Historical Resources (CRHR). Constructed in 1957, the building and complex are not listed individually in the NRHP or CRHR, nor located within any NRHP-listed or CRHR-listed historic districts. Further, the station is not included in the California Office of Historic Preservation Built Environment Resources Directory (BERD) for Contra Costa County. Based on the results of the evaluation, HELIX concludes that the Fire Station 9 building and complex does not meet the criteria to be eligible for listing in either the NRHP or CRHR. As such, the Fire Station 9 building and complex does not qualify as a *historical resource* for the purposes of CEQA.

Based on the results of this CHRE, HELIX concludes that the following findings are appropriate for the project:

- **No Significant Impact** to Historical or Unique Archaeological Resources under *CEQA Guidelines* Section 15064.5; and
- **No Significant Impact to Human Remains** resulting from disturbance.

No additional study or documentation for cultural resources is recommended at this time. However, in the unlikely event that archaeological cultural resources, human remains, or funerary objects are discovered during project construction, the provisions contained in Section 7.2 of this report should be implemented to avoid or substantially reduce the severity of impacts to such finds.

1.0 INTRODUCTION

The Contra Costa County Public Works Department (County) proposes to demolish and reconstruct Fire Station 9 located at 209 Center Avenue, Pacheco, Contra Costa County, California. Based on the nature of the proposed project, it qualifies as a *project* under the California Environmental Quality Act (CEQA). This Cultural and Historic Resources Evaluation (CHRE) provides a technical basis for the County to ensure compliance with State and local laws and regulations as they relate to cultural resources, including CEQA.

HELIX Environmental Planning, Inc. (HELIX) prepared this CHRE to identify cultural resources that may be subject to impact or disturbance as a result of project implementation. In addition, this CHRE was conducted to formally evaluate the existing Fire Station 9 building and complex for its eligibility for listing in the National Register of Historic Places (NRHP) and California Register of Historical Resources (CRHR). This evaluation is necessary to determine if the Fire Station 9 building and complex should be considered a *historical resource* for the purposes of CEQA.

1.1 PROJECT DESCRIPTION

The County proposes to demolish and reconstruct Fire Station 9, which is located at 209 Center Ave in Pacheco, Contra Costa County, California. The existing fire station is over 50 years old, and the new fire station will be larger and have a greater capacity to house staff and vehicles. As part of the project, the parcel the existing fire station and complex sits on will be uniformly raised by two feet because it sits within a floodplain.

1.2 PROJECT SITE

The 0.82-acre project site comprises the entirety of Assessor's Parcel Number (APN) 125-073-003, as depicted on the USGS *Walnut Creek, Calif.* 1995 7.5-minute quadrangle map (Appendix A, Figures 1, 2, and 3). Because the project is still in its planning stages, the precise vertical dimensions (both below and above the ground surface) for this project are not yet known.

The project site is surrounded to the north, west, and south by residential properties, and channelized Grayson Creek is adjacent to the east. The terrain within the project site consists of a flat, grassy parcel with limited tree cover, and the northern third of the project site is occupied by the fire station.

1.3 PERSONNEL

This CHRE was written by HELIX Senior Archaeologist Benjamin Siegel, MA, RPA. Mr. Siegel meets the Secretary of the Interior's *Professional Qualifications Standards* for Archeology (36 CFR Part 61) and is a cultural resources project manager with 15 years of professional experience throughout California and the United States. He has overseen numerous projects for compliance with CEQA and Section 106 of the NHPA. The pedestrian survey for this project was conducted by HELIX Principal Archaeologist Andrew Pulcheon, M.A., RPA. The evaluation of the current Fire Station 9 building and complex was prepared by HELIX Senior Architectural Historian Nelson White, M.S.H.P. Mr. White meets the Secretary of the Interior's *Professional Qualifications Standards* for architectural history and history (36 CFR Part 61) and is an architectural historian with 20 years of professional experience. Resumés for Mr. Siegel, Mr. Pulcheon, and Mr. White are included in Appendix B.

2.0 PROJECT SETTING

2.1 NATURAL SETTING

The project site lies just west of Grayson Creek, a small stream that connects with Walnut Creek approximately 1.5 miles northeast of the current Fire Station 9. The project site is at an elevation of approximately 27 ft above sea level and is relatively clear of tree cover, with a handful of redwood trees around the perimeter of the fire station's existing fence line. Much of the project vicinity consists of private residential properties, as well as the riparian corridor which borders Grayson Creek. The soils within the project site consist of Tierra series loams, moderately well-drained soils with a likely depth to the water table of more than 80 inches (USDA 2013). The project vicinity has a mediterranean climate, consisting of warm and dry summers with average monthly temperatures below 72 degrees Fahrenheit, and relatively mild winters, with an average of 59 days a year with precipitation (Weatherbase 2024).

2.2 CULTURAL SETTING

The following is a brief overview of the prehistory, ethnography, and historical background of the project area intended to provide a historical context for any cultural resources that might be found in the vicinity of the project site. This section is not intended to be a comprehensive review of the current resources available; rather, it serves as a general overview of human occupations and uses of the general project vicinity. Further details can be found in ethnographic studies, mission records, and major published sources, including Beardsley (1948), Bennyhoff (1950, 1977), Fredrickson (1973), Kroeber (1925), Chertkoff and Chertkoff (1984), and Moratto (1984).

2.2.1 Precontact

Early 20th-century archaeological investigations in central California were conducted at sites located in the Sacramento-San Joaquin Delta region. Archaeologists from the University of California, Berkeley excavated several sites in the lower Sacramento Valley and Delta region, which resulted in recognizing archaeological site patterns based on variations of inter-site assemblages. Research during the 1930s identified temporal periods in central California prehistory and provided an initial chronological sequence (Lillard and Purves 1936; Lillard et al. 1939). In 1939, Lillard noted that each cultural period led directly to the next and that influences spread from the Delta region to other regions in central California (Lillard et al. 1939). In the late 1940s and early 1950s, Beardsley documented similarities in artifacts among sites in the San Francisco Bay region and the Delta and refined his findings into a cultural model that ultimately became known as the Central California Taxonomic System (CCTS). This system proposed a uniform, linear sequence of cultural succession (Beardsley 1948 and 1954). The CCTS system was challenged by Gerow, whose work looked at radiocarbon dating to show that Early and Middle Horizon sites were not subsequent developments but, at least partially, contemporaneous (1954; 1974; Gerow and Force 1968).

To address some of the flaws in the CCTS system, Fredrickson (1973) introduced a revision that incorporated a system of spatial and cultural integrative units. Fredrickson separated cultural, temporal, and spatial units from each other and assigned them to six chronological periods: Paleo-Indian (10000 to 6000 B.C.); Lower, Middle and Upper Archaic (6000 B.C. to A.D. 500), and Emergent (Upper and Lower, A.D. 500 to 1800). The suggested temporal ranges are similar to earlier horizons, which are broad cultural units that can be arranged in a temporal sequence (Moratto 1984). In addition, Fredrickson

defined several patterns—a general way of life shared within a specific geographical region. These patterns include:

- Windmill Pattern or Early Horizon (3000 to 1000 B.C.);
- Berkeley Pattern or Middle Horizon (1000 B.C. to A.D. 500); and,
- Augustine Pattern or Late Horizon (A.D. 500 to historic period).

Brief descriptions of these temporal ranges and their unique characteristics follow.

Windmill Pattern or Early Horizon (3000 to 1000 B.C.)

Characterized by the Windmill Pattern, the Early Horizon was centered in the Cosumnes district of the Delta and emphasized hunting rather than gathering, as evidenced by the abundance of projectile points in relation to plant processing tools. Additionally, atlatl, dart, and spear technologies typically included stemmed projectile points of slate and chert but minimal obsidian. The large variety of projectile point types and faunal remains suggests the exploitation of numerous types of terrestrial and aquatic species (Bennyhoff 1950; Ragir 1972). Burials occurred in cemeteries and intra-village graves. These burials typically were ventrally extended, although some dorsal extensions are known with a westerly orientation and a high number of grave goods. Trade networks focused on the acquisition of ornamental and ceremonial objects in finished form rather than on raw material. The presence of artifacts made of exotic materials such as quartz, obsidian, and shell indicate an extensive trade network that may represent the arrival of Utian populations into central California. Also, indicative of this period are rectangular *Haliotis* and *Olivella* shell beads, and charmstones that usually were perforated.

Berkeley Pattern or Middle Horizon (1000 B.C. to A.D. 500)

The Middle Horizon is characterized by the Berkeley Pattern, which displays considerable changes from the Early Horizon. This period exhibited a strong milling technology represented by minimally shaped cobble mortars and pestles, although metates and manos were still used. Dart and atlatl technologies during this period were characterized by non-stemmed projectile points made primarily of obsidian. Fredrickson (1973) suggests that the Berkeley Pattern marked the eastward expansion of Miwok groups from the San Francisco Bay Area. Compared with the Early Horizon, there is a higher proportion of grinding implements at this time, implying an emphasis on plant resources rather than on hunting. Typical burials occurred within the village with flexed positions, variable cardinal orientation, and some cremations. As noted by Lillard, the practice of spreading ground ochre over the burial was common at this time (Lillard et al. 1939). Grave goods during this period are generally sparse and typically include only utilitarian items and a few ornamental objects. However, objects such as charmstones, quartz crystals, and bone whistles occasionally were present, which suggest the religious or ceremonial significance of the individual. During this period, larger populations are suggested by the number and depth of sites compared with the Windmill Pattern. According to Fredrickson (1973), the Berkeley Pattern reflects the gradual expansion or assimilation of different populations rather than sudden population replacement and a gradual shift in economic emphasis.

Augustine Pattern or Late Horizon (A.D. 500 to Historic Period)

The Late Horizon is characterized by the Augustine Pattern, which represents a shift in the general subsistence pattern. Changes include the introduction of bow and arrow technology; and most importantly, acorns became the predominant food resource. Trade systems expanded to include raw

resources as well as finished products. There are more baked clay artifacts and extensive use of Haliotis ornaments of many elaborate shapes and forms. Burial patterns retained the use of flexed burials with variable orientation, but there was a reduction in the use of ochre and widespread evidence of cremation (Moratto 1984). Judging from the number and types of grave goods associated with the two types of burials, cremation seems to have been reserved for individuals of higher status, whereas other individuals were buried in flexed positions. Johnson (1978) suggests that the Augustine Pattern represents an expansion of the Wintuan population from the north, which resulted in combining new traits with those established during the Berkeley Pattern.

Central California research has expanded from an emphasis on defining chronological and cultural units to a more comprehensive look at settlement and subsistence systems. This shift is illustrated by the early use of burials to identify mortuary assemblages and more recent research using osteological data to determine the health of prehistoric populations (Dickel et al. 1984). Although debate continues over a single model or sequence for central California, the general framework consisting of three temporal/cultural units is generally accepted, although the identification of regional and local variation is a major goal of current archaeological research.

2.2.2 Ethnography

Linguistic studies in the area suggest that Miwok peoples resided in the delta of the Sacramento and San Joaquin rivers for two and a half thousand years. A group referred to as the Bay Miwok occupied a region spanning across parts of the Sacramento River including parts of what is today Contra Costa County, just to the east of Walnut Creek. Another group, the Julpun, is thought to have established territory along the southern banks of the San Joaquin River and to have also occupied Sherman Island. According to some, the Julpun extended their holdings northward at the time of European contact, as a response to pressures into their original territory (Schenck 1926:136-137). The Chupcan, another cultural group, lived to the west of the Julpun, in what is today considered Antioch and Pittsburg, and may have bordered yet another group the Bolbon, near Mt. Diablo. The Bolbon or Wolwon occupied an area running along the upper portions of Marsh Creek and in the vicinity of Mount Diablo (Bennyhoff 1977, Levy 1978:398-399). Combined, these various groups of Bay Miwok cultures may have supported a total population in excess of 1,200 individuals before European contact (Levy 1978:399, Merriam 1955:220).

Bay Miwok villages were usually developed in locations of elevation which had commanding views of and provided the tribes with access to the resources within, seasonal marshes (Cook 1960:259). These villages were either scattered mounds formed on top of residual calcareous sand (sometimes called “sand mounds”) or larger habitation mounds, often situated in areas that had some natural elevation which was supplemented by culturally built-up midden deposits (Cook 1960:285). These villages were located along waterways and were occupied nearly year-round, with the lone exception of the autumn acorn harvest. Houses consisted of domed structures covered in tule mats and possessed grass thatching. These houses were occupied by single extended families. Wealthier men also sometimes built semi-underground additional lodges. Miwok groups are also known to have built round, earth-covered, semi-underground sweathouses which were used by men in the community.

Miwok cultural groups are thought to have subsisted on seeds from local grasses, berries, and other nuts and fruits, elk, deer, antelope, rodents, and other small mammals. These groups are also known to have relied heavily on acorn and pulverized acorn meal which could be cooked into a gruel for a large portion of their diet. Valley oaks (*Quercus lobata*) in particular are known to have provided large

numbers of acorns for this use. Fish and waterfowl were also made abundant by the presence of the nearby rivers. Miwok peoples are also known for participating in communal activities including hunting drives and group fishing enterprises which made use of nets and weirs, and Salmon were also plentiful when in season (Bennyhoff 1977:10-11, Cook 1960:258). Miwok are known to have made use of bows and arrows for hunting, as well as the spear, however Miwok economies are thought to have been largely based on the gathering of plant foods and the trading of surpluses.

Beyond the bow and arrow, Miwok material cultural practices consisted of the crafting of intricate baskets, for a variety of purposes including harvesting and eating utensils, tule mats, cradles, and aprons, and they also produced ornaments, clothing, and other items for cultural rituals and ceremonies. Baked clay net weights were also produced for bird hunting and fishing, and tule duck decoys and ceremonial baked effigies were also produced. These groups also fashioned shell ornaments and bone ear decorations. There is also evidence to suggest that they prepared woven feather cloaks and rabbit-skin blankets, and bird feathers are known to have been used to adorn baskets (Bennyhoff 1977:11).

The arrival of the Spanish in the San Francisco Bay Area in 1775 rapidly led to a decline in native Californian populations. The spread of diseases and the impacts of the mission system effectively disrupted native life ways. Miwok groups were missionized and harassed by Spanish raiding parties, ultimately transforming these groups of hunters and gatherers into neophytes and day laborers, often forced to work in the mission's agricultural fields. When Mexico took control of the area in the 1840s, several ranchos were established. Native Californian groups who persisted into this era then found themselves with little choice but to work on the ranchos for pay and subsistence (Raney 2023).

2.2.3 History

In 1772, Spanish explorer Pedro Fages toured the area now known as Contra Costa with a party comprised of twelve soldiers, a local indigenous guide, and Father Juan Crespi. Later in 1776, Captain Juan Bautista de Anza explored the area using a similar route as Fages, leaving the San Francisco Bay to explore the Carquinez Strait. Generally, however, Spanish settlements in the area remained along the coast, and only specific exploratory expeditions and/or raiding parties ventured further into the interior. Spanish control of the project vicinity throttled up during the 1770s. During this period, several Spanish expeditions explored coastal areas within present day Solano and Contra Costa Counties. In 1776, Mission San Francisco de Asis (Delores) and the Presidio were founded. By 1797, Mission San Jose de Guadalupe was established near Fremont, and in 1823, Mission San Francisco de Solano near Sonoma was established. From these seats of Spanish power, outposts and ranchos were established in the vicinity. These ranchos were used to supply missions with cattle, sheep, grains, fruits, and vegetables.

Mexican independence from Spain brought sweeping changes to the area including the end of Spanish domination in the Bay Area, the secularization of the missions in 1833, and the opening of huge tracts of land for settlement, cultivation, and animal husbandry in the form of "ranchos". During the Mexican Period, former soldiers and prominent citizens developed and resided on these ranchos, which were self-sustaining farms and homesteads. Many indigenous peoples were put to work on these ranchos. Some for pay, while others were simply forced to work. One Mexican land grant, the Rancho Monte Del Diablo, was given to Don Salvio Pacheco in 1834 and included 17,921 acres spanning from the valleys of modern-day Concord from Walnut Creek channel east to the hills, and from Mount Diablo's foothills to the Bay.

The Mexican-American War (1847) ultimately resulted in Mexico relinquishing the area now known as California to the United States via the Treaty of Guadalupe Hidalgo in 1848. The town of Pacheco was laid out in 1857 by Dr. J. H. Carothers and named after Salvio Pacheco (Durham 1998). A post office was established in the area in 1859 and ran until 1913 until service was interrupted (Durham 1998). The town of Pacheco rapidly evolved into a prosperous commercial center. Between the 1850s and 1870s, Pacheco served as a shipping port for the grain grown in the Ygnacio, San Ramon, and Tassajara valleys. To support this trade, the area was built up in warehouses and supported a flour mill and shops along Pacheco Slough (also known as Pacheco Creek, and later named Walnut Creek), which was at the time, deep enough for ocean going vessels. In October 1866, the Contra Costa Gazette reported that more than 600,000 sacks of wheat had been delivered that month to warehouses in Pacheco to be loaded onto outgoing ships. In November of that same year, the paper reported that the streets of Pacheco were so crowded with wagon teams carrying wheat to the harbor that crossing the street was impossible (Cowell Historical Society 2022, Tatam 1996, Emanuels 1986).

During its late 19th century heyday, Pacheco grew to be the largest town in Contra Costa County as a result of its value as a shipping center for grains. A steam driven flour mill, four stories tall, was built in 1857 by William T. Hendrick. The town's Main Street was also heavily populated with stores including the Some Bros. Pacheco Cash Store, which sold groceries, farm tools, and clothing. Elijah Hook's two-story Farmers' Block was built in 1860, which included a general store, a Wells Fargo office, and housed the Contra Costa Gazette which was published in Pacheco between 1861 and 1873. During this period, Pacheco also had a lumber yard, soda works, leather shop, saddle shop, blacksmith, brickyard, and two hotels. By 1861, the Pacheco Fire Engine Company No. 1 had been organized, and by May of 1869, the Western Union Telegraph Company had completed their line to Pacheco, en route to Antioch (Hulaniski 1917). In February of 1871, the Pacheco Tobacco Company was incorporated for the purpose of curing and manufacturing tobacco. By 1862, the first church was built in Pacheco. It was first a Presbyterian church, but later housed Roman Catholic worship. However, the area's growth did not last forever. In 1867, the steam powered flour mill burned down, and an earthquake destroyed a great deal of property in 1868. Then in the 1870s, a succession of fires and floods hit the town.

Further hampering the town's economy, Pacheco Slough also gradually became unnavigable. Anthropogenic ecological damage, as well the 1868 earthquake and subsequent floods and fires resulted in the loosening of soils along the slough's banks, and ultimately, in the slough's siltation. No longer accessible by deeper draught vessels, the commercial value of warehousing and shipping grain in Pacheco was quickly lost. As a result, by 1870, many merchants and residents moved over to the nearby and newer town of Todos Santos (later named Concord) or other developing areas in Contra Costa County. Pacheco's flour mill was eventually rebuilt and stayed in operation until 1912, but the remainder of the town carried on only as a smaller rural village until the latter half of the 20th century.

In the 1960s, an explosion in population experienced throughout much of the San Francisco Bay Area brought the widespread development of tract homes to Pacheco and spurred the development of the Sunvalley Shopping Center. As of the 2010 US Census, Pacheco had a population of 3,685, with a population density of 4,978.4 inhabitants per square mile (with the census designated place occupying a total of 0.7 square mile). In 2011, the Martinez City Council voted to annex all portions of Pacheco north of California State Route 4 (White 2011). However, in August 2012, North Pacheco rejected this annexation, as residents and property owners voted 40-39 against becoming part of Martinez (White 2013). As a result, the 111-acre area remains unincorporated and is governed by the County Board of Supervisors.

3.0 REGULATORY FRAMEWORK

3.1 CALIFORNIA ENVIRONMENTAL QUALITY ACT

Pursuant to CEQA, a historical resource is a resource listed in, or eligible for listing in, the California Register of Historical Resources (CRHR). In addition, resources included in a local register of historic resources or identified as significant in a local survey conducted in accordance with state guidelines are also considered historic resources under CEQA, unless a preponderance of the facts demonstrates otherwise. According to CEQA, the fact that a resource is not listed in, or determined eligible for listing in, the CRHR, or is not included in a local register or survey, shall not preclude a Lead Agency, as defined by CEQA, from determining that the resource may be a historic resource as defined in California Public Resources Code (PRC) §5024.1.7.

CEQA applies to archaeological resources when (1) the historic or prehistoric archaeological resource satisfies the definition of a historical resource, or (2) the historic or prehistoric archaeological resource satisfies the definition of a “unique archaeological resource.” A unique archaeological resource is an archaeological artifact, object, or site that has a high probability of meeting any of the following criteria (PRC §21083.2(g)):

1. The archaeological resource contains information needed to answer important scientific research questions, and there is a demonstrable public interest in that information.
2. The archaeological resource has a special and particular quality, such as being the oldest of its type or the best available example of its type.
3. The archaeological resource is directly associated with a scientifically-recognized important prehistoric or historic event or person.

3.1.1 California Register of Historical Resources

Created in 1992 and implemented in 1998, the CRHR is “an authoritative guide in California to be used by state and local agencies, private groups, and citizens to identify the state’s historical resources and to indicate what properties are to be protected, to the extent prudent and feasible, from substantial adverse change” (PRC §5024.1(a)). Certain properties, including those listed in or formally determined eligible for listing in the National Register of Historic Places (NRHP) and California Historical Landmarks (CHL), numbered 770 and higher, are automatically included in the CRHR. Other properties recognized under the California Points of Historical Interest program, identified as significant in historic resources surveys, or designated by local landmarks programs may be nominated for inclusion in the CRHR.

A resource, either an individual property or a contributor to a historic district, may be listed in the CRHR if the State Historical Resources Commission determines that it meets one or more of the following criteria, which are modeled on NRHP criteria (PRC §5024.1(c)):

Criterion 1: It is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage.

Criterion 2: It is associated with the lives of persons important in our past.

Criterion 3: It embodies the distinctive characteristics of a type, period, region, or method of construction; represents the work of an important creative individual; or possesses high artistic values.

Criterion 4: It has yielded, or may be likely to yield, information important in history or prehistory.

Resources nominated to the CRHR must retain enough of their historic character or appearance to be recognizable as historic resources and to convey the reasons for their significance. It is possible that a resource whose integrity does not satisfy NRHP criteria may still be eligible for listing in the CRHR. A resource that has lost its historic character or appearance may still have sufficient integrity for the CRHR if, under Criterion 4, it maintains the potential to yield significant scientific or historical information or specific data. Resources that have achieved significance within the past 50 years also may be eligible for inclusion in the CRHR, provided that enough time has lapsed to obtain a scholarly perspective on the events or individuals associated with the resource.

3.2 CALIFORNIA HEALTH AND SAFETY CODE §7050.5

Section 7050.5 of the California Health and Safety Code states that in the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the remains are discovered has determined if the remains are subject to the coroner's authority. If the human remains are of Native American origin, the coroner must notify the Native American Heritage Commission within 24 hours of this identification.

3.3 CALIFORNIA PUBLIC RESOURCES CODE §5097.98

Section 5097.98 of the California Public Resources Code states that the NAHC, upon notification of the discovery of Native American human remains pursuant to Health and Safety Code Part 7050.5, shall immediately notify those persons (i.e., the Most Likely Descendant or "MLD") it believes to be descended from the deceased. With permission of the landowner or a designated representative, the MLD may inspect the remains and any associated cultural materials and make recommendations for treatment or disposition of the remains and associated grave goods. The MLD shall provide recommendations or preferences for treatment of the remains and associated cultural materials within 48 hours of being granted access to the site.

3.4 NATIONAL HISTORIC PRESERVATION ACT OF 1966 (16 USC 470)

The National Historic Preservation Act of 1966 (16 USC 470), enacted in 1966, declared a national policy of historic preservation and instituted a multifaceted program, administered by the Secretary of the Interior, to encourage the achievement of preservation goals at the federal, state, and local levels. The NHPA authorized the expansion and maintenance of the NRHP, established the position of State Historic Preservation Officer and provided for the designation of State Review Boards, set up a mechanism to certify local governments to carry out the purposes of the NHPA, assisted Native American tribes in preserving their cultural heritage, and created the Advisory Council on Historic Preservation (ACHP).

3.4.1 Section 106

Section 106 of the NHPA states that federal agencies with direct or indirect jurisdiction over federally funded, assisted, or licensed undertakings must take into account the effect of the undertaking on any historic property that is included in or eligible for inclusion in the NRHP, and that the ACHP must be afforded an opportunity to comment on such undertakings through a process outlined in 36 CFR Part 800. The Section 106 process involves the identification of historic properties within the project site; the determination of whether the undertaking will cause an adverse effect on historic properties; and the resolution of those adverse effects through consultation with parties to the Section 106 review process, most prominently including the California State Historic Preservation Officer (SHPO) and Native American tribes.

3.4.1.1 National Register of Historic Places

The NRHP was established by the NHPA of 1966 as “an authoritative guide to be used by federal, state, and local governments, private groups, and citizens to identify the Nation’s cultural resources and to indicate what properties should be considered for protection from destruction or impairment” (36 CFR Part 60.2).

The NRHP recognizes properties that are significant at the national, state, and local levels. To be eligible for listing in the NRHP, a resource must be significant in American history, architecture, archaeology, engineering, or culture. Districts, sites, buildings, structures, and objects of potential significance must also possess integrity of location, design, setting, materials, workmanship, feeling, and association. A property is eligible for the NRHP if it is significant under one or more of the following criteria:

- Criterion A: It is associated with events that have made a significant contribution to the broad patterns of our history.
- Criterion B: It is associated with the lives of persons who are significant in our past.
- Criterion C: It embodies the distinctive characteristics of a type, period, or method of construction; represents the work of a master; possesses high artistic values; or represents a significant and distinguishable entity whose components may lack individual distinction.
- Criterion D: It has yielded, or may be likely to yield, information important in prehistory or history (36 CFR 60.4).

Cemeteries, birthplaces, graves of historic figures, properties owned by religious institutions or used for religious purposes, structures that have been moved from their original locations, reconstructed historic buildings, and properties that are primarily commemorative in nature are not considered eligible for the NRHP unless they satisfy certain conditions. In general, a resource must be at least 50 years old to be considered for the NRHP, unless it satisfies a standard of exceptional importance.

4.0 BACKGROUND RESEARCH

HELIX conducted background research on the project site and vicinity to identify cultural resources and the sensitivity for such resources. The background research included a California Historical Resources Information System (CHRIS) records search and a review of aerial photographs and historic-era maps. Each source of information, and the results obtained by HELIX, are described below.

4.1 CHRIS RECORDS SEARCH

On July 22, 2024, staff at the Northwest Information Center (NWIC) at Sonoma State University in Rohnert Park, California, conducted a records search for the project site and a 0.25-mile radius. The records search was done to (1) identify prehistoric and historic-era resources within the search radius; (2) determine which portions of the project site have been previously studied; and (3) ascertain the potential for cultural resources and human remains to occur within the project site. The search included a review of USGS archaeological site location maps at the NWIC, resource records, and data from previous studies. HELIX also reviewed the California Points of Historical Interest, California Historical Landmarks, NRHP, CRHR, Office of Historic Preservation (OHP) Archaeological Determinations of Eligibility, Built Environment Resources Directory (BERD), historic-era topographic maps and plat maps, and historic-era aerial photographs.

4.1.1 Previous Studies

The NWIC records search identified 18 studies that have previously been conducted within a 0.25-mile radius of the project site. None of these studies overlapped with or directly examined the currently proposed project site. The 18 previous studies conducted in the project vicinity are described briefly in Table 1 below.

Table 1
PREVIOUS STUDIES CONDUCTED WITHIN 0.25 MILE OF THE PROJECT SITE

Report	Year	Author(s)	Title	Affiliation	Includes Project Site?
S-000362	1976	Banks, Peter M. and David A. Fredrickson	An Archaeological Survey of the Riffe Property, Pacheco, Contra Costa County, California	Department of Anthropology, California State College, Sonoma	No
S-010675	1988	Smith, Michael and Suzanne Baker	Archaeological Reconnaissance of the Run-Burger-Run Project, Pacheco, Contra Costa County, California	Archaeological/Historical Consultants	No
S-011839	1990	Caltrans, District 4	Historic Property Survey Report for Right-of-Way Protection at the I-680/Route 4 Interchange In and Near the City of Concord, Contra Costa County, 04-CC-680/4 19.9/22.4, 04-CC-4 10.35/14.1 04226-112830	Caltrans, District 4	No

Report	Year	Author(s)	Title	Affiliation	Includes Project Site?
S-015478	1990	Salter, John F.	Preliminary Archaeological Survey of the CC-Line and A-Line Sewer Project, Contra Costa County, California	Holman & Associates	No
S-015799	1993	Holman, Miley Paul	Archaeological Field Reconnaissance of the Proposed Pacheco School Site Development Area, Pacheco, Contra Costa County, California	Holman & Associates	No
S-017838	1996	Baker, Suzanne	Archaeological Reconnaissance of 121 Aspen Drive, Pacheco, Contra Costa County, California	Archaeological/Historical Consultants	No
S-019065	1997	Self, William	Summary of Archaeological Testing and Construction Monitoring Adjoining Site CA-CCO-4, Pep Boys Retail Facility, Pleasant Hill, Contra Costa County, California	William Self Associates	No
S-020021	1997	Flynn, Katherine	A Cultural Resources Evaluation of the Central Self Storage Project Area, Pacheco Boulevard, Pacheco, Contra Costa County	Archaeological Resource Service	No
S-022702	2000	Hall, Jeffrey, Eduardo Serafin, and Christopher D. Dore	Cultural Resources Inventory for the Lamorinda Recycled Water Project, Contra Costa County, California. A study on the Briones Valley, Las Trampas Ridge, Oakland East, Vine Hill, and Walnut Creek U.S.G.S. 7.5' Topographic Quadrangles	Garcia and Associates	No
S-026311	2000	Self, William	Archaeological Survey and Assessment of 125 Aspen Drive, Pacheco, California	William Self Associates	No
S-031309	2004	Lee, Christopher M. and Brian W. Hatoff	Technical Report: Historic Property Survey Report, Interstate 680 - Route 4 Interchange Improvement Project; 04-CC680-4, KP 32.5/35.8, PM 20.2/22.2; 04-CC-004, KP R16.9/R24.3, PM R10.5/R15.1; 04275-229100	URS Corporation	No
S-031372	2004	Herbert, Rand F.	Historic Resources Evaluation Report, Proposed Interstate 680/State Route 4 Interchange, Contra Costa County, California. 04-CC-004-KP R16.9/R24.3 (PM R10.5/R15.1), EA 04-229100, CU 04275	JRP Historical Consulting Services	No

Report	Year	Author(s)	Title	Affiliation	Includes Project Site?
S-034111	2007	Wick, Emily	A Cultural Resources Evaluation of the Proposed Pacheco Village Project, Center Avenue, Pacheco, Contra Costa County, California (APN 125-071-012)	Archaeological Resource Service	No
S-047775	2016	Whitaker, Adrian	Historic Property Survey Report for the CCTA Interstate 680 Express Lanes Project, Contra Costa County, California; 04-CCO-680 PM R8.0-25.0, EA 04H610 (EFIS ID# 0413000216)	Far Western Anthropological Research Group, Inc.	No
S-051846	2018	Shoup, Daniel and Jennifer Ho	Cultural Resources Survey Report, 214 Central Avenue, Pacheco, Contra Costa County, California	Archaeological/Historical Consultants	No
S-053160	2015	DeBaker, Cassidy	Historic Property Survey Report, Backhaul Communications Network Project, I-680 Corridor-Alameda and Contra Costa Counties, California, 04-ALA/CCO-680, ALA PM 20.15-CC PM 24.5, EA 3G950, E-FIS Project Number 0414000489, Phase 0	Garcia and Associates	No
S-057254	2022	Fitzgerald, Michelle	Supplemental Historic Property Survey Report for the I-680/SR 4 Interchange Phases 1, 2A, and 4 Project	Condor Country Consulting, Inc.	No
S-057622	2023	Patrick, Melinda and Jack Meyer	Archaeological Survey and Extended Phase I Report for the Interstate 680 Northbound Express Lane Completion Project, Contra Costa County, California 04-CCO-680 PM R4.4 to 24.5 EA 04-0Q3100 (E-FIS 0418000070)	Far Western Anthropological Research Group, Inc.	No

4.1.2 Previously Recorded Resources

The NWIC records search also identified ten (10) previously documented cultural resources within a 0.25-mile radius of the project site. None of these resources, however, lie within the currently proposed project site. The identified resources in the vicinity of the proposed project are briefly described in Table 2 below.

Table 2
PREVIOUSLY RECORDED CULTURAL RESOURCES WITHIN 0.25 MILE OF THE PROJCT SITE

Primary	Trinomial	Year	Recorder	Description	Within Project Site?
P-07-000024	CA-CCO-000004	1953	Bennyhoff, James	Precontact Era – “Slater Site” Bedrock milling feature, burials, and habitation debris	No
P-07-000484	CA-CCO-000704H	1996	Baker, Suzanne	Historic Era – privy/dump/trash scatter	No
P-07-001021	N/A	1982	Wiest, Douglas C.	Historic Era – William T. Hendrick House	No
P-07-002726	N/A	2002	Herbert, Rand	Historic Era- 5775 Pacheco Blvd, commercial building	No
P-07-002727	N/A	2002	Herbert, Rand	Historic Era – 102 Berry Drive, Single Family Property	No
P-07-002728	N/A	2002	Herbert, Rand	Historic Era – 104 Berry Drive, Single Family Property	No
P-07-002729	N/A	2002	Herbert, Rand	Historic Era – 106 Berry Drive, Single Family Property	No
P-07-002730	N/A	2002	Herbert, Rand	Historic Era – 110 Berry Drive, Single Family Property	No
P-07-004496	N/A	2012	Crawford, K.A.	Historic Era – 559 Contra Costa Blvd, commercial building	No
P-07-005044	N/A	2022	Melvin, Steven, J. and Andrew Young	Historic Era – 95 1 st Avenue North, commercial building	No

4.1.3 Historic-Era Maps and Aerial Photograph Analysis

HELIX staff examined historic-era maps and aerial photographs depicting the project site and vicinity to understand previous land uses and development in the area. Maps examined included a plat map of the Rancho Monte Del Diablo from 1857, a plat map for the Rancho Las Juntas from 1864, a General Land Office Map of Township 2 North, Range 2 West, Mount Diablo Meridian dated to 1870, USGS *Concord, Calif* 15-minute topographic quadrangle maps from 1897 and 1915, a 1894 Map of Alameda and Contra Costa Counties, and USGS *Wanut Creek, Calif* 7.5-minute topographic quadrangle maps from 1947, 1949, and 1959. A summary of the findings of this review can be found in Table 3 below.

Table 3
SUMMARY OF FINDINGS FROM HISTORIC-ERA MAPS DEPICTING THE PROJECT SITE

Map Edition	Features Depicted
<i>Plat Map of Rancho Monte Del Diablo (1857)</i>	<ul style="list-style-type: none"> No details are present on the map pertaining to the project site or vicinity.
<i>Plat Map of Rancho Las Juntas (1864)</i>	<ul style="list-style-type: none"> No details are present on the map pertaining to the project site or vicinity.
<i>GLO Map of Township 2 North, Range 2 West, Mount Diabo Meridian (1870)</i>	<ul style="list-style-type: none"> No details are present on the map pertaining to the project site or vicinity.
<i>Concord, Calif. (1897)</i>	<ul style="list-style-type: none"> Town of Pacheco is depicted, with a road connecting it to Concord to the east. Walnut Creek is depicted, as is Grayson Creek.

	<ul style="list-style-type: none"> Map does not show development or structures in immediate vicinity of project site (to west of Grayson Creek).
Alameda and Contra Costa Counties (1894)	<ul style="list-style-type: none"> Parcels south of town of Pacheco are labeled “Hamburg 25.A” and “Burdell 122.74.A” No depictions of structures or specific land uses west of Grayson Creek.
Concord, Calif. (1915)	<ul style="list-style-type: none"> Town of Pacheco is depicted, with a road connecting it to Concord to the east. Walnut Creek is depicted, as is Grayson Creek. Map does not show development or structures in immediate vicinity of project site (to west of Grayson Creek).
Walnut Creek, Calif. (1947)	<ul style="list-style-type: none"> Center Ave is depicted, as is Aspen Drive, to the north of the project site. Hayden Park is north of the project site. No structures or other land uses are depicted within the project site.
Walnut Creek, Calif. (1949)	<ul style="list-style-type: none"> No depicted changes within project site since 1947 map.
Walnut Creek, Calif. (1959)	<ul style="list-style-type: none"> Two structures are depicted just south of Central Ave, in approximate location of project site. No further land use details are depicted.

Historic-era aerial photographs examined for this analysis included photographs taken in 1946, 1948, 1949, 1958, 1968, 1979, 1980, 1982, 1987, 1988, 1993, 2002, 2005, 2009, 2010, 2012, 2014, 2016, 2018, and 2020 (NETROnline 2024). The findings from this historic-era aerial photograph analysis are presented in Table 4 below.

Table 4
SUMMARY OF FINDINGS FROM HISTORIC-ERA AERIAL PHOTOGRAPHS DEPICTING THE PROJECT SITE

Aerial Photograph Edition	Features Depicted
<i>Aerial Photograph from 1946</i>	<ul style="list-style-type: none"> Project site is depicted as covered in grass with a few trees depicted on the west side and northeast side of project site. Small cluster of potentially residential structures present in northwest corner of project site. Center Avenue, to north of project site, is depicted as paved, and Blackwood Drive (road to adjacent west of project site) is also depicted as well. Lots to the adjacent south and west all possess residences. Lot to the north is occupied by a residence/business on its western portion, and a church in its northeastern portion. Grayson Creek to east of project site runs same route as it does in 2024.
<i>Aerial Photograph from 1948</i>	<ul style="list-style-type: none"> No significant changes observed within project vicinity since 1946.
<i>Aerial Photograph from 1949</i>	<ul style="list-style-type: none"> No significant changes observed within project vicinity since 1948.
<i>Aerial Photograph from 1958</i>	<ul style="list-style-type: none"> Structures within northwestern corner of project site appear to be leveled, and trees have been removed from the project site. No other significant changes observed within project vicinity since 1948.
<i>Aerial Photograph from 1968</i>	<ul style="list-style-type: none"> Current Fire Station 9 structures are now depicted in north-central portion of project site.

Aerial Photograph Edition	Features Depicted
	<ul style="list-style-type: none"> Area to east of Grayson Creek has been developed into commercial properties with paved parking lots. No other significant changes observed within project vicinity since 1958.
<i>Aerial Photograph from 1979</i>	<ul style="list-style-type: none"> No significant changes observed within project vicinity since 1968.
<i>Aerial Photograph from 1980</i>	<ul style="list-style-type: none"> No significant changes observed within project vicinity since 1979.
<i>Aerial Photograph from 1982</i>	<ul style="list-style-type: none"> No significant changes observed within project vicinity since 1980.
<i>Aerial Photograph from 1987</i>	<ul style="list-style-type: none"> No significant changes observed within project vicinity since 1982.
<i>Aerial Photograph from 1988</i>	<ul style="list-style-type: none"> Residential structures within the lot adjacent west of project site have been leveled and debris removed from area. No other significant changes observed within project vicinity since 1987.
<i>Aerial Photograph from 1993</i>	<ul style="list-style-type: none"> Row of five elongated, rectangular apartment buildings depicted as constructed along the eastern half of lot adjacent west of project site. No other significant changes observed within project vicinity since 1988.
<i>Aerial Photograph from 2002</i>	<ul style="list-style-type: none"> Six additional rectangular apartment buildings are now depicted as constructed along the western half of lot adjacent west of project site. Additional residences are now visible to north and west of church located in the lot adjacent north of the project site. No other significant changes observed within project vicinity since 1993.
<i>Aerial Photograph from 2005</i>	<ul style="list-style-type: none"> No significant changes observed within project vicinity since 2002.
<i>Aerial Photograph from 2009</i>	<ul style="list-style-type: none"> No significant changes observed within project vicinity since 2005.
<i>Aerial Photograph from 2010</i>	<ul style="list-style-type: none"> No significant changes observed within project vicinity since 2009.
<i>Aerial Photograph from 2012</i>	<ul style="list-style-type: none"> No significant changes observed within project vicinity since 2010.
<i>Aerial Photograph from 2014</i>	<ul style="list-style-type: none"> No significant changes observed within project vicinity since 2012.
<i>Aerial Photograph from 2016</i>	<ul style="list-style-type: none"> No significant changes observed within project vicinity since 2014.
<i>Aerial Photograph from 2018</i>	<ul style="list-style-type: none"> A rectangular structure is under construction within the southeastern corner of lot adjacent north of project site. No other significant changes observed within project vicinity since 2014.
<i>Aerial Photograph from 2020</i>	<ul style="list-style-type: none"> A rectangular structure under construction within southeastern corner of lot adjacent north of project site in 2018 is now completed. No other significant changes observed within project vicinity since 2020.

4.2 NATIVE AMERICAN HERITAGE COMMISSION SACRED LANDS FILE SEARCH

On July 22, 2024, HELIX requested that staff at the Native American Heritage Commission (NAHC) conduct a search of their Sacred Lands File (SLF) for the presence of Native American sacred sites or human remains in the vicinity of the project site. A written response received from the NAHC on July 30, 2024, stated that the results of the SLF search were positive. The NAHC also provided a list of 40 Native American points of contact who may possess additional information concerning cultural and or tribal

resources within the project site and its vicinity. The Contra Costa County Public Works Department will conduct all further outreach with Native American points of contact pertaining to the project. The initial correspondence with the NAHC is included in Appendix C of this report.

5.0 PEDESTRIAN SURVEY

HELIX Principal Archaeologist, Andrew Pulcheon, M.A., RPA surveyed the project site on July 25, 2024. The survey involved the systematic investigation of the project site's ground surface. During the survey, the ground surface was examined for artifacts (e.g., flaked stone tools, tool-making debris, stone milling tools, fire-affected rock, prehistoric ceramics), soil discoloration that might indicate the presence of a prehistoric cultural midden, soil depressions, and features indicative of the former presence of structures or buildings (e.g., standing exterior walls, postholes, foundations, wells) or historic-era debris (e.g., metal, glass, ceramics). Ground disturbances such as gopher holes, burrows, cut banks, and drainage banks were also visually inspected. Representative site photographs are provided in Appendix D.

Within the fenced area of the fire station, much of the project site was paved over, though approximately 20 percent of the area was found to be unpaved, allowing a partial view of underlying soils (though soils were still obscured by grass and redwood litter). Landscaping within the fenced area was found to consist of grasses, residual mature redwoods, and several palm trees (Appendix D, Photograph 1).

Outside of the fenced area, to the south of the fire station, HELIX's surveyor examined the project site using 8-10 meter transects (Appendix D, Photograph 2). Observed soils were found to consist of dark grey silty clay with expansion cracks, and ground visibility was approximately 10-20 percent. Sporadic modern debris were also encountered on the ground surface, presumably from casual and somewhat recent dumping. Some unofficial footpaths (presumably created by local residents) were also observed, as were two-track ruts from the recent rainy season. The northwest portion of the parcel (located to the west of the fenced compound) was found to possess approximately 4 feet of imported fill (Appendix D, Photograph 3). According to a County official, Isaac Tompkins, this imported fill was present as the fire station was testing out the prospects of raising the elevation of the parcel due to flooding concerns (as per the proposed project design) (Tompkins pers comm 7/25/24). A storm inlet grate was also noted to be present at the central portion of the parcel's western boundary, indicating past ground disturbance during utility installation and or maintenance within the western portion of the parcel. Two geotechnical boring holes were also noted on the grounds (outside the fence line) and what appeared to be an alignment for some utilities testing (Appendix D, Photograph 4).

Ultimately, the entirety of the project site was surveyed, and no archaeological cultural resources were identified.

6.0 HISTORICAL RESOURCES EVALUATION OF PACHECO FIRE STATION BUILDING

HELIX Senior Architectural Historian Nelson White conducted a Historical Resources Evaluation and NRHP/CRHR Evaluation of Pacheco Fire Station Building 9 and complex. Research was conducted to support the formal NRHP/CRHR evaluation of the fire station, including a review of the California Office of Historic Preservation BERD for Contra Costa County, the California Digital Newspaper Collection,

newspapers.com, Calisphere, articles and documents kept at the Contra Costa County Historical Society, and documents on file with the Online Archive of California. Plates used in the evaluation of the fire station are provided below in Section 6.1.4 of this report.

6.1 ARCHITECTURAL DESCRIPTION

The vernacular fire station was reportedly built in 1957 by Ernest Hollman of Concord for a total of \$31,775 (*Martinez News Gazette*, 1956). The building is one-story and is slightly L-shape in plan. It is clad in stucco. Fenestration consists of original metal-framed windows consisting of pairs of four-lite casements with a fixed lite above each, replacement vinyl-framed hung windows within original openings, and replacement vinyl-framed sliding windows within original openings. All window openings exhibit windowsills and no trim. Slab pedestrian doors and metal overhead vehicular doors complete the fenestration. It is capped by a combination side gable and hipped roof that is finished with composition shingles. The architectural description begins with the north (primary) façade and continues clockwise to the east, south (rear), and west elevation (Plates 1-4).

6.1.1 North (primary) Façade

The north (primary) façade is asymmetrical (Plate 1). From west to east, the façade begins with three evenly spaced replacement windows. To the east of these is the primary entry, which consists of a boxed portico that projects approximately 6 inches. The open entryway is cased with a surround of Art Moderne-inspired tiles. Recessed approximately 2 feet within the opening is a single replacement paneled door (date unknown). The portico is capped by a combination side gable and hipped roof. The façade then recedes approximately 6 feet. The remainder of the façade has a pair of vehicular doors with a single stucco post between them. The west half of the façade is capped by a hipped roof while the east roof is capped by a side gable roof. A square ventilation cupola, capped by a hipped roof, rises above the roof's ridgeline, aligned with the entry portico.

6.1.2 East Elevation

The east elevation is symmetrical (Plate 2). Centered on the elevation are three evenly spaced original windows. A narrow vertically oriented vent is aligned with and above the middle window.

6.1.3 South Elevation

The south (rear) elevation is asymmetrical and divided into two parts (Plate 3). The east portion is loosely symmetrical with two evenly spaced original windows. At the west end of this portion is a secondary entry consisting of a single slab door. The east portion of the elevation is capped by a side gable roof. The west portion of the elevation projects approximately 4 feet. From east to west, this portion has a single sliding window followed by a pair of hung windows. This portion of the south elevation is capped by a gable roof, a narrow portion of which projects over the secondary entry.

6.1.4 West Elevation

The west elevation is asymmetrical (Plate 4). Toward the south end is a pair of smaller hung windows. Toward the north end is a trio of hung windows, the southern of which has been infilled or covered by a board. The east elevation is capped by a side gable roof.



Plate 1. Photograph of North (primary) façade of Fire Station Building, facing south, taken 8/8/24. Note the replacement pedestrian door and windows (date(s) of modifications unknown).



Plate 2. Photograph of Fire Station Building East elevation, facing west, taken 8/8/24.

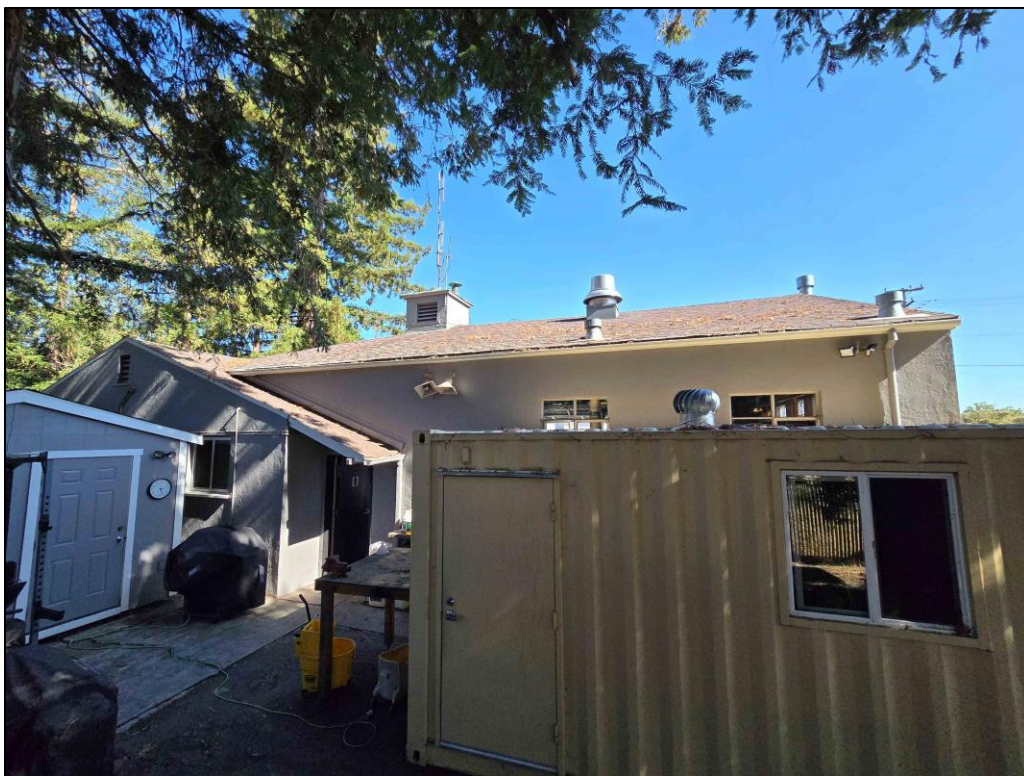


Plate 3. Photograph of South (rear) elevation, facing north, taken 8/8/24. Note the replacement sliding window (date of modification unknown).



Plate 4. Photograph of West elevation, facing northeast, taken 8/8/24. Note the replacement hung windows and one infilled window (date/s of modifications unknown).

6.1.5 Alterations

Known alterations since its original construction in 1957 include installation of replacement vinyl-framed hung windows, sliding windows and the infill of one window (date/s unknown), installation of primary entry door (pre-2011), and the possible replacement of one or both vehicular doors (date/s unknown). No building permits were on file with the Contra Costa County Department of Conservation and Development.

As part of the evaluation, HELIX prepared California Department of Parks and Recreation 523 Series forms (DPR 523) for the fire station, which are provided in Appendix E of this report.

6.2 HISTORIC CONTEXT

6.2.1 Contra Costa County Fire Protection District

The following presents a historical overview of the Contra Costa County Fire Protection District; this material is excerpted from their history page at cccfpd.org (Contra Costa County Fire Protection District, 2021). A summary of all the Contra Costa County Fire Protection District stations, the years of their construction, and original associations are presented in Tables 5 and 6 (data collected from Contra Costa County Fire Protection District, 2021).

The Contra Costa County Fire Protection District was originally formed by the merger of the Central Fire Protection District and the Mt. Diablo Fire Protection District. This took place on December 29, 1964. Stations 1, 3 and 4 in Walnut Creek and Stations 2 and 5 in Pleasant Hill were part of the Central Fire Protection District while Stations 6, 8 and 10 in Concord, Station 7 in West Pittsburg, Station 11 in Clayton [1954, extant but decommissioned and sold] and Station 9 in Pacheco [built in 1957] were part of the Mt. Diablo Fire Protection District.

The Mountain View Fire District became part of the Contra Costa County Fire Protection District on December 1, 1966. Station 12 was the District Station and served the unincorporated area of Martinez.

The Martinez Fire Department became part of the Contra Costa County Fire Protection District on July 1, 1968, after passage of Measure F on the ballot. Stations 13 and 14 were the Martinez Fire Department stations.

The Lafayette Fire Protection District became part of the Contra Costa County Fire Protection District on January 1, 1969, after the City of Lafayette became a city and voted to annex to the Contra Costa County Fire District. Stations 15, 16 and 17 were the District Fire Stations.

The Bay Point Fire Protection District was annexed to the Contra Costa County Fire District on January 1, 1969. It had no paid personnel. Station 18 was one of the two stations in this District. The other station was in Port Chicago and is occupied by the U.S. Coast Guard.

The Island Fire District was split up into three service areas. Service areas F3 and F4 were in the East County area and considered an unincorporated Antioch and Pittsburg area. Service area F5 was in the waterfront area of Avon. The surrounding districts through contract provided Service. For many years, Service Area F5 was contracted with the Mountain View Fire District. Service Area F5 was dissolved and became part of the Contra Costa County Fire District on October 1, 1970.

The Briones Fire District was annexed to the Contra Costa County Fire District on November 1, 1971, and had only a part-paid Chief. Station 19 was in the Briones Fire District.

The Riverview Fire District was formed on July 1, 1975, by combining Antioch Fire Department, Pittsburg Fire Department and the West Pittsburg portion of the Contra Costa County Fire District, and Service Areas F3 and F4 of the Island Fire District into one district. On November 1, 1977, the Allied Chemical area of Port Chicago area of Port Chicago Highway was annexed to the Riverview Fire District. The Riverview Fire District was dissolved on July 1, 1994, and became part of the Contra Costa County Fire District on that date.

The San Pablo Fire District was annexed to the El Sobrante Fire District on June 30, 1975. The West County Fire District was dissolved on July 1, 1994, and became part of the Contra Costa County Fire District on that date.

On July 1, 1994, the Oakley Fire District was dissolved and became part of the Contra Costa County Fire District. Effective January 1, 1999, the Oakley Fire District was re-formed as a County-dependent district.

On July 1, 1994, the Pinole Fire District (not City of Pinole Fire Department) was dissolved and became part of the Contra Costa County Fire District.

On July 1, 2022, Contra Costa County Fire took a major step toward improving fire and emergency medical services delivery across the county with the annexation of East Contra Costa Fire Protection District into Con Fire. The move came as a result of an annexation process, which saw consolidation of the urban and rural service areas and resources of East Con into the Con Fire family. Among many improvements to fire and emergency medical services were shortened response times, enhanced lifesaving capabilities, and new fire stations and crews across the district, especially east county.

Table 5
EXTANT FIRE STATIONS THAT ARE 45 YEARS OF AGE OR OLDER

Number	Address	Year Built	Original Association	Notes
1	1330 Civic Drive, Walnut Creek	1964	Central Fire Protection District	
2	2012 Geary Road, Pleasant Hill	1964	Central Fire Protection District	
4	700 Hawthorne Drive, Walnut Creek	1956	Central Fire Protection District	

Number	Address	Year Built	Original Association	Notes
5	205 Boyd Road, Pleasant Hill	1966	Central Fire Protection District	
6	2210 Willow Pass Road, Concord	1938	Mt. Diablo Fire Protection District	Historical plaque
8	4647 Clayton Road, Concord	1954	Mt. Diablo Fire Protection District	
9	209 Center Avenue, Pacheco	1957	Mt. Diablo Fire Protection District	Subject property
10	2955 Treat Boulevard, Concord	1967	Mt. Diablo Fire Protection District	
12	1240 Shell Avenue, Martinez	1950	Mountain View Fire District	Non-operational
13	251 Church Street, Martinez	1964	Martinez Fire Department	
14	521 Jones Street, Martinez	1952	Martinez Fire Department	
15	3338 Mt. Diablo Boulevard, Lafayette	1967	Lafayette Fire Protection District	
17	620 St. Mary's Road, Lafayette	1963	Lafayette Fire Protection District	
18	145 Sussex Street, Clyde	1940, 1954	Bay Point Fire Protection District	Closed
19	1019 Garcia Ranch Road, Briones	1972	Briones Fire District	Reserve station
69	4640 Appian Way, El Sobrante	1946	Unknown	Historical plaque
81	315 W. 10 th , Antioch	N/A	Unknown	
83	2717 Gentrytown Drive, Antioch	1972	N/A	

Table 6
FIRE STATIONS THAT ARE UNDER 45 YEARS OF AGE

Number	Address	Year Built	Original Association	Notes
3	1520 Rossmoor Parkway, Walnut Creek	1996	Central Fire Protection District	Replacement building
7	1050 Walnut Avenue, Walnut Creek	c.1990	Mt. Diablo Fire Protection District	New location
11	6500 Center Street, Clayton	2000	Mt. Diablo Fire Protection District	Recycled number/New location
16	4007 Los Arabis Drive, Lafayette	2018	Lafayette Fire Protection District	Replacement building
22	5050 Crystyl Ranch Parkway, Concord	c.1990s	N/A	
70	1800 23 rd Street, San Pablo	2020	N/A	
82	196 Bluerock Drive, Antioch	c.2005	N/A	
84	1903 Railroad Avenue, Pittsburg	2009	N/A	
85	2331 Loveridge Road, Pittsburg	2009	N/A	
86	10 Goble Drive, Bay Point	2021	N/A	
87	800 W. Leland Road, Pittsburg	Post-2000	N/A	

Number	Address	Year Built	Original Association	Notes
88	4288 Folsom Drive, Antioch	Post-	N/A	
84	1903 Railroad Avenue, Pittsburg	2009	N/A	
92	201 John Muir Parkway, Brentwood	2001	N/A	(formerly 52)
93	530 O'Hare Avenue, Oakley	Post-1990	N/A	
95	3200 E. Cypress Road, Oakley	Post-1990	N/A	(formerly 55)
99	1685 Bixler Road, Brentwood	Post-1990	N/A	(formerly 59)

6.2.2 Fire Station Design

The following presents a brief historical overview of fire station design in America; this material is excerpted from the Fire Stations of Nevada National Register of Historic Places Multiple Property Documentation Form (Nevada State Historic Preservation Office 2017).

The architecture of fire stations in the United States has generally progressed as a combination of contemporary architectural preferences and the functional need to house firefighters and their equipment. Architectural historian Rebecca Zurier described the development of fire station architecture as a result of both social history and functional needs. As a central civic institution, fire company halls and firehouses tended to incorporate popular architectural styles employed for other important civic buildings such as city halls, county courthouses, schools, and churches. However, the need to store fire engines, hose carts, and other equipment meant that garage space became the principal architectural component of most firehouses. As a result, the forms and divisions of space within fire stations has remained fairly constant over the last two centuries, despite periodic changes in the stylistic envelope of these buildings...

The critical transition in fire station architecture came with the transition from private, volunteer fire service to public, professional service. ... the shift in expectations and methods in firefighting that occurred by the late nineteenth and early-twentieth centuries ... As Zurier elaborates, fire stations became unique balances of architectural tension, "combining aspects of a garage, a barracks, and a home," and having to be "public and private, institutional and domestic, ceremonial and functional all at once." As a result, while they have always been designed with some degree of aesthetic consideration, fire stations have inclined toward the functional, with their stylistic elements restrained and subordinate to the functional purpose of the building. With public fire service emphasizing more on-duty fire fighters, the inclusion of sleeping quarters to accommodate around-the-clock duty schedules became a standard component of most fire station floor plans by the twentieth century. Stations that began as small garages and sheds became two-story stations with quarters, kitchens, and office space on the second floor.

This trend became embodied in the Romanesque-style red brick firehouses of many of America's downtowns. Smaller communities with less funding sought to combine civic functions, incorporating firehouse space into the floorplans of public buildings that also served as local courthouses, jails, and city halls...

The post-World War II era also brought with it the advent of the modern fire station. While these stations represent the pinnacle of technological advancement in the firefighting field, the focus on skills and tasks has left the architecture of the buildings largely mute. Similar to a changing view toward other public buildings throughout the country, most modern fire stations do not convey the same civic pride through their design as earlier structures, with some exceptions. Many Americans began to expect more frugality from their local governments, and municipal administrators found their budgets increasingly reduced as suburban development hampered their ability to match infrastructural maintenance with tax revenue. As a result, the quality of fire station design fell along with the general decline in the quality of American public architecture. Although Modern architectural styles such as Contemporary, International, and Ranch were frequently used for fire stations, they rarely represent the best versions of that style in their communities. ... Despite the lack of stylistic advancement, most firehouses experienced significant interior shifts. While the garage space for the fire apparatus remained the central focus, the emphasis on single story fire stations meant that floor plans adapted, typically organizing office, dormitory, kitchen, and gym space around the garage. Hallways were generally gone, with all traffic traveling through the garage, and with doors to the central space connecting from almost every room on the floorplan.

6.3 EVALUATION

6.3.1 NRHP and CRHR Eligibility

Criteria A/1: Association with significant events or patterns of development. Fire Station 9 was individually evaluated for potential association with events and patterns of history such as, but not limited to, community planning and development, conservation, and politics and government. Research to date does not indicate the station possesses a direct and important association with events or trends important to national, state, or local history. Constructed in 1957, it was not the first station constructed in Contra Costa County, the Mt. Diablo Fire Protection District, nor the Contra Costa County Fire Protection District. It reflects the evolution of development within Contra Costa County and is not individually able to convey this association above any of the other fire stations that are over 50 years of age. Thus, the fire station does not possess historic significance under Criteria A/1, and therefore, is recommended to not be individually eligible for listing in the NRHP and CRHR.

Criteria B/2: Association with individuals significant in the history of the city, region, or nation. Research to date has not revealed the fire station to have an association with the lives of persons important to national, state, and local history. The personnel who worked in the fire station served a critical role in its operation and in preventing and fighting fires, however, research to date has not revealed any individual employees to be important to national, state, or local history. Thus, the fire station does not possess historic significance under Criteria B/2, and therefore, is recommended to not be individually eligible for listing in the NRHP and CRHR.

Criteria C/3: Embodies distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master, or possesses high artistic values. Research to date has not revealed the fire station to be an early or important example of its type, to reflect distinctive engineering or architectural features, to be the work of a master, nor to possess high artistic value. The fire station is an unexceptional and common example of utilitarian architecture. Thus, the fire station does not possess

historic significance under Criteria C/3, and therefore, is recommended to not be individually eligible for listing in the NRHP and CRHR.

Criteria D/4: Has yielded, or may be likely to yield, information important in prehistory or history.

Criterion D/4 is applied most commonly to buildings, structures, or objects that have been used as a source of archaeological data and are believed to contain more, yet unretrieved, data that cannot be obtained from other sources. However, historical information about fire station design and equipment is prevalent, and further study of this fire station would not add any new information to the historic record. Thus, the fire station does not possess historic significance under Criteria D/4, and therefore, is recommended to not be individually eligible for listing in the NRHP and CRHR.

6.3.1.1 NRHP and CRHP Summary

Based on this analysis, HELIX recommends that Fire Station 9 is not individually eligible for listing in the NRHP and CRHR under Criteria A/1, B/2, C/3, and D/4. The fire station does not possess a direct and important association with events or trends important to national, state, or local history (A/1). It does not have associations with any individual or the lives of a distinct group of individuals important to national, state, or local history (B/2). The fire station is not an early or important example of its type, or to reflect distinctive engineering or architectural features, (C/3). Lastly, the fire station does not have the potential to yield information important to history (D/4).

7.0 SUMMARY AND RECOMMENDATIONS

7.1 SUMMARY

HELIX conducted this CRA and associated CHRE to assist the County in addressing the cultural resources requirements of CEQA. This CHRE was prepared based on background research and a pedestrian survey of the proposed project site. Based on the results of this CHRE, HELIX concludes that the following findings are appropriate for the project:

- **No Significant Impact** to Historical or Unique Archaeological Resources under *CEQA Guidelines* Section 15064.5; and
- **No Significant Impact to Human Remains** resulting from disturbance.

No additional study or documentation for cultural resources are recommended at this time. However, in the unlikely event that archaeological cultural resources, human remains, or funerary objects are discovered during project construction, the provisions contained in Section 7.2 of this report should be implemented to avoid or substantially reduce the severity of impacts to such finds.

7.2 RECOMMENDATIONS

7.2.1 Inadvertent Discovery of Cultural Resources

If cultural resources are exposed during ground-disturbing activities, construction activities should be halted within 100 feet of the discovery. Cultural resources could consist of but are not limited to stone, bone, wood, or shell artifacts, or features including hearths, structural remains, or historic dumpsites. If the resources cannot be avoided during the remainder of construction, an archaeologist who meets the

Secretary of the Interior's Professional Qualifications Standards should then be retained, in coordination with Contra Costa County Public Works Department, to assess the resource and provide appropriate management recommendations. If the discovery proves to be NRHP- and/or CRHR-eligible, additional work, such as data recovery excavation, may be warranted and should be discussed in consultation with the Contra Costa County Public Works Department.

7.2.2 Inadvertent Discovery of Human Remains

Although considered highly unlikely, there is always the possibility that ground disturbing activities during construction may uncover previously unknown human remains. In the event of an accidental discovery or recognition of any human remains, PRC Section 5097.98 must be followed. Once project-related earthmoving begins and if there is a discovery or recognition of human remains, the following steps should be taken:

1. There should be no further excavation or disturbance of the specific location or any nearby area reasonably suspected to overlie adjacent human remains until the County Coroner is contacted to determine if the remains are Native American and if an investigation of the cause of death is required. If the coroner determines the remains are Native American, the coroner should contact the NAHC within 24 hours, and the NAHC should identify the person or persons it believes to be the "most likely descendant" of the deceased Native American. The most likely descendant may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains, and any associated grave goods as provided in PRC Section 5097.98, or
2. Where the following conditions occur, the landowner or their authorized representative should rebury the Native American human remains and associated grave goods with appropriate dignity either in accordance with the recommendations of the most likely descendent or on the project area in a location not subject to further subsurface disturbance:
 - The NAHC is unable to identify a most likely descendent or the most likely descendent failed to make a recommendation within 48 hours after being notified by the commission;
 - The descendent identified fails to make a recommendation; or
 - The landowner or their authorized representative rejects the recommendation of the descendent, and the mediation by the NAHC fails to provide measures acceptable to the landowner.

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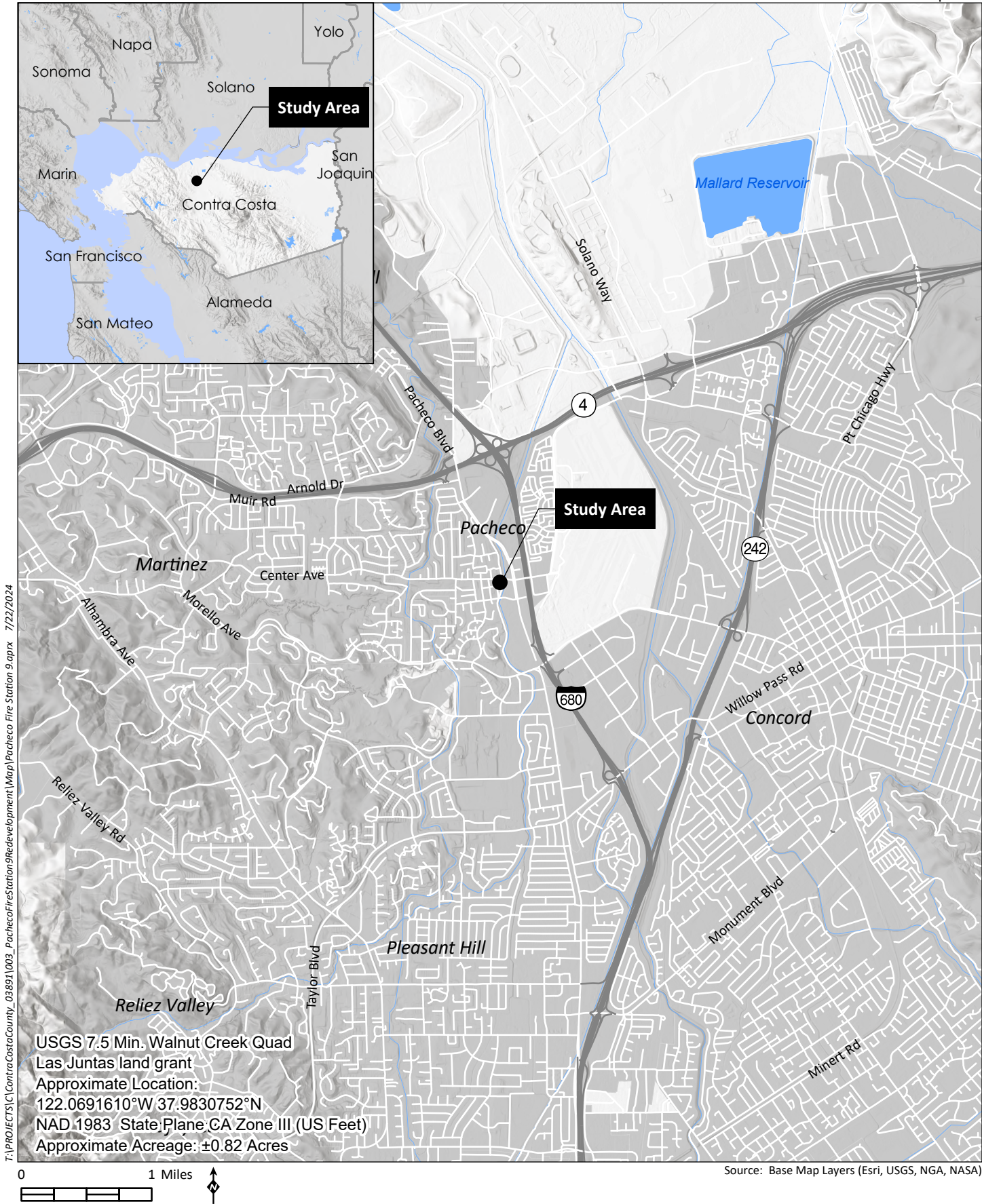
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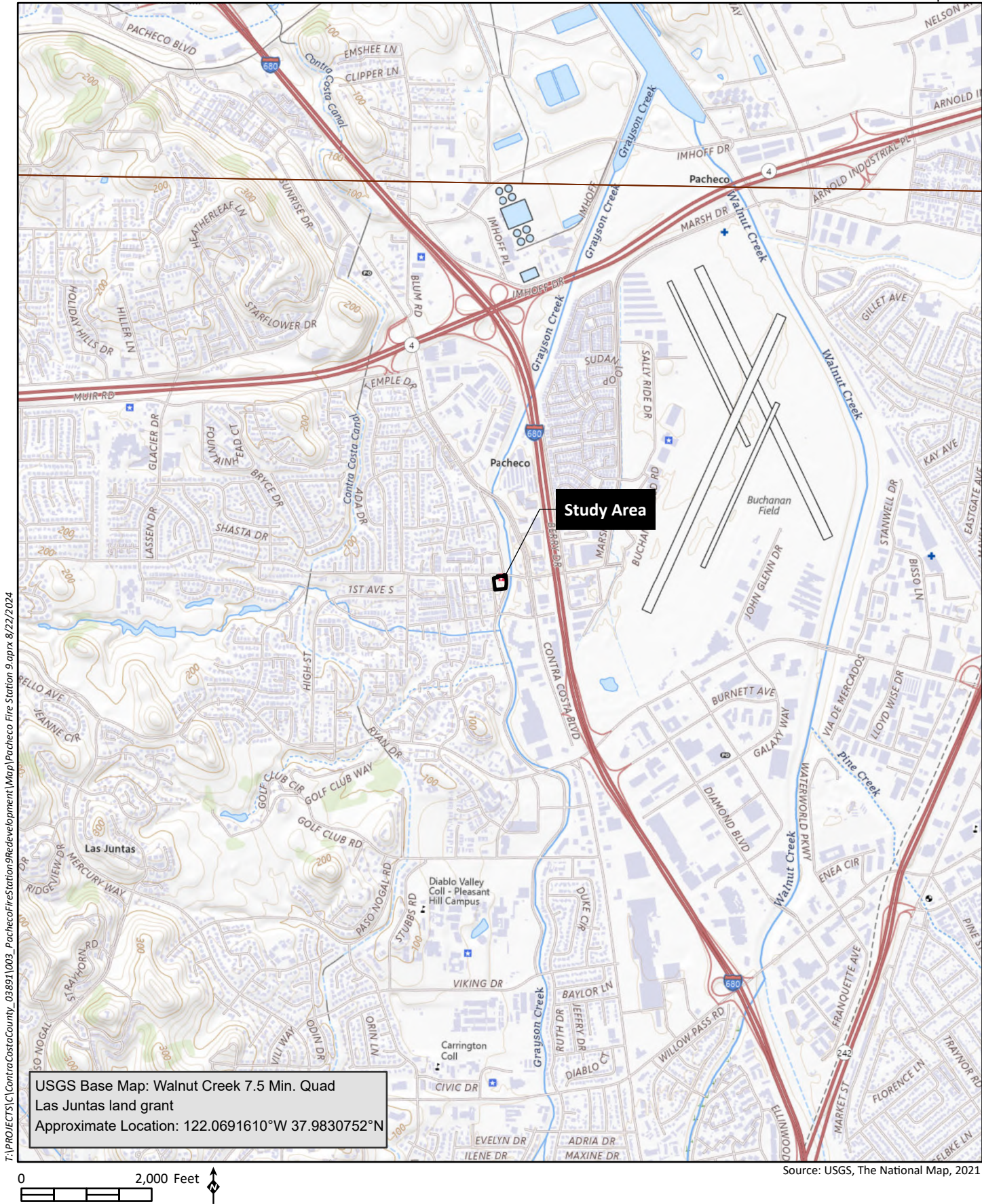
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Appendix A

Figures







Appendix B

Resumes

EDUCATION

Doctor of Philosophy
Candidate,
Anthropology, University
of California, Berkeley,
2024

Master of Arts,
Anthropology, University
of California, Berkeley,
2019

Master of Arts, Maritime
Studies and Nautical
Archaeology, East
Carolina University, 2011

Master of Arts, American
History, Emory University,
2007

Bachelor of Arts, History,
Cum Laude, Emory
University, 2007

CERTIFICATIONS

Registered Professional
Archaeologist,
No. 989542

U.S. SOI Qualified for
Historic Archaeology,
Prehistoric Archaeology,
and History

PROFESSIONAL AFFILIATIONS

Society for Historical
Archaeology

BENJAMIN SIEGEL, RPA

Cultural Resources Project Manager



Mr. Siegel is an archaeologist and cultural resource manager with 14 years of experience directing cultural resource management efforts across the United States and in countries abroad. He regularly authors or co-authors cultural resource assessments and reports associated with projects requiring compliance with Section 106 of the National Historic Preservation Act (NHPA), National Environmental Policy Act (NEPA), and California Environmental Quality Act (CEQA). He has applicable experience in directing records searches, field

surveys, site evaluations, data recovery efforts, and developing resource mitigation plans for large scale cultural resource efforts. Mr. Siegel is also experienced in the application of the California Register of Historical Resources (CRHR) and National Register of Historic Places (NRHP) evaluation criteria to various cultural resources. He meets the Secretary of the Interior's (SOI) Professional Qualifications Standards for prehistoric archaeology, historic archaeology, and history and is a member of the Register of Professional Archaeologists.

Social and Ecological Resilience Across the Landscape Fire Management Features Cultural Resources (2021 - 2022). Senior Archeologist managing a fuel break expansion project extending through Stanislaus National Forest lands. Cultural resources studies included Section 106 compliance with the Stanislaus National Forest as the lead agency, and CEQA compliance with the County of Tuolumne as the lead agency. Project activities managed included leading intensive pedestrian surveys of fuel break areas totaling approximately 8,500 acres, documenting over 100 cultural resources using California DPR 523 site recordation forms and following Stanislaus National Forest protocols, developing avoidance and minimization strategies for at-risk cultural resources, and producing a comprehensive Cultural Resources Inventory Report. Work performed for the County of Tuolumne with the U.S. Forest Service as project partners.

West Point Water Supply Drought Resiliency Biological and Cultural Resource Evaluations (2022). Senior Archaeologist for a dam enhancement project, approximately four acres in size, located in West Point, Calaveras County. Responsible for conducting a California Historical Resources Information System (CHRIS) records search and leading a pedestrian survey of the project area. Author of a cultural resource assessment that meets with CEQA and Section 106 requirements. Work performed for Calaveras County Water District.

Forebay Park Improvements (2022). Senior Archaeologist for proposed recreation improvements to the approximately six-acre Forebay Park located in Pollock Pines, El Dorado County. Responsible for conducting a California Historical Resources Information System (CHRIS) records search, Native American outreach, and directing a pedestrian survey of the project area. Author of the project's cultural resource assessment which meets with CEQA requirements. Work performed for El Dorado County.

North Vista Plaza Project (2021 - 2022). Senior Archaeologist for an approximately 41-acre residential development project in Valley Springs, Calaveras County. Responsible for California Historical Resources Information System (CHRIS) records search and Native American Heritage Commission Sacred Lands File. Directed the pedestrian survey of the project area. Authored the cultural resource technical report to comply with USACE and Section 106 of the National Historic Preservation Act. Work performed for LGI Homes.

Orleans Mutual Water Company, Water Treatment and Storage Improvements IS/MND (2022). Senior Archaeologist for replacement of an existing in-line filtration plant and water distribution system with a new water treatment plant system and storage in unincorporated Orleans, Humboldt County. Prepared cultural resources assessment in support of CEQA IS/MND. Work performed as a subconsultant to Water Works Engineers with Orleans Mutual Water Company as the project owner, and State Water Resources Control Board as the lead agency.

Creekside Ridge Drive Development Cultural Extended Phase I Plan & Letter Reports (2021). Senior Archaeologist for approximately two-acre developmental project located in Roseville, Placer County. Responsible for developing and planning an Extended Phase I archaeological study based on previous cultural resource efforts in the project vicinity and for the proposed development project. Work performed for RSC Engineering, Inc. with the City of Roseville as the lead agency.

Mowry Village Residential Development (2021). Senior Archaeologist responsible for conducting a California Historical Resources Information System (CHRIS) records search, historic aerial photograph analysis, tribal outreach, and an intensive pedestrian survey to inform a cultural resource assessment of a 35-acre project area in the City of Newark in Alameda County. The project site had a high potential to contain prehistoric archaeological sites and resources. Served as the primary author for the final cultural resource assessment report for the project to comply with CEQA requirements for the management of cultural resources. Work performed for Integral Communities.

Folsom Corporate Center Apartments IS/MND (2021). Senior Archaeologist for proposed multi-family apartment community project approximately seven acres in size, in Folsom, Sacramento County. Responsible for conducting a California Historical Resources Information System (CHRIS) records search, Native American outreach, and directing a pedestrian survey of the project area. Author of the project's cultural resource assessment which meet with CEQA requirements. Work performed for the City of Folsom Community Development Department.

Natoma Senior Apartments IS/MND (2022). Senior Archaeologist for proposed senior apartment housing project approximately five acres in size, in Folsom, Sacramento County. Responsible for conducting a California Historical Resources Information System (CHRIS) records search, Native American outreach, and directing a pedestrian survey of the project area. Author of a cultural resource assessment that meets with CEQA and Section 106 requirements. Work performed for City of Folsom Community Development Department.

Fred Jackson First Mile/Last Mile Connection Environmental Compliance (2021). Senior Archaeologist for construction monitoring during roadway improvement project located in unincorporated community of North Richmond, Contra Costa County. Responsible for California Historical Resources Information System records search, Native American Heritage Commission Sacred Lands File search, technical cultural report authorship, and for the development of a Worker Environmental Awareness Program training for project construction crews and contractors before excavation and ground disturbance activities. Work performed for Contra Costa County.

Watt Avenue Apartments (2021). Senior Archaeologist for seven-acre apartment complex development project located in North Highlands, Sacramento County. Responsible for producing the Cultural Resource Assessments associated with CEQA and Section 106 compliance. Work performed for New Green Properties, LLC.

EDUCATION

Master of Arts, Cultural Resources Management, Sonoma State University, 2000

Bachelor of Arts, Anthropology, minor in Geography, Humboldt State University, 1994

CERTIFICATIONS

Registered Professional Archaeologist No. 11693

American Institute of Certified Planners, Certification No. 21490

Academy of Board Certified Environmental Professionals, Certified Environmental Professional No12040825

PROFESSIONAL AFFILIATIONS

American Planning Association

Western Chapter of the Association for Preservation Technology

ANDREW PULCHEON, RPA, AICP

Principal Cultural Resources Specialist

Andrew (Andy) Pulcheon has 30 years of research, field, laboratory, and project management experience. He has a breadth of skills and knowledge from both public and private sector projects across central and northern California including Native American consultation; field, archival, and laboratory research; Section 106 and CEQA historical resource evaluations; NEPA analysis; CEQA document preparation; development of treatment and management plans; and museum curation and collections management. He has extensive experience performing quality assurance/quality control for cultural resource, NEPA, and CEQA documentation.

Andy also has 20 years of experience in cultural resources impact assessment and mitigation development, including the preparation of Initial Study and Environmental Impact Report sections for public and private sector clients in both urban and rural settings. Andy has documented or evaluated the following resources to meet regulatory requirements: prehistoric and historical archaeological sites, historic districts, archaeological districts, ranches, farmsteads, schools, bridges, train stations, dams, tanneries, hospitals, post offices, railroads and associated features, roadways, docks, rock walls, fire lookouts, courthouses, college campuses, residences, and mills.

In addition to these qualifications, Andy is completing a Master of Legal Studies program in Indigenous Peoples Law at the University of Oklahoma (anticipated graduation in April 2025).

PREVIOUS PROJECT EXPERIENCE

Tolay Lake Regional Park Cultural Resources Study (2006 - 2010). Role conducted a cultural resources study of the Tolay Lake Regional Park in Sonoma County which addressed the requirements of Section 106 of the National Historic Preservation Act and CEQA. The study identified a National Register-eligible historic district in the project area. The district has a historical theme, represented by the Cardoza Ranch complex of buildings and structures, and landscape ranching features. The district also has a prehistoric theme, represented by a diversity of Native American archaeological sites, including one of the richest deposits of charmstones ever identified in North America. As part of the study, Developed management strategies and guidelines to assist the Sonoma County Regional Parks Department in making development decisions in anticipation of the implementation of a park master plan. Co-author of the technical report and cultural resources task leader. Work performed for Sonoma County Regional Parks Department.

Solano County General Plan Update EIR (2005 - 2007). Role prepared a cultural and paleontological resources baseline conditions document in support of a programmatic EIR for the Solano County General Plan update. Conducted archival and background research, contacted potentially interested parties, and developed a summary overview of the cultural and paleontological resources settings of unincorporated Solano County. Some of the resources identified and documented include prehistoric and historical archaeological sites and historical built environment resources. Based on the

results of the research, assisted the County in developing General Plan policies for the identification and protection of significant cultural and paleontological resources. The baseline conditions document provided the basis for a program-level impacts analysis and mitigation recommendations. Author of the EIR section and cultural resources task leader. Work performed for the Solano County Department of Resource Management.

SR-68/San Benancio Road Intersection (2005 - 2007). Role conducted Phase II archaeological investigations in support of Section 106 and CEQA permitting for an intersection improvements project proposed by the Monterey County Department of Public Works. The archival and field study indicated that prehistoric archaeological site CA-MON-4/267 was located partially within the Area of Potential Effect for the project. Subsequent excavations revealed that CA-MNT-4/267 consists of a habitation midden with faunal dietary debris, lithics, shell beads, and groundstone. CA-MNT-4/267 contains archaeological deposits that appear to represent a relatively undisturbed, discrete Early Period component dating from 1315 to 875 B.C., including an 80-year period between 1120 B.C. and 1200 B.C. that is not represented by any other archaeological site in Monterey County. CA-MNT-4/267 appears to be significant under NRHP Criterion D for its ability to contribute to a greater understanding of the poorly understood end-of-the-Early Period and Early-to-Middle Period transition in the Monterey Peninsula. Work performed for Monterey County Department of Public Works.

Salinas Intermodal Transportation Center, (2006 - 2010). Role prepared a Supplemental Historic Property Survey Report, Archaeological Survey Report, and Historical Resources Evaluation Report for the Salinas Intermodal Transportation Center Project in downtown Salinas, Monterey County. Conducted archival research, consultation with potentially interested parties, a field survey, and a National Register of Historic Places eligibility evaluation. Research identified one cultural resource, the Salinas Southern Pacific Railroad Historic District, in the project area. The study confirmed that, due to the absence of significant changes to the contributing buildings or their surroundings, the District still possessed the integrity necessary to retain eligibility for listing in the National Register. Work performed for City of Salinas Public Works Department.

Livermore Railroad Depot Relocation and Reconstruction (2014 - 2015). Role prepared an Area of Potential Effects Map, Historic Property Survey Report, Archaeological Survey Report, and Historical Resources Evaluation Report for this City of Livermore/Caltrans Local Assistance project that proposes to move Livermore's Southern Pacific Railroad Station to a new location. A National Register of Historic Places evaluation of the building was prepared and included in the Historical Resources Evaluation Report. Served as Principal overseeing the cultural resources tasks. Work performed for the City of Livermore.

Trancas Bridge Over the Napa River Pier Number 3 Scour Repair Napa County, CA (2006 - 2008). ROLE for preparation of a Historic Property Survey Report, Archaeological Survey Report (ASR), Extended Phase I (XPI) Report, and Environmentally Sensitive Area (ESA) Action Plan for this Caltrans local assistance project in Napa County. In coordination with Caltrans, an XPI presence/absence excavation study was performed to determine if the project would affect an adjacent prehistoric archaeological site identified by the ASR. Based on the findings documented in the XPI Report, the site's boundary was adjusted away from the Area of Direct Impact and an ESA Action Plan was prepared which proposes the installation of construction fencing to protect the remaining portion of the archaeological site. Served as field director on for the XPI presence/absence excavation. Work performed for the Napa County Public Works Department.

South County Recycled Water Pipeline Phase 1B/2A (2016-2017). Principal-in-Charge providing QA/QC and overseeing preparation of a cultural resources study for a recycled water pipeline project in the City of Gilroy, Santa Clara County. The study consisted of background research, a records search, a pedestrian field survey, and a Sacred Lands File Search. Work performed for the Santa Clara Valley Water District.

EDUCATION

Master of Science,
Historic Preservation,
School of the Art
Institute of Chicago,
2006

Bachelor of Arts,
Architectural History and
Urban Design, DePaul
University, 1999

PROFESSIONAL AFFILIATIONS

California Preservation
Foundation

Society of Architectural
Historians

NELSON WHITE

Senior Architectural Historian



Mr. White is a federally qualified professional, with over 20 years of experience, who exceeds the Secretary of the Interior's Professional Qualifications Standards for architectural history and history (as defined in 36 Code of Federal Regulations Part 61). He is knowledgeable in the history and development of American cities and suburbs, with a focus on residential development and design. His California state-wide experience includes managing and conducting dozens of historical resource surveys and evaluations in

compliance with Section 106 of the National Historic Preservation Act, the California Environmental Quality Act (CEQA) and local ordinances. He has prepared numerous cultural resource studies that utilize federal, state, and local designation criteria to recommend status as a historic property for the purposes of Section 106, as a historic resource for the purposes of CEQA, or as resource under local ordinances. Mr. White utilizes his understanding of the Secretary of the Interior's Standards to facilitate effective project compliance and design review for adaptive reuse and new construction projects within urban and suburban settings. He works closely with clients, lead agencies, and architects to preserve character-defining features of buildings. He is a frequent volunteer for the California Preservation Foundation (CPF) and has twice served on its annual conference steering committee.

Otay Water District 870-2 Reservoir Addendum (2024). Architectural Historian for the proposed 870-2 Reservoir Project located in unincorporated San Diego County. The project involves the removal and replacement of a 1963 potable water reservoir consisting of earthen embankments with a geomembrane liner and floating cover. HELIX prepared historic contexts of both the OWD and earthen reservoirs and evaluated the reservoir under federal and state criteria. Conducted archival research. Prepared historic contexts of the OWD and earthen reservoirs, and evaluation. Prepared DPR 523 series resource forms.

Morgan Territory Road Bridges 5.0 and 5.2 Replacement County Project (2024). Architectural Historian for a proposed bridge replacement project in Contra Costa County. The Contra Costa County Public Works Department proposed to remove and replace two functionally obsolete 1954 single-span timber stringer bridges. HELIX conducted an archaeological and built environment records search and an intensive-level field survey within the APE for prehistoric and/or historic resources and evaluated the two bridges under federal and state designation criteria. Results were presented in a combined Cultural Resources Assessment Report. Conducted archival research and bridge evaluations. Co-authored report and prepared DPR 523 series resource forms. Work performed for the Colusa County Department of Public Works with Caltrans as the lead agency.

Finks Road Bridge Project (2023). Architectural Historian for a proposed bridge replacement project in Colusa County. The Colusa County Department of Public Works,

in cooperation with the Federal Highway Administration (FHWA), proposed to remove and replace a functionally obsolete 1930 four-span concrete bridge crossing the Glenn-Colusa Main Canal. Although the bridge was previously determined by Caltrans to not be eligible for listing in the NRHP, SHPO guidance stipulated that the canal be assumed eligible. HELIX conducted an intensive-level field survey within the APE for prehistoric and/or historic resources. The methods and results of the survey were documented in the Historic Properties Survey Report (HPSR), Archaeological Survey Report (ASR), and Historical Resources Evaluation Report (HRER). The results of the records search, background research, Native American consultation, and archaeological survey were presented in an Archaeological Survey Report (ASR). The findings of effect were presented in the Findings of No Adverse Effect (FNAE). All reports conformed to Caltrans specifications detailed in the Caltrans Environmental Handbook, Volume 2. Revised and addressed Caltrans comments in all reports and prepared the FNAE.

East Bay Municipal Utility District (EBMUD) Cultural Resources Management Plan Development. Project Manager for the Federal Energy Regulatory Commission (FERC) Project No. 2916 boundary in Northern California, including Calaveras, Amador, and San Joaquin counties. The results of an intensive-level survey were compiled in a master survey report that documents the findings and evaluation of over 50 properties for eligibility under NRHP and CRHR criteria for the purposes of review under the CEQA. The results will support the development of a Historic Properties Management Plan. Conducted intensive-level survey, co-authored historic contexts, peer-reviewed evaluations.

Sequoia National Park Compliance Services in the Rehabilitation of Public Transportation Infrastructure. Architectural Historian for the South Fork Campground Determination of Eligibility. Mapped and researched the historic campground and prepared a formal determination of eligibility on behalf of NPS. Conducted intensive-level field survey of campground and archival research at SNP Archive and Sequoia – Kings Canyon National Parks (SEKI) Cultural Resources Department. Co-Authored report.

US 101/Trinidad Area Access Improvements Project Historical Resources Evaluation Report (HRER). Architectural Historian for preparation of a Historical Resources Evaluation Report (HRER) for the Professional Engineering Services part of the PA&ED Phase of the project located in Trinidad, Humboldt County, which entails construction of a new interchange, roundabouts, and various improvements to several secondary streets. The HRER will comply with Caltrans' First Amended Section 106 Programming Agreement (PA and Standard Environmental Reference, Volume 2: Cultural Resources (SER V2) for review under Section 106. Work includes drafting the APE for Caltrans approval, survey and evaluation of 54 individual parcels with buildings of 45 years of age or older, evaluation of a 1.5-mile original section of the Redwood Highway, and preparation of the HRER and related DPR 523 series resource forms. Conducted reconnaissance-level field survey and research. Primary author of HRER and prepared DPR 523 series resource forms.

Monterey Airport Infield Rehabilitation Cultural Resources Study. Architectural Historian for preparation of a Historical Resources Survey for National Historic Preservation Act (NHPA) consultation with the State Historic Preservation Office (SHPO). Fifty buildings located at the Monterey Airport were documented, and 26 buildings of age were evaluated. Surveyed and evaluated five additional buildings to reach the 45-year threshold since the original survey. Efforts included archival research, site investigations, survey, and preparation of a historical resources technical report summarizing the results. Authored the 2016 update. Prepared DPR 523 series resource forms. Work performed for Coffman Associates, Inc.

Appendix C

Native American Correspondence

Sacred Lands File & Native American Contacts List Request

Native American Heritage Commission

1550 Harbor Blvd, Suite 100

West Sacramento, CA 95691

916-373-3710

916-373-5471 – Fax

nahc@nahc.ca.gov

Information Below is Required for a Sacred Lands File Search

Project: Fire Station 9 Project No. WH728 (03891.00024.003)

County: Contra Costa County

USGS Quadrangle Name: Walnut Creek

Township: N/A **Range:** N/A **Section(s):** N/A Within Las Juntas Land Grant

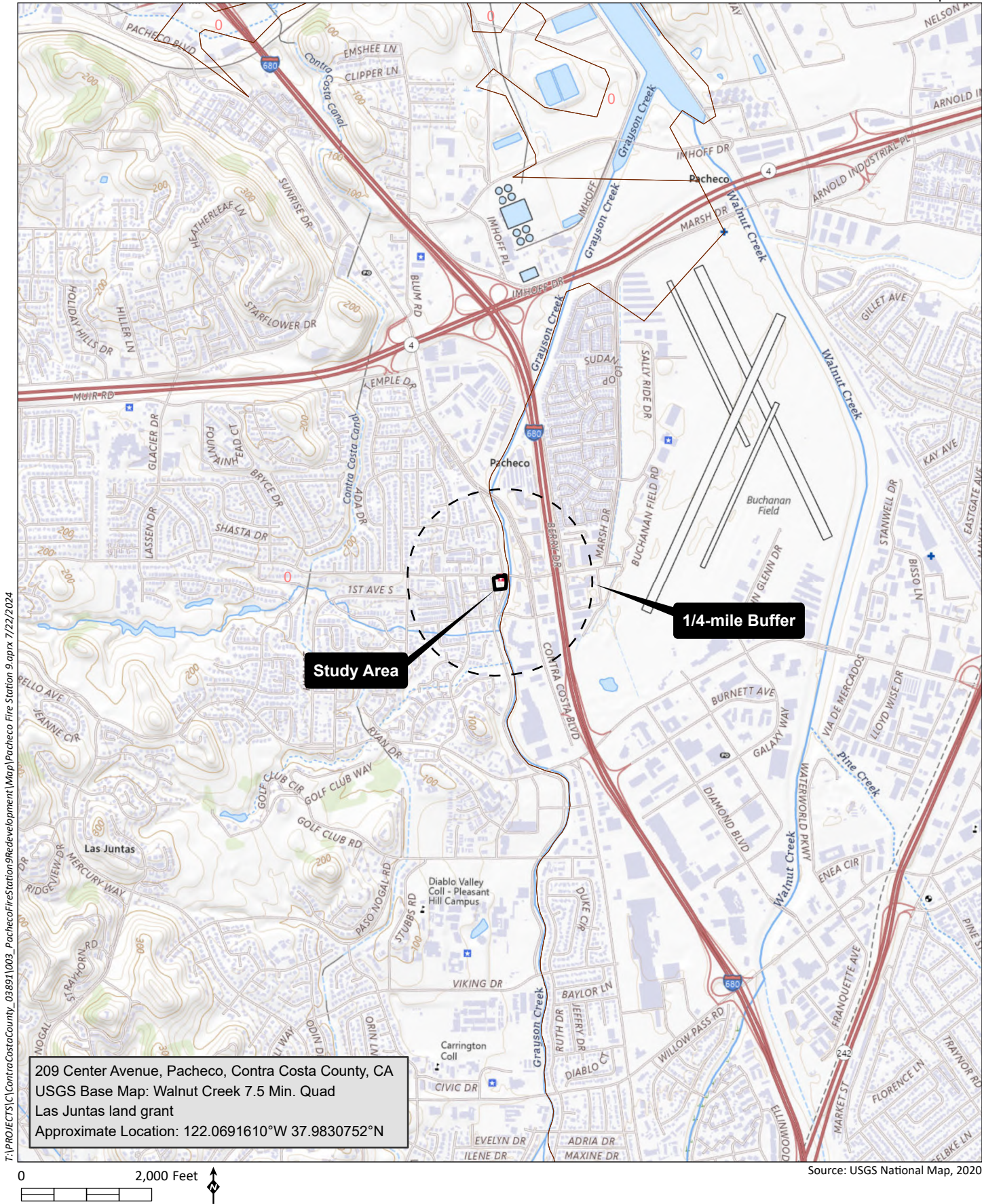
Company/Firm/Agency: HELIX Environmental Planning, Inc.

Street Address: 1180 Iron Point Road, Suite 130

City: Folsom, CA **Zip:** 95630

Phone: (916)-435-1205

Project Description: For this project the Contra Costa County Fire Protection District (CCCFPD) will be demolishing the Fire Station 9 building, located at 209 Center Avenue, in Pacheco, Contra Costa County. As part of the Project, the parcel that the existing fire station sits on will be uniformly raised by two feet because it currently sits within a floodplain. A new Fire Station 9 building will be constructed in the same location. The Project Area is depicted on the attached map for your reference.





STATE OF CALIFORNIA

Gavin Newsom, Governor

NATIVE AMERICAN HERITAGE COMMISSION

July 30, 2024

Ben Siegel
HELIX Environmental Planning, Inc.

Via Email to: BenS@helixepi.com

CHAIRPERSON
Reginald Pagaling
Chumash

Re: Fire Station 9 No. WH728 (03891.00024.003) Project, Contra Costa County

VICE-CHAIRPERSON
Buffy McQuillen
Yokayo Pomo, Yuki,
Nomlaki

Dear Mr. Siegel:

SECRETARY
Sara Dutschke
Miwok

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the (51) SLF Searches submitted for the above referenced project. The following results were positive. Please also contact the Wilton Rancheria. Please note that tribes do not always record their sacred sites in the SLF, nor are they required to do so. A SLF search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with a project's geographic area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites, such as the appropriate regional California Historical Research Information System (CHRIS) archaeological Information Center for the presence of recorded archaeological sites.

PARLIAMENTARIAN
Wayne Nelson
Luiseño

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. Please contact all of those listed; if they cannot supply information, they may recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

COMMISSIONER
Isaac Bojorquez
Ohlone-Costanoan

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

COMMISSIONER
Stanley Rodriguez
Kumeyaay

If you have any questions or need additional information, please contact me at my email address: Pricilla.Torres-Fuentes@nahc.ca.gov.

COMMISSIONER
Laurena Bolden
Serrano

Sincerely,

COMMISSIONER
Reid Milanovich
Cahuilla

Pricilla Torres-Fuentes

COMMISSIONER
Bennae Calac
Pauma-Yuima Band of
Luiseño Indians

Pricilla Torres-Fuentes
Cultural Resources Analyst

EXECUTIVE SECRETARY
**Raymond C.
Hitchcock**
Miwok, Nisenan

Attachment

NAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,

Appendix D

Representative Photographs



Photograph 1 – View of grassy strip to the south of fire station along southern fence, taken 7/25/24, facing west.



Photograph 2 – Overview of open field west and south of fire station complex, taken 7/25/24, facing west by southeast.



Photograph 3 – Close-up view of soil pad located in western portion of project site, taken 7/25/24, facing north by northwest.



Photograph 4 – Close-up view of boring location and spoils, taken 7/25/24.

Appendix E

DPR Forms

State of California & The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code

Other Listings
Review Code _____ Reviewer _____ Date _____

Page 1 of 5 *Resource Name or #: (Assigned by recorder) Contra Costa County Fire Protection District, Fire Station No. 9
P1. Other Identifier: 209 Center Street

*P2. Location: ☐ Not for Publication ☒ Unrestricted

*a. County Contra Costa and (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)

*b. USGS 7.5' Quad Walnut Creek, CA Date 2021 T 2N; R 2W ☐ of Unsectioned

c. Address 209 Center Street City Pacheco Zip 94553

d. UTM: (Give more than one for large and/or linear resources) Zone 10S, 581746 mE/ 4204366 mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, decimal degrees, etc., as appropriate)

APN: 125-073-003

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

See Continuation Sheet

*P3b. Resource Attributes: (List attributes and codes) HP9. Public Utility Building

*P4. Resources Present: ☒ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other (Isolates, etc.)

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)



P5b. Description of Photo: (view, date, accession #)

North (primary) façade, view facing south, July 25, 2024, Image no. 30.

*P6. Date Constructed/Age and

Source: ☐ Historic ☐ Prehistoric

☐ Both

1957 (20th Consolidated Fire Anniversary: 1964-1984)

*P7. Owner and Address:

Contra Costa County
4005 Port Chicago Highway, Suite 250
Concord, CA 94520

*P8. Recorded by:

Nelson White, M.S.H.P.
HELIX Environmental Planning
1180 Iron Point Road, Suite 130
Folsom, CA 95630

*P9. Date Recorded:

July 25, 2024

*P10. Survey Type: (Describe)

Intensive Survey

*P11. Report Citation: (Cite survey report and other sources, or enter "none.")

Fire Station 9 Project No. WH728 Cultural and Historic Resources Evaluation (HELIX Environmental Planning, 2024)

*Attachments: ☐ NONE ☒ Location Map ☒ Continuation Sheet ☒ Building, Structure, and Object Record
☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record
☐ Artifact Record ☐ Photograph Record ☐ Other (List):

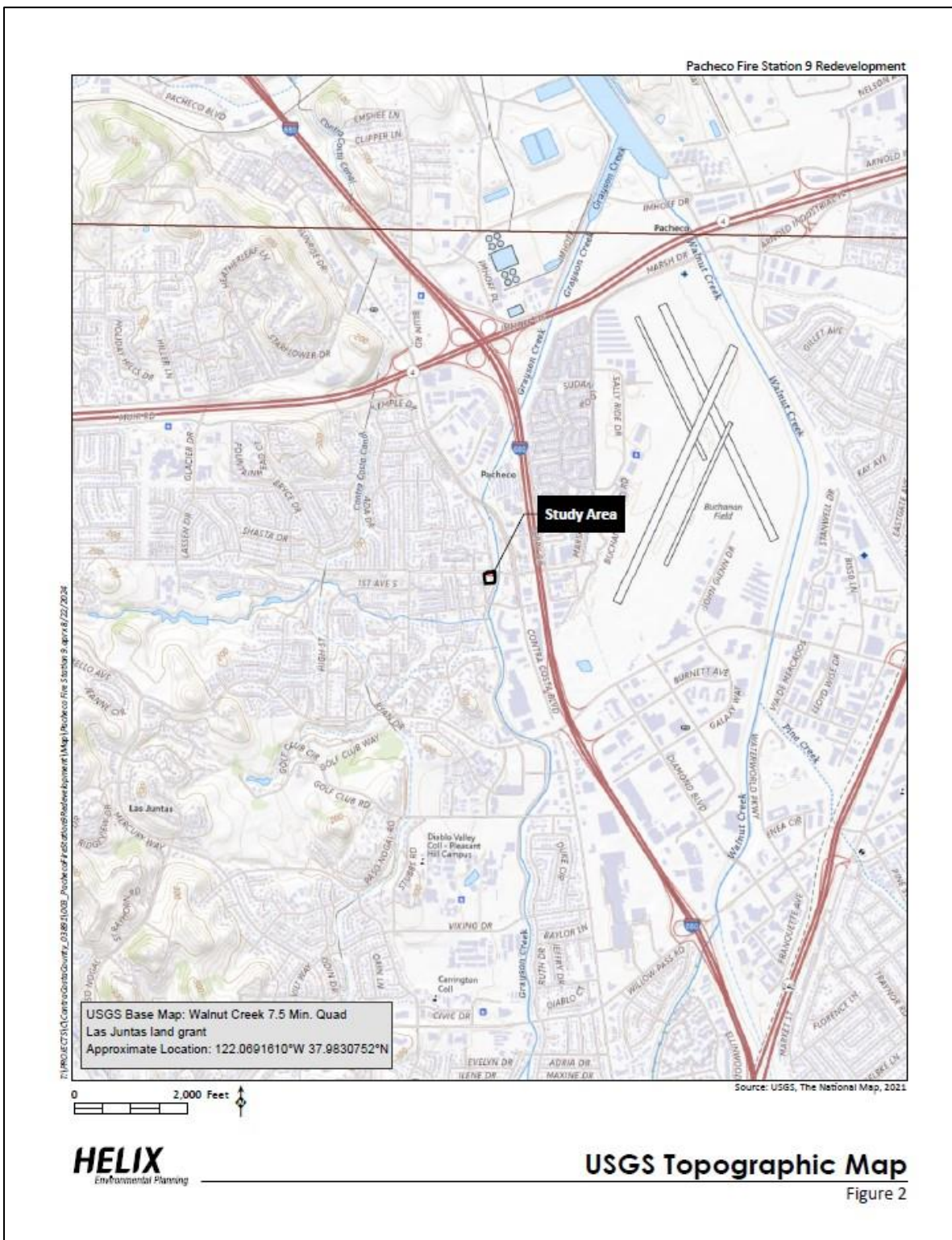
**State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LOCATION MAP**

Primary #
HRI#
Trinomial

Page 2 of 5 *Resource Name or # (Assigned by recorder) Contra Costa County Fire Protection District, Fire Station No. 9

*Map Name: Walnut Creek, CA

*Scale: 1:24,000 *Date of map: 2021



State of California The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
BUILDING, STRUCTURE, AND OBJECT RECORD

Primary #
HRI #
Trinomial #

*Resource Name or # (Assigned by recorder) Contra Costa County Fire Protection District, Fire Station No. 9 *NRHP Status Code 6Z
Page 3 of 5

- B1. Historic Name: Fire Station
B2. Common Name: 209 Center Avenue
B3. Original Use: Fire Station
B4. Present Use: Fire Station

*B5. Architectural Style: N/A - vernacular

*B6. Construction History: (Construction date, alterations, and date of alterations)

Known alterations since its original construction in 1957 include installation of replacement vinyl-framed hung windows, sliding windows and the infill of one window (date/s unknown), installation of primary entry door (pre-2011), and the possible replacement of one or both vehicular doors (date/s unknown). No building permits were on file with the Contra Costa County Department of Conservation and Development.

*B7. Moved? ☒ No ☐ Yes ☐ Unknown Date: N/A Original Location:

*B8. Related Features:
N/A

- B9a. Architect: Unknown b. Builder: Ernest Hollman
*B10. Significance: Theme N/A Area N/A
Period of Significance N/A Property Type N/A Applicable Criteria N/A (Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

See Continuation Sheet

- B11. Additional Resource Attributes: (List attributes and codes) N/A
*B12. References:

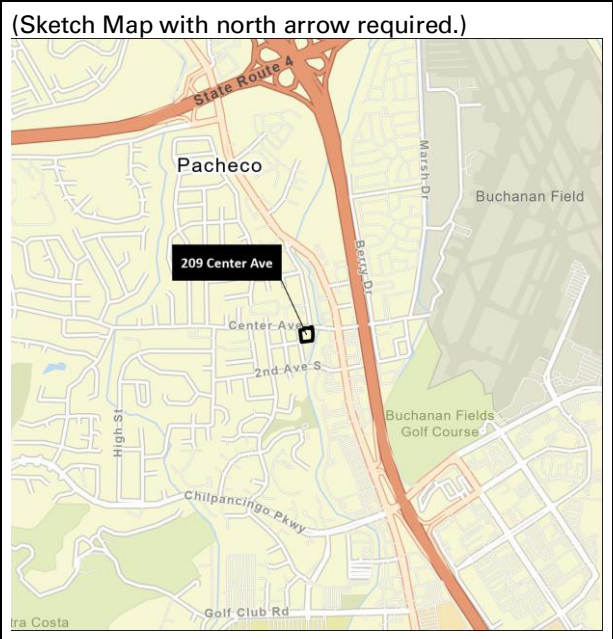
--. "Firehouse Contract Goes to Hollerman." *Martinez News Gazette*, October 2, 1956.
--. "Mt. Diablo Fire Dist. Budget Expected to Top Half Million." *Martinez News Gazette*, April 18, 1957.

Contra Costa County Fire Protection District. *20th Consolidated Fire Anniversary: 1964-1984.*

HELIX Environmental Planning. Fire Station 9 Project No. WH728: Cultural and Historic Resources Evaluation.

- B13. Remarks: N/A
*B14. Evaluator: Nelson White, M.S.H.P.
*Date of Evaluation: August 23, 2024

(This space reserved for official comments.)



State of California - The Resources Agency DEPARTMENT OF PARKS AND RECREATION CONTINUATION SHEET	Primary# HRI # Trinomial
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*Resource Name or # (Assigned by recorder) 209 Center Street

*Recorded by: Nelson White, M.S.H.P.

*Date July 25, 2024

☒ Continuation

☐ Update

*P3a. Description:

The vernacular fire station was reportedly built in 1957 by Ernest Hollman of Concord for a total of \$31,775 (*Martinez News Gazette*, 1956). The building is one-story and is slightly L-shape in plan. It is clad in stucco. Fenestration consists of original metal-framed windows consisting of pairs of four-lite casements with a fixed lite above each, replacement vinyl-framed hung windows within original openings, and replacement vinyl-framed sliding windows within original openings. All window openings exhibit windowsills and no trim. Slab pedestrian doors and metal overhead vehicular doors complete the fenestration. It is capped by a combination side gable and hipped roof that is finished with composition shingles. The architectural description begins with the north (primary) façade and continues clockwise to the east, south (rear), and west elevation.

North (Primary) Façade

The north (primary) façade is asymmetrical. From west to east, the façade begins with three evenly spaced replacement windows. To the east of these is the primary entry, which consists of a boxed portico that projects approximately 6 inches. The open entryway is cased with a surround of Art Moderne-inspired tiles. Recessed approximately 2 feet within the opening is a single replacement paneled door (date unknown). The portico is capped by a combination side gable and hipped roof. The façade then recedes approximately 6 feet. The remainder of the façade has a pair of vehicular doors with a single stucco post between them. The west half of the façade is capped by a hipped roof while the east roof is capped by a side gable roof. A square ventilation cupola, capped by a hipped roof, rises above the roof's ridgeline, aligned with the entry portico.

East Elevation

The east elevation is symmetrical. Centered on the elevation are three evenly spaced original windows. A narrow vertically oriented vent is aligned with and above the middle window.

South (Rear) Elevation

The south (rear) elevation is asymmetrical and divided into two parts. The east portion is loosely symmetrical with two evenly spaced original windows. At the west end of this portion is a secondary entry consisting of a single slab door. The east portion of the elevation is capped by a side gable roof. The west portion of the elevation projects approximately 4 feet. From east to west, this portion has a single sliding window followed by a pair of hung windows. This portion of the south elevation is capped by a gable roof, a narrow portion of which projects over the secondary entry.

West Elevation

The west elevation is asymmetrical. Toward the south end is a pair of smaller hung windows. Toward the north end is a trio of hung windows, the southern of which has been infilled or covered by a board. The east elevation is capped by a side gable roof.

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary#
 HRI #
 Trinomial

Page 5 of 5

*Resource Name or # (Assigned by recorder) 209 Center Street

*Recorded by: Nelson White, M.S.H.P.

*Date July 25, 2024

☒ Continuation

☐ Update

***B10. Significance:**

NRHP and CRHR Evaluation

Criteria A/1: Association with significant events or patterns of development. Fire station 9 was individually evaluated for potential association with events and patterns of history such as, but not limited to, community planning and development, conservation, and politics and government. Research to date does not indicate the station possesses a direct and important association with events or trends important to national, state, or local history. Constructed in 1957, was not the first station in Contra Costa County, the Mt. Diablo Fire Protection District, nor the Contra Costa County Fire Protection District. It reflects the evolution of development within Contra Costa County and is not individually able to convey this association above any of the other fire stations that are over 50 years of age. Thus, the fire station does not possess historic significance under Criteria A/1 and therefore is recommended to not be individually eligible for listing in the NRHP and CRHR.

Criteria B/2: Association with individuals significant in the history of the city, region, or nation. Research to date has not revealed the fire station to have an association with the lives of persons important to national, state, and local history. The personnel who worked in the fire station served a critical role in its operation and in preventing and fighting fires, however research to date has not revealed any individual employees to be important to national, state, or local history. Thus, the fire station does not possess historic significance under Criteria B/2 and therefore is recommended to not be individually eligible for listing in the NRHP and the CRHR.

Criteria C/3: Embodies distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master, or possesses high artistic values. Research to date has not revealed the fire station to be an early or important example of its type, to reflect distinctive engineering or architectural features, to be the work of a master, nor to possess high artistic value. The fire station is an unexceptional and common example of utilitarian architecture. Thus, the fire station does not possess historic significance under Criteria C/3 and therefore is recommended to not be individually eligible for listing in the NRHP and the CRHR.

Criteria D/4: Has yielded, or may be likely to yield, information important in prehistory or history. Criterion D/4 is applied most commonly to buildings, structures, or objects that have been used as a source of archaeological data and are believed to contain more, yet unretrieved, data that cannot be obtained from other sources. However, historical information about fire station design and equipment, is prevalent, and further study of this fire station would not add any new information to the historic record. Thus, the fire station does not possess historic significance under Criteria D/4 and is therefore recommended to not be individually eligible for listing in the NRHP and CRHR.

Evaluation Summary

Based on this analysis, HELIX recommends that fire station 9 is not individually eligible for listing in the NRHP and CRHR under Criteria A/1, B/2, C/3, and D/4. The fire station does not possess a direct and important association with events or trends important to national, state, or local history (A/1). It does not have associations with any individual or the lives of a distinct group of individuals important to national, state, or local history (B/2). The fire station is not an early or important example of its type, or to reflect distinctive engineering or architectural features, (C/3). Lastly, the fire station does not have the potential to yield information important to history (D/4).

Attachment D

Geotechnical Investigation

GEOTECHNICAL INVESTIGATION

**Fire Station No. 9 Replacement
209 Center Avenue
Pacheco, California**

PREPARED FOR:

**CONTRA COSTA COUNTY PUBLIC WORKS DEPARTMENT
40 MUIR ROAD
MARTINEZ, CALIFORNIA 94553**



PREPARED BY:

**GEOCON CONSULTANTS, INC.
6671 BRISA STREET
LIVERMORE, CALIFORNIA 94550**



GEOCON PROJECT NO. E8909-04-05

JUNE 2024



G E O T E C H N I C A L ■ E N V I R O N M E N T A L ■ M A T E R I A L S



Project No. E8909-04-05
June 13, 2024

Contra Costa County Public Works Department
Capital Projects Management Division
40 Muir Road
Martinez, California 94553

Attention: Ms. Margaret Thorp

Subject: FIRE STATION NO. 9 REPLACEMENT
209 CENTER AVENUE
PACHECO, CALIFORNIA
GEOTECHNICAL INVESTIGATION

Dear Ms. Thorp:

In accordance with your authorization of our proposal dated November 15, 2024, we have performed a geotechnical investigation for the planned replacement of CCCFPD Fire Station No. 9 in Pacheco, California. Our investigation was performed to observe the soil and geologic conditions that may impact site development for the project as presently planned. The accompanying report presents the results of our investigation and conclusions and recommendations pertaining to the geotechnical aspects of the proposed project. The findings of this study indicate the site is suitable for development as planned provided the recommendations of this report are implemented during design and construction.

If you have any questions regarding this report, or if we may be of further service, please contact the undersigned at your convenience.

Sincerely,

GEOCON CONSULTANTS, INC.

DRAFT

Francisco Gonzalez, PE
Project Engineer

DRAFT

Shane Rodacker, GE
Senior Engineer

(1/e-mail) Addressee

Disclaimer: This DRAFT is intended for the use of the project team to help with the on-going design of the project and provided as a courtesy for review only. This DRAFT should not be relied upon for final design nor produced and submitted to regulatory agencies until a FINAL document is completed with the signatures and stamps of the design professionals.

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LIMITATIONS AND UNIFORMITY OF CONDITIONS

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- Table B-II, Summary of Laboratory Grain Size Analysis – No. 200 Wash Test Results
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- Table B-IV, Summary of Soil Corrosion Parameters
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APPENDIX C – LIQUEFACTION ANALYSIS

LIST OF REFERENCES

GEOTECHNICAL INVESTIGATION

1. PURPOSE AND SCOPE

This report presents the results of a geotechnical investigation for the planned replacement of the existing Contra Costa County Fire Protection District (CCCYPD) Fire Station No. 9 in Pacheco, California (see Vicinity Map, Figure 1). The purpose of this investigation was to evaluate the subsurface soil and geologic conditions in the area of the planned development and provide conclusions and recommendations pertaining to the geotechnical aspects of project design and construction, based on the conditions encountered during our study.

The scope of this investigation included field exploration, laboratory testing, engineering analysis and the preparation of this report. Our field exploration was performed on January 26, 2024 and April 18, 2024. On January 26th, we performed 4 Cone Penetrometer Test (CPT) soundings to depths of approximately 35 feet or less. We subsequently performed six exploratory borings to depths of approximately 25 ½ feet or less below existing grade. The locations of the soil borings and CPTs are depicted on the Site Plan, Figure 2. A detailed discussion of our field investigation, soil boring logs and CPT profiles are presented in Appendix A.

Laboratory tests were performed on selected soil samples obtained during the investigation to evaluate pertinent geotechnical parameters. In addition, two soil samples were submitted to our laboratory for screening-level corrosion testing. Appendix B presents the laboratory test results in tabular format and graphical format. Appendix C presents output from our liquefaction analysis.

The opinions expressed herein are based on analysis of the data obtained during the investigation and our experience with similar soil and geologic conditions. References reviewed to prepare this report are provided in the *List of References* section.

If project details vary significantly from those described herein, Geocon should be contacted to determine the necessity for review and possible revision of this report.

2. SITE CONDITIONS AND PROJECT DESCRIPTION

The project site is an approximately 9.92-acre parcel (Contra Costa County APN 125-073-003) at the southeast corner of Center Avenue and Blackwood Drive. Grayson Creek and Grayson Creek Trail border the eastern margin of the site; a single-family residence is located at the south. Topographically, the ground surface at the site is generally flat and level with existing grades on the order of 18 to 20 feet MSL per web-based mapping. Site-specific topographic information was not provided. We estimate the bed of Grayson Creek lies approximately 10 feet below the ground surface at the site. Web-based historic aerial photographs indicate that Grayson Creek was channelized and realigned in the general site vicinity sometime in the 1950s.

Detailed development plans were not provided. We understand the new CCCPWD fire station will be constructed to the south of the existing station, generally within the undeveloped southern half of the parcel. The existing fire station will remain in service during construction of the new Fire Station No. 9. Roadway frontage improvements are planned along Center Avenue and Blackwood Drive. We anticipate the new fire station building will be single-story and generally constructed at-grade. A grading plan was not provided; we have assumed cuts and fills to establish finished building pad grade will be on the order of 2 feet or less. Ancillary site improvements such as new exterior flatwork, pavements, and underground utilities are also anticipated.

3. GEOLOGIC SETTING

Pacheco is located within the Coast Ranges Geomorphic Province of California, which is characterized by a series of northwest trending mountains and valleys along the north and central coast of California. Topography is controlled by the predominant geological structural trends with the Coast Range that generally consist of northwest trending synclines, anticlines and faulted blocks. The dominant is a result of both active northwest trending strike-slip faulting, associated with the San Andreas Fault System, and east-west compression within the province.

The San Andreas Fault (SAF) is a major right-lateral strike-slip fault that extends from the Gulf of California in Mexico to Cape Mendocino in northern California. The SAF forms a portion of the boundary between two tectonic plates on the surface of the earth. To the west of the SAF is the Pacific Plate, which moves north relative to the North American Plate, located east of the fault. In the San Francisco Bay Area, movement across this plate boundary is concentrated on the SAF but also distributed, to a lesser extent, across several other faults including the Hayward and Calaveras faults. Together, these faults are referred to as the SAF system.

Basement rock west of the SAF is generally granitic, while to the east it consists of a chaotic mixture of highly deformed marine sedimentary, submarine volcanic and metamorphic rocks of the Franciscan Complex. Both are typically Jurassic to Cretaceous in age (205 to 65 million years old). Overlying the basement rocks are Cretaceous marine sedimentary rocks with some continental volcanic rock. These Cretaceous and Tertiary rocks have typically been extensively folded and faulted largely because of movement along the SAF system, which has been ongoing for about the last 25 million years, and regional compression during the last about 4 million years. The inland valleys, as well as the structural depression within which San Francisco Bay is located, are filled with unconsolidated to semi-consolidated deposits of Quaternary age (about the last 1.6 million years). Continental deposits typically consist of soft organic-rich silt and clay (bay mud) or sand.

Based on geologic mapping by the California Geological Survey (CGS), the site is underlain by late Pleistocene age alluvial deposits; Holocene age deposits are mapped within the Grayson Creek channel to the east of the site. Artificial fills from past episodes of site development are also present.

4. GEOLOGIC HAZARDS

Geologists and seismologists recognize the San Francisco Bay Area as one of the most seismically-active regions of the United States. The significant earthquakes that occur in the Bay Area are associated with crustal movements along well-defined active fault zones that generally trend in a northwesterly direction.

The site and greater Bay Area are seismically dominated by the presence of the active SAF system. Locally, SAF system movement is distributed across a complex series of strike-slip, right lateral parallel and subparallel faults, which include the San Andreas, Hayward and Calaveras faults, among others.

The table below presents approximate distances to active faults in the site vicinity based on web-based mapping by the California Geological Survey (CGS), as presented in an online fault database previously maintained by Caltrans. Site latitude is 37.9830° N, site longitude is 122.0691° W.

**TABLE 4.1
REGIONAL FAULT SUMMARY**

Fault Name	Approximate Distance to Site (miles)	Maximum Earthquake Magnitude, M_w
Concord	1	6.6
Contra Costa Shear Zone	4	6.5
Los Medanos – Roe Island	4½	6.8
Clayton	6	6.9
Green Valley	6	6.8
Calaveras	9½	6.9
Green Valley 5 - Pittsburg Kirby Hills	12¼	6.6
Hayward - North	12½	7.3
Pleasanton	13¼	6.6
Cordelia	14¾	6.5
West Napa – Napa Co. Airport	15½	6.6
Greenville	17	6.9
Hayward - South	17½	7.3

The faults tabulated above are sources of potential ground motion. However, earthquakes that might occur on other faults within the northern and central California area are also potential generators of significant ground motion and could subject the site to ground shaking.

4.1 Surface Fault Rupture

The site is not within a currently established State of California Earthquake Fault Zone for surface fault rupture hazards. No active or potentially active faults are known to pass directly beneath the site. Therefore, the potential for surface rupture due to faulting occurring beneath the site during the design life of the proposed development is considered low. By CGS definition, an active fault is one with surface displacement within the last 11,000 years. A potentially active fault has demonstrated evidence of surface displacement with the past 1.6 million years. Faults that have not moved in the last 1.6 million years are typically considered inactive.

4.2 Ground Shaking

We used the USGS web-based *Unified Hazard Tool* to estimate the peak ground acceleration (PGA) and mean and modal (most probable) magnitude associated with a 2,475-year return period that corresponds to an event with 2 percent chance of exceedance in 50 years. The USGS estimated PGA is 0.981g and the mean magnitude is 6.6 for Seismic Site Class D ($V_{s30} = 259$ m/sec) based on a 2014 model within the application.

While listing PGA is useful for comparison of potential effects of fault activity in a region, other considerations are important in seismic design, including frequency and duration of motion and soil conditions underlying the site.

4.3 Liquefaction

The site is located within a CGS Seismic Hazard Zone for liquefaction and web-based mapping by the United States Geologic Survey (USGS) indicates the eastern margin of the site has very high susceptibility to liquefaction.

Liquefaction is a phenomenon in which saturated cohesionless soils are subject to a temporary loss of shear strength due to pore pressure buildup under the cyclic shear stresses associated with intense earthquakes. Primary factors that trigger liquefaction are moderate to strong ground shaking (seismic source), relatively clean, loose granular soils (primarily poorly graded sands and silty sands), and saturated soil conditions (shallow groundwater). Due to the increasing overburden pressure with depth, liquefaction of granular soils is generally limited to the upper 50 feet of a soil profile. Web-based mapping by the USGS and the Association of Bay Area Governments indicates the site possesses a "high" susceptibility to liquefaction.

We used the computer software program CLiq (Version 2.3.1.15, Geologismiki) and the in-situ soil parameters measured in the CPT soundings to evaluate liquefaction potential using the 2014 methodology of Boulanger and Idriss. Our evaluation incorporated an earthquake moment magnitude (M_w) of 6.6, and a groundwater depth of 9 feet based on historic high groundwater information within the CGS *Seismic Hazard Report* for the site vicinity. Based on USGS seismic design criteria for 2022 California Building Code (CBC), a Peak Ground Acceleration (PGA) of 0.711g is acceptable for design.

Our liquefaction analysis identified potentially liquefiable layers at our CPT locations. In general, these layers are located more than 15 feet below existing grade at the site. Consequences of liquefaction can include ground surface settlement, ground loss (sand boils) and lateral slope displacements (lateral spreading). For liquefaction-induced sand boils or fissures to occur, pore water pressure induced within liquified strata must exert enough force to break through overlying, non-liquefiable layers. Based on methodology recommended by Youd and Garriss (1995), which advanced original research by Ishihara (1985), a capping layer of non-liquefiable soil can prevent the occurrence of sand boils and fissures. Based on the presence of the non-liquefiable layer that mantles the site and the depth to significant liquefiable layers, the potential for ground loss due to sand boils or fissures in a seismic event is considered low.

Our analysis indicates the potentially liquefiable layers described above may be susceptible to lateral spreading and lateral displacements of approximately 4 to 8 inches may occur. However, research by Toprak and Holzer (2003) shows a correlation between Liquefaction Potential Index (LPI) and the effects of lateral spreading wherein surface manifestations of lateral spread are unlikely to occur where the LPI is less than 12. Our analysis indicates an LPI of approximately 3 or less at each of our CPT locations. As such, it is our opinion the risk of lateral spreading resulting in surface manifestation at the site is low. Ground improvement or other measures may be considered to mitigate the potential for lateral spreading.

The likely consequence of potential liquefaction at the site is settlement. Our analysis indicates that total ground surface settlements up to approximately 1 inch may result from liquefaction after a seismic event. We recommend that foundations and project improvements be designed to accommodate approximately 1 inch of total liquefaction-induced settlement and approximately $\frac{3}{4}$ inch of differential settlement across the horizontal distance of 50 feet. Output from our liquefaction analysis is presented in Appendix C.

4.4 Landslides

There are no known landslides near the site, nor is the site in the path of any known or potential landslides. We do not consider the potential for a landslide to be a hazard to this project.

4.5 Tsunamis and Seiches

The site is not located within a coastal area. Therefore, tsunamis (seismic sea waves) are not considered a significant hazard at the site.

Seiches are large waves generated in enclosed bodies of water in response to ground shaking. No major water-retaining structures are located immediately up gradient from the project site. Flooding from a seismically-induced seiche is considered unlikely.

5. SOIL AND GROUNDWATER CONDITIONS

5.1 Alluvium

Geologic references indicate the site is underlain by late Pleistocene age alluvial deposits. In our borings, the alluvium was observed as medium stiff to stiff, moderate to high plasticity clays with variable amounts of sand, medium stiff sandy silt with clay, and very loose to medium dense sand with gravel and clay. We encountered alluvial deposits to the maximum of our soil borings – approximately 25 ½ feet below existing grade. Our CPTs met refusal on suspected formational materials, residual soils or older alluvial deposits at depths ranging from approximately 22 ½ to 35 ½ feet below grade.

5.2 Groundwater

Historic high groundwater levels in the site vicinity are less than 10 feet below grade based on CGS mapping. Groundwater was encountered at depths of approximately 12 to 16 feet below existing grade in our Borings B2 through B5. Actual groundwater levels will fluctuate seasonally and with variations in rainfall, temperature and other factors and may be higher or lower than observed during our study.

5.3 Soil Corrosion Screening

Two soil samples obtained during our field exploration were subjected to laboratory testing for minimum resistivity, pH, and chloride and water-soluble sulfate. The laboratory test results and published screening levels are presented in Appendix B. Soil corrosivity should be considered in the design of buried metal pipes, underground structures, etc.

Water-soluble sulfate test results on selected samples of site soils indicate an SO exposure classification for sulfate attack on normal portland cement concrete (PCC) as defined in Chapter 318, Table 19.3.1.1 of the ACI *Building Code Requirements for Structural Concrete*. ACI does not set forth requirements for SO sulfate exposure classification. Neither of the two soil samples that we tested would be classified as corrosive to foundations and buried metal improvements based on Caltrans criteria.

Geocon does not practice in the field of corrosion engineering and mitigation. If corrosion sensitive improvements are planned, it is recommended that a corrosion engineer be retained to evaluate corrosion test results and incorporate the necessary precautions to avoid premature corrosion of buried metal pipes and concrete structures in direct contact with the soils.

6. CONCLUSIONS AND RECOMMENDATIONS

6.1 General

- 6.1.1 It is our opinion that neither soil nor geologic conditions were encountered during our investigation that would preclude the project as presently proposed. Primary geotechnical considerations are the expansion potential of the alluvial soils that mantle the site and the potential for undocumented fill materials remnant from previous site development. We anticipate the proposed fire station can be supported by a conventional shallow foundation system consisting of continuous strip and isolated column footings.
- 6.1.2 The subject project redevelops a site with past episodes of development and construction and artificial fills beyond those encountered in our investigation may be present. If undocumented fills beyond those reported herein or existing improvements are encountered, supplemental recommendations will be provided during site development. Any existing fills at the site may contain constituents not reported herein.
- 6.1.3 The clayey portions of the alluvium at the site possesses moderate to high expansion potential based on the results of our laboratory testing. Proper soil moisture conditioning, compaction, and surface drainage are recommended to reduce the shrink-swell potential of the site soils. In addition, a layer of low-expansive fill will be required beneath all interior slabs-on-grade and exterior slabs.
- 6.1.4 As discussed in section 4.3, the site is susceptible to liquefaction. Our analysis indicates that, if liquefaction were to occur, total ground settlements on the order of 1 inch or less may result. We recommend the project be designed to accommodate at least $\frac{3}{4}$ inch of seismically induced differential settlement over a horizontal distance of 50 feet.
- 6.1.5 For shallow foundation systems designed and constructed as recommended herein, post-construction settlement due to dead plus live loading should be on the order of $\frac{3}{4}$ inch or less with differential settlements of approximately $\frac{1}{2}$ inch or less across a horizontal distance of 50 feet.
- 6.1.6 Any changes in the design, location or elevation of the proposed improvements, as outlined in this report, should be reviewed by this office. Geocon should be contacted to determine the necessity for review and possible revision of this report.
- 6.1.7 All references to relative compaction and optimum moisture content in this report are based on ASTM D 1557 (latest edition).

6.2 Seismic Design Criteria

- 6.2.1 We understand that seismic structural design will be performed in accordance with the provisions of the 2022 CBC, which is based on the American Society of Civil Engineers (ASCE) publication *Minimum Design Loads for Buildings and Other Structures* (ASCE 7-16). We derived the following seismic design parameters using the web-based Structural Engineers Association of California application *U.S. Seismic Design Maps* application and American Society of Civil Engineers ASCE *Hazard Tool* application. Results are summarized in Table 6.2.1. The values presented are for the risk-targeted maximum considered earthquake (MCE_R) and Seismic Risk Category II.

**TABLE 6.2.1
2022 CBC SEISMIC DESIGN PARAMETERS**

Parameter	Value	2022 CBC Reference
Site Class	D	Section 1613.2.2
MCE _R Ground Motion Spectral Response Acceleration – Class B (short), S _s	1.595g	Figure 1613.2.1(1)
MCE _R Ground Motion Spectral Response Acceleration – Class B (1 sec), S ₁	0.6g	Figure 1613.2.1(2)
Site Coefficient, F _A	1.0	Table 1613.2.3(1)
Site Coefficient, F _V	1.7*	Table 1613.2.3(2)
Site Class Modified MCE _R Spectral Response Acceleration (short), S _{MS}	1.595g	Section 1613.2.3 (Eq. 16-36)
Site Class Modified MCE _R Spectral Response Acceleration – (1 sec), S _{M1}	1.02*	Section 1613.2.3 (Eq. 16-37)
5% Damped Design Spectral Response Acceleration (short), S _{DS}	1.063g	Section 1613.2.4 (Eq. 16-38)
5% Damped Design Spectral Response Acceleration (1 sec), S _{D1}	0.68*	Section 1613.2.4 (Eq. 16-39)
Note: * Per Section 11.4.8 of ASCE/SEI 7-16, a ground motion hazard analysis shall be performed for projects for Site Class “E” sites with S _s greater than or equal to 1.0g and for Site Class “D” and “E” sites with S ₁ greater than 0.2g. Section 11.4.8 also provides exceptions where ground motion hazard analysis may be waived. Using the code based values presented in the table above, in lieu of a performing a ground motion hazard analysis, requires the exceptions outlined in ASCE 7-16 Section 11.4.8 be followed in project design.		

6.2.2 Table 6.2.2 presents additional seismic design parameters for projects with Seismic Design Categories of D through F in accordance with ASCE 7-16 for the mapped maximum considered geometric mean (MCE_G).

**TABLE 6.2.2
2022 CBC SITE ACCELERATION DESIGN PARAMETERS**

Parameter	Value	ASCE 7-16 Reference
Mapped MCE _G Peak Ground Acceleration, PGA	0.646g	Figure 22-7
Site Coefficient, F _{PGA}	1.1	Table 11.8-1
Site Class Modified MCE _G Peak Ground Acceleration, PGA _M	0.711g	Section 11.8.3 (Eq. 11.8-1)

6.2.3 Conformance to the criteria presented in Tables 6.2.1 and 6.2.2 for seismic design does not constitute any kind of guarantee or assurance that significant structural damage or ground failure will not occur if a maximum level earthquake occurs. The primary goal of seismic design is to protect life and not to avoid structural damage, since such design may be economically prohibitive.

6.3 Soil and Excavation Characteristics

- 6.3.1 Based on the soil conditions encountered in our exploratory borings, the onsite alluvial soils can be excavated with moderate effort using conventional excavation equipment. We do not anticipate excavations in the native alluvium at the site will generate oversize material (greater than 3 inches in nominal dimension). Any fills that exist at the site are undocumented and may contain constituents not reported herein.
- 6.3.2 Unknown or unanticipated conditions may exist, especially within areas of artificial fill. Any artificial fills at the site are undocumented and may contain constituents not reported herein. Below-grade improvements associated with prior site development may also be present.
- 6.3.3 It is the responsibility of the contractor to ensure that all excavations and trenches are properly shored and maintained in accordance with applicable Occupational Safety and Health Administration (OSHA) rules and regulations to maintain safety and maintain the stability of adjacent existing improvements.
- 6.3.4 The alluvial soils encountered at the site are considered “expansive” as defined by 2022 CBC. The recommendations of this report assume proposed foundation systems will derive support in properly compacted engineered fills and/or competent alluvial soils.

6.4 Materials for Fill

- 6.4.1 Excavated soils generated from cut operations at the site are suitable for use as engineered fill in structural areas provided they do not contain deleterious matter, organic material, or cementations larger than 3 inches in maximum dimension.
- 6.4.2 Import or low-expansive material should possess a “low” expansion potential (Expansion Index less than 50), a Plasticity Index less than 15, be free of organic material and construction debris, and not contain rock larger than 3 inches in greatest dimension. It should be assumed that soils excavated from the site do not meet the requirements for low-expansive fill. Low-expansive fill may also consist of aggregate base, or lime-treated native soils. We should perform additional analyses to determine the percent lime required to mitigate the expansion potential of the native soils. Approximately 5 percent quicklime (by weight) should be assumed for estimating purposes. Lime treatment would require an initial application and mixing followed by a subsequent mixing and compaction operation approximately 24 hours later. Care should be taken to contain lime-treatment operations such that lime is not applied to areas where vegetation is planned.
- 6.4.3 Environmental characteristics and corrosion potential of import soil materials may also be considered. Proposed import materials should be sampled, tested, and approved by Geocon prior to its transportation to the site.

6.5 Grading

- 6.5.1 All clearing operations and earthwork (including over-excavation, scarification, and recompaction) should be observed and all fills tested for recommended compaction and moisture content by representatives of Geocon.
- 6.5.2 Structural areas should be considered as areas extending a minimum of 5 feet horizontally from a foundation or beyond the outside dimensions of buildings, including footings and overhangs carrying structural loads, where not restricted by property boundaries or other logistical constraints.

- 6.5.3 A preconstruction conference should be held at the site prior to the beginning of grading operations with the owner, contractor, civil engineer and geotechnical engineer in attendance. Special soil handling requirements can be discussed at that time.
- 6.5.4 Building pad preparation should commence with the removal of all existing improvements from the area to be developed/graded. All active or inactive utilities within the construction area should be protected, relocated, or abandoned. Any pipelines to be abandoned that are greater than 2 inches and less than 18 inches in diameter should be removed or filled with sand-cement slurry. Utilities larger than 18 inches in diameter should be removed. Excavations or depressions resulting from demolition and site clearing operations, or other existing excavations or depressions, should be restored with engineered fill in accordance with the recommendations of this report.
- 6.5.5 After site stripping and the removal of existing improvements, soils in the building pad should be over-excavated to a depth of at least 4 feet below existing subgrade or proposed building pad subgrade (whichever is deepest). Any existing fills in areas of planned flatwork or pavements should be removed to expose competent native soils. The resultant bottom should then be scarified to a depth of approximately 8 to 12 inches, moisture conditioned to at least 2% above optimum moisture and recompacted to at least 90% relative compaction. Deeper over-excavations will be necessary if artificial fill materials or soft soils are present at planned over-excavation bottom.
- 6.5.6 In general, over-excavated materials may be used for new engineered fill provided they do not contain deleterious matter, organic material, or cementations larger than 3 inches in maximum dimension. Over-excavations and the exposed bottom surfaces and bottom processing should be observed by our representatives. Supplemental recommendations may be provided based on site conditions during grading. Areas of deeper over-excavation may be required particularly where undocumented fills are encountered during grading.
- 6.5.7 If grading commences in winter or spring, or in periods of precipitation, excavated and in-place soils may be wet. Earthwork contractors should be aware of potential compaction/workability difficulties. The most effective site preparation alternatives will depend on site conditions prior to and during grading operations; we should evaluate site conditions at those times and provide supplemental recommendations, if necessary. It has been our experience that existing landscaping and pavement subgrade can be wet and require drying in order to achieve suitable compaction. Common mitigation measures during wet weather grading include lime treatment of existing site soils, the placement of rat slabs, additional over-excavations, and sometimes crushed rock layers in footings and underground utility trenches.
- 6.5.8 All structural fill and backfill should be placed in layers no thicker than will allow for adequate bonding and compaction (typically 8 to 12 inches). Fill soils should be placed and compacted to at least 90% relative compaction to at least 2% above optimum moisture content (near optimum where predominantly sands or gravels). Fill areas with in-place density tests showing moisture contents less than those recommended will require additional moisture conditioning prior to placing additional fill.
- 6.5.9 The upper 12 inches of the building pads should consist of low-expansive fill materials meeting the requirements of Section 6.4.2. It should be assumed that onsite materials do not meet requirements for low-expansive fill unless lime treated.

6.6 Shallow Foundations

- 6.6.1 The planned fire station may utilize conventional shallow foundations consisting of continuous strip footings and isolated spread column footings founded in competent alluvium and/or properly compacted fill. Any spread footings should be tied to the foundation system with grade beams; any spread footings at the building perimeter should be integral with the perimeter strip footing. Over-excavations or other provisions may be required if soft or unstable soils are encountered during footing excavations.
- 6.6.2 Continuous strip footings should have a minimum embedment depth of 24 inches below lowest adjacent pad grade. Continuous footings should be at least 15 inches wide. A continuous footing should be provided along the perimeter of the building. Spread footings should be at least 3 feet square and founded at least 24 inches below lowest adjacent pad grade, which is not to be confused with finished floor elevation.
- 6.6.3 Footings proportioned as recommended may be designed for an allowable soil bearing pressure of 2,000 pounds per square foot (psf). A one-third increase in allowable bearing capacity is permitted for use with the alternative load combinations given in Section 1605.2 of the 2022 CBC.
- 6.6.4 The allowable passive pressure used to resist lateral movement of the footings may be assumed to be equal to a fluid weighing 300 pounds per cubic foot (pcf). The allowable coefficient of friction to resist sliding is 0.30 for concrete against soil. Combined passive resistance and friction may be utilized for design provided that the frictional resistance is reduced by 50%. Where not protected by flatwork or pavement, the upper 1 foot of soil should be neglected when calculating passive resistance to lateral loads.
- 6.6.5 Minimum reinforcement for continuous footings should consist of four No. 5 steel reinforcing bars; two placed near the top of the footing and two near the bottom. Spread footing reinforcement should be designed by the project structural engineer.
- 6.6.6 The foundation dimensions and minimum reinforcement recommendations presented herein are based upon soil conditions only and are not intended to be used in lieu of those required for structural purposes.
- 6.6.7 Underground utilities running parallel to footings should not be constructed in the zone of influence of footings. The zone of influence may be taken to be the area beneath the footing and within a 1:1 plane extending out and down from the bottom edge of the footing.
- 6.6.8 Footing bottoms and walls should be sprinkled as necessary to maintain a moist condition without significant shrinkage cracks as would be expected in any concrete placement. Prior to placing rebar reinforcement, foundation excavations should be evaluated by our representatives for appropriate support characteristics and moisture content. Moisture conditioning may be required for the materials exposed at footing bottom, particularly if foundation excavations are left open for an extended period.

6.7 Temporary Excavations

- 6.7.1 The native alluvium at the site can be considered a Type B soil in accordance with OSHA guidelines. If free water, sandy or cohesionless soils or artificial fills are encountered, the materials should be downgraded to Type C. The contractor should have a "competent person" as defined by OSHA evaluate all excavations. All onsite excavations must be conducted in such a manner that potential surcharges

from existing structures, construction equipment, and vehicle loads are resisted. The surcharge area may be defined by a 1:1 projection down and away from the bottom of an existing foundation or vehicle load. Penetrations below this 1:1 projection will require special excavation measures such as sloping and possibly shoring.

- 6.7.2 It is the contractor's responsibility to provide sufficient and safe excavation support as well as protecting nearby utilities, structures, and other improvements which may be damaged by earth movements.

6.8 Underground Utilities

- 6.8.1 Underground utility trenches should be backfilled with properly compacted material. The material excavated from the trenches should be adequate for use as backfill provided it does not contain deleterious matter, vegetation or rock larger than 3 inches in maximum dimension. Trench backfill should be placed in loose lifts not exceeding 8 inches and should be compacted to at least 90% relative compaction to at least 2% above optimum moisture content (near optimum moisture where backfill materials are predominantly sands and gravels).

- 6.8.2 Bedding and pipe zone backfill typically extends from the bottom of the trench excavations to a minimum of 6 inches above the crown of the pipe. Pipe bedding material should consist of crushed aggregate, clean sand or similar open-graded material. Proposed bedding and pipe zone materials should be reviewed by Geocon prior to construction; open-graded materials such as $\frac{3}{4}$ inch drain rock may require wrapping with filter fabric to mitigate the potential for piping. Pipe bedding and backfill should also conform to the requirements of the governing utility agency.

- 6.8.3 Utility Trenches backfilled with granular material (including pipe bedding material) may serve as conduits for groundwater and may cause pumping, seepage or other undesirable effect, particularly on site with expansive soils. Trench plugs should be provided where utility trenches enter the building perimeter. Trench plugs may consist of compacted lime-treated native soil, or cement slurry or similar materials. Trench plug material should completely surround the pipe and be in contact with the undisturbed walls and bottom of the trench. The length of soil trench plugs should be on the order of one to two feet. The geotechnical engineer should review the placement and design of trench plugs prior to plan finalization.

6.9 Concrete Slabs-on-Grade

- 6.9.1 Concrete slabs-on-grade subject to vehicle loading are considered pavements and should be designed in accordance with the recommendations in Section 6.11 of this report.

- 6.9.2 Concrete slabs-on-grade for structures, not subject to vehicle loading, should be a minimum of 5 inches thick and minimum slab reinforcement should consist of No. 3 steel reinforcing bars placed 18 inches on center in both horizontal directions. Steel reinforcing should be positioned vertically near the slab midpoint.

- 6.9.3 Interior slabs or slabs in areas where moisture would be objectionable should be underlain by 3 inches of $\frac{1}{2}$ -inch or $\frac{3}{4}$ -inch crushed rock with no more than 5% passing the No. 200 sieve to serve as a capillary break. The crushed rock should be subjected to several passes with a walk-behind vibratory compactor or similar equipment prior to placing a vapor barrier or rebar for the slab-on-grade. The crushed rock should not be counted toward the 12 inches of low-expansive fill recommended above.

- 6.9.4 The slab-on-grade dimensions and minimum reinforcement recommendations presented herein are based upon soil conditions only and are not intended to be used in lieu of those required for structural purposes.
- 6.9.5 Exterior slabs, not subject to traffic loads, should be at least 4 inches thick and reinforced with No. 3 steel reinforcing bars placed 18 inches on center in both horizontal directions, positioned near the slab midpoint. We recommend that at least 12 inches of Class 2 Aggregate Base (AB) compacted to at least 95% relative compaction be used below exterior concrete slabs. Prior to placing AB, the subgrade should be moisture conditioned to at least 2% above optimum and properly compacted to at least 90% relative compaction.
- 6.9.6 In lieu of specific recommendations from the structural or civil engineer, we recommend that crack control joints be spaced at intervals not greater than 8 feet for 4-inch-thick slabs (10 feet for 5-inch slabs). Crack control joints should extend a minimum depth of one-fourth the slab thickness and should be constructed using saw-cuts or other methods as soon as practical after concrete placement. Construction joints should be designed by the project structural engineer.
- 6.9.7 The recommendations of this report are intended to reduce the potential for cracking of slabs due to soil movement. However, even with the incorporation of the recommendations presented herein, foundations, stucco walls, and slabs-on-grade may exhibit some cracking due to soil movement. This is common for project areas that contain expansive soils since designing to eliminate potential soil movement is cost prohibitive. The occurrence of concrete shrinkage cracks is independent of the supporting soil characteristics. Their occurrence may be reduced and/or controlled by limiting the slump of the concrete, proper concrete placement and curing, and by the placement of crack control joints at periodic intervals, in particular, where re-entrant slab corners occur.

6.10 Moisture Protection Considerations

- 6.10.1 A vapor barrier is not required beneath interior slab-on-grade for geotechnical purposes. Further, the migration of moisture through concrete slabs or moisture otherwise released from slabs is not a geotechnical issue. However, for the convenience of the owner, we are providing the following general suggestions for consideration by the owner, architect, structural engineer, and contractor. The suggested procedures may reduce the potential for moisture-related floor covering failures on concrete slabs-on-grade, but moisture problems may still occur even if the procedures are followed. If more detailed recommendations are desired, we recommend consulting a specialist in this field.
- 6.10.2 A vapor barrier meeting ASTM E 1745-09 Class C requirements may be placed directly below the slab, without a sand cushion. To reduce the potential for punctures, a higher quality vapor barrier (15 mil, Class A or B) should be used. The vapor barrier, if used, should extend to the edges of the slab, and should be sealed at all seams and penetrations.
- 6.10.3 The concrete water/cement ratio should be as low as possible. The water/cement ratio should not exceed 0.45 for concrete placed directly on the vapor barrier. Midrange plasticizers could be used to facilitate concrete placement and workability.
- 6.10.4 Proper finishing, curing, and moisture vapor emission testing should be performed in accordance with the latest guidelines provided by the American Concrete Institute, Portland Cement Association, and ASTM.

6.11 Pavements

6.11.1 The upper 12 inches of pavement subgrade should be scarified, moisture conditioned to at least 2% over optimum and compacted to at least 95% relative compaction. Prior to placing aggregate base, the finished subgrade should be proof-rolled with a laden water truck (or similar equipment with high contact pressure) to verify stability.

6.11.2 We recommend the following asphalt concrete (AC) pavement section for design to establish subgrade elevations in pavement areas. The project civil engineer should determine the appropriate Traffic Index (TI) based on anticipated traffic conditions. The flexible pavement sections below are based on estimated design TIs and an R-Value of 5 for the subgrade soils. We can provide additional sections based on other TIs if necessary.

**TABLE 6.11
FLEXIBLE PAVEMENT SECTION RECOMMENDATIONS**

Location	Estimated Traffic Index (TI)	AC Thickness (inches)	Class 2 AB Thickness (inches)
Parking Stall	4.5	3	8
Driveways	6.0	3 ½	12 ½
Heavy-Duty	7.0	4	15 ½

Note: The recommended flexible pavement sections are based on the following assumptions:

1. AB: Class 2 AB with a minimum R-Value of 78 and meeting the requirements of Section 26 of the latest Caltrans Standard Specifications.
2. AB is compacted to 95% or higher relative compaction at or near optimum moisture content. Prior to placing AB, the subgrade should be proof-rolled with a loaded water truck to verify stability.
3. AC: Asphalt concrete conforming to local agency standards or Section 39 of the latest Caltrans Standard Specifications.

6.11.3 The AC sections in Table 6.11 are final, minimum thicknesses. If staged-pavements are used, the construction bottom AC lift should be at least 2 inches thick.

6.11.4 Unless specifically designed and evaluated by the project structural engineer, where concrete paving will be utilized for support of vehicles, we recommend the concrete be a minimum of 6 inches thick and reinforced with No. 3 steel reinforcing bars placed 18 inches on center in both horizontal directions. Where heavy truck or apparatus traffic is anticipated, the minimum concrete thickness should be increased to 8 inches. In addition, doweling, reinforcing steel or other load-transfer mechanisms should be provided at joints if desired to reduce the potential for vertical offset. The concrete should have a minimum 28-day compressive strength of 3,500 psi. We should evaluate pavements to support heavy truck traffic on a case-by-case basis; supplemental recommendations may be provided. Where only passenger vehicle traffic is anticipated, the concrete thickness may be reduced to 5 inches.

6.11.5 We recommend that at least 12 inches of Class 2 Aggregate Base be used below rigid concrete pavements. The aggregate base should be compacted to at least 95% relative compaction near optimum moisture content.

6.11.6 Consideration should be given to providing a thickened edge on the outside of concrete slabs subject to wheel loads. The thickened edge should be 2 inches thicker than the design slab thickness at the slab edge and taper back to the design slab thickness 3 feet behind the face of the slab.

- 6.11.7 In general, we recommend that concrete pavements be designed, constructed and maintained in accordance with industry standards such as those provided by the American Concrete Pavement Association, American Concrete Institute, etc.
- 6.11.8 Crack control joints should be spaced at intervals not greater than 10 inches for 5-inch slabs, 12 feet for 6-inch slabs, and 16 feet for 8-inch slabs and should be constructed using saw-cuts or other methods as soon as practical following concrete placement. Crack control joints should extend a minimum depth of one-fourth the slab thickness and should be constructed using saw-cuts or other methods as soon as practical after concrete placement. Construction joints should be designed by the project structural engineer.
- 6.11.9 The performance of pavements is highly dependent upon providing positive surface drainage away from the edge of pavements. Ponding of water on or adjacent to the pavement will likely result in saturation of the subgrade materials and subsequent cracking, subsidence and pavement distress. If planters are planned adjacent to paving, it is recommended that the perimeter curb be extended at least 6 inches below the bottom of the aggregate base to minimize the introduction of water beneath the paving. Alternatives such as plastic moisture cut-offs or modified drop-inlets may also be considered in lieu of deepened curbs.

6.12 Surface Drainage

- 6.12.1 Proper surface drainage is critical to the future performance of the project. Uncontrolled infiltration of irrigation excess and storm runoff into the soils can adversely affect the performance of the planned improvements. Saturation of a soil can cause it to lose internal shear strength and increase its compressibility, resulting in a change to important engineering properties. Proper drainage should be maintained at all times.
- 6.12.2 All site drainage should be collected and transferred to the street in non-erosive drainage devices. Drainage should not be allowed to pond anywhere on the site, and especially not against any foundations or retaining walls. Drainage should not be allowed to flow uncontrolled over any descending slope. The proposed structures should be provided with roof gutters. Discharge from downspouts, roof drains and scuppers not permitted onto unprotected soils within five feet of the building perimeter. Planters which are located adjacent to foundations should be sealed or properly drained to prevent moisture intrusion into the materials providing foundation support. Landscape irrigation within five feet of the building perimeter footings should be kept to a minimum to just support vegetative life.
- 6.12.3 Positive site drainage should be provided away from structures, pavement, and the tops of slopes to swales or other controlled drainage structures. The building pad and pavement areas should be fine graded such that water is not allowed to pond. Final soil grade should slope a minimum of 2% away from structures.
- 6.12.4 We recommend implementing measures to reduce infiltrating surface water near buildings and slabs-on-grade. Such measures may include:
- Selecting drought-tolerant plants that require little or no irrigation, especially within 5 feet of buildings, slabs-on-grade, or pavements.
 - Using drip irrigation or low-output sprinklers and automatic timers for irrigation systems.
 - Appropriately spaced area drains.
 - Hard-piping roof downspouts to appropriate collection facilities.

7. FURTHER GEOTECHNICAL SERVICES

7.1 Plan and Specification Review

- 7.1.1 We should review project plans and specifications prior to final design submittal to assess whether our recommendations have been properly implemented and evaluate if additional analysis and/or recommendations are required.

7.2 Testing and Observation Services

- 7.2.1 The recommendations provided in this report are based on the assumption that we will continue as Geotechnical Engineer of Record throughout the construction phase and provide compaction testing and observation services and foundation observations throughout the project. It is important to maintain continuity of geotechnical interpretation and confirm that field conditions encountered are similar to those anticipated during design. If we are not retained for these services, we cannot assume any responsibility for others interpretation of our recommendations, and therefore the future performance of the project.

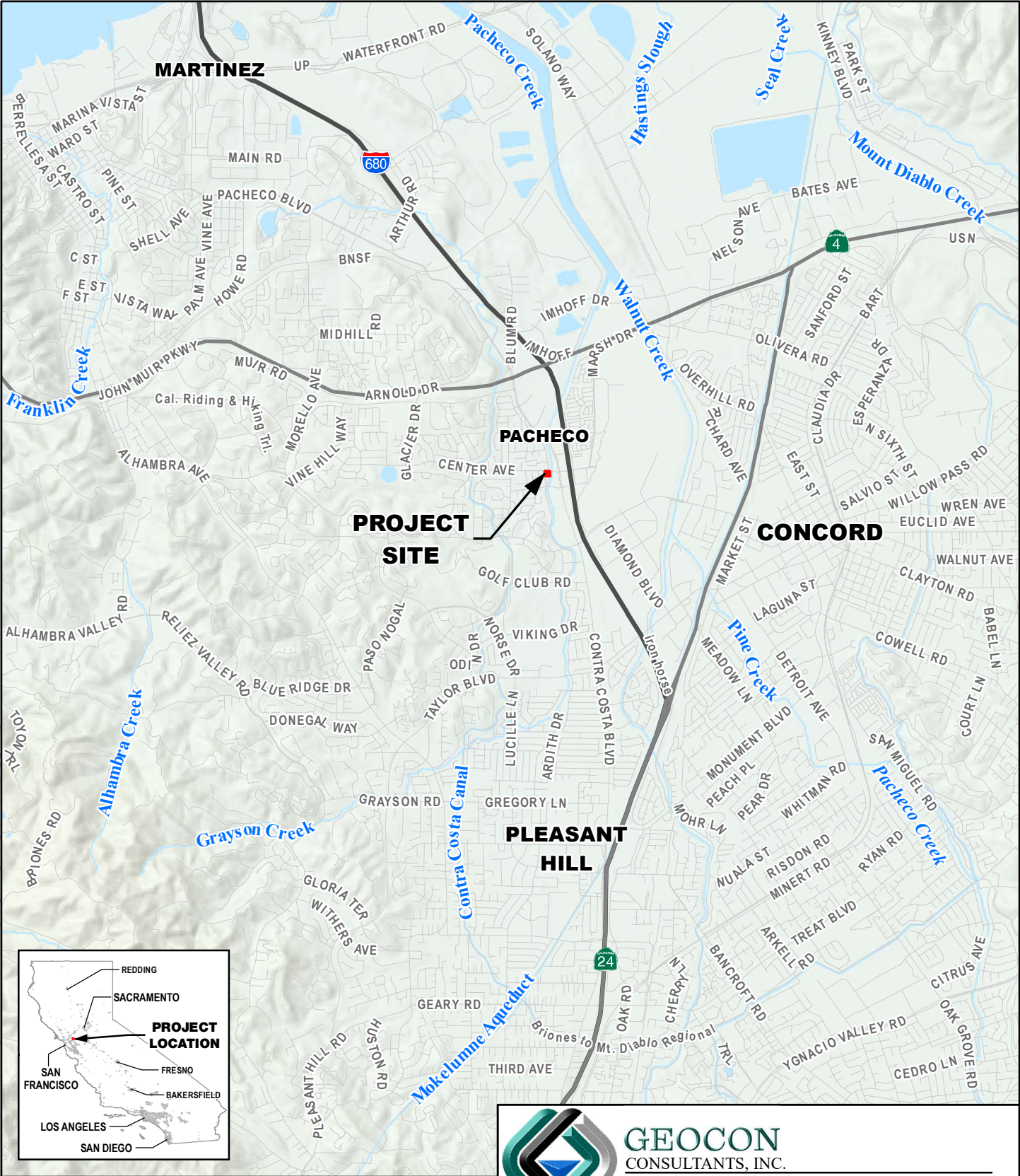
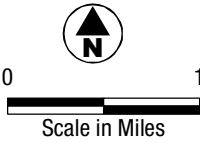
LIMITATIONS AND UNIFORMITY OF CONDITIONS

The recommendations of this report pertain only to the site investigated and are based upon the assumption that the soil conditions do not deviate from those disclosed in the investigation. If any variations or undesirable conditions are encountered during construction, or if the proposed construction will differ from that anticipated herein, Geocon Consultants, Inc. should be notified so that supplemental recommendations can be given. The evaluation or identification of the potential presence of hazardous or corrosive materials was not part of the geotechnical scope of services provided by Geocon Consultants, Inc.

This report is issued with the understanding that it is the responsibility of the owner, or of his representative, to ensure that the information and recommendations contained herein are brought to the attention of the architect and engineer for the project and incorporated into the plans, and the necessary steps are taken to see that the contractor and subcontractors carry out such recommendations in the field.

The findings of this report are valid as of the present date. However, changes in the conditions of a property can occur with the passage of time, whether they are due to natural processes or the works of man on this or adjacent properties. In addition, changes in applicable or appropriate standards may occur, whether they result from legislation or the broadening of knowledge. Accordingly, the findings of this report may be invalidated wholly or partially by changes outside our control. Therefore, this report is subject to review and should not be relied upon after a period of three years.

Our professional services were performed, our findings obtained, and our recommendations prepared in accordance with generally accepted geotechnical engineering principles and practices used in the site area at this time. No warranty is provided, express or implied.



GEOCON
CONSULTANTS, INC.

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Fire Station No. 9 Replacement		
209 Center Ave Pacheco, California		
VICINITY MAP		
E8909-04-05	June 2024	Figure 1

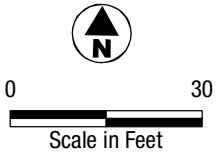


Legend

B6 Approximate Boring Location

CPT4 Approximate Cone Penetration Test (CPT) Location

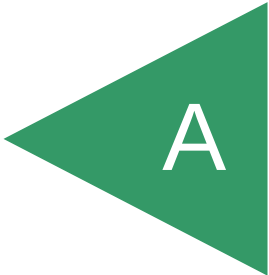
Approximate Site Boundary



<div><div>GEOCON CONSULTANTS, INC. <small>6671 BRISA STREET - LIVERMORE, CA 94550 PHONE 925.371.5900 - FAX 925.270.8488</small></div></div>		
Fire Station No. 9 Replacement		
209 Center Ave Pacheco, California		
SITE PLAN		
E8909-04-05	June 2024	Figure 2

GEOCON\\4/26/2024\\USER\\Brown\\M\\PATH\\C\\Users\\Brown\\M\\OneDrive - Geocon, Inc\\GIS_Graphics\\Projects\\E8909-04-05_1300_OCCDP_F59\\01_Report\\Maps\\Figure_2_Site_Plan.mxd

APPENDIX



APPENDIX A FIELD EXPLORATION

Fieldwork for our investigation included a site visit and soil sampling. The locations of our exploratory borings and CPTs are shown on the Site Plan, Figure 2. Soil boring logs and CPT sounding profiles for our exploration are presented as figures following the text in this appendix. The borings were located by pacing from existing reference points. Therefore, the exploration locations shown on Figure 2 are approximate.

Our field exploration included four CPT soundings to a maximum depth of approximately 35 ½ feet below existing grade utilizing a truck-mounted CPT rig with down-pressure capacity of approximately 20 tons. The CPTs were performed on January 26, 2024 by Middle Earth Geo testing using an integrated electronic cone-system. The cone has a tip area of 15 square centimeters, a friction sleeve area of 225 square centimeters, and a ratio of friction sleeve area to tip end area equal to 0.80. The cone bearing (Q_c) and sleeve friction (F_s) were measured and recorded during tests at approximately 2-inch depth penetration blow counts (N) versus penetration depth below the existing ground surface for each location has been recorded and is presented in this appendix.

Our field exploration included drilling 6 exploratory soil borings. Our borings were performed on April 18, 2024 using a truck-mounted CME75 drill rig equipped with 8-inch hollow-stem augers and 6-inch solid-flight augers. Sampling in the borings was accomplished using a 140-pound hammer with a 30-inch drop. Samples were obtained with a 3-inch outside-diameter (OD), split spoon (California Modified) sampler, and a 2-inch OD, Standard Penetration Test (SPT) sampler. The number of blows required to drive the sampler the last 12 inches (or fraction thereof) of the 18-inch sampling interval were recorded on the boring logs. The blow counts shown on the boring logs should not be interpreted as standard SPT “N” values; corrections have not been applied.

Subsurface conditions encountered in the exploratory boring were visually examined, classified and logged in general accordance with the American Society for Testing and Materials (ASTM) Practice for Description and Identification of Soils (Visual-Manual Procedure D2488). This system uses the Unified Soil Classification System (USCS) for soil designations. The log depicts soil and geologic conditions encountered and depths at which samples were obtained. The log also includes our interpretation of the conditions between sampling intervals. Therefore, the logs contain both observed and interpreted data. We determined the lines designating the interface between soil materials on the logs using visual observations, drill rig penetration rates, excavation characteristics and other factors. The transition between materials may be abrupt or gradual. Where applicable, the field logs were revised based on subsequent laboratory testing.

Our boreholes were backfilled with lean cement, per Contra Costa County Environmental Health permit requirements.

UNIFIED SOIL CLASSIFICATION

MAJOR DIVISIONS					TYPICAL NAMES
COARSE-GRAINED SOILS MORE THAN HALF IS COARSER THAN NO. 200 SIEVE	GRAVELS MORE THAN HALF COARSE FRACTION IS LARGER THAN NO.4 SIEVE SIZE	CLEAN GRAVELS WITH LITTLE OR NO FINES	GW		WELL GRADED GRAVELS WITH OR WITHOUT SAND, LITTLE OR NO FINES
		GRAVELS WITH OVER 12% FINES	GP		POORLY GRADED GRAVELS WITH OR WITHOUT SAND, LITTLE OR NO FINES
			GM		SILTY GRAVELS, SILTY GRAVELS WITH SAND
			GC		CLAYEY GRAVELS, CLAYEY GRAVELS WITH SAND
	SANDS MORE THAN HALF COARSE FRACTION IS SMALLER THAN NO.4 SIEVE SIZE	CLEAN SANDS WITH LITTLE OR NO FINES	SW		WELL GRADED SANDS WITH OR WITHOUT GRAVEL, LITTLE OR NO FINES
		SANDS WITH OVER 12% FINES	SP		POORLY GRADED SANDS WITH OR WITHOUT GRAVEL, LITTLE OR NO FINES
			SM		SILTY SANDS WITH OR WITHOUT GRAVEL
			SC		CLAYEY SANDS WITH OR WITHOUT GRAVEL
FINE-GRAINED SOILS MORE THAN HALF IS FINER THAN NO. 200 SIEVE	SILTS AND CLAYS LIQUID LIMIT 50% OR LESS	ML		INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTS WITH SANDS AND GRAVELS	
		CL		INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, CLAYS WITH SANDS AND GRAVELS, LEAN CLAYS	
		OL		ORGANIC SILTS OR CLAYS OF LOW PLASTICITY	
	SILTS AND CLAYS LIQUID LIMIT GREATER THAN 50%	MH		INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS, FINE SANDY OR SILTY SOILS, ELASTIC SILTS	
		CH		INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS	
		OH		ORGANIC CLAYS OR CLAYS OF MEDIUM TO HIGH PLASTICITY	
	HIGHLY ORGANIC SOILS	PT		PEAT AND OTHER HIGHLY ORGANIC SOILS	

BORING/TRENCH LOG LEGEND

		PENETRATION RESISTANCE						
		SAND AND GRAVEL			SILT AND CLAY			
		RELATIVE DENSITY	BLOWS PER FOOT (SPT)*	BLOWS PER FOOT (MOD-CAL)*	CONSISTENCY	BLOWS PER FOOT (SPT)*	BLOWS PER FOOT (MOD-CAL)*	COMPRESSIVE STRENGTH (tsf)
	No Recovery							
	Shelby Tube Sample							
	Bulk Sample	VERY LOOSE	0 - 4	0 - 6	VERY SOFT	0 - 2	0 - 3	0 - 0.25
	SPT Sample	LOOSE	5 - 10	7 - 16	SOFT	3 - 4	4 - 6	0.25 - 0.50
	Modified California Sample	MEDIUM DENSE	11 - 30	17 - 48	MEDIUM STIFF	5 - 8	7 - 13	0.50 - 1.0
		DENSE	31 - 50	49 - 79	STIFF	9 - 15	14 - 24	1.0 - 2.0
	Groundwater Level (At Completion)	VERY DENSE	OVER 50	OVER 79	VERY STIFF	16 - 30	25 - 48	2.0 - 4.0
	Groundwater Level (Seepage)	*NUMBER OF BLOWS OF 140 LB HAMMER FALLING 30 INCHES TO DRIVE LAST 12 INCHES OF AN 18-INCH DRIVE						
					HARD	OVER 30	OVER 48	OVER 4.0

MOISTURE DESCRIPTIONS

FIELD TEST	APPROX. DEGREE OF SATURATION, S (%)	DESCRIPTION
NO INDICATION OF MOISTURE; DRY TO THE TOUCH	S<25	DRY
SLIGHT INDICATION OF MOISTURE	25≤S<50	DAMP
INDICATION OF MOISTURE; NO VISIBLE WATER	50≤S<75	MOIST
MINOR VISIBLE FREE WATER	75≤S<100	WET
VISIBLE FREE WATER	100	SATURATED

QUANTITY DESCRIPTIONS

APPROX. ESTIMATED PERCENT	DESCRIPTION
<5%	TRACE
5 - 10%	FEW
11 - 25%	LITTLE
26 - 50%	SOME
>50%	MOSTLY

GRAVEL/COBBLE/BOULDER DESCRIPTIONS

CRITERIA	DESCRIPTION
PASS THROUGH A 3-INCH SIEVE AND BE RETAINED ON A NO. 4 SIEVE (#4 TO 3")	GRAVEL
PASS A 12-INCH SQUARE OPENING AND BE RETAINED ON A 3/4-INCH SIEVE (3/4" TO 12")	COBBLE
WILL NOT PASS A 12-INCH SQUARE OPENING (>12")	BOULDER



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BEDDING SPACING DESCRIPTIONS

THICKNESS/SPACING	DESCRIPTOR
GREATER THAN 10 FEET	MASSIVE
3 TO 10 FEET	VERY THICKLY BEDDED
1 TO 3 FEET	THICKLY BEDDED
3 1/4-INCH TO 1 FOOT	MODERATELY BEDDED
1 1/4-INCH TO 3 1/4-INCH	THINLY BEDDED
3/4-INCH TO 1 1/4-INCH	VERY THINLY BEDDED
LESS THAN 3/4-INCH	LAMINATED

STRUCTURE DESCRIPTIONS

CRITERIA	DESCRIPTION
ALTERNATING LAYERS OF VARYING MATERIAL OR COLOR WITH LAYERS AT LEAST $\frac{1}{2}$ -INCH THICK	STRATIFIED
ALTERNATING LAYERS OF VARYING MATERIAL OR COLOR WITH LAYERS LESS THAN $\frac{1}{2}$ -INCH THICK	LAMINATED
BREAKS ALONG DEFINITE PLANES OF FRACTURE WITH LITTLE RESISTANCE TO FRACTURING	FISSURED
FRACTURE PLANES APPEAR POLISHED OR GLOSSY, SOMETIMES STRIATED	SLICKSIDED
COHESIVE SOIL THAT CAN BE BROKEN DOWN INTO SMALLER ANGULAR LUMPS WHICH RESIST FURTHER BREAKDOWN	BLOCKY
INCLUSION OF SMALL POCKETS OF DIFFERENT SOIL, SUCH AS SMALL LENSES OF SAND SCATTERED THROUGH A MASS OF CLAY	LENSED
SAME COLOR AND MATERIAL THROUGHOUT	HOMOGENOUS

CEMENTATION/INDURATION DESCRIPTIONS

FIELD TEST	DESCRIPTION
CRUMBLES OR BREAKS WITH HANDLING OR LITTLE FINGER PRESSURE	WEAKLY CEMENTED/INDURATED
CRUMBLES OR BREAKS WITH CONSIDERABLE FINGER PRESSURE	MODERATELY CEMENTED/INDURATED
WILL NOT CRUMBLE OR BREAK WITH FINGER PRESSURE	STRONGLY CEMENTED/INDURATED

IGNEOUS/METAMORPHIC ROCK STRENGTH DESCRIPTIONS

FIELD TEST	DESCRIPTION
MATERIAL CRUMBLES WITH BARE HAND	WEAK
MATERIAL CRUMBLES UNDER BLOWS FROM GEOLOGY HAMMER	MODERATELY WEAK
1/8 -INCH INDENTATIONS WITH SHARP END FROM GEOLOGY HAMMER	MODERATELY STRONG
HAND-HELD SPECIMEN CAN BE BROKEN WITH ONE BLOW FROM GEOLOGY HAMMER	STRONG
HAND-HELD SPECIMEN CAN BE BROKEN WITH COUPLE BLOWS FROM GEOLOGY HAMMER	VERY STRONG
HAND-HELD SPECIMEN CAN BE BROKEN WITH MANY BLOWS FROM GEOLOGY HAMMER	EXTREMELY STRONG

IGNEOUS/METAMORPHIC ROCK WEATHERING DESCRIPTIONS

DEGREE OF DECOMPOSITION	FIELD RECOGNITION	ENGINEERING PROPERTIES
SOIL	DISCOLORED, CHANGED TO SOIL, FABRIC DESTROYED	EASY TO DIG
COMPLETELY WEATHERED	DISCOLORED, CHANGED TO SOIL, FABRIC MAINLY PRESERVED	EXCAVATED BY HAND OR RIPPING (Saprolite)
HIGHLY WEATHERED	DISCOLORED, HIGHLY FRACTURED, FABRIC ALTERED AROUND FRACTURES	EXCAVATED BY HAND OR RIPPING, WITH SLIGHT DIFFICULTY
MODERATELY WEATHERED	DISCOLORED, FRACTURES, INTACT ROCK-NOTICEABLY WEAKER THAN FRESH ROCK	EXCAVATED WITH DIFFICULTY WITHOUT EXPLOSIVES
SLIGHTLY WEATHERED	MAY BE DISCOLORED, SOME FRACTURES, INTACT ROCK-NOT NOTICEABLY WEAKER THAN FRESH ROCK	REQUIRES EXPLOSIVES FOR EXCAVATION, WITH PERMEABLE JOINTS AND FRACTURES
FRESH	NO DISCOLORATION, OR LOSS OF STRENGTH	REQUIRES EXPLOSIVES

IGNEOUS/METAMORPHIC ROCK JOINT/FRACTURE DESCRIPTIONS

FIELD TEST	DESCRIPTION
NO OBSERVED FRACTURES	UNFRACTURED/UNJOINTED
MAJORITY OF JOINTS/FRACTURES SPACED AT 1 TO 3 FOOT INTERVALS	SLIGHTLY FRACTURED/JOINTED
MAJORITY OF JOINTS/FRACTURES SPACED AT 4-INCH TO 1 FOOT INTERVALS	MODERATELY FRACTURED/JOINTED
MAJORITY OF JOINTS/FRACTURES SPACED AT 1-INCH TO 4-INCH INTERVALS WITH SCATTERED FRAGMENTED INTERVALS	INTENSELY FRACTURED/JOINTED
MAJORITY OF JOINTS/FRACTURES SPACED AT LESS THAN 1-INCH INTERVALS; MOSTLY RECOVERED AS CHIPS AND FRAGMENTS.	VERY INTENSELY FRACTURED/JOINTED

CCCFD FS9 Replacement

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Richmond California

KEY TO LOGS

E8909-04-05

June 2024

Figure A1

PROJECT NO. E8909-04-05

PROJECT NAME: CCCFPD FS 9 Replacement

DEPTH IN FEET	SAMPLE NO.	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	BORING B1		PENETRATION RESISTANCE (BLOWS/FT.)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)
					ELEV. (MSL.)	DATE COMPLETED			
					ENG./GEO. FG	DRILLER V&W Drilling			
					EQUIPMENT CME75 w/ 8" HSA	HAMMER TYPE Downhole-Wireline			
MATERIAL DESCRIPTION									
0				CL	ALLUVIUM				
1					Medium stiff, moist, brown to dark brown, Silty CLAY with sand				
2	B1-1.5						9	102.7	16.0
3	B1-2				-more sand				
4	B1-3.5						12	99.3	26.4
5	B1-4				-trace to few (f) sand				
6					-no recovery		9	94.4	26.4
7	B1-6				-trace (f) sand				
8									
9									
10	B1-9				-thin layer of sand just before 9 feet		12	89.9	32.5
11	B1-9.5								
12									
13									
14	B1-13.5				-stiff, dark gray brown		17	106.0	21.0
	B1-14								
					END OF BORING AT APPROXIMATELY 14½ FEET NO FREE WATER ENCOUNTERED BACKFILLED WITH NEAT CEMENT				

Figure A2, Log of Boring B1, Page 1 of 1

GEOCON BORING LOG W/FIG# STARTING W/ A2 E8909-04-05 BORING LOGS.GPJ 06/10/24



SAMPLE SYMBOLS

□ ... SAMPLING UNSUCCESSFUL

▨ ... DISTURBED OR BAG SAMPLE

■ ... STANDARD PENETRATION TEST

▩ ... CHUNK SAMPLE

■ ... DRIVE SAMPLE (UNDISTURBED)

▼ ... WATER TABLE OR SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

PROJECT NO. **E8909-04-05**

PROJECT NAME: **CCCFPD FS 9 Replacement**

DEPTH IN FEET	SAMPLE NO.	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	BORING B2		PENETRATION RESISTANCE (BLOWS/FT.)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)
					ELEV. (MSL.)	DATE COMPLETED			
					ENG./GEO.	DRILLER			
					EQUIPMENT	HAMMER TYPE			
						4/18/2024			
					FG	V&W Drilling			
					CME75 w/ 8" HSA	Downhole-Wireline			
MATERIAL DESCRIPTION									
0				CL	ALLUVIUM				
1	B2-1-3				Medium stiff, moist, dark brown to brown, Silty CLAY with little sand				
2	B2-1.5						12	104.7	19.4
	B2-2								
3					-slightly lighter brown, more sand				
4	B2-3.5						22	110.1	15.7
	B2-4					-stiff			
5					-more sand in shoe		6		
6	B2-5-6				-medium stiff, less sand				
7	B2-6.5						3		
	B2-7					-very soft, sandy			28.9
8	B2-8-9			SC CL	Very loose, saturated, gray brown, Clayey SAND with silt		6		36.2
9					Medium stiff, moist to wet, dark brown and gray brown, CLAY with little sand and silt				
10									
11									
12									
13	B2-12.5						13	100.9	24.8
	B2-13								
14									
15									
16									
17				SW-SC	Medium dense, saturated, gray and brown, (f-c) SAND with few clays		14		17.8
18	B2-17.5-18.25								
	B2-18.25-18.5			CL	Stiff, moist, gray brown, CLAY with trace to no (f) sand				
19									
20									
21	B2-20.5-21.5				-thin sand layer		11		
22									
	B2-22.5-23.5						10		
23									
END OF BORING AT APPROXIMATELY 23½ FEET GROUNDWATER INITIALLY ENCOUNTERED AT APPROXIMATELY 12 FEET BACKFILLED WITH NEAT CEMENT									

Figure A3, Log of Boring B2, Page 1 of 1

GEOCON BORING LOG W/FIG# STARTING W/ A2 E8909-04-05 BORING LOGS.GPJ 06/10/24



SAMPLE SYMBOLS

□ ... SAMPLING UNSUCCESSFUL

▤ ... DISTURBED OR BAG SAMPLE

■ ... STANDARD PENETRATION TEST

▣ ... CHUNK SAMPLE

■ ... DRIVE SAMPLE (UNDISTURBED)

▼ ... WATER TABLE OR SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

PROJECT NO. E8909-04-05

PROJECT NAME: CCCFPD FS 9 Replacement

DEPTH IN FEET	SAMPLE NO.	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	BORING B3		PENETRATION RESISTANCE (BLOWS/FT.)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)
					ELEV. (MSL.)	DATE COMPLETED			
					ENG./GEO.	DRILLER			
					EQUIPMENT	HAMMER TYPE			
						4/18/2024			
					FG	V&W Drilling			
					CME75 w/ 8" HSA	Downhole-Wireline			
MATERIAL DESCRIPTION									
0				CL	ALLUVIUM				
1					Medium stiff, moist, brown and tan, Silty CLAY with little (f) sand				
2	B3-1.5						10		
3	B3-2								
4	B3-4						13	94.6	25.0
5	B3-4.5					-with visible roots			
6	B3-5.5						10	90.7	29.9
7	B3-6								
8									
9	B3-9					-more sand	8	84.3	33.0
10	B3-9.5					-wet			36.2
11									
12									
13									
14									
15	B3-15-15.75			SC	Medium dense, wet, gray brown, (f) SAND with little clay		15		23.2
16	B3-15.75-16			CL	-more clay				21.6
17					Stiff, moist, gray brown, Sandy CLAY with silt				
18	B3-18-19						10		
19					-less sand				
END OF BORING AT APPROXIMATELY 19 FEET GROUNDWATER INITIALLY ENCOUNTERED AT APPROXIMATELY 12 FEET BACKFILLED WITH NEAT CEMENT									

Figure A4, Log of Boring B3, Page 1 of 1

GEOCON BORING LOG W/FIG# STARTING W/ A2 E8909-04-05 BORING LOGS.GPJ 06/10/24



SAMPLE SYMBOLS

□ ... SAMPLING UNSUCCESSFUL

▨ ... DISTURBED OR BAG SAMPLE

■ ... STANDARD PENETRATION TEST

■ ... CHUNK SAMPLE

■ ... DRIVE SAMPLE (UNDISTURBED)

▼ ... WATER TABLE OR SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

PROJECT NO. **E8909-04-05**

PROJECT NAME: **CCCFPD FS 9 Replacement**

DEPTH IN FEET	SAMPLE NO.	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	BORING B4		PENETRATION RESISTANCE (BLOWS/FT.)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)
					ELEV. (MSL.)	DATE COMPLETED			
					ENG./GEO. FG	4/18/2024			
					EQUIPMENT CME75 w/ 8" HSA	DRILLER V&W Drilling			
						HAMMER TYPE Downhole-Wireline			
MATERIAL DESCRIPTION									
0				CL	ALLUVIUM				
1	B4-1-3				Stiff, moist, brown, Silty CLAY with some (f) sand				
2	B4-1.5						16	100.5	17.9
3	B4-2								
4	B4-4				-less silt, trace to few (f) sand			16	
5	B4-4.5								
6	B4-5.5				-medium stiff			11	89.3
7	B4-6				-sandy in shoe				30.7
8									
9	B4-9				-approximately 2 inch thick sand layer			7	33.5
10	B4-9.5				-some sand			84.3	36.6
11					-moist, few (f) sands				
12									
13									
14	B4-14-15				-stiff, trace to no sand			9	
15									
16					END OF BORING AT APPROXIMATELY 19 FEET				
17	B4-16.5-17.5				GROUNDWATER INITIALLY ENCOUNTERED AT APPROXIMATELY 16 FEET				
18	B4-18-19				BACKFILLED WITH NEAT CEMENT				
19									

Figure A5, Log of Boring B4, Page 1 of 1

GEOCON BORING LOG W/FIG# STARTING W/ A2 E8909-04-05 BORING LOGS.GPJ 06/10/24


SAMPLE SYMBOLS

□ ... SAMPLING UNSUCCESSFUL

▣ ... DISTURBED OR BAG SAMPLE

■ ... STANDARD PENETRATION TEST

▤ ... CHUNK SAMPLE

■ ... DRIVE SAMPLE (UNDISTURBED)

▼ ... WATER TABLE OR SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

PROJECT NO. **E8909-04-05**

PROJECT NAME: **CCCFPD FS 9 Replacement**

DEPTH IN FEET	SAMPLE NO.	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	BORING B5		PENETRATION RESISTANCE (BLOWS/FT.)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)
					ELEV. (MSL.)	DATE COMPLETED			
					ENG./GEO. FG	4/18/2024			
					EQUIPMENT CME75 w/ 8" HSA	DRILLER V&W Drilling			
						HAMMER TYPE Downhole-Wireline			
0					MATERIAL DESCRIPTION				
1				CL	ALLUVIUM				
2	B5-1.5				Stiff, damp to moist, tan brown and dark brown, Silty CLAY with little (f) sand				
3	B5-2								16
4	B5-4								
5	B5-4.5				-medium stiff, moist				12
6	B5-5.5								
7	B5-6				-lighter brown				11
8									91.2
9	B5-9								25.9
10	B5-9.5			SC	Loose, wet to saturated, gray brown, Clayey (f) SAND				7
11									92.6
12									28.6
13									29.5
14	B5-14			CL	Medium stiff, moist, gray brown, Silty CLAY with some (f) sand				
15	B5-14.5								13
16									95.6
17									28.5
18	B5-17.5				-some (f) sand				
19	B5-18								12
20									101.8
21									23.5
22									24.4
23									
24	B5-24.5-24.75				-some sand				
25	B5-24.75-25.5			ML	-stiff				19
					Stiff, tan and orange, Sandy SILT with clay				22.7
					END OF BORING AT APPROXIMATELY 25½ FEET				
					GROUNDWATER INITIALLY ENCOUNTERED AT APPROXIMATELY 13 FEET				
					BACKFILLED WITH NEAT CEMENT				

Figure A6, Log of Boring B5, Page 1 of 1

GEOCON BORING LOG W/FIG# STARTING W/ A2 E8909-04-05 BORING LOGS.GPJ 06/10/24



SAMPLE SYMBOLS

□ ... SAMPLING UNSUCCESSFUL

▨ ... DISTURBED OR BAG SAMPLE

■ ... STANDARD PENETRATION TEST

■ ... CHUNK SAMPLE

■ ... DRIVE SAMPLE (UNDISTURBED)

▼ ... WATER TABLE OR SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

PROJECT NO. **E8909-04-05**PROJECT NAME: **CCCFPD FS 9 Replacement**

DEPTH IN FEET	SAMPLE NO.	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	BORING B6		PENETRATION RESISTANCE (BLOWS/FT.)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)
					ELEV. (MSL.) _____	DATE COMPLETED <u>4/18/2024</u>			
					ENG./GEO.	DRILLER			
					_____ FG _____	_____ V&W Drilling _____			
					EQUIPMENT	HAMMER TYPE			
					_____ CME75 w/ 6" SFA _____	_____ Downhole-Wireline _____			
MATERIAL DESCRIPTION									
0				CL	FILL				
1					Medium stiff, moist, gray mottled with tan, Sandy CLAY with little (f-c) gravel		12		
2	B6-1.5 B6-2								
3					-citrus odor				
4	B6-4				-stiff		17		
5	B6-4.5							97.6	22.5
6	B6-5.5 B6-6			CL	ALLUVIUM		16		
7					Stiff, moist, dark brown to brown mottled tan, Silty CLAY with trace (f) sand			113.5	16.6
8									
9	B6-9				-very stiff, more (f) sand		25		
10	B6-9.5				-with visible roots			106.7	20.5
END OF BORING AT APPROXIMATELY 10 FEET NO FREE WATER ENCOUNTERED BACKFILLED WITH NEAT CEMENT									

Figure A7, Log of Boring B6, Page 1 of 1

GEOCON BORING LOG W/FIG# STARTING W/ A2 E8909-04-05 BORING LOGS.GPJ 06/10/24



SAMPLE SYMBOLS

 ... SAMPLING UNSUCCESSFUL ... STANDARD PENETRATION TEST ... DRIVE SAMPLE (UNDISTURBED) ... DISTURBED OR BAG SAMPLE ... CHUNK SAMPLE ... WATER TABLE OR SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

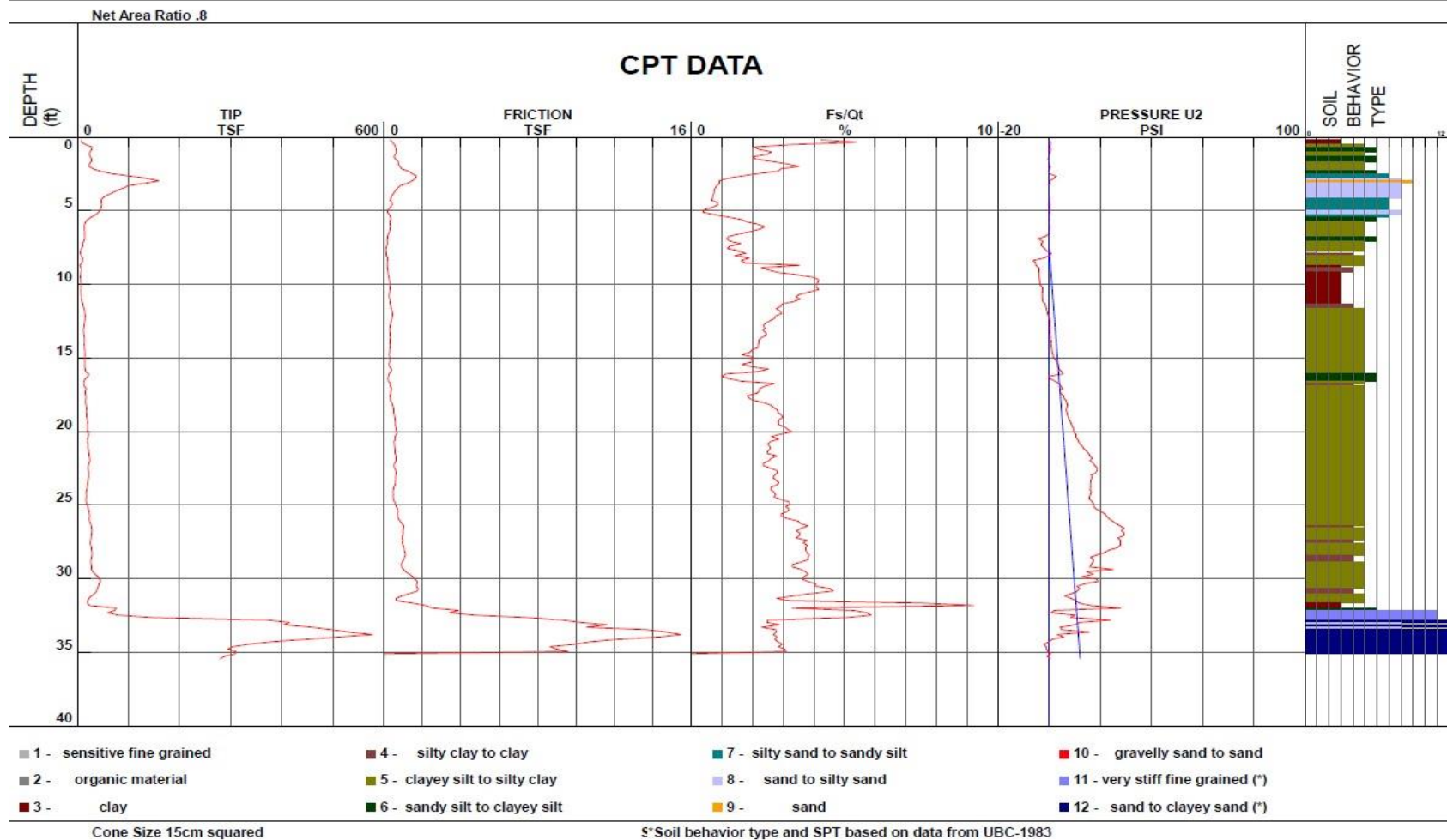


Geocon Inc.

Project: CCCFD FS9 Replacement
 Job Number: E8909-04-05
 Hole Number: CPT-01
 EST GW Depth During Test: _____

Operator: JM-FA
 Cone Number: DDG1596
 Date and Time: 1/26/2024 11:54:26 AM
 7.50 ft

Filename: SDF(291).cpt
 GPS: _____
 Maximum Depth: 35.43 ft



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CONE PENETROMETER TEST DATA
 CPT 1

Project: CCCFD FS9 Replacement
 Location: Pacheco, California
 Project No. E8909-04-05

FIGURE A8

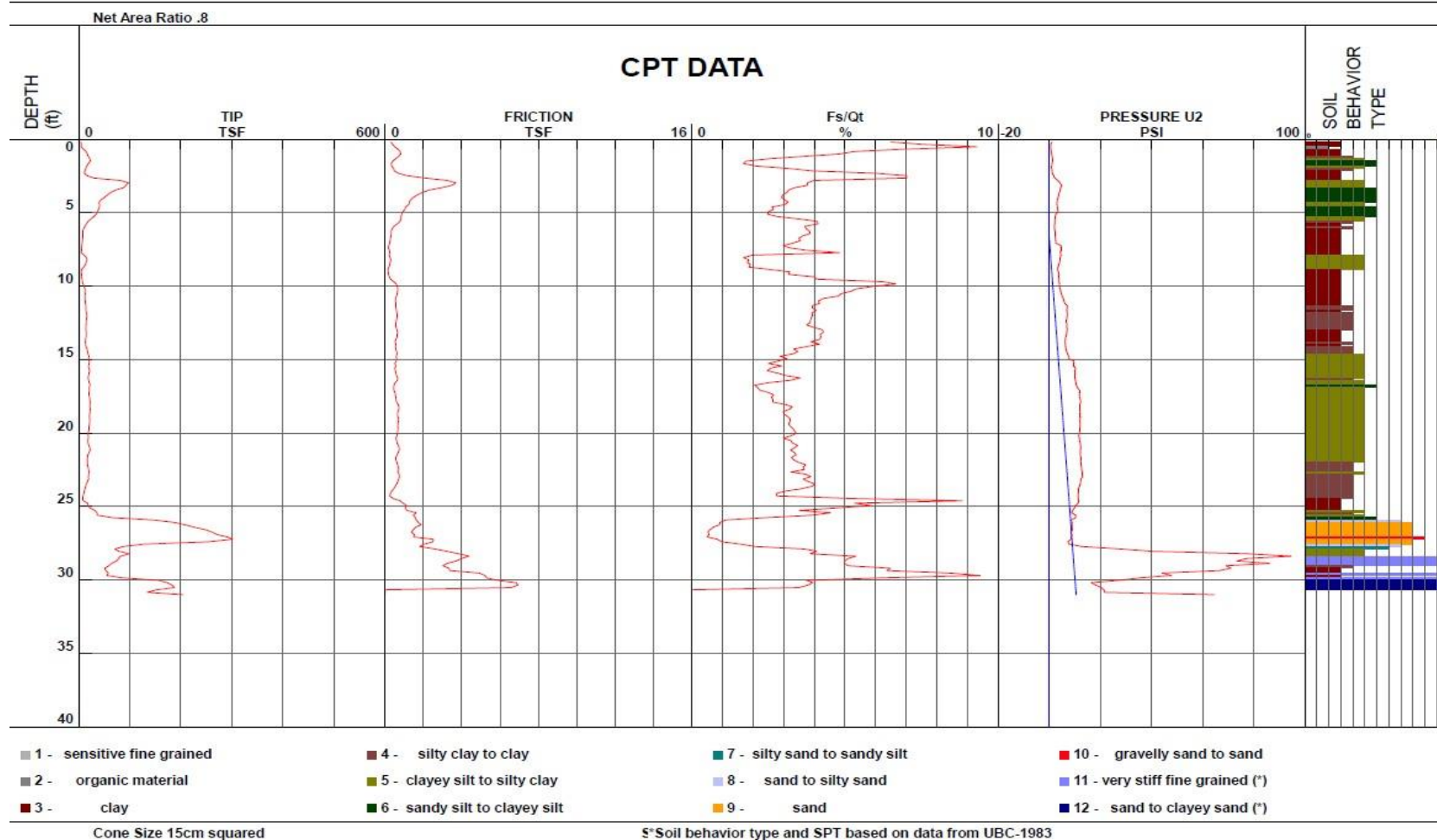


Project CCCFD FS9 Replacement
 Job Number E8909-04-05
 Hole Number CPT-02
 EST GW Depth During Test

Geocon Inc.

Operator JM-FA
 Cone Number DDG1596
 Date and Time 1/26/2024 2:42:29 PM
 6.80 ft

Filename SDF(294).cpt
 GPS
 Maximum Depth 31.00 ft



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CONE PENETROMETER TEST DATA
 CPT 2

Project: CCCFD FS9 Replacement
 Location: Pacheco, California
 Project No. E8909-04-05

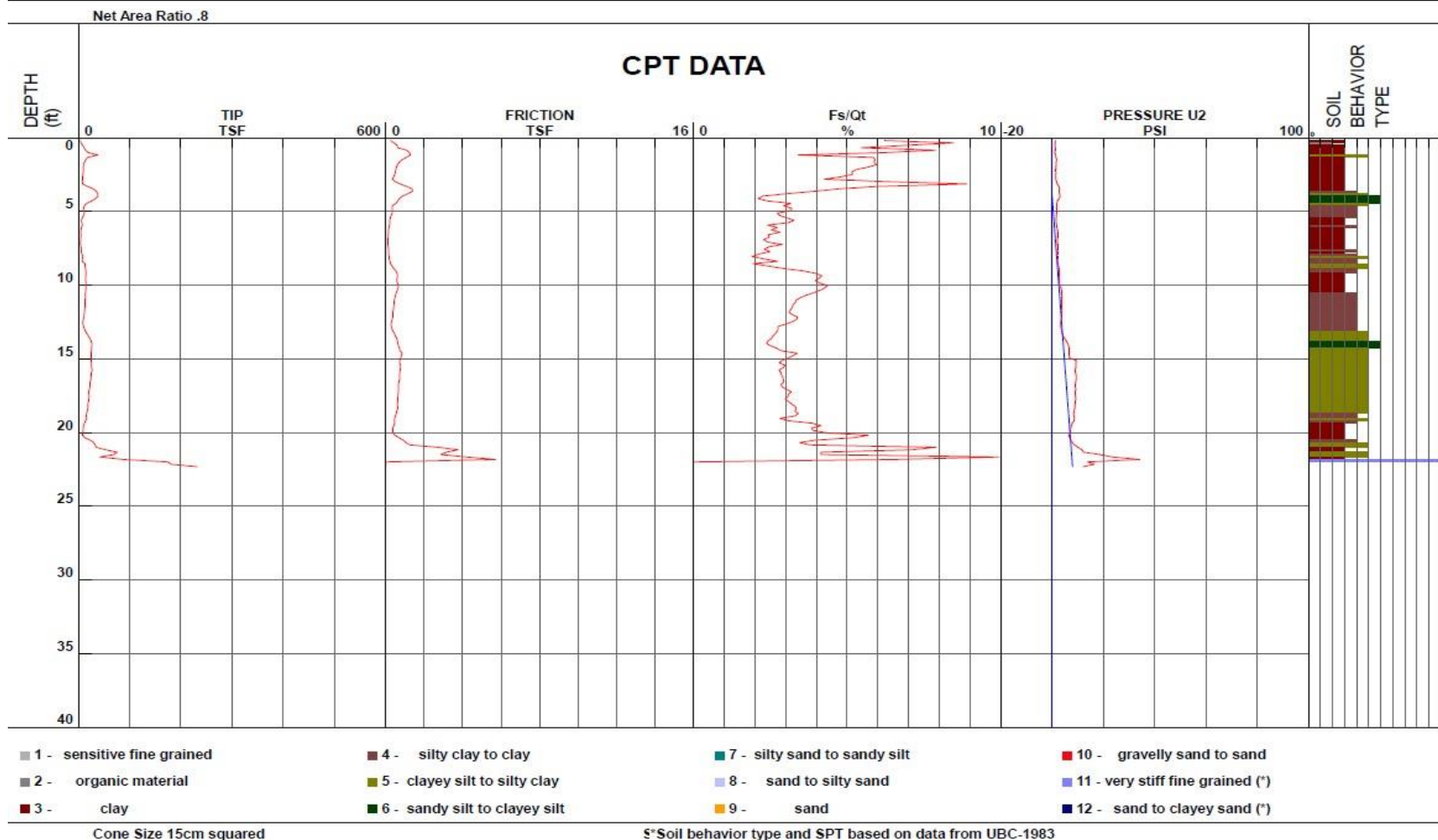
FIGURE A9



Project CCCFD FS9 Replacement
 Job Number E8909-04-05
 Hole Number CPT-03
 EST GW Depth During Test

Operator JM-FA
 Cone Number DDG1596
 Date and Time 1/26/2024 12:55:18 PM
 4.00 ft

Filename SDF(292).cpt
 GPS
 Maximum Depth 22.31 ft



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CONE PENETROMETER TEST DATA
 CPT 3

Project: CCCFD FS9 Replacement
 Location: Pacheco, California
 Project No. E8909-04-05

FIGURE A10

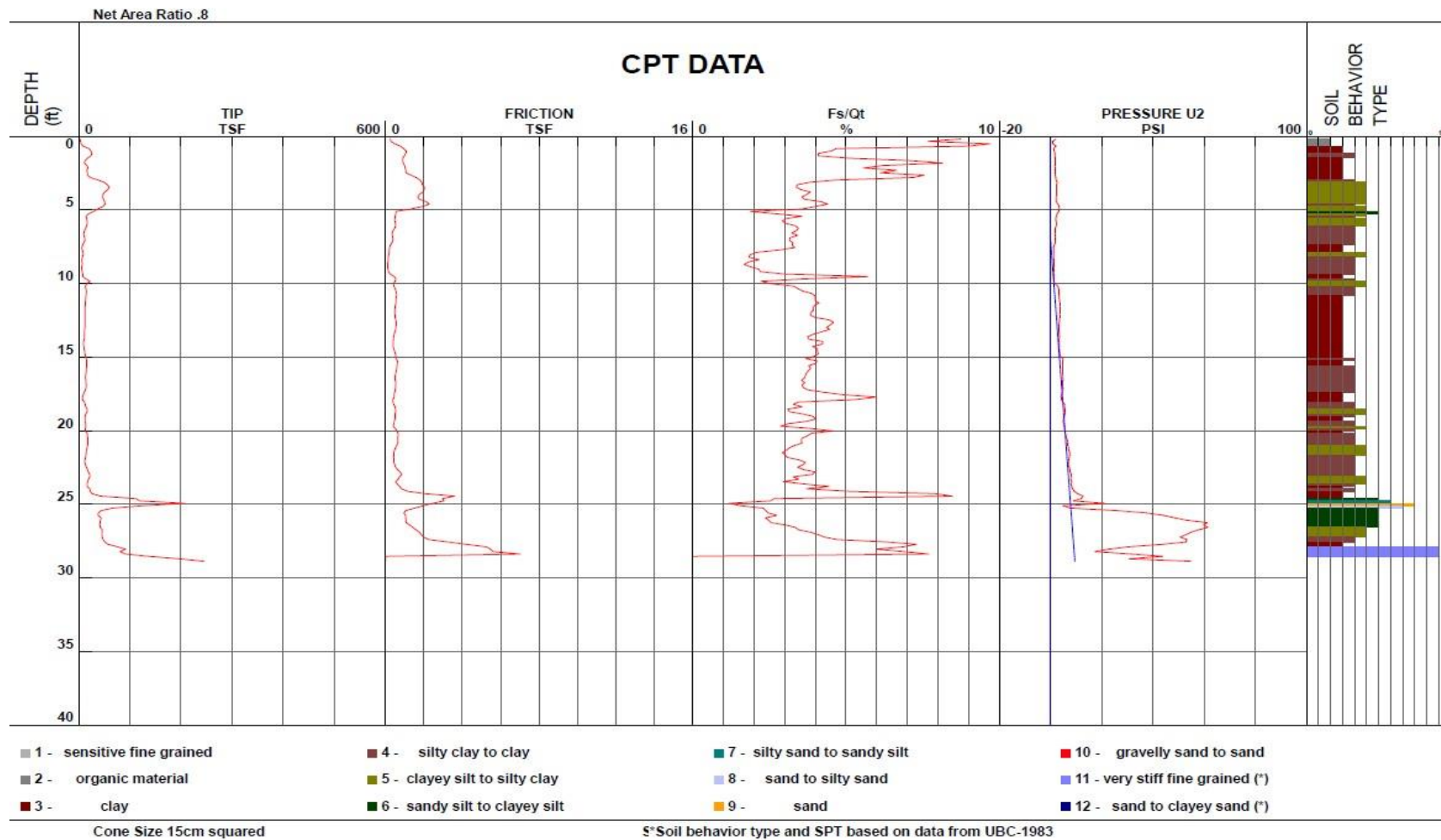


Geocon Inc.

Project CCCFD FS9 Replacement
 Job Number E8909-04-05
 Hole Number CPT-04
 EST GW Depth During Test

Operator JM-FA
 Cone Number DDG1596
 Date and Time 1/26/2024 1:49:08 PM
 7.10 ft

Filename SDF(293).cpt
 GPS
 Maximum Depth 28.87 ft



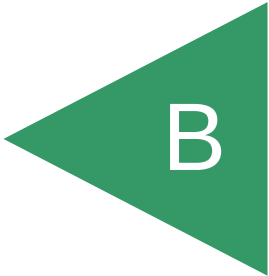
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CONE PENETROMETER TEST DATA
 CPT 4

Project: CCCFD FS9 Replacement
 Location: Pacheco, California
 Project No. E8909-04-05

FIGURE A11

APPENDIX



APPENDIX B
LABORATORY TESTING

Laboratory tests were performed in accordance with generally accepted test methods of the American Society for Testing and Materials (ASTM) or other suggested procedures. Selected samples were tested for in-situ dry density and moisture content, grain size distribution, Atterberg Limits, expansion potential, unconfined compressive strength, and screening-level corrosion parameters. The results of our testing are summarized in tabular format below and the following figures. In-situ dry density and/or moisture content test results are included on the boring logs in Appendix A.

TABLE B-I
SUMMARY OF LABORATORY ATTERBERG LIMITS TEST RESULTS
ASTM D 4318

Sample No.	Liquid Limit	Plastic Limit	Plasticity Index
B2-1.5	34	20	14
B4-4.5	50	24	26
B5-2	40	21	19

TABLE B-II
SUMMARY OF LABORATORY GRAIN SIZE ANALYSIS – NO. 200 WASH
ASTM D1140

Boring No.	Sample Depth (feet)	Fraction Passing No. 200 Sieve (%)
B2	4	75
B2	7	35
B2	8.5 – 9	88
B2	17.5 – 18.25	10
B3	9	78
B3	15 – 15.75	18
B3	15.75 – 16	36
B4	9	63
B5	9	39
B5	17.5	66
B5	24.75 – 25.5	68

TABLE B-III
SUMMARY OF LABORATORY EXPANSION INDEX TEST RESULTS
ASTM D 4829

Sample No.	Moisture Content		Dry Density* (pcf)	Expansion Index
	Before Test (%)	After Test (%)		
B4-1-3	13.3	31.5	98.7	106

*before saturation

**APPENDIX B
LABORATORY TESTING (cont.)**

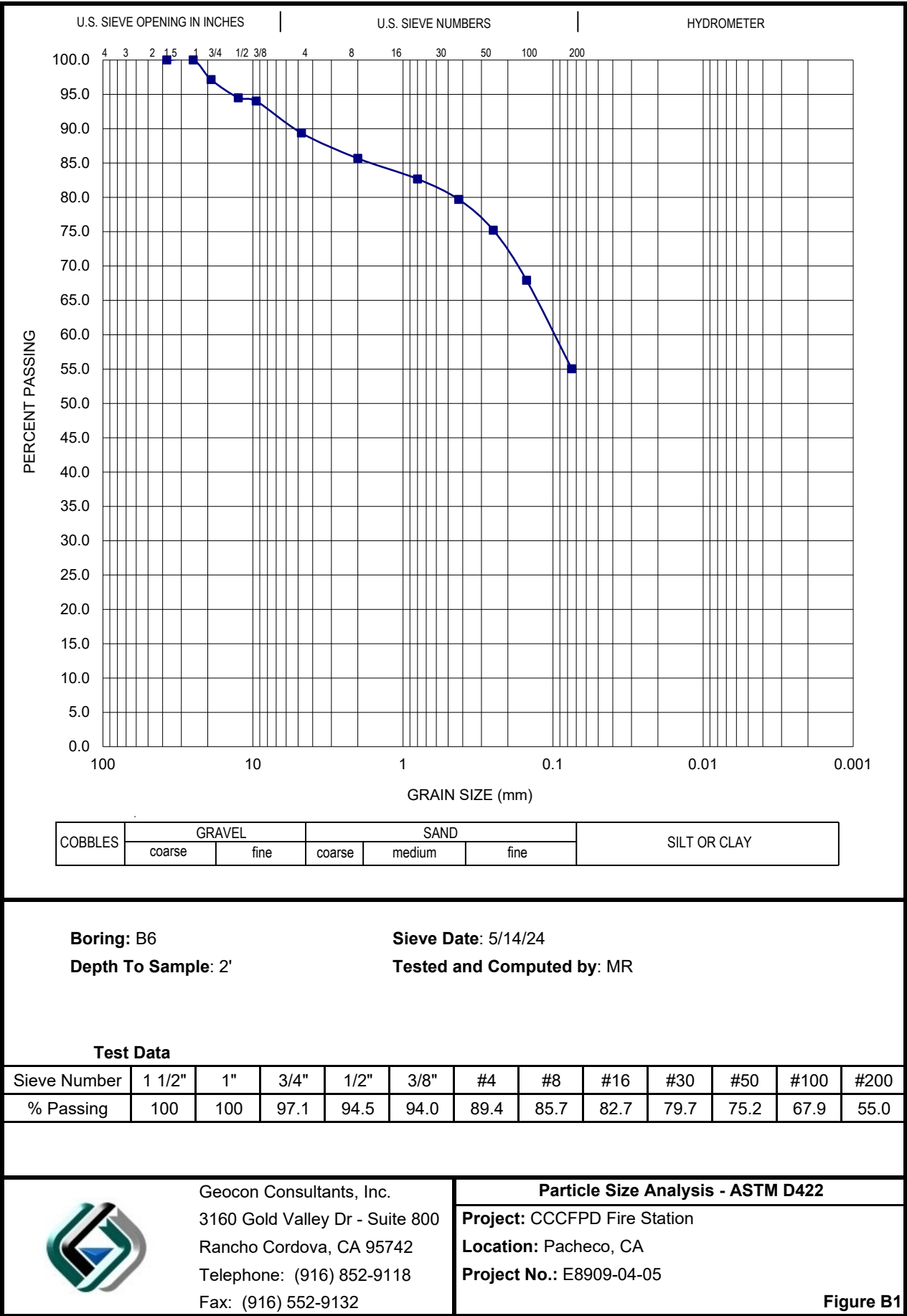
**TABLE B-IV /
SUMMARY OF SOIL CORROSION PARAMETERS
(CTM 643, CTM 417, CTM 422)**

Boring No. (sample depth in feet)	Soil Type (USCS Classification)	Resistivity (ohm-cm)	pH	Chloride (ppm)	Sulfate (ppm)
B3 (1.5)	Silty CLAY with sand (CL)	1470	6.6	<10	<10
B4 (1.5)	Silty CLAY with sand (CL)	1470	7.0	<10	19

*Caltrans considers a site corrosive to foundation elements if one or more of the following conditions exist for the representative soil samples at the site:

- The pH is equal to or less than 5.5.
- Chloride concentration is equal to or greater than 500 parts per million (ppm) or 0.05%.
- Sulfate concentration is equal to or greater than 1,500 ppm (0.15%)

**According to the American Concrete Institute 318 Chapter 19, Type II cement may be used where sulfate levels are below 2,000 ppm (0.2%)



Boring: B6

Depth To Sample: 2'

Sieve Date: 5/14/24

Tested and Computed by: MR

Test Data

Sieve Number	1 1/2"	1"	3/4"	1/2"	3/8"	#4	#8	#16	#30	#50	#100	#200
% Passing	100	100	97.1	94.5	94.0	89.4	85.7	82.7	79.7	75.2	67.9	55.0



Geocon Consultants, Inc.

3160 Gold Valley Dr - Suite 800

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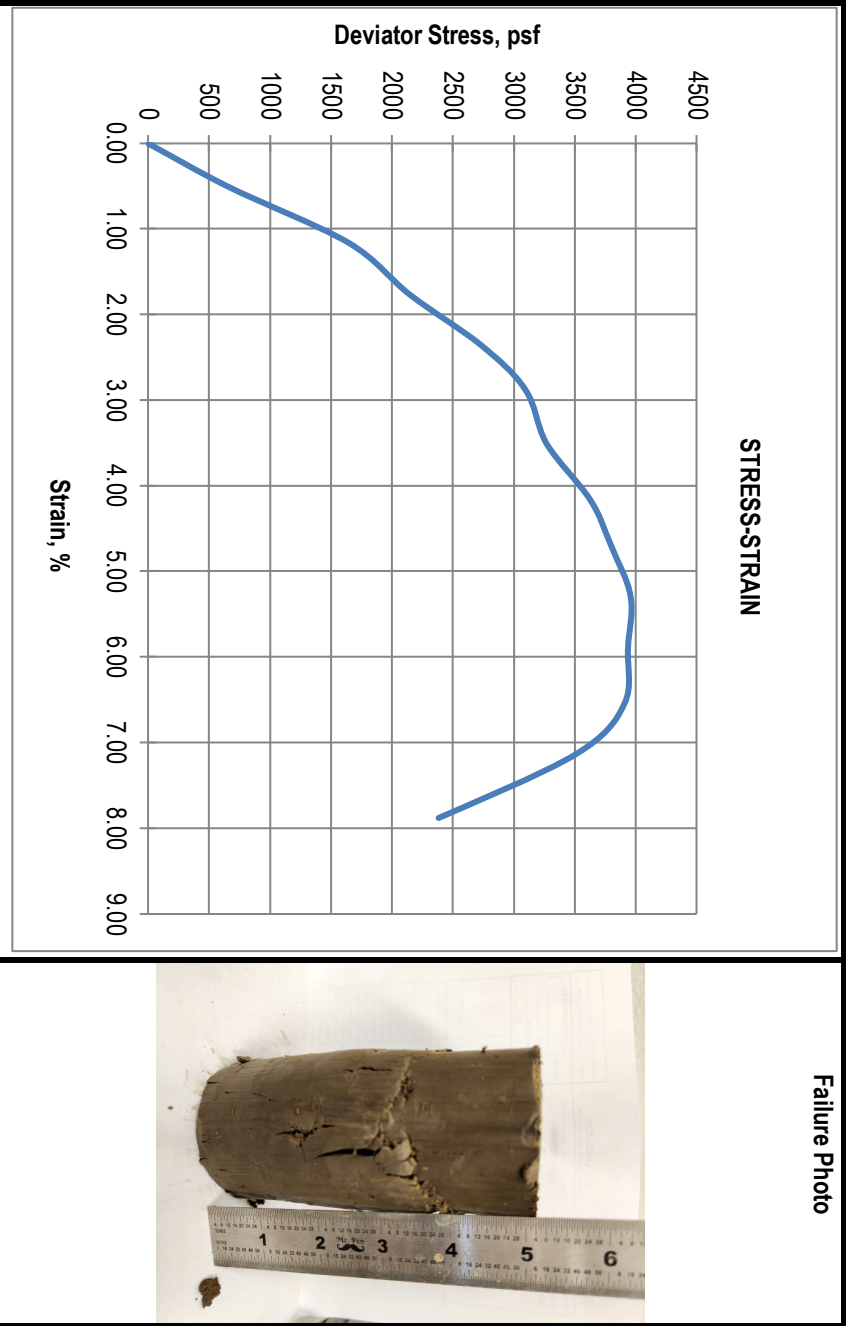
Particle Size Analysis - ASTM D422

Project: CCCFPD Fire Station

Location: Pacheco, CA

Project No.: E8909-04-05

Figure B1



Sample Description	
Boring Number	B1
Sample Depth (feet)	4'
Material Description	Brown Silty CLAYw/ some (f-m) sand
Initial Conditions at Start of Test	
Height (inch) average of 3	6.03
Diameter (inch) average of 3	2.42
Moisture Content (%)	26.4
Dry Density (pcf)	99.3
Estimated Specific Gravity	2.7
Saturation (%)	102.1
Shear Test Conditions	
Strain Rate (%/min)	1.1254
Major Principal Stress at Failure (psf)	3960
Strain at Failure (%)	5.3
Test Results	
Unconfined Compressive Strength (tons/ft ²)	2.0
Unconfined Compressive Strength (lbs/ft ²)	3961
Shear Strength (tons/ft ²)	1.0
Shear Strength (lbs/ft ²)	1980
Unconfined Compressive Strength (ASTM D2166)	
Geocon Consultants, Inc. 6671 Brisa Street Livermore, CA 94550 Telephone: 925-371-5900 Fax: 925-371-5915	
Project: CCCFD Fire Station 9 Replacement Location: Pacheco, CA Proj. No.: E8909-04-05	



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Unconfined Compressive Strength (ASTM D2166)

Figure B2

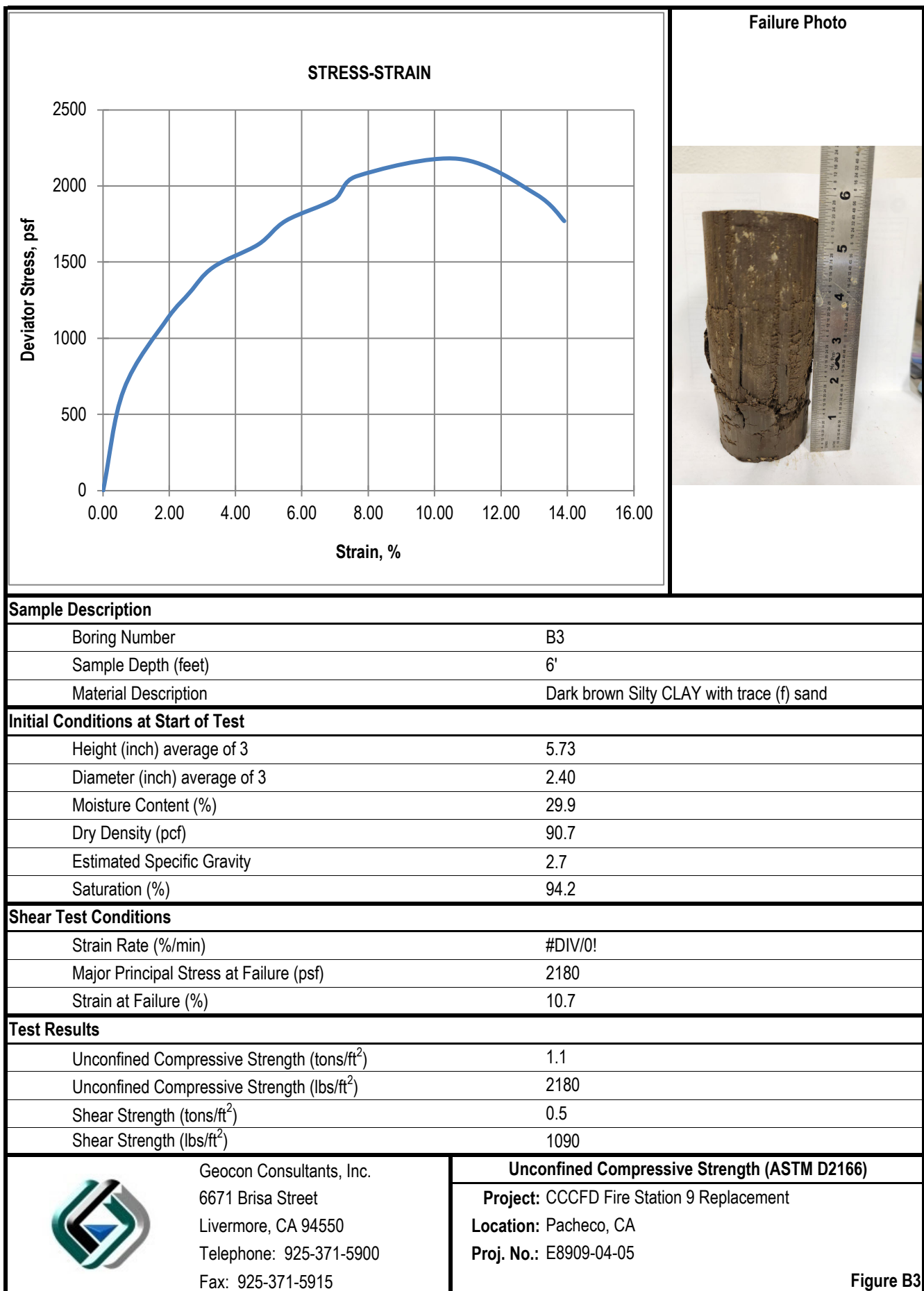


Figure B3

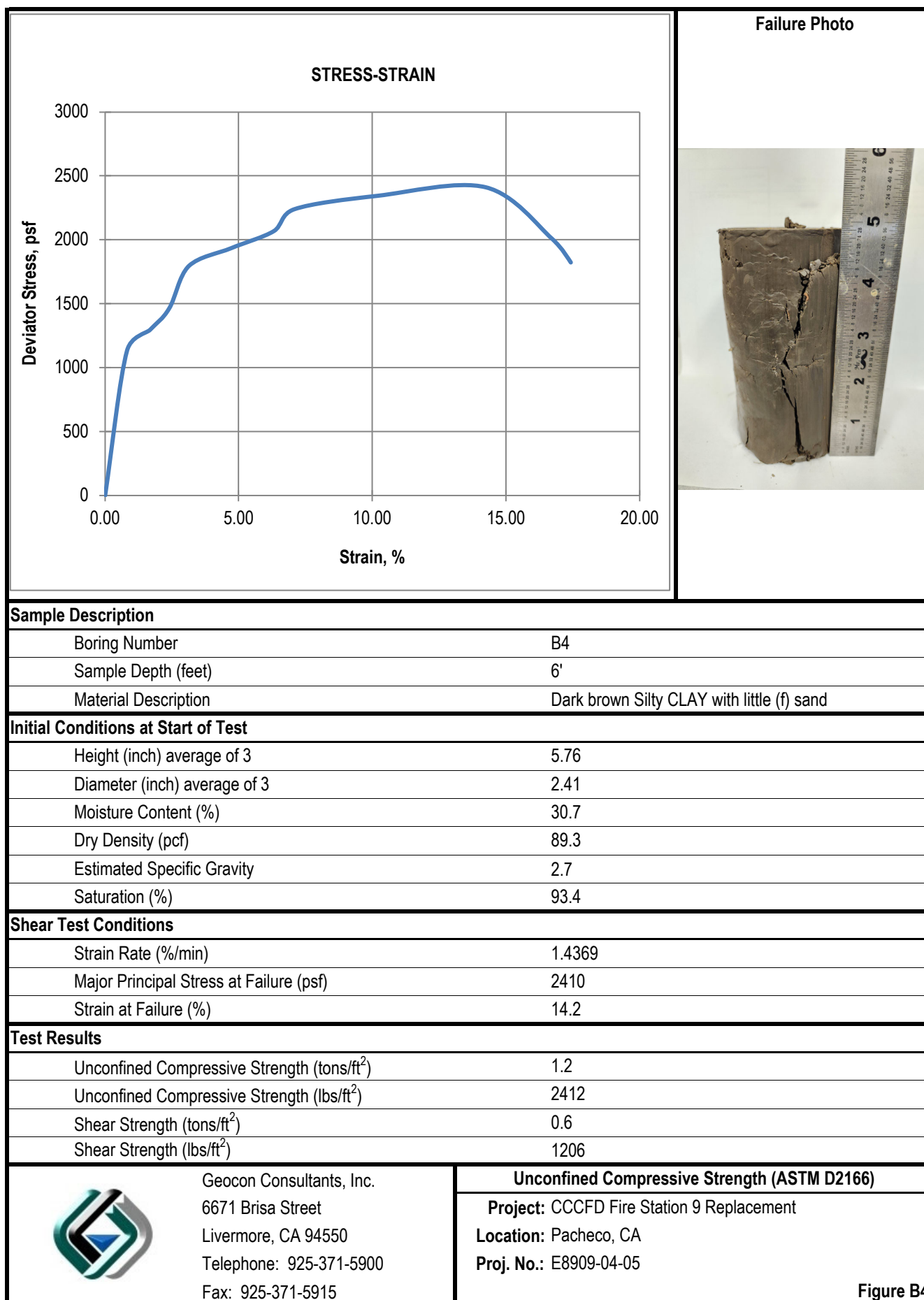


Figure B4

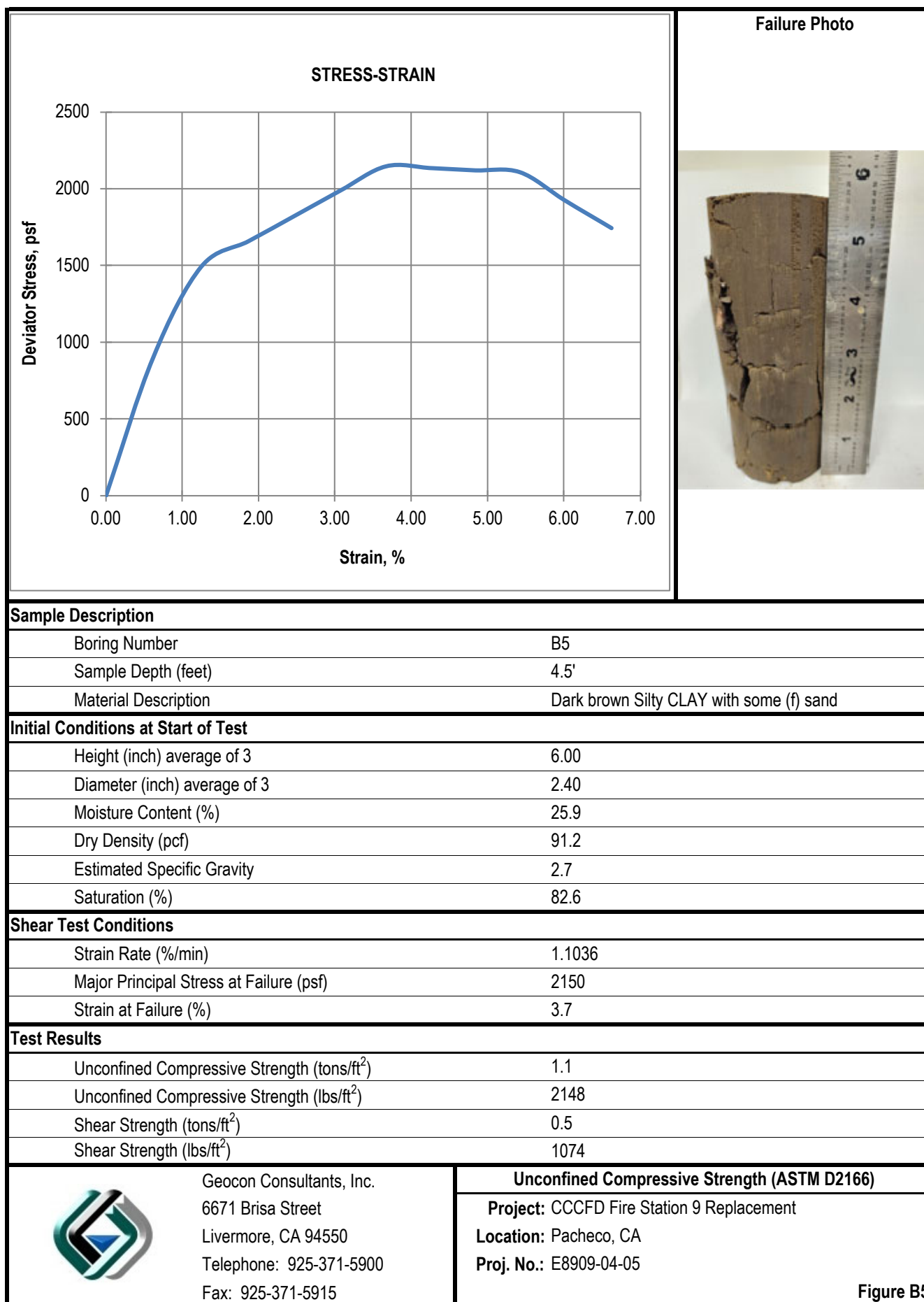
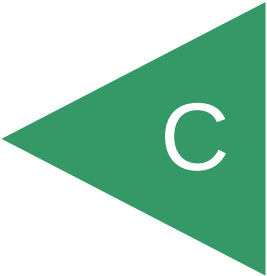


Figure B5

APPENDIX



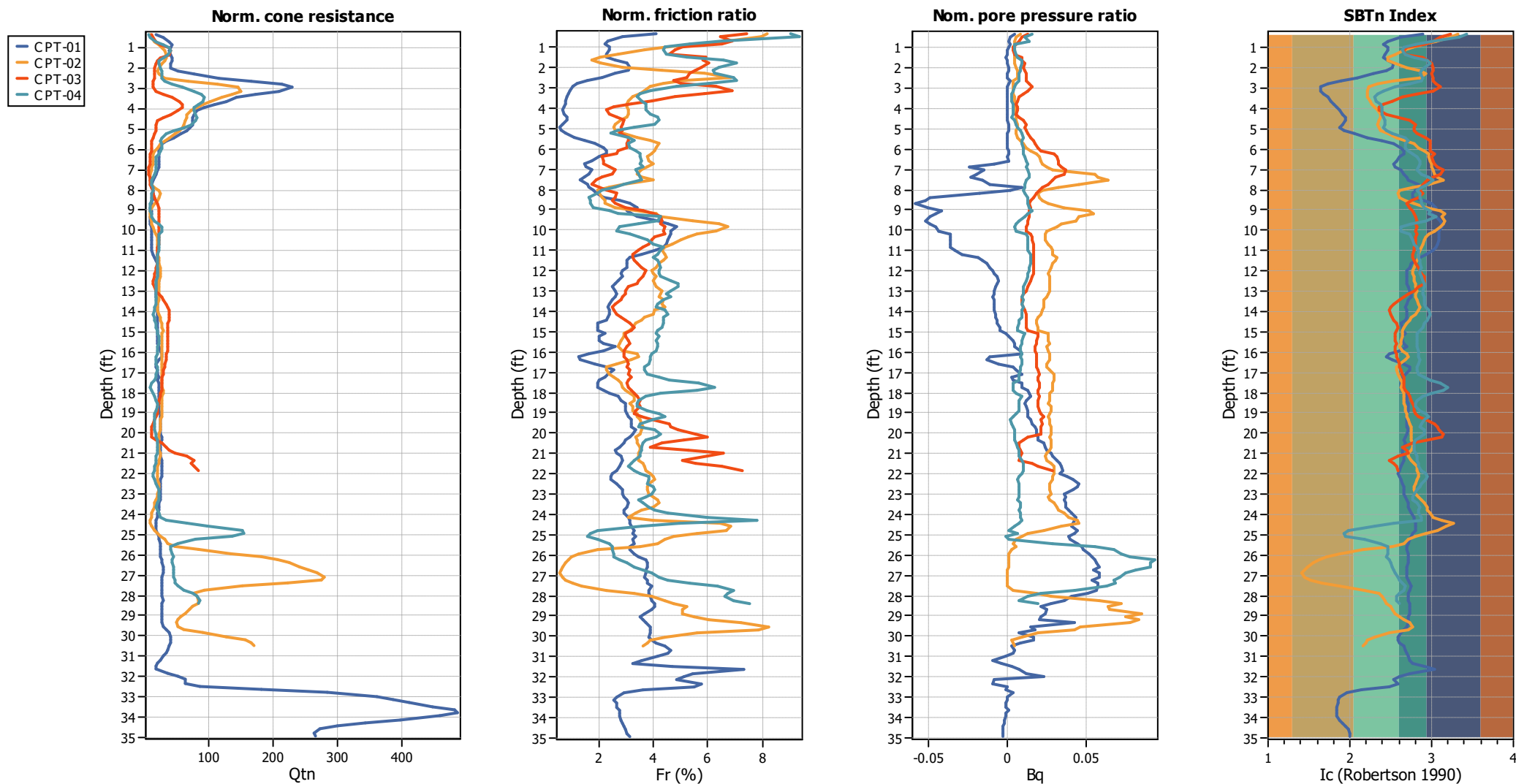
APPENDIX C
LIQUEFACTION ANALYSIS



Geocon Consultants, Inc.
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925.371.5900

Project: CCCFPD Fire Station 9 Replacement

Overlay Normalized Plots

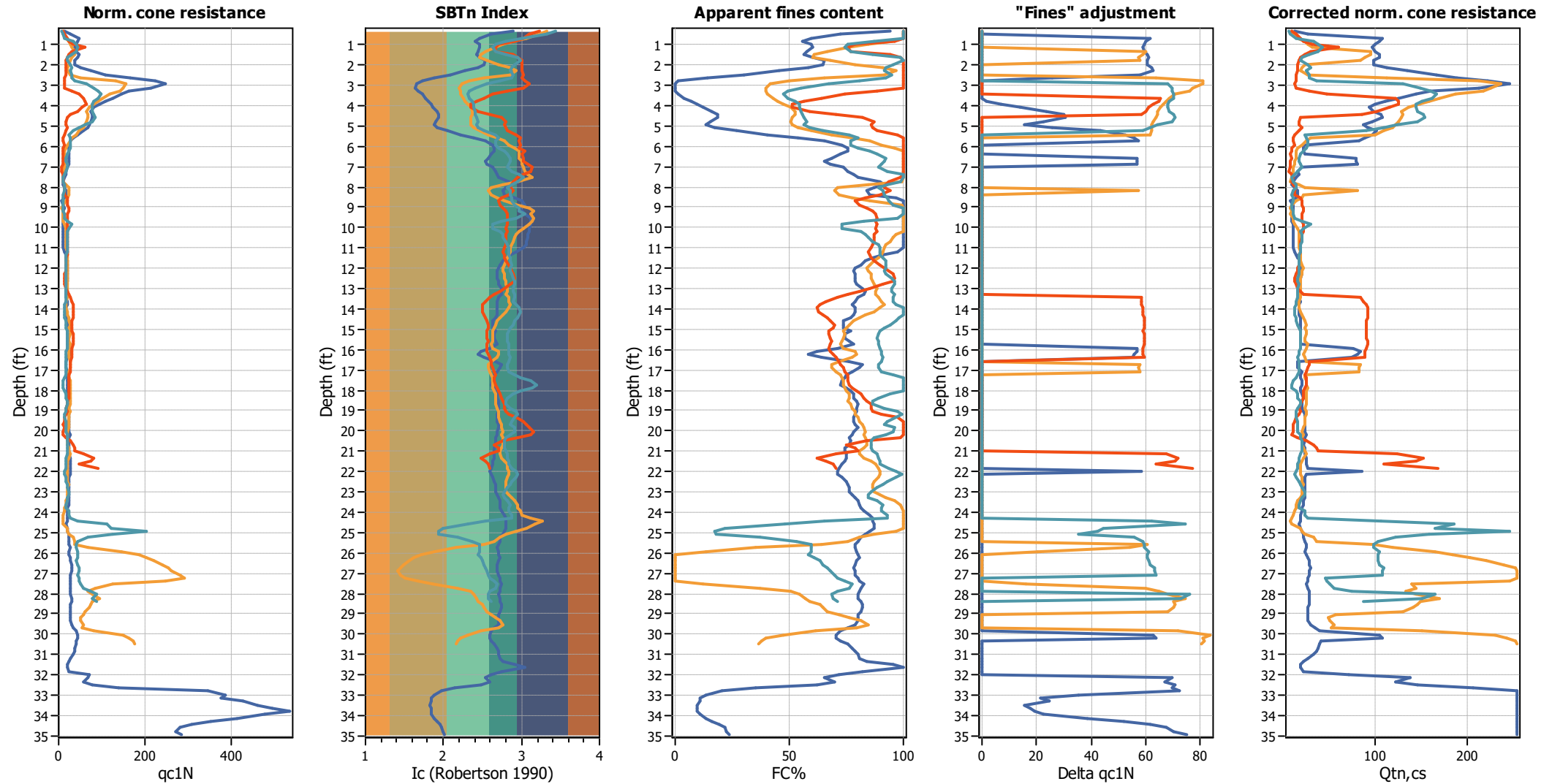




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Project: CCCFPD Fire Station 9 Replacement

Overlay Intermediate Results

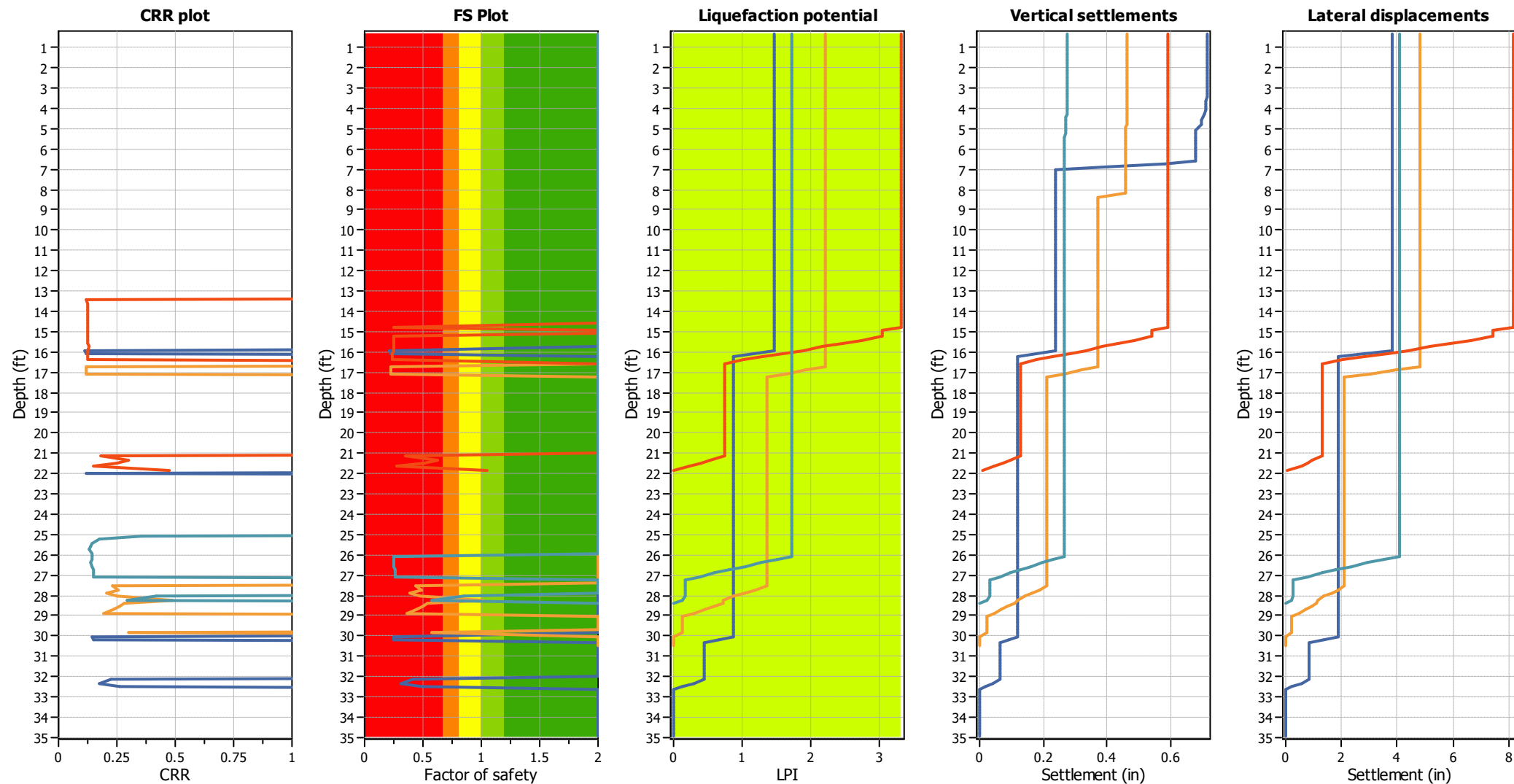




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Project: CCCFPD Fire Station 9 Replacement

Overlay Cyclic Liquefaction Plots

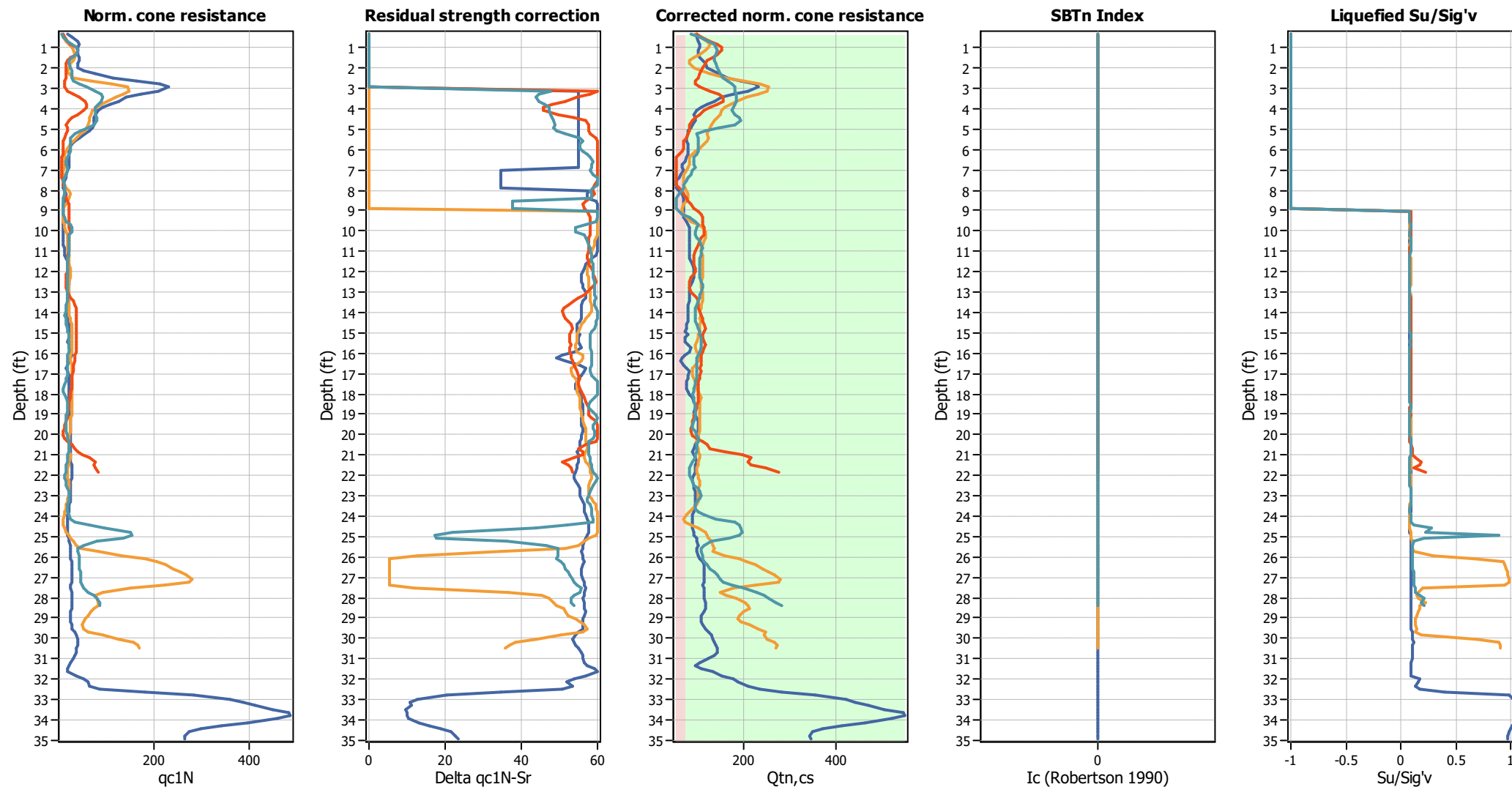




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Project: CCCFPD Fire Station 9 Replacement

Overlay Strength Loss Plots



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Attachment E

Noise and Vibration Analysis Memorandum



Memorandum

To:	Claudia Gemberling, Environmental Services Division, Contra Costa County Public Works Department
From:	Jason Volk, Senior Noise Specialist, ICF Noah Schumaker, Noise Specialist, ICF Jessica Viramontes, Project Manager, ICF Heidi Mekkelson, Project Director, ICF
Date:	November 13, 2025
Re:	Fire Station 9 Redevelopment Project (County Project No. WH728A) – Noise and Vibration Analysis (Draft)

Introduction

Contra Costa County Public Works Department proposes to demolish and reconstruct Fire Station 9 on the same site. The purpose of this memorandum is to evaluate the potential noise impacts associated with the Fire Station 9 Redevelopment Project (project) at 209 Center Avenue in Pacheco, Contra Costa County (project site).

This memorandum consists of the following: (1) description of the environmental setting; (2) overview of the methodology; and (3) description of the results of the noise and vibration analysis for the project. This memorandum provides support for the California Environmental Quality Act (CEQA) environmental review.

Project Description

The Contra Costa County Fire District proposes demolition of the existing Fire Station 9 and construction of a new fire station on the same site (see Figure 1). The existing station is a 2,215-square-foot, one-story station for a single company. Employed there is a three-person crew with one captain, one engineer, and one firefighter that work 48-hour shifts. The station houses two fire engines. The proposed project would construct a larger fire station. The proposed approximately 15,400-square-foot, two-story station with a double company would include offices and crew quarters that would house up to nine fire personnel during the 48-hour shifts. An apparatus bay would store three fire engines when not on call. The proposed project would also include sleeping quarters and an outdoor fitness area for firefighters. Figure 2 shows the conceptual site plan for the proposed project.

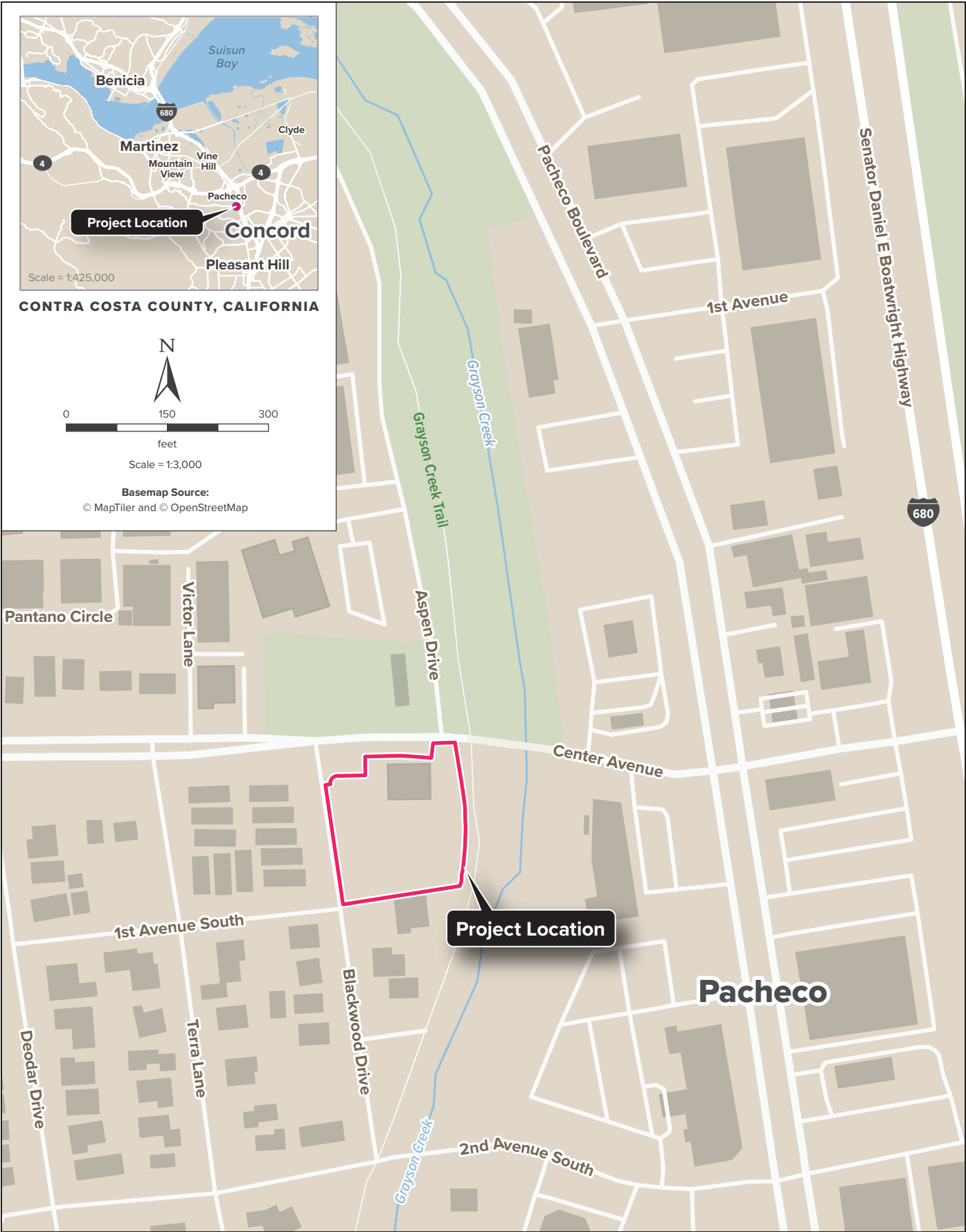


Figure 1
Project Location
Fire Station 9 Redevelopment Project

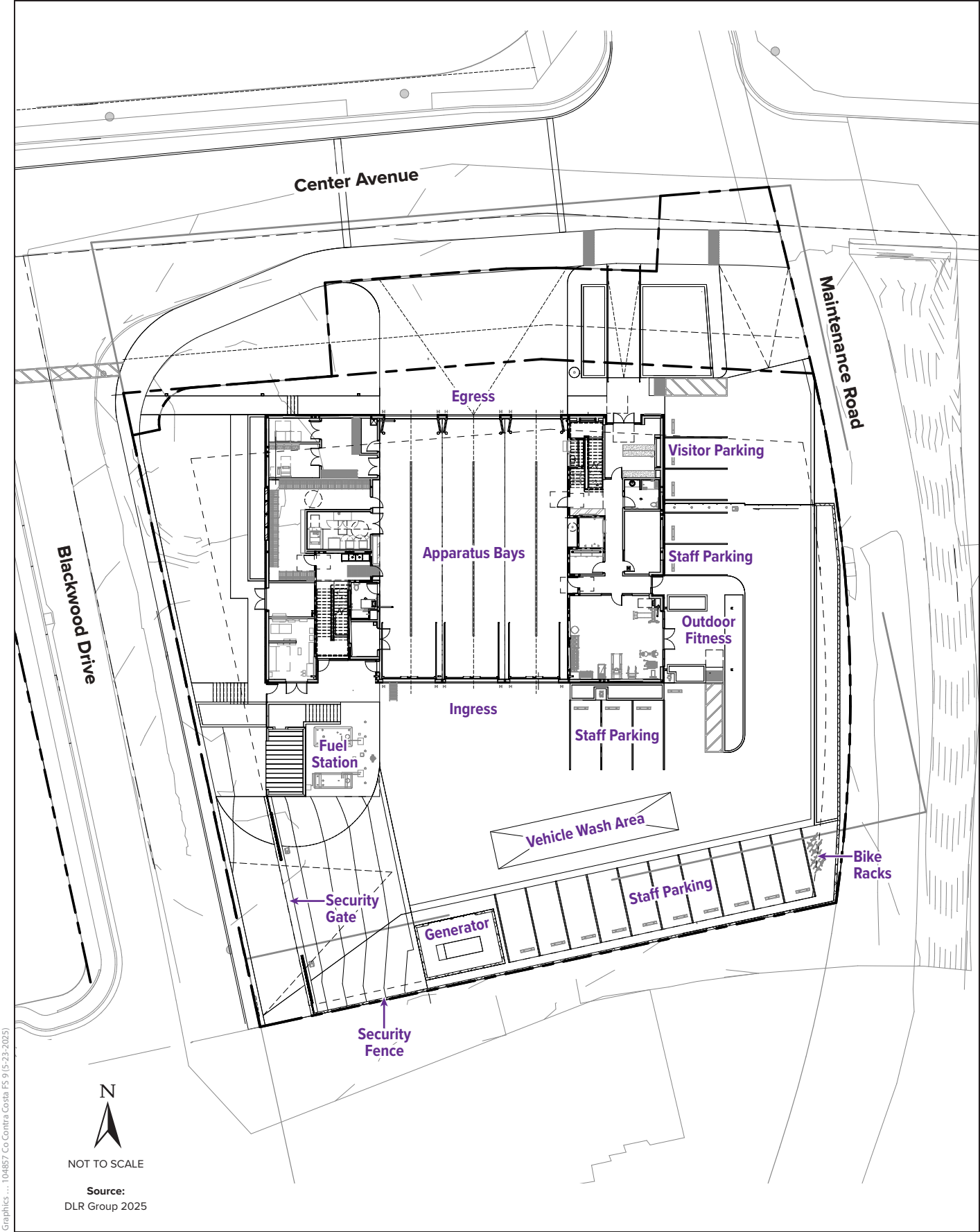


Figure 2
Conceptual Site Plan
Fire Station 9 Redevelopment Project

Under the project, fire engines would depart the station from the existing driveway on Center Avenue and enter the station at either Center Avenue or Blackwood Drive. Three visitor parking spaces would be provided in the front parking lot, which would be accessible from Center Avenue. Up to 16 employee parking spaces and two bike racks for storing up to four bikes would be provided behind the station; these would be accessible from either Center Avenue or Blackwood Drive.

Project demolition and construction is anticipated to begin in late 2026 and be completed in early 2028, a period of approximately 18 months.

Environmental Setting

Fundamental Concepts of Noise

Sound, Noise, and Acoustics

Sound can be described as what is heard when a vibrating object generates pressure waves through a liquid or gaseous medium (e.g., air). Noise is defined as loud, unexpected, or annoying sound. In the science of acoustics, the fundamental model consists of a sound (or noise) source, a receiver, and the propagation path between the two. The perceived loudness of the noise source and the obstructions or atmospheric factors that affect the propagation path to the receiver determine the sound level and characteristics of the noise perceived by the listener. The field of acoustics deals primarily with the propagation and control of sound.

Frequency

Sound can be described by frequency (pitch) and amplitude (perceived loudness). A low-frequency sound is perceived as low in pitch. Frequency is expressed in terms of cycles per second, or Hertz (Hz) (e.g., a frequency of 250 cycles per second is referred to as 250 Hz). High frequencies are sometimes more conveniently expressed in kilohertz (kHz), or thousands of Hz. The audible frequency range for humans is generally between 20 and 20,000 Hz.

Sound Pressure Levels and Decibels

The amplitude of pressure waves generated by a sound source determines the perceived loudness of that source. Sound pressure amplitude is measured in micropascals (mPa). One mPa is approximately one-hundred billionth (0.0000000001) of normal atmospheric pressure. Sound pressure amplitudes for different kinds of sound environments can range from less than 100 mPa to 100,000,000 mPa. Because of this huge range of values, sound is rarely expressed in terms of mPa. Instead, a logarithmic scale is used to describe the sound pressure level (SPL) in terms of decibels (dB). The threshold of hearing for young people is about 0 dB, which corresponds to 20 mPa.

Addition of Decibels

Because dBs are logarithmic units, SPL cannot be added or subtracted through ordinary arithmetic. Under the dB scale, a doubling of sound energy corresponds to a 3 dB increase. In other words, when two identical sources are each producing sound of the same perceived loudness, the resulting sound level at any given distance would be 3 dB higher than a single source under the same conditions. For example, if one automobile produces an SPL of 70 dB when it passes an observer, two cars passing simultaneously would not produce 140 dB—rather, they would combine to produce 73 dB. Under the dB scale, three sources of equal perceived loudness together produce a sound level 5 dB louder than one source.

A-Weighted Decibels

The dB scale alone does not adequately characterize how humans perceive sound. The dominant frequencies of a sound have a substantial effect on human response to that sound. Although the intensity (energy per unit area) of the sound is a purely physical quantity, the perceived loudness or human response is determined by the characteristics of the human auditory system.

Human hearing is limited in its range of audible frequencies as well as the way in which it perceives the SPL in that range. In general, people are most sensitive to the frequency range of 1,000 to 8,000 Hz and perceive sounds within that range better than sounds of the same amplitude in higher or lower frequencies. To approximate the response of the human auditory system, sound levels of individual frequency bands are weighted, depending on human sensitivity to those frequencies. Then, an “A weighted” sound level can be computed, based on this information.

The A-weighting network approximates the frequency response of the average young ear when listening to most ordinary sounds. When people judge the relative loudness or annoyance of a sound, their judgments correlate well with the A-weighted sound levels of those sounds. Other weighting networks (e.g., B, C, and D scales) have been devised to address high noise levels or other special problems, but these scales are rarely used in conjunction with transit- or highway-related noise. Noise levels for technical reports related to transit or traffic noise are typically reported in terms of A-weighted decibels (dBA). Table 1 describes typical A-weighted noise levels for various noise sources.

Human Response to Changes in Noise Levels

As discussed under *Addition of Decibels*, a doubling of sound energy results in a 3 dB increase in sound. Under controlled conditions in an acoustical laboratory, the trained, healthy human auditory system is able to discern 1 dB changes in sound levels when exposed to steady, single-frequency (“pure-tone”) signals in the mid-frequency (1,000 to 8,000 Hz) range. In typical noisy environments, changes in noise of 1 to 2 dB are generally not perceptible. However, it is widely accepted that people are able to begin to detect sound-level increases of 3 dB in typical noisy environments. Further, a 5-dB increase is generally perceived as a distinctly noticeable increase, and a 10 dB increase is generally perceived as a doubling of loudness. Therefore, a doubling of sound energy (e.g., doubling the volume of traffic on a highway) that would result in a 3-dB increase in sound would generally be perceived as barely detectable.

Table 1. Typical A-Weighted Noise Levels

Common Outdoor Activities or Conditions	Noise Level (dBA)	Common Indoor Activities or Locations
	— 110 —	Rock band
Jet flying at 1,000 feet		
	— 100 —	
Gas lawn mower at 3 feet		
	— 90 —	
Diesel truck at 50 feet at 50 mph		Food blender at 3 feet
	— 80 —	Garbage disposal at 3 feet
Noisy urban area, daytime		
Gas lawn mower, 100 feet	— 70 —	Vacuum cleaner at 10 feet
Commercial area		Normal speech at 3 feet
Heavy traffic at 300 feet	— 60 —	
		Large business office
Quiet urban area, daytime	— 50 —	Dishwasher next room
Quiet urban area, nighttime	— 40 —	Theater, large conference room (background)
Quiet suburban area, nighttime		
	— 30 —	Library
Quiet rural area, nighttime		Bedroom at night, concert
	— 20 —	
		Broadcast/recording studio
	— 10 —	

Source: California Department of Transportation 2013.

Noise Descriptors

Noise in our daily environment fluctuates over time. Various noise descriptors have been developed to describe time-varying noise levels. The noise descriptors that follow are commonly used in noise analysis.

- Equivalent Sound Level (L_{eq}):** L_{eq} represents an average of the sound energy occurring over a specified period. In effect, L_{eq} is the steady-state sound level containing the same acoustical energy as the time-varying sound that actually occurs during the same period. The 1-hour A-weighted equivalent sound level, or $L_{eq}(h)$, is the energy average of A-weighted sound levels occurring during a 1-hour period.
- Maximum Sound Level (L_{max}):** L_{max} is the highest instantaneous sound level measured during a specified period.

- **Day/Night Level (DNL):** DNL is the energy average of A-weighted sound levels occurring over a 24-hour period, with a 10 dB penalty applied to A-weighted sound levels occurring during nighttime hours between 10:00 p.m. and 7:00 a.m.
- **Community Noise Equivalent Level (CNEL):** Similar to DNL, CNEL is the energy average of the A-weighted sound levels occurring over a 24-hour period, with a 10 dB penalty applied to A-weighted sound levels occurring during nighttime hours between 10:00 p.m. and 7:00 a.m. and a 5 dB penalty applied to A-weighted sound levels occurring during evening hours between 7:00 p.m. and 10:00 p.m.

Sound Propagation

When sound propagates over a distance, it changes in level and frequency content. The way noise reduces with distance depends on the factors described below.

Geometric Spreading

Sound from a localized source (i.e., a point source) propagates uniformly outward in a spherical pattern, often referred to as cylindrical spreading. The sound level attenuates (or decreases) at a rate of 6 dB for each doubling of distance from the point source. Roadways consist of several localized noise sources on a defined path and, hence, can be treated as a line source, with the numerous point sources forming a line. Sound levels attenuate at a rate of 3 dB for each doubling of distance from a line source.

Ground Absorption

The propagation path of noise from a roadway to a receiver is usually very close to the ground. Noise attenuation from ground absorption and reflective wave canceling adds to the attenuation associated with geometric spreading. Traditionally, excess attenuation has been expressed in terms of attenuation per doubling of distance. This approximation is usually sufficiently accurate for distances of less than 200 feet. For acoustically hard sites (i.e., sites with a reflective surface between the source and the receiver, such as a parking lot or body of water), no excess ground attenuation is assumed. For acoustically absorptive or soft sites (i.e., sites with an absorptive ground surface, such as soft dirt, grass, or scattered bushes and trees between the source and the receiver), an excess ground-attenuation value of 1.5 dB per doubling of distance is normally assumed. When added to cylindrical spreading, the excess ground attenuation results in an overall drop-off rate of 4.5 dB per doubling of distance.

Atmospheric Effects

Receivers located downwind from a source can be exposed to increased noise levels relative to calm conditions, whereas locations upwind can have lower noise levels. Sound levels can increase at large distances (e.g., more than 500 feet) from a roadway because of atmospheric temperature inversion (i.e., increasing temperature with elevation). Other factors, such as air temperature, humidity, and turbulence, can also have substantial effects.

Shielding by Natural or Human-Made Features

A large object or barrier in the path between a noise source and a receiver can substantially attenuate noise levels at the receiver. The amount of attenuation provided by shielding depends on the size of the object and the frequency content of the noise source. Natural terrain features (e.g., hills and dense woods) and human-made features (e.g., buildings and walls) can substantially reduce noise levels. Walls are often constructed between a source and a receiver for the specific purpose of reducing noise. A barrier that breaks the line of sight between a source and a receiver will typically result in at least 5 dB of noise reduction. Taller barriers provide increased noise reduction. Vegetation between a roadway and receiver is rarely effective in reducing noise because it does not create a solid barrier.

Fundamental Concepts of Vibration

This section describes basic concepts related to ground-borne vibration. In contrast to airborne sound, ground-borne vibration is not a phenomenon that most people experience every day. The background vibration velocity level in residential areas is usually much lower than the threshold of human perception. Most perceptible indoor vibration is caused by sources within buildings, such as mechanical equipment while in operation, people moving, or doors slamming. Typical outdoor sources of perceptible ground-borne vibration are construction equipment, steel-wheeled trains, and traffic on rough roads.

Construction activity can result in varying degrees of ground vibration, depending on the equipment and method used. Equipment such as air compressors, light trucks, and hydraulic loaders generate little or no ground vibration. Pile drivers, vibratory compactors, and various types of demolition equipment have the potential to generate substantial vibration, which may present a concern if close to buildings (Federal Transit Administration [FTA] 2018).

Dynamic construction equipment, such as pile drivers, can create vibrations that radiate along the surface and downward into the earth. These surface waves can be felt as ground-borne vibration. Vibration can result in effects that range from annoyance to structural damage. Variations in geology and distance result in different vibration levels with different frequencies and displacements. In all cases, vibration amplitudes decrease with increased distance from the vibration source.

As vibration waves travel outward from a source, they excite the particles of rock and soil through which they pass and cause them to oscillate. The actual distance that these particles move is usually only a few ten-thousandths to a few thousandths of an inch. The rate or velocity (in inches per second) at which these particles move is the commonly accepted definition of vibration amplitude, referred to as peak particle velocity (PPV).

Ground-borne vibration can also be expressed in terms of the root-mean-square vibration velocity to evaluate human response to vibration levels. Root mean square is defined as the average of the squared amplitude of the vibration signal. The vibration amplitude is expressed in terms of vibration decibels (VdB), with a reference level of 1 micro-inch per second. Typical outdoor background ground-borne vibration levels are between 50 and 60 VdB. The threshold of perception for most people is around 65 VdB. Intermittent vibration levels in the 70 to 80 VdB range are often noticeable but acceptable, while a level of 88 VdB begins to annoy most people. Typically, vibration

levels must exceed 100 VdB before building damage occurs. Historic structures, however, may have a damage threshold as low as 90 VdB, depending on individual structural characteristics and materials.

The potential for annoyance and physical damage to buildings from vibration are the two primary issues associated with ground-borne vibration. The human response to continuous vibration is shown in Table 2.

Table 2. Human Response to Continuous Vibration

Peak Particle Velocity (inch/second)	Approximate Maximum Vibration Level (VdB)	Human Response
0.4–0.6	100–104	Unpleasant
0.2	94	Annoying
0.1	88	Begins to annoy
0.08	86	Readily perceptible
0.006–0.019	64–74	Threshold of perception

Source: Whiffen and Leonard 1971.
VdB = root-mean-square velocity in decibels (1 micro-inch/second)

The damage potential thresholds associated with vibration generated by construction activities are shown in Table 3.

Table 3. Maximum Vibration Levels for Preventing Damage to Buildings

Building Category	Limiting Velocity (PPV in inch/ second)	Approximate Maximum Vibration Level (VdB)
Reinforced concrete, steel, or timber (no plaster)	0.5	102
Engineered concrete and masonry (no plaster)	0.3	98
Non-engineered timber and masonry buildings	0.2	94
Buildings that are extremely susceptible to vibration damage	0.12	90

Source: Federal Transit Administration 2018.
PPV = peak particle velocity; VdB = root-mean-square velocity in decibels (1 micro-inch/second)

Regulatory Setting

Federal

As part of its responsibility, EPA published *Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety* in 1974. This report states that sound levels less than or equal to 55 dB DNL are appropriate outdoors for residential areas and other places where quiet is necessary to avoid annoyance and interference with outdoor activity (EPA 1974).

FTA Guidance for Construction Noise

FTA has developed methods for evaluating construction noise levels. Included are guidelines for noise limits at sensitive land uses and a description of the levels that may result in a negative community reaction, as discussed in Chapter 7 of the *Transit Noise and Vibration Impact Assessment Manual* (FTA Manual) (FTA 2018). The methods and guidance in the FTA Manual are used to set noise limits if criteria specific to construction are not specified in a local ordinance or standard. According to FTA's general assessment methodology for residences, the guideline is 90 dBA L_{eq} (1-hour noise level) during daytime hours (7:00 a.m. to 10:00 p.m.) and 80 dBA L_{eq} (1-hour noise level) during nighttime hours (10:00 p.m. to 7:00 a.m.).

FTA Guidance for Vibration from Construction

Vibration impact thresholds are discussed in Chapter 6 of the FTA Manual. A vibration impact due to construction occurs if vibration levels from construction equipment are perceptible at a receiving land use (i.e., a level of 75 VdB, described as the annoyance impact criterion for “occasional events”). The structures adjacent to the project site are assumed to be “non-engineered timber and masonry buildings,” which is the most applicable building category in Table 3 for purposes of the vibration analysis prepared for the project. Thus, a vibration impact resulting in building damage could occur with a PPV of 0.2 inch per second.

State

California requires each local government entity to perform noise studies and implement a noise element as part of its general plan. Land use guidelines for evaluating the compatibility of various land uses as a function of community noise exposure are presented below under the discussion of local regulations.

California Code of Regulations

Title 24 of the California Code of Regulations, California Noise Insulation Standards, establishes minimum noise insulation standards to protect people within new hotels, motels, dormitories, long-term care facilities, apartment houses, and dwellings other than single-family residences. Under this regulation, interior noise levels attributable to exterior noise sources cannot exceed 45 dB DNL or 45 dB CNEL in any habitable room.

California Vehicle Code

Section 21055 of the California Vehicle Code governs the use of warning signals on emergency vehicles. According to the code, sirens should be sounded “as may reasonably be necessary.”

Local

Contra Costa County (County) does not have a noise ordinance. However, Title 7, Building Regulations, Section 716-8.1004, states that grader operations are limited to weekdays between the hours of 7:30 a.m. and 5:30 p.m. This requirement applies to all grading activities within 500 feet of

residential and commercial occupancies. Exceptions are allowed through conditions of approval for a project.

The Contra Costa County General Plan (General Plan) provides guidance regarding noise limits on specific types of land uses to promote the County's goals for the control of environmental noise. Noise compatibility standards in the General Plan Noise Element indicate that new construction involving urban residential infill or hotels and motels (i.e., transient lodging) with a community noise exposure of up to 80 dBA DNL is acceptable on the condition that noise reduction requirements have been analyzed and that noise insulation features, or fresh-air supply systems, are included in the building design. A community noise exposure of 80 dBA DNL or higher is considered “clearly unacceptable.” The policies from the General Plan that follow are applicable to the noise analysis for the proposed project.

HS-P14.4: Require new residential development in areas exposed to a DNL more than 65 dB due to single events, such as train operation, to provide an acoustic analysis describing how indoor noise levels from these single events will not exceed a maximum A-weighted noise level of 35 dB in bedrooms and 55 dB in other habitable rooms. In areas exposed to a DNL more than 65 dB, use an indoor residential noise-level threshold of 45 dB CNEL.

HS-P14.5: Protect noise-sensitive land uses listed in Table HS-3 from adverse noise impacts by requiring mitigation to the degree feasible for projects that would increase long-term noise in excess of the following thresholds, when measured at the sensitive use's property line:

- a. Greater than 1.5 dBA DNL increase for ambient noise environments of 65 dBA DNL and higher,
- b. Greater than 3 dBA DNL increase for ambient noise environments of 60 to 64 DNL, and
- c. Greater than 5 dBA DNL increase for ambient noise environments of less than 60 dBA DNL.

HS-P14.6: Design County projects to minimize long-term noise impacts on existing residents and follow best practices to minimize short-term impacts from construction noise.

HS-P14.7: Condition entitlements to limit noise-generating construction activities to the following:

- a. Weekdays and non-holidays unless site-specific conditions warrant exceptions,
- b. Within 1,000 feet of noise-sensitive uses: 7:30 a.m. to 5:00 p.m., and
- c. Over 1,000 feet from noise-sensitive uses: 7:00 a.m. to 6:00 p.m.

HS-P14.8: Require a traffic noise analysis for development projects where the project would generate more than 40 percent of daily trips over existing average daily traffic (ADT) on impacted roadway segments. Projects below this threshold are assumed to have no significant traffic noise impact because they would increase noise levels by less than 1.5 dBA DNL, which is the most restrictive threshold for determining a significant traffic noise impact. This screening policy does not apply to projects involving a substantial number of new operational truck trips (e.g., warehouses).

Existing Noise Environment in the Project Area

The primary source of existing noise in the project area is traffic on local roads, including Center Avenue, Pacheco Boulevard, Aspen Drive, and Blackwood Drive. Other noise sources include periodic aircraft overflights and general residential sources (e.g., air conditioners and landscaping activities). In addition, the existing fire station at the project site is a source of intermittent vehicle and siren noise. The closest airport to the project site is Buchanan Field Airport, a public airport approximately 0.4 mile east of the project site in the city of Concord.

To establish the existing noise environment, long-term noise monitoring was conducted at three locations on April 28 and 29, 2025. The purpose of long-term noise measurement is to establish the existing DNL in a project area and characterize the daily trend in noise levels throughout a 48-hour period. Monitoring was conducted using Piccolo II Type 2 sound-level meters (SLMs) manufactured by SoftdB. Figure 3 is a map of the long-term noise measurement locations.

The SLMs were calibrated using a Larson Davis CAL200 acoustic calibrator prior to measurement to ensure accuracy. The calibration was rechecked at the conclusion of each measurement. The monitoring results are summarized in Table 4.

Table 4. Summary of Noise Measurement Results

Site	Description	Day 1 ^a 24-Hour Noise Level (dBA DNL)	Day 2 ^b 24-Hour Noise Level (dBA DNL)	Average Daytime Noise Level (dBA Leq)	Average Nighttime Noise Level (dBA Leq)
LT-1	Southeast corner of Center Avenue and Blackwood Drive	64.9	65.2	62.0	57.8
LT-2	Blackwood Drive, south of South 1 st Avenue	66.6	64.6	64.4	57.4
LT-3	Pantano Lane, west of Aspen Drive	64.3	63.7	61.2	56.5

^a. Day 1 was from 12:00 a.m. April 28, 2025, to 12:00 a.m. April 29, 2025.
^b. Day 2 was from 12:00 a.m. April 29, 2025, to 12:00 a.m. April 30, 2025.
dBA = A-weighted decibel level, a logarithmic measurement scale that approximates the frequency response of the human ear.
Daytime noise level = average noise level calculated from measured hourly noise levels between 7:00 a.m. and 10:00 p.m.
Nighttime noise level = average noise level calculated from measured hourly noise levels between 10:00 p.m. and 7:00 a.m.
DNL = day-night sound level. DNL describes the average acoustical energy content of noise for a 48-hour period. Nighttime hours between 10:00 p.m. and 7:00 a.m. are assigned a 10 dB penalty to account for human sensitivity to noise at night.
Leq = equivalent sound level. Leq describes the average acoustical energy content of noise for an identified period of time, commonly 1 hour.

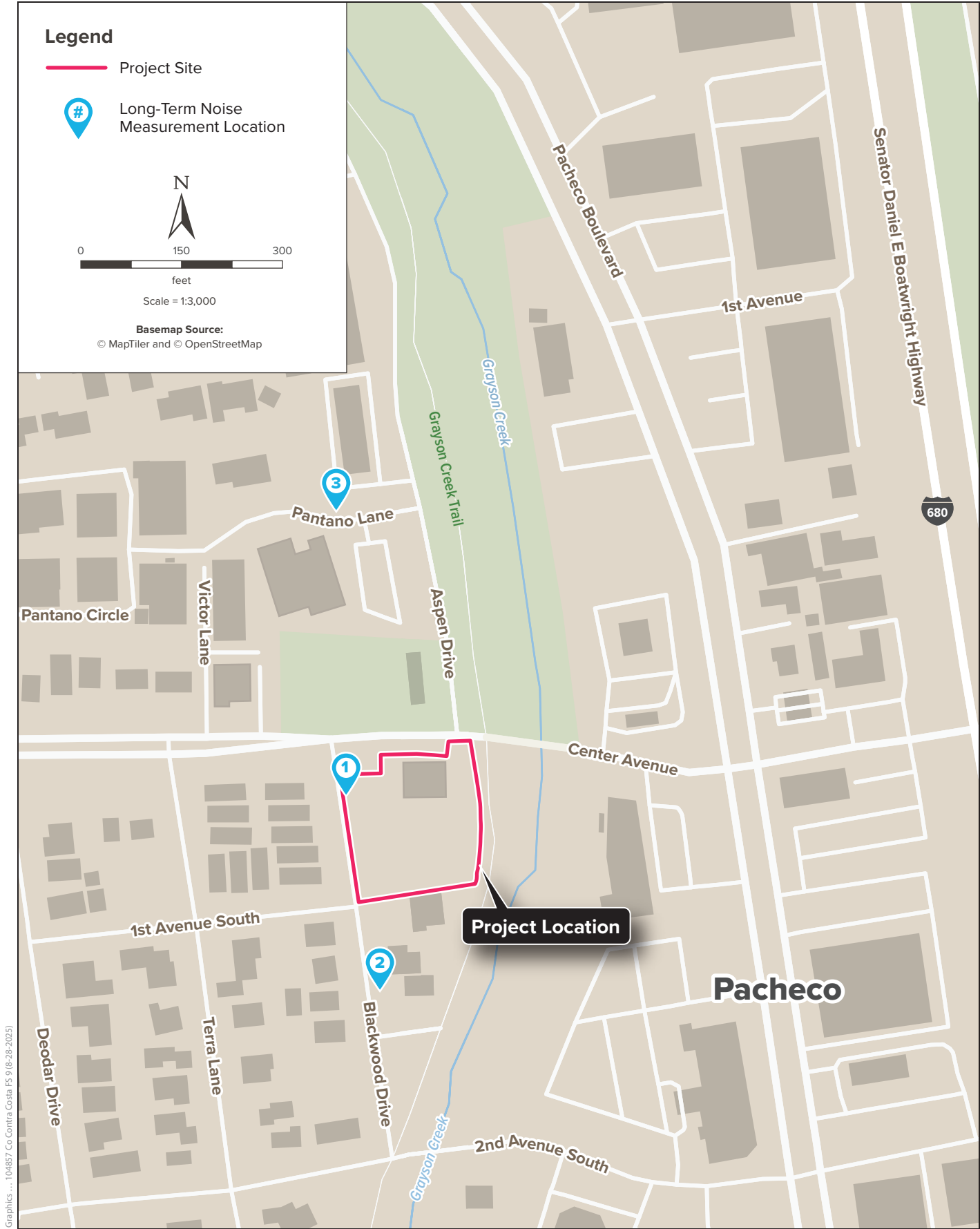


Figure 3
Noise Measurement Locations
Fire Station 9 Redevelopment Project

Sensitive Receptors

Sensitive receivers are defined as locations that are sensitive to noise and vibration, such as residences, schools, transient lodging (e.g., hotels), and hospitals. Land uses and the closest noise-sensitive receptors surrounding the project site include single-family residential uses along Blackwood Drive and Center Avenue, multi-family residences along Aspen Drive and Pantano Lane, and the Gospel Light Church on Aspen Drive. The closest single-family residences to the project site are located along Blackwood Drive. Across Blackwood Drive and Center Avenue, single-family residences are 65 and 70 feet away, respectively. Multi-family residences are approximately 255 feet northwest of the project site. The Gospel Light Church is approximately 230 feet north of the project site.

Methodology

The following discussion describes the approach for predicting noise levels from temporary construction and long-term operation of the project.

Construction Noise

The assessment of noise levels from heavy construction equipment was based on equipment data provided in FTA guidance (FTA 2018). The heavy equipment needed for each construction phase is listed in Table 5, along with reference noise levels for each equipment type.

Table 5. Construction Phases and Reference Noise Levels of Equipment Types

Construction Phase	Equipment	Reference Noise Level at 50 Feet (dBA)	Number of Pieces	Hours/Day
Demolition	Concrete saw/industrial saw	90	1	8
	Rubber-tired dozer	85	1	1
Site preparation	Tractor/loader/backhoe	80	2	6
	Grader	85	1	8
	Tractor/loader/backhoe	80	1	8
Trenching/utilities	Tractor/loader/backhoe	80	1	8
Building shell	Crane	83	1	4
	Forklift	80	2	6
	Tractor/loader/backhoe	80	2	8
Architectural coating	Air compressor	80	1	6
	Aerial lift	73	1	6
Paving	Cement and mortar mixer	85	4	6
	Paver	85	1	7
	Roller	85	1	7
	Tractor/loader/backhoe	80	1	7

Sources: Contra Costa County Public Works Department 2025 FTA 2018; Federal Highway Administration (FHWA) 2006.

As shown, typical sound levels for heavy construction equipment are in the range of 73 to 90 dBA L_{eq} at a reference distance of 50 feet. The construction noise level at a given receiver location would depend on the type of construction activity as well as the distance and shielding between the activity and noise-sensitive receivers. To characterize the source level of the worst-case noise condition during each phase of project construction, the two loudest pieces of equipment were assumed to be operating simultaneously at a work area perimeter location.

Construction Vibration

Ground-borne vibration during project construction was analyzed using the methodology from the FTA Manual. Vibration source levels (expressed in terms of PPV in inches per second and root-mean-square VdB at a reference distance of 25 feet from the source) for the typical construction equipment proposed for the project are shown in Table 6. According to project-specific information provided by the Contra Costa County Fire Protection District, construction of the project would not require impact equipment such as pile drivers, which would otherwise be the most vibration-intensive construction equipment. Therefore, for this project, a vibratory roller (source vibration level with a PPV of 0.210 inch per second at 25 feet) is expected to produce the highest vibration levels of the equipment types to be used.

Table 6. Reference Vibration Levels of Construction Equipment

Equipment	PPV at 25 Feet	PPV at 50 Feet	PPV at 75 Feet	PPV at 100 Feet
Vibratory roller	0.210	0.074	0.040	0.026
Large bulldozer	0.089	0.032	0.017	0.011
Loaded trucks	0.076	0.027	0.015	0.010
Jackhammer	0.035	0.012	0.007	0.004
Small bulldozer	0.003	0.001	0.001	< 0.001

Source: FTA 2018.
PPV = peak particle velocity

Operational Noise

Operational noise associated with the project would include the noise from sirens on fire station vehicles during emergency-response events. Determinations of noise levels from emergency vehicles and sirens were based on the pass-by noise-level data collected for several emergency vehicle types as part of a fire station project in Southern California (Los Angeles Bureau of Engineering 2016). Collected measurements from several vehicles were used to determine an average source noise level from sirens; this was then used to characterize siren noise in the SoundPLAN noise model. Emergency vehicle sirens can produce a wide range of levels and frequencies, depending on the model of siren. As observed during emergency vehicle pass-by measurements, fire trucks use lower-frequency sirens; ambulances tend to use sirens with a higher frequency.

Additional components of the project include traffic generation at the site; heating, ventilation, and air-conditioning (HVAC) equipment; and an emergency generator. Noise levels at receptor locations were evaluated using a distance-attenuation model.

The project would also include sleeping quarters and an outdoor fitness area for firefighters. For these items, the analysis evaluates the compatibility of the project with community noise exposure levels.

Operational Vibration

Operation of the project would not include sources that would generate perceptible levels of vibration. As such, vibration from operation is evaluated qualitatively.

Impacts and Mitigation Measures

Impact NV-1: Project construction equipment noise would exceed FTA guidance for noise limits at residences (Less than Significant with Mitigation)

The worst-case noise exposure at the nearest sensitive receptors was determined by combining the noise levels of the two loudest pieces of equipment that could operate at the same time. Construction equipment noise levels, listed by project phase, are shown in Table 7.

Table 7. Construction Noise Levels by Activity and Distance to Allowable Sound Levels

Construction Activity	Loudest Equipment Types Used	Worst-Case Combined Source Level at 50 feet (L _{max} , dBA)	Distance to Daytime Sound-Level Limit of 90 dBA L _{eq} (feet) ^a	Distance to Nighttime Sound-Level Limit of 80 dBA L _{eq} (feet) ^a
Demolition	Concrete saw, dozer	91	57	181
Site Preparation	Grader, loader	86	32	102
Trenching/Utilities	Backhoe	80	16	50
Building Shell	Crane, backhoe	85	27	87
Architectural Coating	Air compressor, aerial lift	81	17	55
Paving	Cement mixer, paver	88	40	126

^a. The maximum distance where the combined equipment level may exceed FTA criteria.
Note: Distance calculations do not include the effects, if any, of local shielding from walls, topography, or other barriers that may further reduce sound levels.
L_{eq} = equivalent sound level; dBA = A-weighted decibel

Construction would be done during allowed hours specified in General Plan Policy HS-P14.7. Night construction work would not occur. The loudest construction equipment would be used during the demolition phase, which could result in a combined noise level of 91 dBA L_{max} at 50 feet; this would exceed the FTA daytime criterion at 57 feet. Given the levels indicated in Table 7, construction activities would be readily audible at residential receptors adjacent to the project site. However, the use of heavy equipment at the site would be temporary and intermittent and would cease at the end of the each week day during the construction period.

The nearest residential structure is on Blackwood Drive about 10 feet from the southern property line of the project site. The multi-family residences on Blackwood Drive are about 50 feet away from the western property line, and the multi-family residences on Center Avenue are about 75 feet away from the northern property line. Due to the proximity of the closest residence on Blackwood Drive, noise levels would exceed FTA daytime noise criteria at this location during the site preparation and paving phases of construction because construction would extend up to the property line during these phases of construction, resulting in a potentially significant impact. Noise during construction may exceed the FTA daytime criteria at the other multi-family residences as well; however, this

would occur only when equipment is operated at full power at locations near the residences. This would occur infrequently, because the proposed parking areas would be adjacent to the property line and the proposed building would be farther from residences. Given the potential for construction noise to exceed FTA standards, this impact is potentially significant. Implementation of **Mitigation Measure NOI-1**, below, would minimize the potential for community annoyance through best noise control practices. With implementation of Mitigation Measure NOI-1, the project would have a **less-than-significant impact with mitigation incorporated**.

Mitigation Measure NOI-1: Implement Noise Control Practices During Construction

The project sponsor shall require its contractor(s) to implement noise control practices during demolition and construction to minimize noise levels in the community. Best practices to minimize construction noise include the following:

- Locating stationary equipment (e.g., generators, pumps, cement mixers, idling trucks) as far as possible from noise-sensitive land uses.
- Requiring that all construction equipment powered by gasoline or diesel engines have sound-control devices such as exhaust mufflers that are at least as effective as those originally provided by the manufacturer and that all equipment be operated and maintained to minimize noise generation.
- Preventing excessive noise by shutting down idle vehicles or equipment.
- Using noise-reducing enclosures around noise-generating equipment.
- Notifying adjacent residents in advance of construction work.

Impact NV-2: Project construction equipment would generate ground-borne vibration that could result in building damage based on the FTA criterion (Less than Significant with Mitigation)

Construction

The operation of construction equipment could intermittently result in perceptible levels of ground-borne vibration in the immediate vicinity of the project site during construction. A vibratory roller (source vibration level with a PPV of 0.210 inch per second at 25 feet, as shown in Table 6) would produce the highest vibration levels during project construction. Construction of the project would not require impact equipment, such as pile drivers.

As shown in Figure 3, the nearest residential structure is on Blackwood Drive about 10 feet from the southern property line of the project site. Although project-related construction vibration would be temporary and intermittent and would cease once construction is complete, vibratory rollers and other heavy equipment may result in perceptible vibration at the nearest residence when such equipment is operated near the structure. At a distance of 10 feet, vibration levels could have a PPV of up to 0.83 inch per second during use of a vibratory roller and up to 0.35 inch per second during use of a bulldozer. These levels of vibration would be readily perceptible within the nearest structure on Blackwood Drive and exceed the building damage criteria in Table 3 at this location. At

the next-nearest residences, the multi-family units across Blackwood Drive, vibration from the use of heavy equipment could be slightly perceptible to people inside the buildings, but would not result in structural damage. Due to exceedance of the building damage criteria at one residence, this impact is potentially significant. Implementation of **Mitigation Measure NOI-2**, below, would reduce the potential for vibration damage to adjacent buildings and structures through vibration control planning, monitoring and building damage mitigation. With implementation of Mitigation Measure NOI-2, the project would have a **less-than-significant impact with mitigation incorporated**.

Mitigation Measure NOI-2: Protect Adjacent Buildings/Structures and Vibration Monitoring During Construction

The project sponsor shall require its contractor(s) to implement a vibration management and monitoring plan during demolition and construction to avoid or avoid project-related construction vibration damage to adjacent buildings and/or structures and ensure that any such damage is documented and repaired. The vibration management and monitoring plan shall include the following components, as applicable:

- **Pre-construction Survey.** Prior to the start of any ground-disturbing activity, the project sponsor or its contractor(s) shall engage a consultant to undertake a pre-construction survey of potentially affected buildings. A structural engineer or other professional with similar qualifications shall document and photograph the existing conditions of the potentially affected buildings.
- **Use of Alternative Construction Equipment and Techniques.** The plan shall identify potential alternative equipment and techniques that could be implemented if construction vibration levels are observed in excess of the established standard (e.g., smaller, lighter equipment could be used in some cases).
- **Buffer Distances.** The plan shall identify buffer distances to be maintained, based on vibration levels and site constraints, between vibration-generating construction equipment and the potentially affected building and/or structure to avoid damage to the extent possible.
- **Maximum Vibration Level.** Based on the anticipated construction and condition of the affected buildings and/or structures on adjacent properties, a qualified acoustic/vibration consultant shall establish a maximum vibration level that shall not be exceeded at each building/structure on adjacent properties, based on existing conditions, character-defining features, soil conditions, and anticipated construction practices.
- **Vibration Monitoring.** The plan shall identify the method and equipment for vibration monitoring to ensure that construction vibration levels do not exceed the established standards identified in the plan. Should construction vibration levels be observed in excess of the standards established in the plan, the contractor(s) shall halt construction and put alternative construction techniques identified in the plan into practice, to the extent feasible. If vibration has damaged nearby buildings, the structural engineer shall immediately notify the County and prepare a damage report documenting the features of the building and/or structure that have been damaged.

- **Periodic Inspections.** The plan shall identify the intervals and parties responsible for periodic inspections. The structural engineer shall conduct periodic inspections of each affected building on adjacent properties (as allowed by property owners) during vibration-generating construction activity on the project site. The plan will specify how often inspections occur.
- **Repair Damage.** The plan shall also identify provisions to be followed should damage to any building and/or structure occur due to construction-related vibration. The building(s) and/or structure(s) shall be remediated to pre-construction conditions (as allowed by property owners) at the conclusion of vibration-generating activity on the site.

Operation

Similar to existing conditions, operation of the project would include the use of fire station vehicles with rubber tires, which would not be a source of substantial vibration. Projects that involve the use of rubber-tired vehicles rarely show any potential for vibration impacts. For example, a loaded heavy truck, similar to a fire station vehicle, produces a vibration level with a PPV of less than 0.1 inch per second at 25 feet. At that level, vibration would generally not be noticeable. Therefore, it is not anticipated that vehicles accessing the project site would generate perceptible levels of vibration at surrounding land uses. No other aspects of project operation would generate a noticeable level of vibration. Ground-borne vibration from the operation of the project would not result in building damage or a negative community reaction. The impact of the project would be **less than significant**.

Impact NV-3: Project operation would result in a noticeable increase in ambient noise levels at residences based on the noise compatibility standards in the General Plan (Less than Significant with Mitigation)

During operation, noise would be generated by mobile sources, primarily fire station vehicles, including vehicles with emergency sirens, and traffic associated with the project. In addition, noise at the site would be generated intermittently by HVAC equipment, an emergency alert system, and an emergency generator. The project would replace an existing fire station and occupy the same location; thus, many of the sources of operational noise would be similar under the proposed project compared to existing conditions. Each source of operational noise is described below.

Fire Station Vehicles

The existing fire station is currently a source of noise from sirens and emergency vehicles. Sirens on fire station vehicles are required to be operated in accordance with California Vehicle Code Section 21055, which states that sirens should be sounded “as may be reasonably necessary.” In principle, the use of sirens depends heavily on traffic conditions at the time of an emergency call; the use of sirens may not always be necessary. Based on previously conducted modeling, sirens may produce a maximum noise level of 85 to 97 dBA at 50 feet (Los Angeles Bureau of Engineering 2016). This would be readily noticeable above existing ambient levels for a short duration as an emergency vehicle passes by a given location.

The project would replace an existing fire station and occupy the same location. As described in the transportation analysis technical memorandum (Fehr & Peers 2025) prepared for the project, the

response area would not change as a result of the proposed project. According to service call data provided by the County, the station responds to an average of eight or nine incidents per day, with a total of 3,054 calls in 2024. Because the response area would be the same following redevelopment, zero net new calls would need to be served by the redeveloped Fire Station 9. The number of vehicles responding to incidents would vary each day, similar to existing conditions. Because there would be a net-zero increase in the use of emergency vehicles as a result of the project, a noticeable increase in noise from fire station vehicles would not occur based on the frequencies from the incident response data. The impact of the project would be **less than significant**.

Emergency Alert System

Similar to existing conditions, the project would include an emergency alert system to notify the on-site staff of an emergency call for service. This type of system creates noise and is activated by an electronic signal received from a dispatch center. The system includes a speaker behind the apparatus bay on the east side of the building. According to the County, the system would be used only when personnel are working outdoors and need to be alerted; it would be turned off at night between 8:00 p.m. and 8:00 a.m. Although emergency alerts may be audible at the nearest noise-sensitive receivers on an occasional basis, they would not be used at night and would not be expected to contribute to an overall increase in ambient levels at nearby residences. The impact of the project would be **less than significant**.

Traffic Generation

Similar to existing conditions, the project would generate traffic from employee trips, fuel trucks, and visitors. Traffic volumes on local roads near the fire station site were calculated by Fehr & Peers under no-project and with-project scenarios. As shown in Attachment A, traffic volumes under with-project scenarios would increase by less than 1% compared to no-project, which would be less than a 40% ADT increase threshold for a traffic noise analysis, as stated in General Plan Policy HS-P14.8. As described in the transportation analysis technical memorandum (Fehr & Peers 2025) prepared for the project, the project would generate 22 new vehicle trips in addition to the 20 trips under existing conditions. This incremental increase in the number of vehicle trips would produce a traffic noise level of up to 50 dBA DNL. With an existing ambient noise level of 67 dBA DNL, the incremental increase in noise from new vehicle trips would be less than 0.1 dB. This magnitude of increase would not be noticeable above existing conditions. The impact of the project would be **less than significant**.

Building HVAC System

The proposed building would include an HVAC system that would generate steady-state noise on an intermittent basis. While the existing fire station includes HVAC equipment, the HVAC system for the project would be larger, would require different equipment, and the equipment on the roof of the proposed station would be closer to residences on Blackwood Drive compared to the equipment at the existing station. Noise levels from HVAC equipment vary but generally depend on the make/model and size (capacity) of the HVAC system. The HVAC system for the project would consist of two heat recovery units, three heat pumps, two energy recovery ventilators, two supply fans, and two exhaust fans on the roof. At 50 feet, HVAC equipment could produce a sound level of up to 75

dBa (Hoover & Keith 2000). Typically, this type of equipment includes a sound attenuating feature such as a screen, enclosure, or building parapet; however, this has not yet been specified.

Because the fire station would be used as sleeping quarters, the HVAC system could be operational anytime of the day or night. As described in the noise measurement results in Table 4, nighttime ambient levels would be about 57 dBA (1-hour L_{eq}) around the project site, with an average value of 65 dBA DNL. Depending on the location and orientation of the system relative to the property, HVAC equipment could be located as close as 80 feet from the nearest residence, resulting in a noise level of up to 71 dBA (1-hour L_{eq}), assuming no sound attenuating features are included. This would be noticeable above ambient levels. In terms of DNL, this would result in an increase of more than 1.5 dB above General Plan noise standards under Policy HS-P14.5, a potentially significant impact. Implementation of **Mitigation Measure NOI-3**, below, would reduce the potential for the HVAC system to exceed General Plan noise standards through installation of noise attenuating features. With implementation of Mitigation Measure NOI-3, the project would have a **less-than-significant impact with mitigation incorporated**.

Mitigation Measure NOI-3: Design Noise Attenuation for the HVAC System and Emergency Generator Enclosure to Meet County Noise Standards

The project sponsor shall require its contractor(s) to implement this measure to ensure that operational noise levels shall not exceed the County standard of 1.5 dB above ambient DNL levels found in the General Plan. This can be achieved through low-noise equipment specifications or acoustic treatments such as louvers or silencers. Verification noise monitoring shall be conducted to confirm that acoustic treatments will reduce operational noise to comply with the General Plan. The acoustic treatments for the HVAC system and emergency generator shall include, but are not limited to, the following:

- Enclosing noise-generating mechanical equipment;
- Installing relatively quiet models of air handlers, exhaust fans, and other mechanical equipment;
- Using mufflers or silencers on equipment exhaust fans;
- Orienting or shielding equipment to protect noise-sensitive receptors to the greatest extent feasible;
- Increasing the distance between noise-generating equipment and noise-sensitive receptors; and
- Placing barriers around the equipment to facilitate the attenuation of noise.

Emergency Generator

While the existing fire station includes an emergency generator adjacent to the current building along Center Avenue, the emergency generator for the project would be larger and closer to residences compared to the existing station. Under the proposed project, an emergency generator would be installed inside a structure that would be separate from the main fire station along the southern perimeter of the project site. The generator would be operated intermittently (e.g., on an

emergency basis during power outages). In addition, the generator would require weekly tests, during which time it would run for 30 minutes. Every year, the generator would run for 2 hours. Every 3 years, it would require a 4-hour test. Without a ventilated acoustic enclosure, generators produce a steady-state noise level of up to 82 dBA at 50 feet (Hoover & Keith 2000).

The generator would be located along the southern boundary of the site as shown on Figure 2, approximately 20 feet away from the nearest residence, which is to the south on Blackwood Drive. At that location, the noise level from the generator could be up to 90 dBA (1-hour L_{eq}). At the nearest multi-family residences on Blackwood Drive, about 80 feet away from the generator location, the noise level would be up to 78 dBA (1-hour L_{eq}). Although the generator would produce noise only on an occasional basis, it would contribute to a significant increase in noise levels during outages and testing and be readily noticeable above ambient levels, which were measured at 57 dBA (1-hour L_{eq}) during nighttime hours in this area. In terms of DNL, operation of the generator would result in an increase of more than 1.5 dB above General Plan noise standards stated in Policy HS-P14.5. Due to the substantial increase above ambient levels during operation of the generator, this impact is potentially significant. Implementation of **Mitigation Measure NOI-3**, above, would reduce the potential for the emergency generator to exceed General Plan noise standards through installation of noise attenuating features. With implementation of Mitigation Measure NOI-3, the project would have a **less-than-significant impact with mitigation incorporated**.

Conclusion

As discussed above, operation of the HVAC system and emergency generator would result in a noticeable increase in ambient noise levels at nearby residences. Therefore, the noise impact from project operation would be potentially significant. With implementation of Mitigation Measure NOI-3, above, the project would have a **less-than-significant impact with mitigation incorporated**.

Impact NV-4: The project would not expose persons to excessive noise levels from public airports and private airstrips (Less than Significant)

Buchanan Field Airport is a public-use airport approximately 0.4 mile east of the project site. According to the 2000 Contra Costa County Airport Land Use Compatibility Plan (ALUCP), the project site falls outside the 50–55 dBA CNEL contour (Contra Costa County Airport Land Use Commission 2000). The project would consist of sleeping quarters (i.e., residential uses). The 2000 ALUCP designates this land use category as “normally acceptable” and “clearly acceptable” within the 50–55 dBA CNEL contour, according to the noise compatibility criteria in the ALUCP. Because of this, the project would not conflict with the land use restrictions found in the ALUCP. The impact of the project would be **less than significant**.

Compatibility of the dorm and exterior areas with noise standards in the General Plan

The compatibility of the proposed sleeping quarters at the project site with existing levels of community noise exposure was evaluated. The project would include nine dorm rooms in the main

building that would serve as overnight sleeping quarters for the crew. Noise generated by existing traffic was calculated for the interior of the proposed dorm rooms and the outdoor fitness area next to the proposed station building. Due primarily to local traffic on Center Avenue, noise levels at the building exterior would be up to 64 dBA DNL, which would be considered normally acceptable for office and outdoor use areas according to the General Plan Policy HS-P14.1. Within the sleeping quarters, the interior noise level would be 39 dBA DNL accounting for nominal outdoor-to-indoor building attenuation, which would comply with General Plan Policy HS-P14.2. Based on the above, the project would be compatible with ambient noise levels in the area at both interior and exterior areas.

Summary

This memorandum presented the results of the noise and vibration analysis prepared for the Fire Station 9 Redevelopment Project. Table 8 summarizes the project’s potential noise and vibration impacts.

Table 8. Summary of Project Noise and Vibration Impacts

Impact NV-1: Project construction equipment noise would exceed FTA guidance for noise limits at residences
Less than Significant with Mitigation Incorporated
Impact NV-2: Project construction equipment would generate ground-borne vibration that could result in building damage based on the FTA criterion
Less than Significant with Mitigation Incorporated
Impact NV-3: Project operation would result in a noticeable increase in ambient noise levels at residences based on the noise compatibility standards in the General Plan
Less than Significant with Mitigation Incorporated
Impact NV-4: The project would not expose persons to excessive noise levels from public airports and private airstrips
Less than Significant

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Attachment A

Noise Measurements and Modeling Parameters

Ldn/CNEL Calculation Spreadsheet

Project:	Contra Costa County Fire Station 9			Date:	5/28/2025	Analyst:	Schumaker, N		
Location:	LT-1								
	Wednesday				Worst Hour	Ldn minus	CNEL minus		
Time	5/28/2025	Leq(24)	Ldn	CNEL	Leq	Worst Hour Leq	Ldn	Day	
Midnight	53.4	61.7	64.9	65.5	67.5	-2.6	0.6	Evening	
1:00 AM	50.2		3.4	4.0				Night	
2:00 AM	51.4								
3:00 AM	53.6								
4:00 AM	54.2								
5:00 AM	59.2								
6:00 AM	60.3								
7:00 AM	61.5								
8:00 AM	62.8								
9:00 AM	62.8								
10:00 AM	62.9								
11:00 AM	67.5								
Noon	62.7								
1:00 PM	67.1								
2:00 PM	59.2								
3:00 PM	60.3								
4:00 PM	61.0								
5:00 PM	60.8								
6:00 PM	63.5								
7:00 PM	62.3								
8:00 PM	63.0								
9:00 PM	60.6								
10:00 PM	59.4								
11:00 PM	58.1								

24-Hour Sound Levels

Time	One-Hour Leq
Midnight	53.4
1:00 AM	50.2
2:00 AM	51.4
3:00 AM	53.6
4:00 AM	54.2
5:00 AM	59.2
6:00 AM	60.3
7:00 AM	61.5
8:00 AM	62.8
9:00 AM	62.8
10:00 AM	62.9
11:00 AM	67.5
Noon	62.7
1:00 PM	67.1
2:00 PM	59.2
3:00 PM	60.3
4:00 PM	61.0
5:00 PM	60.8
6:00 PM	63.5
7:00 PM	62.3
8:00 PM	63.0
9:00 PM	60.6
10:00 PM	59.4
11:00 PM	58.1

Ldn/CNEL Calculation Spreadsheet

Project:	Contra Costa County Fire Station 9			Date:	5/29/2025	Analyst:	Schumaker, N		
Location:	LT-1								
	Thursday				Worst Hour	Ldn minus	CNEL minus		
Time	5/29/2025	Leq(24)	Ldn	CNEL	Leq	Worst Hour Leq	Ldn	Day	
Midnight	57.4	59.8	65.2	65.7	64.2	1.0	0.5	Evening	
1:00 AM	55.8		3.8	4.3				Night	
2:00 AM	54.9								
3:00 AM	54.2								
4:00 AM	57.2								
5:00 AM	60.6								
6:00 AM	61.5								
7:00 AM	61.4								
8:00 AM	62.2								
9:00 AM	60.6								
10:00 AM	61.7								
11:00 AM	58.7								
Noon	57.5								
1:00 PM	56.4								
2:00 PM	57.8								
3:00 PM	56.5								
4:00 PM	58.6								
5:00 PM	57.9								
6:00 PM	64.2								
7:00 PM	60.7								
8:00 PM	63.2								
9:00 PM	59.2								
10:00 PM	56.3								
11:00 PM	61.3								

24-Hour Sound Levels

Time	One-Hour Leq
Midnight	57.4
1:00 AM	55.8
2:00 AM	54.9
3:00 AM	54.2
4:00 AM	57.2
5:00 AM	60.6
6:00 AM	61.5
7:00 AM	61.4
8:00 AM	62.2
9:00 AM	60.6
10:00 AM	61.7
11:00 AM	58.7
Noon	57.5
1:00 PM	56.4
2:00 PM	57.8
3:00 PM	56.5
4:00 PM	58.6
5:00 PM	57.9
6:00 PM	64.2
7:00 PM	60.7
8:00 PM	63.2
9:00 PM	59.2
10:00 PM	56.3
11:00 PM	61.3

Ldn/CNEL Calculation Spreadsheet

Project:	Contra Costa County Fire Station 9			Date:	5/28/2025	Analyst:	Schumaker, N	
Location:	LT-2							
	Wednesday				Worst Hour	Ldn minus	CNEL minus	
Time	5/28/2025	Leq(24)	Ldn	CNEL	Leq	Worst Hour Leq	Ldn	Day
Midnight	50.0	62.9	66.6	66.9	70.5	-3.9	0.2	Evening
1:00 AM	45.9		8.0	8.3				Night
2:00 AM	47.6							
3:00 AM	49.6							
4:00 AM	49.1							
5:00 AM	66.8							
6:00 AM	60.5							
7:00 AM	58.6							
8:00 AM	60.1							
9:00 AM	60.3							
10:00 AM	60.9							
11:00 AM	68.4							
Noon	60.9							
1:00 PM	66.6							
2:00 PM	62.6							
3:00 PM	70.5							
4:00 PM	62.2							
5:00 PM	58.9							
6:00 PM	66.3							
7:00 PM	58.2							
8:00 PM	62.6							
9:00 PM	57.2							
10:00 PM	57.6							
11:00 PM	54.4							

24-Hour Sound Levels

Time	One-Hour Leq
Midnight	50.0
1:00 AM	45.9
2:00 AM	47.6
3:00 AM	49.6
4:00 AM	49.1
5:00 AM	66.8
6:00 AM	60.5
7:00 AM	58.6
8:00 AM	60.1
9:00 AM	60.3
10:00 AM	60.9
11:00 AM	68.4
Noon	60.9
1:00 PM	66.6
2:00 PM	62.6
3:00 PM	70.5
4:00 PM	62.2
5:00 PM	58.9
6:00 PM	66.3
7:00 PM	58.2
8:00 PM	62.6
9:00 PM	57.2
10:00 PM	57.6
11:00 PM	54.4

Ldn/CNEL Calculation Spreadsheet

Project:	Contra Costa County Fire Station 9			Date:	5/29/2025	Analyst:	Schumaker, N		
Location:	LT-2								
	Thursday				Worst Hour	Ldn minus	CNEL minus		
Time	5/29/2025	Leq(24)	Ldn	CNEL	Leq	Worst Hour Leq	Ldn	Day	
Midnight	54.2	62.7	64.6	67.3	72.7	-8.1	2.7	Evening	
1:00 AM	54.1		7.3	10.0				Night	
2:00 AM	53.0								
3:00 AM	50.1								
4:00 AM	52.8								
5:00 AM	55.9								
6:00 AM	58.2								
7:00 AM	57.3								
8:00 AM	63.0								
9:00 AM	57.7								
10:00 AM	60.3								
11:00 AM	57.1								
Noon	59.1								
1:00 PM	57.4								
2:00 PM	56.2								
3:00 PM	54.4								
4:00 PM	68.3								
5:00 PM	55.4								
6:00 PM	61.8								
7:00 PM	63.4								
8:00 PM	68.0								
9:00 PM	72.7								
10:00 PM	56.8								
11:00 PM	51.4								

24-Hour Sound Levels

Time	One-Hour Leq
Midnight	54.2
1:00 AM	54.1
2:00 AM	53.0
3:00 AM	50.1
4:00 AM	52.8
5:00 AM	55.9
6:00 AM	58.2
7:00 AM	57.3
8:00 AM	63.0
9:00 AM	57.7
10:00 AM	60.3
11:00 AM	57.1
Noon	59.1
1:00 PM	57.4
2:00 PM	56.2
3:00 PM	54.4
4:00 PM	68.3
5:00 PM	55.4
6:00 PM	61.8
7:00 PM	63.4
8:00 PM	68.0
9:00 PM	72.7
10:00 PM	56.8
11:00 PM	51.4

Ldn/CNEL Calculation Spreadsheet

Project:	Contra Costa County Fire Station 9			Date:	5/28/2025	Analyst:	Schumaker, N		
Location:	LT-3								
	Wednesday				Worst Hour	Ldn minus	CNEL minus		
Time	5/28/2025	Leq(24)	Ldn	CNEL	Leq	Worst Hour Leq	Ldn	Day	
Midnight	51.7	61.7	64.3	64.7	73.1	-8.8	0.4	Evening	
1:00 AM	49.1		3.3	3.7				Night	
2:00 AM	49.6								
3:00 AM	51.8								
4:00 AM	52.1								
5:00 AM	57.8								
6:00 AM	57.5								
7:00 AM	61.0								
8:00 AM	73.1								
9:00 AM	60.3								
10:00 AM	61.2								
11:00 AM	61.4								
Noon	60.3								
1:00 PM	60.9								
2:00 PM	55.0								
3:00 PM	56.4								
4:00 PM	55.1								
5:00 PM	57.9								
6:00 PM	57.5								
7:00 PM	59.2								
8:00 PM	59.2								
9:00 PM	59.5								
10:00 PM	59.0								
11:00 PM	57.9								

24-Hour Sound Levels

Time	One-Hour Leq
Midnight	51.7
1:00 AM	49.1
2:00 AM	49.6
3:00 AM	51.8
4:00 AM	52.1
5:00 AM	57.8
6:00 AM	57.5
7:00 AM	61.0
8:00 AM	73.1
9:00 AM	60.3
10:00 AM	61.2
11:00 AM	61.4
Noon	60.3
1:00 PM	60.9
2:00 PM	55.0
3:00 PM	56.4
4:00 PM	55.1
5:00 PM	57.9
6:00 PM	57.5
7:00 PM	59.2
8:00 PM	59.2
9:00 PM	59.5
10:00 PM	59.0
11:00 PM	57.9

Ldn/CNEL Calculation Spreadsheet

Project:	Contra Costa County Fire Station 9			Date:	5/29/2025	Analyst:	Schumaker, N		
Location:	LT-3								
	Thursday				Worst Hour	Ldn minus	CNEL minus		
Time	5/29/2025	Leq(24)	Ldn	CNEL	Leq	Worst Hour Leq	Ldn	Day	
Midnight	59.4	56.9	63.7	63.8	61.9	1.8	0.2	Evening	
1:00 AM	56.2		4.8	4.9				Night	
2:00 AM	57.2								
3:00 AM	53.5								
4:00 AM	55.8								
5:00 AM	59.5								
6:00 AM	59.8								
7:00 AM	58.9								
8:00 AM	58.7								
9:00 AM	57.3								
10:00 AM	61.9								
11:00 AM	56.3								
Noon	53.3								
1:00 PM	53.7								
2:00 PM	53.7								
3:00 PM	53.3								
4:00 PM	55.9								
5:00 PM	55.1								
6:00 PM	54.7								
7:00 PM	54.9								
8:00 PM	55.0								
9:00 PM	56.3								
10:00 PM	52.7								
11:00 PM	56.3								

24-Hour Sound Levels

Time	One-Hour Leq
Midnight	59.4
1:00 AM	56.2
2:00 AM	57.2
3:00 AM	53.5
4:00 AM	55.8
5:00 AM	59.5
6:00 AM	59.8
7:00 AM	58.9
8:00 AM	58.7
9:00 AM	57.3
10:00 AM	61.9
11:00 AM	56.3
Noon	53.3
1:00 PM	53.7
2:00 PM	53.7
3:00 PM	53.3
4:00 PM	55.9
5:00 PM	55.1
6:00 PM	54.7
7:00 PM	54.9
8:00 PM	55.0
9:00 PM	56.3
10:00 PM	52.7
11:00 PM	56.3

LT-1

Start Date	Start Time	Duration	LAeq	LASmax	LASmin	LAS1%	LAS2%	LAS5%	LAS8%	LAS10%	LAS25%	LAS50%	LAS90%	LAS95%	LAS99%
5/28/2025	12:00:00 AM	1:00:00	53.4	68.7	46.1	61.4	60	57.9	56.8	56.2	53.8	52	49.2	48.6	47.4
5/28/2025	1:00:00 AM	1:00:00	50.2	63.3	43.3	58	56.6	54.5	53.4	53	50.7	49.1	46.8	46.2	44.7
5/28/2025	2:00:00 AM	1:00:00	51.4	61.7	42.8	57.1	56	54.5	53.8	53.5	52.3	51.3	47.6	46.4	44.9
5/28/2025	3:00:00 AM	1:00:00	53.6	68	48	59.7	58.4	56.7	55.9	55.6	54.3	52.9	50.8	50.2	49.2
5/28/2025	4:00:00 AM	1:00:00	54.2	65	47.3	60.5	59.5	58.1	57.2	56.8	55	53.4	51.3	50.8	49.3
5/28/2025	5:00:00 AM	1:00:00	59.2	79	49.4	67.2	65.7	63.2	62.1	61.6	59.6	57.9	54.2	52.7	51.3
5/28/2025	6:00:00 AM	1:00:00	60.3	73.7	55	67.1	65.8	63.9	63	62.6	61	59.5	57.4	56.9	56
5/28/2025	7:00:00 AM	1:00:00	61.5	83.1	53.3	70.1	68.3	65.7	64.4	63.9	61.8	60	56.7	55.9	54.8
5/28/2025	8:00:00 AM	1:00:00	62.8	76.3	55.9	70.3	68.9	67.2	66.1	65.6	63.3	61.4	58.8	58.2	57.2
5/28/2025	9:00:00 AM	1:00:00	62.8	85.2	54.9	72.7	70.3	67	65.5	64.7	62.1	60.3	57.8	57.2	56.1
5/28/2025	10:00:00 AM	1:00:00	62.9	80.3	55.7	72.4	71.1	68.3	66.5	65.6	62.5	60.6	58.1	57.7	56.9
5/28/2025	11:00:00 AM	1:00:00	67.5	91.4	55.1	78.8	75.4	71	68.4	67	62.6	60.4	57.8	57.2	56.2
5/28/2025	12:00:00 PM	1:00:00	62.7	77.7	55.4	72.3	70.6	67.8	66.2	65.4	62.6	60.7	58.2	57.6	56.5
5/28/2025	1:00:00 PM	1:00:00	67.1	95.5	55.4	74.9	71.1	67.6	66	65.3	62.6	60.9	58.3	57.6	56.4
5/28/2025	2:00:00 PM	1:00:00	59.2	79.9	47.1	68.6	66.6	64.2	63.1	62.5	59.5	56.9	52.4	51.2	49.2
5/28/2025	3:00:00 PM	1:00:00	60.3	80.1	49.1	70.4	67.2	64.7	63.6	63	59.9	57.4	53	52.1	50.8
5/28/2025	4:00:00 PM	1:00:00	61	88.1	48.8	69.7	66.9	63.7	62.1	61.4	59	56.7	52	51	49.8
5/28/2025	5:00:00 PM	1:00:00	60.8	76.3	52.5	69.3	67	64.9	63.9	63.4	61.1	59.3	56.7	56	54.8
5/28/2025	6:00:00 PM	1:00:00	63.5	85.9	53.5	74.3	71.8	68.2	66.5	65.7	62.5	59.9	56.8	56.1	54.8
5/28/2025	7:00:00 PM	1:00:00	62.3	80.2	54.8	72	70	66.8	65.4	64.6	62.1	60.4	58.1	57.6	56.5
5/28/2025	8:00:00 PM	1:00:00	63	85.6	54.3	73.1	67.9	64.3	62.9	62.3	60.4	59	57	56.5	55.4
5/28/2025	9:00:00 PM	1:00:00	60.6	79.4	54.3	67.3	66.2	64.6	63.7	63.2	61.2	59.6	57.2	56.7	55.8
5/28/2025	10:00:00 PM	1:00:00	59.4	75.3	53.3	67.6	65.7	63.2	62.1	61.6	59.7	58.3	56.4	55.8	54.7
5/28/2025	11:00:00 PM	1:00:00	58.1	80.3	51.1	65.7	63.9	61.1	60.2	59.7	57.9	56.5	54.1	53.5	52.7
5/29/2025	12:00:00 AM	1:00:00	57.4	77.6	48.8	66.9	64.5	61.6	60.3	59.6	57.1	55.2	52.8	52.2	50.8
5/29/2025	1:00:00 AM	1:00:00	55.8	79.3	48.8	65.3	62.9	59.7	58.1	57.5	55.1	53.2	50.7	50.2	49.5
5/29/2025	2:00:00 AM	1:00:00	54.9	75.6	47.3	64.2	62.1	59	57.6	57	54.8	52.9	50.2	49.6	48.5
5/29/2025	3:00:00 AM	1:00:00	54.2	66.1	47.2	60.7	59.2	58	57.2	56.9	55.2	53.2	50	49.3	48.3
5/29/2025	4:00:00 AM	1:00:00	57.2	66.7	50.1	62.7	61.7	60.4	59.8	59.4	58.2	56.9	54	53.1	51.6
5/29/2025	5:00:00 AM	1:00:00	60.6	72.8	54.6	66.6	65.7	64	63.1	62.7	61.2	60.1	58	57.4	56.3
5/29/2025	6:00:00 AM	1:00:00	61.5	74.6	57.2	66.8	65.8	64.5	63.9	63.6	62.2	61	59.3	58.9	58.1
5/29/2025	7:00:00 AM	1:00:00	61.4	74.8	55.7	67.9	66.5	64.7	64	63.6	62.2	60.8	58.7	58.1	57.2
5/29/2025	8:00:00 AM	1:00:00	62.2	82.1	53	71	69.2	66.2	64.9	64.4	62.2	60.3	57.4	56.7	55.4
5/29/2025	9:00:00 AM	1:00:00	60.6	82.4	48.8	70.7	68.9	65.3	63.8	62.9	59.6	56.8	52.4	51.5	50.1
5/29/2025	10:00:00 AM	1:00:00	61.7	81	46.4	73.4	71.1	67.4	65	64	59.9	56.2	50.1	49.3	47.8
5/29/2025	11:00:00 AM	1:00:00	58.7	79.8	45.5	69.1	66.4	63.4	61.9	61	57.4	54.2	49.2	48.5	47.1
5/29/2025	12:00:00 PM	1:00:00	57.5	74.1	45.4	68	66.4	63.6	61.9	61	57.4	54.1	49.1	48	46.8
5/29/2025	1:00:00 PM	1:00:00	56.4	73.8	45.1	67.1	64.5	61.7	60.3	59.6	56.5	53.2	48.1	47.3	46.2
5/29/2025	2:00:00 PM	1:00:00	57.8	73.7	45.5	68.4	66.1	63.1	61.8	61	58.1	54.9	49.4	48.3	46.9
5/29/2025	3:00:00 PM	1:00:00	56.5	75	45.8	65	63.6	61.4	60.2	59.8	57.3	54.3	48.7	47.8	46.8
5/29/2025	4:00:00 PM	1:00:00	58.6	79.3	45.4	69.9	67.4	63.5	61.9	61	58	55.5	49.5	48.4	46.8
5/29/2025	5:00:00 PM	1:00:00	57.9	75.1	45.7	67.7	65.8	63	61.7	61.1	58.4	55.4	49.6	48.7	47.4
5/29/2025	6:00:00 PM	1:00:00	64.2	92	44.9	70.8	66.5	62.5	61	60.4	57.3	53.8	48.4	47.3	46.2
5/29/2025	7:00:00 PM	1:00:00	60.7	88.8	44.4	68	65.7	62.7	61.3	60.6	57.4	53.8	47.9	47.1	45.5
5/29/2025	8:00:00 PM	1:00:00	63.2	91.8	45.4	72.3	66.9	63.3	61.8	61.2	58.2	55.6	51.8	50.2	47.8
5/29/2025	9:00:00 PM	1:00:00	59.2	82.3	51.1	69.5	66.6	62.6	60.8	60.1	57.5	55.5	53.3	52.8	52
5/29/2025	10:00:00 PM	1:00:00	56.3	76.2	48.1	66.8	64.3	60.2	58.4	57.6	55	53.1	50.7	50.2	49.2
5/29/2025	11:00:00 PM	1:00:00	61.3	90.1	47.6	64.8	61.2	57.9	56.7	56.2	53.8	52.2	49.9	49.4	48.6

LT-2

Start Date	Start Time	Duration	L _{Aeq}	L _{ASmax}	L _{ASmin}	L _{AS1%}	L _{AS2%}	L _{AS5%}	L _{AS8%}	L _{AS10%}	L _{AS25%}	L _{AS50%}	L _{AS90%}	L _{AS95%}	L _{AS99%}
5/28/2025	12:00:00 AM	1:00:00	50	70.3	42.9	58	56	53.6	52.4	51.9	49.7	47.9	45.6	44.9	43.9
5/28/2025	1:00:00 AM	1:00:00	45.9	56.4	41.3	52.4	51.1	49.2	48.4	48	46.5	45.3	43.5	43.1	42.4
5/28/2025	2:00:00 AM	1:00:00	47.6	54.8	41.2	52	51.4	50.4	49.9	49.7	48.8	47.9	43.9	43.3	42.3
5/28/2025	3:00:00 AM	1:00:00	49.6	71.6	44.1	53.7	52.8	51.6	51.1	50.8	49.7	48.8	47.1	46.5	45.6
5/28/2025	4:00:00 AM	1:00:00	49.1	56.7	44.1	54.1	53.3	52	51.5	51.2	49.9	48.7	46.9	46.5	45.4
5/28/2025	5:00:00 AM	1:00:00	66.8	91.4	46.4	78.5	65.4	59	57.6	57.2	55.5	54	50.6	48.9	47.7
5/28/2025	6:00:00 AM	1:00:00	60.5	87.7	49.9	72	67.5	62.9	60.3	59.3	56.7	55.2	52.9	52.3	51.2
5/28/2025	7:00:00 AM	1:00:00	58.6	83.2	49.4	70.5	68.2	63.5	60.8	59.7	56.8	54.7	52.1	51.5	50.6
5/28/2025	8:00:00 AM	1:00:00	60.1	81.2	51.1	70.2	68	65.3	63.7	62.8	58.4	55.9	53.4	52.9	52.1
5/28/2025	9:00:00 AM	1:00:00	60.3	78.8	50.6	71.2	69.6	66.6	64.9	63.9	58.9	55.9	53.4	52.9	52.2
5/28/2025	10:00:00 AM	1:00:00	60.9	84.2	51.3	70.6	68.7	65.7	64.1	63.2	60.3	58.6	53.8	53.3	52.5
5/28/2025	11:00:00 AM	1:00:00	68.4	95.4	51.2	78.5	73.8	68.7	65.4	64.1	59.9	57.4	53.7	53.2	52.5
5/28/2025	12:00:00 PM	1:00:00	60.9	82.8	51.3	71.8	70.2	67.2	65.2	64.1	59.6	56.5	54	53.5	52.5
5/28/2025	1:00:00 PM	1:00:00	66.6	91.7	51	79.2	74.9	68.2	65.7	64.5	59.5	56.8	54	53.4	52.3
5/28/2025	2:00:00 PM	1:00:00	62.6	91.8	45.5	74.3	70.6	65.8	62.8	61.6	56.2	52.8	48.8	48	46.8
5/28/2025	3:00:00 PM	1:00:00	70.5	99.3	46.5	71.9	69.1	64.9	62.2	61	56.1	53.1	49.5	48.9	47.9
5/28/2025	4:00:00 PM	1:00:00	62.2	92.3	46.1	69	65.8	60.6	57.8	56.6	53.4	51.4	48.2	47.7	47
5/28/2025	5:00:00 PM	1:00:00	58.9	75.7	50.2	69.4	67.1	64.2	62.9	62.3	59.1	55.7	52.4	51.9	51.2
5/28/2025	6:00:00 PM	1:00:00	66.3	92.9	49.2	75.9	74	68	64.8	63.3	58	54.6	51.8	51.3	50.6
5/28/2025	7:00:00 PM	1:00:00	58.2	78.8	50.3	68.4	66.6	63.3	61.1	60.2	57.1	55.2	53	52.4	51.5
5/28/2025	8:00:00 PM	1:00:00	62.6	88.4	50.3	73.4	68.2	62.4	59.9	58.8	55.7	54.1	52.5	52.2	51.6
5/28/2025	9:00:00 PM	1:00:00	57.2	73.4	51.1	66.3	64.2	61.6	60.6	60	57.4	55.3	53.2	52.8	52.2
5/28/2025	10:00:00 PM	1:00:00	57.6	83.1	50.4	67.2	64	60.8	59	58.2	55.7	54.3	52.4	52	51.2
5/28/2025	11:00:00 PM	1:00:00	54.4	71.3	48.3	64.2	61.8	58.2	56.7	56.2	54.2	52.7	50.6	50.1	49.3
5/29/2025	12:00:00 AM	1:00:00	54.2	71.6	46.8	64.1	62.1	58.7	57.1	56.3	53.8	52	49.9	49.4	48.4
5/29/2025	1:00:00 AM	1:00:00	54.1	72.7	45.4	65.1	63	59.5	57.5	56.6	52.8	50.5	48.4	47.9	47
5/29/2025	2:00:00 AM	1:00:00	53	73.8	45	63.7	61.2	57.6	55.7	54.9	52	50.1	47.7	47.1	46
5/29/2025	3:00:00 AM	1:00:00	50.1	67.5	44.6	55.9	54.8	53.4	52.7	52.3	50.8	49.3	46.9	46.3	45.5
5/29/2025	4:00:00 AM	1:00:00	52.8	66	47	57.8	56.7	55.6	55.1	54.8	53.6	52.5	50.2	49.4	48.2
5/29/2025	5:00:00 AM	1:00:00	55.9	67.7	51.6	61.3	60.1	58.6	58	57.7	56.5	55.5	53.8	53.4	52.6
5/29/2025	6:00:00 AM	1:00:00	58.2	85.7	52.9	64.5	60.7	58.6	58.1	57.8	56.8	55.9	54.6	54.3	53.8
5/29/2025	7:00:00 AM	1:00:00	57.3	74.2	51.4	68.5	65.4	61.2	59.3	58.4	56.5	55.4	53.8	53.5	52.7
5/29/2025	8:00:00 AM	1:00:00	63	93.5	49.3	70.8	67.7	63.6	61.8	60.8	56.5	54.3	52.3	51.7	50.4
5/29/2025	9:00:00 AM	1:00:00	57.7	79.5	45.4	68.5	66.6	63.9	61.8	60.7	55.5	52	48.2	47.6	46.6
5/29/2025	10:00:00 AM	1:00:00	60.3	84.8	45.1	71.9	69.7	66.8	64.7	63.5	58.1	53.7	48.8	47.8	46.2
5/29/2025	11:00:00 AM	1:00:00	57.1	80.2	45.4	69.1	66.3	62.8	60.6	59.6	54.6	51.7	48.4	47.8	46.8
5/29/2025	12:00:00 PM	1:00:00	59.1	81.9	44.5	70.8	68.8	64.6	62.3	61.3	56.1	51.2	47.7	46.7	45.5
5/29/2025	1:00:00 PM	1:00:00	57.4	77	43.4	69	67.4	64.3	62.3	61.1	55.1	51.1	46.4	45.7	44.6
5/29/2025	2:00:00 PM	1:00:00	56.2	76.1	44	68.4	66.4	62.9	60	58.6	53.7	50.4	46.9	46.2	45
5/29/2025	3:00:00 PM	1:00:00	54.4	73.3	44.1	67	64.5	60.2	57.7	56.5	52.2	49.5	46.7	46.2	45.4
5/29/2025	4:00:00 PM	1:00:00	68.3	92.8	45.4	74.2	72.7	72.2	72	71.8	62.6	53.5	48.7	48	46.9
5/29/2025	5:00:00 PM	1:00:00	55.4	73.6	46.3	68.2	65.7	60.9	58.4	57.2	52.8	50.6	48.7	48.3	47.8
5/29/2025	6:00:00 PM	1:00:00	61.8	93	43.4	68.6	65.4	59.9	57.1	56	52.1	49.4	46.1	45.4	44.4
5/29/2025	7:00:00 PM	1:00:00	63.4	95	42.9	68.4	64.9	60.4	58.4	57.6	53.8	50.4	46.2	45.2	44.1
5/29/2025	8:00:00 PM	1:00:00	68	94.2	43.4	79	75	68.3	65	63.7	55.8	52.1	48.2	46.2	44.6
5/29/2025	9:00:00 PM	1:00:00	72.7	100.2	48.1	79.5	72.3	65.4	61.3	58.8	53.4	51.8	50	49.6	49.1
5/29/2025	10:00:00 PM	1:00:00	56.8	81	43.5	70.5	65.8	60.4	57.4	56	51.7	49.4	47.2	46.6	45.4
5/29/2025	11:00:00 PM	1:00:00	51.4	76.5	45.1	58.6	55.6	52.5	51.5	51.2	49.8	48.7	47	46.6	45.9

LT-3

Start Date	Start Time	Duration	LAeq	LASmax	LASmin	LAS1%	LAS2%	LAS5%	LAS8%	LAS10%	LAS25%	LAS50%	LAS90%	LAS95%	LAS99%
5/28/2025	12:00:00 AM	1:00:00	51.7	68.8	46.1	58.5	57.2	55	54.2	53.8	52.4	50.9	48.6	48	47.2
5/28/2025	1:00:00 AM	1:00:00	49.1	62.1	45	55.1	54	52.3	51.5	51.1	49.6	48.4	46.7	46.3	45.8
5/28/2025	2:00:00 AM	1:00:00	49.6	61.2	44.6	54.5	53.7	52.4	51.8	51.6	50.6	49.4	47.3	46.7	45.8
5/28/2025	3:00:00 AM	1:00:00	51.8	68.9	46.6	59.1	56.4	54.2	53.6	53.3	52.1	50.9	49.2	48.8	47.9
5/28/2025	4:00:00 AM	1:00:00	52.1	65.3	47.7	56.8	55.6	54.4	54	53.7	52.7	51.8	50.2	49.7	48.9
5/28/2025	5:00:00 AM	1:00:00	57.8	73.4	50.9	69.2	66.5	60.2	59.1	58.6	57.1	56	53.2	52.6	51.8
5/28/2025	6:00:00 AM	1:00:00	57.5	74	53	65.4	63.2	60.8	59.5	59	57.5	56.6	55.3	54.9	54.1
5/28/2025	7:00:00 AM	1:00:00	61	84.1	52.6	69.8	66.9	63.9	61.9	61	58	56.6	54.6	54.2	53.6
5/28/2025	8:00:00 AM	1:00:00	73.1	95.2	54.7	85.4	81.8	77.1	74.7	73.6	66.8	61.8	58.1	57.5	56.1
5/28/2025	9:00:00 AM	1:00:00	60.3	74.3	54	69.7	67.8	65.1	63.6	63.1	60.3	58.4	56.2	55.8	54.9
5/28/2025	10:00:00 AM	1:00:00	61.2	79.5	54.3	71.1	69.5	66.5	65	64.3	60.4	58.4	56.3	55.9	55.3
5/28/2025	11:00:00 AM	1:00:00	61.4	76	53	70.7	69.5	67	65.5	64.7	61.1	58.9	56.6	56	55
5/28/2025	12:00:00 PM	1:00:00	60.3	77	54.1	69.6	67.9	65.2	63.6	62.9	60	58.2	56.4	55.9	55
5/28/2025	1:00:00 PM	1:00:00	60.9	79.8	53.4	70.4	68.7	65.8	64.2	63.5	60.4	58.4	56.2	55.7	54.6
5/28/2025	2:00:00 PM	1:00:00	55	68.9	48.9	63.7	61.8	59.6	58.4	57.9	55.5	53.5	50.9	50.5	49.8
5/28/2025	3:00:00 PM	1:00:00	56.4	73.2	49.2	66.1	64.5	61	59.3	58.7	56.5	54.5	51.4	51	50.4
5/28/2025	4:00:00 PM	1:00:00	55.1	73	49.4	64.9	62.8	59.7	58	57.3	55	53.2	51	50.7	50.1
5/28/2025	5:00:00 PM	1:00:00	57.9	71.7	51.7	67	65.3	62.2	60.8	60.2	58	56.2	54.3	53.8	53.2
5/28/2025	6:00:00 PM	1:00:00	57.5	74.2	51.9	66.2	64.4	61.7	60.4	59.7	57.6	56.2	54.4	54	53.4
5/28/2025	7:00:00 PM	1:00:00	59.2	73.3	52.8	67.5	66.3	64	62.6	62	59.3	57.6	55.6	55.1	54.4
5/28/2025	8:00:00 PM	1:00:00	59.2	76.3	51.8	68.8	66.9	63.6	62.1	61.4	58.7	57	55.2	54.8	54
5/28/2025	9:00:00 PM	1:00:00	59.5	73.5	52	68.7	67.1	64.6	63.1	62.4	59.5	57.6	55.5	55.1	54
5/28/2025	10:00:00 PM	1:00:00	59	73.3	51.4	68	66.6	64.4	62.9	62.2	58.8	56.8	54.8	54.3	53.1
5/28/2025	11:00:00 PM	1:00:00	57.9	74.8	51	67.4	65.9	63.4	61.8	61	57.6	55.5	53.3	52.8	51.9
5/29/2025	12:00:00 AM	1:00:00	59.4	77.8	50.4	70.2	68.6	65.7	63.9	62.9	58.5	55.4	52.6	52.1	51.2
5/29/2025	1:00:00 AM	1:00:00	56.2	74.7	48.4	66.8	64.3	61.2	59.7	58.9	55.5	53.1	50.5	50	49.3
5/29/2025	2:00:00 AM	1:00:00	57.2	79.9	47.5	68.1	65.6	62.5	60.5	59.5	55.4	52.8	50.1	49.4	48.6
5/29/2025	3:00:00 AM	1:00:00	53.5	69.1	47.6	60.5	58.8	57.1	56.2	55.8	54.3	52.5	49.9	49.3	48.6
5/29/2025	4:00:00 AM	1:00:00	55.8	65.1	49.7	61.1	60	58.6	57.9	57.7	56.6	55.6	53	52.2	50.9
5/29/2025	5:00:00 AM	1:00:00	59.5	70.7	54.3	65.4	63.9	62.2	61.6	61.3	60.2	59.3	57.2	56.5	55.7
5/29/2025	6:00:00 AM	1:00:00	59.8	74.1	55.9	66.1	64.4	62	61.3	61	60.1	59.3	58.1	57.8	57.2
5/29/2025	7:00:00 AM	1:00:00	58.9	69.9	54.9	65.3	63.2	61.5	60.7	60.4	59.3	58.5	57.1	56.7	56
5/29/2025	8:00:00 AM	1:00:00	58.7	71.1	52.1	67.3	65.7	63.2	61.7	61	58.7	57.3	55.3	54.6	53.4
5/29/2025	9:00:00 AM	1:00:00	57.3	73.6	48.6	68.1	66.1	63	61	60	56.4	53.8	51.5	50.9	49.9
5/29/2025	10:00:00 AM	1:00:00	61.9	89.4	48	73.1	69.7	65.2	62.7	61.6	56.8	53.3	50.6	50.2	49.5
5/29/2025	11:00:00 AM	1:00:00	56.3	76.6	49.4	66.9	64.5	60.9	59.3	58.5	55	52.9	51	50.7	50.2
5/29/2025	12:00:00 PM	1:00:00	53.3	68.8	48	62.8	60.1	57.3	56	55.4	53.2	51.7	49.9	49.5	48.9
5/29/2025	1:00:00 PM	1:00:00	53.7	71.1	47	64.5	62	58.2	56.3	55.4	52.9	51.4	49.6	49.3	48.6
5/29/2025	2:00:00 PM	1:00:00	53.7	73.1	47.6	63.5	61.7	58	56.3	55.7	53.4	51.9	49.7	49.3	48.5
5/29/2025	3:00:00 PM	1:00:00	53.3	68.9	48.2	62.7	60.8	57.5	55.9	55.3	53.1	51.7	50.1	49.7	49.1
5/29/2025	4:00:00 PM	1:00:00	55.9	76.6	47.3	68	65.5	60.4	58	56.8	53.1	51.4	49.5	49.1	48.5
5/29/2025	5:00:00 PM	1:00:00	55.1	71.5	48.3	66.4	64.7	60.3	58.4	57.6	54.1	52	50	49.7	49.2
5/29/2025	6:00:00 PM	1:00:00	54.7	75.2	47.5	65.4	63.5	59.6	57.6	56.6	53.3	51.3	49.4	49	48.4
5/29/2025	7:00:00 PM	1:00:00	54.9	75.5	47.5	65.5	63.1	59.6	58	57.3	54.2	51.8	49.3	48.9	48.4
5/29/2025	8:00:00 PM	1:00:00	55	71.4	47.6	66.3	64	59.2	57.4	56.6	54.1	52.7	50	49.5	48.7
5/29/2025	9:00:00 PM	1:00:00	56.3	77.7	49.6	66.6	64.3	59.6	57.5	56.7	54.8	53.7	52	51.6	51
5/29/2025	10:00:00 PM	1:00:00	52.7	69.2	46.8	62.5	59.1	55.4	54.3	53.9	52.5	51.2	49.2	48.8	48
5/29/2025	11:00:00 PM	1:00:00	56.3	86.1	47.4	61.3	58.7	55.3	53.8	53.4	52	50.9	49.1	48.8	48.3

Noise Measurement Photographs



LT-1 Looking East



LT-1 Looking North



LT-1 Looking South

LT-1 was attached to a utility pole on the southeast corner of Center Avenue and Blackwood Drive.

Noise Measurement Photographs



LT-2 Looking North



LT-2 Looking South

LT-2 was attached to a utility pole along Blackwood Drive, south of South 1st Avenue.

Noise Measurement Photographs



LT-3 Looking West



LT-3 Looking North



LT-3 Looking East

LT-3 was attached to a utility pole along Pantano Lane, west of Aspen Drive.

Table 1. Received Traffic Volume Data from Fehr & Peers

Roadway Segment	Description	ADT				Peak-Hour Truck Percentage		Posted Speed Limits
		Existing	Existing Plus Project	Buildout No Project	Buildout Plus Project	AM	PM	
NB	Pacheco Boulevard between Center Avenue and 2nd Avenue South	18,489	18,495	22,112	22,118	4%	3%	35 mph
SB	Pacheco Boulevard between 1st Avenue North and Center Avenue	12,683	12,691	15,169	15,177	4%	3%	35 mph
EB	Center Avenue between Aspen Drive and Pacheco Boulevard	7,328	7,344	7,657	7,673	5%	3%	25 mph
WB	Center Avenue between Pacheco Boulevard and Berry Drive	10,400	10,402	10,867	10,869	6%	2%	25 mph

Table 2. Calculated Increase between Modeling Scenarios

Roadway	Segment	Existing No Project	Existing Plus Project	Buildout No Project	Building Plus Project	Percent Increase from Existing No Project to Existing Plus Project	Percent Increase from Build Out No Project to Build Out Plus Project
Pacheco Boulevard	Between Center Avenue and South 2nd Avenue	18,489	18,495	22,112	22,118	0.0%	0.0%
Pacheco Boulevard	Between North 1st Avenue and Center Avenue	12,683	12,691	15,169	15,177	0.1%	0.1%
Center Avenue	Between Aspen Drive and Pacheco Boulevard	7,328	7,344	7,657	7,673	0.2%	0.2%
Center Avenue	Between Pacheco Boulevard and Berry Drive	10,400	10,402	10,867	10,869	0.0%	0.0%

Attachment F
Transportation Analysis Memorandum

Fehr & Peers

Memo

Date: November 17, 2025

To: Kara Palm, ICF

From: Bill Burton, PE, RSP, Fehr & Peers

Subject: Transportation Analysis for the Fire Station 9 Redevelopment Project (County Project No. WH728A)

This analysis has been prepared to document the potential transportation impacts of the Fire Station 9 Redevelopment Project (project) at 209 Center Avenue in Pacheco in Contra Costa County proposed by the Contra Costa County Fire Protection District (ConFire or District) (project site) (Figure 1). The primary purpose of this evaluation is to provide an update to the analysis and findings of the *New Fire Station 9 Project – Transportation Analysis* dated November 11, 2021, prepared by Fehr & Peers to identify potential impacts of the project on the surrounding transportation system (attached to this memorandum as Attachment E). The 2021 memorandum assessed the development of a similar project on a different project site (i.e., a mostly vacant three-acre site located at Buchanan Airport at the intersection of Marsh Drive and Center Avenue in Pacheco, approximately 1.5 miles to the east).

This memorandum assesses traffic operations at the intersection of Center Avenue and Pacheco Boulevard. In addition, this memorandum also outlines the assumptions, methodologies, and findings of the analysis of the project's potential impacts related to vehicle miles traveled (VMT), bicycle facilities, pedestrian facilities, transit, emergency vehicle access, construction traffic, and hazards.

Background and Study Area

The District proposes to demolish the existing Fire Station 9 and reconstruct a new operational fire station on the same site. The existing station is a 2,215-square-foot single company, one-story station. The existing station employs a three-person crew of one captain, one engineer, and one firefighter working 48-hour shifts and houses two fire engines. The proposed project would include a new larger fire station. The proposed project would include an approximately 15,400-square-foot double company, two-story station. The station would include offices and crew quarters to house up to nine fire personnel during the 48-hour shifts, as well as an apparatus bay for storage of three fire engines when not on call. The existing station has one driveway, which is located on Center Avenue across from Aspen Drive. As part of the new station's construction this driveway would be modified and improved, and a new driveway would be provided on Blackwood Drive approximately 175 feet south of Center Avenue.

Fire engines would leave the fire station using the existing driveway on Center Avenue and enter the station at either Center Avenue or Blackwood Drive. Three visitor parking spaces would be provided

in the front parking lot accessible from Center Avenue, and up to 16 employee parking spaces and two bike racks that can store up to four bikes would be provided behind the station, accessible by either Center Avenue or Blackwood Drive. The study area is shown in **Figure 1**, and the conceptual site plan is in **Attachment A**. Project construction is anticipated to begin in late 2026 and be completed in early 2028, a period of approximately 18 months.

CEQA Vehicle Miles Travelled Screening Assessment

The vehicle miles traveled analysis follows Contra Costa County's adopted guidelines and methods which include metrics, thresholds, and screening criteria for evaluating a project's VMT impact. Land use projects that meet the screening criteria below are presumed not to cause significant VMT impacts and do not require a detailed VMT analysis:

- Projects that:
 - Generate or attract fewer than 110 daily vehicle trips.
 - Projects of 10,000 square feet or less of non-residential space or 20 residential units or less or otherwise generating less than 836 VMT per day.
- Residential, retail, office, or mixed-use projects located within half a mile of high-quality transit.
- Residential projects with home-based VMT at 85 percent or less of the baseline County-wide average or employment projects with employee VMT at 85 percent or less of the baseline Bay Area average in areas with low VMT that incorporate similar VMT-reducing features.
- Public facilities (e.g., emergency services, passive parks, libraries, community centers, public utilities) and government buildings.

The proposed project falls under the public facility VMT screening criteria as a local-serving emergency service; therefore, the project's impact on VMT is considered **less-than-significant**.

Study Intersections and Analysis Scenarios

To evaluate the traffic operations effects of the proposed project, the intersection of Pacheco Boulevard and Center Avenue was analyzed (**Figure 2**). Weekday AM (7:00 to 9:00 AM) and PM (4:00 to 6:00 PM) peak period turning movement counts were collected in April 2025 for the intersection on a clear-weather midweek day. **Attachment B** includes a summary of the traffic count data.

Two scenarios were evaluated to assess project effects:

- **Existing:** Existing traffic volumes based on traffic counts collected in 2025.
- **Existing Plus Project:** Existing conditions plus estimated traffic generated by the project.

Intersection operations including delay and level of service (LOS) were evaluated using the *Highway Capacity Manual, 7th Edition* (Transportation Research Board, 2022) and applied using the Synchro software (version 12). The intersection operations analysis was conducted to determine if peak hour queues are forecast to block the fire station's Center Avenue driveway and to provide data for the air quality and noise analyses prepared for the project.

Project Trip-Making Characteristics

To estimate traffic conditions with the project, vehicle trips expected to be added to the roadway system were combined with existing traffic volumes through the following three step process:

- 1. **Trip Generation** is the process of estimating how much traffic a project generates.
- 2. **Trip Distribution** is the process of determining origins and destinations of vehicle trips.
- 3. **Trip Assignment** is the process of assigning traffic to specific roadway segments and turning movements based on the trip distribution.

Trip Generation

The guidance provided by the Institute of Transportation Engineers’ (ITE) *Trip Generation Manual* suggests using locally collected trip generation, where feasible, over the national rates published in the manual, especially when there is limited published data for the proposed land use. Driveway count data collected at the existing fire station on the project site for the 2021 memorandum (**Attachment E**) was used to estimate the trip generation for the proposed project.

Based on information provided by the District, the existing fire station responded to approximately 2,207 calls for service in 2018, which equates to an average of six calls per day. Based on counts collected for the 2021 memorandum the existing fire station had an observed trip generation of approximately twenty daily vehicle trips, as shown in **Table 1**. In both the morning and evening peak hours approximately one inbound and one outbound vehicle trips were observed. Of the observed twenty daily trips, around twelve were fire truck trips (each of the six daily calls yields one outbound trip and one inbound trip) and around eight were resulting from activity during shift changes by the three crew members coupled with visitor activity.

Table 1. Observed Trip Generation of Existing Fire Station 9 (2021)

Land Use	Daily Trips	AM Peak Hour Trips			PM Peak Hour Trips		
		In	Out	Total	In	Out	Total
Existing Fire Station 9	20	1	1	2	1	1	2

Source: Fehr & Peers, 2021.

Data provided by the District included the annual calls from the years 2020 and 2024 (Attachment C). The existing station responded to approximately 3,054 calls for service in 2024, averaging around eight to nine calls per day. According to the District, the proposed project would have the same response area as project evaluated in the 2021 memorandum (the response area would also be the same as that reflected in the annual call data). Using this data, the estimated number of daily incidents with project completion is nine, equating to a total of 18 daily round trips (this compares to 12 daily round trips observed in counts in the 2021 Memorandum). Given that the proposed project is anticipated to house up to nine personnel, the estimated number of daily passenger vehicle trips generated by the project is expected to be three times that observed in the 2021 memorandum (when the site housed three personnel), which is 24 trips. This represents a total of 42 daily vehicle trips (18 fire truck trips plus 24 employee vehicle trips). For most land uses, daily levels of activity are approximately eight to 12 times the peak hour level of activity. In the 2021 memorandum, the observed daily level of activity was about 10 times the peak hour activity, which is within the expected range. This same factor was used to calculate four trips during each of the AM and PM peak hours.

Table 2 presents the total anticipated trip generation for the proposed project.

Table 2. Proposed Project Total Trip Generation

Land Use	Daily Trips	AM Peak Hour Trips			PM Peak Hour Trips		
		In	Out	Total	In	Out	Total
Fire Station 9 Redevelopment	42 ¹	2	2	4	2	2	4

¹Daily Employee Trips – Existing = 8 trips, with Project = 24 trips
Daily Fire Truck Trips – Existing = 12 trips, with Project = 18 trips
Daily Total Vehicle Trips – Existing = 20 trips, with Project = 42 trips
Source: Fehr & Peers, 2025.

To evaluate the effects of the project, the difference between the observed trip generation of the existing station and the estimated trip generation of the total site with the proposed project was calculated. The resulting additional trip generation from the proposed project is presented in **Table 3**.

Table 3: Proposed Project Net New Trip Generation

Land Use	Daily Trips	AM Peak Hour Trips			PM Peak Hour Trips		
		In	Out	Total	In	Out	Total
Fire Station 9 Redevelopment	22	1	1	2	1	1	2

Source: Fehr & Peers, 2025.

The project is estimated to generate an additional two AM peak hour trips and two PM peak hour trips.

Trip Distribution and Assignment

Project trip distribution refers to the directions of approach and departure that vehicles take to access and leave the site. The project’s trip generation, in combination with the expected trip distribution patterns, was used to assign the peak hour vehicle trips to the local roadway network and study intersections. The project’s trip assignment is shown in **Figure 2**.

Intersection Analysis

Intersection operations were evaluated using Synchro 12 software for the weekday morning and evening peak hours. The resulting traffic volumes, lane configurations, and traffic controls are shown in **Figure 3**. The detailed intersection LOS calculation worksheets are included in **Attachment D**. As shown in **Table 3**, the study intersection is expected to operate acceptably in both Existing and Existing Plus Project Conditions. Level of Service B and C are indicative of acceptable operations, per Contra Costa County standards, with low to moderate levels of vehicle delay.

Table 4: Existing Plus Project Conditions Intersection Peak Hour Level of Service

Intersection	Control	Peak Hour	Existing Conditions		Existing Plus Project Conditions	
			Delay	LOS	Delay	LOS
1. Center Avenue/ Pacheco Boulevard	Signal	AM	19.8	B	19.9	B
		PM	32.9	C	32.9	C

Source: Fehr & Peers, 2025.

The distance between the fire station’s Center Avenue driveway and the stop bar at the Center Avenue and Pacheco Boulevard intersection is approximately 350 feet. As shown in **Table 5**, the peak hour 95th percentile queues are not forecast to block the Center Avenue driveway at the project site.

Table 5: Existing Plus Project Conditions 95th Percentile Queue Length

Intersection	Movement	Existing Conditions		Existing Plus Project Conditions	
		AM Peak Hour Queue (ft)	PM Peak Hour Queue (ft)	AM Peak Hour Queue (ft)	PM Peak Hour Queue (ft)
1. Center Avenue/ Pacheco Boulevard	EBL	50	75	50	75
	EBT	75	225	75	225
	EBR	25	25	25	25

Source: Fehr & Peers, 2025.

CEQA Multimodal Assessment

Within this section, recommendations are made to address potential deficiencies in the transportation system resulting from the project. These are improvement measures or strategies that are not required to be implemented, as they do not pertain to CEQA impact analyses on the transportation system. Fehr & Peers provides these non-binding recommendations for improvements to enhance multimodal circulation, mobility, and access.

Site Access and Circulation

Vehicle access to the project site will be provided via Center Avenue and Blackwood Drive. Up to 16 employee parking spaces and two bike racks would be provided behind the building, accessible from either Blackwood Drive or Center Avenue, through automatic gates. The front parking lot, accessible from Center Avenue, would have three visitor parking spaces.

Sight distances were evaluated based on sight distance criteria contained in the Highway Design Manual (HDM) published by Caltrans. The recommended sight distance for the intersection of streets is based on corner sight distances, with more sight distance needed for a left turn versus a right turn. The corner sight distance criterion for private road intersections was applied for evaluation purposes. The HDM recommends an equation of $D = 1.47 * V * T$ for corner sight distance, where “D” is corner sight distance, “V” is vehicle speed, and “T” is a time gap dependent on turning movement and design vehicles, which for a passenger car correlates to a “T” of 7.5 seconds for left turns and 6.5 seconds for right turns.

The posted speed limit along Center Avenue is 25 miles per hour (mph) and Blackwood Drive does not have a posted speed limit and thus functions under the prima facie speed limit of 25 mph. Adding five mph to each speed limit, the corner sight distance for left-turning traffic is 330 feet and right-turning traffic is 290 feet for both roadways.

Drivers departing from the driveway on Blackwood Drive appear to have adequate sight distances for the conflicting southbound traffic; however, the northbound traffic could be obstructed by landscaping on the adjacent property. Drivers departing from the Center Avenue driveway appear to have adequate sight distance for eastbound conflicting traffic; however, the westbound traffic may be obstructed by the existing bridge railing.

It is recommended that the final site plan be reviewed and approved by the site civil engineer prior to the issuance of building permits for potential sight distance impediments including new signs, above ground utility boxes, or landscaping proposed in both sight triangles.

Emergency Vehicle Assessment

Several factors determine whether a project has enough access for emergency vehicles, including the following:

- Number of access points
- Width of access points
- Width of internal roadways

The project site has two access points, with driveways at Center Avenue and Blackwood Drive and internal roadways that are designed to accommodate fire engines. The project would provide adequate emergency vehicle access.

It is recommended that new landscaping in the driveway influence areas should be low-level shrubs or ground cover that would not impede sight distance for emergency vehicles.

Pedestrian Assessment

Pedestrian facilities in the study area include sidewalks, crosswalks, and pedestrian signals. Crosswalks are provided at the signalized intersection of Center Avenue and Pacheco Boulevard, and pedestrian push-button actuated signals are also provided. Nine-foot sidewalks are provided on both sides of Pacheco Boulevard, and five-foot sidewalks are provided on Center Avenue, except for the south side of the overcrossing of Grayson Creek.

The conceptual site plan prepared for the project includes sidewalks abutting the fire station along Center Drive that are 10 feet wide and along Blackwood Drive that are five feet wide. However, American with Disabilities Act (ADA) compliant curb ramps are not detailed along the project site's frontage where crossings would occur. As the project is reconstructing these sidewalks, ADA curb ramps will be required in the southeast corner of the Center Avenue/Blackwood Drive intersection along the project's frontage.

Bicycle Assessment

Center Avenue provides a Class II bike lane west of Aspen Drive and a Class III bike route east of Pacheco Boulevard. Center Avenue has three proposed projects in the 2025 revised list of local projects within the 2018 Countywide Bike and Pedestrian Plan, as detailed in **Table 6**.

Table 6: Center Avenue Complete Street Project in 2018 Countywide Bicycle and Pedestrian Plan

Limits	Description	Bikeway Class
Blackwood Drive to Contra Costa Canal	Close sidewalk gaps, widen sidewalks, upgrade pedestrian crossings, and construct Class-IV separated bikeway. Potential for two-way cycletrack on south side with fewer driveways and connection to trails. Narrow curb to curb roadway to calm traffic.	Class IV
Marsh Drive to Pacheco Boulevard	Improve this section of Pacheco Boulevard with complete streets type improvements including closing sidewalk gaps, installing Class-II bike lanes, provide improved lighting in highway overpass for pedestrian comfort and personal security	Class II
Pacheco Boulevard to Blackwood Drive	Improve this section of Pacheco Boulevard with complete streets type improvements including widening the Grayson Creek bridge and installing buffered bike lanes.	-

Source: Contra Costa Transportation Authority, Fehr & Peers, 2025.

It is recommended that the final site plan for the project incorporate sufficient right-of-way dedication to accommodate the planned construction of a Class IV bicycle facility along Center Avenue. Bicycle access to the site would be provided via Center Avenue or Blackwood Drive. Bicycles are permitted on the site, along with two bike racks that can accommodate four bikes.

Transit Assessment

County Connection currently provides fixed-route and paratransit services throughout Pacheco and the rest of Contra Costa County. There are five bus stops within 0.1 mile of the project site, outlined in **Table 7**.

Table 7: Transit Stop Locations and Facilities

Direction	Nearest Bus Stop Location	Routes	Bus Stop Facilities
NB	Pacheco Boulevard, south of Center Avenue	18, 19, 98X, 316	Bus stop sign, shelter with bench
SB	Pacheco Boulevard, south of Center Avenue	18, 19, 28, 98X, 316	Bus stop sign, shelter with bench
WB	Center Avenue, west of Pacheco Boulevard	28	Bus stop sign
EB	Center Avenue, west of Blackwood Drive	28	Bus stop sign

Source: County Connection, 2025.

Table 8 provides service information for the County Connection transit lines.

Table 8: Transit Line Descriptions

Route	Major Destinations	Days of Operation	Hours of Operation	Headways (minutes)
18	Martinez Amtrak, Morello Avenue, Diablo Valley College, Gregory Lane, Pleasant Hill BART	Weekdays	6:00 AM to 9:30 PM	Every 80 minutes
19	Martinez Amtrak, Pacheco Boulevard, Concord BART	Weekdays	7:00 AM to 7:30 PM	Every 90 minutes
28	Martinez Amtrak, Contra Costa Regional Medical Center, Veteran Affairs Clinic, Diablo Valley College, Concord BART	Weekdays	6:45 AM to 6:30 PM	Every 50 minutes
98X	Martinez Amtrak, Contra Costa Regional Medical Center, Walnut Creek BART	Weekdays	5:30 AM to 7:45 PM	Every 45 minutes
316	Martinez Amtrak, Morello Avenue, Arnold Drive, Diablo Valley College, Pleasant Hill BART	Weekends	7:00 AM to 8:30 PM	Every 80 minutes

Source: County Connection, 2025.

The project proposes no features which conflict with existing or planned transit services and increases in ridership above the available capacities are not expected.

Construction Traffic Assessment

Project construction is anticipated to begin in 2026 and take 18 months to complete. The schedule for completion is the following:

- Demolition of the existing fire station (two months)
- Site preparation (one month)
- Trenching and utility line preparation (one month)
- Construction of the building and interior (twelve months)
- Site work (two months)

Construction traffic would primarily use Center Avenue. During this time, local vehicle, pedestrian, transit, and bicycle traffic would be occurring alongside construction activity. To minimize the impacts to the transportation system, a Construction Traffic Management Plan should be developed and implemented which will detail the project's construction schedule, vehicle type time-of-day plans, route planning, advanced public notices of partial or full street closures or traffic diversion, and other strategies to reduce potential conflicts during construction.

Findings

Development of the proposed project was not found to result in significant adverse impacts relating to transportation. Project generated traffic is not expected to have a material effect on the function of transportation facilities. These findings are consistent with the assessment of the analysis documented in the 2021 Memorandum prepared for a similar project on the site (*New Fire Station 9 Project – Transportation Analysis*, November 11, 2021, Fehr & Peers).

This concludes the transportation assessment for the Pacheco Fire Station 9 Project. Please call Bill Burton at (925) 357-3381 with any questions.

Figures

- Figure 1** Project Location
- Figure 2** Project Trip Assignment
- Figure 3** Existing and Existing Plus Project Peak Hour Intersection Traffic Volumes, Lane Configurations, and Traffic Control

Attachments

- Attachment A** Site Plan
- Attachment B** Traffic Counts
- Attachment C** County Call Log Data
- Attachment D** Intersection LOS and Queue Worksheet
- Attachment E** *New Fire Station 9 Project – Transportation Analysis* (November 11, 2021, Fehr & Peers)

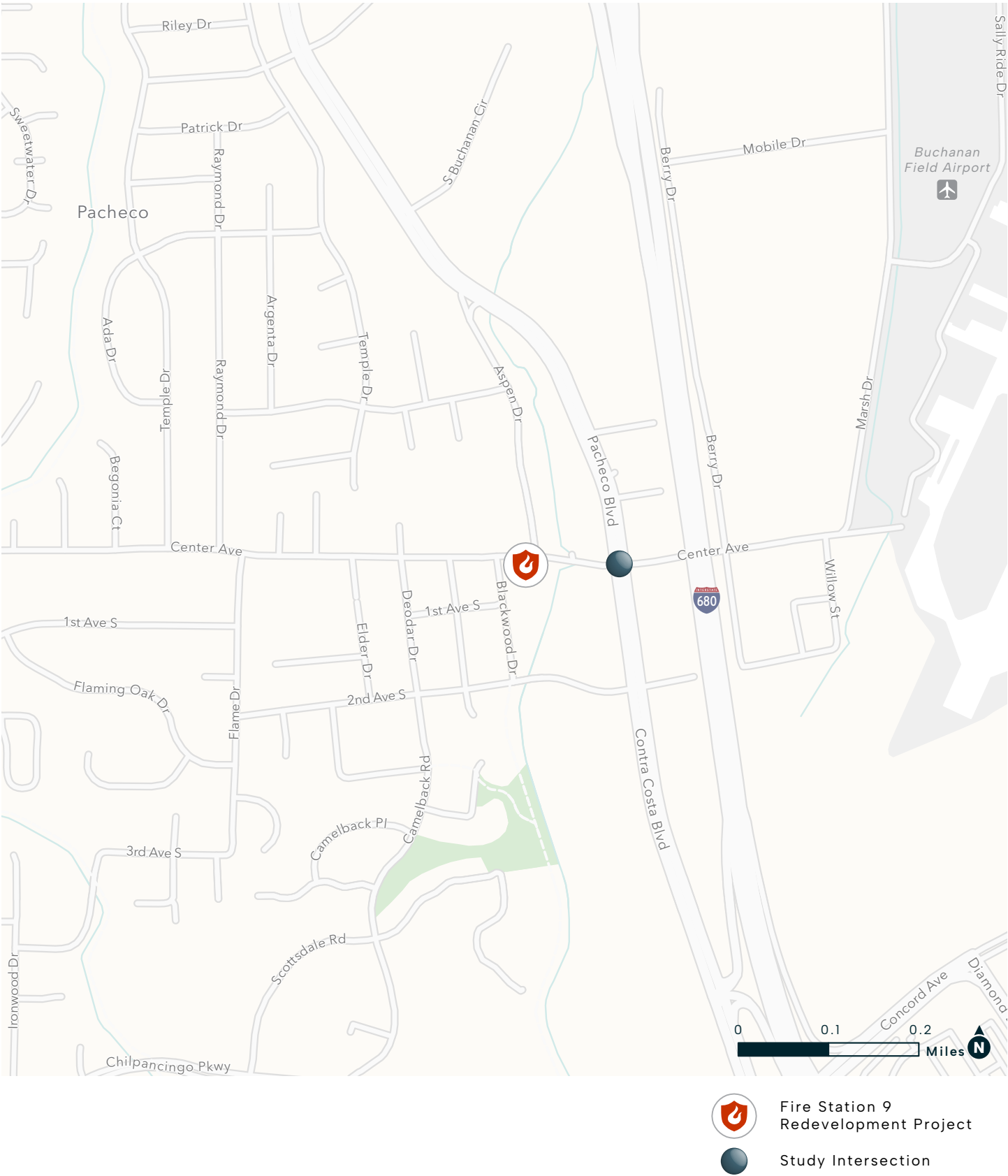
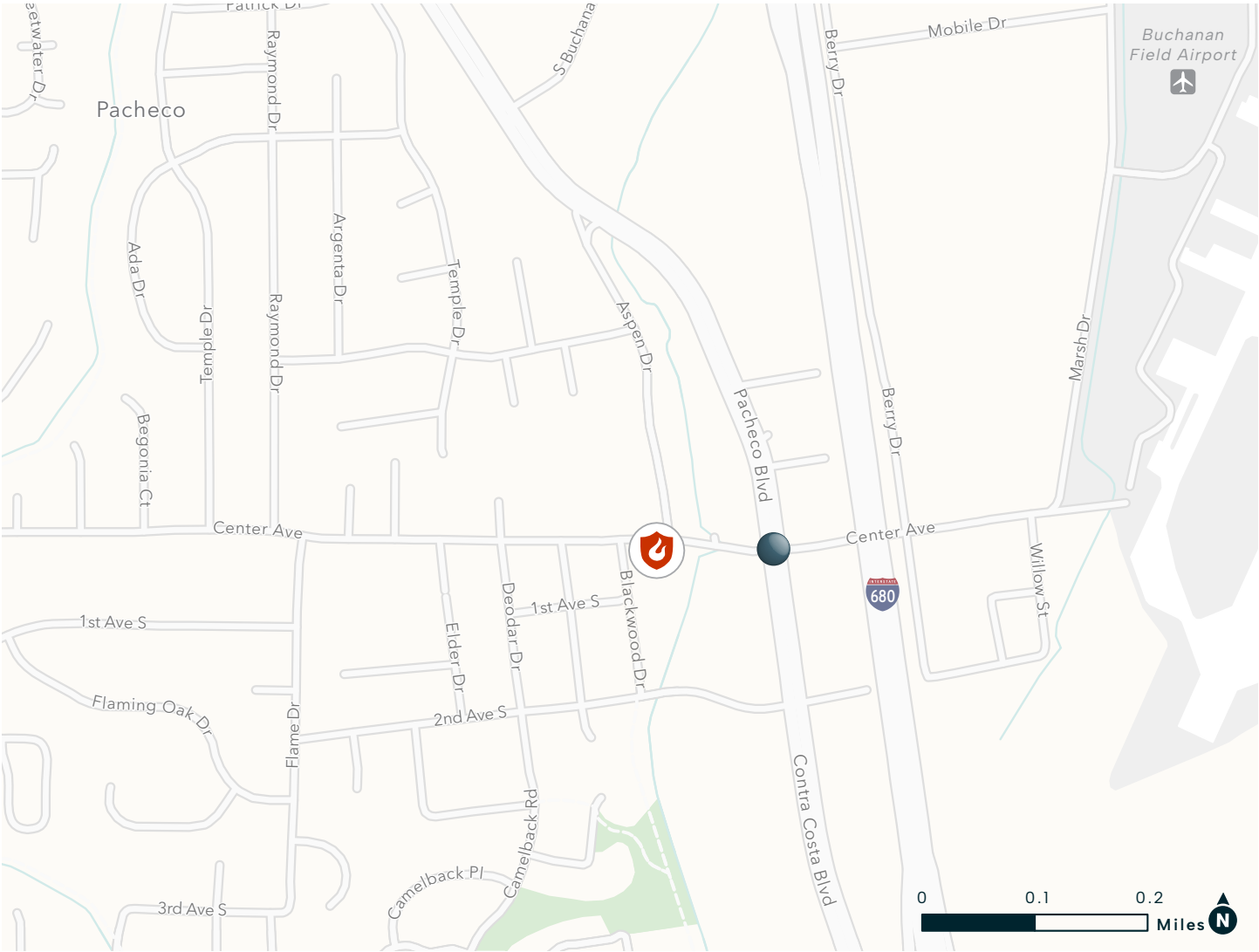
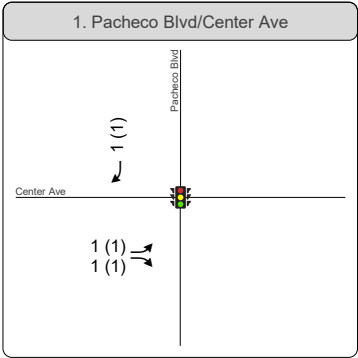


FIGURE 1
Project Location



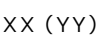
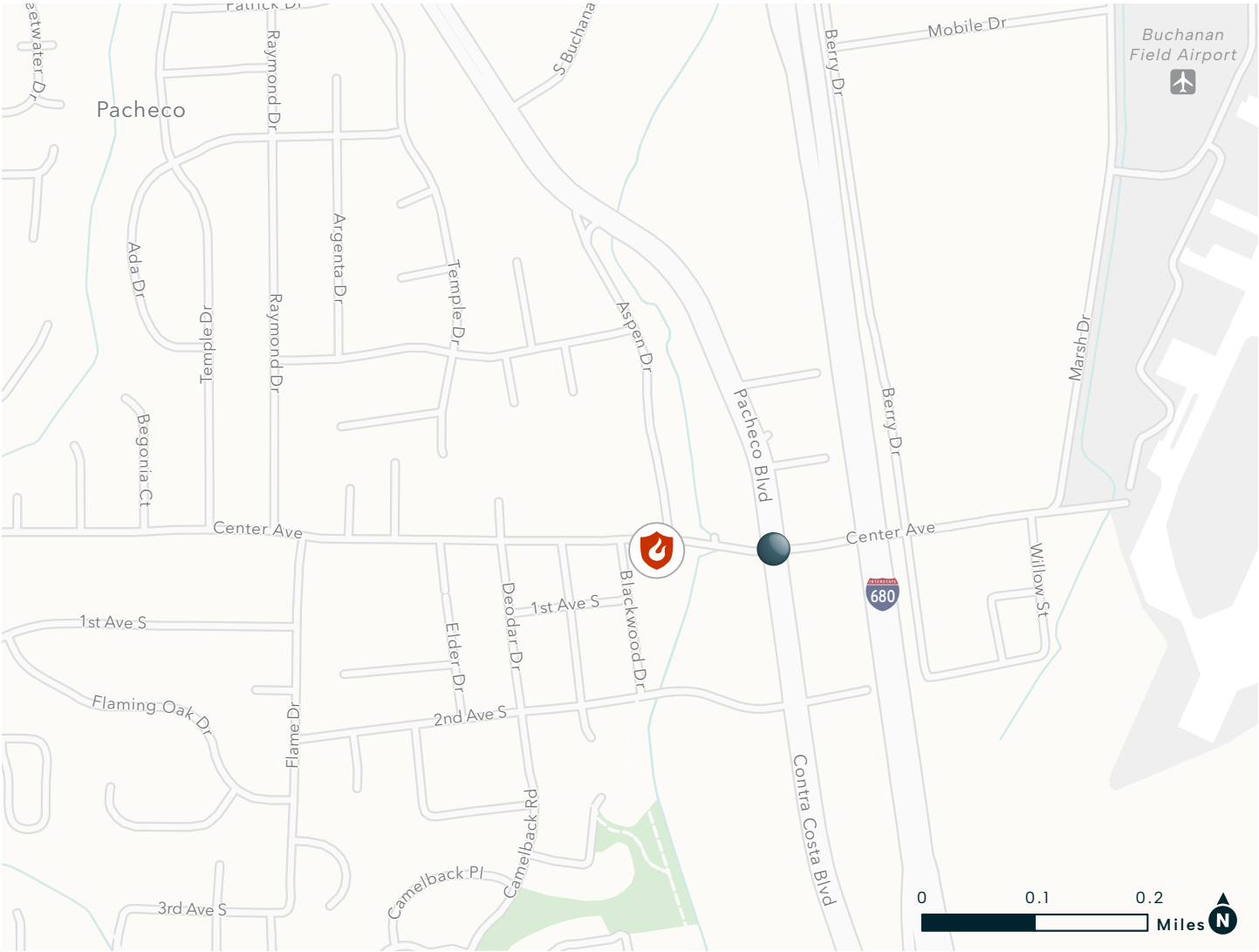
-  Fire Station 9
Redevelopment Project
-  Study Intersection
-  XX (YY) AM (PM) Peak Hour
Traffic Volumes
-  Signalized Intersection

FIGURE 2

Project Trip Assignment



-  Fire Station 9
Redevelopment Project
-  Study Intersection

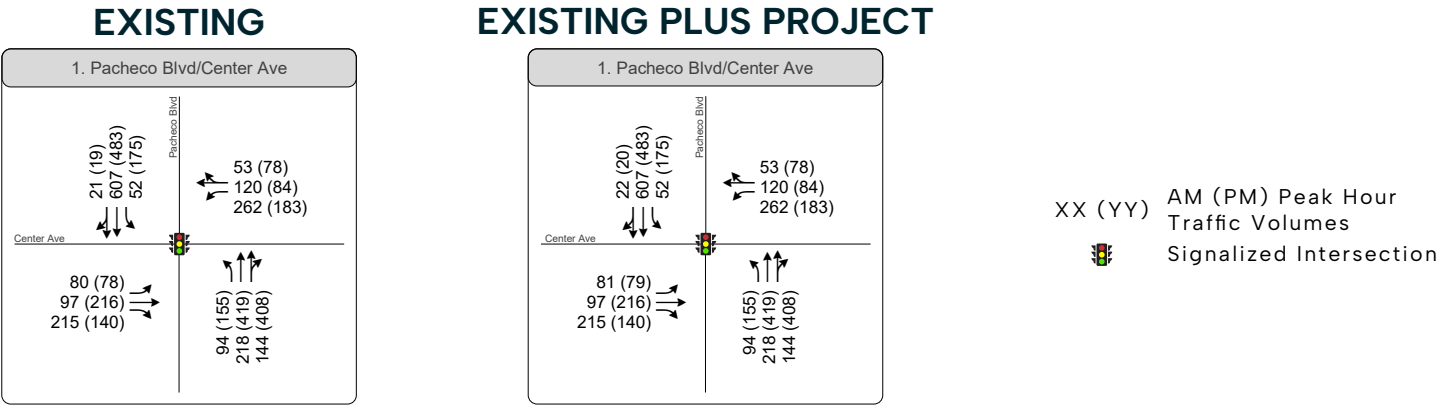


FIGURE 3
Existing and Existing Plus Project Peak Hour Intersection
Traffic Volumes, Lane Configurations, and Traffic Control

Attachment A: Site Plan

Attachment B: Traffic Counts

Attachment C: County Call Log Data

Call/Log Response Data for Fire Station 9

Year	Annual Calls	Calls per Day	Percent Change
2020	2,406	6.57	-
2021	2,546	6.98	5.82%
2022	2,927	8.02	14.96%
2023	2,846	7.80	-2.77%
2024	3,054	8.34	7.31%

Source: Contra Costa County, 2025.

Attachment D: Intersection LOS and Queue Worksheet

HCM 7th Signalized Intersection Summary

Pacheco Fire Station 9 Redevelopment

1: Pacheco Blvd & Center Ave

Existing AM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	80	97	215	262	120	53	94	218	144	52	607	21
Future Volume (veh/h)	80	97	215	262	120	53	94	218	144	52	607	21
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	84	102	32	276	126	41	99	229	55	55	639	19
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	171	179	148	358	272	88	127	962	226	68	1070	32
Arrive On Green	0.10	0.10	0.10	0.20	0.20	0.20	0.07	0.34	0.34	0.04	0.31	0.31
Sat Flow, veh/h	1753	1841	1521	1753	1329	433	1753	2809	661	1753	3465	103
Grp Volume(v), veh/h	84	102	32	276	0	167	99	141	143	55	322	336
Grp Sat Flow(s),veh/h/ln	1753	1841	1521	1753	0	1762	1753	1749	1722	1753	1749	1819
Q Serve(g_s), s	2.5	2.9	1.1	8.2	0.0	4.6	3.1	3.2	3.3	1.7	8.6	8.6
Cycle Q Clear(g_c), s	2.5	2.9	1.1	8.2	0.0	4.6	3.1	3.2	3.3	1.7	8.6	8.6
Prop In Lane	1.00		1.00	1.00		0.25	1.00		0.38	1.00		0.06
Lane Grp Cap(c), veh/h	171	179	148	358	0	360	127	599	590	68	540	562
V/C Ratio(X)	0.49	0.57	0.22	0.77	0.00	0.46	0.78	0.24	0.24	0.81	0.60	0.60
Avail Cap(c_a), veh/h	349	367	303	826	0	830	349	1410	1388	349	1410	1467
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.6	23.8	23.0	20.7	0.0	19.3	25.2	13.0	13.0	26.3	16.2	16.2
Incr Delay (d2), s/veh	0.8	1.1	0.3	1.3	0.0	0.3	3.9	0.3	0.3	8.4	1.5	1.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.8	2.3	0.7	5.9	0.0	3.2	2.3	2.0	2.0	1.5	5.7	6.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	24.4	24.9	23.2	22.1	0.0	19.6	29.1	13.3	13.3	34.7	17.7	17.6
LnGrp LOS	C	C	C	C		B	C	B	B	C	B	B
Approach Vol, veh/h	218		443			383			713			
Approach Delay, s/veh	24.5		21.1			17.4			19.0			
Approach LOS	C		C			B			B			
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.1	24.4		9.4	8.0	22.5		15.3				
Change Period (Y+Rc), s	4.0	5.5		4.0	4.0	5.5		4.0				
Max Green Setting (Gmax), s	11.0	44.5		11.0	11.0	44.5		26.0				
Max Q Clear Time (g_c+I1), s	3.7	5.3		4.9	5.1	10.6		10.2				
Green Ext Time (p_c), s	0.0	2.5		0.3	0.0	6.4		1.0				
Intersection Summary												
HCM 7th Control Delay, s/veh	19.8											
HCM 7th LOS	B											
Notes												
User approved pedestrian interval to be less than phase max green.												

HCM 7th Signalized Intersection Summary

Pacheco Fire Station 9 Redevelopment

1: Pacheco Blvd & Center Ave

Existing PM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	78	216	140	183	84	78	155	419	408	175	483	19
Future Volume (veh/h)	78	216	140	183	84	78	155	419	408	175	483	19
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.97	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	80	223	24	189	87	45	160	432	237	180	498	17
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	263	276	229	240	155	80	194	861	467	214	1412	48
Arrive On Green	0.15	0.15	0.15	0.14	0.14	0.14	0.11	0.39	0.39	0.12	0.41	0.41
Sat Flow, veh/h	1767	1856	1534	1767	1142	591	1767	2183	1185	1767	3478	119
Grp Volume(v), veh/h	80	223	24	189	0	132	160	348	321	180	252	263
Grp Sat Flow(s),veh/h/ln	1767	1856	1534	1767	0	1733	1767	1763	1605	1767	1763	1834
Q Serve(g_s), s	3.5	10.2	1.2	9.1	0.0	6.2	7.8	13.0	13.3	8.7	8.7	8.7
Cycle Q Clear(g_c), s	3.5	10.2	1.2	9.1	0.0	6.2	7.8	13.0	13.3	8.7	8.7	8.7
Prop In Lane	1.00		1.00	1.00		0.34	1.00		0.74	1.00		0.06
Lane Grp Cap(c), veh/h	263	276	229	240	0	235	194	695	633	214	715	744
V/C Ratio(X)	0.30	0.81	0.10	0.79	0.00	0.56	0.83	0.50	0.51	0.84	0.35	0.35
Avail Cap(c_a), veh/h	323	339	281	323	0	317	222	695	633	222	715	744
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.2	36.0	32.2	36.6	0.0	35.4	38.1	20.0	20.1	37.6	18.0	18.0
Incr Delay (d2), s/veh	0.2	9.1	0.1	8.9	0.0	2.1	17.6	2.6	2.9	22.1	0.4	0.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.7	9.0	0.8	8.0	0.0	5.0	7.6	9.4	8.9	8.6	6.2	6.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	33.4	45.1	32.3	45.6	0.0	37.5	55.7	22.6	23.0	59.8	18.4	18.4
LnGrp LOS	C	D	C	D		D	E	C	C	E	B	B
Approach Vol, veh/h	327			321			829			695		
Approach Delay, s/veh	41.3			42.2			29.1			29.1		
Approach LOS	D			D			C			C		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	14.6	40.0		17.0	13.6	41.0		15.9				
Change Period (Y+Rc), s	4.0	5.5		4.0	4.0	5.5		4.0				
Max Green Setting (Gmax), s	11.0	34.5		16.0	11.0	34.5		16.0				
Max Q Clear Time (g_c+I1), s	10.7	15.3		12.2	9.8	10.7		11.1				
Green Ext Time (p_c), s	0.0	5.6		0.4	0.0	4.3		0.6				
Intersection Summary												
HCM 7th Control Delay, s/veh	32.9											
HCM 7th LOS	C											
Notes												
User approved pedestrian interval to be less than phase max green.												

HCM 7th Signalized Intersection Summary

Pacheco Fire Station 9 Redevelopment

1: Pacheco Blvd & Center Ave

Existing AM PP

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	81	97	215	262	120	53	94	218	144	52	607	22
Future Volume (veh/h)	81	97	215	262	120	53	94	218	144	52	607	22
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	85	102	32	276	126	41	99	229	55	55	639	20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	171	179	148	358	272	88	127	963	227	68	1069	33
Arrive On Green	0.10	0.10	0.10	0.20	0.20	0.20	0.07	0.34	0.34	0.04	0.31	0.31
Sat Flow, veh/h	1753	1841	1521	1753	1329	433	1753	2809	661	1753	3459	108
Grp Volume(v), veh/h	85	102	32	276	0	167	99	141	143	55	323	336
Grp Sat Flow(s),veh/h/ln	1753	1841	1521	1753	0	1762	1753	1749	1722	1753	1749	1818
Q Serve(g_s), s	2.5	2.9	1.1	8.2	0.0	4.6	3.1	3.2	3.3	1.7	8.6	8.7
Cycle Q Clear(g_c), s	2.5	2.9	1.1	8.2	0.0	4.6	3.1	3.2	3.3	1.7	8.6	8.7
Prop In Lane	1.00		1.00	1.00		0.25	1.00		0.38	1.00		0.06
Lane Grp Cap(c), veh/h	171	179	148	358	0	360	127	599	590	68	540	562
V/C Ratio(X)	0.50	0.57	0.22	0.77	0.00	0.46	0.78	0.23	0.24	0.81	0.60	0.60
Avail Cap(c_a), veh/h	349	367	303	825	0	829	349	1409	1387	349	1409	1465
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.6	23.8	23.0	20.7	0.0	19.3	25.2	13.0	13.0	26.4	16.2	16.2
Incr Delay (d2), s/veh	0.8	1.1	0.3	1.3	0.0	0.3	3.9	0.3	0.3	8.4	1.5	1.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.9	2.3	0.7	5.9	0.0	3.2	2.4	2.0	2.1	1.5	5.8	6.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	24.5	24.9	23.3	22.1	0.0	19.7	29.1	13.3	13.3	34.7	17.7	17.6
LnGrp LOS	C	C	C	C		B	C	B	B	C	B	B
Approach Vol, veh/h	219			443			383			714		
Approach Delay, s/veh	24.5			21.2			17.4			19.0		
Approach LOS	C			C			B			B		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.1	24.4		9.4	8.0	22.6		15.3				
Change Period (Y+Rc), s	4.0	5.5		4.0	4.0	5.5		4.0				
Max Green Setting (Gmax), s	11.0	44.5		11.0	11.0	44.5		26.0				
Max Q Clear Time (g_c+I1), s	3.7	5.3		4.9	5.1	10.7		10.2				
Green Ext Time (p_c), s	0.0	2.5		0.3	0.0	6.4		1.0				
Intersection Summary												
HCM 7th Control Delay, s/veh	19.9											
HCM 7th LOS	B											
Notes												
User approved pedestrian interval to be less than phase max green.												

HCM 7th Signalized Intersection Summary

Pacheco Fire Station 9 Redevelopment

1: Pacheco Blvd & Center Ave

Existing PM PP

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	79	216	140	183	84	78	155	419	408	175	483	20
Future Volume (veh/h)	79	216	140	183	84	78	155	419	408	175	483	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.97	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	81	223	24	189	87	45	160	432	237	180	498	18
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	263	276	229	240	155	80	194	861	467	214	1408	51
Arrive On Green	0.15	0.15	0.15	0.14	0.14	0.14	0.11	0.39	0.39	0.12	0.41	0.41
Sat Flow, veh/h	1767	1856	1534	1767	1142	591	1767	2183	1185	1767	3470	125
Grp Volume(v), veh/h	81	223	24	189	0	132	160	348	321	180	253	263
Grp Sat Flow(s),veh/h/ln	1767	1856	1534	1767	0	1733	1767	1763	1605	1767	1763	1832
Q Serve(g_s), s	3.6	10.2	1.2	9.1	0.0	6.2	7.8	13.0	13.3	8.7	8.7	8.7
Cycle Q Clear(g_c), s	3.6	10.2	1.2	9.1	0.0	6.2	7.8	13.0	13.3	8.7	8.7	8.7
Prop In Lane	1.00		1.00	1.00		0.34	1.00		0.74	1.00		0.07
Lane Grp Cap(c), veh/h	263	276	229	240	0	235	194	695	633	214	715	744
V/C Ratio(X)	0.31	0.81	0.10	0.79	0.00	0.56	0.83	0.50	0.51	0.84	0.35	0.35
Avail Cap(c_a), veh/h	323	339	281	323	0	317	222	695	633	222	715	744
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.2	36.0	32.2	36.6	0.0	35.4	38.1	20.0	20.1	37.6	18.0	18.0
Incr Delay (d2), s/veh	0.2	9.1	0.1	8.9	0.0	2.1	17.6	2.6	2.9	22.1	0.4	0.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.8	9.0	0.8	8.0	0.0	5.0	7.6	9.4	8.9	8.6	6.2	6.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	33.4	45.1	32.3	45.6	0.0	37.5	55.7	22.6	23.0	59.8	18.4	18.4
LnGrp LOS	C	D	C	D		D	E	C	C	E	B	B
Approach Vol, veh/h	328			321			829			696		
Approach Delay, s/veh	41.3			42.2			29.1			29.1		
Approach LOS	D			D			C			C		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	14.6	40.0		17.0	13.6	41.0		15.9				
Change Period (Y+Rc), s	4.0	5.5		4.0	4.0	5.5		4.0				
Max Green Setting (Gmax), s	11.0	34.5		16.0	11.0	34.5		16.0				
Max Q Clear Time (g_c+l1), s	10.7	15.3		12.2	9.8	10.7		11.1				
Green Ext Time (p_c), s	0.0	5.6		0.4	0.0	4.3		0.6				
Intersection Summary												
HCM 7th Control Delay, s/veh	32.9											
HCM 7th LOS	C											
Notes												
User approved pedestrian interval to be less than phase max green.												

Attachment E: New Fire Station 9 Project – Transportation Analysis (November 11, 2021, Fehr & Peers)



FINAL TECHNICAL MEMORANDUM

Date: November 11, 2021
To: Contra Costa County Public Works Department
From: Kathrin Tellez and Ashlee Takushi, Fehr & Peers
Subject: **New Pacheco Fire Station 9 Project – Transportation Analysis**

WC19-3567.02

This memorandum presents the results of a transportation analysis prepared for the proposed New Pacheco Fire Station 9 Project (Project) in Pacheco, California, an unincorporated community in Contra Costa County (County). The primary purpose of this evaluation is to provide an update to the findings of the *New Fire Station 9 Project – Transportation Analysis* dated June 4, 2019 to identify potential impacts of the Project on the surrounding transportation system. Since the 2019 memorandum, minor design modifications were made to the Project and the Project site shifted slightly north.

Based on this analysis, the Project is expected to have a less-than-significant impact to the transportation system based on the Appendix G checklist of the California Environmental Quality Act (CEQA) guidelines. Based on the results of the CEQA analysis, the Project's impacts to transportation under the National Environmental Quality Act (NEPA) are also considered less-than-significant and no additional analysis or mitigation is required to satisfy NEPA requirements. This memorandum describes the Project, and presents the methodology, results, and findings.

PROJECT DESCRIPTION

The New Pacheco Fire Station 9 Project (Project) is proposed for development on a mostly vacant 3-acre site located at the intersection of Marsh Drive and Center Avenue in Pacheco, California, as shown on **Figure 1** (all figures are provided at the end of this memorandum). The Project site is located in an area primarily consisting of industrial uses and is bound by the Buchanan Airport to the east, Marsh Drive to the west, Center Avenue to the south, and Buchanan Field Road to the east.

The transportation analysis evaluated the weekday morning (7:00 to 9:00 AM) and evening (4:00 to 6:00 PM) peak periods intersection operations at the following intersections:

STUDY AREA AND ANALYSIS SCENARIOS

The Project would replace the existing Fire Station 9 that is currently located at 209 Center Avenue in Pacheco. No immediate increase in staffing over current levels at the existing Fire Station 9 is proposed as part of the Project. This analysis also assumes that the project would require a categorical exclusion by the Federal Aviation Administration (FAA).

conceptual site plan (dated 2021) is shown on **Figure 2**.

Fire engines would enter and exit the station from Center Avenue; this driveway would also provide access to employee parking that would be accessed through an automatic gate on the south side of the building. A total of 21 vehicle parking spaces and three secure bicycle parking spaces would be provided in this access restricted area. Five visitor parking spaces would be provided in the front parking lot that would also be accessed from Center Avenue. Two bicycle parking spaces would also be provided for visitors adjacent to the front entrance of the building. The development would also accommodate a future Class I bike path along Marsh Drive along the project frontage. The

The Project includes the construction of a main fire station building plus two additional buildings that may be built concurrently with the main building or may be built at a future date. For the purpose of this Project description and subsequent analysis, all three buildings are assumed to be constructed concurrently. The building area of all three buildings combined would total 21,900 square feet. The main building would include staff offices and crew quarters to house up to eight fire crew (allowing for future growth) during 48-hour shifts, as well as an apparatus bay for storage of three fire engines when not on call. While the new station will have the capability to house additional crew, there are no plans to expand the current three persons crew in the coming years. The proposed helicopter hanger and crew quarters building would be staffed with the same crew arrangement that would be relocated from Buchanan Field Airport to the Project site. The two additional buildings would consist of a proposed helicopter hanger and an adjacent crew quarter building which would include offices and crew quarters to house two helicopter pilots, two nurses, and two paramedics currently stationed at Buchanan Field Airport. In addition to the three buildings, the property would also be developed with paved areas for parking, an equipment yard for on-site cleaning and maintenance of vehicles, a fueling station, a diesel fuel tank, an emergency generator, a storage shed, and a trash enclosure.

Local access to the Project site is provided via Center Avenue, Marsh Drive, and Willow Street. **Center Avenue/Marsh Drive** is an east-west (Center Avenue) to north-south (Marsh Drive) minor arterial that forms the western boundary of the Project site. Within the study area, Center Avenue/Marsh Drive is a two-lane arterial with on-street parking allowed along some portions. Sidewalks are continuous along the northern/western side of the roadway while no pedestrian facilities are provided on the southern/eastern side of the roadway. At the Center Avenue/Marsh Drive intersection, Center Avenue continues east as a two-lane roadway along the Project's frontage and connects to Buchanan Field Road. Pedestrian facilities are not provided along this portion of Center Avenue. No transit service is provided along Center Avenue/Marsh Drive. Center Avenue has a posted speed limit of 25 miles per hour (mph), and 15 mph around the bend. Marsh Drive has a posted speed limit of 35 mph within the Project site vicinity.

EXISTING ROADWAY NETWORK

This section describes existing transportation conditions in the project area and the analysis results of the existing intersection operations evaluation.

EXISTING CONDITIONS

The Project would generate less than 100 peak hour trips as discussed in the Project Trip Generation section. Thus, preparation of a full transportation impact analysis is not required to meet Contra Costa County Measure J requirements. However, the analysis was conducted to provide data for the air quality assessment, and to evaluate the potential for changed transportation conditions in the immediate study area with the Project.

- **Existing:** Existing traffic volumes based on traffic counts collected in 2019.
- **Existing Plus Project:** Existing conditions plus estimated traffic generated by the Project.

Two scenarios were evaluated in order to assess Project impacts. The two scenarios include:

These study intersections were selected as they are the intersections in the vicinity of the Project site to be affected by the Project because traffic generated at the site would travel through these intersections.

1. Center Avenue at Marsh Drive
2. Center Avenue at Willow Street



Center Avenue is a designated bicycle route (Class III) between Pacheco Boulevard and Marsh Drive; Marsh Drive north of Center Avenue is a designated bicycle route. A Class I bicycle facility is planned along the Marsh Drive alignment. Existing and planned bicycle facilities are shown on **Figure 4.**

- Multi-Use Trails (Class I) – These facilities are located off-street and can serve both bicyclists and pedestrians. Recreational trails can be considered Class I facilities. Class I paths are typically 8 to 10 feet wide excluding shoulders and are generally paved.
- Bicycle lanes (Class II) – These facilities provide a dedicated area for bicyclists within the paved street width using striping and appropriate signage. These facilities are typically 5 to 6 feet wide.
- Bicycle routes (Class III) – These facilities are along streets that do not provide sufficient width for dedicated bicycle lanes. Signage and pavement markings inform drivers to expect bicyclists.
- Separated Bikeway (Class IV) – These facilities provide a dedicated area for bicyclists within the paved street width through physical separation from vehicle traffic. Separation may include, but are not limited to, grade separation, flexible posts, physical barriers, or on-street parking.

Typical bicycle facilities include the following:

EXISTING BICYCLE FACILITIES

Along the frontage of the Project site, there are no sidewalks or marked crosswalks on Center Avenue and Marsh Drive.

EXISTING PEDESTRIAN FACILITIES

Buchanan Field Road is a north-south roadway that runs parallel to Marsh Drive and ultimately intersects Sally Ride Drive. Sidewalks and on-street parking are not provided on Buchanan Field Road.

Willow Street is a north-south roadway that connects to 2nd Avenue South and Berry Drive to create a loop roadway with two connections to Center Avenue. Willow Street serves as a two-lane roadway, with sidewalk provided on the west side of the street extending approximately 430 feet south from Center Avenue. On-street parking is permitted along the west side of the street and vehicles were observed parking on the east side of the street in an unpaved off-street area adjacent to the Project site.





EXISTING TRANSIT SERVICE

County Connection currently provides fixed-route and paratransit services throughout Pacheco and the rest of Contra Costa County. There are two bus stops within 0.1 mile of the existing fire station. These bus stops would also serve as the closest stop locations to the Project site, located approximately 0.2 mile to the east of the existing stop locations. **Table 1** outlines bus stops and their amenities. **Table 2** provides service information for the County Connection transit lines.

TABLE 1
TRANSIT STOP LOCATIONS AND FACILITIES

Direction	Nearest Bus Stop Location	Route	Bus Stop Facilities
NB	Pacheco Boulevard, South of Center Avenue	18, 19, 28, 98X, 316	Bus stop sign, Shelter with Bench
SB	Pacheco Boulevard, South of Center Avenue	18, 19, 28, 98X, 316	Bus stop sign, Shelter with Bench

Source: County Connection website, November 2021.



TABLE 2
TRANSIT LINE DESCRIPTIONS

Route	Route Description	Weekdays		Weekends	
		Hours of Operation	Headways (minutes)	Hours of Operation	Headways (minutes)
18	Provides bus service between Martinez Amtrak, Morello Avenue, Diablo Valley College (DVC), Gregory Lane, and Pleasant Hill BART.	6:00 AM - 9:30 PM	80	-	-
19	Provides bus service between Martinez Amtrak, Pacheco Boulevard, and Concord BART.	7:00 AM - 7:30 PM	90	-	-
28	Provides bus service between Martinez Amtrak, the VA Clinic, and DVC.	6:45 AM - 6:30 PM	60	-	-
98X	Provides bus service between Martinez Amtrak and Walnut Creek BART.	5:45 AM - 7:30 PM	30 (peak) 60 (off-peak)	-	-
316	Provides bus service between Martinez Amtrak, Morello Avenue, Arnold Drive, Muir Road, DVC, Buskirk Avenue, and Pleasant Hill BART.	-		7:00 AM - 7:30 PM	75

Source: County Connection website, November 2021.

ANALYSIS METHODOLOGY

VEHICLE MILES TRAVELED (VMT)

With the passage of Senate Bill 743 (SB 743), use of criteria such as auto delay, level of service, and similar measures of delay experienced by people driving and traffic congestion as the basis for determining significant impacts as part of California Environmental Quality Act (CEQA) compliance was eliminated. SB 743 mandates the use of VMT in the evaluation and assessment of significant transportation impacts. In June 2020, Contra Costa County adopted vehicle miles of travel (VMT) - based analysis methods which includes VMT metrics, thresholds, and screening criteria for evaluating a project's VMT impact. Based on County thresholds and screening criteria, a project can



be screened out for a formal VMT analysis if certain criteria are met that would signify that a project would be presumed to result in a less-than-significant CEQA Transportation section impact with respect to VMT. A project's impact on VMT is considered less-than-significant and should not require further VMT analysis if the project meets at least one of the following criteria¹:

- Projects that:
 - Generate or attract fewer than 110 daily vehicle trips, or
 - Projects of 10,000 square feet or less of non-residential space or 20 residential units or less, or otherwise generating less than 836 VMT per day.
- Residential, retail, office projects, or mixed-use projects proposed within ½ miles of an existing major transit stop² or an existing stop along a high-quality transit corridor³.
- Residential projects (home-based VMT) at 15% or below baseline County-wide home-based average VMT per capita, or employment projects (employee VMT) at 15% or below the baseline Bay Area average commute VMT per employee in areas with low VMT that incorporate similar VMT reducing features (i.e., density, mix of uses, transit accessibility).
- Public facilities (e.g., emergency services, passive parks [low-intensity recreation, open space], libraries, community centers, public utilities) and government buildings.

If the proposed project does not meet any of the criteria, then the County may require a formal CEQA impact analysis, including a detailed VMT analysis, and additional local transportation analysis.

The Projects falls under the public facility category as local-serving emergency service. Therefore, the Project is considered less-than-significant and should not require further VMT analysis. Additionally, the Project is expected to generate less than 100 new daily vehicle trips and would also be exempt under the small project criteria. The review of the trip generation threshold is based on no increase in staffing levels from the current operations. However, even with an expansion to the maximum capacity of eight staff, the project would continue to generate significantly less than 100 daily trips and the findings would not change.

¹ The screening criteria is based on Contra Costa County's thresholds adopted May 13, 2020.

² Pub. Resources Code, § 21064.3 ("Major transit stop" means a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods.").

³ Pub. Resources Code, § 21155 ("For purposes of this section, a high-quality transit corridor means a corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours.").

Although no longer required for CEQA purposes, agencies continue to evaluate level of service for internal planning purposes and ensuring the levels of growth and development included in the General Plan's Land Use Element are accommodated. A level of service (LOS) analysis is a measure of traffic operating conditions, which varies from LOS A (indicating free-flow traffic conditions with little or no delay) to LOS F (representing over-saturated conditions where traffic flows exceed design capacity resulting in long queues and delays). These grades represent the perspective of drivers and are an indication of the comfort and convenience associated with driving. The LOS standard established for intersections in the study area is LOS D.

At signalized and all-way stopped controlled intersections, the LOS rating is the weighted average control delay of all movements measured in seconds per vehicle. Peak hour traffic volumes, lane configurations, and signal timings were used as inputs for the LOS calculations. **Table 3** summarizes the relationship between the average control delay per vehicle and LOS for signalized and unsignalized intersections. At side-street stop-controlled intersections, the delay is calculated for each stop-controlled movement and the left-turn movement from the major street, as well as the average delay for the intersection. The intersection average delay and highest movement/approach delay are reported for side-street stop-controlled intersections. Results from the analysis tool Synchro 10.0 establish delay and LOS at all intersections.

LEVEL OF SERVICE





TABLE 3
INTERSECTION LEVEL OF SERVICE THRESHOLDS

Level of Service	Signalized Intersection Control Delay (sec/veh) ¹	Unsignalized Intersection Control Delay (sec/veh) ¹	General Description
A	0 – 10.0	0 – 10.0	Little to no congestion or delays.
B	10.1 – 20.0	10.1 – 15.0	Limited congestion. Short delays.
C	20.1 – 35.0	15.1 – 25.0	Some congestion with average delays.
D	35.1 – 55.0	25.1 – 35.0	Significant congestion and delays.
E	55.1 – 80.0	35.1 – 50.0	Severe congestion and delays.
F	> 80.0	> 50.0	Total breakdown with extreme delays.

Notes:

1. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and acceleration delay.
 Source: *Highway Capacity Manual*, Chapter 19 (Signalized Intersections), Chapter 20 and 21 (Unsignalized Intersections), Transportation Research Board, 2010.

LOS EVALUATION CRITERIA

Evaluation criteria are used to determine if a project effect is considered significant and therefore requires countermeasures to address the deficiency. The current Contra Costa County General Plan provides LOS standards and thresholds in Chapter 4: Growth Management Element. Table 4-1 in the Contra Costa County General Plan states that in suburban areas, peak hour LOS must be a High D or lower (55 seconds of delay or less). LOS standards will be considered to be met if:

- Measurement of actual conditions at the intersection indicates that operations are equivalent to or better than those specified in the standard; or
- The County has included projects in its adopted capital improvements program which, when constructed, will result in operations equal to or better than the standard.

While LOS criteria cannot be used to identify a significant impact under CEQA, they can be used to identify potential conditions of approval for project development.



EXISTING CONDITIONS INTERSECTION OPERATIONS

Weekday morning (7:00 to 9:00 AM) and evening (4:00 to 6:00 PM) peak period intersection vehicle turning movement counts, including pedestrian and bicycle counts, were collected on Thursday, February 28, 2019⁴ (while local schools were in session) at the Center Avenue/Marsh Drive and Center Avenue/Willow Street intersections. The peak hour intersection turning movement volumes, lane configurations, and traffic controls are presented on **Figure 3** with pedestrian and bicycle volumes presented on **Figure 4**. Existing Conditions intersection count data is provided in **Attachment A** at the end of this memorandum.

The traffic volumes, intersection lane configurations, and traffic controls presented on **Figure 3** form the basis for the Existing Conditions intersection LOS analysis. **Table 4** summarizes intersection operations results under Existing Conditions, which indicate both study intersections currently operate at LOS A during the AM and PM peak hours, meeting the established level of service standard. Intersection analysis worksheets are provided in **Attachment B** at the end of this memorandum.

TABLE 4
EXISTING CONDITIONS INTERSECTION PEAK HOUR LEVELS OF SERVICE

Location	Control ¹	Peak Hour	Delay ² (seconds)	LOS ³
1. Center Avenue & Willow Street	SSSC	AM	0.1 (12.1)	A (B)
		PM	0.4 (15.1)	A (C)
2. Center Avenue & Marsh Drive	SSSC	AM	0.0 (0.0)	A (A)
		PM	0.0 (0.0)	A (A)

Notes:

1. SSSC = side-street stop control.
2. For SSSC intersections, average delay in seconds shown, with the worst turning movement delay in parentheses.
3. LOS = Level of Service; based on 2010 *Highway Capacity Manual* methodologies. Level of Service corresponding to average delay is shown, with Level of Service corresponding to the worst turning movement delay shown in parentheses.

Source: Fehr & Peers, 2021.

⁴ These counts reflect the analysis completed in the June 2019 report. Due to the on-going Covid-19 Pandemic, new traffic counts were not collected at the study intersections. As traffic volumes have not yet returned to pre Covid-19 conditions, the previous analysis is presumed to provide a conservative approach to traffic volumes.

only leave the facility for emergency response.

schedules contribute to low overall trip generation; firefighters work multi-day shifts and typically vehicle trips, which include personal vehicles, fire station vehicles and trucks. Fire Station 9 peak hour and zero trips during the PM peak hour; the total trips shown in **Table 5** represent total As shown in **Table 5**, the existing fire station was observed to generate two trips during the AM the existing Fire Station 9.

The Project would replace the existing Fire Station 9, and no increase in staffing over current levels at the existing Fire Station 9 is proposed as part of the Project. As such, calls for service, number of visitors, or other factors contributing to trip generation are not expected to change as a result of the Project. Therefore, it is expected that vehicle trip generation for the Project would be similar to counts collected at the existing Fire Station 9.

2019. **Table 5** summarizes the existing AM and PM peak hour trip generation based on the driveway peak periods at the Center Avenue/Aspen Drive site access intersection on Wednesday, March 14, counts were collected during the weekday morning (7:00 to 9:00 AM) and evening (4:00 to 6:00 PM) estimate the potential Project trip generation for the Project. Specifically, vehicle turning movement would replace an existing facility, driveway count data was collected at the existing fire station to the manual, especially when there is limited published data for the proposed land use. As the Project suggests using locally collected trip generation, where feasible, over the national rates published in The guidance provided by the Institute of Transportation Engineers' (ITE) *Trip Generation Manual* counts collected at the existing Fire Station 9.

The Project would replace the existing Fire Station 9 located at 209 Center Avenue, less than 0.5 mile away from the new project location.

TRIP GENERATION

1. **Trip Generation** is the process of estimating how much traffic a project generates.
2. **Trip Distribution** is the process of determining origins and destinations of vehicle trips.
3. **Trip Assignment** is the process of assigning traffic to specific roadway segments and turning movements based on the trip distribution.

To estimate traffic conditions with the Project, vehicle trips expected to be added to the roadway system were combined with existing traffic volumes through the following three-step process:

PROJECT TRIP GENERATION





Based on the information provided by the Contra Costa County Fire Protection District, the existing Fire Station 9 responded to approximately 2,027 calls for service in 2018, which equates to an average of five to six calls per day⁵. This coupled with activity during shift changes, as well as accounting for visitor activities indicates that on a daily basis, the existing fire station generates approximately 20 daily vehicle trips. For most land uses, daily levels of activity are approximately 8 to 12 times the peak hour level of activity. For the Project, the estimated daily level of activity is about 10 times the peak hour activity, which is within the expected range.

TABLE 5
OBSERVED TRIP GENERATION OF EXISTING FIRE STATION 9

Land Use	Daily Trips ¹	AM Peak Hour Trips			PM Peak Hour Trips		
		In	Out	Total	In	Out	Total
Existing Fire Station 9	20	1	1	2	0	0	0

Notes:

1. This is based on an average of 5 to 6 service calls per day, with staff making non-emergency calls throughout the day.

Source: Fehr & Peers, 2021.

The existing Fire Station 9 has the capacity for three staff; staffing would remain the same for the coming years at the proposed Fire Station 9. As shown in **Table 5**, the existing Fire Station 9 generates 2 AM peak hour trips per three staff, or 0.67 peak hour trips per staff. Although zero trips during the PM peak hour were observed at the existing Fire Station 9 driveway on the day of data collection, to provide a conservative approach to the analysis presented below, the same level of trip generation observed in the morning peak hour was assumed for the analysis of evening peak hour conditions.

TRIP DISTRIBUTION AND ASSIGNMENT

Trip Distribution

The trip distribution analysis estimates how the external vehicle trips generated by the Project would distribute across the roadway network. The existing traffic counts shown in **Figure 3** are the basis of the trip distribution also shown in **Figure 5** and summarized below:

⁵ The call log data reflects the analysis completed in the June 2019 report and it is assumed that emergency responses has not changed significantly since 2019.

The Project would not increase traffic volumes at the studied intersections to more than 24,000 vehicles per hour and the Project site is not located on a designated Congestion Management

shown in **Table 6** to have a negligible effect on intersection operations.

The Plus Project conditions analysis may also overstate the effect of the Project, as some trips destined to the existing facility are likely already traveling through the Project area. However, the Project would result in changed turning movements on Center Avenue and Marsh Drive, which are worksheets are provided in **Attachment B**.

Table 6 summarizes intersection operations under Existing and Existing Plus Project conditions at the two study intersections. All study intersections are expected to continue to operate at LOS A or better under Existing Plus Project AM and PM peak hour conditions. The Project would not result in adverse intersection operations under Existing Plus Project conditions. The LOS calculation

Intersection operations were evaluated using Synchro 10.0 software for the weekday morning and evening peak hours for the analysis scenarios listed previously. Existing and Existing Plus Project intersection LOS calculations were completed with the traffic volumes, lane configurations, and traffic controls presented on **Figure 3**. Although the PM peak hour trip generation was observed to be zero at the existing Fire Station 9 driveway, the Existing Plus Project PM peak hour scenario assumes the same trip assignment that was observed during the AM peak hour to provide a conservative analysis, and to account for the potential for an emergency call to occur during the PM peak hour.

INTERSECTION OPERATIONS

SITE ACCESS EVALUATION

Figure 5 presents the AM and PM peak hour trip assignment by intersection turning movement at both study intersections that results from the trip distribution patterns. The Project trip assignment was added to the existing count volumes to develop the Existing Plus Project AM and PM peak hour volume forecasts as shown on **Figure 6**.

Trip Assignment

- 80-percent of trips generated by the Project would access the Project site from the west, via Center Avenue, and
- 20-percent of the trips generated by the Project would access the Project site from the north, via Marsh Drive.





Program (CMP) route. The Project would not generate more than 100 net-new peak hour trips; thus, no additional analysis of the CMP network is required.

TABLE 6
EXISTING PLUS PROJECT CONDITIONS INTERSECTION PEAK HOUR LEVELS OF SERVICE

Location	Control ¹	Peak Hour	Existing Conditions		Existing Plus Project Conditions ⁴	
			Delay ²	LOS ³	Delay ²	LOS ³
1. Center Avenue at Willow Street	SSSC	AM	0.1 (12.1)	A (B)	0.1 (12.1)	A (B)
		PM	0.4 (15.1)	A (C)	0.4 (15.1)	A (C)
2. Center Avenue at Marsh Drive	SSSC	AM	0.0 (0.0)	A (A)	0.0 (0.0)	A (A)
		PM	0.0 (0.0)	A (A)	0.0 (0.0)	A (A)

Notes:

1. SSSC = side-street stop control.
2. SSSC intersection, average delay is shown, with the worst turning movement delay in parenthesis.
3. LOS = Level of Service; based on 2010 *Highway Capacity Manual* methodologies. Level of Service corresponding to average delay is shown, with Level of Service corresponding to the worst turning movement delay shown in parentheses.
4. The PM peak hour Project trip assignment was observed to be zero during data collection. However, Fehr & Peers assumed the same peak hour trips as the AM to provide a conservative analysis.

Source: Fehr & Peers, 2021.

As noted in the Project description, the Project does have the capacity for increased staffing levels from three to eight. Although increases are not contemplated in the near-term, such increases would not change the overall conclusions of this analysis.

SITE PLAN REVIEW

The following summarizes the review of the conceptual site plan (**Figure 2**) performed for the Project and the proposed recommendations for the Project.

Vehicular Access and Circulation

Based on the conceptual site plan, vehicular access to the Project site would be provided via two driveways on Center Avenue. The proposed driveways would provide access to the visitor parking on the west, and the east driveway would provide access to the secured employee parking, as well as to the proposed helicopter pads and ingress and egress for fire trucks.

Emergency Vehicle Access and Circulation

Fire truck ingress and egress would be provided at the east entrance along Center Avenue. There are no traffic controls in the driveway influence area that are expected to result in vehicles blocking

the egress of emergency vehicles. There is no existing landscaping that would block sight distance for vehicles exiting the driveway, but it is unclear what new landscaping is proposed.

Consultant Recommendation 1:

New landscaping in all the driveway influence areas should be low level shrubs or ground cover that would not impede sight distance.

Consultant Recommendation 2:

Install Fire Station warning signs on Center Avenue and Marsh Drive to alert drivers that a fire station is ahead.

Pedestrian Access and Circulation

The conceptual site plan prepared for the Project does not indicate sidewalks along the Project site frontage of Center Avenue and along the side of the site along Marsh Drive. Americans with Disabilities Act (ADA) compliant curb ramps are also not detailed along the Project site's frontage where crossings occur along the roadway. Additionally, the current site plan does not provide details on how pedestrians would access the fire station from Center Avenue or from the visitor parking lot.

Consultant Recommendation 3:

At Project driveways and where a crossing would occur, install ADA curb ramps so those with disabilities can travel along the fire station's frontage in a safe and convenient manner.

Consultant Recommendation 4:

Provide an ADA accessible path of travel to the fire station entrance and the visitor parking area from the sidewalk fronting the Project site, assuming sidewalks along the frontage of the site would be installed as part of the Project. Additionally, provide an ADA accessible path from the visitor parking area to the fire station entrance.

Bicycle Access and Circulation

Center Avenue is a designated bicycle route between Pacheco Boulevard and Marsh Drive. A Class I bicycle facility is planned along the Marsh Drive alignment. The final site plan for the Project would incorporate sufficient right-of-way to accommodate the construction of a Class I bicycle path along the west side of the Project.

Based on the analysis presented in the previous sections, Fehr & Peers completed the Environmental Checklist from the State CEQA Guidelines Appendix G for Transportation, with explanatory text provided below.

INITIAL STUDY CHECKLIST

Identify an ADA accessible parking stall within the secured parking area.

Consultant Recommendation 5:

space.
proposed parking supply of 33 spaces, 2 ADA spaces are required, including one van accessible one of the stalls in the visitor parking area is ADA accessible. Based on the ADA guidelines and the accommodate typical employee parking demand. Based on the conceptual site plan, it appears that employees and levels of activities, sufficient vehicle parking is expected to be provided to uses. Based on the information provided by the County, including the expected number of *Contra Costa County Ordinance Code* does not specify parking requirements for fire station land

Parking Required per City Code

the Project site's immediate vicinity.
Center Avenue from Pacheco Boulevard to Willow Street. There are no other bus stops located in Pacheco Boulevard and Center Avenue. An existing sidewalk is provided along the south side of closest stops located approximately 0.20 mile west of the Project site near the intersection of County Connection currently provides transit service within the vicinity of the Project site, with the

Transit Access

site plan.
for other land uses, at least two bicycle parking spaces should be provided, which is shown on the specified in the *Contra Costa County Ordinance Code* for fire stations, based on the requirements provided adjacent to the crew quarters building. Although bicycle parking requirements are not proposed to be located near the fire station entrance and three additional bike racks would be Bicycle access into the Project site would be from the roadway system. Two bicycle racks are





	Potentially Significant Unless	Potentially Significant Mitigation Incorporat ed	Less Than Significant Impact	No Impact
--	--------------------------------------	--	------------------------------------	-----------

XVII. TRANSPORTATION. Would the project:

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|--------------------------|
| A. Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities. | ☐ | ☐ | ✓ | ☐ |
| B. Would the project 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. | ☐ | ☐ | ☐ | ✓ |
- a. Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities? **(Less Than Significant)**

Policy 4-c of the Growth Management Element of the County General Plan requires a transportation impact analysis of any project that is estimated to generate 100 or more AM or PM peak-hour trips. The Project is expected to generate less than 100 trips in either the morning or evening peak hours and as such no further off-site analysis⁶ is required. Although no off-site analysis is required, a focused assessment of the intersections closest to the Project site was conducted to determine if the Project would affect overall operations, and to determine if operations of the intersections could impede access to and from the Project site. Intersections in the immediate study area operate within

⁶ Off-site analysis would potentially include evaluation of the operations of signalized intersections to which the Project is projected to add more than 50 peak hours. The Project would not add more than 50 trips to any signalized intersection in the vicinity of the Project site. Therefore, no off-site analysis was required.

The Project would be designed to meet current County design standards related to roadway frontage design and on-site circulation design. Additionally, the Project would not change the design of any geometric design features in the Project area. Therefore, the Project would not increase hazards due to a geometric design feature and the Project would have a less than significant impact. Implementation of Consultant Recommendation 1 (new landscaping in all the driveway influence areas should be low level shrubs or ground cover that would not impede sight distance), Consultant Recommendation 2 (install Fire Station warning signs on Center Avenue and Marsh Drive to alert drivers that a fire station is ahead), and Consultant Recommendation 3 (installation of ADA compliant curb ramps at project driveways and on-site crossings) would further

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)? ***(Less Than***

public facilities, such as the Project from VMT analysis. have no impact on VMT. Additionally, the Contra Costa County's VMT screening criteria exempts have no impact on VMT, as the Project would generate less than 110 daily trips it is presumed to Guidelines states that projects that generate fewer than 110 daily vehicle trips are presumed to vehicle trips and would not generate new vehicle trips. The County's *Transportation Analysis* Project is not expected to have an impact on VMT because the Project would relocate existing This section of the CEQA guidelines refers to an assessment of vehicle miles of travel or VMT. The

Impact)

b. Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)? ***(No***

significant impact by providing the required level of ADA parking. Implementation of Consultant Recommendation 5 would further minimize the Project's less-than-addressing the circulation system and the Project impact is considered less than significant. of the Project. Therefore, the Project would not conflict with a program, plan, ordinance, or policy such that construction of Class I facility along the corridor would not be precluded by construction plan prepared for the Project would provide sufficient right-of-way along the Project site frontage Class I bicycle facility extending from Center Avenue along the Marsh Drive alignment. The final site change the provision of transit in the area. The County Bicycle Plan identifies the potential for a The Project would construct pedestrian facilities along the Project site frontage and would not above.

effect of intersection operations on site access is described in the "Site Access Evaluation" section established level of service standards and the Project would not change the overall operation. The



“Contra Costa County Transportation Analysis Guidelines.” Contra Costa County, June 23, 2020, [https://www.contracosta.ca.gov/DocumentCenter/View/70739/FINAL-CCC-Transportation-](https://www.contracosta.ca.gov/DocumentCenter/View/70739/FINAL-CCC-Transportation-Analylis-Guidelines-v3-5-10-21?bidId=)content/uploads/2018/09/2018_CBP_fina_CCTA_optimized-1.pdf; keepcontracostamoving.net/site/wp-

REFERENCES

Comments on the information presented in this memorandum. Please contact Kathrin Tellez or Ashlee Takushi at (925) 930-7100 if you have any questions or conclusion supports a Categorical Exclusion under NEPA by the FAA. significant and no additional analysis or mitigation is required to satisfy NEPA requirements. This transportation under the National Environmental Quality Act (NEPA) are also considered less-than-parking, and circulation. Based on the results of the CEQA analysis, the Project's impacts to provided to minimize the Project's less-than-significant impacts by improving overall site access, from the existing fire station to the proposed fire station. Consultant recommendations are area currently operate at an acceptable level and would not degrade with the shift in Project traffic full CEQA transportation impact assessment is not required. Intersections in the immediate Project criteria guidance and would not generate more than 100 peak hour trips. As such, preparation of a Results of the analysis indicate that the Project would screen out under the County's VMT screening

CONCLUSIONS

The Project would be designed to accommodate the turning movements of fire trucks into and out of the site. Additionally, the intersections in the immediate Project vicinity operate acceptably and recurring congestion would not occur in the driveway influence area. Therefore, the ability of fire vehicles to exit the Project site would not be impeded by the Project and the Project would have no impact on emergency access.

d. Result in inadequate emergency access? (*No Impact*)

minimize the Project's less-than-significant impacts related to potential vehicle conflicts near the proposed driveways.

Contra Costa County Public Works Department
November 11, 2021
Page 20 of 20



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"Technical Procedures." CCTA, January 16, 2013, https://ccta.net/wp-content/uploads/2018/12/Final_Technical_Procedures_Full_Jan2013-1.pdf

Attachments:

Figure 1	Project Site Vicinity
Figure 2	Conceptual Project Site Plan
Figure 3	Existing Conditions Peak Hour Intersection Traffic Volumes, Lane Configurations, and Traffic Controls
Figure 4	Existing Conditions Peak Hour Bicycle and Pedestrian Volumes Existing and Proposed Bicycle Facilities
Figure 5	Project Trip Distribution and Trip Assignment
Figure 6	Existing Plus Project Peak Hour Intersection Traffic Volumes
Attachment A	Intersection Count Worksheets
Attachment B	Intersection Analysis Worksheets



Figure 1

Project Site Vicinity



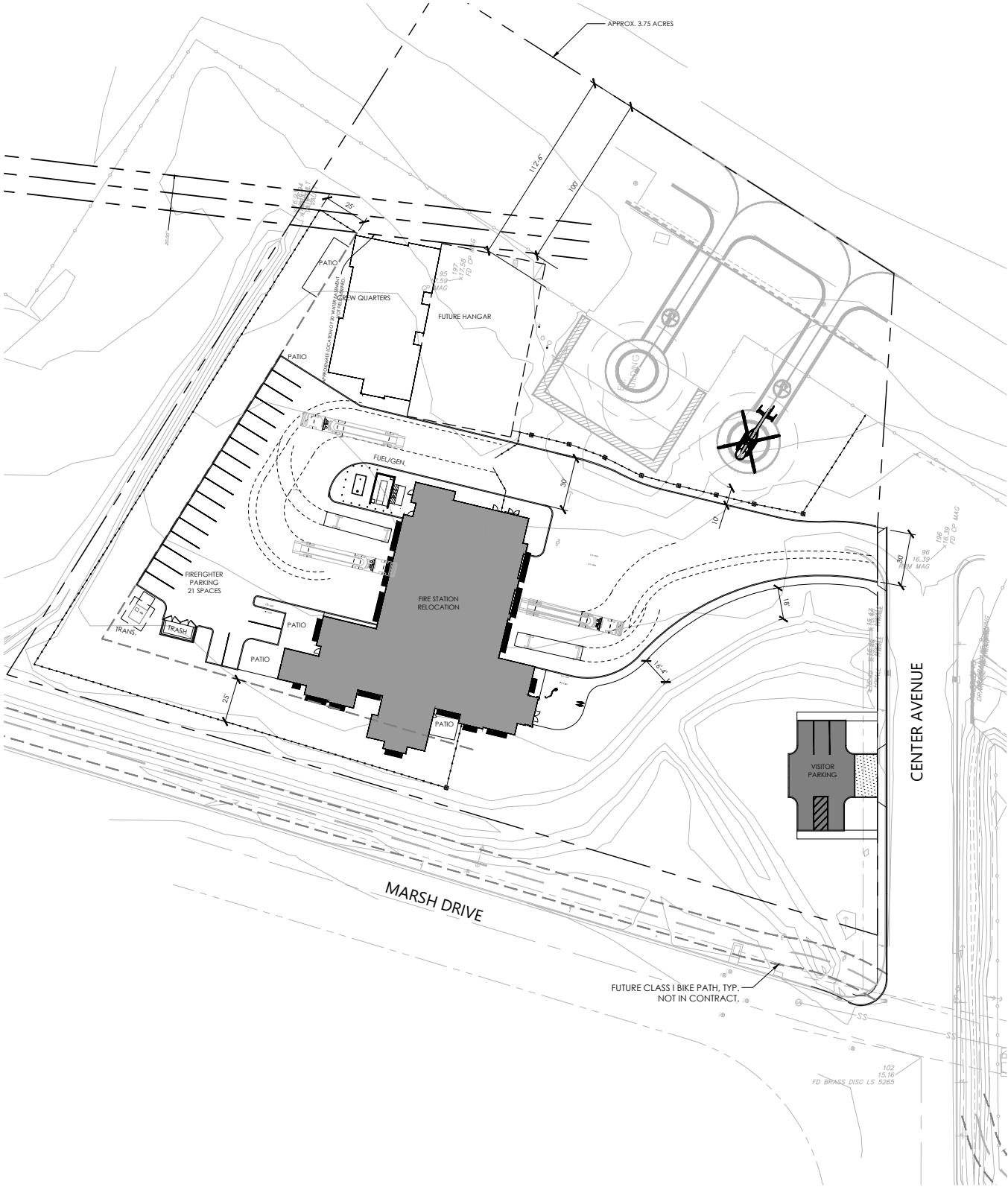


Figure 2

Conceptual Project Site Plan



x (y) ⇌ AM (PM) Peak Hour Traffic Volume

STOP Stop Sign



Figure 3
Existing Conditions Peak Hour
Intersection Traffic Volumes, Lane Configurations and Traffic Controls



Figure 4

Existing Conditions Peak Hour Bicycle and Pedestrian Volumes and Existing and Proposed Bicycle Facilities



XX%

Project Trip Distribution

a (b)

AM (PM) Peak Hour
Project Trips



Figure 5

Project Trip Distribution and Assignment



x (y) ⇐⇒ AM (PM) Peak Hour Traffic Volume

STOP Stop Sign



Figure 6
Existing Plus Project Conditions Peak Hour
Intersection Traffic Volumes, Lane Configurations and Traffic Controls

Aspen Dr/209 Center Ave & Center Ave

ID: 19-08122-001
City: Pacheco

Day: Thursday
Date: 03/14/2019

ASPHEN DR/209 CENTER AVE

SOUTHBOUND

AM	68	0	66	0	25	AM
NOON	0	0	0	0	0	NOON
PM	51	0	36	0	66	PM
<div>0100</div>						

CONTROL

1-Way Stop(SB)

TEV	717	0	807
PHF	0.79		0.95

0000

PM	0	0	0	0	PM
NOON	0	0	0	0	NOON
AM	0	0	0	0	AM

NORTHBOUND

ASPHEN DR/209 CENTER AVE

Center Ave

EASTBOUND

AM	NOON	PM
260	0	288
0	0	0
6	0	10
365	0	416
0	0	0

0000

Center Ave

WESTBOUND

PM	NOON	AM
56	0	19
237	0	192
0	0	0
1	0	1
453	0	432

0000

Total Vehicles (AM)

Total Vehicles (NOON)

Total Vehicles (PM)

Pedestrians (Crosswalks)

PM	NOON	AM
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0

0000

Total Vehicles (AM)

Total Vehicles (NOON)

Total Vehicles (PM)

Day: Thursday
Date: 03/14/2019

PEAK HOURS

07:15 AM - 08:15 AM
NONE
04:30 PM - 05:30 PM

COUNT PERIODS

07:00 AM - 09:00 AM
NONE
04:00 PM - 06:00 PM

Prepared by National Data & Surveying Services

Marsh Dr/Willow St & Center Ave/Buchanan Field Rd

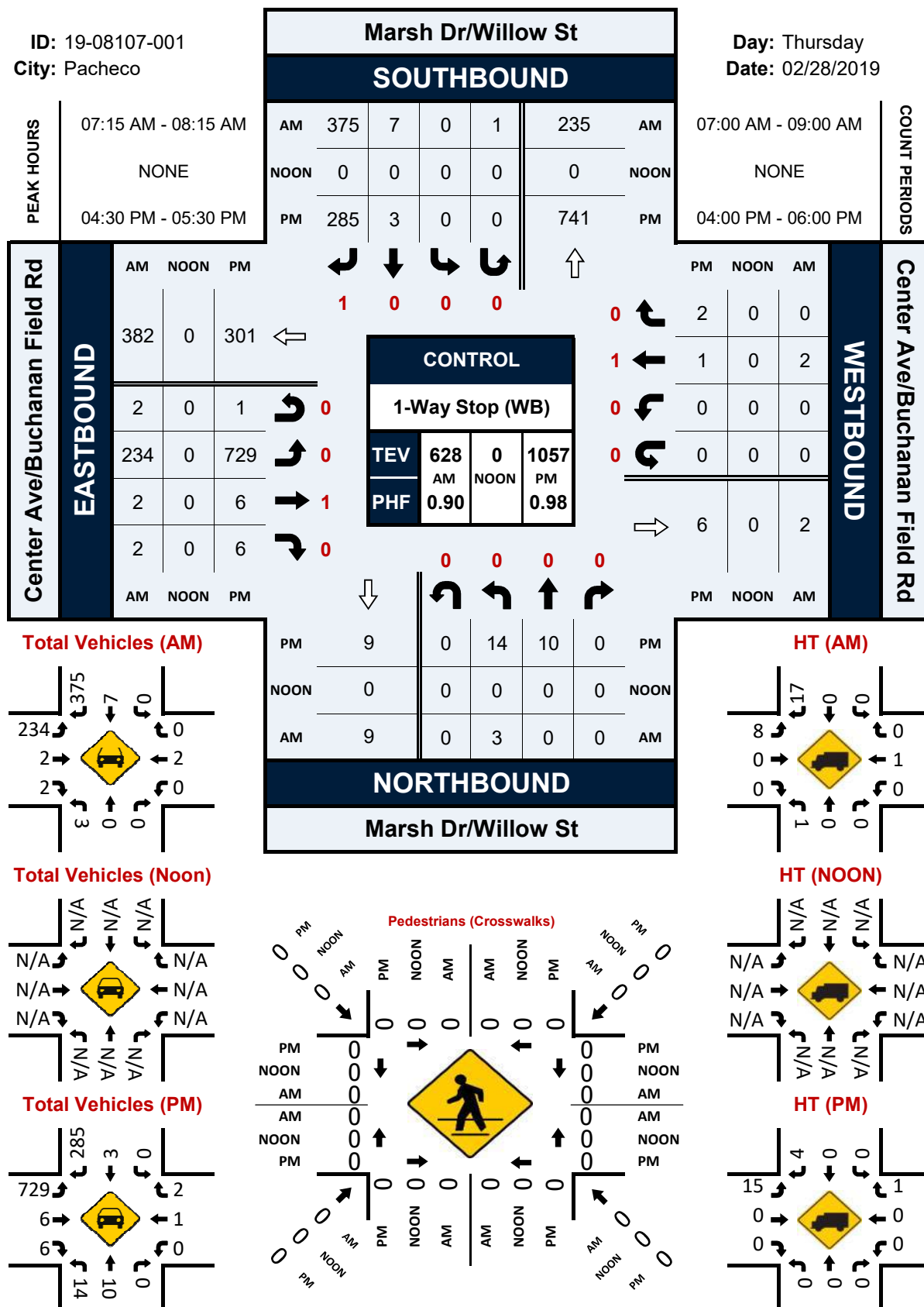
Peak Hour Turning Movement Count

ID: 19-08107-001

City: Pacheco

Day: Thursday

Date: 02/28/2019



HCM 2010 TWSC

1: Willow St & Center Ave

Existing AM

Intersection						
Int Delay, s/veh	0.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	236	2	0	377	3	0
Future Vol, veh/h	236	2	0	377	3	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	262	2	0	419	3	0
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	264	0	682	263
Stage 1	-	-	-	-	263	-
Stage 2	-	-	-	-	419	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1300	-	415	776
Stage 1	-	-	-	-	781	-
Stage 2	-	-	-	-	664	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1300	-	415	776
Mov Cap-2 Maneuver	-	-	-	-	514	-
Stage 1	-	-	-	-	781	-
Stage 2	-	-	-	-	664	-
Approach	EB	WB		NB		
HCM Control Delay, s	0	0		12.1		
HCM LOS	B					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	514	-	-	1300	-	
HCM Lane V/C Ratio	0.006	-	-	-	-	
HCM Control Delay (s)	12.1	-	-	0	-	
HCM Lane LOS	B	-	-	A	-	
HCM 95th %tile Q(veh)	0	-	-	0	-	

HCM 2010 TWSC

2: Center Ave & Marsh Dr

Existing AM

Intersection

Int Delay, s/veh 0

Movement

	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	234	2	2	0	1	375
Future Vol, veh/h	234	2	2	0	1	375
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	-	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	260	2	2	0	1	417

Major/Minor

	Major1	Minor2	
Conflicting Flow All	0	0	522
Stage 1	-	-	0
Stage 2	-	-	522
Critical Hdwy	4.14	-	6.54
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	5.54
Follow-up Hdwy	2.236	-	4.036
Pot Cap-1 Maneuver	-	-	456
Stage 1	-	-	-
Stage 2	-	-	528
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	0
Mov Cap-2 Maneuver	-	-	0
Stage 1	-	-	0
Stage 2	-	-	0

Approach

	EB	WB
HCM Control Delay, s		
HCM LOS		-

Minor Lane/Major Mvmt

	EBL	EBTWBLn1
Capacity (veh/h)	-	-
HCM Lane V/C Ratio	-	-
HCM Control Delay (s)	-	-
HCM Lane LOS	-	-
HCM 95th %tile Q(veh)	-	-

HCM 2010 TWSC

1: Willow St & Center Ave

Existing PM

Intersection

Int Delay, s/veh 0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	736	6	3	286	14	10
Future Vol, veh/h	736	6	3	286	14	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	751	6	3	292	14	10

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	757
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	854
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	854
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	15.1
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	382	-	-	854	-
HCM Lane V/C Ratio	0.064	-	-	0.004	-
HCM Control Delay (s)	15.1	-	-	9.2	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0	-

HCM 2010 TWSC

2: Center Ave & Marsh Dr

Existing PM

Intersection

Int Delay, s/veh 0

Movement

	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	740	6	1	2	0	288
Future Vol, veh/h	740	6	1	2	0	288
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	-	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	755	6	1	2	0	294

Major/Minor

	Major1	Minor2
Conflicting Flow All	0	0 1516 0
Stage 1	-	- 0 -
Stage 2	-	- 1516 -
Critical Hdwy	4.13	- 6.53 6.23
Critical Hdwy Stg 1	-	- - -
Critical Hdwy Stg 2	-	- 5.53 -
Follow-up Hdwy	2.227	- 4.027 3.327
Pot Cap-1 Maneuver	-	- 119 -
Stage 1	-	- - -
Stage 2	-	- 181 -
Platoon blocked, %	-	-
Mov Cap-1 Maneuver	-	- 0 -
Mov Cap-2 Maneuver	-	- 0 -
Stage 1	-	- 0 -
Stage 2	-	- 0 -

Approach

	EB	WB
HCM Control Delay, s		
HCM LOS		-

Minor Lane/Major Mvmt

	EBL	EBTWBLn1
Capacity (veh/h)	-	- -
HCM Lane V/C Ratio	-	- -
HCM Control Delay (s)	-	- -
HCM Lane LOS	-	- -
HCM 95th %tile Q(veh)	-	- -

HCM 2010 TWSC

1: Willow St & Center Ave

Existing PP AM

Intersection						
Int Delay, s/veh	0.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	238	2	0	378	3	0
Future Vol, veh/h	238	2	0	378	3	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	264	2	0	420	3	0
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	266	0	685	265
Stage 1	-	-	-	-	265	-
Stage 2	-	-	-	-	420	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1298	-	414	774
Stage 1	-	-	-	-	779	-
Stage 2	-	-	-	-	663	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1298	-	414	774
Mov Cap-2 Maneuver	-	-	-	-	513	-
Stage 1	-	-	-	-	779	-
Stage 2	-	-	-	-	663	-
Approach	EB	WB		NB		
HCM Control Delay, s	0	0		12.1		
HCM LOS	B					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	513	-	-	1298	-	
HCM Lane V/C Ratio	0.006	-	-	-	-	
HCM Control Delay (s)	12.1	-	-	0	-	
HCM Lane LOS	B	-	-	A	-	
HCM 95th %tile Q(veh)	0	-	-	0	-	

HCM 2010 TWSC

2: Center Ave & Marsh Dr

Existing PP AM

Intersection

Int Delay, s/veh 0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	236	2	1	0	0	377
Future Vol, veh/h	236	2	1	0	0	377
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	-	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	262	2	1	0	0	419

Major/Minor	Major1	Minor2
Conflicting Flow All	0	0 526 0
Stage 1	-	- 0 -
Stage 2	-	- 526 -
Critical Hdwy	4.14	- 6.54 6.24
Critical Hdwy Stg 1	-	- - -
Critical Hdwy Stg 2	-	- 5.54 -
Follow-up Hdwy	2.236	- 4.036 3.336
Pot Cap-1 Maneuver	-	- 454 -
Stage 1	-	- - -
Stage 2	-	- 526 -
Platoon blocked, %	-	-
Mov Cap-1 Maneuver	-	- 0 -
Mov Cap-2 Maneuver	-	- 0 -
Stage 1	-	- 0 -
Stage 2	-	- 0 -

Approach	EB	WB
HCM Control Delay, s		
HCM LOS		-

Minor Lane/Major Mvmt	EBL	EBTWBLn1
Capacity (veh/h)	-	- -
HCM Lane V/C Ratio	-	- -
HCM Control Delay (s)	-	- -
HCM Lane LOS	-	- -
HCM 95th %tile Q(veh)	-	- -

HCM 2010 TWSC

1: Willow St & Center Ave

Existing PP PM

Intersection

Int Delay, s/veh 0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	738	6	3	288	14	10
Future Vol, veh/h	738	6	3	288	14	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	753	6	3	294	14	10

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	759
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	852
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	852
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	15.1
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	381	-	-	852	-
HCM Lane V/C Ratio	0.064	-	-	0.004	-
HCM Control Delay (s)	15.1	-	-	9.2	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0	-

HCM 2010 TWSC

2: Center Ave & Marsh Dr

Existing PP PM

Intersection

Int Delay, s/veh 0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	746	2	1	0	0	290
Future Vol, veh/h	746	2	1	0	0	290
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	-	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	761	2	1	0	0	296

Major/Minor	Major1	Minor2
Conflicting Flow All	0	0 1524 0
Stage 1	-	- 0 -
Stage 2	-	- 1524 -
Critical Hdwy	4.13	- 6.53 6.23
Critical Hdwy Stg 1	-	- - -
Critical Hdwy Stg 2	-	- 5.53 -
Follow-up Hdwy	2.227	- 4.027 3.327
Pot Cap-1 Maneuver	-	- 117 -
Stage 1	-	- - -
Stage 2	-	- 179 -
Platoon blocked, %	-	-
Mov Cap-1 Maneuver	-	- 0 -
Mov Cap-2 Maneuver	-	- 0 -
Stage 1	-	- 0 -
Stage 2	-	- 0 -

Approach	EB	WB
HCM Control Delay, s		
HCM LOS		-

Minor Lane/Major Mvmt	EBL	EBTWBLn1
Capacity (veh/h)	-	- -
HCM Lane V/C Ratio	-	- -
HCM Control Delay (s)	-	- -
HCM Lane LOS	-	- -
HCM 95th %tile Q(veh)	-	- -

Attachment G

Mitigation Monitoring and Reporting Program for the Draft IS/MND

The following Mitigation Monitoring and Reporting Plan (MMRP) will be implemented as part of the Fire Station 9 Redevelopment Project. Contra Costa County Fire Protection District (CCCYPD) is responsible for ensuring these measures are implemented by CCCYPD staff and by Contractors working on behalf of CCCYPD.

Contra Costa County Public Works Department

Impact	Mitigation Measure	Implementation Timing	Implementation Responsibility	Verification Responsibility	Compliance Verification Date
Impact AQ-b: Project construction would create fugitive dust emissions.	Mitigation Measure AQ-1: Implement the Air District's Basic Best Management Practices for Construction-Related Fugitive Dust Emissions The project sponsor shall require its contractor(s) to implement the <i>Basic Best Management Practices for Construction-Related Fugitive Dust Emissions</i> recommended by the Air District. The emissions reduction measures shall include, at a minimum, the following practices. <ul style="list-style-type: none"> • All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, 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 as soon as possible. Building pads shall be laid as soon as possible after grading, unless seeding or soil binders are used. • All excavation, grading, and/or demolition activities shall be suspended when average wind speeds exceed 20 mph. • All trucks and equipment, including their tires, shall be washed prior to leaving the site. • Unpaved roads providing access to sites located 100 feet or more from a paved road shall be treated with a 6- to 12-inch layer of compacted wood chips, mulch, or gravel. 	During construction	Contractor and CCCFPD	CCCFPD	

Contra Costa County Public Works Department

Impact	Mitigation Measure	Implementation Timing	Implementation Responsibility	Verification Responsibility	Compliance Verification Date
	<ul style="list-style-type: none"> Publicly visible signs shall be posted with the telephone number and name of the person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's general air pollution complaints number shall also be visible to ensure compliance with applicable regulations. 				
Impact AQ-c: Project construction has the potential to expose sensitive receptors to substantial pollutant concentrations	Mitigation Measure AQ-1: Implement the Air District's Basic Best Management Practices for Construction-Related Fugitive Dust Emissions	During construction	Contractor and CCCFPD	CCCFPD	
Impact BIO-a: Project construction and operations have the potential to result in injury, mortality, or disturbance of normal behaviors of migratory and nesting birds, white-tailed kite, and special-status bats if present	Mitigation Measure BIO-1: Avoid and Minimize Impacts on Nesting and Migratory Passerine Birds and Raptors If project construction-related activities take place during the nesting season (February through August), preconstruction surveys for nesting passerine birds and raptors (birds of prey) within the project site and the large trees within the adjacent area will be conducted by a qualified biologist no more than five (5) days prior to the commencement of site grading or construction activities. The survey area (area of influence) shall include the project site and those adjacent areas within 250 feet of the project site. If any bird listed under the Migratory Bird Treaty Act is found to be nesting within the project site or within the area of influence, an adequate protective buffer zone shall be established by a qualified biologist to protect the nesting site. This buffer shall be a minimum of 75 feet	Prior to and during construction	Qualified biologist, Contractor, and CCCFPD	CCCFPD	

Contra Costa County Public Works Department

Impact	Mitigation Measure	Implementation Timing	Implementation Responsibility	Verification Responsibility	Compliance Verification Date
	<p>from the project activities for passerine birds, and a minimum of 200 feet for raptors. The distance shall be determined by the competent biologist based on the site conditions (topography, if the nest is in a line of sight of the construction and the sensitivity of the birds nesting). The nest site(s) shall be monitored by a qualified biologist periodically to see if the birds are stressed by the construction activities and if the protective buffer needs to be increased. If an active nest is located in a tree or shrub designated for removal, the removal shall be deferred until the young are no longer dependent on the nest site, as determined by a qualified biologist. Once the young have fledged and are flying well enough to avoid project construction zones (typically by August), the project can proceed without further regard to the nest site(s).</p> <p>Mitigation Measure BIO-2: Avoid and Minimize Impacts on Roosting Bats</p> <p>To avoid take of roosting bats, a preconstruction survey of buildings to be demolished or trees to be trimmed or removed shall be conducted prior to the start of by a qualified wildlife biologist in accordance with <i>Caltrans Bat Mitigation: A Guide to Developing Feasible and Effective Solutions</i> (Johnston et al. 2019). If special-status roosting bats are found, an avoidance or mitigation plan prepared by a qualified wildlife biologist shall be developed and implemented to avoid take of roosting bats. Avoidance measures may include conducting construction, demolition, tree-trimming or tree-removal outside of hibernation and maternal roosting time periods (April 1 through October 31) and excluding bats from buildings after they have left the roost to forage at night by closing entrances.</p>				

Contra Costa County Public Works Department

Impact	Mitigation Measure	Implementation Timing	Implementation Responsibility	Verification Responsibility	Compliance Verification Date
Impact CUL-b: The project has the potential to disturb unknown subsurface cultural resources during construction.	Mitigation Measure TCR-1: Native American Monitoring. <ul style="list-style-type: none"> The ESA shall be established where excavation activities would occur in previously undisturbed soil. Prior to ground disturbing activities, a CVLN tribal monitor(s) shall be retained. Archaeological tribal monitoring by tribal monitor(s) shall be conducted during all ground disturbing activities within the boundaries of the Environmentally Sensitive Area. Monitoring may be reduced or halted at the discretion of the CVLN monitor, in consultation with the County Fire as warranted by conditions such as encountering bedrock, sediments being excavated are fill, negative findings during the first 50 percent of the entire area of ground disturbance, etc. If monitoring is reduced to spot checking, spot checking shall occur when ground disturbing activities moves to a new location within the project site and/or when ground disturbance will extend to depths not previously reached (unless those depths are within bedrock). The tribal monitor shall complete daily monitoring logs that provide descriptions of the day's activities, including construction activities, locations, soil, and any cultural materials identified. CVLN tribal monitor(s) will have the authority to halt and redirect work should any archeological or tribal cultural resources be identified during monitoring. If archeological or tribal cultural resources are encountered during ground disturbing activities, work within 100 feet of the find must halt and the find must be evaluated for listing in the CRHR and NRHP. 	Prior to and during construction	CCCFPD	Monitor and CCCFPD	

Contra Costa County Public Works Department

Impact	Mitigation Measure	Implementation Timing	Implementation Responsibility	Verification Responsibility	Compliance Verification Date
Impact CUL-c: There is the potential to unearth unknown human remains,	Mitigation Measure CUL-1: Procedures for Discovery of Human Remains <ul style="list-style-type: none"> In the event of the accidental discovery or recognition of any human remains, there shall be no further excavation or disturbance within 100 feet of the remains. The Contra Costa County Coroner will be contacted immediately to determine whether the remains are Native American and if an investigation of the cause of death is required. At the same time, an archaeologist shall be contacted to assess the situation. If the Coroner determines the remains may be those of a Native American, the Coroner shall contact the Native American Heritage Commission (NAHC) by telephone within 24 hours of this identification. The NAHC shall identify a Most Likely Descendant (MLD) to inspect the site and provide recommendations for the proper treatment of the remains and associated funerary objects. Once NAHC identifies the MLD, the tribe shall make every effort to recommend keeping ancestral remains and funerary objects in situ and protected. If removal of burials is necessary, tribal representatives shall work with the qualified archaeologist to ensure that excavation and documentation are treated carefully, ethically, and respectfully. No photography or testing shall be conducted on Native American human remains. All bone, if not identifiable as human or animal, shall be treated as human remains and the appropriate protocols followed. The archaeologist shall recover 	During construction	Contractor, Monitor, and CCCFPD	Monitor and CCCFPD	

Contra Costa County Public Works Department

Impact	Mitigation Measure	Implementation Timing	Implementation Responsibility	Verification Responsibility	Compliance Verification Date
	<p>information, AS appropriate and in accordance with the recommendations of the MLD and/or tribal representative. The archaeologist shall prepare a report of all activities, including the recommendations for the treatment of the human remains and any associated funerary objects as provided by the MLD. The report shall be submitted to the County, the Northwest Information Center, and the tribe.</p> <ul style="list-style-type: none"> • Tribal representatives shall reburial the Native American human remains and associated funerary objects with appropriate dignity either: 1) In accordance with the recommendations of the MLD if available; or 2) In the project vicinity at a location mitigated between the tribal representative and the County, where the reburial would be accessible to tribal members, protected in perpetuity, and would not be subject to further subsurface disturbance. The discovery is to be documented on DPR 523 forms and otherwise kept confidential and secure to prevent any further disturbance. 				
<p>Impact GEO-f: There is the potential during construction to disturb unknown unique paleontological resource or site or unique geological feature.</p>	<p>Mitigation Measure GEO-1: Procedures for Paleontological Resources Contractor(s) shall be notified of the possibility of encountering paleontological materials during ground-disturbing activities. A standard inadvertent discovery clause will be included in every construction contract to inform contractors of requirements during construction. Implement the following measures if potential unanticipated paleontological resources are discovered during project construction.</p> <ul style="list-style-type: none"> • Contractor will be educated on the types of materials that may be encountered. 	<p>Prior to and during construction</p>	<p>Qualified paleontologist, and CCCFPD</p>	<p>CCCFPD</p>	

Contra Costa County Public Works Department

Impact	Mitigation Measure	Implementation Timing	Implementation Responsibility	Verification Responsibility	Compliance Verification Date
	<ul style="list-style-type: none"> If an inadvertent discovery is made, the contractor will cease all ground-disturbing activities in the area of discovery. The contractor will immediately notify the County who will then request a qualified paleontologist to evaluate the finding(s). If the finding(s) is determined to be potentially significant, the archaeologist will develop a research design and treatment plan outlining management of the resource, analysis, and reporting of the find. Such plan may include data recovery and analysis, preparation of a final report, and the formal transmission or delivery of any fossil material recovered to a paleontological repository, such as the University of California Museum of Paleontology. If project activities cannot avoid the resources, the adverse effects will be mitigated in accordance with CEQA Guidelines Section 15126.4(b)(3). Upon completion of project activities, the final report will document methods and findings of the mitigation and be submitted to Contra Costa County and a suitable paleontological repository. 				
Impact HAZ-b: Demolition of the existing structure has the potential to release hazardous materials into the environment,	<p>Mitigation Measure HAZ-1: Conduct a Hazardous Building Materials Survey prior to Demolition.</p> <p>Prior to the issuance of any demolition permit, the applicant shall ensure that a Hazardous Building Materials Survey is conducted (or has been conducted) by a licensed contractor on the structure to be demolished. The survey shall identify the presence of hazardous building materials including asbestos-containing materials, lead-based paint, and PCBs.</p>	Prior to demolition	Contractor and CCCFPD	CCCFPD	

Contra Costa County Public Works Department

Impact	Mitigation Measure	Implementation Timing	Implementation Responsibility	Verification Responsibility	Compliance Verification Date
	<p>Should the survey determine that asbestos-containing materials, lead-based paint, or other hazardous building materials are present, the following actions shall be implemented by the applicant.</p> <ul style="list-style-type: none"> • A Health and Safety Plan shall be developed by a certified industrial hygienist for potential asbestos-containing materials, lead-based paint, or other hazardous building materials risks present during demolition. The Plan shall then be implemented by a licensed contractor. The Plan shall comply with federal OSHA and Cal/OSHA requirements. • Necessary approvals shall be acquired from Contra Costa County (by the licensed contractor) for specifications or commencement of abatement activities. Abatement activities shall be conducted by a licensed contractor. • Prior to demolition of building materials containing asbestos, the Air District shall be notified ten days prior to initiating construction and demolition activities. Section 19827.5 of the California Health and Safety Code requires that local agencies not issue demolition or alteration permits until an applicant has demonstrated compliance with notification requirements under applicable federal regulations regarding hazardous air pollutants, including asbestos. In addition: <ul style="list-style-type: none"> ○ Asbestos shall be disposed of at a licensed disposal facility to be identified by the licensed contractor. ○ The local office of the Cal/OSHA shall be notified of asbestos abatement activities. 				

Contra Costa County Public Works Department

Impact	Mitigation Measure	Implementation Timing	Implementation Responsibility	Verification Responsibility	Compliance Verification Date
	<ul style="list-style-type: none"> Asbestos abatement contractors shall follow state regulations contained in 8 CCR 1529 and 8 CCR 341.6 through 341.14 where there is asbestos-related work involving 100 square feet or more of asbestos containing material. Asbestos removal contractors shall be certified as such by the Contractors Licensing Board of the State of California. 				
Impact LU-b: The project could conflict with a land use plan or policy	Mitigation Measures AQ-1, BIO-1-, BIO-2, CUL-1, GEO-1, NOI-1, and NOI-2	Prior to and during construction	Contractor and CCCFPD	CCCFPD	
Impact NOI-a: Construction equipment noise could generate noise more than standards.	<p>Mitigation Measure NOI-1: Implement Noise Control Practices During Construction</p> <p>The project sponsor shall require its contractor(s) to implement noise control practices during demolition and construction to minimize noise levels in the community. Best practices to minimize construction noise include the following:</p> <ul style="list-style-type: none"> Locating stationary equipment (e.g., generators, pumps, cement mixers, idling trucks) as far as possible from noise-sensitive land uses. Requiring that all construction equipment powered by gasoline or diesel engines have sound-control devices such as exhaust mufflers that are at least as effective as those originally provided by the manufacturer and that all equipment be operated and maintained to minimize noise generation. Preventing excessive noise by shutting down idle vehicles or equipment. Using noise-reducing enclosures around noise-generating equipment. 	Prior to and during construction	Contractor and CCCFPD	CCCFPD	

Contra Costa County Public Works Department

Impact	Mitigation Measure	Implementation Timing	Implementation Responsibility	Verification Responsibility	Compliance Verification Date
	<ul style="list-style-type: none"> Notifying adjacent residents in advance of construction work. 				
Impact NOI-a: Construction equipment noise could generate noise more than standards.	<p>Mitigation Measure NOI-2: Design Noise Attenuation for the HVAC System and Emergency Generator Enclosure to Meet County Noise Standards</p> <p>The project sponsor shall require its contractor(s) to implement this measure to ensure that operational noise levels shall not exceed the County standard of 1.5 dB above ambient DNLs levels found in the General Plan. This can be achieved through low-noise equipment specifications or acoustic treatments such as louvers or silencers. Verification noise monitoring shall be conducted to confirm that acoustic treatments will reduce operational noise to comply with the General Plan. The acoustic treatments for the HVAC system and emergency generator shall include, but are not limited to, the following:</p> <ul style="list-style-type: none"> Enclosing noise-generating mechanical equipment; Installing relatively quiet models of air handlers, exhaust fans, and other mechanical equipment; Using mufflers or silencers on equipment exhaust fans; Orienting or shielding equipment to protect noise-sensitive receptors to the greatest extent feasible; Increasing the distance between noise-generating equipment and noise-sensitive receptors; and Placing barriers around the equipment to facilitate the attenuation of noise. 				

Contra Costa County Public Works Department

Impact	Mitigation Measure	Implementation Timing	Implementation Responsibility	Verification Responsibility	Compliance Verification Date
Impact NOI-b: Construction activities could generate excessive vibration.	Mitigation Measure NOI-3: Protect Adjacent Buildings/Structures and Vibration Monitoring During Construction The project sponsor shall require its contractor(s) to implement a vibration management and monitoring plan during demolition and construction to 1) avoid project-related construction vibration damage to adjacent buildings and/or structures and 2) ensure that any such damage is documented and repaired. The vibration management and monitoring plan shall include the following components, as applicable: <ul style="list-style-type: none"> • Pre-construction Survey. Prior to the start of any ground-disturbing activity, the project sponsor or its contractor(s) shall engage a structural engineer or other professional consultant with similar qualifications to undertake a pre-construction survey of the residential building just south of the project site that may be affected and document and photograph the existing conditions. • Use of Alternative Construction Equipment and Techniques. The plan shall identify potential alternative equipment and techniques that could be implemented if construction vibration levels are observed in excess of the established standard (e.g., smaller, lighter equipment could be used in some cases). • Buffer Distances. The plan shall identify buffer distances to be maintained, based on vibration levels and site constraints, between vibration-generating construction equipment and the potentially affected building and/or structure to avoid damage to the extent possible. 	Prior to and during construction	Contractor and CCCFPD	CCCFPD	

Contra Costa County Public Works Department

Impact	Mitigation Measure	Implementation Timing	Implementation Responsibility	Verification Responsibility	Compliance Verification Date
	<ul style="list-style-type: none"> • Maximum Vibration Level. Based on the anticipated construction and condition of the residential structure, a qualified acoustic/vibration consultant shall establish a maximum vibration level that shall not be exceeded at each building/structure on adjacent properties, based on existing conditions, character-defining features, soil conditions, and anticipated construction practices. • Vibration Monitoring. The plan shall identify the method and equipment for vibration monitoring to ensure that construction vibration levels do not exceed the established standards identified in the plan. Should construction vibration levels be observed in excess of the standards established in the plan, the contractor(s) shall halt construction and put alternative construction techniques identified in the plan into practice, to the extent feasible. If vibration has damaged nearby buildings, the structural engineer shall immediately notify the County and prepare a damage report documenting the features of the building and/or structure that have been damaged. • Periodic Inspections. The plan shall identify the intervals and parties responsible for periodic inspections. The structural engineer shall conduct periodic inspections of the residential structure (as allowed by property owner) during vibration-generating construction activity on the project site. The plan will specify how often inspections occur. 				

Contra Costa County Public Works Department

Impact	Mitigation Measure	Implementation Timing	Implementation Responsibility	Verification Responsibility	Compliance Verification Date
	<ul style="list-style-type: none"> Repair Damage. The plan shall also identify provisions to be followed should damage to any building and/or structure occur due to construction-related vibration. The residential structure shall be remediated to pre-construction conditions (as allowed by property owner) at the conclusion of vibration-generating activity on the site. 				
Impact PS-a: There is the potential for substantial adverse impacts associated with the provision of a new governmental facility (Fires Station)	Mitigation Measures AQ-1, BIO-1-, BIO-2, CUI-1, GEO-1, NOI-1, NOI-2, and TCR-1	Prior to and during construction	Contractor and CCCFPD	CCCFPD	
Impact TCR-a: There is the potential for an adverse change in the significance of unknown tribal cultural resources during construction.	Mitigation Measure TCR-1: Native American Monitoring. <ul style="list-style-type: none"> The ESA shall be established where excavation activities would occur in previously undisturbed soil. Prior to ground disturbing activities, a CVLN tribal monitor(s) shall be retained. Archaeological tribal monitoring by tribal monitor(s) shall be conducted during all ground disturbing activities within the boundaries of the Environmentally Sensitive Area. Monitoring may be reduced or halted at the discretion of the CVLN monitor, in consultation with the County Fire as warranted by conditions such as encountering bedrock, sediments being excavated are fill, negative findings during the first 	Prior to and during construction	Contractor, Monitor, and CCCFPD	Monitor and CCCFPD	

Contra Costa County Public Works Department

Impact	Mitigation Measure	Implementation Timing	Implementation Responsibility	Verification Responsibility	Compliance Verification Date
	<p>50 percent of the entire area of ground disturbance, etc. If monitoring is reduced to spot checking, spot checking shall occur when ground disturbing activities moves to a new location within the project site and/or when ground disturbance will extend to depths not previously reached (unless those depths are within bedrock). The tribal monitor shall complete daily monitoring logs that provide descriptions of the day's activities, including construction activities, locations, soil, and any cultural materials identified.</p> <ul style="list-style-type: none"> • CVLN tribal monitor(s) will have the authority to halt and redirect work should any archeological or tribal cultural resources be identified during monitoring. • If archeological or tribal cultural resources are encountered during ground disturbing activities, work within 100 feet of the find must halt and the find must be evaluated for listing in the CRHR and NRHP. <p>Mitigation Measure TCR-2. Unanticipated Discovery of Archaeological and/or Tribal Cultural Resources</p> <ul style="list-style-type: none"> • The Contractor shall be notified of the possibility of encountering archaeological and/or tribal Cultural materials during ground-disturbing activities. A standard inadvertent discovery clause will be included in every construction contract to inform Contractors of requirements during construction. • Prior to the initiation of construction activities, a qualified archaeologist and tribal monitor shall provide Worker Environmental Awareness 				

Contra Costa County Public Works Department

Impact	Mitigation Measure	Implementation Timing	Implementation Responsibility	Verification Responsibility	Compliance Verification Date
	<p>Program (WEAP) training to construction personnel with an overview of applicable laws, Project mitigation measures, and procedures to be followed with regards to historical, archaeological, and tribal resources that may be encountered over the course of the project.</p> <ul style="list-style-type: none"> • Procedures for discovery include: <ul style="list-style-type: none"> ○ If potential archaeological and/or tribal cultural resources are encountered during construction, the contractor shall cease all ground disturbing activities within a 100-foot radius of the find and the find must be evaluated for listing in the CRHR and NRHP. The contractor shall immediately notify the County resident engineer or their designated representative to request a qualified archaeologist and a Confederated Villages of Lisjan Nation representative to assess the nature and significance of the find to determine if the find is a tribal cultural resource and thus significant under CEQA and/or the tribe. The archaeologist shall stake the area of discovery, placing stakes no more than 10 feet apart, forming a circle having a radius of no less than 100 feet from the point of discovery. ○ If the finding(s) is not determined to be potentially significant, work may resume. If the finding(s) is determined to be potentially significant, the archaeologist in consultation with the tribal representatives shall develop a mitigation plan outlining management of the resource, analysis, reporting of the find, and reburial of cultural items. The plan shall be implemented by the County in accordance with state guidelines and in consultation with the consulting tribe. The mitigation plan shall include 				

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	<p>avoidance of the resource or, if avoidance of the resource is not feasible, the plan shall outline appropriate treatment of the resource in coordination with the consulting tribe and, if applicable, a qualified archaeologist. Examples of appropriate mitigation for the tribal cultural resources include, but are not limited to, protecting the cultural character and integrity of the resources, protecting traditional use of the resources, protecting the confidentiality of the resources, heritage recovery, processing materials for reburial, minimizing handling of cultural objects, leaving objects in place within the landscape, construction monitoring of any further activities by a tribal representative, and/or returning the objects to a location within the project area where they will not be subject to future impacts. Preservation in place (i.e., avoidance) is typically the preferred manner of treatment of tribal resources and cultural items. Tribal cultural resources shall not be permanently curated, unless specifically requested by the tribe. Work may resume according to the recommendations in the mitigation plan.</p> <ul style="list-style-type: none"> Any previously undiscovered resources found during construction within the project site shall be recorded on appropriate California Department of Parks and Recreation (DPR) 523 forms and shall be submitted to Contra Costa County Department of Conservation and Development, the Northwest Information Center (NWIC), and the California Office of Historic Preservation (OHP), as required. 				

