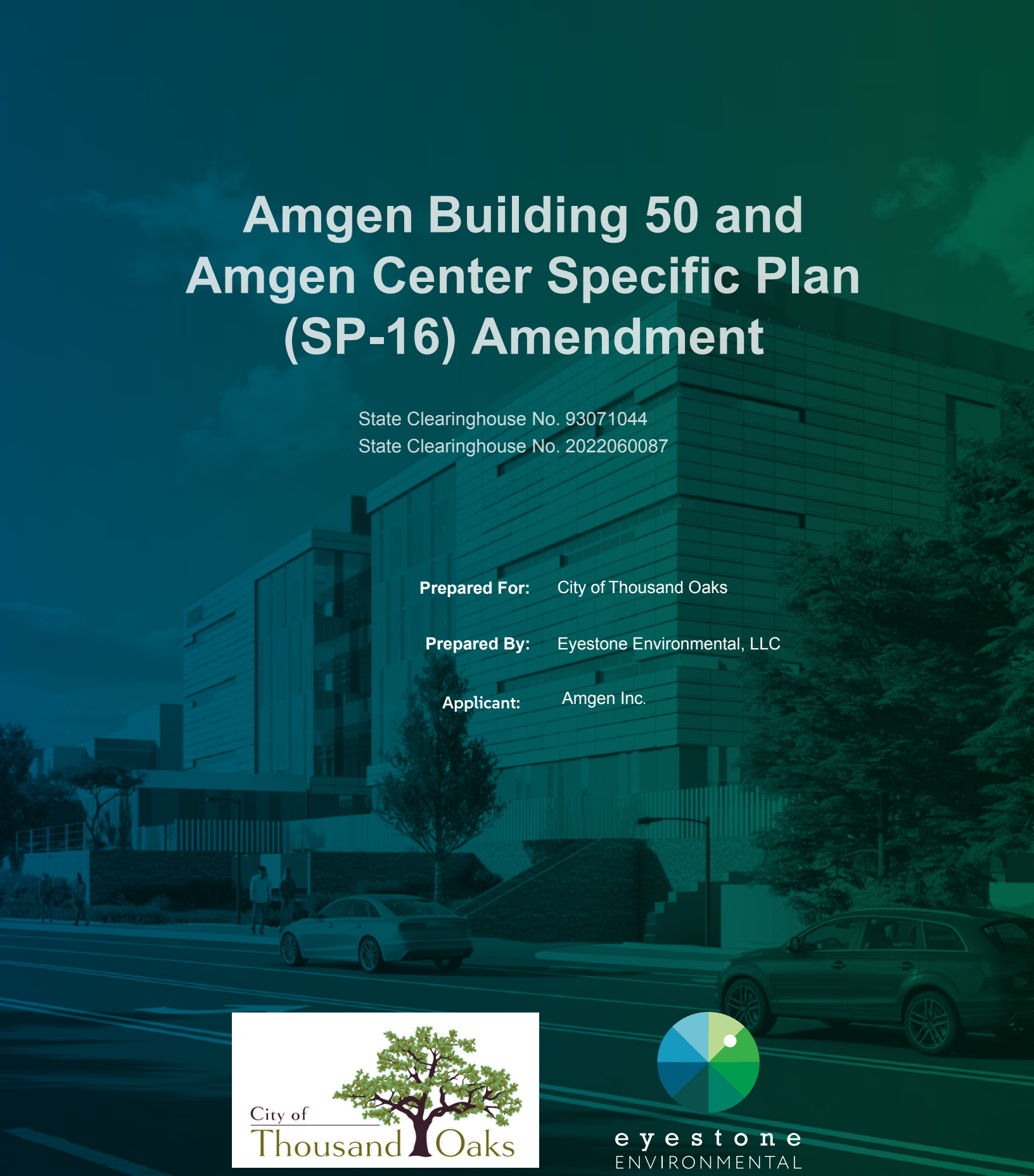
Amgen Building 50 and Amgen Center Specific Plan (SP-16) Amendment

State Clearinghouse No. 93071044
State Clearinghouse No. 2022060087

Prepared For: City of Thousand Oaks

Prepared By: Eyestone Environmental, LLC

Applicant: Amgen Inc.



City of Thousand Oaks

eyestone ENVIRONMENTAL

September 2026

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1 INTRODUCTION

This document is the Addendum to the Environmental Impact Report for the 2045 General Plan Update (State Clearinghouse No. 2022060087)(GP EIR), which the City Council previously certified in December 2023, and the Environmental Impact Report for the Amgen Center Specific Plan (State Clearinghouse No. 9307104)(Specific Plan EIR), which the City Council previously certified in April 1994. This Addendum addresses modifications to the Approved Amgen Center Specific Plan (Approved Specific Plan) to include Building 50, a new technology and life sciences facility within the Amgen Campus (referred to as the Amgen Thousand Oaks Building 50 Project or Modified Project) and provides a comparison of impacts with those set forth in both the GP EIR and the Specific Plan EIR (collectively referred to as the Certified EIRs). The Addendum clarifies or amplifies the information contained in the Certified EIRs, and demonstrates that none of the conditions described in State CEQA Guideline 15162 calling for preparation of a subsequent or supplemental EIR have occurred. Specifically, this analysis has determined that there are no new significant environmental effects and no substantial increase in the severity of previously identified significant effects associated with the Modified Project. Furthermore, there are no known mitigation measures or alternatives that were previously considered infeasible but are now considered feasible that would substantially reduce one or more significant effects on the environment previously identified in the Certified EIRs. Similarly, there are no known mitigation measures or alternatives that are considerably different than those required by the Certified EIRs that would substantially reduce one or more significant effects on the environment identified in the Certified EIRs.

1.1 CEQA Authority for an Addendum

CEQA establishes the type of environmental documentation required when changes to a project occur after an EIR is certified. Specifically, Section 15164(a) of the CEQA Guidelines states that:

> *The lead agency or responsible agency shall prepare an addendum to a previously certified EIR if some changes or additions are necessary but none of the conditions described in Section 15162 calling for preparation of a subsequent EIR have occurred.*

CEQA Guidelines Section 15162 provides that when an EIR has been certified or a negative declaration has been adopted for a project, no subsequent EIR shall be prepared for a project unless the lead agency determines, on the basis of substantial evidence in the light of the whole record, that one or more of the following circumstances exist:

(1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;

(2) Substantial changes occur with respect to the circumstances under which the project is undertaken, which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or

(3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following:

(A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration;

(B) Significant effects previously examined will be substantially more severe than shown in the previous EIR;

(C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or

(D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

Further CEQA Guidelines Section 15163 states, the Lead Agency or responsible Agency may choose to prepare a supplement to an EIR rather than a subsequent EIR if:

(1) Any of the conditions described in Section 15162 would require the preparation of a subsequent EIR, and

(2) Only minor additions or changes would be necessary to make the previous EIR adequately apply to the project in the changed situation.

Additionally, California Public Resources Code (PRC) Section 21166 states that unless one or more of the following events occur, no Supplemental or Subsequent EIR shall be required by the lead agency or by any responsible agency:

(a) Substantial changes are proposed in the project which will require major revisions of the environmental impact report;

(b) Substantial changes occur with respect to the circumstances under which the project is being undertaken which will require major revisions in the environmental impact report; or

(c) New information, which was not known and could not have been known at the time the environmental impact report was certified as complete, becomes available.

As demonstrated by the analysis in this Addendum, the Modified Project would not result in any new significant impacts, nor would it substantially increase the severity of previously identified significant impacts. There is also no new information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete, which shows any of the factors identified in CEQA Guidelines Section 15162(a)(3). Rather, all of the impacts associated with the Modified Project are within the envelope of impacts addressed in the Certified EIR and do not constitute a new or substantially increased significant impact. Therefore, the modifications resulting from the Modified Project do not meet the criteria for a Supplemental or Subsequent EIR pursuant to Public Resources Code, Section 21166 and CEQA Guidelines Section 15162 and 15163.

1.2 Project Background

The Specific Plan EIR analyzed the implementation of the Approved Specific Plan Project located on approximately 100 acres of land located east of Rancho Conejo Boulevard, and north of the US-101 Freeway and Hillcrest Drive in the City of Thousand Oaks (City). The Approved Specific Plan Project required: a General Plan Amendment to remove the portion of Camino Dos Rios between DeHavilland Drive and Rancho Conejo Boulevard from the Circulation Element of the General Plan and to add DeHavilland Drive as a two lane road between Camino Dos Rios and Rancho Conejo Boulevard; Specific Plan 16 to adopt a long-range master plan for the redevelopment of the Specific Plan area with corporate offices, manufacturing, research, distribution, common area, and other uses supporting Amgen's corporate headquarters; Tentative Tract 4939 to subdivide a 93-acre portion of the Specific Plan area into 44 lots; a request to allow construction of a 184,000 square foot distribution center/warehouse on the east side of DeHavilland Drive, north of Camino Dos Rios, within the Specific Plan area; and a request to allow construction of a 295,000 square foot research facility with subterranean parking at the northeast corner of Hillcrest Drive and Rancho Conejo Boulevard, within the Specific Plan area.

The GP EIR for the City's 2045 General Plan Update (Approved General Plan Update), which was certified in December 2023, analyzed updates to the City's General Plan designed

to establish the community's vision for future community development of the city through the planning horizon year of 2045, which included reorganizing and reformatting with updated goals, policies, and implementation actions that reflect the community's current vision of the City of Thousand Oaks. The Approved General Plan Update emphasized infill and adaptive redevelopment within the city limits, and increased opportunities for housing development in key areas of the city through increased density and mixed-use projects.

1.3 Location and Existing Conditions

As shown in Figure 1 on page 5, the Modified Project is located within the western portion of the Approved General Plan Update Planning Area, and is a part of the 91-acre Amgen Thousand Oaks (ATO) Campus for which development is guided by the Approved Specific Plan. The ATO Campus consists of research and development laboratories, process development facilities, manufacturing/production facilities, quality control laboratories, corporate and administrative offices, warehouse/material storage facilities, central utility/plant and infrastructure buildings, parking structures, and employee-support/amenity facilities.

The Modified Project comprises approximately 4.27 acres located at 701 Pauling Drive, on a parcel of land bounded by an existing service road to the north, Pauling Drive and Building 8 to the east, West Hillcrest Drive to the south, and Building 29 to the west (Development Area). Further, the Development Area is currently undergoing demolition of the former 181,058 square foot technology and life sciences facility (Building 14), including a subterranean connection to the laboratory research facility (Building 29) west of the Development Area, and one subterranean parking level with 103 parking spaces. Parking for the overall ATO Campus includes 6,354 parking spaces and is provided within surface parking, subterranean parking, and above-grade parking structures.

The Development Area is designated "Industrial Flex" within the General Plan and is zoned M-1 (Industrial Park), which is a corresponding zone to the General Plan designation. Under the 2045 General Plan Update, the Industrial Flex land use allows for a maximum Floor Area Ratio (FAR) of 2:1 and a maximum height of 75 feet.[1] However, the Height District 1 designation, in conjunction with the M-1 Zone, limits building height to 35 feet.[2]

Regional access to the Development Area is provided via US-101, which is located approximately 0.2 miles south of the Development Area and runs in an east-west direction. Local access to the Development Area is provided by a network of streets, including West Hillcrest Drive, Rancho Conejo Boulevard, North Ventu Park Road, and Ventu Park Road.

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[1] *2045 General Plan Update, August 2023, https://toaks2045.org/wp-content/uploads/2024/12/TOGP_FinalPlan_070124_AllAppendices.pdf.*

[2] *Height restrictions can be found at TOOC Section 9-4.2501.*

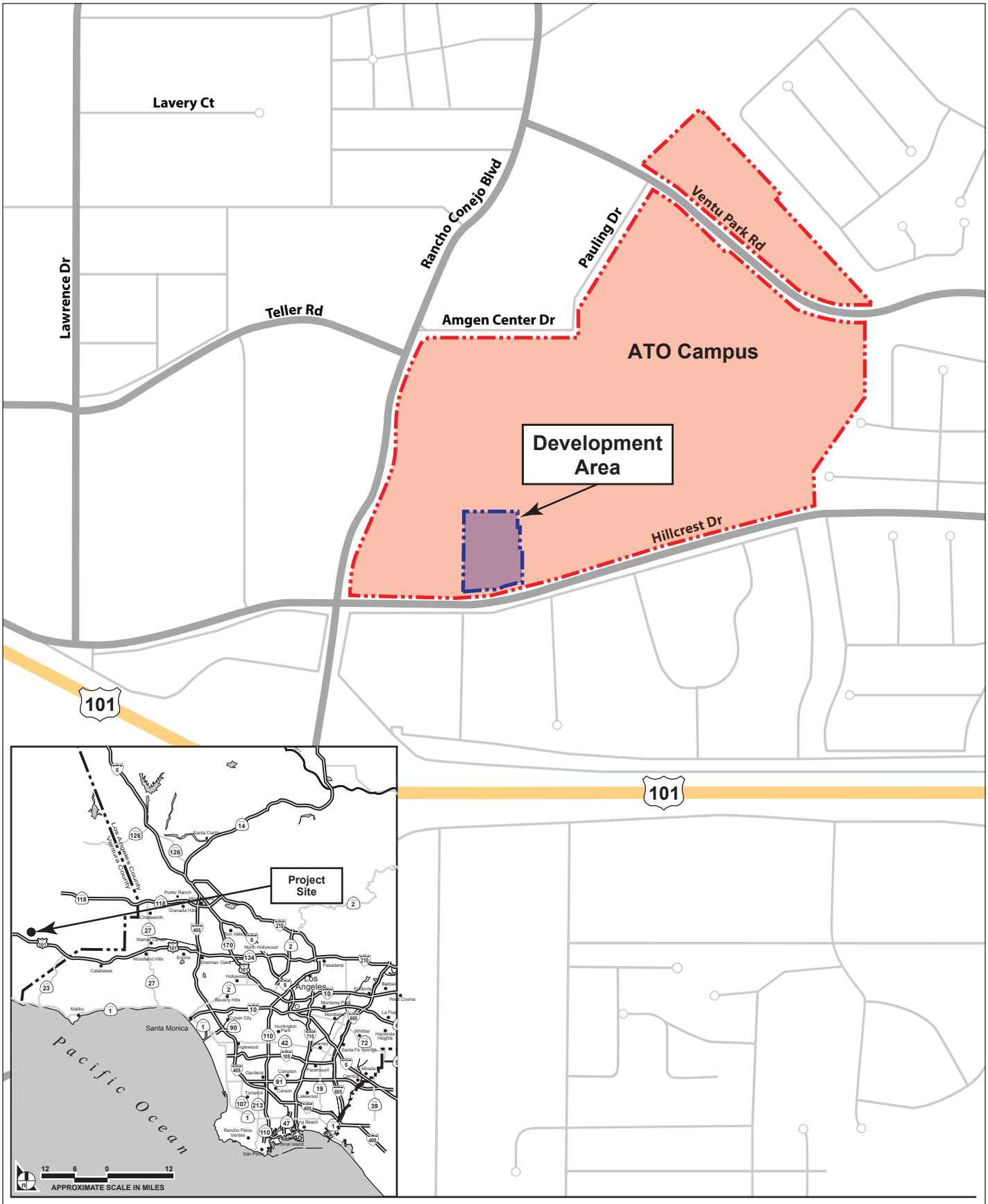


Figure 1
Project Location Map

Source: HDR Architecture Inc., 2026.

1.4 Overview of Modified Project

A Conceptual Site Plan illustrating the layout of the Modified Project in the context of the Approved Specific Plan is provided in Figure 2 on page 7. Amgen proposes to construct Building 50, a technology and life sciences facility within the southern boundary of the ATO Campus, located at 701 Pauling Drive in the City. Building 50 would be comprised of 377,256 square feet of floor area on a 4.27-acre Development Area. The Approved Specific Plan permits up to 3,637,294 square feet of gross building area within the ATO Campus. When accounting for the existing building area within the ATO Campus of approximately 2,842,196 square feet and the increase in building area associated with the of Modified Project, the ATO Campus would include approximately 3,219,542 square feet of gross building area. As such, the total square footage with the Modified Project would remain well within the development capacity already approved under the Approved Specific Plan and evaluated under the Specific Plan EIR.

Building 50 would include research and laboratory facilities, consisting of chemical and biological lab space, collaboration areas, office space, and a range of supporting functions such as hazardous -materials storage, locker rooms, IT rooms, supply areas, and general storage. A ground-floor lobby and cafés on several floors would also be provided to serve the campus only. Collectively, these uses would establish Building 50 as a modern, purpose-built facility designed to support scientific research and innovation. As shown on Figure 3 and Figure 4 on pages 8 and 9, respectively, Building 50 would include four above-grade stories (approximately 70 feet above grade, and 98 feet to the top of the rooftop equipment), and an additional one below-grade level. The Modified Project includes a Specific Plan Amendment (SPA), included as Appendix A of this Addendum, which proposes a height increase within the Specific Plan area to 75 feet, consistent with the base height allowance for the Industrial Flex land use designation of the General Plan, and exceptions to the height limits for specified mechanical equipment above rooftop screening, parking locational criteria, and architectural massing step backs where a building exceeds two stories.

The existing road located in the northern portion of the Development Area would be removed and replaced with a new paseo to align with the adjacent service road. The new paseo would be enhanced with native, drought-tolerant landscaping, including shrubs and trees, lawn areas, work pod structures, and fixed and movable seating to serve Building 50 and the surrounding ATO Campus.

Located on the southern portion of the Development Area, a 92 by 53-foot transformer yard would be recessed nine feet below the proposed building's ground level. The southwestern portion of the Development Area would include two USTs for utilities including water storage at 12,000 gallons in capacity each to supply the on-site fire suppression systems. Four ASTs with 6,000 gallons in capacity each (eight to ten feet in diameter) would also contain materials used for laboratory operations. Further, a generator yard would be located on the

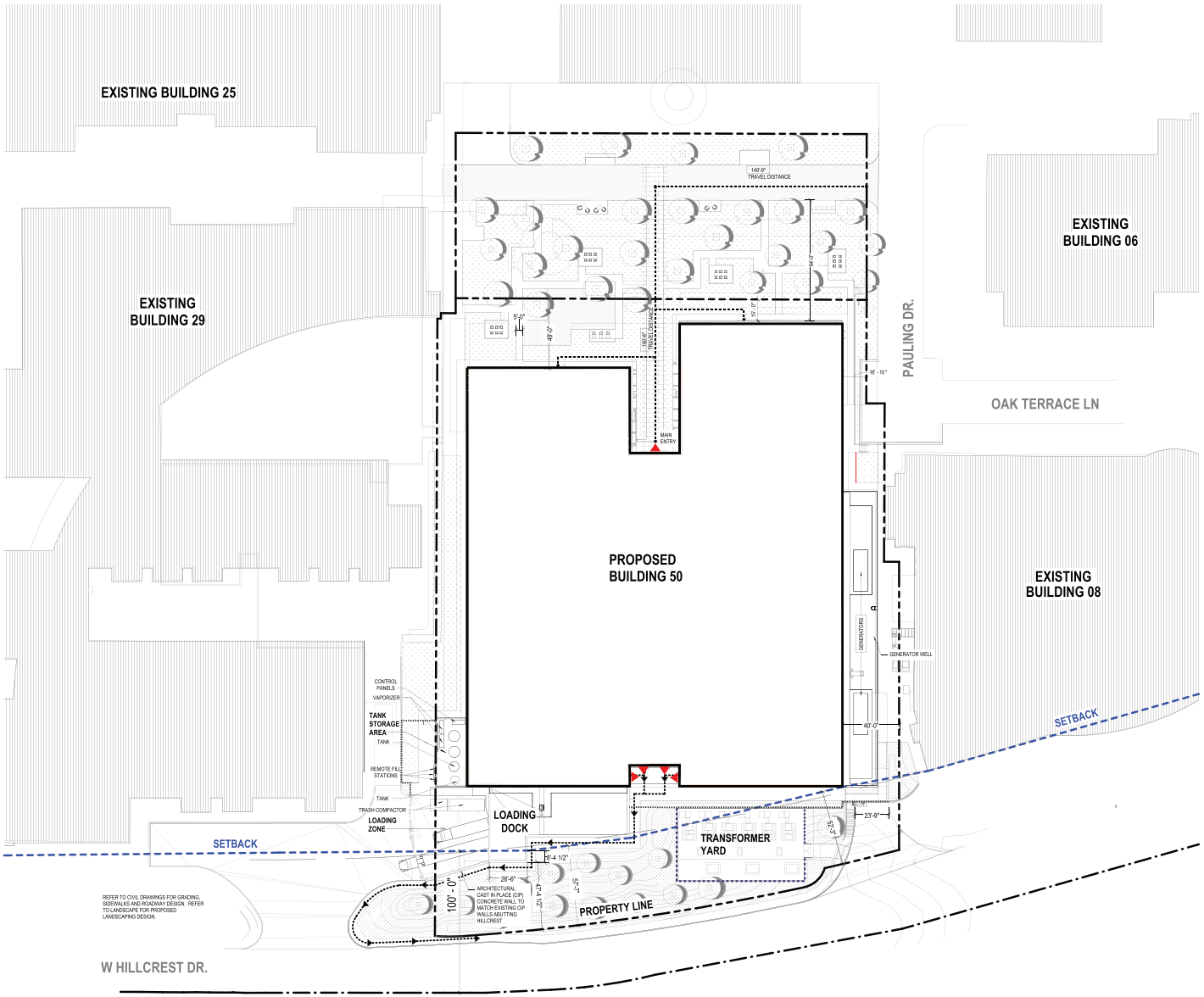
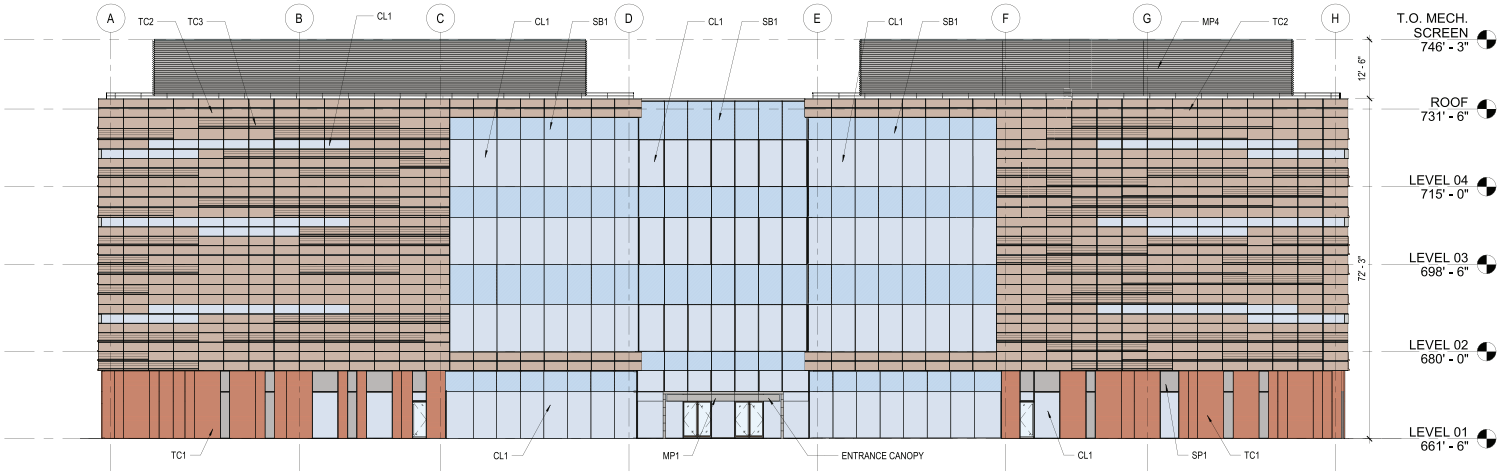


Figure 2
Conceptual Site Plan

Source: HDR Architecture Inc., 2026.

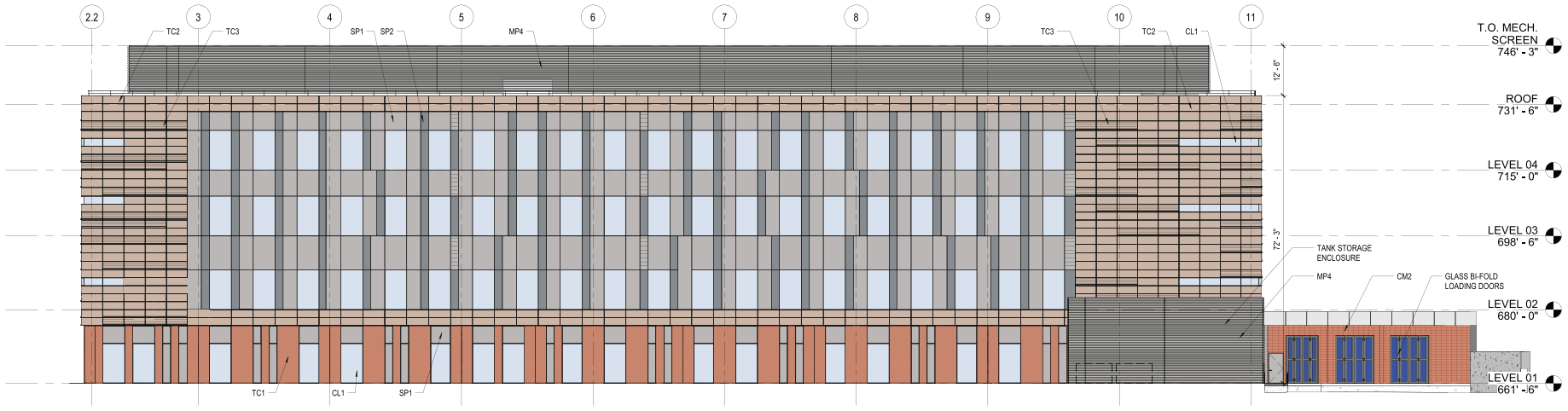


NORTH ELEVATION

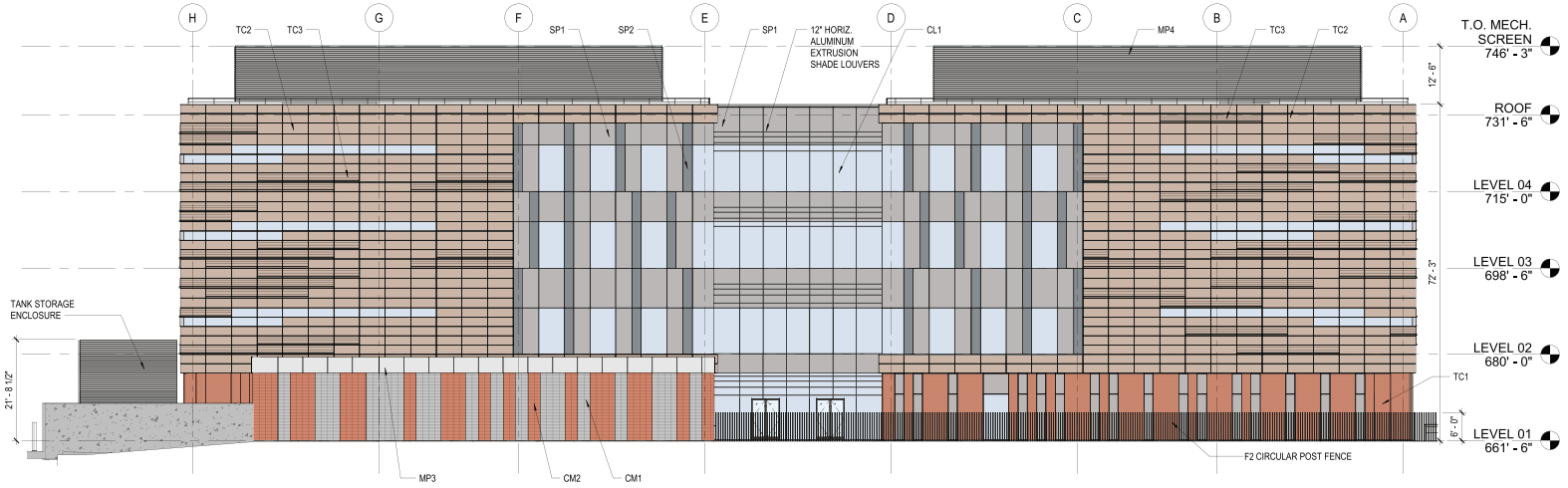
EAST ELEVATION

Figure 3
Conceptual Elevation North and East

Source: HDR Architecture Inc., 2026.



WEST ELEVATION



SOUTH ELEVATION

Figure 4
Conceptual Elevation South and West

Source: HDR Architecture Inc., 2026.

eastern portion of the Development Area housing two emergency generators within the subterranean basement.

1.5 Design and Architecture

The Modified Project would be designed in a style reflective of the existing lab research facilities that define the aesthetic appearance of the ATO Campus. As shown on Figure 5 on page 11, the material palette would include a combination of glass, metal, terracotta, and concrete block to give a predominantly modern aesthetic with natural materials. Building 50 would be four stories above-grade and compatible in use and scale with the surrounding research facilities, including the four-story Building 29 to the west and the two-story Building 8 to the east of the Development Area. The building would feature a central interior courtyard illuminated by an expansive skylight, bringing abundant natural light into all four levels and creating a bright, open atmosphere throughout the interior. The transformer yard would be fully fenced and screened with native plants and trees, ensuring minimal visibility from Hillcrest Boulevard and maintaining a cohesive streetscape.

Outdoor Areas and Landscaping

As shown on Figure 6 on page 12, the Modified Project would include outdoor amenities including a new lawn area, work pod structures, seating areas, and movable furniture to the north of Building 50, to support employees at Building 50 and the greater ATO Campus. In addition, a landscaped pedestrian paseo would be provided that would integrate Building 50 with surrounding buildings within the Development Area. In total, the Development Area would include 113,736 square feet of outdoor areas consisting of 66,136 square feet of paved areas and 47,600 square feet of landscaped areas. The Modified Project would remove 7 existing on-site trees (including 4 protected trees), and would plant approximately 41 onsite trees.[3]

[3] *TREES, etc., Oak Tree Report, Amgen Project ATO B50, PTP 2026-70113, August 26, 2026.*

Figure 5
View from Southeast Along Hillcrest Drive

Source: HDR Architecture Inc., 2026.

Figure 6
View from Southwest within ATO Campus

Source: HDR Architecture Inc., 2026.

1.6 Parking and Access

Parking for the Modified Project would be provided within surface parking, subterranean parking, and above-grade parking structures throughout the ATO Campus. The Modified Project would remove 103 parking spaces; however, the ATO Campus would include a total of 6,354 parking spaces, which is more than the 5,022 parking spaces that would be required for the ATO Campus inclusive of the Modified Project. In addition, the ATO Campus includes various bicycle amenities including bike stands, racks, and lockers. The ingress/egress on the southwestern portion of the Development Area would be reconfigured to improve vehicular access to the proposed building's loading areas and enhance overall traffic flow in coordination with the existing Building 29 to the west. The additional ingress/egress on the southeastern portion of the Development Area would remain in its current location, and would provide access to the proposed transformer yard.

Lighting and Signage

Proposed signage would include mounted identification signage, general ground-level and wayfinding pedestrian and vehicular signage, and security markings in compliance with code requirements. Project identity signage would be visible from off-site vehicular and pedestrian traffic and serve as identifiers for the Modified Project. Wayfinding signs would be located at the Building 50 lobby and on the ground level throughout the Development Area, and would be integrated into the overall design of the building. No digital and off-site signage would be provided. All proposed signage would be designed to be aesthetically compatible with the existing architecture within the vicinity and would comply with all Thousand Oaks Municipal Code (TOMC) requirements.

All lighting would comply with current energy standards and codes while providing appropriate light levels to accent signage, architectural features, and landscaping elements. Light sources would be shielded and/or directed toward the Development Area to minimize light spill-over to neighboring properties and the surrounding area while utilizing low-level exterior lights at the site perimeter, as needed, for aesthetic, security, and wayfinding purposes. Additionally, new pedestrian lighting would provide appropriate and safe lighting levels on both sidewalks and roadways, while minimizing light and glare on adjacent properties, in compliance with applicable City regulations. Glass in building façades would be selected for qualities such as low reflectivity to reduce glare; energy efficiency to limit solar heat gain; high visibility for adequate light transmission; and acoustic performance to reduce noise from outside.

1.7 Site Security

During construction, the Project Applicant would implement temporary security measures, including security fencing, lighting, and locked entry. During operation, the Project would provide proper lighting of buildings and walkways to provide for pedestrian orientation

and clearly identify a secure routes to points of entry into buildings. The Project would also provide sufficient lighting of existing outdoor areas consistent with the ATO Campus/Building Code to maximize visibility and reduce areas of concealment. Furthermore, the Project would design building entrances and exits, open spaces, and pedestrian walkways to be open and in view of surrounding sites.

1.8 Sustainability Features

The Project has been designed and would be constructed to incorporate environmentally sustainable building features equivalent to certification under the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED®) Rating System for new construction and environmentally sustainable building features and construction standards required by the TOMC, the California Green Building Standards Code (California Code of Regulations, Title 24, Part 11; referred to as the CALGreen Code), and the California Building Energy Efficiency Standards (California Code of Regulations, Title 24, Part 6; California Energy Code). For example, the Project would install drought tolerant landscaping with drip sensor-controlled irrigation system, utilize LED and energy-efficient lighting at the exterior and interior of the building and fuel station, a cool rooftop finish as well as a rooftop photovoltaic system as required by the 2025 California Energy Code, high-efficiency heating/ventilating/air conditioning (HVAC) units, low–volatile organic compound (VOC) paints and finishes, recyclable floor materials, and water-efficient restroom fixtures.

1.9 Off-Site Improvements

The Project would require minor off-site improvements that would generally be contained in the adjacent rights-of-way to the Development Area. Off-site improvements would consist of planting of street trees; sidewalk, curb, and gutter repair, and removal and installation of various underground utility infrastructure.

1.10 Construction

Project construction activities would begin with grading and excavation, which would extend to a depth of approximately 21.5 feet below ground surface (bgs). Building construction would commence, followed by paving and landscape installation. Construction for the Modified Project is anticipated to commence in 2026. Under the TOMC, the applicant has 3 years from entitlement approval to commence construction unless otherwise extended by the City. It is estimated that approximately 3,228 cubic yards of export would be hauled off of the Development Area.

Construction delivery/haul trucks would travel on approved truck routes between the Development Area and the US-101 Freeway. Incoming trucks would travel along northbound

US-101, exit at Ventu Park, turn right onto Ventu Park Road, turn left onto West Hillcrest Drive, and turn right onto the Development Area. Departing trucks would exit the Development Area onto West Hillcrest Drive heading west, turn left onto Rancho Conejo Boulevard, and turn right onto the US-101 south ramp.

1.11 Requested Permits and Approvals

The discretionary entitlements, reviews, permits and approvals required to implement the Project include, but are not necessarily limited to, the following:

- Specific Plan Amendment
- Protected Tree Permit
- Other discretionary and ministerial permits and approvals that may be deemed necessary, including, but not limited to, temporary street closure permits, grading permits, excavation permits, foundation permits, building permits, landscape permits, encroachment permits, and sign permits.

2 PREVIOUS ENVIRONMENTAL DOCUMENTS INCORPORATED BY REFERENCE

Consistent with Section 15150 of the California State CEQA Guidelines, the following documents were used in preparation of this Addendum and are incorporated herein by reference:

- 2045 General Plan Update Environmental Impact Report, December 2023 (GP EIR)
- Specific Plan 16 (Amgen Center), March 1994 (Specific Plan EIR)

3 REVISIONS TO CEQA GUIDELINES

3.1 Revisions to Appendix G of the CEQA Guidelines

The California Natural Resources Agency adopted revisions to the CEQA Guidelines that became effective on December 28, 2018. These revisions resulted in an updated Guidelines' Appendix G—Environmental Checklist Form (Appendix G). The revisions to Appendix G were adopted largely to reduce redundancy, provide additional clarity and to align Appendix G with California appellate court and Supreme Court decisions and changes to the Public Resources Code. These updates to Appendix G revised the checklist questions related to aesthetics, air quality, cultural resources, geology and soils, hydrology and water quality, land use and planning, noise, population and housing, transportation, and utilities and service systems and included additional thresholds to address wildfire. This memorandum considers the revised and current thresholds for the environmental topics addressed herein in Section 4, Environmental Impact Analysis.

4 ENVIRONMENTAL IMPACT ANALYSIS

This section provides an impact assessment of the Modified Project. The information below addresses each of the environmental issues that were previously analyzed within the scope of the previously certified GP EIR and Specific Plan EIR (collectively referred to herein referred to as Certified EIRs) and the most current Appendix G of the CEQA Guidelines. The conclusions of the previously adopted EIRs are provided as a reference for each environmental issue area for the purpose of demonstrating how the proposed changes would not result in any new significant impacts and would not increase the severity of the significant impacts identified in the EIRs.

This Addendum focuses on whether the Modified Project would have the potential to result in new significant impacts or substantial increases in significant impacts associated with the following impact areas evaluated in the Certified EIRs: aesthetics, agricultural 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, and wildfire.

A Modified Environmental Checklist Form based on the most recent version of Appendix G of the CEQA Guidelines was used to compare the anticipated environmental effects of the Modified Project with those disclosed in the Certified EIRs and to review whether any of the conditions set forth in CEQA Guidelines Section 15162 and PRC Section 21166, requiring preparation of a Supplemental or Subsequent EIR, have been triggered.

The checklist and evaluation below provide the following information for each of the environmental impact categories set forth in Appendix G of the CEQA Guidelines:

1 IMPACT DETERMINATION IN THE CERTIFIED EIR

This section lists the impact determination made in the Certified EIR for each impact category.

2 DO PROPOSED CHANGES INVOLVE NEW SIGNIFICANT IMPACTS OR SUBSTANTIALLY MORE SEVERE IMPACTS?

Pursuant to CEQA Guidelines Section 15162(a)(1), this section indicates whether the Modified Project would result in new significant impacts that have not already been considered and mitigated by the prior environmental review or would result in a substantial increase in the severity of a previously identified impact.

3 ANY NEW CIRCUMSTANCES INVOLVING NEW IMPACTS OR SUBSTANTIALLY MORE SEVERE IMPACTS?

Pursuant to CEQA Guidelines Section 15162(a)(2), this section indicates whether there have been changes to the Project Site or the vicinity (circumstances under which the project is undertaken) which have occurred subsequent to the prior environmental documents, which would result in the Modified Project having new significant environmental impacts that were not considered in the prior environmental documents or that substantially increase the severity of a previously identified impact.

4 ANY NEW INFORMATION REQUIRING NEW ANALYSIS OR VERIFICATION?

Pursuant to CEQA Guidelines Section 15162(a)(3)(A-D), this section indicates whether new information of substantial importance which was not known and could not have been known with the exercise of reasonable diligence at the time the previous environmental documents were certified as complete is available, requiring an update to the analysis of the previous environmental documents to verify that the environmental conclusions and mitigations remain valid. If the new information shows that:

(A) The project will have one or more significant effects not discussed in the prior environmental documents;

(B) Significant effects previously examined will be substantially more severe than shown in the prior environmental documents;

(C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or

(D) Mitigation measures or alternatives which are considerably different from those analyzed in the prior environmental documents would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative;

then the question would be answered “Yes,” requiring the preparation of a Supplemental or Subsequent EIR. However, if the additional analysis completed as part of this environmental review finds that the conclusions of the prior environmental documents remain unchanged and no new significant impacts are identified, or identified environmental impacts are not found to be more severe, or there are no additional mitigation measures or alternatives now available or feasible but declined for adoption by the project proponent, then the question would be answered ”No” and no Supplemental or Subsequent EIR is required. New studies completed as part of this

environmental review are attached to this Addendum, or are on file with the Planning Division.

5 MITIGATION MEASURES ADDRESSING IMPACTS

Pursuant to CEQA Guidelines Section 15162(a)(3), this section indicates whether the prior environmental document provides mitigation measures to address effects in the related impact category. If so, a “Yes” response will be provided. In some cases, the previously adopted mitigation measures have already been implemented or are not applicable to the Modified Project, or a significant impact was not identified and mitigation was not required. In either instance, a “No” response will be indicated.

6 CONCLUSION

For each environmental topic, a discussion of the conclusion relating to the analysis is provided.

4.1 AESTHETICS

Issues (and Supporting Information Sources)	Was the Impact Analyzed in the Certified EIR?	Impact Determination in the Certified EIR	Do Proposed Changes or New Circumstances Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification	Certified EIR Mitigation Measures Addressing Impact
AESTHETICS: Except as provided in Public Resources Code Section 21099, would the project:					
(a) Have a substantial adverse effect on a scenic vista?	Yes	Less Than Significant	No	No	Yes
(b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	Yes[4]	Less Than Significant	No	No	No
(c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (public views are those that are experienced from publicly accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	Yes[5]	Less Than Significant	No	No	No
(d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	Yes	Less Than Significant	No	No	Yes

Impact Determination in the Certified EIRs

Impacts related to Aesthetics were discussed in Section 4.1, Aesthetics, of the GP EIR, and in Sections 4.5, Aesthetics/Viewshed Modified and 4.6 Shadow, Light, and Glare, of the Specific Plan EIR.

With regard to Threshold (a), both of the Certified EIRs concluded that impacts to scenic vistas, including scenic routes and corridors, would be less than significant. Specifically,

[4] *Threshold (b) was not specifically addressed in the Amgen Center Specific Plan EIR as this threshold was added subsequent to the preparation of the Amgen Center Specific Plan EIR. Notwithstanding, the Amgen Center Specific Plan EIR evaluated proposed land use changes and the conversion of land in the Initial Study prepared for the Amgen Center Specific Plan EIR and concluded impacts would be less than significant.*

[5] *Threshold (c) was not specifically addressed in the Amgen Center Specific Plan EIR as this threshold was added subsequent to the preparation of the Amgen Center Specific Plan EIR. Notwithstanding, the Amgen Center Specific Plan EIR addressed public views in Section 4.5, Aesthetics/Viewshed Modified, of the Amgen Center Specific Plan EIR and compatibility with surrounding uses and development standards in Section 4.1, Land Use, of the Amgen Center Specific Plan EIR and concluded impacts would be less than significant.*

projects under the Approved General Plan Update and the Approved Specific Plan would not have a substantial negative impact on public views or scenic vistas and routes/corridors. In addition, there are no adopted scenic vistas in the General Plan Planning Area. Furthermore, the GP EIR notes that development that may occur would be governed by the policies contained the Conservation Element and Land Use Element of the 2045 General Plan, as well as design standards contained in the City's Municipal Code.

With regard to Threshold (b), as discussed in the GP EIR, there are no officially designated State Scenic Highways in the planning area. Therefore, the Certified EIR concluded impacts would be less than significant.

With regard to Threshold (c), as discussed in the GP EIR, development that may occur under the Approved General Plan Updated would be governed by standard development review procedures and 2045 General Plan policies, which are designed to protect Thousand Oak's aesthetic resources and maintain the community's character. Therefore, the GP EIR concluded visual character and quality impacts would be less than significant.

With regard to Threshold (d), as described in the Certified EIRs, development under the Approved General Plan Update and Approved Specific Plan would occur in areas that are already at least partly developed and would be subject to Code requirements. Thus, the Approved General Plan Update and Approved Specific Plan would not substantially increase light and glare beyond existing conditions or levels already allowed under current City regulations and policies. In addition, while impacts were determined to be less than significant, the Specific Plan EIR included mitigation measures to ensure that substantial glare conditions would not occur. Development envisioned under the 2045 General Plan would also be subject to design review to ensure consistency with the overall vision for the City. Accordingly, highly reflective materials capable of generating substantial amounts of glare would be avoided in development. Therefore, the Certified EIRs concluded that light and glare impacts would be less than significant.

Do Proposed Changes or New Circumstances Involve New Significant Impacts or Substantially More Severe Impacts?

Threshold (a)—Scenic Vistas: Although the City does not specifically identify protected scenic vistas within the City, as discussed in the GP EIR, the City considers its major natural landscape features, such as open spaces, knolls, ridges, and hillsides, to be important scenic resources. The Development Area is located in the Conejo Valley, where intermittent views from surrounding roadways include hillsides and mountains, ridgelines, and the Santa Monica Mountains.

The Modified Project includes the construction of a 377,256 square-foot technology and life sciences facility within the southern boundary of the ATO Campus. The proposed Building 50 would include four above grade stories (approximately 70 feet above grade, increasing to approximately 98 feet when accounting for rooftop equipment and mechanical screening) and an additional one story of below grade floor area. The Santa Monica Mountains are situated south of the Development Area, with intervening buildings and the US-101. While the proposed Building 50 would be taller than the former Building 14, it would remain within the developed campus and would not substantially obstruct or degrade views of the Santa Monica Mountains. In addition, the proposed building would be compatible in height with buildings in the ATO Campus, including the existing four-story building located to the west (Building 29), and two-story building located to the east (Building 8). The Santa Monica mountains would continue to be visible from public vantage points, and existing public views include the existing Amgen Campus, as well as intervening buildings and US-101. Furthermore, the Modified Project would be consistent with the policies contained the Conservation Element and Land Use Element of the 2045 General Plan, as well as design standards contained in the City's Municipal Code that would minimize the potential for development to obscure or substantially degrade views of scenic vistas or views within scenic routes and corridors. Therefore, consistent with both Certified EIRs, the Modified Project would not have a substantial adverse effect on a publicly available scenic vista, and impacts would be less than significant. Such impacts would be within the scope of effects and within the impact envelope set forth in the Certified EIRs.

Threshold (b)—State Scenic Highways: As discussed in the Certified EIR, there are no officially designated State scenic highways within the General Plan Planning Area. As there are no State scenic highways adjacent to the Development Area, implementation of the Modified Project would not have the potential to substantially damage scenic resources within a State scenic highway. Therefore, no impact to scenic resources within a State scenic highway would occur. Such impacts would be within the scope of effects and within the impact envelope set forth in the Certified EIR.

Threshold (c)—Consistency with Regulations regarding Scenic Quality: The Development Area is located within an urbanized area and is currently undergoing demolition of the previously developed research laboratory facility. The Development Area comprises approximately 4.27 acres of the 91-acre ATO Campus, which includes research, manufacturing, office, warehouse/distribution, and common uses that support Amgen's corporate headquarters.

As described in the GP EIR, although the proposed General Plan Update is generally consistent with the City's Specific Plans (including the Approved Specific Plan), upon adoption of the General Plan Update, the City would review the adopted Specific Plan and revise where necessary to reflect changes made in the General Plan Update, such as land use,

density/intensity, design, and development.[6] As such the Modified Project includes a Specific Plan Amendment, which allows for a revision to the gross floor area definition, reconfiguration of the boundaries within the Height District map, a height increase for Height District 2 to 75 feet (excluding mechanical and elevator equipment), consistent with the base height allowance for the Industrial Flex land use designation of the General Plan, and exceptions to the height limits for specified mechanical equipment above rooftop screening, parking locational criteria, and architectural massing step backs where building exceeds two stories. The Modified Project is consistent with the goals and policies of the 2045 General Plan Land Use Element, including: Policy 1.3, which supports infill development while maintaining community character; Policy 8.1, which promotes high-quality design and materials; Policy 17.4, which encourages redevelopment of older industrial and commercial properties with higher-intensity office and research and development uses; Policy 17.5, which allows building heights of up to 75 feet within the Industrial Flex designation; and Policy 17.7, which supports coordination with Amgen to maintain its headquarters and campus within the City.

As set forth below, during construction, the Modified Project would implement Specific Plan Mitigation Measure AES-2, to reduce temporary visual impacts during construction by preparing a good housekeeping plan designating on-site locations for the holding and pick up of demolition debris and the storage and screening of construction materials as well as equipment storage The Modified Project would also be designed in a style similar to the existing technology and life sciences facilities that define the aesthetic appearance of the ATO Campus. The proposed Building 50 would be four-stories in height and would be compatible in height with the existing four-story Building 29, and two-story Building 8, located west and east of the Development Area, respectively. While the Development Area is located in the Conejo Valley, where views from surrounding roadways include hillsides and mountains, ridgelines, the Santa Monica Mountains, the Project vicinity is built out and Modified Project would not significantly alter or obstruct views of visual resources as the proposed Building 50 would be comparable to the ATO Campus' existing buildings in massing, design, and overall height. In addition, landscaped berms would be located along the street facing northern and southern sides of the building and mechanical equipment at the ground level would be screened from view. As such, the Modified Project would not conflict with applicable policies of the 2045 General Plan Land Use Element related to scenic quality. Therefore, the Modified Project would not create any new significant impacts related to consistency with regulations and plans regarding scenic quality and impacts would be less than significant. Such impacts would be within the scope of effects and within the impact envelope set forth in the GP EIR.

Threshold (d)—Light and Glare: The Modified Project would introduce new sources of light and glare but would eliminate existing lighting associated with the former Building 14, which is currently undergoing demolition. Sources of project-generated light would include interior building lighting, exterior security and pedestrian lighting, and vehicle headlights

[6] *2045 General Plan Update EIR, Section 4.6 Land Use August 2023, page 4.6.14*

associated with nighttime access to the existing parking facilities within the ATO Campus. However, as the Development Area is located within an urban setting where light and glare sources already exist, the Modified Project would not in itself substantially increase light and glare beyond existing conditions or levels already allowed under current City regulations and policies. In addition, since parking for the proposed Building 50 would be provided within existing surface parking, subterranean parking, and above-grade parking structures within the ATO Campus, the Modified Project would not result in increased light associated with parking facilities compared to current conditions.

As discussed in Section 2, Project Description, of this Addendum, all lighting would comply with current energy standards and codes while providing appropriate light levels to accent signage, architectural features, and landscaping elements. Light sources would be shielded and/or directed toward the Development Area to minimize light spill-over to adjacent properties and the surrounding area while utilizing low-level exterior lights at the site perimeter, as needed, for aesthetic, security, and wayfinding purposes. Where applicable, exterior lighting would be screened and/or hooded in accordance with Amgen Center Specific Plan Mitigation Measure SLG-1 so that no unobstructed exterior beam of light is directed toward vehicular traffic in a manner that interferes with safety. Therefore, with adherence to existing City requirements and Amgen Center Specific Plan Mitigation Measure SLG-1, impacts with respect to lighting would be less than significant.

With respect to glare, the Modified Project would feature a variety of surface materials, including glass, metal, terracotta, and concrete block. As identified in Amgen Center Specific Plan Mitigation Measure SLG-3, glass in building façades would be selected for qualities such as low reflectivity to reduce glare. The Modified Project would also comply with Amgen Center Specific Plan Mitigation Measure SLG-4 through the use of glazing that is compatible with the building's architectural design and surrounding development. Nighttime glare could result from illuminated signs and vehicle headlights. However, as discussed above, parking for the proposed Building 50 would be provided within existing ATO Campus parking facilities. As such, the Modified Project would not result in substantial increase in glare associated with parking facilities compared to current conditions. Thus, impacts with respect to glare would be less than significant.

Based on the above, the Modified Project would not result in any new significant impacts related to light and glare nor result in a substantial increase in a previously identified significant impact. Such impacts would be within the scope of effects and within the impact envelope set forth in the Certified EIR.

Mitigation Measures

The following mitigation measures set forth in the Specific Plan EIR and the associated MMRP to address aesthetics impacts would be implemented as part of the Modified Project.

No additional mitigation measures are required as no new significant aesthetics impacts would result from implementation of the Modified Project.

~~**Amgen Center Specific Plan Mitigation Measure AES-1 Gateways Plan for Rancho Conejo Boulevard:** The applicant shall prepare a gateway plan for the aesthetic treatment of the east side of Rancho Conejo Boulevard between the Ventura Freeway and Hillcrest Drive. The plan shall augment any modifications that may be required as part of a transportation mitigation measure.~~

[This mitigation measure is not applicable to the Modified Project.]

Amgen Center Specific Plan Mitigation Measure AES-2 Good Housekeeping Plan: Prior to issuance of demolition permits, the applicant shall prepare and submit a demolition/ construction good-housekeeping plan for review and approval by the City. The plan shall include such information as designation of on-site locations for the holding of demolition materials, storage of construction materials and equipment storage. Other information to be provided shall include a schedule for debris removal, proposed screening mechanisms.

Amgen Center Specific Plan Mitigation Measure SLG-1 Screening: ~~All~~ Before issuance of Building Permits, the Applicant shall submit a plan for review and approval by the Planning Division demonstrating that, all exterior lighting for security and parking structure purposes ~~should~~ will either be screened and/or hooded. No unobstructed exterior beam of light shall ~~should~~ be permitted to be directed toward vehicular traffic on any portion of roadways that would interfere with safety.

~~**Amgen Center Specific Plan Mitigation Measure SLG-2 Parking Structure Design:** Parking structures proposed for the Specific Plan area should be designed to incorporate light and glare reduction techniques that interrupt headlight beams and reflective glare from vehicles. These features shall be incorporated into detailed plans for the parking structures to be submitted by the applicant.~~

[This mitigation measure is not applicable to the Modified Project.]

Amgen Center Specific Plan Mitigation Measure SLG-3 Low Reflecting Building Materials: ~~Low~~ Prior to issuance of a Building Permit, the Applicant shall submit plans for review and approval by the Community Development Department demonstrating that low reflective glass, non-reflective surface or special treated materials ~~should~~ will be used on exterior surfaces of structures constructed within the Specific Plan area to reduce potential glare impacts.

~~**Amgen Center Specific Plan Mitigation Measure SLG-4 Glazing:** Glazing should be defined by the function and structure of the building and contribute to the overall building design. There should be a balance between well and glazed surfaces.~~

~~1. The color of glazing should be compatible with those colors already in use in the Specific Plan area.~~

~~– clear/silver~~

~~– blue~~

~~– green~~

~~– blue/green~~

~~– bronze~~

~~– smoke~~

~~2. Tinted or lightly reflective glass (35 percent maximum) is allowable.~~

~~3. Glazing should be complementary to the glazing in adjacent buildings that are intended to remain throughout the long-term development within the Specific Plan area.~~

~~4. Clear glass is encouraged at primary entries and on the first floor.~~

Glazing shall be integrated into the building design and shall use colors compatible with the specific plan area. Clear/silver, blue, green, blue-green, bronze, and smoke colors are permitted. Tinted or reflective glass shall not exceed 35-percent reflectivity. Glazing shall complement adjacent buildings that will remain, and clear glass shall be used at primary first-floor entrances unless the Community Development Department approves an equivalent design.

[This mitigation measure has been refined for clarity and is more effective than the original measure. No new impacts or increases in already identified impacts would result from implementation of this updated mitigation measure].

Conclusion

Based on the above, no new significant impacts to aesthetics or a substantial increase in previously identified aesthetics impacts would occur as a result of the Modified Project, and the potential environmental impacts of the Modified Project with regard to aesthetics would not result in any of the conditions set forth in PRC Section 21166(c) or CEQA Guidelines Sections 15162 or 15163 that would require the preparation of a Supplemental or Subsequent EIR.

4.2 AGRICULTURE AND FORESTRY RESOURCES

Issues (and Supporting Information Sources)	Was the Impact Analyzed in the Certified EIR?[7]	Impact Determination in the Certified EIR	Do Proposed Changes or New Circumstances Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification	Certified EIR Mitigation Measures Addressing Impact
AGRICULTURE AND FORESTRY RESOURCES: Would the project:					
(a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	Yes	No Impact	No	No	No
(b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	Yes	No Impact	No	No	No
(c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	Yes	No Impact	No	No	No
(d) Result in the loss of forest land or conversion of forest land to non-forest use?	Yes	Less Than Significant	No	No	No
(e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	Yes	Less Than Significant	No	No	No

Impacts Analyzed in the Certified EIR

Impacts related to Agriculture and Forestry were evaluated in the Initial Studies prepared for the Certified EIRs.

Impact Determination in the Certified EIR

The GP EIR concluded that impacts with respect to Thresholds (a) through (e) would be less than significant as the city does not contain any Prime Farmland, Unique Farmland, or Farmland of Statewide Importance or forest land, timberland, or timberland zoned Timberland Production. Portions of land in the northern city limits have a zoning designation of Rural-

[7] *Thresholds (a) through (e) were not specifically addressed in the Amgen Center Specific Plan EIR as these thresholds were added to the Appendix G Environmental Checklist Form after the preparation of the Amgen Center Specific Plan EIR. Notwithstanding, the Specific Plan EIR evaluated impacts to agricultural crops under the topic of "Plant Life" and concluded that no impacts would occur.*

Agricultural. These include the land bounded by SR 23 to the east, residential uses to the west and south, and Read Road to the north, as well as McCrea Ranch, which is under the management of the Conejo Recreation and Park District. The Approved General Plan Update changed the land use designations of this area to Parks, Golf Courses, and Open Space. However, the change in land use designation did not remove agricultural land as the areas zoned Rural-Agricultural were not used for agricultural activities. Therefore, the GP EIR concluded impacts would be less than significant or that no impact would occur.

The Specific Plan EIR evaluated impacts to agricultural crops under the topic of "Plant Life" and concluded that no impacts would occur.

Do Proposed Changes or New Circumstances Involve New Significant Impacts or Substantially More Severe Impacts?

Thresholds (a) through (e): Development under the Modified Project would occur within the geographic area evaluated in the GP EIR. Thus, as with the Approved General Plan Update, no agricultural or forest resources including farmland, forest land, or related operations are present on the Development Area. In addition, the Development Area is not zoned for any agriculture, forest land, or timberland. Therefore, the Modified Project would not create any new significant impacts related to agricultural, forest land or timberland nor result in a substantial increase in a previously identified significant impact. Such impacts would be within the scope of effects and within the impact envelope set forth in the Certified EIR.

Mitigation Measures Addressing Impact

None.

Conclusion

Based on the above, no new significant impacts to agricultural and forestry resources or a substantial increase in previously identified agricultural and forestry resources impacts would occur as a result of the Modified Project. Thus, the Modified Project with regard to agricultural and forestry resources would not result in any of the conditions set forth in PRC Section 21166(c) or CEQA Guidelines Sections 15162 or 15163 that would require the preparation of a Supplemental or Subsequent EIR.

4.3 AIR QUALITY

Issues (and Supporting Information Sources)	Was the Impact Analyzed in the Certified EIR?	Impact Determination in the Certified EIR	Do Proposed Changes or New Circumstances Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Certified EIR's Mitigation Measures Addressing Impact
AIR QUALITY: Would the project:					
(a) Conflict with or obstruct implementation of the applicable air quality plan?	Yes	Less Than Significant	No	No	No
(b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	Yes	Significant and Unavoidable	No	No	Yes
(c) Expose sensitive receptors to substantial pollutant concentrations?	Yes	Less than Significant with Mitigation	No	No	Yes
(d) Result in other emissions (such as those leading to odors adversely affecting a substantial number of people?	Yes	Less Than Significant	No	No	No

Impacts Analyzed in the Certified EIR

Impacts related to Air Quality were discussed in Section 4.2, Air Quality, of the GP EIR, and in Section 4.3, Air Quality of the Specific Plan EIR.

Impact Determination in the Certified EIR

With regard to Threshold (a), the Certified EIRs concluded that the Approved General Plan Update and Approved Specific Plan would not generate growth which substantially exceeds the most recently adopted Ventura County Air Quality Management Plan (AQMP) population forecasts and thus would not be inconsistent with the AQMP. Therefore, the Certified EIRs concluded that impacts would be less than significant.

With regard to Threshold (b) related to criteria pollutants, the GP EIR found that individual residential development projects larger than single-family residences, Accessory Dwelling Units (ADUs), or duplexes, as well as commercial or industrial projects, may exceed the Ventura County Air Pollution Control District (VCAPCD) thresholds for Reactive Organic Carbon (ROC) and nitrogen oxides (NOx). Implementation Action C-A.12 requires implementation of mitigation measures in the most recent version of the VCAPCD's Guidelines. Such mitigation regarding ROCs would include measures to reduce ROC emissions during project construction by using architectural coatings with ROC contents of 25 grams per liter or less. Measures to reduce NOx emissions during construction for projects larger than single-family residences, ADUs, or duplexes would include minimizing equipment idling time,

maintaining equipment engines in good condition and in proper tune as per manufacturers' specifications, lengthening the construction period during smog season (May through October) to minimize the number of vehicles and equipment operating at the same time, and using alternatively fueled construction equipment, such as compressed natural gas, liquefied natural gas, or electric, if feasible. While consistency with VCAPCD's Guidelines pursuant to Implementation Action C-A.12, including the use of low-ROC architectural coatings, minimizing equipment idling, maintaining equipment, extending construction periods during smog season, and using alternatively fueled construction equipment where feasible, would reduce impacts from construction emissions to less than significant for the majority of projects, specific project-level details are unknown at this level of planning and individual projects may exceed VCAPCD thresholds after mitigation. Therefore, the GP EIR concluded that construction impacts would be significant and unavoidable. The Specific Plan EIR concluded that with implementation of standard requirements the temporary construction related impacts of the Approved Specific Plan would be temporary and less than significant.

Regarding operations, the GP EIR found that the City's population increase would be proportionately greater than the vehicle miles traveled (VMT) increase, resulting in a reduction in mobile emissions per capita. In addition, the continued transition to alternative-fuel vehicles, including electric vehicles, would reduce the average per vehicle-mile emissions. Development facilitated by the Approved General Plan Update would also comply with applicable 2045 General Plan Update policies, including Policies 10.2 and 10.3 of the Conservation Element and Policy 4.3 of the Land Use Element, which would further reduce operational air quality emissions. Therefore, the GP EIR concluded that impacts from project operations would be less than significant. The Specific Plan EIR concluded that with contributions to TDM funding, potential operational impacts of the Specific Plan related to air quality emissions would be less than significant.

With regard to Threshold (c), as discussed in the GP EIR, construction activities associated with development projects located within 1,000 feet of a sensitive receptor could expose receptors to toxic air contaminant (TAC) concentrations. In addition, certain development projects could exceed health risk thresholds if they involve an extended construction duration and do not utilize Tier 4 or newer construction equipment. Although VCAPCD does not define health risk thresholds, adjacent air districts identify an increased cancer risk greater than 10.0 in a million and an increased non-cancer risk of greater than 1.0 Hazard Index (Chronic or Acute). Therefore, the GP EIR included Mitigation Measure AQ-1, which requires new development projects located within 1,000 feet of sensitive receptors, with construction durations exceeding 2 months, or that do not utilize United States Environmental Protection Agency (USEPA) Tier 4 construction equipment, fitted with Level 3 Diesel Particulate Filter or alternative fuel, to prepare a construction health risk assessment (HRA) to identify potential health risk impacts. Implementation of Mitigation Measure AQ-1 would reduce construction impacts to a less-than-significant level. The Specific Plan EIR concluded that

potential localized impacts associated with CO concentrations generated by vehicular traffic would be less than significant.

Regarding operations, as discussed in the GP EIR, development facilitated by the Approved General Plan Update would comply with land use and zoning regulations and would not site land uses that typically generate TAC. New stationary TAC sources, if proposed, would be subject to applicable permitting requirements to ensure that the stationary source does not present a health risk to existing nearby sensitive receptors. Nonetheless, potential operational TAC sources could result from sources such as truck idling, off-road equipment, and transport refrigeration units associated with some warehousing and manufacturing facilities. In addition, the Approved General Plan Update could facilitate the development of sensitive receptors near high-volume roadways and freeways. As discussed above, the GP EIR included Mitigation Measure AQ-1, which requires project applicants prepare an operational HRA for the siting of new sensitive receptors within 500 feet of major sources of TAC (freeways or high-volume roadways with 10,000 vehicles or more per day) and implement any mitigation measures as necessary. The GP EIR also included Mitigation Measure AQ-2, which requires applicants for land uses that would generate substantial diesel truck travel prepare an operational HRA to identify potential health risks and determine appropriate mitigation measures. Implementation of Mitigation Measures AQ-1 and AQ-2 would reduce operational impacts under the Approved General Plan Update to a less-than-significant level. The Specific Plan EIR concluded that the proposed increase to the AMGEN facilities would not significantly increase TAC emissions or increase health risk beyond levels that would trigger an HRA and TAC impacts would be less than significant.

With regard to Threshold (d), the Certified EIRs concluded that implementation of the Approved General Plan Update and Approved Specific Plan would not result in significant construction and operational odor impacts.

Do Proposed Changes or New Circumstances Involve New Significant Impacts or Substantially More Severe Impacts?

Threshold (a)—Consistency with Air Quality Plan: As discussed above, the Modified Project proposes to construct an approximately 377,256 gross square foot technology and life sciences facility (Building 50). The projections in the VCAPCD 2022 Air Quality Management Plan (AQMP) for achieving air quality goals are based on assumptions in SCAG's 2020–2045 RTP/SCS regarding population, housing, and growth trends and the 2045 General Plan Update. The Modified Project would not result in a net increase in employees across the ATO Campus as existing staff would be relocated from other buildings within the ATO Campus to the proposed Building 50. Accordingly, the Modified Project would not directly or indirectly induce substantial unplanned population growth through the development of new housing or the creation of new employment opportunities. Thus, the Modified Project would be within the population, housing, and employment assumptions, which were used in the development of

the AQMP. Because the VCAPCD has incorporated these same projections into the AQMP, it can be concluded that the Modified Project would be consistent with the projections in the AQMP. In addition, as discussed below, implementation of Modified Project would not exceed any ambient air quality standards or thresholds. Therefore, the Modified Project would not create any new significant impacts related to implementation of the applicable air quality plan nor result in a substantial increase in a previously identified significant impact. Such impacts would be within the scope of effects and within the impact envelope set forth in both of the Certified EIR.

Threshold (b)—Criteria Pollutants: Air pollution is largely a cumulative impact. The nonattainment status of regional pollutants is a result of past and present development, and VCAPCD develops and implements plans for future attainment of ambient air quality standards. Based on these considerations, project-level thresholds of significance for criteria pollutants are relevant in the determination of whether a project's individual emissions would have a cumulatively significant impact on air quality. The potential increase in criteria pollutants during construction and operation of the Modified Project was quantified using CalEEMod Version 2022.1.1 and is discussed below.

Construction

Fugitive dust emissions during construction of the Modified Project would be controlled through compliance with VCAPCD Rule 55 (Fugitive Dust). Examples of VCAPCD Rule 55 control measures include watering active portions of the construction site, limiting on-site traffic to 15 miles per hour, ceasing dust generating activities during period of high winds (I.e., greater than 20 miles per hour averaged over one hour), and securely covering material transported off-site. Compliance with VCAPCD Rule 55 would prevent significant impacts from fugitive dust. An analysis of proposed construction activities associated with the Modified Project was conducted and is provided in Table 1 on page 34. Consistent with Mitigation Measure AQ-1 of the GP EIR, that requires the City to adopt and implement a new general plan policy to require development projects to incorporate the use of Tier 4 Final construction equipment equipped with Level 3 diesel particulate filters ("DPF") or require a health risk assessment, the Project will utilize such Tier 4 equipment during construction in accordance with City policy and Project Design Feature AQ-1, below. As shown in Table 1, with implementation of Tier 4 equipment, the Modified Project would not exceed the VCAPCD's significance thresholds for criteria pollutants. Like the impact conclusion in the Specific Plan EIR, such impacts would be less than significant, and such impacts would be reduced when compared with the GP EIR where impacts were concluded to be significant and unavoidable. Accordingly, the Modified Project would not create any new significant construction air quality impacts nor result in a substantial increase in a previously identified significant impact. Such impacts would be within the scope of effects and within the impact envelope set forth in the Certified EIRs.

Table 1
Modified Project—Maximum Daily Regional Construction Emissions
(pounds per day)[a,b]

Pollutant Emissions	VOC	NO_X	CO	SO_X	PM_{10}[c]	$PM_{2.5}$[c]
Construction Year						
Year 2026 Winter	1	10	33	<1	2	1
Year 2027 Summer	4	22	77	<1	8	2
Year 2027 Winter	4	23	74	<1	8	2
Year 2028 Summer	11	22	75	<1	8	2
Year 2028 Winter	11	22	70	<1	8	2
Year 2029 Summer	1	11	34	<1	1	1
Maximum Unmitigated Construction Emissions[d]	**11**	**23**	**77**	**<1**	**8**	**2**
VCAPCD Daily Significance Thresholds	**25**	**25**	**—**	**—**	**—**	**—**
Maximum Unmitigated Construction Emissions Exceed Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

— = No threshold exists

[a] *Construction details (e.g., construction phase schedule, equipment mix, and haul/delivery/worker trips) are provided in Appendix C of this Addendum.*

[b] *Emission quantities are rounded to "whole number" values. As such, the "total" values presented herein may be one unit more or less than actual values. Exact values (i.e., non-rounded) are provided in the calculation worksheets that are presented in Appendix C (CalEEMod Output: Amgen—Project Detailed Report) of this Addendum.*

[c] *PM_{10} and $PM_{2.5}$ emissions estimates are based on compliance with VCAPCD Rule 55 requirements for fugitive dust suppression.*

[d] *All construction phases would use Tier 4 Final Construction equipment with Level 3 DPFs.*

Source: Eyestone Environmental, 2026.

Operation

An analysis of proposed operational activities associated with the Modified Project was conducted and is provided in Table 2 on page 35. The analysis accounts for stationary source (e.g., two emergency generators) emissions, area source (e.g., architectural coatings and consumer products) emissions, as well as mobile emissions based on ITE 12th Edition ITE Code 760. Note that this analysis is conservative as the square footage associated with the Modified Project would be within the envelope of that evaluated in the Specific Plan EIR and thus the trips and associated mobile source emissions associated with the Modified Project are already accounted for in the Specific Plan EIR air quality analysis. In addition, the Modified Project would implement Project Design Feature AQ-2 to use USEPA Tier 4 Final emissions compliant emergency generators equipped with a Level 3 Diesel Particulate Filter or equivalent.

Table 2
Modified Project—Estimate of Regional Operational Emissions[a]

Emission Source	Pollutant Emissions (pounds per day)					
	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Winter Emissions						
Modified Project	28	28	223	<1	63	16
Existing Uses Being Removed	16	16	130	<1	40	10
Incremental Emissions	**12**	**11**	**93**	**<1**	**23**	**6**
VCAPD Significance Threshold	**25**	**25**	**---**	**---**	**---**	**---**
Exceed Threshold?	**No**	**No**	**No**	**No**	**No**	**No**
Summer Emissions						
Modified Project	**18**	**21**	**214**	**<1**	**63**	**16**
Existing Uses Being Removed	**17**	**15**	**146**	**<1**	**40**	**10**
Incremental Emissions	**13**	**11**	**106**	**<1**	**23**	**6**
VCAPD Significance Threshold	**25**	**25**	---	---	---	---
Exceed Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

--- = No Threshold Exists.

Numbers may not add up exactly due to rounding.

[a] *The CalEEMod model printout sheets and/or calculation worksheets are presented in Appendix C (CalEEMod Output) of this Addendum.*

Source: Eyestone Environmental, 2026.

As shown in Table 2, the Modified Project would result in less than significant operational air pollutant impacts. In addition, the Modified Project would implement the same operational mitigation measures identified in the GP Certified EIR and set forth below. Accordingly, the Modified Project would not create any new significant air quality impacts nor result in a substantial increase in a previously identified significant impact. Such impacts would be within the scope of effects and within the impact envelope set forth in the Certified EIRs.

Threshold (c): Modified Project construction would result in emissions of diesel particulate matter from heavy construction equipment and trucks accessing the site. Diesel particulate matter is characterized as a TAC by the State of California. The Office of Environmental Health Hazard Assessment has identified carcinogenic and chronic noncarcinogenic effects from long-term exposure but has not identified health effects due to short-term exposure to diesel exhaust. According to the Office of Environmental Health Hazard Assessment, health risk assessments, which determine the exposure of sensitive receptors to toxic emissions, should be based on a 30-year exposure period for the maximally exposed individual resident; however, such assessments should be limited to the period/duration of

activities associated with the Modified Project. Given the limited amount of grading/export activities and the overall short-term construction schedule of approximately 38 months, the Modified Project would not result in a long-term (i.e., 30-year) source of TAC emissions. Due to this relatively short period of exposure and minimal particulate emissions on site, TACs generated during construction would not be expected to result in concentrations causing significant health risks.

In addition, as discussed above, the Modified Project would also implement Tier IV equipment during construction consistent with City policy set forth by Mitigation Measure AQ-1 within the GP EIR. This would further limit emissions of diesel particulate matter from construction equipment on-site and ensure that sensitive receptors are not exposed to substantial pollutant concentrations. Therefore, the Modified Project complies with Mitigation Measure AQ-1 of the GP EIR and no HRA needs to be prepared.

As such, on-site construction activities associated with the Modified Project would not expose sensitive receptors to substantial pollutant concentrations, and impacts would be less than significant with regard to localized emissions. Modified Project impacts would be within the scope of effects and within the impact envelope set forth in the GP EIR.

From an operational standpoint, the GP EIR included Mitigation Measure AQ-2, which requires project applicants prepare an operational HRA for land uses that would generate at least 100 diesel trucks per day or 40 or more trucks with diesel-powered transport refrigeration units per day. It is estimated that the Modified Project would result in a maximum of approximately 10 to 15 delivery trucks per day. As such, Mitigation Measure AQ-2 would not be applicable to the Modified Project and no HRA needs to be prepared. The Modified Project would also require two 5,166 hp diesel emergency generators. However, similar to the requirements of Mitigation Measure AQ-1 for construction, the Modified Project will incorporate the use of Tier 4 Final generators equipped with Level 3 DPF. Therefore, no HRA needs to be prepared as part of this Addendum. Furthermore, new stationary TAC sources (e.g., emergency generators), would be subject to applicable permitting requirements to ensure that the stationary source do not present a health risk to existing nearby sensitive receptors. The Modified Project would also transfer fleet vehicles to more fuel efficient and zero emission vehicles at the earliest practicable date, consistent with Specific Plan EIR Mitigation Measure AQ-1. Thus, the Modified Project would not involve substantial changes that would result in new significant impacts or a substantial increase in the severity of significant effects previously identified and reduced to less than significant levels with implementation of mitigation measures.

The VCAPD recommends conducting a carbon monoxide (CO) hotspot screening analysis for projects that meet both of the following conditions: 1) The project would generate indirect CO emissions are greater than the ozone project significance thresholds (i.e., 25

pounds per day incremental increase); and 2) The project would generate traffic that would significantly impact congestion levels at roadway intersections currently operating at, or that are expected to operate at, LOS [level of service] E or F. It should be noted that the VCAPCD does not include a significance threshold specific to CO. As shown above in Table 2 on page 35, the incremental increase in CO operational emissions from the Modified Project would exceed the VCAPCD threshold of 25 pounds per day established for ROCs or NO_X (i.e., not directly applicable to CO) which are Ozone Project Significance Thresholds. However, as discussed in Section III.17, Transportation, the Modified Project would result in minimal effects on traffic conditions at nearby intersections. As a result, the Modified Project does not trigger both criterions for the need of a CO hotspot analysis and would not cause or contribute to a CO hot spot. In addition, the Modified Project would implement the same operational mitigation measure identified in the Specific Plan EIR and set forth below. Accordingly, the Modified Project would not create any new significant localized air quality impacts nor result in a substantial increase in a previously identified significant impact. Such impacts would be within the scope of effects and within the impact envelope set forth in the Certified EIR.

Threshold (d)—Odors: With regard to construction, the Modified Project would use conventional building materials typical of construction projects of similar type and size. Any odors that may be generated during construction would be localized and temporary in nature and would not be sufficient to affect a substantial number of people or result in a nuisance as defined by VCAPCD Rule 51. With regard to operation, the Modified Project proposes the development of a technology and life sciences facility. This is not a land use associated with odor complaints, which typically include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding. Therefore, the Modified Project would not create any new significant impacts related to odors nor result in a substantial increase in a previously identified significant impact. Such impacts would be within the scope of effects and within the impact envelope set forth in the Certified EIRs.

Project Design Features

Consistent with City Policy set forth in Mitigation Measures AQ-1 and AQ-2 of the GP EIR to limit diesel emissions, the Modified Project will implement the following Project Design Features to reduce diesel emissions:

Project Design Feature AQ-2: The Modified Project shall use USEPA Tier 4 Final emissions compliant emergency generators equipped with a Level 3 Diesel Particulate Filter or equivalent.

Mitigation Measures Addressing Impact

The following mitigation measures set forth in the Specific Plan EIR and the associated MMRP to address air quality impacts would be implemented as part of the Modified Project. No additional mitigation measures are required as no new significant air quality impacts would result from implementation of the Modified Project.

~~**2045 General Plan Update Mitigation Measure AQ-1 Adopt and Implement a New General Plan Policy that Requires Construction HRA:** To reduce impacts of substantial pollutant concentrations on sensitive receptors, the City shall adopt the following General Plan policy in the Conservation Element to be implemented as part of the project approval process:~~

- ~~**Policy 10.7:** Require new development that is within 1,000 feet of sensitive receptors, will take longer than 2 months, and does not utilize construction equipment that is USEPA Tier 4, fitted with Level 3 Diesel Particulate Filter, and uses alternative fuel to prepare a construction health risk assessment (HRA) to identify potential health risk impacts. Based on the results of the HRA, the City shall require mitigation measures as necessary, to reduce potential exposure to toxic air contaminants.~~

[This mitigation measure is not applicable to the Modified Project as the Modified Project would implement Tier 4 equipment]

~~**2045 General Plan Update Mitigation Measure AQ-2 Conduct Operational HRA:** Prior to permit approval for warehousing or commercial land uses that would generate at least 100 diesel trucks per day or 40 or more trucks with diesel-powered transport refrigeration units per day, the applicant shall submit an operational HRA or submit proof that an HRA is not required in accordance with health risk thresholds of an increased cancer risk of greater than 10.0 in a million and an increased noncancer risk of greater than 1.0 Hazard Index (Chronic or Acute) to the City for review and approval. If required by the City, the operational HRA shall be prepared in accordance with the OEHHA and mitigated to below the health risk thresholds. Typical measures to reduce risk impacts may include, but are not limited to:~~

- ~~Restricting idling on-site beyond Air Toxic Control Measures idling restrictions, as feasible~~
- ~~Electrifying warehousing docks~~
- ~~Truck Electric Vehicle (EV) Capable trailer spaces~~
- ~~Requiring use of newer equipment and/or vehicles~~
- ~~Restricting off-site truck travel through the creation of truck routes~~

~~The operational HRA shall be provided to the City for review and concurrence prior to project approval.~~

[This mitigation measure is not applicable to the Modified Project as the Modified Project would not generate an additional 100 or more diesel trucks or 40 or more diesel trucks with diesel-powered transport refrigeration units per day.]

Amgen Center Specific Plan Mitigation Measure AQ-1 Fleet Vehicles: The applicant ~~should~~ shall transfer all fleet vehicles to fuel-efficient or zero-emission vehicles at the earliest practicable date.

Conclusion

Based on the above, no new significant impacts to air quality or a substantial increase in previously identified air quality impacts would occur as a result of the Modified Project. Thus, the potential environmental impacts of the Modified Project with regard to air quality would not result in any of the conditions set forth in PRC Section 21166(c) or CEQA Guidelines Sections 15162 or 15163 that would require the preparation of a Supplemental or Subsequent EIR.

4.4 BIOLOGICAL RESOURCES

Issues (and Supporting Information Sources)	Was the Impact Analyzed in the Certified EIR?	Impact Determination in the Certified EIR	Do Proposed Changes or New Circumstances Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Certified EIR Mitigation Measures Addressing Impact
BIOLOGICAL RESOURCES: Would the project:					
(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?	Yes[8]	Less Than Significant with Mitigation	No	No	Yes
(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?	Yes[9]	Less Than Significant	No	No	No

[8] *Threshold (a) was not specifically addressed in the Specific Plan EIR as this threshold was updated subsequent to the preparation of the Specific Plan EIR. Notwithstanding, the Specific Plan EIR addressed plant life and animal life in the Initial Study and found that no unique, rare, or endangered plant and wildlife species exist within the ATO Campus. As such, the Initial Study concluded that no impacts would occur.*

[9] *Threshold (b) was not specifically addressed in the Specific Plan EIR as this threshold was updated subsequent to the preparation of the Specific Plan EIR. Notwithstanding, the Specific Plan EIR addressed plant life in the Initial Study and found that no unique, rare, or endangered plant species exist within the ATO Campus. As such, the Initial Study concluded that no significant impacts would occur.*

Issues (and Supporting Information Sources)	Was the Impact Analyzed in the Certified EIR?	Impact Determination in the Certified EIR	Do Proposed Changes or New Circumstances Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Certified EIR Mitigation Measures Addressing Impact
(c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	Yes[10]	Less Than Significant	No	No	No
(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?	Yes[11]	Less Than Significant	No	No	No
(e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	Yes[12]	Less Than Significant	No	No	No
(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?	Yes[13]	No Impact	No	No	No

Impact Determination in the Certified EIRs

Impacts related to Biological Resources were discussed in Section 4.3, Biological Resources, of the GP EIR, and in the Initial Study prepared for the Specific Plan EIR.

[10] *Threshold (c) was not specifically addressed in the Specific Plan EIR as this threshold was updated subsequent to the preparation of the Specific Plan EIR. Notwithstanding, the Specific Plan EIR addressed water and plant life in the Initial Study. As discussed therein, there are no fresh or marine water bodies in the City and no unique, rare, or endangered plant species exist within the ATO Campus. As such, the Initial Study concluded that no significant impacts would occur.*

[11] *Threshold (d) was not specifically addressed in the Specific Plan EIR as this threshold was updated subsequent to the preparation of the Specific Plan EIR. Notwithstanding, the Specific Plan EIR addressed wildlife movement and migration in the Initial Study and found there are no unique, rare, or endangered wildlife species exist within the ATO Campus. Implementation of the Approved Specific Plan would not result in the deterioration or elimination of any important wildlife habitat. As such, the Initial Study concluded that no significant impacts would occur.*

[12] *Threshold (e) was not addressed in the Specific Plan EIR as this threshold was added to the Appendix G Environmental Checklist Form after the preparation of the Specific Plan EIR. Nevertheless, the Specific Plan EIR would not conflict with any local policies or ordinances protecting biological resources.*

[13] *Threshold (f) was not addressed in the Specific Plan EIR as this threshold was added to the Appendix G Environmental Checklist Form after the preparation of the Specific Plan EIR. Nevertheless, the Specific Plan EIR would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.*

With regard to Threshold (a), as discussed in the GP EIR, there are 24 animal species and 38 plant species meeting the criteria for special-status species that have the potential to occur in the City. Critical habitat for three special-status species is also present in the Planning Area. Development facilitated by the Approved General Plan Update would be subject to the provisions of federal, State, and local regulations protecting biological and water resources, including, but not limited to, Federal Endangered Species Act (FESA), California Endangered Species Act (CESA), Clean Water Act (CWA) and California Native Plant Protection Act (NPPA). Although compliance with applicable regulations would minimize impacts to special-status species, construction activities such as vegetation removal, demolition and/or relocation, grading, infrastructure improvements, and building construction could disturb nesting migratory birds, roosting bats, and Crotch's bumblebee. Therefore, the GP EIR included Mitigation Measures BIO-1, BIO-2, and BIO-3, which require preconstruction surveys and implementation of avoidance measures to reduce potential impacts to a less-than-significant level.

With regard to Thresholds (b) and (c), the GP EIR found that impacts on riparian habitat, sensitive natural communities, or wetlands would be less than significant as development facilitated by the Approved General Plan Update would occur in mostly urbanized or developed areas of the City and would be comply with applicable federal, State, and City requirements.

With regard to Threshold (d), as discussed in the GP EIR, the northern, western, and northeastern City limits partially encompass the Santa Monica-Sierra Madre Wildlife Corridor, however, due to the existing level of development, the urban areas of the City are not considered wildlife corridors. In addition, Title 9, Chapter 4, Article 35 of the City's Municipal Code establishes the Protected Ridgeline Overlay Zone (PROZ) which, in part, includes areas of the City designated as a wildlife corridor. The GP EIR found that impacts with respect to wildlife movement or nursery sites would be less than significant with compliance with the City's Municipal Code and applicable policies of the 2045 General Plan Conservation Element.

With regard to Threshold (e), the GP EIR found that development facilitated by the Approved General Plan Update would not conflict with local policies or ordinances protecting biological resources or an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan, and impacts would be less than significant. Future development would adhere to the requirements of the City's Municipal Code, City ordinances, and 2045 General Plan policies, including, but not limited to, the City's Oak Tree Preservation and Protection Ordinance and Landmark Tree Preservation and Protection Ordinance. Therefore, the GP EIR concluded that impacts would be less than significant.

With regard to Threshold (f), as discussed in the GP EIR, there are no Habitat Conservation Plans, Natural Community Conservation Plans, or other approved local, regional, or State Habitat Conservation Plans applicable to the Planning Areas. As such, the Approved

General Plan Update would not conflict with such plans. Therefore, the GP EIR concluded that no impact would occur.

As discussed above, the CEQA Guidelines thresholds have been updated since preparation of the Specific Plan EIR. Nonetheless, the Specific Plan EIR concluded that no impacts to plant or animal life associated with change in the diversity of species, reduction in species, or deterioration to existing fish and wildlife habitat would occur.

Do Proposed Changes or New Circumstances Involve New Significant Impacts or Substantially More Severe Impacts?

Threshold (a) through (f): As previously discussed, the Modified Project is located within the western portion of the Planning Area and is a part of the 91-acre ATO Campus. As discussed in Section 2, Project Description, of this Addendum, the Development Area is currently undergoing demolition of former Building 14. No unique, rare, or endangered plant or wildlife species have been identified in the Development Area. In addition, the Development Area is not located in or adjacent to any riparian area.[14,15] No other adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved, local, regional, or state habitat conservation plan applies to the Development Area. Furthermore, the Development Area does not contain any natural hydrologic features or federally protected wetlands as defined by Section 404 of the Clean Water Act.[16] The Development Area also does not function as a wildlife corridor, and no bodies or courses of water exist on-site to provide habitat for fish.[17]

As discussed in Section 2, Project Description, of this Addendum, the Modified Project would remove eight on-site trees including four coast live oak (*Quercus agrifolia*) and four pine trees (*Pinus* species). As discussed in the Oak Tree Report, included as Appendix B of this Addendum, the Modified Project would comply with the City's Oak Tree and Landmark Tree Ordinances per the municipal code and the Oak Tree Preservation and Protection Guidelines.[18] As with the Approved General Plan Update, removal of the existing trees could affect habitat suitable for nesting migratory birds, and, if present, roosting special-status bats. As such, the Modified Project would implement Mitigation Measures BIO-1 and BIO-2 set forth in the GP EIR. Specifically, implementation of Mitigation Measures BIO-1 and BIO-2 would require pre-

[14] *City of Thousand Oaks General Plan, Chapter 7 Conservation, Figure 7.1, Vegetation Communities, p. 135.*

[15] *United States Fish and Wildlife Service, National Wetlands Inventory, www.fws.gov/wetlands/data/Mapper.html, accessed July 8, 2026.*

[16] *United States Fish and Wildlife Service, National Wetlands Inventory, www.fws.gov/wetlands/data/Mapper.html, accessed July 8, 2026.*

[17] *City of Thousand Oaks General Plan, Chapter 7 Conservation, Figure 7.2, Wildlife Corridors, p. 136.*

[18] *TREES, etc., Oak Tree Report, Amgen Project ATO B50, PTP 2026-70113, August 26, 2026.*

construction surveys and implementation of avoidance measures for nesting migratory birds, and, if present, roosting special-status bats. Therefore, with the implementation of Mitigation Measures BIO-1 and BIO-2, impacts would be reduced to a less-than-significant level.

Based on the above, the Modified Project would not create any new significant impacts related to biological resources nor result in a substantial increase in a previously identified significant impact. Such impacts would be within the scope of effects set forth in the Certified EIRs.

Mitigation Measures Addressing Impact

The following mitigation measures set forth in the GP EIR and the associated MMRP to address biological resources impacts would be implemented as part of the Modified Project. No additional mitigation measures are required as no new significant biological resources impacts would result from implementation of the Modified Project.

2045 General Plan Update Mitigation Measure BIO-1 Conduct Pre-construction Bird Surveys and Implement Avoidance and Minimization Measures: For construction activities initiated during the bird nesting season February 15 through September 15 (as early as January 1 for raptors), involving removal of vegetation, abandoned structures, man-made features, or other nesting bird habitat, a pre-construction nesting bird survey shall be conducted no more than 5 days prior to initiation of ground disturbance and vegetation removal. The nesting bird pre-construction survey shall be conducted on foot and shall include an area on and around the construction site at a distance determined by a qualified biologist, including staging and storage areas. The minimum survey radii surrounding the work area shall be 500 feet. The survey shall be conducted by a qualified biologist familiar with the identification of avian species known to occur in the Thousand Oaks region. If construction lapses for 5 days or longer, the qualified biologist shall conduct another focused survey before project activities are reinitiated. If nests are found, an avoidance buffer shall be determined by the biologist dependent upon the species, the proposed work activity, and existing disturbances associated with land uses outside the site. The qualified biologist shall observe the active nest to establish a behavioral baseline of the adults and nestlings, if present. The qualified biologist shall monitor the active nests, while construction activities are happening to detect signs of disturbance and behavioral change as a result of construction impacts, such as noise, vibration, odors, or worker/equipment motion. If signs of disturbance and behavioral changes are observed, the qualified biologist shall stop all construction work causing those changes and until a larger avoidance buffer is established or until it is determined that the nesting period is completed. The buffer shall be demarcated by the biologist with bright orange construction

fencing, flagging, construction lathe, or other means to demarcate the boundary. All construction personnel shall be notified of the buffer zone as a "Nesting Bird Area" and to avoid entering the buffer zone until a biologist determines that the nest is no longer active. No ground-disturbing activities shall occur within the buffer until the biologist has confirmed that breeding/nesting is completed and the young have fledged the nest. A report summarizing the preconstruction survey(s) shall be prepared by a qualified biologist and ~~shall be included on project site plans and~~ submitted to the ~~City~~ Community Development Department prior to the commencement of construction activities and any required protection measures shall be listed on the applicable construction plans.

2045 General Plan Update Mitigation Measure BIO-2 Special Status Bat Species Habitat Assessment Survey and Emergence Survey(s): For future projects where trees, abandoned structures, or other habitat for roosting bats is present and construction activities may occur during seasonal periods of bat activity, construction activities shall occur outside the maternity season from April 1 through August 31, as feasible. Should construction timing not allow for it, a special-status bat habitat assessment survey shall be conducted by a qualified biologist no more than 5 days prior to any construction activities during the bat maternity season. The survey will document any evidence of special-status bat species that may occur in proposed work areas through direct observation (e.g., roosting bats) and/or sign (e.g., bat guano). If no observance and/or sign of special-status bats are detected during these surveys, then construction-related activities may proceed. If observance or sign of special-status bat species are detected during the survey, and construction activities occur during the bat maternity season (April 1 through August 31), special-status bat species emergence survey(s) will be conducted.

Emergence surveys will be conducted in areas of suitable bat habitat (e.g., near buildings or trees) during the bat maternity season to document any special-status bat species emerging from features identified during the habitat assessment survey. Generally, the emergence survey(s) will be conducted approximately one hour prior to sunset and last a minimum of two hours after sunset; however, the timing will be determined by the qualified biologist. Passive acoustic monitoring equipment will be utilized during the emergence surveys to determine identify bats to the species level. In the event multiple features were identified in the habitat assessment in which bats may occur, at the discretion of the qualified biologist, either multiple emergency surveys may be necessary or additional acoustic equipment may need to be set up in order to capture the acoustics of bats as they emerge at dusk.

Roosting sites documented within or adjacent to a project site during the maternity season shall be avoided. Specifically, the qualified biologist will determine an appropriate buffer around the roost site where construction shall be avoided. The buffer typically ranges in size, between 100 to 300

feet around the roost site, depending on potential resulting project impacts and surrounding terrain. For example, if a project will result in high noise decibels and the roost site is exposed without surrounding trees or hills, the buffer may be increased to reduce disturbances to the roosting bats during breeding activities. Buffer distances may also be at the discretion of the USFWS and/or CDFW if special-status bat species are present in the maternity roost.

Should special-status bat species be documented within a project site, and the roost site cannot be avoided by the project, a bat mitigation and/or management plan shall be developed for roost relocation. Mitigation and management plans will require consultation with and approval from the USFWS and/or CDFW prior to the commencement of construction.

~~**2045 General Plan Update Mitigation Measure BIO-3 Conduct Pre-construction Crotch's Bumblebee Surveys and Implement Avoidance Measures:** For construction activities located in vacant or undeveloped areas containing open grasslands, shrublands, or chaparral, a habitat assessment for Crotch's bumblebee shall be performed by a qualified biologist knowledgeable and experienced with Crotch's bumblebee and the habitat in which they occur. If the biologist determines that suitable habitat for Crotch's bumblebee is present, a focused survey shall be performed during the species' active flight period for Crotch's bumblebee and peak blooming period of nectar and pollen sources (May 1 through July 31). The Crotch's bumblebee survey shall be conducted on foot and shall encompass the entirety of a project site and focus on areas that allow for the highest probability of detection, such as high abundance nectar or pollen sources and rodent burrows that may be used for breeding and nesting. If Crotch's bumblebee is determined to be present, the project proponent shall map the locations of the observed bumblebee, areas of abundant nectar or pollen sources, and any active nesting sites. A report summarizing the results of the habitat assessment and focused survey (if required) shall be prepared by the qualified biologist and shall be submitted to the City prior to the commencement of construction activities. Further, consultation with the CDFW will be necessary in the event Crotch's bumblebee was observed within a project site and an Incidental Take Permit, in accordance with the California Endangered Species Act, may be required prior to initiating any ground disturbance on the site.~~

[This mitigation measure is not applicable to the Modified Project since the Development Area is not located in vacant or undeveloped areas containing open grasslands, shrublands, or chaparral, which are the habitat areas for Crotch's bumblebee.]

Conclusion

Based on the above, no new significant impacts to biological resources or a substantial increase in previously identified biological resources impacts would occur as a result of the

Modified Project. Thus, the potential environmental impacts of the Modified Project with regard to biological resources would not result in any of the conditions set forth in PRC Section 21166(c) or CEQA Guidelines Sections 15162 or 15163 that would require the preparation of a Supplemental or Subsequent EIR.

4.5 CULTURAL RESOURCES

Issues (and Supporting Information Sources)	Was the Impact Analyzed in the Certified EIR?	Impact Determination in the Certified EIR	Do Proposed Changes or New Circumstances Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Certified EIR Mitigation Measures Addressing Impact
CULTURAL RESOURCES: Would the project:					
(a) Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?	Yes	Significant and Unavoidable	No	No	Yes
(b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines §15064.5?	Yes	Less Than Significant with Mitigation Incorporated	No	No	Yes
(c) Disturb any human remains, including those interred outside of formal cemeteries?	Yes[19]	Less Than Significant	No	No	No

Impact Determination in the Certified EIRs

Impacts related to Cultural Resources were discussed in Section 4.4, Cultural and Tribal Cultural Resources, of the GP EIR, and in the Initial Study prepared for the Specific Plan EIR.

With regard to Threshold (a), as discussed in the GP EIR, development facilitated by the Approved General Plan Update could result in substantial alterations to historical resources. As concluded in the GP EIR, implementation of GP EIR Mitigation Measure CUL-1, would reduce and, in some cases, avoid potential adverse impacts on historic resources. However, even with implementation of mitigation, the demolition of historic resources could still be possible. Therefore, the GP EIR concluded impacts would remain significant and unavoidable with implementation of mitigation. The Specific Plan EIR concluded that there were no historical resources within the ATO Campus and thus, no impacts would occur.

With regard to Threshold (b), as concluded in the GP EIR, there is potential for both historic and prehistoric archaeological resources to exist throughout the Planning Area, which

[19] *Threshold (c) was not addressed in the Specific Plan EIR as this threshold was added to the Appendix G Environmental Checklist Form after the preparation of the Specific Plan EIR. Notwithstanding, the Specific Plan EIR would not disturb any human remains.*

could be disturbed by grading and excavation activities for future projects. Consequently, damage to or destruction of known or previously unknown archaeological resources could potentially occur due to development facilitated by the Approved General Plan Update. As set forth in the GP EIR, implementation of Mitigation Measures CUL-2 and CUL-3 would reduce this impact to a less-than-significant level by requiring the identification and evaluation of any archaeological resources that may be present prior to construction and by providing steps for the evaluation and protection of unanticipated finds encountered during construction. The Specific Plan EIR concluded that there were no historic archaeological sites within the ATO Campus and thus, no impacts would occur

With respect to Threshold (c), the GP EIR found that in the event of discovery of unknown human remains, impacts to humans remains would be less than significant with compliance with California Health and Safety Code Section 7050.5. If the remains are determined to be of Native American descent, the Coroner has 24 hours to notify the Native American Heritage Commission, which will determine and notify a Most Likely Descendant (MLD). The MLD shall complete the inspection of the site and make recommendations to the landowner within 48 hours of being granted access.

Do Proposed Changes or New Circumstances Involve New Significant Impacts or Substantially More Severe Impacts?

Threshold (a): Section 15064.5 of the CEQA Guidelines generally defines a historical resource as a resource that is: (1) listed in, or determined to be eligible for listing in the California Register of Historical Resources (California Register); (2) included in a local register of historical resources (pursuant to Section 5020.1(k) of the PRC); or (3) identified as significant in a historical resources survey (meeting the criteria in Section 5024.1(g) of the PRC). Additionally, any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be a historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing on the California Register. The California Register automatically includes all properties listed in the National Register of Historic Places (National Register) and those formally determined to be eligible for listing in the National Register.

As discussed in Section 2, Project Description of this document, the Development Area is currently undergoing demolition of former Building 14, located on the southern portion of the Development Area. The National Park Service has established that a resource fifty years of

age or older may be considered for listing on the National Register of Historic Places.[20] Based on a review of historical aerial imagery, the existing structure appears to have been constructed in the late 1980s to early 1990s. As such, the structure is less than fifty years old and typically properties must be more than 50 years old to be considered for historic designation. In addition, the former Building 14 is not of "exceptional importance" which includes buildings less than 50 years old that include extraordinary historical significance, or are exceptionally rare or fragile and thus, may be determined to be historical resources. Furthermore, the Specific Plan EIR determined that no state, federally, or locally registered/recognized historic sites are located within the ATO Campus. Therefore, the Modified Project would not create any new significant impacts related to historical resources nor result in a substantial increase in a previously identified significant impact. Such impacts would be within the scope of effects and within the impact envelope set forth in the Certified EIRs.

Threshold (b):

CEQA Guidelines Section 15064.5(a)(3)(D) generally defines archaeological resources as any resource that "has yielded, or may be likely to yield, information important in prehistory or history." Archaeological resources are features, such as tools, utensils, carvings, fabric, building foundations, etc., that document evidence of past human endeavors and that may be historically or culturally important to a significant earlier community.

As discussed above, the GP EIR concluded that archaeological resources could exist within the Planning Area and could be disturbed by grading and excavation activities for future projects. Accordingly, the GP EIR included Mitigation Measures CUL-2 and CUL-3 to reduce impacts to a less-than-significant level by requiring the identification and evaluation of any archaeological resources that may be present prior to construction and by providing steps for the evaluation and protection of unanticipated finds encountered during construction. In accordance with the requirements of General Plan EIR Mitigation Measure CUL-2, an Archaeological Resources Assessment was prepared for the Modified Project. Refer to the Archaeological Resources Assessment for the Amgen Specific Plan Amendment Project (Archaeological Resources Assessment), prepared by SWCA Environmental Consultants (SWCA), dated August 9, 2026, included as Appendix D of this Addendum.[21] The investigation included a California Historical Resources Information System (CHRIS) record search at the South Central Coastal Information Center (SCCIC), a Sacred Lands File (SLF) search by the Native American Heritage Commission (NAHC), and background research conducted by SWCA. These findings are summarized below.

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[20] *Office of Historic Preservation Department of Parks and Recreation, California Office of Historic Preservation Technical Assistance #6 California Register and National Register: A Comparison.*

[21] *SWCA Environmental Consultants, Archaeological Resources Assessment for the Amgen Specific Plan Amendment Project, Thousand Oaks, Ventura County, California, August 9, 2026.*

Based on current plans, the proposed building basement would extend to a maximum depth of approximately 21.5 feet below ground surface (bgs), which corresponds to, or is slightly above, the former Building 14 basement elevation. Therefore, significant grading or over-excavation for construction of the Building 50 basement is not anticipated. Installation of hardscape, landscape, and utility improvements within the Development Area is expected to require excavations no deeper than 7 feet bgs. These ground-disturbing activities would be limited to the existing artificial fill layer. Within the off-site improvement area, a new storm drain would be installed at depths of up to 5 feet bgs. However, because the area has been previously developed, the upper 2 to 3 feet of sediment were likely disturbed during construction of West Hillcrest Drive. As a result, only the deepest portions of the storm drain trench are expected to extend into undisturbed native sediments.

As discussed in the Archaeological Resources Assessment, there have been no previously recorded archaeological resources identified within the Development Area as determined by searches of the CHRIS and the SLF. Further, the sensitivity analysis conducted as part of the Archaeological Resources Assessment concluded that there is an overall low probability of a significant archaeological resource being preserved within the Development Area as a buried deposit. While unlikely, the potential cannot be ruled out for an archaeological resource to be encountered during construction for the Modified Project, particularly for deeper excavations in the off-site improvement area where Holocene-aged alluvium may be present beneath disturbed sediments or artificial fill that otherwise characterizes the subsurface. As such, the Modified Project would implement General Plan EIR Mitigation Measure CUL-3, which requires that work be halted in the event an archaeological resource is discovered until appropriate treatment measures are implemented. With incorporation of General Plan EIR Mitigation Measure CUL-3, the Modified Project would result in less-than-significant impacts to archaeological resources. Such impacts would be within the scope of effects set forth in the Certified EIRs.

Threshold (c): As discussed in the Certified EIR, human burials outside of formal cemeteries can occur in prehistoric archaeological contexts. The Planning Area, which includes the Development Area, has the possibility of containing previously unidentified human remains. Accordingly, development associated with the Modified Project could have the potential to disturb human remains. The Modified Project would continue to comply with the same regulatory requirements as the Approved General Plan Update in the event of a discovery. Therefore, the Modified Project would not create any new significant impacts related to archaeological resources nor result in a substantial increase in a previously identified significant impact. Such impacts would be within the scope of effects set forth in the Certified EIRs.

Mitigation Measures Addressing Impact

The following mitigation measures set forth in the GP EIR and the associated MMRP to address cultural resource impacts would be implemented as part of the Modified Project. No additional mitigation measures are required as no new significant cultural resource impacts would result from implementation of the Modified Project.

~~2045 General Plan Update Mitigation Measure CUL-1 Historical Resources:~~ ~~If determined necessary based on preliminary review conducted by City staff, the project applicant shall submit a report to the City that identifies any historical age features (i.e., structures over 45 years of age) proposed to be altered or demolished. If historical-age features are present, the applicant shall submit a historical resources evaluation to the City prepared in areas that contains buildings, structures, objects, sites, landscape/site plans, or other features that are 45 years of age or older, by a qualified architectural historian or historian who meets the Secretary of the Interior's Professional Qualifications Standards in Architectural History or History (36 CFR Part 61). The evaluation shall be carried out in accordance with the guidelines and best practices meeting the State Office of Historic Preservation guidelines (NPS 2023b). All evaluated properties shall be documented on Department of Parks and Recreation Series 523 Forms. The report shall be submitted to the City for review and approval.~~

~~If historical resources are identified through the survey and evaluation, efforts shall be made by the applicant to ensure that the relocation, rehabilitation, or alteration of the resource is consistent with the Secretary of the Interior's Standards for the Treatments of Historic Properties. The applicant shall submit a report to the City that identifies and specifies the treatment of character-defining features and construction activities, and demonstrates how the project complies with the Secretary of the Interior's Standards for the Treatments of Historic Properties and avoids the substantial adverse change in the significance of the historical resource as defined by CEQA Guidelines Section 15064.5(b). The report shall be prepared by an architectural historian or historical architect meeting the Professional Qualifications Standards as defined by 36 CFR Part 61 and provided to the City for review and concurrence prior to project approval.~~

~~If significant historical resources are identified on a development site and compliance with the Secretary of the Interior's *Standards for the Treatments of Historic Properties* and or avoidance is not possible, appropriate site-specific mitigation measures shall be established and undertaken. Mitigation measures may include documentation of the historical resource in the form of a Historic American Building Survey report. The report shall comply with the Secretary of the Interior's *Standards for Architectural and Engineering Documentation* and shall generally follow the Historic American Building Survey Level III requirements, including digital photographic recordation, detailed historic~~

~~narrative report, and compilation of historic research. The documentation shall be completed by a qualified architectural historian or historian who meets the Professional Qualifications Standards as defined by 36 CFR Part 61 and submitted to the City prior to issuance of any permits for demolition or alteration of the historical resource.~~

[This mitigation measure is not applicable to the Modified Project.]

2045 General Plan Update Mitigation Measure CUL-2 Archaeological Resources Assessment: ~~For a project that involves ground-disturbance activities (that may include, but are not limited to, pavement removal, potholing, grubbing, tree removal, and grading) and if determined necessary based on preliminary review conducted by City staff, the project applicant shall submit to the City an Archaeological Resources Assessment prepared by a qualified archaeologist who meets the Secretary of the Interior's Professional Qualifications Standards in either Prehistoric or Historic Archaeology. Assessments shall include a California Historical Resources Information System records search at the South Central Coast Information Center and a Sacred Lands File Search from the NAHC. The records searches shall characterize the results of previous cultural resource surveys and disclose any cultural resources that have been recorded and/or evaluated in and around the development site. A qualified professional shall conduct a Phase I pedestrian survey for those projects that include undeveloped areas to locate any surface cultural materials.~~

~~If the Phase I archaeological survey identifies resources that may be affected, the applicant shall also conduct Phase II testing and evaluation. If resources are determined significant or unique through Phase II testing and site avoidance is not possible, the qualified professional shall identify appropriate site-specific mitigation measures in the Phase II evaluation. These measures may include, but would not be limited to, a Phase III data recovery program, avoidance, or other appropriate actions to be determined by a qualified archaeologist. If significant archaeological resources cannot be avoided, impacts may be reduced to a less-than-significant level by filling on top of the sites rather than cutting into the cultural deposits. Alternatively, and/or in addition, a data collection program may be warranted, including mapping the location of artifacts, surface collection of artifacts, or excavation of the cultural deposit, to characterize the nature of the buried portions of sites. Curation of the excavated artifacts or samples would occur as specified by the archaeologist. The City shall review and approve the Archaeological Resources Assessment prior to project approval.~~

[The Archaeological Resource Assessment included as Appendix D to this Addendum satisfies this mitigation measure for the Modified Project]

2045 General Plan Update Mitigation Measure CUL-3 Unanticipated Discoveries: ~~For projects whose Phase I archaeological survey identifies archaeological resources that may be affected, the applicant shall retain a~~

~~qualified cultural resource specialist to monitor construction activities that involve ground-disturbing activities greater than 12 inches in depth and occur within 60 feet of a potentially significant cultural resource.~~ If archaeological resources are encountered during ground-disturbing activities, work in the immediate area shall halt and an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for Archaeology shall be contacted immediately to evaluate the find. If necessary, the evaluation may require preparation of a treatment plan and archaeological testing for CRHR eligibility. If the discovery proves to be significant pursuant to the CEQA and cannot be avoided by the project, additional work, such as excavating the cultural deposit to fully characterize its extent and collecting and curating artifacts may be warranted to mitigate any significant impacts to cultural resources. If archaeological resources of Native American origin are identified during construction, a qualified archaeologist shall consult with the City to begin Native American consultation procedures, which are outlined in Mitigation Measure CUL-4. Periodic reports of the find and subsequent evaluations shall be submitted to the City during construction.

[The Archaeological Resource Assessment included as Appendix D determined that there is low probability that archaeological resources are present within the Development Area]

Conclusion

Based on the above, no new significant impacts to cultural resources or a substantial increase in previously identified cultural resources impacts would occur as a result of the Modified Project. Thus, the potential environmental impacts of the Modified Project with regard to cultural resources would not result in any of the conditions set forth in PRC Section 21166(c) or CEQA Guidelines Sections 15162 or 15163 that would require the preparation of a Supplemental or Subsequent EIR.

4.6 ENERGY

Issues (and Supporting Information Sources)	Was the Impact Analyzed in the Certified EIR?	Impact Determination in the Certified EIR	Do Proposed Changes or New Circumstances Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Certified EIR Mitigation Measures Addressing Impact
ENERGY: Would the project:					
(a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	Yes	Less Than Significant	No	No	No

Issues (and Supporting Information Sources)	Was the Impact Analyzed in the Certified EIR?	Impact Determination in the Certified EIR	Do Proposed Changes or New Circumstances Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Certified EIR Mitigation Measures Addressing Impact
(b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	Yes	Less Than Significant	No	No	No

Impact Determination in the Certified EIRs

Impacts related to Energy were discussed in the Initial Study prepared for the GP EIR, and in Section 4.13, Energy Use, of the Specific Plan EIR.

As discussed in the GP EIR, development facilitated by the Approved General Plan Update would be required to comply with a variety of statewide, regional, and local renewable energy and energy efficiency plans, as well as 2045 General Plan policies, including Policies 10.2 of the Conservation Element and Policies 1.3 and 4.5 of the Community Facilities and Services Element. The Approved General Plan Update would also adhere to existing California energy standards, which would consume less energy in the forms of electricity and natural gas than existing, older buildings in the Planning Area and would support transportation systems that rely less heavily on internal combustion vehicles and more on active transportation that would consume less energy in the form of petroleum. Therefore, the GP EIR concluded that development facilitated by the Approved General Plan Update would not result in potentially significant environmental effects due to the wasteful, inefficient, or unnecessary consumption of energy, and impacts would be less than significant. The Specific Plan EIR concluded that with implementation of regulatory requirements, potential impacts related to energy would be less than significant.

Do Proposed Changes or New Circumstances Involve New Significant Impacts or Substantially More Severe Impacts?

Threshold (a)—Potential for Wasteful Use of Energy: The Modified Project would consume energy during construction and operational activities. Sources of energy for these activities would include electricity usage and transportation fuels such as diesel and gasoline.

During construction, electricity would be consumed to convey water for dust control and, on a limited basis, to power lights, electronic equipment, or other construction activities necessitating electrical power. Electricity from these construction activities would be limited, given that construction activities in general would be intermittent, as would the use of heating and cooling equipment. When not in use, electric equipment would be powered off so as to

avoid unnecessary energy consumption. In addition, although Title 24 requirements typically apply to energy usage for buildings, long-term construction lighting (longer than 120 days) providing illumination for the site and staging areas would also comply with applicable Title 24 requirements, which include limits on the wattage allowed per specific area, which would result in the conservation of energy.[22] Construction-related electricity consumption is anticipated to represent a small fraction of operational usage and would not occur in a wasteful, inefficient, or unnecessary manner. In addition, electricity would be supplied to the construction sites by existing electrical infrastructure within the Development Area and would not affect other services.

Construction activities typically do not involve the consumption of natural gas. However, construction would require the consumption of energy in the form of petroleum-based fuels associated with the use of off-road construction vehicles and equipment on-site, as well as construction worker travel to and from the Modified Project area and delivery and haul truck trips (collectively, on-road vehicles). Such fuel usage would be temporary and variable depending on specific construction activities. Trucks and equipment used during proposed construction activities would comply with CARB's anti-idling regulations as well as the In-Use Off-Road Diesel-Fueled Fleets regulation. In addition to reducing criteria pollutant emissions, compliance with the anti-idling and emissions regulations would also result in efficient use of construction-related energy and reduce fuel consumption. In addition, on-road vehicles (i.e., haul trucks, worker vehicles) would be subject to federal and State fuel efficiency requirements. Therefore, the Modified Project's construction activities would comply with existing energy standards with regard to transportation fuel consumption. As with electricity, fuel consumption during construction would be relatively negligible and would not occur in a wasteful, inefficient, or unnecessary manner. Accordingly, the Modified Project would not have a meaningful effect on regional energy consumption during the construction period.

During operations, energy would be consumed for multiple purposes, including but not limited to: heating/ventilating/air conditioning (HVAC); refrigeration; lighting; and the use of electronics, equipment, and machinery. Energy would also be consumed during operations related to water usage/conveyance, and vehicle trips. An analysis of proposed operational activities associated with the Modified Project was conducted and is provided in Table 3 on page 55.

The Modified Project would comply with applicable requirements set forth in California Building Energy Efficiency Standards (California Code of Regulations Title 24, Part 6) as well as the California Green Building Standards Code (Title 24, Part 11), commonly referred to as the CALGreen Code. Compliance with these regulations would ensure that electricity usage would not occur in a manner that is wasteful, inefficient, or unnecessary. Moreover, the

[22] *California Building Energy Efficiency Standards, Title 24, Part 6, §110.9, §130.0, and §130.2.*

Table 3
Annual Net New Energy Use During Modified Project Operations[a]

Source	Estimated Energy Demand		
	Modified Project	**Existing Uses to be Removed**	**Incremental Increase/Decrease**
Electricity			
Building/Lighting[b]	9,246,856 kWh	3,198,919 kWh	6,047,937 kWh
Water	979,441 kWh	466,471 kWh	512,969 kWh
Total Electricity[c]	**10,226,297 kWh**	**3,665,390 kWh**	**6,560,906 kWh**
Natural Gas			
Building[b]	0 cf	4,578,361 cf	(4,578,361 cf)
Total Natural Gas	**0 cf**	**4,578,361 cf**	**(4,578,361 cf)**
Transportation (On-Road Vehicles and Off-Road Equipment)			
Gasoline	1,103,477 gal	708,358 gal	395,118 gal
Diesel	254,785 gal	163,555 gal	91,230 gal
Diesel (Emergency Generators)	7,000 gal	0 gal	7,000 gal
Total Transportation	**1,365,261 gal**	**871,913 gal**	**493,348 gal**

cf = cubic feet

gal = gallons

kWh = thousand kilowatt hours

[a] *Detailed calculations are provided in Appendix E of this Addendum. Totals may not precisely add up due to rounding.*

[b] *Includes implementation of Project Design Feature GHG-PDF-1 (use of electricity instead of natural gas).*

[c] *Electricity estimates assume compliance with applicable CALGreen requirements.*

Source: Eyestone Environmental, 2026.

Modified Project's annual electricity consumption is anticipated to represent a small fraction of future demand within the Southern California Edison service area. With implementation of Project Design Feature GHG-PDF-1, the Modified Project does not include natural gas uses. Also during operation, the two emergency generators and traffic resulting from the Modified Project would result in the consumption of petroleum-based fuels. As discussed below in Section 1.17, Transportation, the Modified Project area is well-served by public transit, which would be available to guests, visitors, and employees. In addition, the Modified Project includes a number of characteristics related to location, land use, and design that would serve to reduce vehicular trips and vehicle miles traveled (VMT). As such, as previously evaluated for the GP EIR, the Modified Project would not result in the wasteful, inefficient, or unnecessary consumption of energy during construction or operation and no impacts would occur. Thus, the

Modified Project would not involve substantial changes that would result in new significant impacts or a substantial increase in the severity of significant effects previously identified.

Threshold (b)—Conflict with Energy Plans: Construction equipment would comply with energy efficiency requirements contained in the Federal Energy Independence and Security Act or previous Energy Policy Acts for electrical motors and equipment.[23] With regard to transportation fuels, the Modified Project would comply with the California Air Resources Board's (CARB) anti-idling regulations as well as the In-Use Off-Road Diesel-Fueled Fleets regulation for trucks and equipment used during construction. Although these regulations are intended to reduce criteria pollutant emissions, compliance would also result in the efficient use of construction-related energy. During the Modified Project's operations, vehicles traveling to and from the Development Area would comply with the federal Corporate Average Fuel Economy (CAFE) fuel economy standards, as required. In addition, as indicated above, the Modified Project would comply with applicable Title 24 and CALGreen Code requirements. Therefore, Modified Project construction and operational activities would comply with applicable energy standards and would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Impacts would be less than significant. The Modified Project would not involve substantial changes that would result in new significant impacts or a substantial increase in the severity of significant effects previously identified.

Mitigation Measures Addressing Impact

None.

Conclusion

Based on the above, no new significant energy impacts or a substantial increase in previously identified energy impacts would occur as a result of the Modified Project. Thus, the potential environmental impacts of the Modified Project with regard to energy would not result in any of the conditions set forth in PRC Section 21166(c) or CEQA Guidelines Sections 15162 or 15163 that would require the preparation of a Supplemental or Subsequent EIR.

[23] *Energy Independence and Security Act of 2007, Pub.L. 110-140.*

4.7 GEOLOGY AND SOILS

Issues (and Supporting Information Sources)	Was the Impact Analyzed in the Certified EIR?	Impact Determination in the Certified EIR	Do Proposed Changes or New Circumstances Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Certified EIR Mitigation Measures Addressing Impact
GEOLOGY AND SOILS: Would the project: [24]					
(a) Directly or indirectly cause potential substantial adverse effects, including the risk or 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?	Yes	Less Than Significant	No	No	No
(ii) Strong seismic ground shaking?	Yes	Less Than Significant	No	No	No
(iii) Seismic-related ground failure, including liquefaction?	Yes	Less Than Significant	No	No	No
(iv) Landslides?	Yes	Less Than Significant	No	No	No
(b) Result in substantial soil erosion or the loss of topsoil?	Yes	Less Than Significant	No	No	No
(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?	Yes	Less Than Significant	No	No	No
(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?	Yes	Less Than Significant	No	No	No
(e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	Yes	No Impact	No	No	No
(f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	Yes	Less Than Significant with Mitigation Incorporated	No	No	Yes

Impact Determination in the Certified EIRs

Impacts related to Geology and Soils were discussed in the Initial Study prepared for the GP EIR, and in Section 4.7, Earth Resources, of the Specific Plan EIR. In addition, impacts

[24] *These thresholds were updated subsequent to the preparation of the Specific Plan EIR. Notwithstanding, the Specific Plan EIR generally addressed these thresholds in Section 4.7, Earth Resources and concluded impacts would be less than significant.*

to paleontological resources and unique geologic features were analyzed in Section 4.8, Paleontological Resources, of the GP EIR and in the Initial Study prepared for the Specific Plan EIR within the context of earth resources and cultural resources.

With regard to Threshold (a)(i), the GP EIR found that impacts associated with surface rupture from a known earthquake fault would be less than significant as there are no Alquist-Priolo earthquake fault zones that partially or fully intersect Thousand Oaks and development facilitated by the Approved General Plan Update would not involve mining operations that require deep-excavations thousands of feet into the earth, or boring of a large area that would create unstable seismic conditions or stresses in the Earth's crust. Therefore, the GP EIR found that impacts related to fault rupture would be less than significant. The Specific Plan EIR also concluded that such impacts would be less than significant with implementation of regulatory requirements.

With respect to Threshold (a)(ii), as discussed in the GP EIR, development facilitated by the Approved General Plan Update would not exacerbate a risk to public safety or destruction of property than what is already present in the region. Development would be required to adhere to the standards of the California Building Code (CBC) which would reduce the impact to people, buildings, or structures from strong seismic ground shaking. Therefore, the GP EIR found that impacts related to strong seismic ground shaking would be less than significant. The Specific Plan EIR also concluded that such impacts would be less than significant with implementation of regulatory requirements.

With regard to Threshold (a)(iii), as evaluated in the GP EIR, high liquefaction potential exists approximately 0.25-mile north and east of Wildwood Regional Park and near the intersection of SR 23 and US 101, extending east toward North Ranch Open Space and west toward the city limits. In addition, development facilitated by the Approved General Plan Update is required to adhere to the standards of the CBC, which includes mandatory site-specific geotechnical investigations for individual projects, as well as Policies S-3.1 through S-3.5 of the 2045 General Plan Safety Element, which require developers to submit studies that evaluate liquefaction potential, require developers to remediate liquefaction risk, require a developer to file a Notice of Geologic Hazards with the County Recorder, require developers to retain a civil engineer to develop a soils report, and require developers to implement hazard mitigation to minimize the potential for adverse effects associated with liquefiable soils. Therefore, the GP EIR found that with compliance with applicable regulations, impacts regarding liquefaction would be less than significant. The Specific Plan EIR also concluded that such impacts would be less than significant.

With regard to Threshold (a)(iv), as summarized in the GP EIR, future development associated with the Approved General Plan Update focuses on infill areas along the valley floor, which are relatively flat, and thus would not be susceptible to landslides. Additionally, the

Approved General Plan Update would implement Policies S-2.1 through S-2.6 of the 2045 General Plan Safety Element, which require development to provide setbacks from debris flow channels, prepare drainage plans to direct runoff from unstable areas, discourage the introduction of surface runoff, discourage development in the flowline or discharge areas of hillside swales or channels, and require developers to file a Notice of Geologic Hazards with the County Recorder describing potential geologic hazards on a parcel. Therefore, the GP EIR found that with implementation of applicable regulations, impacts associated with landslides would be less than significant.

With regard to Threshold (b), as discussed in the GP EIR, erosion from ground-disturbing activities associated with development facilitated by the project would be controlled through implementation of the requirements and Best Management Practices (BMPs) contained in existing regulations, including the National Pollutant Discharge Elimination System (NPDES) General Construction Permit and the City's Municipal Code. Furthermore, BMPs for post-construction erosion and sediment control would remain in effect and would improve future erosion conditions. Therefore, the GP EIR found that with compliance with applicable regulations, impacts associated with expansive soils would be less than significant. The Specific Plan EIR concluded that such impacts would be less than significant with implementation of mitigation measures.

With regard to Threshold (c), the GP EIR found that impacts related to geologic or soil instability would be less than significant with compliance with the CBC's minimum standards. The Specific Plan EIR also concluded that such impacts would be less than significant with implementation of regulatory requirements.

With regard to Threshold (d), as discussed in the GP EIR, development facilitated by the Approved General Plan Update could not substantially increase the potential exposure to or extent of expansive soils in the city, as the land use pattern it establishes would emphasize infill development. Furthermore, future projects would be subject to the CBC, as well as 2045 General Plan Safety Element policies such as Policy 1.1 and Policy 3.4, which require geotechnical reports and soil reports. Therefore, the GP EIR found that impacts with respect to expansive soils would be less than significant. The Specific Plan EIR also concluded that such impacts would be less than significant with implementation of regulatory requirements.

With regard to Threshold (e), as discussed in the GP EIR, the Approved General Plan Update would emphasize development in the City where existing infrastructure exists. Development facilitated by the Approved General Plan Update is not anticipated to include the use of septic systems. Therefore, the GP EIR found that there would be no impact related to the use of septic tanks or alternative wastewater disposal systems.

With regard to Threshold (f), the GP EIR found that ground-disturbing activities associated with construction facilitated by the project have the potential to damage or destroy paleontological resources that may be present on or below the ground surface in areas of high paleontological sensitivity. Consequently, damage to or destruction of fossils could occur due to development facilitated by the Approved General Plan Update. Therefore, the GP EIR concluded that implementation of 2045 General Plan Update Mitigation Measure PAL-1 would reduce impacts to a less-than-significant level. The Specific Plan EIR also concluded that such impacts would be less than significant.

Do Proposed Changes Involve or New Circumstances New Significant Impacts or Substantially More Severe Impacts?

The following analysis is based, in part, on the Geotechnical Site Evaluation Update Amgen Thousand Oaks (ATO) Building 50 (Previously B14) (Geotechnical Site Evaluation), prepared by Gorian & Associates, Inc., and dated February 2, 2026. This report is included as Appendix F of this Addendum. The Geotechnical Site Evaluation was reviewed and approved by the City of Thousand Oaks Building Division (Building Division).

Threshold (a): Development under the Modified Project would occur within the geographic boundary evaluated in the Certified EIRs. Specifically, the Modified Project is located within the western portion of the GP EIR Planning Area and is a part of the 91-acre ATO Campus. As such, the geological conditions associated with the Modified Project would remain generally consistent with those evaluated in the Certified EIRs. As discussed above and in the Geotechnical Site Evaluation, no known active faults with potential for fault rupture or Alquist-Priolo Earthquake Fault Zones partially or fully intersect the City, and specifically the Development Area. The closest active fault is the Simi Santa Rosa Fault Zone which lies approximately 3.5 miles north of the Development Area. Nonetheless, as with any development throughout the region, implementation of the Modified Project could result in the potential exposure of people and structures to ground shaking in the event of an earthquake. However, State and local code requirements ensure that buildings are designed and constructed in a manner that, although the buildings may sustain damage during a major earthquake, would reduce the substantial risk that buildings would collapse. Specifically, the State and City mandate compliance with numerous rules related to seismic safety, including the Alquist-Priolo Earthquake Fault Zoning Act, Seismic Safety Act, and the Seismic Hazards Mapping Act. Pursuant to those laws, the Modified Project must demonstrate compliance with the applicable provisions of these safety requirements before permits can be issued for construction of the Modified Project. Accordingly, the design and construction of the Modified Project would comply with all applicable existing regulatory requirements and the application of accepted and proven construction engineering practices.

The CBC incorporates the latest seismic design standards for structural loads and materials, as well as provisions from the National Earthquake Hazards Reduction Program to

mitigate losses from an earthquake and maximize earthquake safety. The City's Building Division is responsible for implementing the provisions of the CBC, and the Modified Project would be required to comply with the plan review and permitting requirements of the Building Division, including the recommendations provided in a final, site-specific geotechnical report subject to review and approval by the Building Division. Therefore, through compliance with regulatory requirements and the site-specific geotechnical recommendations contained in a final design-level geotechnical engineering report, the Modified Project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking. Further, the Modified Project would comply with the goals and policies of the 2045 General Plan's Safety Element related to faulting and seismic hazards. Therefore, the Modified Project would not create any new significant impacts related to rupture of a known earthquake fault and strong seismic ground shaking, nor result in a substantial increase in a previously identified significant impact. Such impacts would be within the impact envelope set forth in the Certified EIRs.

Liquefaction is a seismic phenomenon in which loose, saturated, granular soils behave similarly to a fluid when subjected to high-intensity ground shaking. As discussed in the GP EIR, high liquefaction potential exists approximately 0.25-mile north and east of Wildwood Regional Park and near the intersection of SR 23 and US 101, extending east toward North Ranch Open Space and west toward the city limits. The Development Area is not located within an area identified by the City or California Geological Survey (CGS) as having a potential for liquefaction.[25,26] Therefore, the Modified Project would not create any new significant impacts related to liquefaction nor result in a substantial increase in a previously identified significant impact. Such impacts would be within the impact envelope set forth in the Certified EIRs.

Landslides generally occur in loosely consolidated, wet soil, and/or rocks on steep sloping terrain. As discussed in the Geotechnical Site Evaluation, the Development Area is an engineered graded surface with no significant natural or graded slopes. Due to the graded nature of the Development Area, it is not considered to be susceptible to seismically induced landsliding. The Development Area is also not located within a City-designated landslide zone.[27] Therefore, the Modified Project would not create any new significant impacts related to landslides. Such impacts would be within the scope of effects and within the impact envelope set forth in the Certified EIRs.

Threshold (b): Development of the Modified Project would require grading, minimal excavation, and other construction activities that have the potential to disturb existing soils

[25] *City of Thousand Oaks General Plan, Chapter 10 Safety, Figure 10.3, Liquefaction Risk Zones, p. 200.*

[26] *CGS, Seismic Hazard Zones, Newbury Park Quadrangle Ventura County, California, February 7, 2002.*

[27] *City of Thousand Oaks General Plan, Chapter 10 Safety, Figure 10.2, Liquefaction Risk Zones, p. 199.*

within the Development Area and expose these soils to rainfall and wind during construction, thereby potentially resulting in soil erosion. However, in accordance with the requirements of the NPDES Construction General Permit, the Modified Project would implement a Stormwater Pollution Prevention Plan (SWPPP) adhering to the California Stormwater Quality Association BMP Handbook. The SWPPP would set forth BMPs to be used during construction to manage and control stormwater and non-stormwater discharges, including, but not limited to, installation of silt fences, erosion control blankets, and anti-tracking pads at site exits to prevent off-site transport of soil material. Construction activities would also be required to comply with CBC Chapter 70 standards, which are designed to ensure implementation of appropriate measures during grading and construction to control erosion and storm water pollution. In addition, grading and construction would be completed in accordance with a City-mandated Stormwater Pollution Control Plan, which would include BMPs to control wind and water erosion. Furthermore, Municipal Code Title 7, Chapter 3, Grading, sets requirements for erosion control and drainage devices that applicants must follow. The Modified Project would also continue to implement Specific Plan EIR Mitigation Measure GEO-1, which requires the use of appropriate erosion control measures during construction, including, but not limited to, seeding and stabilization and soil wetting during high wind conditions. Therefore, with compliance with applicable regulatory requirements and Specific Plan EIR Mitigation Measure GEO-1, the Modified Project's potential impacts due to soil erosion or the loss of topsoil would be less than significant. Such impacts would be within the scope of effects and within the impact envelope set forth in the Certified EIRs.

Threshold (c): Impacts related to landslides and liquefaction are discussed above; therefore, this discussion focuses on impacts related to unstable soils as a result of lateral spreading, subsidence, or collapse. Lateral spreading occurs as a result of liquefaction; accordingly, liquefaction-prone areas would also be susceptible to lateral spreading. Subsidence occurs at great depths below the surface when subsurface pressure is reduced by the withdrawal of fluids (e.g., groundwater, natural gas, or oil) resulting in sinking of the ground. Collapsible soils consist of loose, dry, low-density materials that collapse and compact under the addition of water or excessive loading. Soil collapse occurs when the land surface is saturated at depths greater than those reached by typical rain events. As discussed above, development under the Modified Project would occur within the geographic boundary evaluated in the Certified EIRs. Specifically, the Modified Project is located within the western portion of the Planning Area and is a part of the 91-acre ATO Campus. As such, the geological conditions associated with the Modified Project would remain generally consistent with those evaluated in the Certified EIRs.

As previously noted, the Development Area is not located within a City-designated liquefaction zone; therefore, the potential of liquefaction-induced lateral spread at the Development Area is considered low.

No large-scale extraction of groundwater, gas, oil or geothermal energy is occurring or planned at the Development Area or in the general vicinity. Therefore, there is minimal to no potential for ground subsidence due to withdrawal of fluid or gas at the Development Area.

According to the Geotechnical Site Evaluation, the soils underlying the Development Area consist of competent engineered compacted fill underlain by Pleistocene age Older Alluvium deposits consisting of sandy silty clays, sandy clays, clayey and silty sands, and clayey silts. These soils are generally lightly to moderately cemented, very stiff to hard, dense to very dense deposits of low compressibility. Due to the type and density of the soils underlying the Development Area, the Development Area soils would not be considered collapsible soils. Based on the above, the Modified Project would not create any new significant impacts related to being located on a geologic unit that is unstable nor result in a substantial increase in a previously identified significant impact. Such impacts would be within the scope of effects and within the impact envelope set forth in the Certified EIRs.

Threshold (d): Expansive soils are typically associated with fine-grained clayey soils that have the potential to shrink and swell with repeated cycles of wetting and drying. According to the Geotechnical Site Evaluation, the engineered fill soils are slightly expansive, while the alluvium exhibits low to medium expansiveness. Compliance with minimum code requirements would result in minimal risk of damage to structures due to expansive soils. Therefore, the Modified Project would not create any new significant impacts related to expansive soil nor result in a substantial increase in a previously identified significant impact. Such impacts would be within the scope of effects and within the impact envelope set forth in the Certified EIRs.

Threshold (e): The Development Area is located within a community served by existing infrastructure. As such, the Modified Project would not require the use of septic tanks or alternative wastewater disposal systems. Therefore, the Modified Project would not create any new significant impacts related to the ability of soils to support septic tanks or alternative wastewater disposal systems, nor result in a substantial increase in a previously identified significant impact. Such impacts would be within the scope of effects and within the impact envelope set forth in the Certified EIRs.

Threshold (f): The analysis of potential impacts to paleontological resources is based on the Paleontological Resources Assessment for the Amgen Thousand Oaks Project (Paleontological Resources Assessment), prepared by SWCA, dated September 9 2026, included as Appendix G of this Addendum.[28]

[28] *SWCA Environmental Consultants, Paleontological Resources Assessment for the Amgen Thousand Oaks Project, Thousand Oaks, California, September 9, 2026.*

Paleontological resources are the fossilized remains of organisms that have lived in a region in the geologic past and whose remains are found in the accompanying geologic strata. This type of fossil record represents the primary source of information on ancient life forms, since the majority of species that have existed on earth from this era are extinct.

As discussed above, the GP EIR concluded that ground-disturbing activities associated with construction facilitated by the Modified Project have the potential to damage or destroy paleontological resources that may be present on or below the ground surface in areas of high paleontological sensitivity. The GP EIR included 2045 General Plan Update Mitigation Measure PAL-1 to reduce impacts to a less-than-significant level. Specifically, 2045 General Plan Update Mitigation Measure PAL-1 would set standards for determining a project's potential to disturb paleontological resources and would require implementation of mitigation developed by a paleontologist to minimize the disturbance of paleontological resources, if applicable. In accordance with the requirements of 2045 General Plan Update Mitigation Measure PAL-1, a Paleontological Resources Assessment was prepared for the Modified Project. The investigation summarizes the review of geologic maps, scientific literature, fossil locality records from the Natural History Museum of Los Angeles County (NHMLA), and other relevant information. These findings are summarized below.

Development under the Modified Project would occur within the geographic boundary evaluated in the Certified EIRs; therefore, the geological conditions associated with the Modified Project would remain the same as for the Approved General Plan Update and Approved Specific Plan. Based on current plans, the basement of the proposed building is expected to extend to a maximum depth of 21.5 feet bgs, which is at or near the existing Building 14 basement elevation. Utility excavations are expected to reach depths of approximately up to seven feet bgs.

As discussed in the Paleontological Resources Assessment, regional geologic mapping indicates that the Development Area is almost entirely in a geological unit designated as late Pleistocene older dissected surficial deposits, while a small area designated for off-site improvements extends into a unit identified as Holocene alluvium. The Geotechnical Site Evaluation recorded artificial fill from the surface to depths of 7 to 15 feet bgs in exploratory borings taken across the Development Area. Although artificial fill may contain fossils, any such fossils would be out of stratigraphic context and would not be important for scientific study; accordingly, artificial fill has no paleontological potential. Based on the regional geologic mapping, subsurface data from the Geotechnical Site Evaluation, relevant literature, and the results of the museum records search, the older dissected surficial deposits beneath the artificial fill have high potential for Pleistocene-aged fossils. The Natural History Museum of Los Angeles County (NHMLA) records search identified three fossil localities from Quaternary sediments in the vicinity of the Development Area, which included specimens identified on the surface and others recovered from as much as 15 feet bgs.

As discussed in the Paleontological Resources Assessment, ground-disturbing work for the Modified Project is not expected to extend below the artificial fill and into the underlying sediments that have high potential for paleontological resources. Rather, ground-disturbing activities for the Modified Project would be confined to geologic deposits with no or low paleontological sensitivity. Consequently, it is unlikely the Modified Project would encounter and adversely impact a unique paleontological resource. While unlikely, the possibility of an inadvertent discovery of a fossil cannot be fully ruled out. As such, the Modified Project would implement Mitigation Measure PALEO-1, would ensure that any unanticipated fossil discoveries are appropriately evaluated and treated by a Qualified Paleontologist, defined as one who meets the Society of Vertebrate Paleontology standards. With incorporation of Mitigation Measure PALEO-1, the Modified Project would result in less-than-significant impacts to paleontological resources. Such impacts would be within the scope of effects and within the impact envelope set forth in the Certified EIRs.

Mitigation Measures Addressing Impact

The following mitigation measures set forth in the Certified EIRs and the associated MMRP to address geology and soils impacts would be implemented as part of the Modified Project.

2045 General Plan Update Mitigation Measure PAL-1 Retention of Qualified Professional Paleontologist: ~~Prior to approval of a discretionary development application in areas underlain by high or undetermined sensitivity geologic units (i.e., Quaternary older alluvium, Monterey Formation, Lower Monterey Formation, Sandstone of Lindero Canyon, Conglomerate of Lindero Canyon, Upper Topanga Formation, sandstone, Upper Topanga Formation, clay shale and siltstone, Upper Topanga Formation, sandstone, Upper Topanga Formation, clay shale and siltstone, Conejo Volcanics, basaltic sandstone and siltstone, Lower Topanga Formation, sandstone, Lower Topanga Formation, clay shale, Sespe Formation, Llajas Formation, sandstone, Llajas Formation, claystone and siltstone, Santa Susana Formation, sandstone, Santa Susana Formation, claystone and siltstone, Santa Susana Formation, Simi Conglomerate Member, Chatsworth Formation, sandstone, Chatsworth Formation, clay shale), the City shall require a Qualified Professional Paleontologist [as defined by the SVP (2010)] to be retained by the project applicant to determine the project's potential to significantly impact paleontological resources according to SVP (2010) standards. If necessary, the Qualified Professional Paleontologist shall recommend mitigation measures to reduce potential impacts to paleontological resources to a less-than-significant level. These measures may include, but not be limited to, implementation of a Worker Environmental Awareness Program, on-site paleontological monitoring, and fossil salvage, if applicable. The City shall review and approve the Qualified~~

~~Professional Paleontologist's findings and recommendation. All recommendations shall be incorporated into the project plans prior to issuance of a grading permit.~~

In accordance with 2045 General Plan Update Mitigation Measure PAL-1, the Project has satisfied this mitigation measure through preparation of the paleontological resources report included as Appendix G to this Addendum. General Plan Update Mitigation Measure PAL-1 specifies that the Qualified Paleontologist make recommendations for measures to reduce potentially significant impacts to less than significant levels based on their review of the individual project. In accordance with the recommendation of the Qualified Biologist, the Modified Project would also implement the following Project-specific mitigation measure.

Mitigation Measure PALEO-1: Inadvertent fossil discovery. In the event of an inadvertent fossil discovery, ground-disturbing activities within 50 feet of the discovery location shall cease until a Qualified Paleontologist, who meets the Society of Vertebrate Paleontology (SVP) qualifications for Principal Investigator, has assessed the scientific significance of the find and made recommendations as to the appropriate treatment. If the find is deemed significant, it shall be salvaged following the standards of the SVP (2010) and curated at an accredited repository with research, exhibit, and/or outreach interest in the specimens.

Amgen Center Specific Plan Mitigation Measure GEO-1 Erosion and Dust Control: The applicant ~~should~~ shall implement pertinent erosion control measures where appropriate, including:

- Seeding and stabilization of bare surfaces;
- Use of straw bales, sandbags, cued/or curbs to control and direct water runoff; and
- Soil wetting during high wind conditions.

~~**Amgen Center Specific Plan Mitigation Measure GEO-2 Soil Compaction:** If slope instability becomes a problem during project construction, the following measures would be incorporated where appropriate.~~

- ~~Restrict, where feasible, operation of heavy tracked equipment in open space areas; and~~
- ~~Disc compacted soils prior to seeding.~~

[This mitigation measure is not applicable to the Modified Project.]

~~**Amgen Center Specific Plan Mitigation Measure GEO-3 Soil Extraction:** In the event that slope instability becomes a problem during construction, the unstable slope should be shored up and the angle of the slope should be reduced.~~

[This mitigation measure is not applicable to the Modified Project.]

Amgen Center Specific Plan Mitigation Measure GEO-4 Face Masks: The applicant shall inform all employees involved in grading operations on the project site to wear face masks during dry periods to reduce inhalation of dust which may contain the fungus which causes San Joaquin Valley Fever.

[This mitigation measure has been incorporated into Section 4.9, Hazards, below.]

Conclusion

Based on the above, no new significant impacts with regard to geology and soils or a substantial increase in previously identified geology and soils impacts would occur as a result of the Modified Project. Thus, the potential environmental impacts of the Modified Project with regard to geology and soils would not result in any of the conditions set forth in PRC Section 21166(c) or CEQA Guidelines Sections 15162 or 15163 that would require the preparation of a Supplemental or Subsequent EIR.

4.8 GREENHOUSE GAS EMISSIONS

Issues (and Supporting Information Sources)	Was the Impact Analyzed in the Certified EIR	Impact Determination in the Certified EIR	Do Proposed Changes or New Circumstances Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Certified EIR Mitigation Measures Addressing Impact
GREENHOUSE GAS EMISSIONS: Would the project:					
(a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	Yes	Significant and Unavoidable	No	No	No
(b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	Yes	Significant and Unavoidable	No	No	No

Impact Determination in the Certified EIRs

Impacts related to Greenhouse Gas Emissions were discussed in Section 4.5, Greenhous Gas Emissions, of the GP EIR. The environmental topic of Greenhouse Gas Emissions was added as a separate environmental topic to Appendix G of the CEQA Guidelines in 2010. Therefore, the Specific Plan EIR did not analyze the impact of the Approved Specific Plan on greenhouse gas (GHG) emissions, as it was not an environmental impact category under CEQA at the time the document was prepared and certified.

Threshold (a) and (b): As discussed in the GP EIR, individual projects do not generate sufficient GHG emissions that would substantially affect climate change and, thus, the issue of climate change typically involves an analysis of whether a project's contribution toward an impact is cumulatively considerable. For the GP EIR GHG analysis, the potential significance of the project's GHG emissions were qualitatively evaluated based on the "extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions" (CEQA Guidelines Section 15064.4(b)). For informational purposes, GHG emissions were quantified and presented in the GP EIR. The projects would be required by the City to comply with applicable regulations or requirements adopted to implement statewide, regional, or local plans for the reduction or mitigation of GHG emissions. Since the City of Thousand Oaks' Climate and Environmental Action Plan (CEAP) had not yet been adopted, it was not used in the impact analysis.

The nature of GHG emissions would be typical of those associated with residential, commercial, service, retail, hotel, warehouse, manufacturing, hotel, and research and development uses. GHG emissions would result primarily from building energy usage and fuel consumption associated with vehicle trips. The Approved General Plan Update contains policies that aim to reduce operational GHG emissions in accordance with State 2030 GHG emissions reductions goals and provide substantial progress to the State's goal of carbon neutrality by 2045. With regard to Threshold (a) and (b), the GP EIR showed that the 2045 General Plan would be consistent with the GHG emission reduction strategies contained in the 2020- 2045 RTP/SCS. However, the 2045 General Plan does not identify how the City would meet the goals of the CARB 2022 Climate Change Scoping Plan and would not be consistent with Executive Order B-55-18 goal of carbon neutrality by 2045. At the time of the GP EIR, the City was in the process of drafting and adopting the CEAP, but had not yet been adopted. Therefore, the GP EIR included Mitigation Measure GHG-1, which required the City to adopt a CEQA GHG Emissions threshold of significance by end of 2024 consistent with the CEAP. The GP EIR also included 2045 General Plan Update Mitigation Measure GHG-2 which required the City to draft and adopt the Thousand Oaks qualified CEAP by end of 2024. However, Mitigation Measures GHG-1 and GHG-2 were not able to be enforced at the time of the GP EIR. Therefore, the GP EIR concluded that impacts would be significant and unavoidable.

Do Proposed Changes or New Circumstances Involve New Significant Impacts or Substantially More Severe Impacts?

Threshold (a) and (b): Since publication of the Certified EIRs, the regulatory environment pertaining to GHG emissions has continued to evolve. Notably, the following actions have been taken and plans/policies adopted at the state and local level:

- The 2024–2050 RTP/SCS was approved on April 4, 2024. Similar to the 2020–2045 RTP/SCS, the 2024–2050 RTP/SCS is a long-term plan for the Southern California

region that details investment in the transportation system and development in communities to meet the existing and future needs of the region through projects, investments, policies and strategies. While the 2024–2050 RTP/SCS remains focused on its core responsibilities and on the requirements of comprehensive regional transportation planning integrated with the development of a sustainable communities strategy, it also encompasses a holistic approach to programs and strategies that support success of the RTP/SCS, such as vehicle mile travelled (VMT) reduction strategies and polices, workforce development, broadband and mobility hubs.

- In addition, the state energy codes, including Title 24 and the associated CALGreen Code, continue to be updated on a triennial basis, with continued improvements in and stricter requirements with respect to energy and water conservation and efficiency. For example, homes built with the 2019 Title 24 standards will use about seven percent less energy than those built under 2016 Title 24 standards. Once the mandated rooftop solar electricity generation is factored in, homes built under the 2019 standards will use about 53 percent less energy than those under the 2016 standards. Nonresidential buildings are projected to use approximately 30 percent less energy due mainly to lighting upgrades.[29]

- The City adopted the CEAP on May 7, 2024, which is a long-range plan that outlines comprehensive strategies to reduce GHG emissions and address other environmentally related issues. The CEAP details the strategies and actions that the City will pursue to protect the environment and address the challenges of climate change. Actions are aimed at reducing the community's collective carbon emissions, sustaining a healthy environment, and providing co-benefits like reducing air pollution, supporting local economic development, increasing the City's sustainability and resilience, and improving public health. The CEAP goals pertaining to GHG impacts are discussed below in Table 4 on page 72.

The City has not adopted a numeric threshold for the analysis of GHG impacts. CEQA Guidelines Section 15064.4 allows the City to determine a threshold of significance that applies to the project, and, accordingly, the threshold of significance applied here is whether the project is consistent with applicable plans, policies, regulations or requirements adopted to implement a Statewide, regional, or local plan for the reduction or mitigation of GHG emissions. For the Modified Project, as a land use development project, the most directly applicable adopted regulatory plan to reduce GHG emissions is SCAG's 2024–2050 RTP/SCS, which is designed to achieve regional GHG reductions from the land use and transportation sectors as required by SB 375 and the State's long-term climate goals. This analysis also considers qualitative consistency with regulations or requirements adopted by AB 32's 2022 Scoping Plan and the CEAP.

[29] *CEC, 2019 Building Energy Efficiency Standards, Fact Sheet.*

The Modified Project has been designed with a number of features to reduce impacts that are consistent with the goals of AB 32 and applicable recommendations and strategies set forth in policy and guidance documents such as the 2024–2050 RTP/SCS. As discussed earlier, the Modified Project reflects a number of characteristics related to location, land use, and design that would serve to reduce vehicular trips and VMT and thus reduce associated GHG emissions. The Modified Project would not result in a net increase in employees across the ATO Campus as existing staff would be relocated from other buildings within the ATO Campus to the proposed uses. Accordingly, the increase in daily trips and VMT under the Modified Project would be reduced due to no increase in employees. In addition, the Modified Project would be constructed to incorporate environmentally sustainable building features equivalent to certification under the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED®) Rating System for new construction and environmentally sustainable building features and construction standards required by the TOMC, the California Green Building Standards Code (California Code of Regulations, Title 24, Part 11; referred to as the CALGreen Code), and the California Building Energy Efficiency Standards (California Code of Regulations, Title 24, Part 6; California Energy Code). For example, the Modified Project would install drought tolerant landscaping with drip sensor-controlled irrigation system, utilize LED and energy-efficient lighting at the exterior and interior of the building and fuel station, a cool rooftop finish as well as a rooftop photovoltaic system as required by the 2025 California Energy Code, and high-efficiency heating/ventilating/air conditioning (HVAC) units, and water-efficient restroom fixtures.

With implementation of Project Design Feature GHG-PDF-1, the Modified Project does not include natural gas uses. As discussed below in Section 1.17, Transportation, the Modified Project includes a number of characteristics related to location, land use, and design that would serve to reduce vehicular trips and vehicle miles traveled (VMT). Specifically, the Modified Project would be consistent with Mobility Element policies 6.2 through 6.4 of the 2045 General Plan through decreasing vehicle miles traveled through infill development, emissions reduction as required in Specific Plan EIR Mitigation Measure AQ-1 to transfer all fleet vehicles to fuel-efficient or zero-emission vehicles at the earliest practicable date, and the use of transportation demand management strategies for employees such as options for emission reductions from commuting and reducing VMT.

Appendix D, Local Actions, of the 2022 Scoping Plan Update includes "recommendations intended to build momentum for local government actions that align with the State's climate goals, with a focus on local GHG reduction strategies (commonly referred to as climate action planning) and approval of new land use development projects, including through environmental review under CEQA."[30]

[30] *CARB, 2022 Scoping Plan Appendix D Local Actions, p. 4, November 2022.*

The State encourages local governments to adopt a CEQA-qualified CAP addressing the three priority areas (transportation electrification, VMT reduction, and building decarbonization). However, jurisdictions that wish to take meaningful climate action (such as preparing a non-CEQA-qualified CAP or as individual measures) aligned with the State's climate goals in the absence of a CEQA-qualified CAP should also look to the three priority areas when developing local climate plans, measures, policies, and actions. "By prioritizing climate action in these three priority areas, local governments can address the largest sources of GHGs within their jurisdiction."[31]

The State also recognizes in Appendix D, Local Actions, of the Scoping Plan that each community or local area has distinctive situations and local jurisdictions must balance the need for development while demonstrating that a project is in alignment with the State's Climate Goals. Jurisdictions should avoid creating targets that are impossible to meet as a basis to determine significance. Ultimately, targets that make it more difficult to achieve statewide goals by prohibiting or complicating projects that are needed to support the State's climate goals, like infill development, low-income housing or solar arrays, are not consistent with the State's goals. The State also recognizes the lead agencies' discretion to develop evidence-based approaches for determining whether a project would have a potentially significant impact on GHG emissions.

As required under GP EIR Mitigation Measure GHG-2, the City has adopted a Climate and Environmental Action Plan (CEAP) which serves as the City's CAP. An analysis of the Modified Project's potential to conflict with the City's CEAP is included below in Table 4 on page 72.

Based on the above analysis, the Modified Project would not obstruct implementation of the CARB Scoping Plan, SCAG's RTP/SCS, or City's CEAP, and no new or greater impacts would occur compared to the Approved General Plan Update. As such, the Modified Project would not create any new significant impacts related to GHG emissions nor result in a substantial increase in a previously identified significant impact. Such impacts would be within the envelope of impacts set forth in the Certified EIR.

To comply with the requirements of CEQA Guidelines Section 15064.4(a), the analysis includes a good faith estimate of the GHG emissions resulting from the Modified Project. For informational purposes, an analysis of the Modified Project's GHG emissions was conducted and is provided in Table 5 on page 75.

[31] *CARB, 2022 Scoping Plan Appendix D Local Actions, p. 9, November 2022.*

Table 4
Project Consistency with City of Thousand Oaks Climate and Environmental Action Plan Goals and Measures

Goals and Measures	Project Compliance with Recommended Actions/Measures
Goal BE1: Reduce GHG Emissions from New Buildings. **Measure BE1.3:** If not included in 2025 Title 24 update, City to consider requiring all-electric construction or mixed fuel plus a Flexible Measures or equivalent compliance pathway that meets the equivalent GHG reduction for new non-residential buildings. **Measure BE1.4:** Encourage developers to build certified buildings at the Gold or Platinum level.	**No conflict.** Consistent with Project Design Feature GHG-PDF-1, the Modified Project would be built using all-electric construction with the exception of emergency back-up electricity using two diesel emergency generators. In addition, the Modified Project would include EV chargers as required by the 2025 California Green Building Standards, high surface roofing and paving reflectance (reduces electricity use through passive cooling), installation of drought-tolerant landscaping, drip irrigation systems and high-efficiency plumbing (reduces water use), on-site photovoltaic systems will be installed that would supplement the site's energy requirements.
Goal BE2: Reduce GHG Emissions in Existing Buildings and Operations **Measure BE2.4:** Develop a City Energy Ambassador Program to aid residents and developers with clean energy, energy efficiency, and electrification transition, conduct outreach to existing building owners and occupants, and support the development and enforcement of CEAP-related building ordinances	**No conflict.** The Modified Project will be constructed consistent with the latest Green Building Code and Title 24 requirements. Additionally, the City's default electricity utility provider is the Clean Power Alliance (CPA)'s 100 percent renewable Green Power mix. Therefore, the Modified Project would support this measure and would not conflict with the City's ability to aid developers with clean energy, energy efficiency, and electrification transition.
Goal BE3: Transition to Greener Energy. **Measure BE3.1:** Increase participation from non-residential properties in Green power program from Clean Power Alliance (CPA).	**No Conflict.** The goal of this measure is to expand participation from non-residential properties in Green power program from Clean Power Alliance (CPA). The City's default electricity utility provider and renewables is CPA's 100 percent renewable Green Power mix. However, customers can opt out of CPA and remain with SCE if they so choose. Therefore, the Modified Project would support this action by potentially participating in CPA Green Power Program and would not conflict with the City's ability to increase participation from other non-residential properties.
Goal TR1: Reduce Vehicle Miles Traveled (VMT). **Measure TR1.2:** Increase opportunities to both live and work in the City. **Measure TR1.3:** Continue to implement the Active Transportation Plan (ATP) and integrate support for e-mobility.	**No conflict.** The Modified Project would not result in a net Increase in employees across the ATO Campus as existing staff would be relocated from other buildings within the ATO Campus to the proposed uses. Accordingly, the increase in daily trips and VMT under the Modified Project would be reduced due to no increase in employees.
Goal SW1: Reduce Volume of Landfilled Waste **Measure SW1.1:** Reduce methane emissions from landfilled organic waste through organics collection and composting	**No Conflict.** The Modified Project would support this measure as the Development Area would be served by a trash service provider which is subject to AB 939, which requires cities and unincorporated portions of counties throughout the State to divert a minimum 50 percent of waste by 2000. In addition, in 2011, AB 341 established a State policy goal that no less than 75 percent of solid waste be

Table 4 (Continued)
Project Consistency with City of Thousand Oaks Climate and Environmental Action Plan Goals and Measures

Goals and Measures	Project Compliance with Recommended Actions/Measures
	reduced, recycled, or composted by 2020, and requiring California Department of Resources Recycling and Recovery ("CalRecycle") to provide a report to the Legislature that recommends strategies to achieve the policy goal by January 1, 2014. AB 341 also mandated local jurisdictions to implement commercial recycling by July 1, 2012. In addition, the City is applying California Senate Bill 1383 through its establishment of a food recovery program and mandatory organics recycling for all businesses and residents. The City provides a list of food recovery organizations and services on its website. It requires that Tier 1 commercial edible food generators comply with SB 1383 and that Tier 2 generators comply with SB 1383 by January 1, 2024. As such, the Modified Project would not conflict with this goal.
Goal: WA1: Reduce Community Water Use. **Measure WA1.1:** Transition community to climate-appropriate landscaping.	**No conflict.** The Modified Project would support this measure as the Project's landscape plan calls for low maintenance, native, and drought tolerant landscaping. Landscaping species will be planted to ensure they share similar water requirements and common hydrozones. All landscaping will be watered with an automatic, high-efficiency irrigation system. Drip tubing and/or micro spray will be used to minimize over spray and evaporation.
Goal: EN1: Expand the City's Urban Tree Canopy. **Measure EN1.2:** Encourage tree planting on private property.	**No conflict.** The Modified Project would support this measure as the landscaping at the Development Area would include new trees, shrubs, and ground cover vegetation. The Modified Project will introduce a variety of native/drought-tolerant species to the outdoor landscaping areas.
Goal: EN3: Reduce Air and Noise Pollution from Small Offroad Equipment **Measure EN3.1:** Phase out the use of gas-powered leaf blowers. **Measure EN3.2:** Explore the phase out of other small off-road engine equipment.	**No conflict.** The Modified Project would use electric landscape equipment or low emission alternative when available. The Modified Project is subject to CARB's Small Off-Road Engine (SORE) regulations control the emissions from new Small Nonroad Spark-Ignition Engines and Equipment, ensuring the efficiency of new leaf blowers and other SOREs equipment applicable to the Project. In addition, California Executive Order N-79-20 sets a goal to transition off-road equipment operations to 100 percent zero-emission by 2035, where feasible, to reduce air and noise pollution from small offroad equipment. As such, the Modified Project would not conflict with this goal.
Goal: AR1: Address Heat-Related Impacts **Measure AR1.1:** Expand urban canopy with climate-appropriate trees. **Measure AR1.3:** Explore cool pavement and permeable pavement options for streets and parking lots.	**No conflict.** The Modified Project would support this measure as the Modified Project's landscape plan calls for low maintenance, native, and drought tolerant landscaping. The Modified Project would include the planting of shade trees on the property and within the parking areas to help reduce radiation heat production.

Table 4 (Continued)
Project Consistency with City of Thousand Oaks Climate and Environmental Action Plan Goals and Measures

Goals and Measures	Project Compliance with Recommended Actions/Measures
Goal: AR2: Address Emergencies and Increase Energy Resiliency **Measure AR2.4:** Encourage businesses, residents, and property owners to install resilient clean backup power supply.	**No Conflict.** The Modified Project includes rooftop photovoltaic system as required by the 2025 California Energy Code. The Modified Project would require two diesel emergency generators. However, consistent with Project Design Feature AQ-1, the generators would meet USEPA Tier 4 Final emissions compliant standards and be equipped with a Level 3 Diesel Particulate Filter or equivalent. Thus, the Modified Project would not conflict with this goal.
Goal: AR3: Address Water Supply Resiliency, Drought and Storm Impacts **Measure AR3.3:** Pursue avenues to divert and treat stormwater and treated wastewater for potable re-use. **Measure AR3.5:** Reduce stormwater runoff. **Measure AR3.8:** Reduce demand for irrigation through transitioning community to climate-appropriate landscaping	**No conflict.** The Modified Project would support this measure as the Modified Project's landscape plan calls for low maintenance, native, and drought tolerant landscaping and low-flow water efficient irrigation. The Modified Project will comply with this measure by complying with or exceeding water conservation requirements in the 2022 or later CALGreen Code and 2025 Title 24 requirements. As such, the Modified Project would not require the construction or expansion of off-site stormwater drainage facilities because the Modified Project would not contribute a substantial amount of new stormwater runoff relative to existing conditions.

Source: City of Thousand Oaks CEAP and Eyestone Environmental 2026.

Table 5
Annual GHG Emissions Summary
(metric tons of carbon dioxide equivalent [$MTCO_2e$])[a]

Scope	Existing Emissions	Buildout Emissions[c]	Project Emissions
Area	3	6	3
Energy	1,031	2,240	1,209
Mobile	5,770	8,988	3,218
Emergency Generators	0	790	790
Solid Waste	70	147	77
Water/Wastewater	126	264	138
Refrigeration.	8	16	9
Construction[b]	0	171	171
Total Emissions	7,007	12,621	5,615

[a] *CO_2e was calculated using CalEEMod and the results are provided in Section 2.0 of the Operation CalEEMod output file within Appendix C of this Addendum. Totals may not add up due to rounding.*

[b] *Construction emissions are amortized over 30 years.*

[c] *The City's default electricity utility provider and renewables is CPA's 100 percent renewable Green Power mix. However, this analysis conservatively assumes that the Modified Project would opt out of CPA and remain with SCE.*

Source: Eyestone Environmental, 2026.

Any new Information Requiring New Analysis or Verification?

As discussed above GHG emissions were not evaluated in the Specific Plan EIR as this environmental topic was added to the CEQA Checklist subsequent to certification of the Specific Plan EIR. In addition, changes in the regulatory environment related to GHG emissions are discussed above. As demonstrated above, the Modified Project will not result in any new or substantially more severe GHG emission impacts when compared with the GP EIR, and review of feasible mitigation measures is not required. In addition, no substantial changes in the environment have occurred since certification of the Certified EIRs.

PDFs and/or Mitigation Measures Addressing Impacts

Project Design Feature GHG-PDF-1: The Modified Project will prohibit the use of natural gas during Project operations within the new building envelope.

~~**2045 General Plan Update Mitigation Measure GHG-1 Adopt and Implement a CEQA GHG Threshold:** The City shall adopt CEQA GHG Emissions thresholds of significance by the end of 2024 that is consistent with the CEAP for use in future CEQA GHG emissions analyses through 2030. In addition, upon completion of future CEAP updates and as necessary, the~~

~~City shall update the CEQA GHG emissions threshold of significance to be consistent with each CEAP update.~~

[This mitigation measure is required by the City to implement, not the Applicant of the Modified Project.]

~~**2045 General Plan Update Mitigation Measure GHG-2 Adopt Thousand Oaks CEAP to Meet the State's 2030 and 2045 GHG Emissions Goals:** The City shall draft and adopt the Thousand Oaks qualified CEAP by the end of 2024 to outline how Thousand Oaks will meet the State's 2030 goal of 40 percent below 1990 emissions levels and 2045 goal of carbon neutrality. Implementation measures in the updated qualified CEAP to achieve the 2030 and 2045 goals may include, but are not limited to, the following:~~

- ~~Develop and adopt Zero Net Emissions requirements for new and remodeled residential and non-residential development~~
- ~~Develop and adopt a building electrification ordinance for existing and/or proposed structures~~
- ~~Expand charging infrastructure and parking for EVs~~
- ~~Implement carbon sequestration by expanding the urban forest and supporting regional open space protection~~
- ~~Implement policies and measures included in the California 2022 Climate Change Scoping Plan, such as mobile source strategies for increasing clean transit options and zero-emissions vehicles by providing EV charging stations~~

[This mitigation measure has been completed by the City and is not applicable to the Modified Project.]

Conclusion

Based on the above, no new significant impacts to GHG emissions would occur as a result of the Modified Project. Therefore, the impacts to GHG emissions do not meet the standards for a subsequent or supplemental EIR pursuant to Public Resources Code, Section 21166(c) or CEQA Guidelines, Sections 15162 or 15163.

4.9 HAZARDS AND HAZARDOUS MATERIALS

Issues (and Supporting Information Sources)	Was the Impact Analyzed in the Certified EIR?	Impact Determination in the Certified EIR	Do Proposed Changes or New Circumstances Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Certified EIR Mitigation Measures Addressing Impact
HAZARDS AND HAZARDOUS MATERIALS: Would the project:					
(a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	Yes	Less Than Significant	No	No	No
(b) Create a significant hazard to the public or the environment through the reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment?	Yes	Less Than Significant with Mitigation Incorporated	No	No	Yes
(c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	Yes[32]	Less Than Significant	No	No	No
(d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code §65962.5 and, as a result, would it create a significant hazard to the public or the environment?	Yes	Less Than Significant with Mitigation	No	No	No
(e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	Yes[33]	No Impact	No	No	No
(f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	Yes	Less Than Significant	No	No	No
(g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	Yes[34]	Less Than Significant	No	No	No

[32] *Threshold (d) was not specifically addressed in the Specific Plan EIR as this threshold was updated subsequent to the preparation of the Specific Plan EIR.*

[33] *Threshold (e) was not specifically addressed in the Specific Plan EIR as this threshold was updated subsequent to the preparation of the Specific Plan EIR. Notwithstanding, the Specific Plan EIR would not result in a safety hazard or excessive noise for people residing or working in the project area.*

[34] *Threshold (g) was not specifically addressed in the Specific Plan EIR as this threshold was updated subsequent to the preparation of the Specific Plan EIR. Notwithstanding, the Specific Plan EIR would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires.*

Impact Determination in the Certified EIRs

Impacts related to Hazards and Hazardous Materials were evaluated in the Initial Study prepared for the GP EIR and in Section 4.13, Wildfire of the GP EIR, and in Section 4.8, Risk of Upset/Human Health and Safety of the Specific Plan EIR.

With regard to Threshold (a), as stated in the GP EIR, development under the Approved General Plan Update would comply with all applicable State, and federal laws and the policies contained in the Safety Element of the 2045 General Plan relating to the transport, use, and disposal of hazardous materials during construction and operation. Therefore, the GP EIR determined that impacts from a hazard to the public or the environment through the routine transport, use or disposal of hazardous materials would be less than significant. The Specific Plan EIR also concluded that with adherence to regulatory requirements, potential impacts associated with the routine transport, use, or disposal of hazardous materials would be less than significant.

With regard to Threshold (b) regarding risk of upset, the GP EIR concluded that compliance with applicable federal, State, and local regulations would minimize the potential for development under the Approved General Plan Update to create a significant hazard to the public or environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. The Specific Plan EIR found that impacts associated with the accidental release of hazardous materials would be less than significant with the incorporation of mitigation measures that require the preparation of an Environmental Site Assessment and additional waste-pick up points. With implementation of Specific Plan EIR Mitigation Measures RU-1 and RU-2 and GEO-4, impacts related to the potential creation of a significant hazard to workers, the public, or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment would be less than significant.

With regard to Threshold (c) regarding hazardous materials in the vicinity of a school, the GP EIR found that impacts related to hazardous materials and schools would be less than significant as the transport of hazardous materials would be required to comply with applicable regulations for the use, transport, and disposal of hazardous materials. Such regulations include PRC Section 21151.4, which requires notification of the affected school district, as well as California Education Code Section 17213, which requires the City to ensure the chosen site for a proposed school is not built on current or hazardous waste disposal sites, is not on a hazardous substance release site identified by the California Department of Toxic Substances Control (DTSC), and does not contain pipelines that carry hazardous substances.

With regard to Threshold (d) regarded listed hazardous materials sites, as discussed in the GP EIR, development facilitated by the Approved General Plan Update would be required to identify and clean-up hazardous materials sites in accordance with the policies contained in

the Safety Element of the 2045 General Plan and remove such hazardous materials in accordance with applicable State and local regulations, such as California Health and Safety Code Division 20, Chapters 6.7 and 6.75 (UST Program). Therefore, the GP EIR found that impacts related to hazardous materials sites would be less than significant. The Specific Plan EIR also found that potential impacts associated with listed hazardous materials sites would be less than significant with implementation of Mitigation Measure RU-1 that require soil investigations prior to excavation.

With regard to Threshold (e) regarding hazards associated with proximity to an airport, the GP EIR found that impacts related to airport land use hazards would not occur as no development facilitated by the Approved General Plan Update would be located within 2 miles of an airport.

With regard to Threshold (f) regarding emergency response plans, the GP EIR found that impacts to adopted emergency response plans or emergency evacuation plans would be less than significant as construction activities associated with the Approved General Plan Update would adhere to the *California Manual of Uniform Traffic Control Devices*, which requires the creation and approval of temporary traffic control plans to be used for facilitating road users through a work zone. In addition, construction activities within a public easement or right-of-way would be required to obtain an encroachment permit. With respect to operation, development facilitated by the Approved General Plan Update would adhere to applicable guidance document, including the City's Emergency Operations Plan and the County's Multi-Jurisdictional Hazard Mitigation Plan, which provide guidance during unique situations requiring an unusual or extraordinary response, including traffic control and management. In addition, development facilitated by the Approved General Plan Update would also comply with road standards and would be reviewed by the Ventura County Fire Department (VCFD) to ensure development would not interfere with evacuation routes or impede the effectiveness of evacuation plans. Operational impacts were concluded to be less than significant.

With regard to Threshold (g) related to wildland fires, the GP EIR found that impacts associated with wildland fires would be less than significant as development facilitated by the Approved General Plan Update would comply with State and federal regulations, VCFD requirements and recommendations, and the policies of the Safety Element of the 2045 General Plan.

Do Proposed Changes or New Circumstances Involve New Significant Impacts or Substantially More Severe Impacts?

Threshold (a)—Use and Transport of Hazardous Materials: During on site grading and building construction, hazardous materials such as fuel and oils associated with construction equipment, as well as coatings, paints, adhesives, and caustic or acidic cleaners could be routinely used on the Development Area through the duration of construction. While

some hazardous materials used during construction could require disposal, such activity would occur only for the duration of construction and would cease upon completion of the Modified Project. As such, construction of the Modified Project would not involve the routine disposal of hazardous materials. Notwithstanding, all potentially hazardous materials used during construction of the Modified Project would be transported, used and disposed of in accordance with manufacturers' specifications and instructions and in compliance with all applicable local, state, and federal laws, thereby reducing the risk of hazardous materials use. Such existing regulations are aimed at establishing specific guidelines regarding risk planning and accident prevention, protection from exposure to specific chemicals, and the proper storage of hazardous materials. Further, the Modified Project would implement Amgen Center Specific Plan Mitigation Measure GEO-4, requiring construction workers to wear face masks during dry periods to reduce inhalation of dust which may contain the fungus which causes San Joaquin Valley Fever. Consequently, construction activities would not create a significant hazard to the public or the environment through the use of hazardous materials during construction. Therefore, impacts related to the routine transport, use, or disposal of hazardous materials during construction would be less than significant, and such impacts would be within the scope of effects and within the impact envelope set forth in the Certified EIRs.

The ATO Campus includes office and life sciences and technology uses, which routinely use and store potentially hazardous materials typical of those used in research and development facilities such as acids, caustics and other dry chemicals. The Modified Project would develop uses similar to those already operating on the ATO Campus and would not introduce new sources of hazardous materials. As with construction activities of the Modified Project, all hazardous materials used on the Development Area during operation would be used, stored, and disposed of in accordance with all applicable federal, state and local requirements. These regulations include the 2025 California Fire Code (Title 24, Part 9) and Ventura County Fire Protection District (VCFPD) Ordinance No. 34, which govern hazardous materials storage, inventory reporting, spill prevention and control, fire protection, and emergency planning. Amgen would also continue to operate and implement the various safety programs, including an Emergency Response Plan, which provides direction and procedures in the event of an accident or upset conditions, as well as a Chemical Hygiene Plan and a stringent safety program. In addition, Project-operations would fall under the guidelines of two Environmental, Health, and Safety Manuals. The Laboratory Radiation and Safety Manual establishes policies and procedures for the receiving, handling, and disposal of chemicals, whereas the General Health and Safety Manual provides additional policies. Therefore, implementation of the Modified Project would result in less-than-significant impacts related to the routine transportation, use, and disposal of hazardous materials. Such impacts would be within the scope of effects and within the impact envelope set forth in the Certified EIRs.

Threshold (b) Risk of Upset Conditions: Development under the Modified Project would occur within the same geographic boundary evaluated in the Certified EIRs. As such,

the underlying conditions associated with the Modified Project would remain the same as for the Approved General Plan Update and Approved Specific Plan.

As discussed above, during construction of the Modified Project, hazardous materials such as fuel and oils associated with construction equipment, as well as coatings paints, adhesives, and caustic or acidic cleaners, could be used, and therefore, would require proper handling and management and, in some cases, disposal. The use, handling, storage, and disposal of these materials could increase the opportunity for hazardous materials releases and, subsequently, the exposure of people and the environment to hazardous materials. However, as discussed above, the Modified Project would comply with all applicable federal, state, and local requirements concerning the use, storage, and management of hazardous materials.

In compliance with Specific Plan EIR Mitigation Measure RU-1, a Soil Sampling Memorandum was conducted for the Modified Project and is included in Appendix I of this Addendum. As part of the Soil Sampling Memorandum, three borings were advanced to a depth of approximately 13 feet below ground surface (bgs), and five borings were advanced to approximately five feet bgs. Minor detections of Volatile organic compound (VOC), Semi-Volatile Organic Compounds (SVOCs), and Total Petroleum Hydrocarbons (TPH) concentrations were reported in soil. None of the soil samples had detections of organochlorine pesticides at concentrations above their respective reporting limits (i.e. samples were non-detect). Three soil samples had detections of chromium at concentrations above its California Soluble Threshold Limit Concentration (STLC) of 50 milligrams per kilogram (mg/kg). These samples were further analyzed for solubility by CalWET-Citric (EPA Method 3010A) for chromium. None of the three soil samples had detections of soluble chromium at concentrations above their respective reporting limits (i.e. samples were non-detect); nor did they exceed the STLC for chromium of 5 milligrams per liter (mg/L). Additionally, all other Title 22 metals analytes, VOCs, SVOCs, and TPH were reported at concentrations below California and Federal RCRA hazardous waste thresholds and below human health screening levels. Therefore, based on the concentrations detected in the soil samples, soil contamination is not considered to be a significant concern.

As previously discussed, the Development Area is undergoing demolition of former Building 14. Based on a review of historical aerial imagery, the existing structure appears to have been constructed in the late 1980s to early 1990s. As such, based on the age of the on-site structure, the presence of asbestos-containing materials (ACMs) and the use of lead-based paint (LBP) on-site is considered unlikely. Notwithstanding, removal of any existing structures during construction of the Modified Project would occur in compliance with applicable regulations and requirements regarding ACMs, including in accordance with SCAQMD Rule 1403.

As discussed above, the Modified Project would develop uses similar to those already operating on the ATO Campus and would not introduce new sources of hazardous materials. Operation of the Modified Project would involve the routine use of potentially hazardous materials typical of those used in technology and life sciences facilities such as acids, caustics and other dry chemicals. As with construction activities of the Modified Project, all hazardous materials used on the Development Area during operation would be used, stored, and disposed of in accordance with all applicable federal, state and local requirements.

As discussed in Section 2, Project Description, of this Addendum, the southwestern portion of the Development Area would include two USTs for utilities including water storage with 12,000 gallons in capacity each to supply the on-site fire suppression systems. Further, four ASTs with 6,000 gallons in capacity each (eight to ten feet in diameter) would contain materials used for laboratory operations. The Project would comply with all applicable existing local, state, and federal regulatory requirements regarding operation of the technology and life sciences facility, including those regarding the collection, disposal, and transfer or chemical waste. The Modified Project would include the use of commercially-sold construction materials that would not include ACMs and LBP.

In addition, the Modified Project would comply with the goals and policies of the Safety element of the General Plan pertaining to hazardous materials. Therefore, the Modified Project would not create any new significant impacts related to the reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment nor result in a substantial increase in a previously identified significant impact. Such impacts would be within the scope of effects and within the impact envelope set forth in the Certified EIRs.

Threshold (c)—Hazardous Conditions Near Schools: The Development Area is located 0.22 miles southeast of Bobbie's School of Performing Arts, located at 2320 Teller Road.

Construction activities associated with the Modified Project would be conducted in accordance with all applicable State and Federal laws, such as the Hazardous Materials Transportation Act, Resource Conservation and Recovery Act, the California Hazardous Material Management Act, and the CCR Title 22. Compliance with these regulations would reduce the potential of accidental spills or hazardous emissions during construction. In addition, construction of the Modified Project, and associated air pollutant emissions, would be temporary and would not result in air pollutant emissions that exceed the applicable thresholds at the nearest sensitive receptors. The Modified Project would also be required to notify the affected school district, pursuant to PRC Section 21151.4. With regard to operation, as provided above, the types of potentially hazardous materials used during operation of the Modified Project would be consistent with those currently used by existing development in the surrounding vicinity, and all such materials would be handled, used, and stored in accordance

with manufacturers' instructions and in compliance with applicable standards and regulations. Therefore, the Modified Project would not create any new significant impacts related to creating a significant hazard to nearby schools nor result in a substantial increase in a previously identified significant impact. Such impacts would be within the scope of effects and within the impact envelope set forth in the GP EIR.

Threshold (d)—Location within a Listed Hazardous Site: Section 65962.5 of the California Government Code requires the California Environmental Protection Agency (CalEPA) to develop and update annually the Cortese List, which is a collective database of hazardous waste sites and other contaminated sites compiled on the websites of the Department of Toxic Substances Control (DTSC), the State Water Resources Control Board, and CalEPA. The DTSC maintains the EnviroStor database, which includes sites on the Cortese List and also identifies potentially hazardous sites where cleanup actions or extensive investigations are planned or have occurred.

Based on a review of several databases found in CalEPA's Cortese List Data Resources webpage,[35] the Development Area is not listed on any of the databases that comprise the Cortese List. Accordingly, the Development Area's location on a list of hazardous materials sites would not create a significant hazard to the public or the environment, and impacts would be less than significant. Therefore, the Modified Project would not create any new significant impacts related to hazards nor result in a substantial increase in a previously identified significant impact. Such impacts would be within the scope of effects and within the impact envelope set forth in the Certified EIRs.

Threshold (e)—Hazards Associated with Proximity to Airports: The Development Area is not located within an area subject to an airport land use plan or within two miles of an airport. Given the distance between the Development Area and the nearest airport or private airstrip, the Modified Project would not have the potential to result in an aviation safety hazard. Therefore, the Modified Project would not create any new significant impacts related to aviation safety hazards nor result in a substantial increase in a previously identified significant impact. Such impacts would be within the scope of effects and within the impact envelope set forth in the GP EIR.

Threshold (f)—Emergency Access: Construction activities would be confined to the Development Area, and minor off-site construction activities within adjacent streets or public rights of way would occur. If lane closures are necessary, both directions of travel would continue to be maintained in accordance with standard construction management plans that would be implemented to ensure adequate circulation and emergency access. With regard to

[35] CalEPA. Cortese List Data Resources, available at https://calepa.ca.gov/sitecleanup/corteselist/, accessed August 18, 2026.

operation, the Modified Project would not require the permanent closure of any local public or private streets and would not result in a significant increase in traffic as the Modified Project would not result in a net increase in employees across the ATO Campus. In addition, development associated with the Modified Project would comply with applicable roadway standards, including the fire apparatus access requirements set forth in Ventura County Ordinance Code No. 34, Appendix D, and would be reviewed by the VCFD to ensure that it does not interfere with evacuation routes, impede emergency access, or reduce the effectiveness of established evacuation and emergency response plans. Further, the Modified Project would comply with applicable guidance documents regarding safety, including the City's Emergency Operations Plan and the County's Multi-Jurisdictional Hazard Mitigation Plan. Overall, the Modified Project would not create any new significant impacts related to the implementation of an emergency response plan nor result in a substantial increase in a previously identified significant impact. Such impacts would be within the scope of effects and within the impact envelope set forth in the GP EIR.

Threshold (g)—Wildland Fires: Development under the Modified Project would occur within the geographic area evaluated in the Certified EIRs. The Development Area is located in an urbanized area and there are no wildlands or heavily vegetated areas in proximity to the Development Area. Although the northeastern portion of the ATO Campus is located within a Moderate Fire Hazard Severity Zone (FHSZ), the Development Area is not located within a City or State designated FHSZ.[36,37,38] Therefore, the Modified Project would not create any new significant impacts related to wildland fires nor result in a substantial increase in a previously identified significant impact. Such impacts would be within the scope of effects and within the impact envelope set forth in the GP EIR.

Mitigation Measures Addressing Impact

The following mitigation measures set forth in the Specific Plan EIR and the associated MMRP to address hazards and hazardous materials impacts would be implemented as part of the Modified Project. No additional mitigation measures are required as no new significant hazards and hazardous materials impacts would result from implementation of the Modified Project.

Amgen Center Specific Plan Mitigation Measure GEO-4 Face Masks: The applicant shall inform all employees involved in grading operations on the

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[36] *City of Thousand Oaks General Plan, Chapter 10 Safety, Figure 10.6, Fire Hazard Severity Zones, p. 205.*

[37] *City of Thousand Oaks General Plan, Chapter 10 Safety, Figure 10.7, Public Facilities and Fire Hazard Severity Zones, p. 206.*

[38] *CALFIRE, Fire Hazards Severity Zones, 701 Pauling Drive, Thousand Oaks, California 91320, https://osfm.fire.ca.gov/what-we-do/community-wildfire-preparedness-and-mitigation/fire-hazard-severity-zones, accessed March 6, 2026.*

project site to wear face masks during dry periods to reduce inhalation of dust which may contain the fungus which causes San Joaquin Valley Fever.

Amgen Center Specific Plan Mitigation Measure RU-1 Phase I/II Investigation: ~~To determine the presence or absence of petroleum hydrocarbons within site soils, Phase I and/ or Phase II investigations should be conducted where excavation for proposed development will occur. In cases where contamination has been detected through Phase I investigation, a Phase II study should be conducted. Subsequent to the Phase I/II study, the applicant shall comply with all necessary remediation measures.~~

[The Soil Sampling Memorandum, included as Appendix H to this Addendum, satisfies this mitigation measure for the Modified Project.]

~~**Amgen Center Specific Plan Mitigation Measure RU-2 Additional Waste Pick -Up Points:** With increased construction, there will be a greater need for new waste pickup points due to the addition of new staff and the increase in chemical use. The applicant shall designate additional waste pick up points as appropriate for the project and required by state and federal regulations.~~

[This mitigation measure is not applicable to the Modified Project.]

Conclusion

Based on the above, no new significant impacts to hazards and hazardous materials or a substantial increase in previously identified hazards and hazardous materials impacts would occur as a result of the Modified Project. Thus, the potential environmental impacts of the Modified Project with regard to hazards and hazardous materials would not result in any of the conditions set forth in PRC Section 21166(c) or CEQA Guidelines Sections 15162 or 15163 that would require the preparation of a Supplemental or Subsequent EIR.

4.10 HYDROLOGY AND WATER QUALITY

Issues (and Supporting Information Sources)	Was the Impact Analyzed in the Certified EIR?	Impact Determination in the Certified EIR	Do Proposed Changes or New Circumstances Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Certified EIR Mitigation Measures Addressing Impact
HYDROLOGY AND WATER QUALITY: Would the project:					
(a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	Yes	Less Than Significant	No	No	No
(b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	Yes	Less Than Significant Impact	No	No	No

Issues (and Supporting Information Sources)	Was the Impact Analyzed in the Certified EIR?	Impact Determination in the Certified EIR	Do Proposed Changes or New Circumstances Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Certified EIR Mitigation Measures Addressing Impact
(c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would.					
(i) result in substantial erosion or siltation on- or off-site;	Yes	Less Than Significant	No	No	No
(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;	Yes	Less Than Significant	No	No	No
(iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	Yes	Less Than Significant	No	No	No
(iv) impede or redirect flood flows?	Yes	Less Than Significant	No	No	No
(d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	Yes	Less Than Significant	No	No	No
(e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	Yes[39]	Less Than Significant	No	No	No

Impact Determination in the Certified EIRs

Impacts related to Hydrology and Water Quality were evaluated in the Initial Study prepared for the GP EIR, and in Section 4.9, Surface Water Runoff/Hydrology and the Initial Study included within the Specific Plan EIR.

With regard to Threshold (a)—Water Quality Standards, the GP EIR found that impacts to surface and ground water quality would be less than significant as the Approved General Plan Update would be required to comply with state and local regulations governing water quality standards and waste discharge requirements, such as the National Pollutant Discharge Elimination System (NPDES) Construction General Permit, Title 9, Chapter 3, Article 14 of the City's Municipal Code, and the Ventura County Technical Guidance Manual for Stormwater Quality Control Measures during construction and California's Phase II Small Municipal Separate Storm Sewer System (MS4) Storm Water Permit and Title 7, Chapter 8, Article 3 of

[39] *Threshold (e) was not specifically addressed in the Specific Plan EIR as this threshold was added to the Appendix G Environmental Checklist Form after the preparation of the Specific Plan EIR. Nevertheless, the Specific Plan EIR would not conflict with or obstruct implementation of a water quality control plan or a sustainable groundwater management plan.*

the City's Municipal Code during operation. The Specific Plan also concluded that impacts associated with water quality would be less than significant with compliance with regulatory standards.

With regard to Threshold (b) regarding groundwater supplies, as discussed in the GP EIR, development facilitated by the Approved General Plan Update could introduce new impervious surfaces through the construction of paved areas. However, as discussed in the GP EIR, new development and redevelopment projects in the County of Ventura and the incorporated cities therein (including the City of Thousand Oaks) would comply with the *Ventura County Technical Guidance Manual for Stormwater Quality Control Measures*, including limiting impervious surfaces, routing runoff to bioretention facilities for groundwater storage, or requiring the use of pervious pavements to assist with groundwater recharge. Furthermore, development facilitated by the Approved General Plan Update would comply with Policy CFS-4.6 of the 2045 General Plan, which requires utilization of pervious paving. Therefore, the GP EIR found that impacts on groundwater supplies and groundwater recharge would be less than significant. The Specific Plan EIR also concluded that potential impacts associated with groundwater supplies would be less than significant as the Approved Specific Plan would not substantially alter groundwater supplies.

With regard Thresholds (c)(i) through c(iv) related to drainage patterns, as discussed in the GP EIR, future development facilitated by the Approved General Plan Update could alter the existing drainage patterns on individual project sites which could potentially result in erosion or siltation on- or off-site, flooding on- or off-site, exceed the capacity of existing or planned stormwater drainage systems or provide additional sources of polluted runoff, or impede or redirect flood flows. However, as discussed in the GP EIR, compliance with existing regulations, such as the NPDES Construction General Permit and the policies of the 2045 General Plan Safety Element would ensure development facilitated by the Approved General Plan Update would not substantially alter the existing drainage pattern of a site or area such that substantial erosion or siltation on- or off-site, flooding on- or off-site, exceedance of the capacity of existing or planned stormwater drainage systems or provision of additional sources of polluted runoff, or impediment or redirection of flood flows would occur. Therefore, the GP EIR found that impacts would be less than significant. The Specific Plan EIR concluded that potential impacts associated with drainage patterns would be less than significant and nonetheless included a mitigation measure requiring incorporation of the drainage improvements specified in the 1993 drainage report.

With regard to Threshold (d) related to flood hazards, as discussed in the GP EIR, future development facilitated by the Approved General Plan Update in flood hazard zones or areas near Westlake Lake, Bard Lake, or Lake Sherwood could risk pollutant release due to inundation. However, the GP EIR found that adherence to the requirements of the City's Municipal Code and the 2045 General Plan Safety Element policies would ensure impacts

would be less than significant. The Specific Plan also concluded that impacts associated flood hazards would be less than significant with compliance with regulatory standards.

With regard to Threshold (e), as discussed in the GP EIR, implementation of the Approved General Plan Update would not conflict with or obstruct implementation of a sustainable groundwater management plan, as the Conejo Basin and Thousand Oaks Area Basin are not subject to a sustainable groundwater management plan. As discussed in the GP EIR, the City is in the jurisdiction of the Los Angeles RWQCB, which has the Water Quality Control Plan for the Coastal Watersheds of Los Angeles and Ventura counties (Basin Plan), which functions as a master water quality control planning document. Future development facilitated by the Approved General Plan Update would implement State and local regulatory requirements, including the provisions of the Construction General Permit, the Industrial General Permit, and the City's Municipal Code, as well as The 2045 General Plan's Community Facilities and Service Element Policies CFS-7.1, CFS-7.3, CFS-7.7, and CFS-8.4. Therefore, the GP EIR found that impacts would be less than significant.

Do Proposed Changes or New Circumstances Involve New Significant Impacts or Substantially More Severe Impacts?

Threshold (a)—Groundwater: As demonstrated by the following analysis, the Modified Project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality.

Surface Water Quality

Construction

Construction activities for the Modified Project could cause exposed and stockpiled soils to be subject to erosion and conveyance into nearby storm drains during storm events. In addition, on-site watering activities to reduce airborne dust could contribute to pollutant loading in runoff. Pollutant discharges relating to the storage, handling, use, and disposal of chemicals, adhesives, coatings, lubricants, and fuel could also occur. As construction would disturb more than one acre of soil, the Modified Project would be required to retain coverage under the NPDES General Construction stormwater permit. In accordance with the requirements of this permit, the Modified Project would implement a SWPPP with the State, which would specify BMPs and erosion control measures to be used during construction of the Modified Project to manage runoff flows and prevent pollution. The Modified Project would comply with Chapter 3, Article 14 of the City's Municipal Code, which includes requirements for grading and erosion control as set forth in the City's Development Standards. Furthermore, the Modified Project would also comply with the guidelines in the *Ventura County Technical Guidance Manual for Stormwater Quality Control Measures Manual* (Ventura County Stormwater Manual), which was approved by the Los Angeles RWQCB to be implemented in order to minimize potential

impacts concerning runoff and water quality degradation. Therefore, with compliance with NPDES requirements, including site-specific BMPs, and City regulations, construction of the Modified Project would not violate any water quality standard or waste discharge requirements or otherwise substantially degrade surface water quality. Furthermore, construction of the Modified Project would not result in discharges that would cause regulatory standards to be violated. Thus, temporary construction-related impacts on surface water quality would be less than significant. Such impacts would be within the scope of effects and within the impact envelope set forth in the Certified EIRs.

Operation

As is typical of most urban developments, stormwater runoff from the Development Area has the potential to introduce pollutants into the stormwater system. Anticipated and potential pollutants generated by the Modified Project include sediment, nutrients, pesticides, metals, pathogens, and oil and grease. The Modified Project would comply with the City's Municipal Code which enforces the Construction General Permit and provisions of California's Phase II Small Municipal Separate Storm Sewer System (MS4) Storm Water Permit by eliminating the discharge of pollutant materials into the municipal stormwater system and reducing pollutant loads in stormwater and urban runoff. The Applicant would also be required to incorporate BMPs to control and treat stormwater runoff. Specifically, the stormwater runoff flow would follow the Development Area's existing drainage patterns and would include biofiltration planters to meet Low Impact Development (LID) requirements before connecting to off-site storm drains along Hillcrest Drive. The LID features design would be completed in accordance with the Ventura County Stormwater Manual. Therefore, with the incorporation of LID BMPs, operation of the Modified Project would not result in discharges that would violate any surface water quality standards or waste discharge requirements. Thus, impacts to surface water quality during operation of the Modified Project would be less than significant**.** Such impacts would be within the scope of effects and within the impact envelope set forth in the Certified EIRs.

Groundwater Quality

Construction

Excavations for the Modified Project would reach a maximum depth of 21.5 feet bgs. As discussed in the Geotechnical Site Evaluation, included as Appendix F of this Addendum, groundwater was encountered at depths ranging from 31 to 35 feet. Additionally, seepage was observed at an approximate depth of 8 to 17 feet. Therefore, Project construction activities could encounter groundwater, and construction dewatering may occur during construction. Dewatering operations are practices that remove and discharge non-stormwater from an earthwork location into a drainage system in order to proceed with construction. Discharges from dewatering operations can contain high levels of fine sediments, which, if not properly

treated, could lead to exceedance of NPDES requirements. During construction, temporary dewatering pumps and filtration would be used in compliance with all applicable NPDES requirements related to construction and discharges from dewatering operations, as well as the LARWQCB's Waste Discharge Requirements for Discharges of Groundwater from Construction and Project Dewatering to Surface Waters in Coastal Watersheds of Los Angeles and Ventura Counties.[40]

During on-site grading and building construction, hazardous materials, such as fuels, paints, solvents, and concrete additives, could be used and would therefore require proper management and disposal. The management of any resultant hazardous wastes could increase the opportunity for hazardous materials releases into groundwater. Compliance with all applicable federal, state, and local requirements concerning the handling, storage and disposal of hazardous waste, would reduce the potential for the construction of the Modified Project to release contaminants that could percolate into groundwater.

Based on the above, construction of the Modified Project would not result in discharges that would violate any groundwater quality standard or waste discharge requirements. Therefore, construction-related impacts on groundwater quality would be less than significant. Such impacts would be within the scope of effects and within the impact envelope set forth in the Certified EIRs.

Operation

Operational activities that could affect groundwater quality include spills of hazardous materials. Surface spills from the handling of hazardous materials most often involve small quantities and are cleaned up in a timely manner, thereby resulting in little threat to groundwater. Other types of risks, such as leaking underground storage tanks, have a greater potential to affect groundwater. As discussed above, the southwestern portion of the Development Area would include two USTs for utilities including water storage at 12,000 gallons in capacity each to supply the on-site fire suppression systems. Further, four ASTs with 6,000 gallons in capacity each (eight to ten feet in diameter) would contain materials used for laboratory operations. As such, the Modified Project would have the potential to expose groundwater contaminants. However, as discussed above, the Modified Project would comply with all applicable existing regulations that would prevent the Modified Project from affecting or expanding any potential areas of contamination, increasing the level of contamination, or causing regulatory water quality standards at an existing production well to be violated, as defined in the California Code of Regulations, Title 22, Division 4, Chapter 15 and the Safe Drinking Water Act. Therefore, operation of the Modified Project would not violate any water

[40] *Los Angeles Regional Water Quality Control Board, Coast Watersheds of Los Angeles and Ventura Counties, available at www.waterboards.ca.gov/rwqcb4/board_decisions/tentative_orders/general/npdes/cag994004/index.html, accessed August 10, 2026.*

quality standards or waste discharge requirements or otherwise substantially degrade groundwater quality, and impacts would be less than significant. Such impacts would be within the scope of effects and within the impact envelope set forth in the Certified EIRs.

Threshold (b)—Groundwater Supplies: As discussed above, excavations for the Modified Project would reach a maximum depth of 21.5 feet bgs. As discussed in the Geotechnical Site Evaluation, included as Appendix F of this Addendum, groundwater was encountered at depths ranging from 31 to 35 feet. Additionally, seepage was observed at an approximate depth of 8 to 17 feet. Therefore, Project construction activities could encounter groundwater, and temporary construction dewatering is expected during construction. Temporary pumps and filtrations would be utilized in compliance with all applicable regulations and requirements, including with all relevant NPDES requirements related to construction and discharges from dewatering operations. Due to the operation of dewatering systems being temporary, local groundwater hydrologic conditions would not be affected by any unanticipated Modified Project dewatering operations, and regional impacts to groundwater supplies and management of the basin would not be considered significant. Therefore, the Modified Project's temporary construction activities would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Modified Project may impede sustainable groundwater management of the basin.

With regard to groundwater recharge, the percolation of precipitation that falls on pervious surfaces is variable, depending on the soil type, condition of the soil, vegetative cover, and other factors. As discussed in the Drainage Report, the Modified Project would reduce the amount of impervious surfaces on the Development Area. The resulting increase in pervious surface area would improve the groundwater recharge capacity of the Development Area over existing conditions. Therefore, the Modified Project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Modified Project may impede sustainable groundwater management of the basin. Such impacts would be within the scope of effects and within the impact envelope set forth in the Certified EIRs.

Threshold (c)(i)—Drainage Patterns and Erosion: Construction activities have the potential to temporarily alter existing drainage patterns and flows within the Development Area by exposing underlying soils, modifying flow direction, and making the Development Area temporarily more permeable. Exposed and stockpiled soils could be subject to erosion and conveyance into nearby storm drains during storm events. In addition, on site watering activities to reduce airborne dust could contribute to pollutant loading in runoff. However, as discussed above, the Modified Project would implement a SWPPP with the State, which would specify BMPs including biofiltration planters to meet the LID requirements and erosion control measures to be used during construction to manage runoff flows. These BMPs would be designed to contain stormwater or construction watering on the Development Area such that runoff does not impact off site drainage facilities or receiving waters. Thus, with implementation

of a SWPPP that includes implementation of BMPs, construction activities for the Modified Project would not substantially alter the Development Area drainage patterns in a manner that would result in substantial erosion or siltation on- or off site. As such, construction-related impacts to erosion and siltation would be less than significant. Such impacts would be within the scope of effects and within the impact envelope set forth in the Certified EIRs.

As previously discussed, the Modified Project would reduce the amount of impervious surfaces on the Development Area. Accordingly, there would be less potential for erosion or siltation to occur from exposed soils under the Modified Project compared to existing conditions as there would be less exposed soils or large expanses of pervious areas. The Modified Project would include BMPs that would address drainage flows and would ensure that substantial soil erosion or siltation does not occur. Therefore, the Modified Project would not substantially alter the existing drainage pattern of the Development Area or surrounding area such that substantial erosion or siltation on- or off-site would occur. Operational impacts to erosion and siltation would be less than significant. Such impacts would be within the scope of effects and within the impact envelope set forth in the Certified EIRs.

Thresholds (c)(ii) and (iii)—Drainage Patterns and Runoff: Construction activities would have the potential to temporarily alter existing drainage patterns and flows within the Development Area by exposing the underlying soils and making the Development Area temporarily more permeable during demolition, site preparation, grading, excavation and shorting activities. Exposed and stockpiled soils could be subject to erosion and conveyance into nearby storm drains during storm events. In addition, construction activities such as earth moving, maintenance/operation of construction equipment, and handling/storage/disposal of materials could contribute to pollutant loading in stormwater runoff. However, as discussed above, the Modified Project would implement a SWPPP with the State, which would specify BMPs and erosion control measures to be used during construction to manage runoff flows. These BMPs would be designed to contain stormwater or construction watering on the Development Area such that runoff does not impact off site drainage facilities or receiving waters. Thus, with implementation of a SWPPP that includes implementation of BMPs, construction would not create or contribute additional runoff water that would result in flooding, exceed the capacity of the existing stormwater drainage systems, or provide substantial sources of polluted runoff. Construction-related impacts would be less than significant, and such impacts would be within the scope of effects and within the impact envelope set forth in the Certified EIRs.

As previously discussed, the Modified Project would reduce the amount of impervious surfaces on the Development Area. This resulting increase in pervious surface area would reduce stormwater runoff. Accordingly, there would be no increase in runoff volumes into the existing storm drain system. As discussed above, the Modified Project would also include BMPs that would serve to prevent on-site flooding and nuisance water on the Development Area. Therefore, the Modified Project would not create or contribute additional runoff water

that would result in flooding, exceed the capacity of the existing stormwater drainage systems, or provide substantial sources of polluted runoff. Operational impacts would be less than significant, and such impacts would be within the scope of effects and within the impact envelope set forth in the Certified EIRs.

Threshold (c)(iv)—Drainage Patterns and Flooding: According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM), the Development Area is not located within a 100-year flood hazard area.[41] In addition, the Development Area and surrounding areas are highly urbanized and covered largely by impervious surfaces. No impacts would occur due to the Modified Project impeding or redirecting flood flows. Such impacts would be within the scope of effects and within the impact envelope set forth in the Certified EIRs.

Threshold (d)—Flood Hazards: As discussed above, the Development Area is not located within a 100-year flood hazard area as mapped by FEMA.[42] In addition, the Development Area is not located within a tsunami hazard area as mapped by the California Geological Survey.[43] Therefore, no tsunami or tsunami events would be expected to impact the Development Area and cause any discharge of pollutants. Additionally, there are no standing bodies of water near the Development Area that may experience a seiche, and therefore there is no significant risk that flows from a seiche could result in the discharge of any pollutants from the Development Area caused by the Modified Project.

Earthquake-induced flooding can result from the failure of dams or other water-retaining structures resulting from earthquakes. According to the 2045 General Plan's Safety Chapter, the Development Area is not mapped within a dam inundation zone.

Considering the above information, the risk of flooding from a tsunami, inundation by a seiche or dam failure is considered low. Therefore, impacts would be less than significant, and such impacts would be within the scope of effects and within the impact envelope set forth in the Certified EIRs.

Threshold (e)—Consistency with Water Plans: As discussed in the GP EIR, the Conejo Basin and Thousand Oaks Area Basin are not subject to a sustainable groundwater

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[41] *Federal Emergency Management Agency, Flood Insurance Rate Maps, Panel Numbers 06111C0958E, effective January 20, 2010.*

[42] *Federal Emergency Management Agency, Flood Insurance Rate Maps, Panel Numbers 06111C0958E, effective January 20, 2010.*

[43] *California Department of Conservation, California Geological Survey, Los Angeles County Tsunami Hazard Areas, www.conservation.ca.gov/cgs/tsunami/maps/los-angeles, accessed August 11, 2026.*

management plan. Therefore, the Modified Project would not conflict with or obstruct implementation of a sustainable groundwater management plan.

The City is in the jurisdiction of the Los Angeles Regional Water Quality Control Board (LARWQCB). The LARWQCB has the Water Quality Control Plan for the Coastal Watersheds of Los Angeles and Ventura counties (Basin Plan), which functions as a master water quality control planning document. The Basin Plan includes programs of implementation to achieve water quality objectives. As previously discussed, the Modified Project would implement State and local regulatory requirements, including the provisions of the Construction General Permit, the Industrial General Permit, and the City's Municipal Code. Furthermore, the Modified Project would comply with Policies CFS-7.1, CFS-7.3, CFS-7.7, and CFS-8.4 of the 2045 General Plan, which require LID, stormwater retention, and treatment of runoff that would minimize potential impacts to water quality in accordance with the programs in the Basin Plan. Therefore, the Modified Project would not conflict with or obstruct implementation of a water quality control plan or a sustainable groundwater management plan. Such impacts would be within the scope of effects and within the impact envelope set forth in the GP EIR.

Mitigation Measures Addressing Impact

The following mitigation measure set forth in the Specific Plan EIR is not applicable to the Modified Project as the Modified Project would comply with regulatory requirements including the Ventura County Hydraulic Design Manual and would implement specific improvements included in Appendix I, Preliminary Drainage Report and Stormwater Quality Analysis. No mitigation measures are required as no new significant hydrology and water quality impacts would result from implementation of the Modified Project.

> ~~**Amgen Center Specific Plan Mitigation Measure SWH-1 Onsite Drainage Pipes:** The proposed project should incorporate drainage improvements as recommended in the March 1993 PSOMAS report and shown in Figure 4.9- 2.~~

Conclusion

Based on the above, no new significant hydrology and water quality impacts or a substantial increase in previously identified hydrology and water quality impacts would occur as a result of the Modified Project. Thus, the potential environmental impacts of the Modified Project with regard to hydrology and water quality would not result in any of the conditions set forth in PRC Section 21166(c) or CEQA Guidelines Sections 15162 or 15163 that would require the preparation of a Supplemental or Subsequent EIR.

4.11 LAND USE AND PLANNING

Issues (and Supporting Information Sources)	Was the Impact Analyzed in the Certified EIR?	Impact Determination in the Certified EIR	Do Proposed Changes or New Circumstances Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Certified EIR Mitigation Measures Addressing Impact
LAND USE AND PLANNING: Would the project:					
(a) Physically divide an established community?	Yes[44]	Less Than Significant	No	No	No
(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?	Yes	Less Than Significant	No	No	No

Impact Determination in the Certified EIRs

Impacts related to Land Use and Planning were discussed in Section 4.6, Land Use and Planning, of the GP EIR, and in Section 4.1, Land Use of the Specific Plan EIR.

With regard to Threshold (a), as discussed in the GP EIR, the Approved General Plan Update would retain and continue the Planning Area's existing pattern of arterial highways and established communities in the City. Furthermore, development facilitated by the Approved General Plan Update would be governed by the policies contained in the 2045 General Plan Land Use Element, including Goals LU-1, LU-2, M-1, and M-5. Therefore, the GP EIR concluded that impacts would be less than significant.

With regard to Threshold (b), the GP EIR evaluated consistency with regional land use plans and local land use plans, including SCAG's RTP/SCS and the City's Specific Plans and Studies. As discussed in the GP EIR, the Approved General Plan Update would focus on the preservation and maintenance of its housing stock, expanding higher density and multi-family housing, and creating a diversity of housing types and affordability levels. Additionally, the City would continue programs that identify adequate and sufficient sites for additional residential development aimed at meeting needs of lower-income households, special needs populations, and regional housing needs. Furthermore, as discussed in the GP EIR, the Approved General Plan Update has been designed to be consistent with the City's existing specific plans; however, upon project approval, the City would update applicable specific plans as needed to

[44] *Threshold (a) was not specifically addressed in the Specific Plan EIR as this topic was not included as part of the Appendix G Environmental Checklist Form at the time of the preparation of the Specific Plan EIR. Notwithstanding, the Specific Plan EIR addressed compatibility with surrounding uses in Section 4.1, Land Use and concluded that impacts would be less than significant.*

reflect the Approved General Plan Update's approval land use, development intensity, design and development standards. Overall, the GP EIR concluded impacts would be less than significant. The Specific Plan EIR concluded that with adoption of the Specific Plan the Approved Specific Plan would overall be consistent with applicable land use policies and such impacts would be less than significant.

Do Proposed Changes or New Circumstances Involve New Significant Impacts or Substantially More Severe Impacts?

Threshold (a)—Potential to Disrupt an Established Community: As previously discussed, the Modified Project includes the construction of a 377,256 gross square foot technology and life sciences facility. The proposed uses would be consistent with the uses in the surrounding vicinity and the existing uses on-site. Additionally, the Modified Project would be located within ATO Campus and would not expand the Development Area's physical boundaries or involve development beyond its current boundaries. Furthermore, the Modified Project does not propose a freeway or other large infrastructure that could divide the existing surrounding community. Therefore, the Modified Project would not physically divide an established community, and no impacts related to the physical division of an established community would occur. Such impacts would be within the scope of effects and within the impact envelope set forth in the GP EIR.

Threshold (b)—Consistency with Plans: The Modified Project is located within the 91-acre ATO Campus. The Development Area, which comprises approximately 4.27 acres of the ATO Campus, is designated "Industrial Flex" within the 2045 General Plan and is zoned M-1 (Industrial Park), which is a corresponding zone to the 2045 General Plan designation. The Development Area would comply with the TOMC Title 9, Chapter 4, Article 16 governing M-1 zones established to provide areas for the development of planned manufacturing, technology, and life science uses. Further, as described in the GP EIR, although the 2045 General Plan is generally consistent with the City's specific plans (including the Approved Specific Plan) upon adoption of the 2045 General Plan, the City would review the adopted Specific Plan and revise where necessary to reflect changes made in the 2045 General Plan, such as land use, density/intensity, design, and development.[45] As such the Modified Project includes a Specific Plan Amendment, which would allow for a height increase within the ATO Campus to 75 feet in Height District 2 of the Approved Specific Plan, consistent with the base height allowance for the Industrial Flex land use designation of the 2045 General Plan. In addition, the Approved Specific Plan permits up to 3,637,294 square feet of gross building area within the ATO Campus. Because approximately 2,842,196 square feet of gross building area currently exist within the ATO Campus, buildout of the Modified Project would result in a total of approximately 3,219,542 square feet of gross building area within the ATO Campus. This total would remain within the development capacity evaluated under the Specific Plan EIR. Therefore, the Modified

[45] *2045 General Plan Update EIR, Section 4.6 Land Use August 2023, page 4.6.14.*

Project is consistent with, and falls within, the growth assumptions analyzed in the Specific Plan EIR. The Modified Project is consistent with the goals and policies of the 2045 General Plan Land Use Element, including: Policy 1.3, which supports infill development while maintaining community character; Policy 17.4, which encourages redevelopment of older industrial and commercial properties with higher-intensity office and research and development uses; Policy 17.5, which allows building heights of up to 75 feet within the Industrial Flex designation; and Policy 17.7, which supports coordination with Amgen to maintain its headquarters and campus within the City. Specifically, the Modified Project would redevelop an existing developed site within the ATO Campus with higher-intensity technology and life sciences uses, efficiently utilize existing infrastructure and services, and further strengthen the long-term viability of the Amgen campus as an employment center. Accordingly, the Modified Project would advance the 2045 General Plan's objectives for strategic infill development, economic growth, and continued investment in research and development facilities within the City.

The Modified Project generally would not conflict with the applicable Regional Planning Policies set forth in the 2024–2050 RTP/SCS adopted for the purpose of avoiding or mitigating an environmental effect. In particular, the Modified Project would support the 2024–2050 RTP/SCS Regional Planning Policies regarding complete streets as the Modified Project would be implemented within an existing urbanized area served by an established network of roads and freeways that provide local and regional access to the area, including the Development Area. The Modified Project would also comply with all design requirements, which may affect public rights-of-way, including proper driveway alignment, sidewalk widths to the extent feasible, improved lighting elements, and landscaping design that does not hinder sight distance, mobility, or accessibility. The Modified Project would also support sustainable development policies that enhance resource conservation and advance sustainable development practices. The Project has been designed and would be constructed to incorporate environmentally sustainable building features equivalent to certification under the U.S. Green Building Council’s Leadership in Energy and Environmental Design (LEED®) Rating System for new construction and environmentally sustainable building features and construction standards required by the TOMC, the California Green Building Standards Code (California Code of Regulations, Title 24, Part 11; referred to as the CALGreen Code), and the California Building Energy Efficiency Standards (California Code of Regulations, Title 24, Part 6; California Energy Code).

Therefore, the Modified Project would not create any new significant impacts related to land use and planning nor result in a substantial increase in a previously identified significant impact. Such impacts would be within the scope of effects and within the impact envelope set forth in the Certified EIRs.

Mitigation Measures Addressing Impact

None.

Conclusion

Based on the above, no new significant land use impacts or a substantial increase in previously identified land use impacts would occur as a result of the Modified Project. Thus, the potential environmental impacts of the Modified Project with regard to land use would not result in any of the conditions set forth in PRC Section 21166(c) or CEQA Guidelines Sections 15162 or 15163 that would require the preparation of a Supplemental or Subsequent EIR.

4.12 MINERAL RESOURCES

Issues (and Supporting Information Sources)	Was the Impact Analyzed in the Certified EIR?[46]	Impact Determination in the Certified EIR	Do Proposed Changes or New Circumstances Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Certified EIR Mitigation Measures Addressing Impact
MINERAL RESOURCES: 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?	Yes	No Impact	No	No	No
(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?	Yes	No Impact	No	No	No

Impact Determination in the Certified EIRs

Impacts related to Mineral Resources were evaluated in the Initial Study prepared for the GP EIR, and in the Initial Study prepared for the Specific Plan EIR.

With regard to Thresholds (a) and (b), the GP EIR found that since there are no areas in the Planning Area that contain known mineral resources, implementation of the Approved General Plan Update would not result in land use changes that preclude mineral extraction in

[46] *Thresholds (a) and (b) were not specifically addressed in the Specific Plan EIR as this topic was not included as part of the Appendix G Environmental Checklist Form at the time of the preparation of the Specific Plan EIR. Notwithstanding, the Specific Plan EIR addressed impacts to natural resources in the Initial Study and found that implementation of the Approved Specific Plan would not result in any direct increase in the rate of use nor substantial depletion of any nonrenewable resource. As such, the Initial Study concluded that no significant impacts would occur.*

industrial districts or would result in development in areas with mineral resources. Therefore, the GP EIR concluded that no impacts to mineral resources would occur. The Specific Plan EIR also concluded that no impacts to mineral resources would occur.

Thresholds (a) and (b): Development under the Modified Project would occur within the geographic area evaluated in the Certified EIRs, within a developed area that has been previously disturbed, which does not contain known mineral resources. Therefore, the Modified Project would not create any new significant impacts related to mineral resources nor result in a substantial increase in a previously identified significant impact. Such impacts would be within the scope of effects and within the impact envelope set forth in the Certified EIRs.

Mitigation Measures Addressing Impact

None.

Conclusion

Based on the above, no new significant mineral resources impacts or a substantial increase in previously identified mineral resources impacts would occur as a result of the Modified Project. Thus, the potential environmental impacts of the Modified Project with regard to mineral resources would not result in any of the conditions set forth in PRC Section 21166(c) or CEQA Guidelines Sections 15162 or 15163 that would require the preparation of a Supplemental or Subsequent EIR.

4.13 NOISE AND VIBRATION

Issues (and Supporting Information Sources)	Was the Impact Analyzed in the Certified EIR?	Impact Determination in the Certified EIR	Do Proposed Changes or New Circumstances Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Certified EIR Mitigation Measures Addressing Impact
NOISE: Would the project result in:					
(a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	Yes	Significant and Unavoidable	No	No	Yes

Issues (and Supporting Information Sources)	Was the Impact Analyzed in the Certified EIR?	Impact Determination in the Certified EIR	Do Proposed Changes or New Circumstances Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Certified EIR Mitigation Measures Addressing Impact
(b) Generation of excessive groundborne vibration or groundborne noise levels?	Yes[47]	Less Than Significant with Mitigation Incorporated	No	No	Yes
(c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	Yes[48]	No Impact	No	No	No

Impact Determination in the Certified EIRs

Impacts related to Noise were discussed in Section 4.7, Noise, of the GP EIR, and in Section 4.4, Noise, of the Specific Plan EIR.

With regard to Threshold (a) regarding noise level increases, both of the Certified EIRs concluded that construction noise impacts would be significant. Implementation of GP EIR Mitigation Measure NOI-1 and Specific Plan EIR Mitigation Measure NOI-1 would reduce the construction noise impacts to the extent feasible. However, the construction noise impacts were concluded to remain significant and unavoidable, even with implementation of Mitigation Measures.

With regard to operational noise impacts, the GP EIR determined that the Approved General Plan Update's contribution to a cumulative increase in traffic volumes would result in a significant and unavoidable cumulative noise impact associated with off-site operation noise levels, even with mitigation. The increase in traffic on existing roadways and future traffic on new roadways that would occur from the GP EIR would result in potentially significant permanent increases in ambient noise levels in excess of the City's Noise Compatibility Guidelines. Implementation of 2045 General Plan Update Mitigation Measure NOI-2 as specified in the GP EIR would reduce the off-site traffic noise to the extent feasible. However, the Approved General Plan Update's contribution to regional cumulative impacts on ambient

[47] *Threshold (c) was not specifically addressed in the Specific Plan EIR as this topic was not included as part of the Appendix G Environmental Checklist Form at the time of the preparation of the Specific Plan EIR.*

[48] *Threshold (b) was not specifically addressed in the Specific Plan EIR as this topic was not included as part of the Appendix G Environmental Checklist Form at the time of the preparation of the Specific Plan EIR.*

noise would remain significant and unavoidable, even with implementation of the mitigation measure. The Specific Plan EIR concluded that with implementation of Mitigation Measures NOI-2 through NOI-6, operational impacts would be less than significant.

Excessive Ground-Borne Vibration

With regard to Threshold (b) related to vibration, the projects facilitated by the Approved General Plan Update would be constructed using typical construction techniques, including the use of some equipment that causes ground-borne vibration. As discussed in the GP EIR, construction activities could temporarily generate groundborne vibration and noise, potentially affecting nearby land uses. Implementation of 2045 General Plan Update Mitigation Measure NOI-3 as specified in the GP EIR would reduce the construction groundborne vibration and noise impacts to a less-than-significant level.

With respect to operation, projects associated with the Approved General Plan Update would include typical commercial-grade stationary mechanical and electrical equipment such as air handling units, condenser units, and exhaust fans, which would produce vibration. In addition to delivery truck activity at the loading dock, which would not generate excessive ground-borne vibration. Therefore, vibration impacts associated with operation of the projects associated with the Approved General Plan Update would be less than significant.

Excessive Noise Exposure from Airports

With regard to Threshold (c), as discussed in the GP EIR, there are no airports located in the City. The nearest airport to the City is Oxnard Airport, which is located approximately 12 miles west of the City's western limit line. Therefore, implementation of the Approved General Plan would not expose people residing in or working in the project area to excessive noise levels associated with airport-related noise sources. No impacts would occur.

Do Proposed Changes or New Circumstances Involve New Significant Impacts or Substantially More Severe Impacts?

Threshold (a)- Increases in Noise Levels: The Modified Project would generate noise during construction and operation. GP EIR Mitigation Measure NOI-1 and Specific Plan EIR Mitigation Measure NOI-1 would be implemented, to minimize and reduce construction-related noise levels to the extent feasible. As demonstrated by the analysis below, with implementation of these mitigation measures, potential impacts would be reduced to less than significant levels and within the scope of effects set forth in the Certified EIRs.

Significance Thresholds

The following significance thresholds from the Certified GP EIR are used for the Project noise and vibration impacts analysis:

Construction Noise

The City does not define a quantitative construction noise limits in its current municipal codes. Therefore, for purposes of analyzing impacts from the Modified Project, the City has determined that the FTA construction criteria included in Table 6 below are applicable to the Modified Project.

Table 6
Thresholds of Significance for Construction Noise

Land Use	$L_{eq(8\text{-hour})}$, dBA		CNEL (24-hour)
	Daytime Hours	Nighttime Hours	
Residential	80	70	75
Commercial	85	85	80
Industrial	90	90	85

dBA = decibel using A-weighted sound pressure levels; CNEL = Community Noise Equivalent Level
Source: GP EIR, Table 4.7-4; FTA 2018.

Operational Noise

Table 7 on page 103 provides the threshold of significance for long-term operational noise sources, including both on-site and off-site sources.

Table 7
Thresholds of Significance for Long-Term Operational Noise Increase

If CNEL for existing + proposed project + cumulative conditions at noise-sensitive land use is project to be:	A project or cumulative noise impact would be significant if the CNEL would increase by the following amounts at a noise-sensitive land use:	The project alone would make a substantial contribution to a significant cumulative impact if the CNEL would increase by the following amounts at a noise sensitive land use:
Less than 55 dBA	Not significant for any change in noise level	Not significant for any change in noise level
55–60 dBA	Equal to or greater than 3.0 dBA	Equal to or greater than 1.0 dBA
60–70 dBA	Equal to or greater than 1.5 dBA	Equal to or greater than 0.5 dBA
Greater than 70 dBA	Equal to or greater than 1.0 dBA	Equal to or greater than 0.5 dBA

dBA = decibel using A-weighted sound pressure levels; CNEL = Community Noise Equivalent Level
Source: GP EIR, Table 4.7-5.

Groundborne Vibration

The City does not define quantitative vibration limit in its current municipal codes. Therefore, for purposes of analyzing impacts from the Modified Project, the City has determined that the FTA vibration criteria are applicable to the Modified Project. Table 8 below provides the threshold of significance for long-term operational noise sources, including both on-site and off-site sources.

Table 8
Thresholds of Significance for Vibration Damage

Building Category	PPV (in/sec)
I. Reinforced concrete, steel, or timber (no plaster)	0.5
II. Engineered concrete and masonry (no plaster)	0.3
III. Non-engineered timber and masonry buildings	0.2
IV. Buildings extremely susceptible to vibration damage	0.12

In/sec = inches per second
PPV = peak particle velocity
Source: GP EIR, Table 4.7-1; FTA 2018.

Existing Noise Environment

To establish baseline noise conditions within the vicinity of the Development Area, existing daytime and nighttime ambient noise levels were measured at six (6) receptor locations, representing noise-sensitive receptors in the vicinity of the Development Area. The monitoring locations are illustrated in Figure 7 on page 105. The ambient noise measurements were taken at the six selected off-site noise-sensitive receptors on August 17, 2026, using a Larson-Davis Model 870 and a Quest Model 2900 Integrating/Logging Sound Level Meter. A 24-hour measurement was conducted at receptor location R1. Two 15-minute measurements were conducted at each of the remaining receptor locations during daytime and nighttime hours. The daytime ambient noise levels were measured between 10:00 A.M. and 12:00 P.M., and the nighttime ambient noise levels were measured between 10:00 P.M. and 12:00 A.M.

Table 9 on page 106 provides the measured ambient noise levels at the six selected receptor locations. Based on field observations, the ambient noise at the measurement locations is dominated primarily by local traffic. As indicated therein, the daytime ambient noise levels in the vicinity of the Development Area range from 41.6 dBA (L_{eq}) at receptor location R2 to 74.1 dBA (L_{eq}) at receptor location R1. The nighttime ambient noise levels range from 42.8 dBA (L_{eq}) at receptor location R2 to 66.8 dBA at receptor location R1.

Figure 7
Noise Monitoring Locations

Source: Acoustical Engineering Services, 2026.

Table 9
Existing Ambient Noise Levels

Receptor Location	Measured Noise Levels, dBA L_{eq}		CNEL (24-hour)
	Daytime Hours (7:00 A.M.–10:00 P.M.)	Nighttime Hours (10:00 P.M.–7:00 A.M.)	
R1—Residential use on the south side of Hillcrest Drive, south of the Development Area	74.1	66.8	75.8
R2—Residential use at the cul-de-sac of Glenbrock Land, east of the Development Area	41.6	42.8	47.3[a]
R3—Park Use on the east side of Ventu Park Road, east of the Development Area	49.6	48.0	53.0[a]
R4—Residential use on the north side of Ventu Park Road, north of the Development Area	52.3	44.8	52.2[a]
R5—Religious use on the west side of Rancho Conejo Boulevard, west of the Development Area	55.7	50.7	56.9[a]
R6—School use on the west side of Rancho Conejo Boulevard, west of the Development Area	55.7	53.2	58.5[a]

[a] *Estimated based on short-term (15-minute) noise measurement based on FTA procedures.*

Source: AES, 2026

Short-Term Construction Noise

The Modified Project construction is anticipated to commence in 2026 and be completed in 2029. Construction of the Modified Project would commence with the site grading. The building foundations would then be laid, followed by building construction, and paving/landscape installation. Haul trucks would travel between the Development Area and US-101 via Ventu Park Road (between the US-101 and Hillcrest Drive), Hillcrest Drive (between Ventu Park Road and Rancho Conejo Boulevard), and Rancho Conejo Boulevard (between Hillcrest Drive and the US-101 on ramp). In addition, noise from construction activities would be generated by vehicles and equipment during various stages, including site grading, building foundation and construction. The noise levels created by construction equipment vary depending on factors such as the type of equipment, the specific model, operating characteristics, and the condition of the equipment. Project construction would occur between the hours of 7 A.M. and 7 P.M. on Monday through Saturday, according to the City's allowable construction hours.

The Modified Project's construction noise analysis is based on construction equipment noise levels published in the Federal Highway Administration (FHWA) Road Construction Noise Model. Construction noise was analyzed using a typical construction equipment inventory consistent with the type of construction planned for the Modified Project. The hourly average (L_{eq}) noise levels associated with each construction stage were calculated for the nearest noise-sensitive receptors surrounding the Development Area. These average noise levels are based on the quantity, type, and usage factors for each type of equipment that would be used during each construction stage and are typically attributable to multiple pieces of equipment operating simultaneously. The on-site construction-related noise levels were calculated by distributing all construction equipment over the entire construction site. The on-site construction noise levels were calculated using the SoundPLAN (version 9.1) computer noise prediction model. SoundPLAN is widely used by acoustical engineers as a noise modeling tool for environmental noise analysis.

Table 10 on page 108 provides the estimated construction noise levels at the six noise-sensitive receptors and a comparison with the noise impact criteria. As indicated therein, the estimated construction noise levels would be well below the 80-dBA $L_{eq(8\text{-}hour)}$ significance threshold at the representative noise receptors. Therefore, noise impacts from the Modified Project construction activities would be less than significant, and no additional mitigation measures would be required. In addition, impacts (including cumulative impacts) would be less than those set forth in the Certified EIRs.

In addition to on-site construction noise sources, construction trucks for materials delivery and concrete mixing, haul trucks, and construction worker vehicles would require access to the Development Area during the construction phase. Of these, the primary noise sources associated with off-site vehicles would be associated with delivery and haul trucks. The peak period with the highest number of construction truck trips would occur during the building construction phase, with up to 24 construction truck trips per day. Based on an 8-hour construction day and a uniform distribution of trips, an estimated 3 one-way truck trips per hour would occur during the building construction phase. Noise levels generated by the haul trips were calculated using the SoundPLAN noise model. Table 11 on page 108 provides the estimated noise levels due to Project-related off-site related construction trucks at the six off-site receptor locations. As indicated therein, the estimated noise levels from haul trucks would be lower than the existing ambient noise levels, and also below the 80 dBA L_{eq} significance thresholds at all receptor locations. Therefore, noise impacts from off-site construction traffic would be less than significant.

Table 10
Construction Noise Impacts—On-Site Equipment

Receptor Location	Nearest Distance to Project Construction Site, (feet)	Estimated Construction Noise Levels by Project Construction Phase, dBA $L_{eq(1\text{-}hour)}$				Significance Threshold, dBA $L_{eq(1\text{-}hour)}$
		Grading	Foundation	Building Construction	Paving/ Landscape	
R1	100	67.5	73.4	73.0	72.9	80
R2	1,760	37.1	43.0	42.6	42.5	80
R3	3,400	35.2	41.1	40.7	40.7	80
R4	2,120	38.2	44.1	43.7	43.7	80
R5	1,600	48.0	54.0	53.5	53.5	80
R6	680	41.5	47.5	47.0	47.0	80

Detail calculation worksheets are included in Appendix J of this Addendum.
Source: AES, 2026.

Table 11
Construction Noise Impacts—Off-Site Construction Trucks

Receptor Location	Existing Ambient Noise Levels, dBA $L_{eq(1\text{-}hour)}$	Estimated Noise Levels from Off-Site Construction Trucks, dBA $L_{eq(1\text{-}hour)}$	Significance Threshold, dBA $L_{eq(1\text{-}hour)}$
R1	74.1	50.8	80
R2	41.6	34.2	80
R3	49.6	31.7	80
R4	52.3	27.7	80
R5	55.7	22.1	80
R6	55.7	25.2	80

Detail calculation worksheets are included in Appendix J of this Addendum.
Source: AES, 2026.

Long-Term Operational Noise

Noise associated with Modified Project operation would include: (a) on-site stationary source noise, including outdoor mechanical equipment (e.g., HVAC equipment), loading dock, and emergency generators; and (b) off-site mobile source (roadway traffic) noise.

On-Site Operational Noise

Mechanical Equipment

The Modified Project would include new air conditioning mechanical equipment (e.g., air ventilation equipment), which would be located at the roof level and at the ground level in the transformer yard. The rooftop mechanical equipment would be shielded to the off-site sensitive receptor locations by building parapet and mechanical screen, as specified by Specific Plan EIR Mitigation Measure NOI-5. Table 12 below presents the estimated on-site mechanical equipment noise levels at the off-site receptor locations. As shown on Table 12, the estimated noise levels from the mechanical equipment range from 34.8 CNEL (dBA) at receptor location R3 to 61.0 CNEL (dBA) at receptor location R1, which would be well below the existing ambient noise levels. As such, the Modified Project's noise levels due to the mechanical equipment at the off-site receptor locations would be below the significance threshold. Therefore, noise impacts from the Modified Project's mechanical equipment would be less than significant, and no mitigation is required.

Table 12
Mechanical Equipment Noise Levels

Receptor Location	Existing Ambient Noise Levels, CNEL (dBA)	Estimated Noise from Project Mechanical Equipment, CNEL (dBA)	Ambient + Project Noise Levels, CNEL (dBA)	Significance Threshold, CNEL (dBA)	Exceedance over Significance Criteria	Sig. Impact?
R1	75.8	61.0	75.9	76.8	0.0	No
R2	47.3	41.1	48.2	52.3	0.0	No
R3	53.0	34.8	53.1	58.0	0.0	No
R4	52.2	39.5	52.4	57.2	0.0	No
R5	56.9	43.6	57.1	59.9	0.0	No
R6	58.5	48.9	58.9	61.5	0.0	No

[a] *Significance threshold is based on the Ambient + Project Noise Levels and the threshold provided in Table 7 on page 103.*

Detail calculation worksheets are included in Appendix J of this Addendum.

Source: AES, 2026.

Loading Dock

The Modified Project would include a loading dock located at the southwest corner of the Development Area. The loading dock would be shielded to the off-site sensitive receptor locations, as specified by Specific Plan EIR Mitigation Measure NOI-6. Table 13 on page 110

Table 13
Estimated Noise Levels from Loading Dock Operation

Receptor Location	Existing Ambient Noise Levels, CNEL (dBA)	Estimated Noise from Loading Dock, CNEL (dBA)	Ambient + Project Noise Levels, CNEL (dBA)	Significance Threshold,[a] CNEL (dBA)	Exceedance over Significance Criteria	Significant Impact?
R1	75.8	57.4	75.9	76.8	0.0	No
R2	47.3	17.6	47.3	52.3	0.0	No
R3	53.0	9.0	53.0	58.0	0.0	No
R4	52.2	16.4	52.2	57.2	0.0	No
R5	56.9	17.9	56.9	59.9	0.0	No
R6	58.5	27.7	58.5	61.5	0.0	No

[a] *Significance threshold is based on the Ambient + Project Noise Levels and the threshold provided in Table 7 on page 103.*

Detail calculation worksheets are included in Appendix J of this Addendum.

Source: AES, 2026.

presents the estimated noise levels from the loading dock operation at the off-site sensitive receptors. As presented in Table 13, the estimated noise levels from the loading dock operation would range from 9.0 CNEL (dBA) at off-site receptor location R3 to 57.4 CNEL (dBA) at receptor location R1, which would be below the ambient noise levels and the significance thresholds. Therefore, the Modified Project's potential noise impacts from the loading dock operation would be less than significant, and no mitigation is required.

Emergency Generators

The Modified Project includes two electrical emergency generators planned to be located at the southeastern side of the Development Area. The emergency generators will be located below grade and shielded to the off-site sensitive receptors. By their nature, emergency generators are only operated during a major loss of power to keep critical equipment and building systems running. However, periodic testing of the emergency generators would be required and is expected to occur during the daytime hours, proceeding with one generator at a time. Table 14 on page 111 presents the estimated noise levels at the off-site sensitive receptors resulting from the periodic testing of the emergency generators. As indicated in Table 14, the estimated noise levels from periodic testing would range from 20.2 CNEL (dBA) at receptor location R3 to 37.6 CNEL (dBA) at receptor location R1. These estimated noise levels would be below the significance criteria at all off-site receptor locations. Therefore, noise impacts from periodic testing of the emergency generators would be less than significant, and no mitigation is required.

Table 14
Estimated Noise Levels from Emergency Generators Testing

Receptor Location	Existing Ambient Noise Levels, CNEL (dBA)	Estimated Noise from Emergency Generator Testing, CNEL (dBA))	Ambient + Project Noise Levels, CNEL (dBA)	Significance Threshold,[a] CNEL (dBA)	Exceedance over Significance Criteria	Significant Impact?
R1	75.8	37.6	75.8	76.8	0.0	No
R2	47.3	28.4	47.4	52.3	0.0	No
R3	53.0	20.2	53.0	58.0	0.0	No
R4	52.2	24.8	52.2	57.2	0.0	No
R5	56.9	26.9	56.9	59.9	0.0	No
R6	58.5	32.3	58.5	61.5	0.0	No

[a] *Significance threshold is based on the Ambient + Project Noise Levels and the threshold provided in Table 7 on page 103.*

[a] *Significance threshold is based on the Ambient + Project Noise Levels and the threshold provided in Table 7 on page 103.*

[a] *Significance threshold is based on the Ambient + Project Noise Levels and the threshold provided in Table 7 on page 103.*

Detail calculation worksheets are included in Appendix J of this Addendum.

Source: AES, 2026.

Composite Noise Levels

An evaluation of the Modified Project's composite noise levels, including all Modified Project-related noise sources plus the existing ambient level, was conducted to identify the potential maximum Modified Project-related noise level increase that may occur at the off-site noise-sensitive receptor locations. The overall sound environment at the areas surrounding the Development Area would include contributions from each on-site noise source associated with the operation of the Modified Project, including the use of mechanical equipment, loading dock operation, and emergency generators testing. Table 15 on page 112 presents the estimated composite noise from Modified Project-related noise sources at the off-site noise sensitive receptors. As reported in Table 15, the estimated composite noise levels would range from 34.9 CNEL (dBA) at receptor location R3 to 62.6 CNEL (dBA) at receptor location R1, which would be below the existing ambient noise levels and below the significance threshold at all off-site receptors. Therefore, the composite noise level impacts due to Modified Project operation would be less than significant, and no mitigation is required.

Table 15
Composite Noise Levels

Receptor Location	Existing Ambient Noise Levels, CNEL (dBA)	Calculated Project-Related Noise Levels,[a] CNEL (dBA)			Project Composite Noise Levels CNEL (dBA)	Ambient Plus Project Composite Noise Levels CNEL (dBA)	Significance Threshold,[a] CNEL (dBA)	Exceedance over Significance Criteria	Significant Impact?
		Mechanical	Loading Dock	Emergency Generator Testing					
R1	75.8	61.0	57.4	37.6	62.6	76.0	76.8	0.0	No
R2	47.3	41.1	17.6	28.4	41.3	48.3	52.3	0.0	No
R3	53.0	34.8	9.0	20.2	34.9	53.1	58.0	0.0	No
R4	52.2	39.5	16.4	24.8	39.6	52.4	57.2	0.0	No
R5	56.9	43.6	17.9	26.9	43.7	57.1	59.9	0.0	No
R6	58.5	48.9	27.7	32.3	49.0	59.0	61.5	0.0	No

[a] *Significance threshold is based on the Ambient + Project Noise Levels and the threshold provided Table 7 on page 103.*
[a] *Significance threshold is based on the Ambient + Project Noise Levels and the threshold provided in Table 7 on page 103*
Detail calculation worksheets are included in Appendix J of this Addendum.
Source: AES, 2026.

Off-Site Operational (Traffic) Noise

Based on Transportation Data prepared for the Modified Project, included as Appendix K of this Addendum, the Modified Project would generate 1,873 daily trips (with 95 morning peak hour trips and 89 afternoon peak hour trips). Table 16 on page 113 provides a summary of the off-site traffic noise analysis. Project-generated traffic noise impacts were evaluated by comparing the increase in noise levels from the "existing" condition to the "existing with project" condition with the Project's significance threshold. As presented in Table 16, the Modified Project would result in a maximum noise increase of 0.7 CNEL (dBA) (relative to the "existing" conditions) along Ranch Conejo Boulevard. The estimated noise increase at all other roadway segments would be 0.4 dBA or lower, which would be below the 1.5 dBA CNEL significance threshold. Therefore, noise impacts associated with Modified Project-related off-site traffic would be less than significant.

Based on the above analysis, the on-site and off-site noise sources associated with the Project would result in noise levels that are below applicable significance thresholds and would not result in impacts that are new or substantially more severe than those disclosed in the Certified EIR. Accordingly, the Modified Project on-site and off-site noise sources would not result in new or increased noise impacts relative to the conclusions in the Certified EIRs.

Table 16
Off-Site Traffic Noise Impacts

Roadway Segment	Calculated Traffic Noise Levels, CNEL (dBA)			Increase in Noise Levels, CNEL (dBA)		Significance Threshold (Allowable Noise Increment),[a] CNEL (dBA)	Significant Impact?	
	Existing (A)	Existing + Project (B)	Future With Project (C)	Project Level (vs. Existing) (B–A)	Cumulative Level (C–A)		Project Level	Cumulative Level
Rancho Conejo Boulevard								
– Between Ventu Park Rd. & Amgen Center Dr.	68.0	68.7	69.2	0.7	1.2	1.5	No	No
– Between Amgen Center Dr. & Hillcrest Dr.	68.0	68.7	68.9	0.7	0.9	1.5	No	No
Ventu Park Road								
– Between Rancho Conejo Blvd. & Hillcrest Dr.	68.7	69.1	69.0	0.4	0.3	1.5	No	No
Hillcrest Drive								
– Rancho Conejo Blvd. & Ventu Park Rd.	69.1	69.4	69.8	0.4	0.7	1.5	No	No

[a] *Significance threshold is based on the calculated noise levels and the thresholds provided in Table 7 on page 103.*

Source: AES, 2026.

Threshold (b)—Vibration:

Construction Vibration

Construction activities can generate varying degrees of ground vibration, depending on the construction procedures and the type of construction equipment used. The operation of construction equipment generates vibrations that spread through the ground and diminish in amplitude with distance from the source. The effect on buildings located in the vicinity of the construction site often varies, depending on soil type, ground strata, and construction characteristics of the receptor buildings.

The Modified Project would not use impact pile driving during construction; therefore, impact pile driving vibration is not included in the on-site construction vibration analysis. Installation of piles for shoring and foundation would utilize drilling methods to minimize vibration generation. Heavy construction equipment (e.g., a large bulldozer) would generate ground-borne vibration at short distances from the source. Specifically, heavy construction equipment such as a vibratory roller would generates a vibration velocity level of up to 0.210 inch/second PPV (Peak Particle Velocity) at a distance of 50 feet from the equipment.[49] Table 17 on page 115 provides the estimated vibration levels at the nearest off-site building structures surrounding the Development Area. As indicated in Table 17, the estimated vibration levels from all construction equipment would be below the significance criteria at all off-site building structures. As such, the Modified Project's potential vibration impacts associated with on-site construction activities would be less than significant, and no mitigation is required.

In addition to the on-site construction equipment, heavy-duty construction trucks would generate ground-borne vibration as they travel along the Modified Project's anticipated haul route. Based on vibration data published by the FTA, the vibration generated by a typical heavy-duty truck would be approximately 63 VdB (0.00566 PPV) at a distance of 50 feet from the truck.[50] There are existing buildings along the Modified Project's anticipated haul route, Ventu Park Road, Hillcrest Road, and Rancho Conejo Boulevard, that are situated approximately 25 feet from the truck travel lane and would be exposed to ground-borne vibration levels of approximately 0.016 PPV. This estimated vibration generated by construction trucks traveling along the anticipated haul route(s) would be well below the most stringent building damage criteria of 0.1 PPV for buildings extremely susceptible to vibration. Therefore, vibration impacts (pursuant to the thresholds of significance for building damage) from off-site construction activities (i.e., construction trucks traveling on public roadways) would be less than significant.

49 FTA, Transit Noise and Vibration Impact Assessment Manual, September 2018.

50 FTA, Transit Noise and Vibration Impact Assessment Manual, September 2018.

Table 17
Construction Vibration Impacts—Building Damage

Receptor Location	Estimated Vibration Velocity Levels at the Off-Site Building Structures, PPV (inch/second)[a]						Significance Threshold, PPV	Significant Impacts?
	Vibratory Roller	Large Bulldozer	Caisson Drilling	Loaded Trucks	Jack-hammer	Small Bulldozer		
FTA Reference Vibration Levels at 25 feet	0.210	0.089	0.089	0.076	0.035	0.003	—	—
Commercial Building to the Northwest	0.007	0.003	0.003	0.003	0.001	<0.001	0.5[c]	No
Residential Building to the South	0.038	0.016	0.016	0.014	0.006	0.001	0.20[b]	No
Residential Building to the Southeast	0.018	0.008	0.008	0.007	0.003	<0.001	0.20[b]	No
Commercial Building to the Weast	0.006	0.002	0.002	0.002	0.001	<0.001	0.5[c]	No

[a] *Vibration level calculated based on FTA reference vibration level at 25 foot distance.*

[b] *Significance threshold is based on FTA criteria for non-engineered timber and masonry buildings.*

[c] *Significance threshold is based on FTA criteria for reinforced concrete, steel, or timber buildings.*

Source: FTA, 2018; AES, 2026.

Operation Vibration

Sources of vibration related to operations of the Modified Project would include vehicle circulation and building mechanical equipment. Vibration associated with vehicular-induced ground vibration, including vehicle circulation within the loading dock and off-site roadways, would be similar to the existing conditions and would not generate excessive vibration levels at off-site sensitive uses. Building mechanical equipment installed as part of the Modified Project would include air handling units and exhaust fans (mounted at the building roof level) would include vibration-attenuation mounts to reduce vibration transmission so vibration would not be perceptible at the off-site sensitive receptors. Therefore, operation of the Modified Project would not result in the generation of excessive ground-borne vibration levels that would be perceptible in the vicinity of the Development Area. As such, vibration impacts associated with operation of the Modified Project would be less than significant, and no mitigation is required.

Threshold (c)—Noise Impacts Due to Proximity to Airport: The Development Area is not located within an airport land use plan, or within a two-mile radius of any airport or private airstrip. As such, the Project would not expose people residing or working in the Modified Project area to excessive noise levels associated with a public or public use airport. Therefore,

the Modified Project would not create any new significant impacts related to exposure of people to excessive aircraft noise nor result in a substantial increase in a previously identified significant impact. Such impacts would be within the scope of effects and within the impact envelope set forth in the GP EIR..

Mitigation Measures Addressing Impact

As analyzed above, the Modified Project construction-related noise would not result in significant impacts at all off-site sensitive receptors. However, the following mitigation measures set forth in the Certified EIRs to address impacts related to construction noise and vibration would be implemented as part of the Modified Project. No additional mitigation measures are required as no new significant noise and vibration impacts would result from implementation of the Modified Project.

Construction

2045 General Plan Update Mitigation Measure NOI-1 Conduct Construction Noise Analysis:

1. All stationary construction equipment shall be placed so that emitted noise is directed away from the nearest sensitive receivers;
2. Mobile construction equipment shall have smart back-up alarms that automatically adjust the sound level of the alarm in response to ambient noise levels;
3. Electrical power shall be used to run air compressors and similar power tools and to power any temporary structures, such as construction trailers or caretaker facilities, where feasible;
4. ~~Erect temporary noise barriers, where feasible, when construction noise is predicted to exceed the City's construction standards or when the anticipated construction duration is greater than is typical (e.g., 2 years) and adjacent to sensitive receptors. Temporary noise barriers shall be constructed with solid materials (e.g., wood) with a density of at least 1.5 pounds per square foot with no gaps from the ground to the top of the barrier. If a sound blanket is used, barriers shall be constructed with solid material with a density of at least 1 pound per square foot with no gaps from the ground to the top of the barrier and be lined on the construction side with acoustical blanket, curtain or equivalent absorptive material rated STC 32 or higher.~~

[This portion of the mitigation measure is not required, as the predicted construction noise levels would be below the City's construction noise standards.]

2045 General Plan Update Mitigation Measure NOI-3 Construction Vibration Control Plan:

Prior to issuance of a building permit for a project that includes the following, the project applicant shall prepare a groundborne noise and vibration analysis to assess and mitigate potential noise and vibration impacts related to these construction activities:

1. Pile driving within:
   - 135 feet of fragile structures such as historical resources
   - 100 feet of non-engineered timber and masonry buildings (e.g., most residential buildings)
   - 75 feet of engineered concrete and masonry (no plaster)
2. A vibratory roller within:
   - 40 feet of fragile historical resources
   - 25 feet of any other structure
3. A dozer or other large earthmoving equipment within:
   - 20 feet for a fragile historical structure
   - 15 feet of any other structure

Amgen Center Specific Plan Mitigation Measure NOI-1 Construction Equipment:

All construction equipment, fixed or mobile, shall be in proper operating condition and fitted with standard factory silencing features. In areas where construction equipment (such as generators and air compressors) is left stationary and operating for more than 1 day within 100 feet of residential land uses, temporary portable noise barrier structures shall ~~should~~ be erected. These barriers shall ~~should~~ be located between the piece of equipment and sensitive land uses. As the project is constructed, the use of building structures as noise barriers would be adequate. The City Building Official or a designer shall conduct spot checks to ensure compliance.

Operation

2045 General Plan Update Mitigation Measure NOI-2 Implement Roadway Vehicle Noise Reduction Measures:

~~1. **Sound Barrier Walls.** Construct sound barriers (e.g., walls or solid fences) along impacted roadways where there are no driveways that would break continuity and along the residential portions or other sensitive receiver locations of such roadways. The sound barriers would be continuous from grade to top, with no cracks or gaps, and have a minimum surface density of four pounds per square foot and a minimum height of six feet, as measured from the base elevation; and/or~~

~~2. **Special Roadway Paving.** Install "quiet pavement" roadway improvements, such as rubberized asphalt or open-grade asphalt~~

~~concrete overlays along impacted roadway segments where sound barriers are determined not to be feasible.~~

[These mitigation measures are not required, as the predicted off-site traffic noise levels would be below the significance threshold.]

Amgen Center Specific Plan Mitigation Measure NOI-2 Rubberized Asphalt:

~~1. Any paving or repaving of roads that must be conducted in conjunction with implementation of the proposed project or cumulative development shall utilize asphalt-rubber paving material consisting of 20 percent or more recycled rubber and 80 percent paving-grade asphalt. Studies have shown that such paving material can reduce traffic noise by as much as 3 to 5 dBA.~~

[This mitigation measure is not required, as the predicted off-site traffic noise levels would be below the significance threshold.]

Amgen Center Specific Plan Mitigation Measure NOI-3 Parking Structure Design:

~~1. Parking structures proposed for the Specific Plan area should be designed to incorporate noise reduction techniques that alleviate peak noise level to offsite residences. These components should be incorporated into detailed plans for the parking structures to be submitted by the applicant to the appropriate City regulatory agency for review and approval prior to the issuance of building permits.~~

[This mitigation measure is not required, as the Project does not include a new parking structure.]

Amgen Center Specific Plan Mitigation Measure NOI-4 Loading Dock/Sweeping Restrictions:

~~1. If unacceptable noise levels that cannot be mitigated arise from loading dock operations and/or parking structure sweeper operations, activities should be restricted only to hours determined appropriate by the City of Thousand Oaks.~~

[This mitigation measure is not required, as the Project does not include parking structure sweeper operations and the predicted noise levels from loading dock operation would be below the significance threshold.]

Amgen Center Specific Plan Mitigation Measure NOI-5 Stationary Equipment:

~~Noise impacts from mechanical and electrical equipment, such as ventilation and air conditioning units, should be minimized by locating equipment away from receptor areas, proper selection of equipment, installation of equipment with proper acoustical shielding, and incorporating the use of parapets into building designs. These components should be incorporated into the detailed plans for the building structures to be submitted by the applicant to the appropriate City~~

~~regulatory agency for review and approval prior to the issuance of building permits.~~

Mechanical and electrical equipment shall be located, selected, and screened to minimize noise at nearby sensitive uses. Before issuance of a building permit, the applicant shall submit equipment specifications and an acoustical analysis demonstrating compliance with applicable noise standards for Community Development Department review and approval.

[This mitigation measure has been refined for clarity and is equally as effective than the original measure. No new impacts or increases in already identified impacts would result from implementation of this updated mitigation measure].

[This mitigation measure has been refined for clarity and is equally as effective than the original measure. No new impacts or increases in already identified impacts would result from implementation of this updated mitigation measure].

Amgen Center Specific Plan Mitigation Measure NOI-6 Loading Dock Design: When feasible, loading docks proposed near residential land uses ~~should~~ shall be designed to have a depressed (i.e., below grade) loading dock area and/or internal bays that would allow for a break in the line of sight between sensitive receptors and equipment noise sources. These components ~~should~~ shall be incorporated into the detailed plans for the building structures to be submitted by the applicant to the ~~appropriate City regulatory agency~~ Community Development Department for review and approval prior to the issuance of building permits.

Conclusion

Based on the above, no new significant noise impacts or a substantial increase in previously identified noise impacts would occur as a result of the Modified Project. Thus, the potential environmental impacts of the Modified Project with regard to noise would not result in any of the conditions set forth in PRC Section 21166(c) or CEQA Guidelines Sections 15162 or 15163 that would require the preparation of a Supplemental or Subsequent EIR.

4.14 POPULATION AND HOUSING

Issues (and Supporting Information Sources)	Was the Impact Analyzed in the Certified EIR?	Impact Determination in the Certified EIR	Do Proposed Changes or New Circumstances Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Certified EIR Mitigation Measures Addressing Impact
POPULATION AND HOUSING: Will the project:					
(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)?	Yes	Less Than Significant	No	No	No
(b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	Yes[51]	Less Than Significant	No	No	No

Impact Determination in the Certified EIRs

Impacts related to Population and Housing were discussed in Section 4.9, Population and Housing, of the GP EIR, and in Section 4.10, Population, Housing, and Employment, of the Specific Plan EIR.

As discussed in the Certified EIR, implementation of the Approved General Plan Update would lead to an increase of approximately 20,700 residents in the City, increasing the City's total population to 145,139. The addition of approximately 20,700 residents constitutes an approximate 16.7 percent population increase between 2022 and 2045. As discussed in the GP EIR, the Approved General Plan Update is intended to facilitate planned and orderly growth within the Planning Area by diversifying the City's housing stock, providing more housing options, and improving the City's balance of jobs and housing. Accordingly, because the Approved General Plan Update is designed for planned and orderly growth, as mandated by the State, the GP EIR found that impacts would be less than significant. The Specific Plan EIR concluded that the Approved Specific Plan would improve the jobs/housing balance of the City and that the employment growth and indirect population growth would be consistent with growth would be consistent with regional projections. As such, population and housing impacts were concluded to be less than significant.

With regard to Threshold (b), as discussed in the GP EIR, with the Approved General Plan Update's projected net increase in housing of 7,871 units, any future displacement is

[51] *Threshold (b) was not specifically addressed in the Specific Plan EIR as this topic was not included as part of the Appendix G Environmental Checklist Form at the time of the preparation of the Specific Plan EIR. Nevertheless, the Specific Plan EIR would not result in impacts related to the displacement of existing people or housing.*

anticipated to be offset by new construction. The Approved General Plan Update does not propose any large-scale public works projects, such as new roadways, airports, reservoirs, utilities or other infrastructure that would result in the displacement of existing housing. Thus, the Approved General Plan Update would not displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere. Therefore, the GP EIR found that impacts would be less than significant.

Do Proposed Changes or New Circumstances Involve New Significant Impacts or Substantially More Severe Impacts?

Threshold (a) Consistency with Growth Projections: While construction of the Modified Project would create temporary construction-related jobs, the work requirements of most construction projects are highly specialized such that construction workers remain at a job site only for the time in which their specific skills are needed to complete a particular phase of the construction process. Thus, Project-related construction workers would not be anticipated to relocate their household's place of residence as a consequence of working on the Modified Project and, therefore, no new permanent residents would be generated during construction of the Modified Project which could induce substantial population growth.

With regard to operation, as previously discussed, the Modified Project would not introduce new residential units to the Development Area and would therefore not result in a direct population growth in the area. The Modified Project would also not result in a net increase in employees across the ATO Campus as existing staff would be relocated from other buildings within the ATO Campus to the proposed uses. Accordingly, the Modified Project would not directly or indirectly induce substantial unplanned population growth through the development of new housing or the creation of new employment opportunities. The Modified Project would also be located in an urbanized area with an established network of roads and other urban infrastructure, and would not require the extension of such infrastructure in a manner that would indirectly induce substantial population growth. Impacts would be less than significant, and such impacts would be within the scope of effects and within the impact envelope set forth in the Certified EIRs.

Threshold (b)—Displacement of Housing: No housing or other occupiable structures currently exist at the area proposed for development of the Modified Project. Therefore, the Modified Project would not create any new significant impacts related to the displacement of housing or people nor result in a substantial increase in a previously identified significant impact. Such impacts would be within the scope of effects and within the impact envelope set forth in the General Plan EIR.

Mitigation Measures Addressing Impact

None.

Conclusion

Based on the above, no new significant population and housing impacts or a substantial increase in previously identified population and housing impacts would occur as a result of the Modified Project. Thus, the potential environmental impacts of the Modified Project with regard to population and housing would not result in any of the conditions set forth in PRC Section 21166(c) or CEQA Guidelines Sections 15162 or 15163 that would require the preparation of a Supplemental or Subsequent EIR.

4.15 PUBLIC SERVICES

Issues (and Supporting Information Sources)	Was the Impact Analyzed in the Certified EIR?	Impact Determination in the Certified EIR	Do Proposed Changes or New Circumstances Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Certified EIR Mitigation Measures Addressing Impact
PUBLIC SERVICES: Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:					
(a) Fire protection?	Yes	Less Than Significant	No	No	No
(b) Police protection?	Yes	Less Than Significant	No	No	No
(c) Schools?	Yes	Less Than Significant	No	No	No
(d) Parks?	Yes	Less Than Significant	No	No	No
(e) Other public facilities?	Yes	Less than Significant	No	No	No

Impact Determination in the Certified EIRs

Impacts related to Public Services were discussed in Section 4.10, Public Services and Recreation, of the GP EIR, and in the Initial Study prepared for the Specific Plan EIR and in Section 4.11, Public Services, of the Specific Plan EIR.

With regard to Thresholds (a), (b), and (e), as discussed in the GP EIR, future development facilitated by the Approved General Plan Update would result in an increase to the Planning Area's population, which would result in an incremental increase in demand for fire protection, police protection, and other public services, such as libraries. The Planning Area would be served with police protection and fire protection provided by the Ventura County

Sheriff's Office (VCSO) and the VCFD, respectively. Future development facilitated by the Approved General Plan Update would result in an incremental increase in demand for police and fire services. However, future development would be required to meet the standard fire code safety and access requirements administered by the VCFD and specified by the California Fire Code and Ventura County Fire Code. Furthermore, the Approved General Plan Update would comply with Policy 1.2 of the 2045 General Plan's Community Facilities and Services Element requiring new and existing development to pay its fair share of infrastructure and public service costs to support ongoing maintenance and operations, as well as the payment of City-required fees, which would offset the increased demand on public services and facilities. Development would be within existing urban areas and service areas of the police protection, fire services, and libraries and unlikely to require new facilities but rather expansion of personnel or improvements to existing facilities. Should additional facilities be required, their construction would be subject to City review. Environmental analysis would identify environmental impacts and implement mitigation measures to avoid, minimize, or reduce significant environmental impacts, if necessary. Therefore, the GP EIR concluded that impacts to fire protection, police protection, and other public services (including libraries) would be less than significant. The Specific Plan EIR concluded that with requirement payment of development fees, potential impacts to fire protection, and police protection would be less than significant

With regard to Threshold (c), the Planning Area is located within the boundaries of the Conejo Valley Unified School District (CVUSD), which provides public elementary, middle, and high school education to the City and surrounding area. The GP EIR found that impacts to schools would be less than significant as future residential, commercial, and industrial development in the City would be required to pay State-mandated impact mitigation fees to provide funding for additional schools to serve the area, pursuant to SB 50. The mandatory payment of impact mitigation fees would serve as full and complete mitigation for future development. The Specific Plan EIR made the same determination.

With regard to Threshold (d), the GP EIR found that impacts to parks would be less than significant as applicants of future development facilitated by the Approved General Plan Update would be required to pay park impact fees or dedicate parkland proportional to the size and type of development pursuant to Sections 9-3.1602, 9-3.1603, and 9-4.26 of the City's Municipal Code. The Specific plan EIR made the same determination. In addition, the Specific Plan EIR also included a recommended mitigation measure to establish an on-site employee wellness center.

Do Proposed Changes or New Circumstances Involve New Significant Impacts or Substantially More Severe Impacts?

Threshold (a)—Fire Protection: The following analysis is based on the Amgen B50 Fire Flow Summary (Fire Flow Summary), prepared for the Modified Project by ARUP

Laboratories, dated July 22, 2026 (included as Appendix M.1 of this Addendum) and the VCFD Memorandum obtained through consultation with the VCFD dated June 12, 2026 (included as Appendix M.2 of this Addendum).[52]

The VCFD provides fire protection services to the Development Area. The Development Area is served by County Station No. 35, which is located at 751 Mitchell Road approximately 0.8 mile west of the Development Area. As discussed in the GP EIR, Station No. 35 is staffed daily by seven firefighters and houses one fire engine, one ladder truck, one reserve engine, and one command vehicle.

The Modified Project does not include the development of new residential units. As such, the proposed uses would not generate a new residential population that would demand fire protection services provided by the VCFD. In addition, as discussed above, the Modified Project would not result in a net increase in employees across the ATO Campus. Rather, existing staff would be relocated from other buildings within the ATO Campus to the proposed uses. As such, the Modified Project would not generate a new daytime population that would increase the demand for VCFD fire protection and emergency medical services. Further, as discussed in the Certified EIR, the Modified Project would be required to pay development impact fees for public services.

The Modified Project would be required to comply with all applicable federal, State, and local regulations governing the provision of fire protection services, including California Fire Code and VCFD Ordinance No. 34. The California Fire Code and VCFD Ordinance No. 34 contain requirements such as construction standards in new structures and remodels, road widths and configurations designed to accommodate the access for fire trucks and engines, and requirements for minimum fire flow rates for water mains, and hydrant spacing requirements. With regard to emergency access, VCFD would review project plans before permits are issued to ensure adequate emergency access is provided to the site. In addition relative to fire flows, as provided in the Fire Flow Summary included in Appendix M.1 and the VCFD Memorandum included as Appendix M.2 of this Addendum, the required fire flow for the Modified Project has been set at 6,000 gallons per minute (gpm) with a residual pressure of 20 pounds per square inch (psi) for a duration of 4 hours. However, as the proposed Building 50 would include an automatic sprinkler system in accordance with California Fire Code Section 903.3.1.1, the minimum required fire flow for the Modified Project can be reduced to 1,500 gpm with a residual pressure of 20 psi for a duration of 2 hours. Further, as described in the Fire Flow Summary, two Fire Flow Verification Form 625 were tested by California American Water (Cal Am) to determine if the existing public water infrastructure could meet the demands of the Modified Project. The fire flow availability per Fire Flow Verification Form 625 for the two fire hydrants around the perimeter of the proposed Building 50 (one located at 2150 West Hillcrest Drive

[52] *ARUP Laboratories, Amgen B50—Fire Flow Summary, July 22, 2026.*

and one located at 2003 Oak Terrace Lane), illustrate existing adequate pressures are available for a fire flow of 9,406 gpm and 8,631 gpm with a residual pressure of 20 psi each. Therefore, through compliance with VCFD requirements, adequate fire flow would be provided to the Development Area to serve the Modified Project.

Based on the above, operational impacts would be less than significant, and the Modified Project would not result in the need for new or altered fire protection facilities. Therefore, the Modified Project would not create any new significant impacts related to fire protection and emergency medical services nor result in a substantial increase in a previously identified significant impact. Such impacts would be within the scope of effects and within the impact envelope set forth in the Certified EIRs.

Threshold (b)—Police Protection: The VCSO provides police protection to the Development Area and surrounding area. The VCSO Thousand Oaks headquarters is located at 2101 East Olsen Road. This specific station is staffed by approximately 200 members. The department is staffed by approximately 1,250 personnel, including 750 sworn positions. The VCSO comprises four primary divisions, including Patrol Operations, Detention Services, Special Operations, and Support Services.

As discussed above, the Modified Project does not include the development of new residential units. As such, the proposed uses would not generate a new residential population that would demand police protection services provided by the VCSO. The Modified Project would also not result in a net increase in employees across the ATO Campus as existing staff would be relocated from other buildings within the ATO Campus to the proposed uses. As such, the Modified Project would not generate a new daytime population that would increase the demand for VCSO police protection services. Furthermore, as with the Approved General Plan Update, development under the Modified Project would comply with Policy 1.2 of the City's 2045 General Plan Community Facilities and Services Element requiring new and existing development to pay its fair share of infrastructure and public service costs to support ongoing maintenance and operations which would offset the increased demand of developments of public services and facilities. In addition, during operation, the Modified Project would provide proper lighting of buildings and walkways to provide for pedestrian orientation and clearly identify a secure route between parking areas and points of entry into buildings. The Modified Project would also provide sufficient lighting of existing outdoor areas consistent with the ATO Campus to maximize visibility and reduce areas of concealment. Furthermore, the Modified Project would design building entrances and exits, open spaces, and pedestrian walkways to be open and in view of surrounding sites.

With regard to emergency access, drivers of police emergency vehicles normally have a variety of options for avoiding traffic, such as using sirens and flashing lights to clear a path of travel or driving in the lanes of opposing traffic, pursuant to CVC Section 21806. Accordingly,

Project operation, including traffic generated by the Modified Project, would not cause a substantial increase in emergency response times.

Based on the above, the Modified Project would not result in the need for new or altered police protection facilities. Therefore, the Modified Project would not create any new significant impacts related to police protection facilities nor result in a substantial increase in a previously identified significant impact. Such impacts would be within the scope of effects set forth in the Certified EIRs.

Threshold (c)—Schools: The Development Area is located within the boundaries of the CVUSD, which provides public elementary, middle, and high school education to the City and surrounding area. As previously discussed, the Modified Project does not include the development of new residential units. Therefore, implementation of the Modified Project would not result in a direct increase in the number of students within the service area of CVUSD. Further, the Applicant would be required to pay State-mandated impact mitigation fees to provide funding for additional schools to serve the area, pursuant to SB 50. Pursuant to Government Code Section 65995(h), the payment of these fees is considered as full legal mitigation of Project related school impacts. Thus, the Modified Project would not result in the need for new or altered school facilities. Therefore, the Modified Project would not create any new significant impacts related to school facilities nor result in a substantial increase in a previously identified significant impact. Such impacts would be within the scope of effects and within the impact envelope set forth in the Certified EIRs.

Threshold (d)—Parks: Parks and recreational facilities in the vicinity of the Development Area are primarily operated and maintained by the Conejo Recreation and Park District (CPRD). Nearby parks and recreational facilities include Newbury Park, Dos Vientos, and the North and South Ranch areas of Westlake Village.

As previously discussed, the Modified Project does not include the development of new residential uses. Therefore, implementation of the Modified Project would not result in on-site residents who would utilize nearby parks and/or recreational facilities. The Modified Project would also not result in a net increase in employees across the ATO Campus as existing staff would be relocated from other buildings within the ATO Campus to the proposed uses. As such, the Modified Project would not generate a new employee-related demand for parks as these existing employees may already utilize existing parks and recreational facilities in the vicinity of the Development Area. Further, Amgen provides employees with a fitness and wellness program that is intended to support physical health, mental well-being, and work-life balance. Employees have access to a campus fitness center with strength training, cardio equipment, yoga, group fitness classes, pickleball, and recreational activities, as well as wellness programs focused on ergonomics, health coaching, nutrition, mental well-being, work-life resources, wellness initiatives, and on-demand educational content. Therefore, the

Modified Project would not create any new significant impacts related to parks nor result in a substantial increase in a previously identified significant impact. Such impacts would be within the scope of effects and within the impact envelope set forth in the Certified EIRs.

Threshold (e)—Libraries: Other public facilities available include libraries. The City owns and maintains its library system. There are two libraries that serve the community: the main facility at Grant R. Brimhall Library located at 1401 East Janss Road in Thousand Oaks and the Newbury Park Branch Library located at 2331 Borchard Road in Newbury Park. The Development Area is served by the Newbury Park Branch Library, located approximately 1.2 miles southwest of the Development Area. As previously discussed, the Modified Project does not include the development of new residential units. Therefore, implementation of the Modified Project would not result in a direct increase in the number of residents within the service population of the Newbury Park Branch Library. The Modified Project would also not result in a net increase in employees across the ATO Campus as existing staff would be relocated from other buildings within the ATO Campus to the proposed uses. As such, the Modified Project would not generate a new employee-related demand for libraries as these existing employees may already utilize existing library facilities in the vicinity of the Development Area. Therefore, the Modified Project would not create any new significant impacts related to library facilities nor result in a substantial increase in a previously identified significant impact. Such impacts would be within the scope of effects set forth in the Certified EIRs.

Mitigation Measures Addressing Impact

The following mitigation measure was set forth in the Specific Plan EIR to address public services impacts. However, this mitigation measure has already been implemented. No additional mitigation measures are required as no new significant public services impacts would result from implementation of the Modified Project.

~~**Amgen Center Specific Plan Mitigation Measure PS-1 Employee Wellness Program/ Center:** AMGEN should provide an onsite employee wellness program/ center that includes exercise equipment and showers.~~

[This mitigation measure is not applicable to the Modified Project as Amgen has an existing comprehensive fitness and wellness program.]

Conclusion

Based on the above, no new significant public services impacts or a substantial increase in previously identified public services impacts would occur as a result of the Modified Project. Thus, the potential environmental impacts of the Modified Project with regard to public services would not result in any of the conditions set forth in PRC Section 21166(c) or CEQA Guidelines Sections 15162 or 15163 that would require the preparation of a Supplemental or Subsequent EIR.

4.16 RECREATION

Issues (and Supporting Information Sources)	Was the Impact Analyzed in the Certified EIR?	Impact Determination in the Certified EIR	Do Proposed Changes or New Circumstances Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Certified EIR Mitigation Measures Addressing Impact
RECREATION:					
(a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	Yes	Less than Significant	No	No	No
(b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	Yes	Less than Significant	No	No	No

Impact Determination in the Certified EIRs

Impacts related to Recreation were discussed in Section 4.10, Public Services and Recreation, of the GP EIR, and in Section 4.11, Public Services, of the Specific Plan EIR.

With regard to thresholds (a) and (b), the Certified EIRs concluded that impacts would be less than significant as applicants of future development facilitated by the Approved General Plan Update and Approved Specific Plan would be required to pay park impact fees or dedicate parkland proportional to the size and type of development pursuant to Sections 9-3.1602, 9-3.1603, and 9-4.26 of the City's Municipal Code.

Do Proposed Changes or New Circumstances Involve New Significant Impacts or Substantially More Severe Impacts?

Threshold (a): As discussed above, the Modified Project does not include the development of new residential units. Therefore, implementation of the Modified Project would not result in on-site residents who would utilize nearby parks and/or recreational facilities. The Modified Project would also not result in a net increase in employees across the ATO Campus as existing staff would be relocated from other buildings within the ATO Campus to the proposed uses. As such, the Modified Project would not generate a new employee-related demand for parks as these existing employees may already utilize existing parks and recreational facilities in the vicinity of the ATO Campus. The Modified Project would include outdoor amenities including a new lawn area, work pod structures, seating areas, and movable furniture to the north of Building 50, to support employees at Building 50 and the greater ATO Campus. In addition, a landscaped pedestrian paseo would be provided that would integrate Building 50 with surrounding buildings within the Development Area. In total, the Development

Area would include 113,736 square feet of outdoor areas consisting of 66,136 square feet of paved areas and 47,600 square feet of landscaped areas. Further, as discussed above Amgen employees have access to a campus fitness center with strength training, cardio equipment, yoga, group fitness classes, pickleball, and recreational activities, as well as wellness programs focused on ergonomics, health coaching, nutrition, mental well-being, work-life resources, wellness initiatives, and on-demand educational content. Therefore, the Modified Project would not create any new significant impacts related to parks and recreation facilities nor result in a substantial increase in a previously identified significant impact. Such impacts would be within the scope of effects and within the impact envelope set forth in the Certified EIRs.

Threshold (b): As discussed above, the Modified Project does not include any new residential units and therefore would not result in any direct substantial population growth that would increase use of existing recreational facilities. The Modified Project would also not result in a net increase in employees across the ATO Campus as existing staff would be relocated from other buildings within the ATO Campus to the proposed uses. Therefore, the Modified Project would not necessitate construction of new recreational facilities. No impacts would occur, and no mitigation measures are required. Such impacts would be within the scope of effects and within the impact envelope set forth in the Certified EIRs.

Mitigation Measures Addressing Impact

The following mitigation measure was set forth in the Specific Plan EIR and the associated MMRP to address parks impacts t. However, this mitigation measure has already been implemented. No additional mitigation measures are required as no new significant parks impacts would result from implementation of the Modified Project.

> ~~**Amgen Center Specific Plan Mitigation Measure PS-1 Employee Wellness Program/ Center:** AMGEN should provide an onsite employee wellness program/ center that includes exercise equipment and showers.~~
>
> [This mitigation measure has already been implemented and, thus, is not applicable to the Modified Project.]

Conclusion

Based on the above, no new significant recreation impacts or a substantial increase in previously identified recreation impacts would occur as a result of the Modified Project. Thus, the potential environmental impacts of the Modified Project with regard to recreation would not result in any of the conditions set forth in PRC Section 21166(c) or CEQA Guidelines Sections 15162 or 15163 that would require the preparation of a Supplemental or Subsequent EIR.

4.17 TRANSPORTATION

Issues (and Supporting Information Sources)	Was the Impact Analyzed in the Certified EIR?	Impact Determination in the Certified EIR	Do Proposed Changes or New Circumstances Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Certified EIR Mitigation Measures Addressing Impact
TRANSPORTATION: Would the project:					
(a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	Yes[53]	Less Than Significant	No	No	No
(b) Prior Threshold (b): Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	Yes[54]	Less Than Significant with Mitigation Incorporated	No	No	Yes
(c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	Yes	Less Than Significant	No	No	No
(d) Result in inadequate emergency access?	Yes[55]	Less Than Significant	No	No	No

Impact Determination in the Certified EIRs

Impacts related to Transportation were discussed in Section 4.11, Transportation, of the GP EIR, and in Section 4.2, Transportation and Circulation, of the Specific Plan EIR. In addition, impacts to emergency access were evaluated in Section 4.11, Public Services (Fire Protection) of the Specific Plan EIR.

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53 *Threshold (a) was not specifically addressed in the Specific Plan EIR as this topic was not included as part of the Appendix G Environmental Checklist Form at the time of the preparation of the Specific Plan EIR.*

54 *Threshold (b) has been modified by the Natural Resources Agency to address consistency with CEQA Guidelines section 15064.3, subdivision (b), which relates to the use of VMT as the methodology for evaluating traffic impacts. However, the Specific Plan EIR was based on the previous level of service (LOS) methodology. Therefore, the analysis below provides a comparative LOS-based analysis consistent with the framework adopted at the time the Specific Plan EIR was certified. In addition, as discussed in the Project Description above, the Modified Project does not propose additional square footage beyond that already included in the Approved Specific Plan and the uses within the Modified Project were also already included and the Approved Specific Plan. As such, the Modified Project would not result in additional vehicle trips and associated vehicle miles traveled when compared with the Approved Specific Plan.*

55 *Threshold (d) was not specifically addressed in the Specific Plan EIR as this topic was not included as part of the Appendix G Environmental Checklist Form at the time of the preparation of the Specific Plan EIR. Notwithstanding, the Specific Plan EIR addressed impacts to emergency access in the Initial Study and found that development under the Approved Specific Plan would be in accordance with and subject to all applicable emergency response plans and evacuation plans. As such, the Initial Study concluded no significant impacts would occur.*

With respect to Threshold (a), the GP EIR concluded that impacts related to consistency with adopted City plans, programs, ordinances, and policies governing the circulation system would be less than significant. Development that may occur pursuant to the Approved General Plan Update would be subject to the policies and programs contained in the City's 2045 General Plan Mobility Element, which promotes improvements to pedestrian, bicycle, and transit infrastructure and encourages reductions in vehicle emissions. Further, implementation of the Approved General Plan Update would be guided by the City's Active Transportation Plan (ATP), which provides a framework for improving connectivity, pedestrian and bicycle safety, mobility, and the prioritization of transportation infrastructure projects. The Approved General Plan Update would also be consistent with the City's Local Road Safety Plan (LRSP), which employs a systemic, safety-focused approach to identifying and addressing transportation deficiencies and improving roadway safety throughout the City. Therefore, the GP EIR found that impacts related to consistency with the City's circulation system plans and policies would be less than significant.

With respect to Threshold (b) related to level of service within the Specific Plan EIR, the analysis concluded that the Approved Specific Plan would result in significant level of service (LOS) impacts at five intersections under buildout conditions. However, implementation of the Amgen Center Specific Plan Transportation Demand Management (TDM) Program measures, including measures designed to balance jobs and housing locations and reduce vehicle trips, together with Transportation System Management (TSM) measures, would reduce these impacts to a less-than-significant level. The TSM measures generally consist of minor roadway widening and restriping, as well as traffic signal modifications and installations intended to increase the capacity and efficiency of existing transportation facilities within the rights-of-way.

The LOS analysis within the Specific Plan also considered cumulative traffic conditions both with and without the Approved Specific Plan. Under future cumulative conditions, certain Ventura Freeway on-ramp locations would operate at LOS E or F, and the Approved Specific Plan would contribute to worsening those conditions. In addition, cumulative traffic increases would result in LOS D or worse at several surface street intersections. Nevertheless, as detailed in Section 4.2.3 of the Specific Plan EIR, implementation of TSM improvements, payment of traffic impact mitigation fees, implementation of trip reduction measures, and completion of regional transportation facility improvements would reduce the Approved Specific Plan's transportation impacts to a less-than-significant level.

With regard to the Threshold (b) related to VMT impacts within the GP EIR, the analysis concluded that potential VMT impacts would be significant and unavoidable.

With regard to Threshold (c), as discussed in the GP EIR, the City maintains *Road Design and Construction Standards and Standard Land Development Specifications* for public improvements and private facilities (e.g., internal circulation, ingress/egress) that guide the

construction of transportation facilities to minimize design hazards for all users of the transportation system. In addition, the City identifies appropriate safety measures to minimize collisions in the LRSP. As individual developments are built out, applicants would be required to follow appropriate federal, State, and City-design guidelines in implementing roadway improvements necessary to alleviate transportation hazards. Furthermore, development facilitated by the Approved General Plan Update would comply with all applicable policies and Implementation Actions contained in the Mobility Element of the 2045 General Plan. Therefore, the GP EIR found that impacts related to substantially increasing transportation-related hazards would be less than significant. The Specific Plan EIR concluded that with implementation of the proposed mitigation measures, potential impacts related to traffic hazards would be less than significant.

With regard to Threshold (d), as discussed in the GP EIR, development facilitated by the Approved General Plan Update would comply with the standard construction procedures outlined in the City's *Road Design and Construction Standards and Standard Land Development Specifications,* which require traffic control for all work performed in the right-of-way, including implementation of a traffic control plan which would provide access for emergency vehicles. In addition, projects that require construction activities on the State Highway System would create a temporary traffic control plan that adheres to the standards set forth in the *California Manual of Uniform Traffic Control Devices*. Implementation of these policies would ensure that traffic control is implemented adequately to accommodate emergency vehicles. With respect to operation, development facilitated by the Approved General Plan Update would adhere to applicable fire department design standards for emergency vehicle access, including VCFD's Standard 501, which provides additional minimum requirements for fire apparatus access roads, including gates, fire lanes, and turnarounds/turnouts. Additionally, compliance with the City's Road Design and Construction Standards and Ventura County Fire Access Ordinance 29 would ensure emergency vehicle access. Therefore, the GP EIR found that impacts related to emergency access would be less than significant. Similarly, the Specific Plan EIR concluded that with implementation of regulatory requirements, including VCFD review and approval of plans, potential impacts associated with emergency access would be less than significant.

Do Proposed Changes or New Circumstances Involve New Significant Impacts or Substantially More Severe Impacts?

Threshold (a): As previously discussed, the Development Area comprises approximately 4.27 acres of the 91-acre ATO Campus which includes research, manufacturing, office, warehouse/distribution, and common uses that support Amgen's corporate headquarters. There are no existing public pedestrian, bicycle, or transit facilities within the Development Area. As previously discussed, the Modified Project would not result in a net increase in employees across the ATO Campus as existing staff would be relocated from other buildings within the ATO Campus to Building 50. Accordingly, the Modified Project would not

contribute to a significant number of new transit riders such that existing transit in the vicinity of the ATO Campus would be unable to accommodate the increase. In addition, construction of the Modified Project would primarily be contained within the boundaries of the Development Area, and no changes are proposed to the existing pedestrian, bicycle, and transit facilities outside of the ATO Campus that could result in impacts on the existing public transportation system. The Modified Project could be consistent with the policies contained in the Mobility Element of the 2045 General Plan, which serve to improve pedestrian, transit, and bicycle infrastructure, and encourage emissions reduction from vehicles. Specifically, the Modified Project would be consistent with Mobility Element policies 6.2 through 6.4 of the 2045 General Plan through decreasing vehicle miles traveled through infill development, emissions reduction as required in Specific Plan EIR Amgen Center Specific Plan Mitigation Measure AQ-1 to transfer all fleet vehicles to fuel-efficient or zero-emission vehicles at the earliest practicable date, and the use of TDM Program measures for employees consistent with the Specific Plan EIR such as high-occupancy vehicle (HOV) parking areas, HOV staging areas, ridesharing information services, ridesharing incentives and facilities, and reduced parking levels.. Further, future development under the Modified Project would be required to implement and comply with the goals, policies, and improvement strategies set forth in the ATP and LRSP. Therefore, the Modified Project would not conflict with transit, roadway, bicycle, and pedestrian facilities and is consistent with the Certified EIRs. Impacts would be less than significant, and such impacts would be within the scope of effects and within the impact envelope set forth in GP EIR.

Threshold (b)—Level of Service: The Specific Plan permits up to 3,637,294 square feet of gross building area within the ATO Campus. Because approximately 2,842,196 square feet of gross building area currently exists within the ATO Campus, buildout of the Modified Project would result in a total of approximately 3,219,542 square feet of gross building area within the ATO Campus. This total would remain well within the development capacity evaluated under the Specific Plan EIR. Therefore, the Modified Project is consistent with, and falls within, the growth assumptions and total trips analyzed in the Specific Plan EIR. Further, as included in the Specific Plan EIR the inclusion of TDM Program measures (e.g., measures designed to balance jobs and housing locations, and measures to reduce vehicle trips) as well as payment of impact fees would reduce transportation impacts to a less-than-significant level. While the VMT threshold is not applicable to the Project as the Specific Plan EIR evaluated impacts based on level of service, it is noted that since the Modified Project would not generate new vehicle trips beyond that already approved as part of the Approved Specific Plan, the Modified Project would also not result in additional vehicle miles traveled.

Threshold (c)—Hazardous Design Features: The Modified Project's design does not include hazardous geometric design features (e.g., sharp curves or dangerous intersections). As discussed in Section 2, Project Description, of this Addendum, ingress/egress on the southwestern portion of the Development Area would be reconfigured to improve vehicular access to the proposed Building 50's loading areas and enhance overall traffic flow in

coordination with the existing Building 29 to the west. The additional ingress/egress on the southeastern portion of the Development Area would remain in its current location, and would provide access to the proposed transformer yard. All proposed improvements would be constructed in accordance with Department of Public Works design standards and specifications, which would be ensured as a part of the City's standard plan check process prior to the issuance of grading and building permits. The design of the Modified Project's access would also be reviewed and approved by the VCFD. The Modified Project would not alter existing off-site pedestrian walkways and all internal improvements would adhere to the Americans with Disabilities Act design requirements and City standards with regard to safe movements and lines-of-sight as approved by the City Engineer. The proposed uses would also be consistent with the uses in the surrounding vicinity and the existing uses on-site and would not introduce hazards due to incompatible uses. Thus, the Modified Project would not substantially increase hazards due to a geometric design feature or incompatible uses. Impacts would be less than significant, and such impacts would be within the scope of effects and within the impact envelope set forth in the Certified EIRs.

Threshold (d): The Modified Project would not alter existing emergency access routes or change existing patterns of emergency access around the Development Area, nor would construction require closures of public roads, which could inhibit access by emergency vehicles. Emergency services are not in the immediate vicinity of the Modified Project. The Modified Project circulation design includes the use of existing local access roadways around the perimeter of the Development Area, which would facilitate emergency access in the event of an emergency at the ATO Campus. Therefore, emergency access-related impacts would be less than significant, and such impacts would be within the scope of effects and within the impact envelope set forth in the Certified EIRs.

Mitigation Measures Addressing Impact

The following mitigation measures set forth in the Certified EIRs and the associated MMRP to address transportation impacts would be implemented as part of the Modified Project. No additional mitigation measures are required as no new significant transportation impacts would result from implementation of the Modified Project.

~~**2045 General Plan Update Mitigation Measure TRA-1 Achieve VMT Reductions for Development Projects:** In the interim, prior to the City adopting VMT Analysis Guidelines included as Implementation Action M-A.7 of the proposed project, for individual projects that exceed the City's recommended threshold below the VMT average based on project-specific VMT analysis, the City shall require the project applicant to implement project-level VMT reduction strategies. The City shall design strategies for the proposed project to reduce VMT from existing land uses, where feasible, and from new discretionary residential or employment land use projects. The design of programs and project-specific mitigation shall~~

~~focus on VMT reduction strategies that increase travel choices and improve the comfort and convenience of sharing rides in private vehicles, using public transit, biking, or walking. VMT reduction strategies may include, but are not limited to, the following:~~

~~1. Provision of bus stop improvements or on-site mobility hubs~~

~~2. Pedestrian improvements, on-site or off-site, to connect to nearby transit stops, services, schools, shops, etc.~~

~~3. Bicycle programs, including bike purchase incentives, storage, maintenance programs, and on-site education program~~

~~4. Enhancements to the citywide bicycle network~~

~~5. Parking reductions and/or fees set at levels sufficient to incentivize transit, active transportation, or shared modes~~

~~6. Cash allowances, passes, or other public transit subsidies and purchase incentives~~

~~7. Providing enhanced, frequent bus service~~

~~8. Implementation of shuttle service~~

[This mitigation measure is not applicable to the Modified Project. In addition, as discussed above, the Modified Project would not result in an increase in trips beyond that already approved as part of the Approved Specific Plan.]

Transportation System Management Improvements

The following TSM improvements were included in the Specific Plan EIR. As set forth below, these improvements have either been completed or are no longer applicable to the Modified Project:

- Amgen Center Specific Plan Mitigation Measure TRA-TSM-1 Ventura Freeway northbound ramps/Grande Vista Drive and Camino Dos Rios

These improvements required for the Approved Specific Plan have been completed. Note that the restriping of Grande Vista, which was to be implemented to address cumulative impacts, is no longer applicable as this roadway has already been reconfigured as dual right turns with no left turns permitted.

- Amgen Center Specific Plan Mitigation Measure TRA-TSM-2 Ventura Freeway southbound ramps/ Old Conejo Road and Wendy Drive:

This TSM measure was applicable to cumulative impacts.

As with the Approved Specific Plan, the Modified Project would be required to participate in Traffic Impact Mitigation Fee requirements of the City. These fees would be used to implement cumulative mitigation measures such as the measure above and the ultimate use of these fees will be determined by the City.

- Amgen Center Specific Plan Mitigation Measure TRA-TSM-3 Camino Dos Rios and Hillcrest Drive:

This TSM improvement has been completed.

- Amgen Center Specific Plan Mitigation Measure TRA-TSM-4 Hillcrest Drive and Rancho Conejo Boulevard:

These TSM Improvements have been completed, including the portion of these improvements that were to address cumulative impacts.

- Amgen Center Specific Plan Mitigation Measure TRA-TSM-5 Ventura Freeway northbound ramps and Rancho Conejo Boulevard:

These TSM Improvements have been completed, including the portion of these improvements that were to address cumulative impacts.

- Amgen Center Specific Plan Mitigation Measure TRA-TSM-6 Ventura Freeway southbound ramps and Ventu Park Road:

These improvements are related to cumulative impacts and have not been fully completed. As with the Approved Specific Plan, the Modified Project would be required to participate in Traffic Impact Mitigation Fee requirements of the City. The fees would be used to implement cumulative mitigation measures such as the improvement above and use of these fees will be decided by the City.

- Amgen Center Specific Plan Mitigation Measure TRA-TSM-7 Hillcrest Drive and Lynn Road:

These improvements are related to cumulative impacts and have not been fully completed. As with the Approved Specific Plan, the Modified Project would be required to participate in Traffic Impact Mitigation Fee requirements of the City. The fees would be used to implement cumulative mitigation measures such as the improvement above and use of these fees will be decided by the City.

- Amgen Center Specific Plan Mitigation Measure TRA-TSM-8 Ventura Freeway southbound ramps and Lynn Road:

These improvements are related to cumulative impacts and have not been fully completed. As with the Approved Specific Plan, the Modified Project would be required to participate in Traffic Impact Mitigation Fee requirements of the City. The fees would be used to implement cumulative mitigation measures such as the improvement above and use of these fees will be decided by the City.

Transportation Demand Management Program Measures

The following are measures recommended in the Specific Plan EIR to decrease the growth in regional traffic and acceptable service levels on the regional system:

a. **Implement Measures to Balance Jobs and Housing Locations.** As discussed in the Specific Plan EIR, regional plans calls for a shift in employment locations to housing -rich areas, such as Thousand Oaks. The Approved Specific Plan contributes to achieving that goal. Specifically, jobs to be added to the area match the economic characteristics of the local housing stock.

b. **Site Trip Reduction Measures.** Consistent with this measure, the Applicant has already implemented an aggressive TDM program. Measures that are part of this program include HOV parking and staging areas, ridesharing services, ridesharing incentives and review of parking demands.

Traffic Impact Mitigation Fees

As discussed above, the Modified Project will participate in applicable Traffic Impact Mitigation Fee requirements of the City. Such fees have been authorized for traffic signals and roadway improvements in the Newbury Park area, and payback for roadway improvements completed by others. Such fees are also anticipated to be required of other projects in the area.

~~**Regional Facility Improvements**~~

~~An analysis was also conducted for the Ventura Freeway ramps serving the Newbury Park area (see Section 4.2. 2. 3. f). This analysis indicated that due to all cumulative development, adverse conditions could exist by the year 2010 at two ramps: the northbound onramp from Lynn Road and the new southbound onramp proposed from southbound Borchard Road. With implementation of the County -wide CMP trip reduction measures, which would alleviate adverse conditions at both of these locations, plus the installation of the following cumulative mitigation measure, the freeway system in Newbury Park is expected to continue to operate at acceptable CMP service levels.~~

~~Ventura Freeway northbound onramp from Lynn Road. Prior to the installation of metering equipment on this ramp, a second lane to serve as an HOV bypass lane should be constructed.~~

[This mitigation measure was proposed as a regional facility improvement and not an improvement required for the Approved Specific Plan. Thus, this measure is not applicable to the Modified Project.]

Conclusion

Based on the above, no new significant impacts to transportation or a substantial increase in previously identified transportation impacts would occur as a result of the Modified Project. Thus, the potential environmental impacts of the Modified Project with regard to transportation would not result in any of the conditions set forth in PRC Section 21166(c) or CEQA Guidelines Sections 15162 or 15163 that would require the preparation of a Supplemental or Subsequent EIR.

4.18 TRIBAL CULTURAL RESOURCES

Issues (and Supporting Information Sources)	Was the Impact Analyzed in the Certified EIR?[56]	Impact Determination in the Certified EIR	Do Proposed Changes or New Circumstances Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Certified EIR Mitigation Measures Addressing Impact
TRIBAL CULTURAL RESOURCES:					
(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 that is:					
(i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	Yes	Less Than Significant with Mitigation Incorporated	No	No	Yes

[56] *This specific environmental topic of Tribal Cultural Resources was added as a separate environmental topic to Appendix G of the CEQA Guidelines in 2019, after the preparation of the Specific Plan EIR.*

Issues (and Supporting Information Sources)	Was the Impact Analyzed in the Certified EIR?[56]	Impact Determination in the Certified EIR	Do Proposed Changes or New Circumstances Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Certified EIR Mitigation Measures Addressing Impact
(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.	Yes	Less Than Significant with Mitigation Incorporated	No	No	Yes

Impact Determination in the Certified EIRs

Impacts related to Tribal Cultural Resources were discussed in Section 4.4, Cultural and Tribal Cultural Resources, of the GP EIR.

As discussed in the GP EIR, AB 52 and SB 18 consultation did not identify tribal cultural resources within the City, and no tribal cultural resources eligible for the CRHR or local register were identified as being impacted by the Approved General Plan Update. Nevertheless, as concluded in the GP EIR, it remains a possibility that tribal cultural resources may be present within geographic areas affiliated with the consulted Tribal organizations. Therefore, the GP EIR included 2045 General Plan Update Mitigation Measure CUL-4, which provides steps for the evaluation and protection of unanticipated finds of tribal cultural resources encountered during construction. Implementation of 2045 General Plan Update Mitigation Measure CUL-4 would reduce potential impacts to a less-than-significant level.

Do Proposed Changes or New Circumstances Involve New Significant Impacts or Substantially More Severe Impacts?

The following analysis is based on the Tribal Cultural Resources Assessment for the Amgen Specific Plan Amendment Project (Tribal Cultural Resources Assessment), prepared by SWCA, dated September 9, 2026.[57] This report is included as Appendix L of this Addendum.

Threshold (a): Development under the Modified Project would occur within the geographic area evaluated in the Certified EIR. While the GP EIR did not identify tribal cultural resources within the City, it remains a possibility that tribal cultural resources may be present

[57] *SWCA Environmental Consultants, Tribal Cultural Resources Assessment for the Amgen Specific Plan Amendment Project, Thousand Oaks, Ventura County, California, September 9, 2026.*

within geographic areas affiliated with the consulted Tribal organizations. The Tribal Cultural Resources Assessment provides a review of available evidence for known tribal cultural resources within or immediately adjacent to the Development Area and analyzes the likelihood (i.e., sensitivity) for as-yet unknown tribal cultural resources that could be present in or immediately adjacent to the Development Area as buried deposits. The Tribal Cultural Resources Assessment also includes a summary of resources identified in the CHRIS by the SCCIC, the results of a SLF search by the NAHC, and background research conducted by SWCA. These findings are summarized below.

Based on current plans, the basement of the proposed Building 50 is expected to extend to a maximum depth of 21.5 feet bgs, which is at or near the former Building 14 basement elevation. As such, no significant grading or over-excavation for the construction of the basement for Building 50 is anticipated. The installation of hardscape and landscape elements, as well as utility excavations, in the Development Area is expected to extend no more than seven feet bgs. Therefore, ground-disturbing activities would be confined to the layer of artificial fill.

In the off-site improvement area, a new storm drain would be placed three to five feet bgs. The depth of former disturbance along West Hillcrest Drive is not known. However, given the extent of development in the area, it is likely that the upper two to three feet of sediment has been previously disturbed by the construction of West Hillcrest Drive. Based on these findings, only the deepest excavations associated with the storm drain installation have the potential to extend into undisturbed native sediments.

As discussed in the Tribal Cultural Resources Assessment, no tribal cultural resources were identified within the Development Area through the CHRIS records search and archival research using scientific, archaeological, and other published sources. In addition, the NAHC's search of the SLF returned negative results. Further, the sensitivity analysis conducted as part of the Tribal Cultural Resources Assessment concluded that there is an overall low probability of a tribal cultural resource being preserved within the Development Area as a buried archaeological deposit.

In addition, on May 20, 2026, the City, as the lead agency, provided formal AB 52 and SB 18 notification to all eligible tribal entities that have submitted a written request to receive notice of eligible projects within the City's jurisdiction, as well as to tribes identified by the Native American Heritage Commission as having traditional lands or cultural places located within or in the vicinity of the proposed Project. On May 28, 2026 the Barbareno/Ventureno Band of Mission Indians requested notification and monitoring in the event cultural resources are discovered. Therefore, as the potential for encountering Native American archaeological resources during construction cannot be completely ruled out, particularly for deeper excavations in the off-site improvement area where Holocene-aged alluvium may be present

beneath disturbed sediments or artificial fill that otherwise characterizes the subsurface, the Modified Project would implement 2045 General Plan Update Mitigation Measure CUL-4, which requires that work be temporarily halted in the event that cultural resources of Native American origin are identified during ground disturbance and an appropriate local Native American representative (i.e., Barbareno/Ventureno Band of Mission Indians are consulted). With incorporation of 2045 General Plan Update Mitigation Measure CUL-4, the Modified Project would result in less-than-significant impacts to tribal cultural resources. Such impacts would be within the scope of effects and within the impact envelope set forth in the GP EIR. .

Mitigation Measures Addressing Impacts

The following mitigation measures set forth in the GP EIR and the associated MMRP to address tribal cultural resource impacts would be implemented as part of the Modified Project. No additional mitigation measures are required as no new significant tribal cultural resource impacts would result from implementation of the Modified Project.

2045 General Plan Update Mitigation Measure CUL-4 Suspend Work Around Tribal Cultural Resources Identified During Construction: In the event that cultural resources of Native American origin are identified during ground disturbance during construction of a project implemented under TO2045, all earth-disturbing work in the vicinity of the find shall be temporarily suspended or redirected until an archaeologist has evaluated the nature and significance of the find as a cultural resource and ~~an appropriate local Native American~~ a Barbareno/Ventureno Band of Mission Indians representative is consulted. If the City, in consultation with ~~local Native Americans~~ the Barbareno/Ventureno Band of Mission Indians, determines that the resource is a tribal cultural resource and, thus, significant under CEQA, a mitigation plan shall be prepared and implemented in accordance with State guidelines and in consultation with the Barbareno/ Ventureno Band of Mission Indians ~~local Native American group(s)~~. The mitigation plan shall include avoidance of the resource or, if avoidance of the resource is infeasible, the plan shall outline the appropriate treatment of the resource in coordination with the Barbareno/Ventureno Band of Mission Indians ~~appropriate local Native American tribal~~ representative and, if applicable, a qualified archaeologist. Examples of appropriate mitigation for tribal cultural resources include, but are not limited to, protecting the cultural character and integrity of the resource, protecting traditional use of the resource, protecting the confidentiality of the resource, or heritage recovery.

[This mitigation measure has been revised for the Modified Project to provide specificity in response to AB 52 consultation with the Barbareno/ Ventureno Band of Mission Indians.]

Conclusion

Based on the above, no new significant impacts to tribal cultural resources or a substantial increase in previously identified tribal cultural resources impacts would occur as a result of the Modified Project. Thus, the potential environmental impacts of the Modified Project with regard to tribal cultural resources would not result in any of the conditions set forth in PRC Section 21166(c) or CEQA Guidelines Sections 15162 or 15163 that would require the preparation of a Supplemental or Subsequent EIR.

4.19 UTILITIES AND SERVICE SYSTEMS

Issues (and Supporting Information Sources)	Was the Impact Analyzed in the Certified EIR?	Impact Determination in the Certified EIR	Do Proposed Changes or New Circumstances Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Certified EIR Mitigation Measures Addressing Impact
UTILITIES AND SERVICE SYSTEMS: Would the project:					
(a) Require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	Less Than Significant	Yes	No	No	No
(b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	Less Than Significant with Mitigation Incorporated	Yes	No	No	Yes
(c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	Less Than Significant	Yes	No	No	Yes
(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?	Significant and Unavoidable	Yes	No	No	Yes
(e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste? [58]	Less Than Significant	Yes	No	No	No

[58] *This specific environmental topic related to consistency with solid waste plans was added as a separate environmental topic to Appendix G of the CEQA Guidelines after the preparation of the Specific Plan EIR and thus was not included in the analyses within the Specific Plan EIR.*

Impacts Analyzed in the Certified EIR

Impacts related to Utilities and Service Systems were discussed in Section 4.12, Utilities and Service Systems, of the GP EIR, and in Section 4.12, Utilities (Water, Wastewater, and Solid Waste), of the Specific Plan EIR.

Impact Determination in the Certified EIR

With regard to Threshold (a), as discussed in the GP EIR, development facilitated by the Approved General Plan Update would generally occur in developed areas of the City with existing water infrastructure; however, increased density in developed areas could require additional water infrastructure and upgrades to existing infrastructure. As set forth in the GP EIR, future development would be required to comply with regulatory requirements regarding As discussed in the Certified EIR, the future development would generally occur in urban areas with existing water infrastructure that has been subject to previous disturbance and would generally avoid undeveloped areas lacking water infrastructure. Therefore, the GP EIR concluded that impacts with respect to water infrastructure would be less than significant. The Specific Plan EIR concluded that impacts regarding water infrastructure would be less than significant and nonetheless included a suggested mitigation measure identifying specific water infrastructure improvements.

With regard to wastewater, as discussed in the GP EIR, development facilitated by the Approved General Plan Update may require the installation of upsized sewer lines and additional lateral connections. As with water facilities, sewer laterals and main extensions necessary to serve the future development generally would be installed in the already disturbed rights-of-way of existing roads or in the disturbance footprints of such development projects. Therefore, the GP EIR concluded that impacts with respect to wastewater infrastructure would be less than significant. The Specific Plan EIR also concluded that potential impacts associated with wastewater infrastructure would be less than significant.

With respect to stormwater drainage facilities, the GP EIR found that impacts would be less than significant as existing regulations and 2045 General Plan policies would ensure development facilitated by the Approved General Plan Update would not result in substantial additional runoff, necessitating the expansion of stormwater infrastructure. The Specific Plan EIR also concluded that potential impacts associated with stormwater infrastructure would be less than significant with implementation of regulatory requirements..

As discussed in the GP EIR, development facilitated by the Approved General Plan Update would occur on sites that are generally developed or surrounded by existing development served by existing natural gas and electrical infrastructure, and development facilitated by the Approved General Plan Update would generally have access to utility infrastructure and not require the installation of substantial electric or natural gas infrastructure

to meet demands. Similar to electric and natural gas infrastructure, development facilitated by the Approved General Plan Update would not require new substantial telecommunications infrastructure to be constructed. Therefore, the GP EIR found that impacts to energy infrastructure and telecommunication facilities would be less than significant. The Specific Plan EIR also concluded that potential impacts associated with energy infrastructure would be less than significant.

With regard to Threshold (b) related to water demand, as described in the Specific Plan EIR, the Approved Specific Plan would have a water demand of 445,055 gallons per day (gpd). The Metropolitan Water District of Southern California (MWD) indicated that they do not foresee any water supply shortages which would hinder their ability to serve the increased demand. Further, as discussed in the GP EIR, while development facilitated by the Approved General Plan Update would adhere to water conservation requirements, such as Municipal Code Title 10, Chapter 2, Article 11, and the water reduction policies contained in the Community Facilities and Services Element of the 2045 General Plan, implementation of these policies alone would not guarantee an adequate water supply for the entirety of the buildout anticipated to be facilitated by the Approved General Plan Update. Therefore, the GP EIR included 2045 General Plan Update Mitigation Measure UTIL-1, which requires a project applicant to obtain a Will-Serve letter proving adequate water supply is available for the individual development, to reduce potential impacts to a less-than-significant level. The Specific Plan EIR also concluded that impacts regarding water demand would be less than significant and nonetheless included suggested mitigation measures regarding water conservation.

With regard to (c), as discussed in the GP EIR, approximately 90 percent of the wastewater generated in the City is treated at the Hill Canyon Treatment Plant (HCTP), while the remainder is collected and treated at the Tapia Water Reclamation Facility (TWRF). The HCTP has approximately eight million gallons per day (mgd) available capacity and the TWRF has approximately 6.5 mgd available capacity. As discussed in the GP EIR, sewage generation from the Approved General Plan Update would be approximately 365,000 gpd. As such, the Approved General Plan Update would be adequately served by existing wastewater treatment facilities. Therefore, the GP EIR concluded that impacts to wastewater treatment would be less than significant.

With regard to Thresholds (d), as discussed in the GP EIR development facilitated by the Approved General Plan Update would generate approximately 26,538 tons of solid waste per year. The GP EIR concluded that with implementation of regulatory requirements related to diversion as well as implementation of the policies set forth in the GP EIR related to diversion, composting and recycling, potential impacts related to solid waste would be less than significant. At the time the Specific Plan EIR was prepared, , any project which had a solid waste disposal rate in excess of 65 net TPY and a diversion rate of less than 25 percent was considered to have an individually significant adverse impact upon solid waste management systems in the County. Development of the Approved Specific Plan would generate

approximately 518 tons of solid waste per year. Therefore, the Specific Plan EIR concluded that impacts to solid waste would be significant and unavoidable even with implementation of mitigation measures.

With regard to Threshold (e), the solid waste generation anticipated from development facilitated by the Approved General Plan Update would represent less than one percent of the Simi Valley Landfill Recycling Center's (SVLCR) permitted weekly throughput and less than one percent of the remaining capacity of SVLCR. Development under the Approved General Plan Update would also comply with federal, State, and local statutes and regulations related to solid waste, including AB 939, AB 341, as well as all relevant policies contained in the Community Facilities and Services Element of the 2045 General Plan. Therefore, the GP EIR concluded that impacts related to consistency with applicable solid waste regulations would be less than significant.

Do Proposed Changes or New Circumstances Involve New Significant Impacts or Substantially More Severe Impacts?

The following analysis is based, in part, on the Amgen B50 Fire Flow Summary (Fire Flow Summary), prepared for the Modified Project by ARUP Laboratories, dated July 22, 2026 (included as Appendix M.1 of this Addendum), the VCFD Memorandum obtained through consultation with the VCFD dated June 12, 2026 (included as Appendix M.2 of this Addendum), the Utilities Infrastructure Memorandum—Proposed Water Demand & Wastewater Generation (Utilities Infrastructure Memo), prepared by AEI and dated May 23, 2026 (included as Appendix M.3), and the Amgen B50 Wastewater Capacity Memorandum (Wastewater Capacity Memo), prepared by Stantec Consulting Services Inc. and dated July 29, 2026 (included as Appendix M.4).

Threshold (a): The Modified Project would result in a less than significant impact with respect to water, wastewater treatment, stormwater drainage, energy resources, and telecommunications facilities, as discussed below and consistent with the conclusions set forth in the Certified EIRs.

Water

Cal Am provides water service for domestic and fire protection uses. With respect to domestic water demand, as discussed in the Utilities Infrastructure Memo, based on the proposed uses, the Modified Project would result in an average daily water demand of approximately 4,750 gpd. In addition, as the square footage and uses proposed as part of the Modified Project are already accounted for in the Specific Plan EIR, the Modified Project would not result in an increase in domestic water demand when compared with the Approved Specific Plan Project. While domestic water demand is typically the main contributor to water consumption, fire flow demands have a much greater instantaneous impact on infrastructure

and therefore are the primary means for analyzing infrastructure capacity. The Modified Project would be required to comply with all applicable federal, State, and local regulations governing the provision of fire protection services, including California Fire Code and VCFD Ordinance No. 34. The California Fire Code and VCFD Ordinance No. 34 contain requirements such as construction standards in new structures and remodels, road widths and configurations designed to accommodate the access for fire trucks and engines, and requirements for minimum fire flow rates for water mains, and hydrant spacing requirements. As provided in the Fire Flow Summary included in Appendix M.1 and the VCFD Memorandum included as Appendix M.2 of this Addendum, the required fire flow for the Modified Project has been set at 6,000 gallons per minute (gpm) with a residual pressure of 20 pounds per square inch (psi) for a duration of 4 hours. However, as the proposed Building 50 would include an automatic sprinkler system in accordance with California Fire Code Section 903.3.1.1, the minimum required fire flow for the Modified Project can be reduced to 1,500 gpm with a residual pressure of 20 psi for a duration of 2 hours. Further, as described in the Fire Flow Summary, two Fire Flow Verification Form 625 were tested by Cal Am to determine if the existing public water infrastructure could meet the demands of the Modified Project. The fire flow availability per Fire Flow Verification Form 625 for the two fire hydrants around the perimeter of the proposed Building 50 (one located at 2150 West Hillcrest Drive and one located at 2003 Oak Terrace Lane), illustrate existing adequate pressures are available for a fire flow of 9,406 gpm and 8,631 gpm with a residual pressure of 20 psi each.[59] As described above, fire flow demands have a much greater instantaneous impact on infrastructure and therefore are the primary means for analyzing infrastructure capacity. Therefore, through compliance with VCFD requirements, adequate fire flow would be provided to the Development Area to serve the Modified Project.

Wastewater Infrastructure

Wastewater conveyance and treatment facilities serving the Development Area are operated by the City of Thousand Oaks Utilities Department. Wastewater from the Development Area is conveyed by a system of interceptor lines to the HCTP. The HCTP provides tertiary treatment and discharges to the North Fork of the Arroyo Conejo. As discussed in the GP EIR, the current design treatment capacity of the HCTP is 14 mgd, but currently averages about 8 mgd.

As detailed in the Wastewater Capacity Memo, the estimated wastewater generation of the proposed Building 50 would be approximately 3,765 gpd (0.004 mgd). Together with the ATO Campus' existing wastewater flow of 412,373 gpd (0.412 mgd), the total wastewater flow would be approximately 416,138 gpd (0.416 mgd), which is well below the Contract No. 12065-

[59] The 2045 General Plan Update Mitigation Measure UTIL-1 provision of a Will Serve Letter is satisfied based on the adequate pressures available for fire flow demonstrated in the Fire Flow Verification Form 625 completed by Cal Am,

2019 Wastewater Service Charge agreement flow volume. In addition, as the square footage and uses proposed as part of the Modified Project are already accounted for in the Specific Plan EIR, the Modified Project would not result in an increase in wastewater generation when compared with the Approved Specific Plan Project. Accordingly, the Modified Project's wastewater generation would be adequately accommodated within the existing public sewer infrastructure.

Stormwater Drainage

As discussed above under Section 4.10, Hydrology and Water Quality, the Modified Project would reduce the amount of impervious surfaces on the Development Area. The resulting increase in pervious surface area would reduce stormwater runoff. The Modified Project would also be required to implement BMPs to further reduce runoff volumes and limit the discharge of pollutants. Specifically, the stormwater runoff flow would follow the Development Area's existing drainage patterns and would include biofiltration planters to meet LID requirements before connecting to offsite storm drains along Hillcrest Drive. Therefore, the Modified Project would not require or result in the relocation or construction of new or expanded stormwater drainage facilities, the construction or relocation of which could cause significant environmental effects.

Energy Infrastructure

As described in the GP EIR, development facilitated by the Modified Project would occur in a developed area surrounded by development served by existing electrical infrastructure. In addition, as the square footage and uses proposed as part of the Modified Project are already accounted for in the Specific Plan EIR, the Modified Project would not result in an increase in energy demand when compared with the Approved Specific Plan Project. The Development Area would generally have access to utility infrastructure and not require the installation of substantial electric or natural gas infrastructure to meet demands. Similar to electric and natural gas infrastructure, the Modified Project would not require new substantial telecommunications infrastructure to be constructed. Therefore, the Modified Project would not require or result in impacts to energy infrastructure and telecommunication facilities.

Based on the above, construction and operation of the Modified Project would not create any new significant impacts related to utility infrastructure including infrastructure related to water, wastewater, electricity, natural gas and telecommunications, nor would it result in a substantial increase in a previously identified significant impact. Such impacts would be within the scope of effects and within the impact envelope set forth in the Certified EIRs.

Threshold (b): Development of the Modified Project would result in an increase in long-term water demand for consumption, operational uses, maintenance, and other activities on the Development Area. As discussed above, based on the proposed uses, the Modified Project

would result in an average daily water demand of approximately 4,750 gpd. According to the City's 2025 Urban Water Management Plan (UWMP), the City projects that annual water demand within its service area will decrease from 8,600 acre feet per year (afy) in 2030 to 7,608 afy in 2050. Accordingly, the Modified Project's net increase in water demand would represent negligible percentages of current existing and projected future water demand the City has identified and planned supplies for in long-term planning efforts. Further, the Specific Plan permits up to 3,637,294 square feet of gross building area within the ATO Campus. Because approximately 2,842,196 square feet of gross building area currently exists within the ATO Campus, buildout of the Modified Project would result in a total of approximately 3,219,542 square feet of gross building area within the ATO Campus. This total would remain within the development capacity evaluated under the Specific Plan EIR. Therefore, the Modified Project is consistent with, and falls within, the growth assumptions and water demand analyzed in the Specific Plan EIR. Therefore, the Modified Project would not create any new significant impacts related to water supply nor result in a substantial increase in a previously identified significant impact. Such impacts would be within the scope of effects and within the impact envelope set forth in the Certified EIRs.

Threshold (c): As discussed above, the City uses the HCTP for wastewater treatment. The HCTP has a capacity to treat 14 mgd and currently treats an average of 8 mgd. As detailed in the Wastewater Capacity Memo, the estimated wastewater generation of the proposed Building 50 would be approximately 3,765 gpd (0.004 mgd). This is equal to less than one percent of the HCTP's capacity where the Modified Project's wastewater would be treated. Furthermore, as discussed above, when accounting for the ATO Campus's existing wastewater flow, the total wastewater flow would be well below the Contract No. 12065-2019 Wastewater Service Charge agreement flow volume. As such, the Modified Project would not result in a determination by the wastewater treatment provider that it does not have adequate capacity to serve the Modified Project in addition to the provider's existing commitments. Further, the Specific Plan permits up to 3,637,294 square feet of gross building area within the ATO Campus. Because approximately 2,842,196 square feet of gross building area currently exists within the ATO Campus, buildout of the Modified Project would result in a total of approximately 3,219,542 square feet of gross building area within the ATO Campus. This total would remain within the development capacity evaluated under the Specific Plan EIR. Therefore, the Modified Project is consistent with, and falls within, the growth assumptions and wastewater generation analyzed in the Specific Plan EIR. Therefore, the Modified Project would not create any new significant impacts related to wastewater nor result in a substantial increase in a previously identified significant impact. Such impacts would be within the scope of effects and within the impact envelope set forth in the Certified EIRs.

Threshold (d): Scheduled solid waste service in the City is managed through an exclusive franchise agreement with Athens Services. Athens Services utilizes Simi Valley Landfill and Recycling Center (SVLCR) and Calabasas landfill for trash disposal, the Sun Valley Materials Recovery Facility for Recycling and American Organics in Victorville for organic

waste. In addition to the exclusive franchise, the City holds limited franchise agreements with haulers, for temporary waste such as from construction and demolition.

Solid waste disposal for non-residential uses is calculated on a per capita basis, using disposal rates expressed as tons per employee per year.[60] As previously discussed, the Modified Project would not result in a net increase in employees across the ATO Campus. Rather, existing staff would be relocated from other buildings within the ATO Campus to the proposed uses. Because the proposed uses would be supported by the existing employee base and would not increase employment or the intensity of on-site operations, the Modified Project would not be expected to result in a substantial increase in solid waste generation. As such, solid waste generated during by the Modified Project would represent a small fraction of the SVLCR or Calabasas Landfill's remaining permitted capacity. In addition, the Specific Plan permits up to 3,637,294 square feet of gross building area within the ATO Campus. Because approximately 2,842,196 square feet of gross building area currently exists within the ATO Campus, buildout of the Modified Project would result in a total of approximately 3,219,542 square feet of gross building area within the ATO Campus. This total would remain within the development capacity evaluated under the Specific Plan EIR. Therefore, the Modified Project is consistent with, and falls within, the growth assumptions and solid waste generation analyzed in the Specific Plan EIR. Further, the Modified Project would implement Amgen Center Specific Plan Mitigation Measure U-5, and therefore, would be consistent with the policies and associated implementation actions contained in the Community Facilities and Services Element of the 2045 General Plan, including Policy 6.2 and Implementation Action CFS-A.6 by complying with applicable solid waste diversion requirements, including SB 1383.

Based on the above, the landfills that serve the Development Area would have sufficient permitted capacity to accommodate the solid waste that would be generated by the construction and operation of the Modified Project. Such impacts would be within the scope of effects and within the impact envelope set forth in the Certified EIRs.

Threshold (e): Solid waste management in the State is primarily guided by the California Integrated Waste Management Act of 1989 (AB 939), which emphasizes resource conservation through reduction, recycling, and reuse of solid waste. AB 939 establishes an integrated waste management hierarchy consisting of (in order of priority): (1) source reduction; (2) recycling and composting; and (3) environmentally safe transformation and land disposal. In addition, AB 1327 provided for the development of the California Solid Waste Reuse and Recycling Access Act of 1991, which requires the adoption of an ordinance by any local agency governing the provision of adequate areas for the collection and loading of recyclable materials in development projects. Furthermore, AB 341, which became effective on July 1, 2012, requires businesses and public entities that generate four cubic yards or more

[60] *CALRecycle, Disposal and Diversion Rates for Business Groups, www2.calrecycle.ca.gov/wastecharacterization/businessgrouprates, accessed August 14, 2026.*

of waste per week and multi-family dwellings with five or more units, to recycle. The purpose of AB 341 is to reduce greenhouse gas emissions by diverting commercial solid waste from landfills and expand opportunities for recycling in California. AB 1826 also requires businesses to recycle their organic waste and requires businesses that generate four cubic yards of organic waste per week to arrange for organic waste recycling services.

The Modified Project would also comply with AB 939, AB 341, and AB 1826 by providing clearly marked, source-sorted receptacles to facilitate recycling. The Modified Project would also comply with all applicable local regulations. Therefore, the Modified Project would not create any new significant impacts related to solid waste nor result in a substantial increase in a previously identified significant impact. Such impacts would be within the scope of effects and within the impact envelope set forth in the Certified EIRs.

Mitigation Measures Addressing Impact

The following mitigation measures set forth in the Certified EIRs and the associated MMRPs to address utilities and service systems impacts would be implemented as part of the Modified Project. No additional mitigation measures are required as no new significant utilities and service systems impacts would result from implementation of the Modified Project.

~~**2045 General Plan Update Mitigation Measure UTIL-1 Provision of a Will Serve Letter:** As part of the City's development review process for individual projects, prior to an individual project's approval, the City shall require the project applicant to provide a Will-Serve letter from the water provider that would serve the proposed development that demonstrates the water provider has determined adequate water supplies exist to serve the proposed development. The project applicant shall provide the Will-Serve letter as an attachment to the development applicant submitted to the City for review and approval. The City shall not approve a development application without submission of a Will-Serve letter.~~

[Fire Flow Verification Form 625 for the two fire hydrants around the perimeter of the proposed Building 50 illustrated adequate fire flow for the Modified Project and are included within Appendix M.1 to this Addendum, Therefore this mitigation measure for the Modified Project has been satisfied.]

~~**Amgen Center Specific Plan Mitigation Measure U-1 Onsite Water Recycling:** The City has indicated that it may require AMGEN to recycle waste water generated from the manufacturing process as a means of reducing water demand.[61] In anticipation of the City making this request, the following is recommended:~~

[61] *PSOMAS and Associates, 1993.*

- ~~If feasible, the applicant should plan for the storage of water in tanks within the Specific Plan area, as suggested in the 1993 PSOMAS and Associates Preliminary Infrastructure Report of the AMGEN Master Plan. The water stored in these tanks would be used for irrigation purposes.~~

[This mitigation measure is not applicable to the Modified Project.]

Amgen Center Specific Plan Mitigation Measure U-2 Ground Water Plan: AMGEN shall ~~should~~ cooperate with the City of Thousand Oaks in planning for the use of local ground water resources for landscaping and other uses through the City's permitting process which incorporates compliance with State requirements relative to groundwater.

~~**Amgen Center Specific Plan Mitigation Measure U-3 Infrastructure Improvements:** Implement infrastructure improvements indicated in Section 4.12.1.2.~~

[This mitigation measure is not applicable to the Modified Project. The Modified Project would implement all water main connections in accordance with City requirements and no new water mains are required].

Amgen Center Specific Plan Mitigation Measure U-4 AB 939 Compliance: AMGEN shall participate in any waste reduction, recycling, composting, or funding programs or policies implemented by the County and/or the City to achieve compliance with AB 939.

~~**Amgen Center Specific Plan Mitigation Measure U-5 Solid Waste Master Plan:** A master plan for recycling of solid waste shall be prepared in conjunction with the City' s solid waste coordinator.~~

[This mitigation measure is not applicable to the Modified Project as the Applicant has an existing Primary Solid Waste, Recycling and Organics Diversion Plan.]

~~**Amgen Center Specific Plan Mitigation Measure U-6 Waste Reduction Coordinator:** The applicant shall designate an on-site waste reduction coordinator to work with the City of Thousand Oaks Utilities Department in reducing waste generated by the proposed project.~~

[This mitigation measure is not applicable to the Modified Project.]

~~**Amgen Center Specific Plan Mitigation Measure U-7 Presort Recyclables:** The applicant shall pre- sort recyclable waste materials for collection.~~

[This mitigation measure is not applicable to the Modified Project.]

Amgen Center Specific Plan Mitigation Measure U-8 Recycling Construction-Related Waste Materials: The applicant shall maximize recycling efforts to reduce construction-generated solid waste. Such measures shall include the recycling of wood and metals and the grinding of inert materials for reuse and/or transportation to offsite recycling facilities.

~~**Amgen Center Specific Plan Mitigation Measure U-9 Waste Diversion Targets:** The applicant shall conduct annual surveys of onsite waste generation and~~

~~diversion from 1994 through 2010, using City -approved survey methods. If these surveys do not indicate at least a 25 percent diversion rate after 1995 and a 50 percent diversion rate after 2000, the applicant shall implement additional waste diversion measures, as directed by the City, to reach these diversion targets.~~

[This mitigation measure is not applicable to the Modified Project.]

Conclusion

Based on the above, no new significant utilities and service systems impacts or a substantial increase in previously identified utilities and service systems impacts would occur as a result of the Modified Project. Thus, the potential environmental impacts of the Modified Project with regard to utilities and service systems would not result in any of the conditions set forth in PRC Section 21166(c) or CEQA Guidelines Sections 15162 or 15163 that would require the preparation of a Supplemental or Subsequent EIR.

4.20 WILDFIRE

Issues (and Supporting Information Sources)	Was the Impact Analyzed in the Certified EIR?[62]	Impact Determination in the Certified EIR	Do Proposed Changes or New Circumstances Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Certified EIR Mitigation Measures Addressing Impact
WILDFIRE: If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:					
a. Substantially impair an adopted emergency response plan or emergency evacuation plan?	Yes	Less than Significant	No	No	No
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?	Yes	Less than Significant	No	No	No
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?	Yes	Less than Significant	No	No	No
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?	Yes	Less than Significant	No	No	No

Impacts Analyzed in the Certified EIR

Impacts related to Wildfire were discussed in Section 4.13, Wildfire, of the GP EIR.

Impact Determination in the Certified EIR

With regard to Threshold (a), the GP EIR found that impacts related to impairing an adopted emergency response plan or emergency evacuation plan would be less than significant as development facilitated by the Approved General Plan Update would be reviewed by the City and VCFD to ensure compliance with road standards and adequate emergency access and that development would not interfere with evacuation routes or impede the effectiveness of evacuation plans.

With regard to Threshold (b), as discussed in the GP EIR, compliance with State and federal regulations, VCFD requirements and recommendations, and the 2045 General Plan's

[62] *Thresholds (a) through (d) were not specifically addressed in the Amgen Center Specific Plan EIR as this topic was not included as part of the Appendix G Environmental Checklist Form at the time of the preparation of the Amgen Center Specific Plan EIR.*

goals, policies, and associated implementation actions would ensure that development facilitated by the Approved General Plan Update would not exacerbate wildfire risk due to slope or prevailing winds which could expose occupants to substantial pollutant concentrations or the uncontrolled spread of a wildfire. Therefore, the GP EIR found that impacts would be less than significant.

With regard to Threshold (c), the GP EIR found that impacts related to wildfire prevention infrastructure would be less than significant as development facilitated by the Approved General Plan Update would comply with applicable policies of the 2045 General Plan and require minimal additional utility infrastructure.

With regard to Threshold (d), as discussed in the GP EIR, development associated with the Approved General Plan Update would primarily occur in urbanized areas of the City that are flat and away from hillsides. In addition, development facilitated by the Approved General Plan Update would also incorporate wildfire resiliency measures into new and existing development, thereby reducing the potential for wildfire ignition and spread. Furthermore, development would be required to implement BMPs to minimize stormwater flows which would minimize adverse impacts of flooding following a wildfire. Therefore, the GP EIR found that impacts related to post-fire flooding or landslides would be less than significant.

Do Proposed Changes or New Circumstances Involve New Significant Impacts or Substantially More Severe Impacts?

Thresholds (a) through (d): Pursuant to Government Code Government Code 51178, the State Fire Marshal is mandated to classify lands into FHSZ. Fire Hazard Severity Zones fall into one of the following classifications: moderate, high, and very high. FHSZ maps are developed using a science-based and field-tested model that assigns a hazard score based on the factors that influence fire likelihood and fire behavior. Many factors are considered, such as fire history, existing and potential fuel (natural vegetation), predicted flame length, blowing embers, terrain, and typical fire weather for the area. The Development Area is located in an urbanized area and there are no wildlands or heavily vegetated areas in proximity to the Development Area. Although the northeastern portion of the ATO Campus is located within a Moderate FHSZ, the Development Area is not located within a City or State designated FHSZ.[63,64,65]

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[63] *City of Thousand Oaks General Plan, Chapter 10 Safety, Figure 10.6, Fire Hazard Severity Zones, p. 205.*

[64] *City of Thousand Oaks General Plan, Chapter 10 Safety, Figure 10.7, Public Facilities and Fire Hazard Severity Zones, p. 206.*

[65] *CALFIRE, Fire Hazards Severity Zones, 701 Pauling Drive, Thousand Oaks, California 91320, https:// osfm.fire.ca.gov/what-we-do/community-wildfire-preparedness-and-mitigation/fire-hazard-severity-zones, accessed August 6, 2026.*

Based on the above, the Modified Project would not result in impacts related to impairing an adopted emergency response plan or emergency evaluation plan within a wildfire area; exacerbate wildfire risks; require improvements that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment; or expose people or structures to significant risks a result of runoff, post-fire slope instability, or drainage changes. Impacts would be less than significant, and no mitigation measures are required. Such impacts would be within the scope of effects and within the impact envelope set forth in the GP EIR.

Mitigation Measures Addressing Impact

None.

Conclusion

Based on the above, no new significant impacts to wildfire or a substantial increase in previously identified wildfire impacts would occur as a result of the Modified Project. Thus, the potential environmental impacts of the Modified Project with regard to wildfire would not result in any of the conditions set forth in PRC Section 21166(c) or CEQA Guidelines Sections 15162 or 15163 that would require the preparation of a Supplemental or Subsequent EIR.

4.21 MANDATORY FINDINGS OF SIGNIFICANCE

Issues (and Supporting Information Sources)	Was the Impact Analyzed in the Certified EIR?	Impact Determination in the Certified EIR	Do Proposed Changes or New Circumstances Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Certified EIR Mitigation Measures Addressing Impact
MANDATORY FINDINGS OF SIGNIFICANCE:					
(a) Does the project have the potential to 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, 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?	Yes	Significant and Unavoidable	No	No	Yes
(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 view in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	Yes	Significant and Unavoidable	No	No	Yes

Issues (and Supporting Information Sources)	Was the Impact Analyzed in the Certified EIR?	Impact Determination in the Certified EIR	Do Proposed Changes or New Circumstances Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Certified EIR Mitigation Measures Addressing Impact
(c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	Yes	Significant and Unavoidable	No	No	Yes

Impacts Determination in the Certified EIRs

The environmental issues addressed in the Mandatory Findings of Significance were analyzed in a combination of the Initial Study and the Draft EIR of the Certified EIRs.

As summarized above, the GP EIR determined that implementation of the Approved General Plan Update would result in significant and unavoidable project-level and cumulative impacts with respect to air quality, cultural resources (historic resources), greenhouse gas emissions, transportation, and noise. The Specific Plan EIR determined that implementation of the Approved Specific Plan would result in significant and unavoidable project-level and cumulative impacts with respect to noise and solid waste. Implementation of the mitigation measures identified in the Certified EIRs would reduce some of these impacts, but not to less-than-significant levels. As such, the significant impacts of the Approved General Plan Update and Approved Specific Plan would have the potential to degrade the quality of the environment, cause cumulatively considerable impacts, and result in environmental effects which would cause substantial adverse effects on human beings.

Do Proposed Changes or New Circumstances Involve New Significant Impacts or Substantially More Severe Impacts?

Thresholds (a) through (c): As demonstrated by the analyses above, the Modified Project would not result in any new significant impacts or substantially increase the severity of impacts compared to either of the Certified EIRs analyses. As such, the Modified Project's would be within the scope of effects and within the impact envelope set forth in the Certified EIRs.

5 CONCLUSION

As demonstrated by the discussion above, impacts associated with the Modified Project would be similar to or less than the impacts addressed in the Certified EIRs. No substantial changes would occur with respect to the circumstances under which the Modified Project is undertaken that will require major revisions of the Certified EIRs due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects. In addition, no new information of substantial importance has become available relative to any of the environmental topic categories that would result in in new or more severe significant environmental impacts. In addition, the applicable mitigation measures included as part of the Certified EIRs would continue to be implemented under the Modified Project. As all of the impacts of the Modified Project would be within the scope of effects and within the impact envelope set forth in the Certified EIRs, none of the conditions described in PRC Section 21166 and CEQA Guidelines Sections 15162 and 15163 requiring a Supplemental or Subsequent EIR would occur. Additionally, there are no known mitigation measures or Project alternatives that were previously considered infeasible but are now considered feasible that would substantially reduce one or more significant effects on the environment identified in the Certified EIRs. As such, the preparation of an addendum that amends the Project Description in the Certified EIRs to include the Modified Project is appropriate and fully complies with the requirements of PRC Section 21166 and CEQA Guidelines Sections 15162, 15163, and 15164.

Appendices

Appendix A

Amgen Center Specific Plan (SP-16) Amendment

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	in Chapter 5, Article 2 of the Specific Plan.
Director.	Director of Planning and Community Development for the City of Thousand Oaks, California.
Driveway:	An opening which intersects a public roadway or Internal Roadway, if of relatively short length, and provides the most direct access to a parking facility.
EIR:	Environmental Impact Report No. 295 as certified by the City of Thousand Oaks on March 1, 1994.
Entitlement Zone:	A zone within the Specific Plan area for which a particular permitting procedure is specified by the Specific Plan, as provided in Chapter 7, Article 5 of the Specific Plan.
Equivalency Table:	The schedule of vehicular trips resulting from various types of land uses within the Specific Plan area, shown as Exhibit 5.0, page 114.
Gross Floor Area : (Gross Square Feet)	The sum of the gross horizontal planes of the floors of a Building measured from the exterior face of exterior walls, or from the centerline of a wall separating two Buildings, but not including areas below grade, interior parking spaces, vehicular circulation areas, or loading space for motor vehicles.
Individual Project	A Physical Improvement commenced following the effective date of the Specific Plan.
Internal Roadway:	A private roadway which is completely contained within the Specific Plan area and does not intersect with any roadway outside the Specific Plan area, as substantially depicted in Exhibit 4.B, page 24.
Land Use District	A district within the Specific Plan area for which specified land uses are planned as provided in Chapter 4, Article 2 of the Specific Plan.
Major Access:	A portion of an Internal Roadway within the Specific Plan area which is at least 35 feet (35') wide and intersects with a public

notion of creating usable Open Space and is the foundation for the development of the Specific Plan area into a campus-like environment.

Section 4203. CIRCULATION AND PARKING CONSOLIDATION.

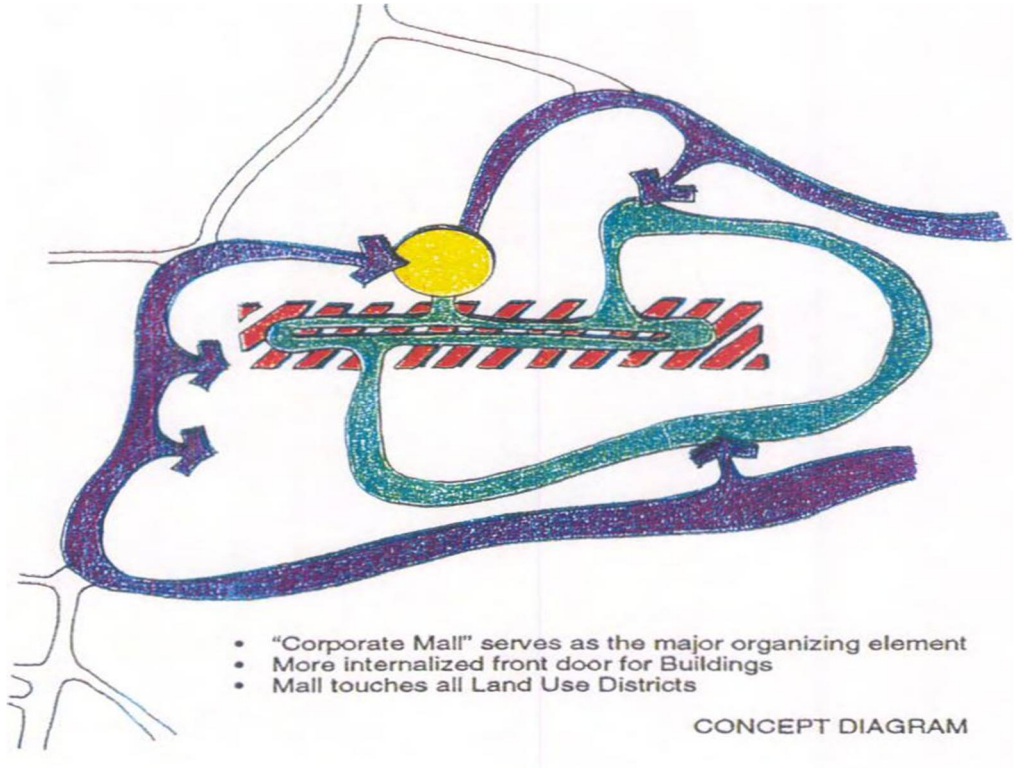
Another important organizing element for the Specific Plan area is the circulation system. It is based upon the concept of consolidating parking in structures around the perimeter of the Specific Plan area and linking the Land Use Districts via an interior private loop roadway for service, pedestrian and limited vehicular access. Major vehicular access to the Specific Plan area is from the existing peripheral public street network. This takes advantage of the existing capacity and efficiency of the public street system in accessing the Specific Plan area. The main entry to the Specific Plan area is located on Pauling Drive adjacent to the Office Land Use District, which accounts for the largest number of visitors to the Specific Plan area.

The consolidation of parking into structures is key to the conversion of the Specific Plan area from an industrial park dominated by the car to the campus-like, pedestrian oriented environment envisioned by the Specific Plan. The consolidation frees up land area for the development of Open Space as well as additional development sites within each Land Use District. The strategic location of the parking facilities allows easy access for cars from the public street system as well as convenient access for pedestrians and bicyclists to the internal circulation system and individual Buildings within the Specific Plan area. (See Exhibits 4.B and 4.C, page 24 and page 25.)

Section 4204. HEIGHT DISTRICTS.

In order to accommodate Amgen's program requirements for projected long-term growth within the Specific Plan area, while creating and preserving the nature and quality of the campus-like environment (with a minimum of 50 percent (50%) Open Space), and in conformance with the City's 2045 General Plan Update regarding heights of industrial buildings, the Amgen campus has two Height Districts ~~have been created~~ that exceed ~~the City's current~~ 35 ~~foot~~ feet (35') ~~height limit~~. The Height Districts proposed for the Specific Plan area include Height District 1, which will have a ~~to preserve the City's current~~ 35 foot (35') building height limit

and consists of the Specific Plan area ~~adjacent to residential areas~~north of Ventu Park Road; and Height Districts 2 and 3~~, not to exceed 55 feet (55') for portions of the Specific Plan area adjacent to other existing industrial development; and Height District 3~~, not to exceed 75 feet (75') in height~~the interior of the Office Land Use District adjacent to the main entrance~~, which covers the balance of the Specific Plan Area. The Height Districts follow the heights districts in the City's General Plan ~~are located in a manner that is sensitive to the adjacent residential neighborhoods, minimizes the impact of taller Buildings on view sheds from adjoining areas, and concentrates the greatest density within the Office Land Use District, which accounts for the greatest anticipated program growth. This additional height also helps define the Amgen corporate address and visitor entry. (See Exhibit 5.L, page 57.)~~



(f) The location of parking structures at the periphery and the number of vehicles accommodated at each structure determine the maximum allowable building space and use within specific Development Envelopes.

Section 5.203. STANDARDS.

(a) Buildings may span adjacent Specific Plan Development Envelopes and encroach in a limited manner into Major Open Spaces, provided all other limitations of the Specific Plan are met, including cumulative Open Space and Major Open Space requirements. Allowable building area for the combined Development Envelopes will be calculated based upon the envelope boundaries for the combined Site.

(b) Transfer of building area is allowed between Development Envelopes, as well as between Development Envelopes and Major Open Spaces, provided all other limitations of the Specific Plan are met, i.e., allowable square footage, cumulative Open Space, applicable building setbacks, building heights and proximity of parking. Provided, however, that building uses or square footage changes shall not cause a net increase in projected total Net New Trips in excess of 1,638 AM Peak Hour Trips or 1,375 PM Peak Hour Trips.

(c) Parking may be provided directly below a Building in any Development Envelope~~, provided the overall parking distribution is balanced throughout the Specific Plan area~~.

(d) Major Open Spaces identified in the Specific Plan do not reflect exact locations within Development Envelopes, but rather that a Major Open Space will occur within the Land Use District (see Exhibit 4.A, page 23). Development of these Major Open Spaces will correspond to building development occurring within each phase of the Specific Plan area. At Buildout, the Major Open Spaces shall comprise approximately 427,590 square feet of area, as set forth in Exhibit 5.B, page 45.

the Specific Plan and separations required by the Specific Plan. Setbacks only restrict the above grade portion of any Building. (See Exhibit 5.D, page 51.)

(i) Setbacks from Public Streets.
No Building shall be located less than 100 feet (100') from the center line of any public road, street or highway, unless otherwise approved in conjunction with the associated development permit.

(ii) Setbacks at Private Roadways
(See Exhibit 5.E, page 52.)
No Building shall be located less than 20 feet (20') from the edge of a private roadway.

(iii) Setbacks adjacent to Major Open Spaces
(See Exhibit 5.F, page 52.)
No Building setback is required along a Major Open Space.

(iv) Setbacks adjacent to Residential Areas
No Building shall be located less than 50 feet (50') from the common property line with residential properties.

(b) Distance between Buildings:
The distance between Buildings shall be specified by the applicable Development Permit or Special Use Permit. In no case shall that distance be less than 20 feet (20'). (See Exhibit 5.G, page 52.) However, if approved in conjunction with a Development Permit or Special Use Permit application, new Physical Improvements may be physically connected to existing Buildings subject to compliance with the applicable adopted building and fire codes in effect at the time of application.

(c) In-fill Construction between Existing Buildings:
At infill situations between existing Buildings, the new construction can abut an existing structure provided all other requirements of the Thousand Oaks Municipal Code are met.

Article 4. HEIGHT DISTRICTS

Section 5.401. INTENT.

The intent of the Height Districts is to create height limitations for the Buildings within the Specific Plan area that are ~~sensitive to the adjacent residential neighborhoods, relate to the scale and massing of the existing Buildings, and accommodate future development within the Specific Plan area~~consistent with the City's General Plan. This should be done while preserving the character of the environment and allowing the development of a campus-like environment. ~~Areas of additional height are also required where the highest density of use occurs, as in the Office Land Use District and adjacent to the main entrance for visitor convenience.~~

Section 5.402. PRINCIPLES.

(a) Areas of additional height will allow the Specific Plan area to accommodate the proposed program density at Buildout.

(b) Height Districts will allow this density to be achieved while achieving a maximum of 50 percent (50%) building coverage at Buildout.

~~**(c) The tallest Buildings will be concentrated at the interior of the Specific Plan area, farthest from the residential areas, and create a focal point at the center of the Specific Plan area near the main entrance.**~~

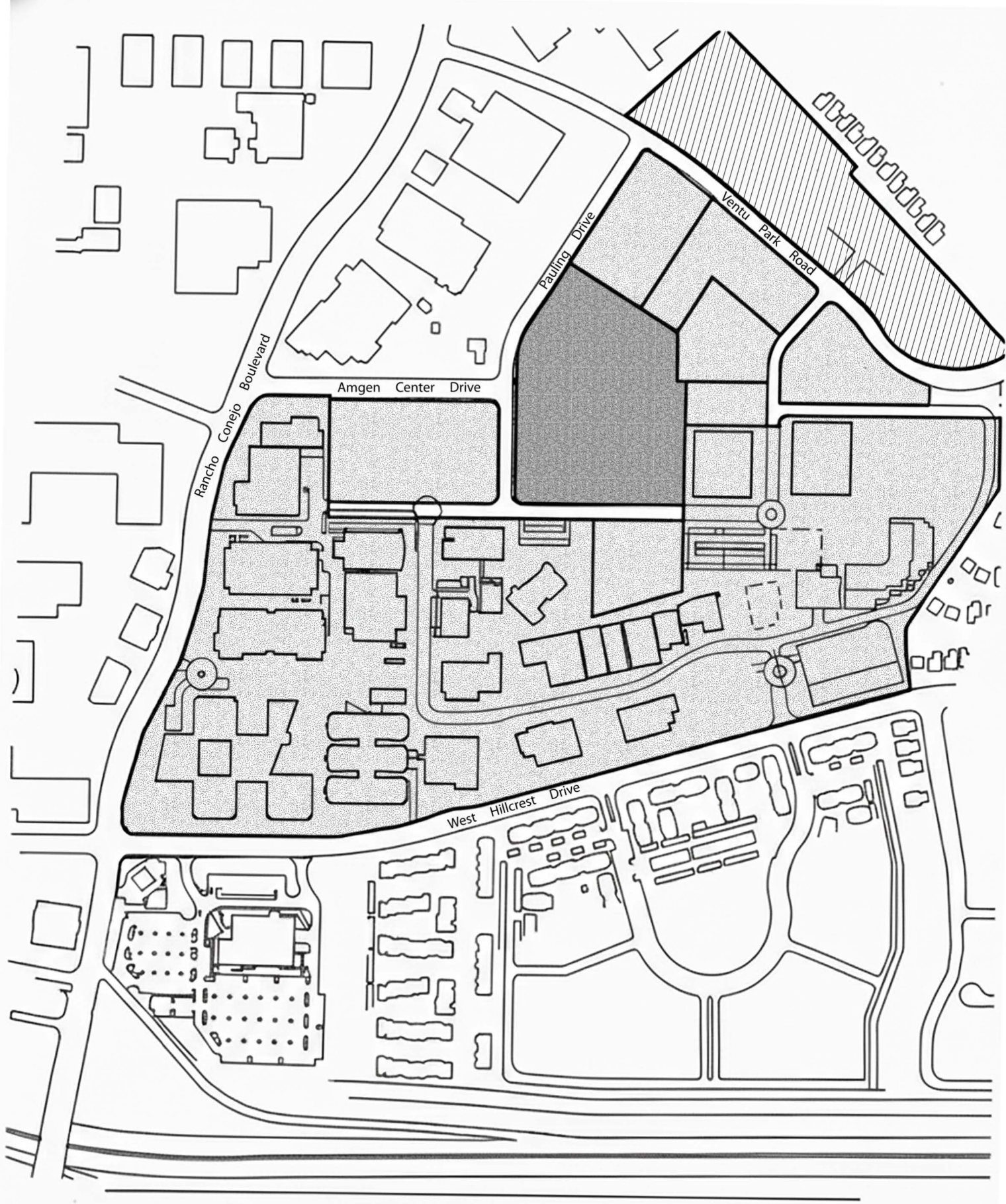
~~**Additional height in the Office Land Use District will accommodate greater efficiency for office Buildings, typically designed and occupied at a lower square foot per person ratio.**~~

Section 5.403. STANDARDS.
(See Exhibit 5.L , page 57.)

(a) Height District 1 (Not to exceed 35 feet [35']):
Height District 1 includes the portion of the Specific Plan Area north of Ventu Park Road and has a ~~is located to preserve the~~ 35 foot (35') building height limit ~~adjacent to the residential areas to the east and south (Running Springs, Mirabella Apartments, Amberwood Townhouses, Las Casitas, Rancho Conejo, and Casa Oaks Apartments) and with the boundary of Rancho Conejo Boulevard, which is a gateway for the City~~.

(b) Height Districts 2 and 3 (Not to exceed ~~four~~ five stories above grade or ~~55~~ 75 feet [~~55'~~75']):
Height Districts 2 and 3 permit a maximum height of 75', consistent with the City's General Plan~~provides for greater height within the portions of the Specific Plan area adjacent to other industrial development along Camino Dos Rios and DeHavilland Drive to the north~~.

~~Height District 3 (Not to exceed five stories or 75 feet [75']):~~
~~Height District 3 creates a limited area to accommodate a zone of additional height at the interior of the Specific Plan area, adjacent to the main entrance for visitor convenience, and concentrates the highest density uses of the Office Land Use District~~



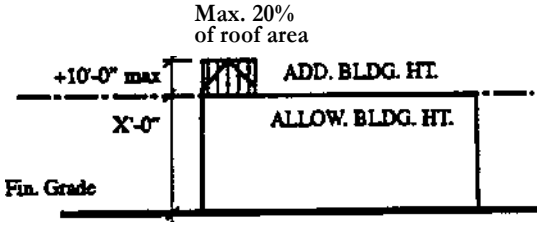
HEIGHT DISTRICTS
Exhibit 5.L Page 57

Specific Plan # 16 Amgen Center

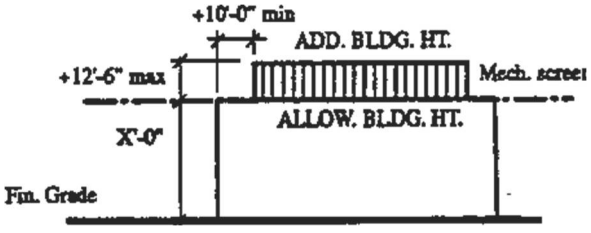
Section 5.406. ALLOWABLE INCREASES.

(a) Non-occupiable architectural features may exceed the calculated building height (as calculated in Section 5.405 (a), page 59) up to a maximum of 10'-0", provided they do not exceed 20 percent (20%) of the total roof area.

(b) Any rooftop mechanical rooms and/or equipment (including screening and solar panels) extending above the building parapet may exceed the calculated building height up to a maximum of 12'-6", but must be set back from the Building Face a minimum of 10'0" and the equipment must be screened from public street view in a manner that is consistent with adjacent exterior building design and materials. In addition, cooling towers may exceed the mechanical screen by up to 5'-0" and, where required to meet applicable building code or health and safety requirements, exhaust stacks may exceed the mechanical screen by up to 14'-6"; provided, however, that exhaust stacks should be designed to minimize visibility to the extent practicable. Further, in order to provide access to rooftop areas, elevator shafts may exceed building heights by up to 20'-0".



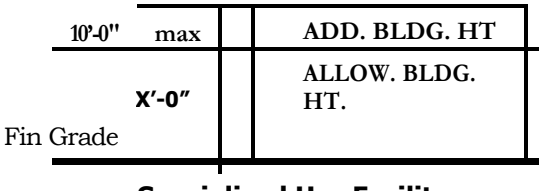
Architectural Features



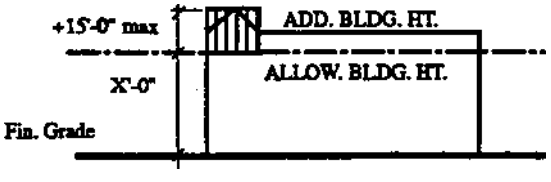
Mechanical Screens

(c) Allowable building height may be increased an additional 10'-0" for Specialized Use Facilities that require additional floor-to-floor heights. Specialized Use Facilities in Height District 2 and 3(75') will not be eligible for this additional 10'-0".

(d) Except as expressly provided for the specified equipment in subsection (b), above, aAt no time shall any cumulative total of allowable increases in height exceed 15'-0" above the established allowable height limit in the Height District.



Specialized Use Facility



Cumulative Height

Section 5.503. STANDARDS.

(a) ~~Step Backs~~Omitted:

(i) ~~Step Backs are required for Height Districts 2 and 3, where a Building abuts a public street, private roadway, or Major Open Space and is taller than two stories. In such cases, the Building shall step back a minimum of 5'-0" directly above the second floor (see Exhibit 5.M, page 65).~~

(ii) ~~Step Backs are not required at interior courtyards of such Buildings.~~

(iii) ~~Articulation of building walls shall be provided in all Height Districts.~~

(b) Materials and Finishes:

Exterior materials and colors shall be selected to maintain compatibility with other Buildings in the Specific Plan area, while allowing for variety among Individual Projects.

(i) Exterior Finish Materials

(1). Materials used for the exterior of Buildings, including mechanical equipment screening, shall be selected from the cementaceous family of materials (i.e., masonry, stone, exterior plaster, etc.).

(2). Textured wall surfaces, reveals, etc. shall be used to provide interest.

(Ii) Exterior Colors

(1). The colors selected for the exterior of a Building shall not exceed three (3) colors, one (1) base color and two (2) secondary colors.

(2). Base colors shall be in the family of earth tones and cool grey tones.

(3). Secondary colors shall complement the base color.

(4). Colors selected for new construction shall complement the colors of adjacent existing Buildings that are intended to remain throughout the

approval of the City Traffic Engineer.

Should the gated access point interfere with the safe operation of traffic along the adjacent street at any time, the City Traffic Engineer can require that the gate be removed or modified to alleviate any interference within a period of 24 hours. All costs associated with removal or modification of the gate will be borne by the developer.

(k) DeHavilland Drive Alignment

As part of the realignment of Camino Dos Rios to DeHavilland Drive as depicted on Tentative Tract 4939, the developer shall complete the following improvements to the satisfaction of the Director of Public Works:

(1) Provide necessary signing and striping to restrict parking on DeHavilland Drive from Camino Dos Rios to Rancho Conejo Boulevard and restripe to provide two travel lanes, bike lanes and a two-way left-turn lane; and

(2) Extend the sidewalks on DeHavilland Drive from Camino Dos Rios to Pauling Drive.

Article 10. PARKING SUPPLY

Section 5.1001. INTENT.

Vehicular parking should be located within the Specific Plan area in such a manner as to minimize internal traffic as well as walking distances for employees and visitors. ~~The parking supply should be balanced and distributed between Land Use Districts, and should correspond to the size and uses of development within each Land Use District.~~ The appropriate amount of parking should be provided without encouraging single occupant vehicles.

Section 5.1002. PRINCIPLES.

(a) Parking should be located at the perimeter of the Specific Plan area adjacent to public streets.

(b) Parking should be consolidated into higher density structures near the Buildings they serve.

(c) Adequate parking should be provided to meet Specific Plan area demand with parking ratios being permitted to be adjusted to reflect reductions due to the Transportation Demand Management program for the Specific Plan area.

(d) Parking structures should provide convenient access without disruption to the street system of the City and should be located so as to balance the load on the street system to the extent feasible.

Section 5.1003. STANDARDS.

(a) Parking for existing Specific Plan area and net new development in the Specific Plan area through December 31, 1996, shall be provided at the following minimum parking ratios:

Office:	2.54 spaces per 1000 Gross Square Feet
Research:	1.14 spaces per 1000 Gross Square Feet
Manufacturing:	0.78 spaces per 1000 Gross Square Feet
Warehouse:	0.26 spaces per 1000 Gross Square Feet
Common Uses:	1.11 spaces per 1000 Gross Square Feet

Research, Manufacturing, Warehouse and Common Uses include the ancillary office space necessary to support the primary use within that Building. For Buildings with a mix of uses the allowable parking will be calculated using the ratios for each use. No parking need be provided for Building shafts, loading areas, restroom facilities, and Building system support areas (e.g., mechanical, electrical, plumbing, and computer server rooms).

Parking for uses within the Specific Plan area which are not

included in the above categories shall be provided according to the Zoning Ordinance.

(b) Following January 1, 1997, parking reductions or increases from the above rates may be applied for, based upon studies of actual parking demand. The revised rates shall apply to all then-existing development and all subsequent development. Additional applications for parking ratio adjustments may be filed should subsequent studies show further reductions or increases in demand. Such a reduction shall be considered a Minor Modification and processed subject to the provisions of Section 7.302.

(c) At least 60 percent (60%) of the total parking spaces required in the Specific Plan area shall be provided as standard size (i.e., not compact) parking spaces.

(d) Within one (1) year of the effective date of the Specific Plan Ordinance, at least 10 percent (10%) of all parking spaces in each Land Use District shall be marked for the exclusive use of vanpools and/or carpools. (These Land Use Districts are shown on Exhibit 4.A, page 23.) The number of such designated spaces shall be increased to meet actual Site demand should it exceed 10 percent (10%) of total spaces.

~~(e) Not less than 50 percent (50%) of the parking demand calculated to be within each Land Use District shall be met by spaces provided within that Land Use District, except that this provision shall not apply to the Common Use District.~~

~~(f) Sufficient total Specific Plan area parking shall be provided prior to the issuance of a Certificate of Occupancy for each Individual Project. Any parking required to be added to the Specific Plan area as part of an Individual Project shall be located in the same Land Use District as the Individual Project or within 700 feet (700') of the Building, measured from the nearest point of the Parcel.~~

		Condition/ Calculation	Conformance		Notes
			Yes	No	
Article 5	Architectural Design				
5.503	~~Step Bads~~ Omitted				
	Materials and Finishes				
	Exterior Finish Materials				
	Exterior Colors				
	Base Colors				
	Secondary Colors				
	Glazing				
	Accent Materials				
Article 6	Landscape and Open Space				
5.602	Major Open Space				
	Design Standards				
5.603	Major Corridors / Connectors				
	Design Standards				
5.604	Small Scale Open Spaces				
	Design Standards				
5.605	Secondary Connectors / Pathways				
	Design Standards				
5.606	Open Edges / Perimeters				
	Design Standards				
5.607	Site Entrances				
	Design Standards				
5.608	Buffer/ Screen Edges				
	Design Standards				
5.609	Water Conservation				
Article 7	Exterior Lightning				
5.703	Street Lighting				
	Site Lighting				
	Parking Area Lighting				
	Architectural Lighting				
	Service Area Lighting				
Article 8	Signages				
5.803	Site Entry/ Identification Signs				
	Building identification				
	On-Site Directional Signs				
Article 9	TRAFFIC MITIGATION				
5.903	Individual Project "resulting trips'				
	Cumulative Project 'resulting trips'				
5.10O3	Number of standard size parking spaces				
	Percentage of standard size parking spaces				
	Number of carpool / *yenned parking* spaces				
	Percentage of carpool / vanpool patting spaces				
	Percentage of parking within Land Use District				
	Distance of parking to building				
Article 11	Access and Internal Circulation				
5.1103	Major Access Roadway dimensions				
	Internal Roadway minimum lane width				
	Driveway minimum width				
Article 12	Transportation Demand Management				

Appendix B

Oak Tree Report

OAK TREE REPORT

Amgen Project ATO B50

PTP 2026-70113

RDI Project No. 371-19-25

This existing commercial project is located at the address of 701 Pauline Dr. within the Newbury Park area of Thousand Oaks, Ca.

This report is prepared in accordance with the Thousand Oaks Municipal Code (Title 9, Chapter 4, Article 42) relating to the "Oak Tree Preservation & Protection Guidelines (Resolution 2010-14)". Oak trees within the city of Thousand Oaks are recognized as significant historical, aesthetic & valuable ecological resources. It is the intent of the Oak Tree Ordinance to preserve & maintain healthy Oak trees in the development of the community. Unless allowed by an Oak Tree Permit, no person shall cut, remove, encroach into the Protected Zone or relocate any Oak tree of the Quercus genus that is at least 2" in diameter when measured at 4½' above natural grade. The status of dead limbs or trees must be confirmed by the city's own Oak Tree Preservation Consultant.

Included within this Report is the following:

1. This text;
   - Field Inspection Dates — Page 1
   - Field Observations — Pages 1 & 2
   - Plan Review — Pages 2 & 3
   - Specific & Overall Recommendations — Page 3
   - Notice of Disclaimer & Signature — Page 3

2. One [1] **TREE EVALUATIONS** sheet;

3. Seven [7] **TREE PHOTOGRAPS** (proposed Removal & Saved trees) sheets;

4. And, one [1] **TREE LOCATION MAP**; derived from the '30 scale' "Grading Plan (Drawing No. 50-C-33604-001)", as produced by Stantec, dated August 26, 2026. It should be noted that the Oak trees on the enclosed **TREE LOCATION MAP** were field surveyed by Stantec as to their current locations.

Field Inspection Dates

1. Our field reviews were made on July 15 & 23, 2025; and July 23, 2026.

Field Observations

1. On the dates of our field reviews we found seven [7] "protected" trees on & adjacent to the site, this included: two [2] Western Sycamore (*Platanus racemosa*) trees {tagged: B29-3 & B29-4} & five [5] Coast Live Oak (*Quercus agrifolia*) trees {tagged: B29-1, B29-2, B29-5 to B29-7}. It should be noted that all of these "protected" trees were planted in their current locations as part of the overall landscape of the Amgen campus. It should also be noted that the Sycamore trees are considered as Landmark trees and are not impacted from the construction of this project.

2. The trees are inventoried as to their specie, health & aesthetic considerations. This inventory was reviewed in accordance with presently accepted industry procedures, which are of macro-visual

observations only. No extensive microbiological, soil-root excavations, upper crown examination, nor internal tree investigations were conducted.

3. The inventoried Protected trees had their trunks measured in "diameter" inches at four & one-half [4½] feet above existing grade. (It should be noted that if a decimal point is found within a "trunk diameter measurement", that measurement was taken with a "diameter tape". "Whole number diameter measurements" were taken with a "regular tape measure".) It should also be noted that these dimensions might change in the next growing season(s) following our initial field measurements.

4. This project's on-property trees were tagged with a round (1¼" or 1½") metal tag with a number stamped into it.

Plan Review

1. Pursuant to the enclosed **TREE LOCATION MAP**, the following is proposed:

Tree No(s).	Proposed Disposition(s)
B29-1 & B29-2	**REMOVALS** - these two [2] Coast Live Oaks shall be removed as part of this project. The existing drive, has been widened to provide sufficient space for truck movements at the proposed loading dock. On the easterly side of the driveway per VCFD requirements, the proposed building will require a new fire department water connection, which will require a trenching & installation of the proposed fire protection water line & backflow preventer within that area. The landscape on the south requires grading to provide berming & to create a landscape buffer as indicated in **Specific Plan - Section 5.608**. See photographs of these 2 Coast Live Oak trees within this report.
B29-3 & B29-4	**SAVES** - these two [2] Western Sycamores (aka: Landmark trees) are covered within "Amgen's Fire Resilience Project". See photographs of these 2 Sycamore trees within this report.
B29-5 & B29-6	**REMOVALS** - these two [2] Coast Live Oaks shall be removed as part of this project. The existing drive, has been widened to provide sufficient space for truck movements at the proposed loading dock. The existing pathway on the westerly side of the driveway needs to be re-graded (affecting Oak B29-6). On the easterly side of the driveway (affecting Oak B29-5) per VCFD requirements, the proposed building will require a new fire department water connection, which will require a trenching & installation of the proposed fire protection water line & backflow preventer within that area. The landscape (affecting Oak B29-5) on the south needs requires grading to provide berming & to create a landscape buffer as indicated in **Specific Plan - Section 5.608**. See photographs of these 2 Coast Live Oak trees within this report.

Tree No(s). Proposed Disposition(s)

B29-7 **SAVE** - this one [1] Coast Live Oak shall be saved as part of this overall project. It should be noted that this tree is located in a very poor planting location, within the canopies of some larger nearby Aleppo Pine trees. See a photograph of this Coast Live Oak tree within this report.

In summary, the following is proposed:

Total quantity of Oaks & Sycamores that were inventoried =	7
SAVES - Sycamores (not part of this specific project) =	2 (B29-3 & B29-4)
SAVES - Oak =	1 (B29-7)
Removals - Oaks =	4 (B29-1, B29-2, B29-5 & B29-6)

2. The southerly & northerly planting areas are congested with existing & proposed underground infrastructure that provides restriction & possible issues for the future maintenance of these systems. In addition, to meet Low Impact Development requirements the project will require installation of bio-basins on the north & south sides that will expect to have one [1] foot of ponded water, which might create unsuitable conditions for these mitigation Oak trees.

Specific & General Recommendations; and Best Management Practices

1. Prior to the completion of this project, ***TREES, etc.*** shall certify in a 'letter of compliance', that the '**Oak Tree Ordinance**' and all concerned tree policies have been adhered to.

NOTICE of DISCLAIMER = Opinions given in this report are those of ***TREES, etc.***, and are derived from current professional standards based on visual recordings at the time of inspection. This visual record does not include aerial or subterranean inspections, and therefore may not reveal existing hidden hazards. Records may not remain accurate after inspection due to changeable deterioration of the inventoried plant material. ***TREES, etc.***, provides no warranty regarding errors of omission resulting from the lack of communication of facts available only to the requester of this report which are expressed or implied as to the fitness of the urban forests for safe uses. ***TREES, etc.*** has no past, present or future interest in this property or the subject trees. This report may not be reproduced without the expressed written permission of ***TREES, etc.*** Any change or alteration to this report invalidates the entire report.

If you have any further questions, please do not hesitate to call ***TREES, etc.***

Sincerely,
TREES, etc.

Richard Ibarra

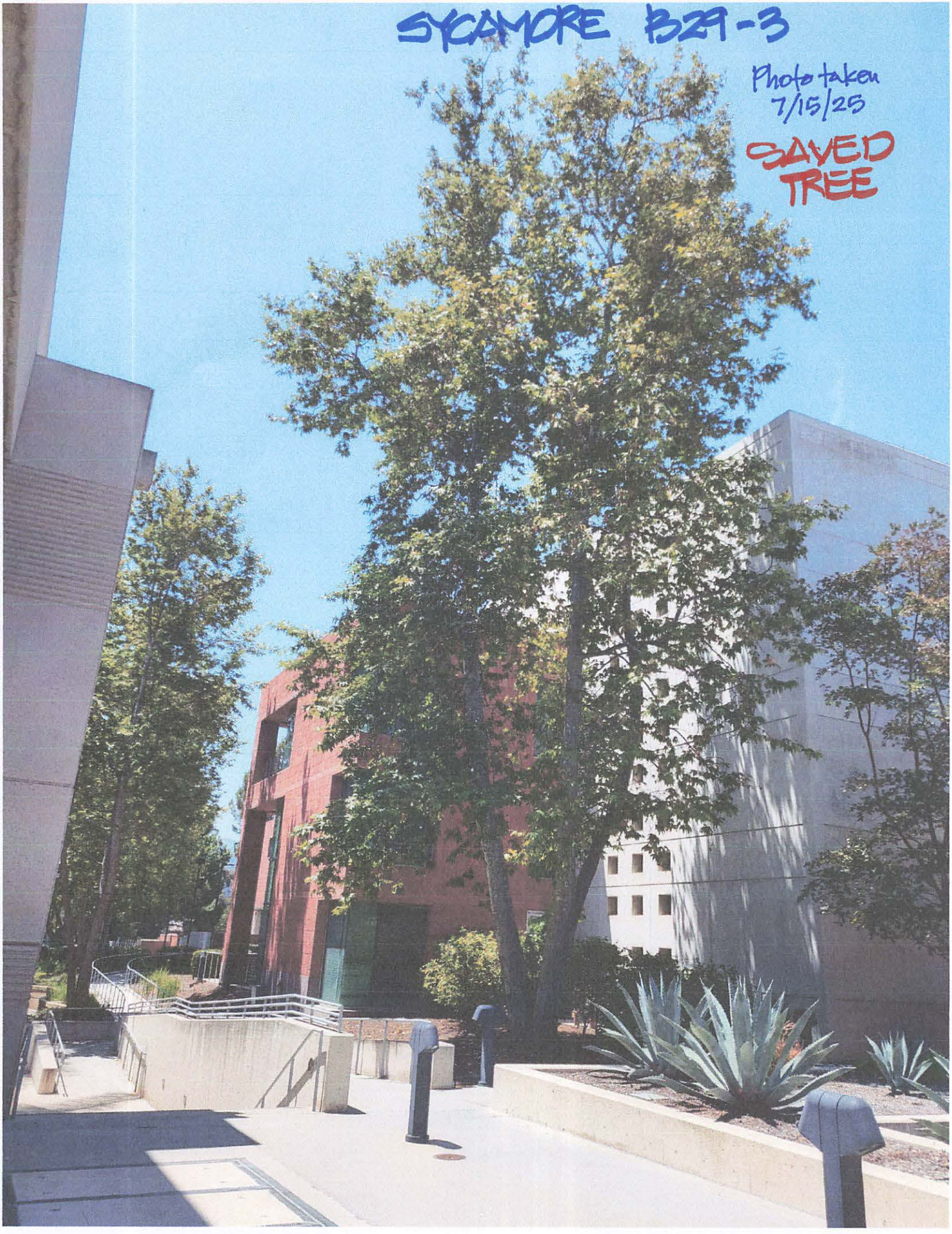
Richard Ibarra,
CONSULTING ARBORIST

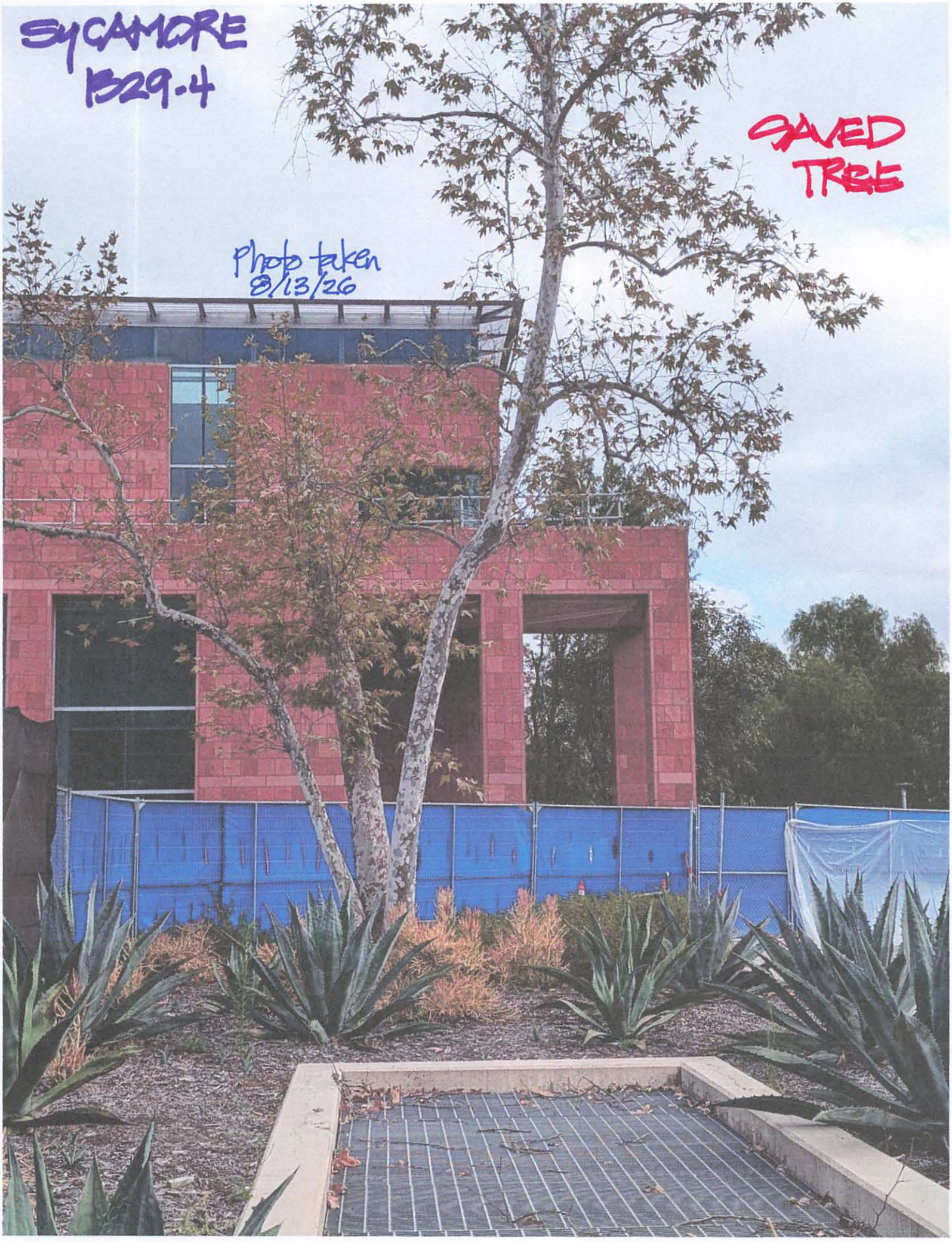
TREE PHOTOGRAPHS

[Oak & Sycamore (Landmark) Trees]

Photo taken
7/23/26
OAK B29-1
PROPOSED REMOVAL

Photo taken
7/23/26
PROPOSED
REMOVAL
OAK
B29-2


SYCAMORE B29-3
Photo taken 7/15/25
SAVED TREE


SYCAMORE
B29-4
SAVED TREE
Photo taken 8/13/26

OAK B29-5
Photo taken 7/23/26
SIDEWALK CLOSED
PROPOSED REMOVAL

PROPOSED REMOVAL
OAK B29-6
Photo taken 7/23/20

Photo taken
7/23/20
OAK
B29-7
BUS
SAVED
TREE

TREE EVALUATIONS

[Oak & Sycamore trees]

The inventory Health & Aesthetic Ratings of the trees are explained in the following:

The Health of the trees was visually determined from the following macroscopic inspection of signs and symptoms of disease.

A. Excellent (31 to 35 points) - This tree is a healthy & vigorous tree characteristic of its species and free of any visible signs of disease or pest infestation.
B. Good (26 to 30 points) - This tree is a healthy & vigorous tree. However, there are minor visible signs of disease and pest infestation.
C. Fair (16 to 25 points) - This tree is healthy in overall appearance, but there is a normal amount of disease and/or pest infestation.
D. Poor* (11 to 15 points) - This tree is characterized by exhibiting a greater degree of disease and/or pest infestation or structural instability than normal and appears to be in a state of decline.
E. Very Poor* (6 to 10 points) - This tree exhibits extensive signs of dieback.
F. Dead* (0 points) - This tree exhibits no signs of life at the time of field evaluation.

* A tree rating of "D" and lower is in low vigor and naturally a meaningful level of recovery is doubtful. Removal should be considered if it is within the proposed development.

The Aesthetic quality of the trees was visually determined from the following overall inspection of appearance.

A. Excellent - This tree is visually symmetrical, having the ideal form and appearance for the species.
B. Good to Fair - This tree, though non-symmetrical, has an appealing form for the species with very little dieback of foliage or twigs/branches.
C. Poor - This tree is non-symmetrical for the species with an unappealing form and/or has much dieback of foliage and twigs/branches.
D. Very Poor - This tree has few, if any, positive characteristics and may detract from the beauty of the landscape.

Inspection Date (Project No.) (371-19-25) 7/15 & 23/25 /// 7/23/26

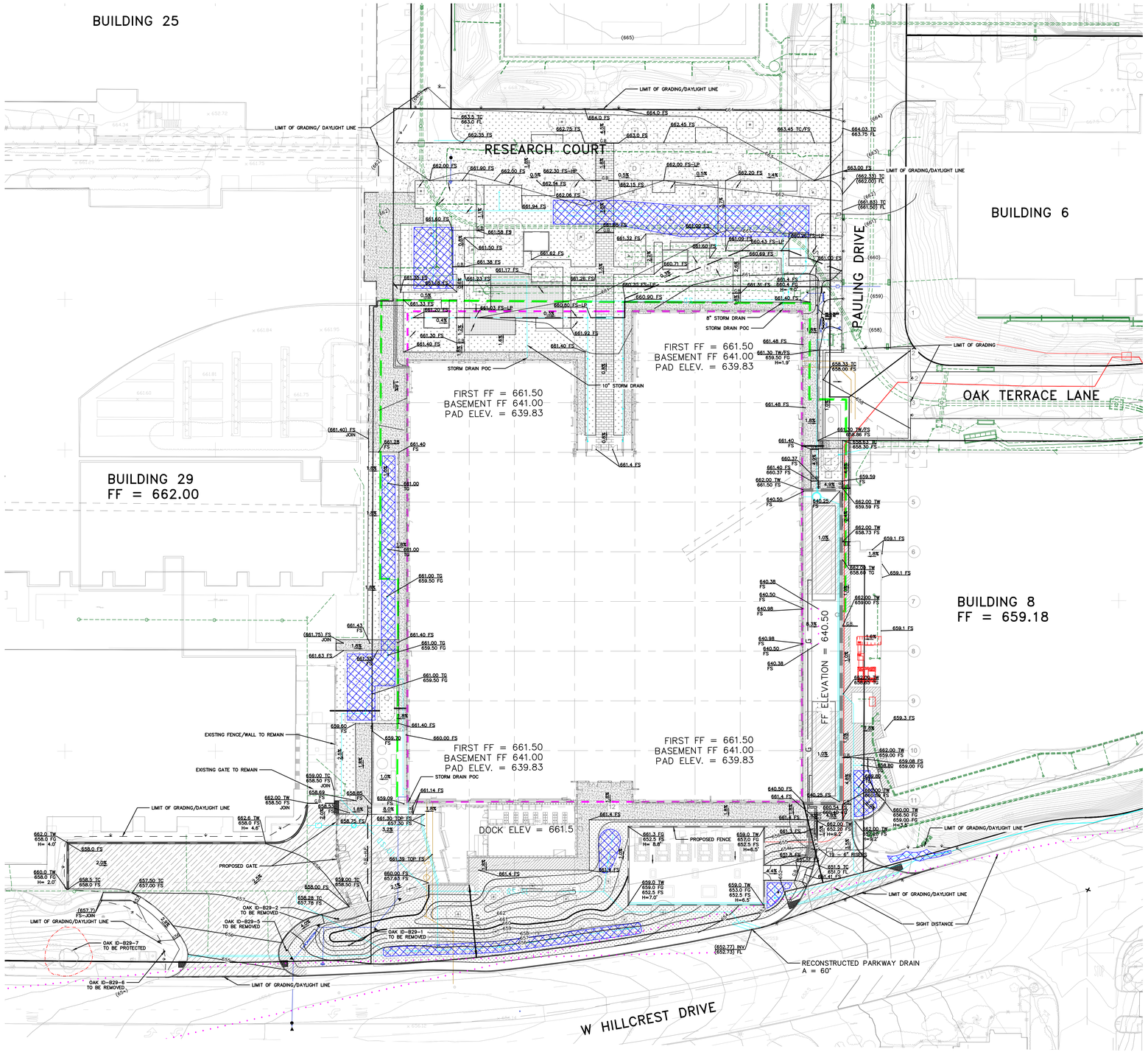
TREE EVALUATIONS

TOTAL POINTS	CLASS	GRADE
31 to 35	Excellent	A
26 to 30	Good	B
16 to 25	Fair	C
11 to 15	Poor	D
6 to 10	Very Poor	E
0	Dead	F

ALL TREE TAGS START W/ "B29"
7/15 & 23/25 // 7/23/26

FACTORS	POINTS	TREE NUMBER 1	2	3	4	5	6	7	—	—	—
CROWN DEVELOPMENT											
Well Balanced	5 points	X			X	X	X				
Lacking Natural Symmetry	3 points			X				X			
Lacking a Full Crown	1 point		X								
TRUNK CONDITION											
Sound & Solid (no external defects)	5 points	X	X	X	X	X	X	X			
Mechanical Damage	4 points										
Buried	3 points										
Exudations	2 points										
Decay	1 points										
Stump with Re-growth	0 points										
BRANCH STRUCTURE											
No Defects	5 points										
Dieback / Dead Wood	4 points	X	X	X	X	X	X	X			
Weak Structure	3 points										
Many Structurally Dead or Broken Branches	1 point										
TWIG GROWTH											
Typical for Species & Age	5 points	X	X	X		X	X	X			
Less Than ½ Normal	3 points				X						
Growth Greatly Reduced	1 point										
FOLIAGE											
Normal Size & Color	5 points	X	X			X	X	X			
Minor Deficiency Symptoms	3 points			X	X						
Major Deficiency Symptoms	1 point										
INSECTS & DISEASES											
No Insects or Diseases Apparent	5 points										
Few Controllable Insects/Diseases Apparent	3 points	X	X	X	X	X	X	X			
Severe Infestation	1 point										
ROOTS											
No Root Problems Apparent	5 points										
Minor Root Problems	3 points	X	X	X	X	X	X	X			
Severe Root Problems	1 point										
	TOTAL POINTS	30	26	28	26	30	30	28			
	Aesthetic Grade	B	C	A	C	A	A	C			
ADDITIONAL COMMENTS		QA 13" x 20'	QA 13.0" x 25'	PR 13.2", 18.2", 20.4" x 40'	PR 6.5", 11.1", 15.7" x 35'	QA 13.2" x 20'	QA 11" x 17'	QA 11.5" x 20'			

PR = Western Sycamore
QA = Coast Live Oak



3. ESTIMATED EARTHWORK QUANTITIES:
CUT: 17,784 C.Y. EXPORT: 5,155 C.Y.
FILL: 21,236 C.Y. IMPORT: 0 C.Y.

REMOVAL AND RECOMPACTION: 0 C.Y.

*QUANTITIES HAVE NOT BEEN FACTORED TO INCLUDE ALLOWANCES FOR BULKING, CLEARING AND GRUBBING, SUBSIDENCE, OR SPOILS.

LEGEND

- PROPOSED STORM DRAIN
- PROPERTY LINE
- BIO BASIN
- PERFORATED PIPE
- PROPOSED BASEMENT
- EXISTING BASEMENT
- PROPOSED FENCE
- STOPPING SIGHT DISTANCE (S.S.D.)
- MAJOR CONTOUR
- MINOR CONTOUR
- EXISTING CONTOUR
- DAYLIGHT LINE
- RETAINING WALL
- TREE PROTECTION ZONE
- CONCRETE
- CONCRETE
- ASPHALT CONCRETE

GRAPHIC SCALE
30 0 15 30 60 120
(IN FEET)
1 inch = 30 ft.

811 Know what's below. Call before you dig.
DIAL TOLL FREE 811
AT LEAST TWO DAYS BEFORE YOU DIG
UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA

SEAL

AMGEN
701 PAULING DRIVE,
THOUSAND OAKS, CA
91320

PROJECT NAME
ATO B50

BUILDING NUMBER
B50

PROJECT CONSULTANT
Stantec
300 N LAKE AVE, SUITE 1080
PASADENA, CA 91101
626.796.9141 stantec.com

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DRAWING STATUS

CURRENT REVISION	CURRENT REVISION DESCRIPTION

DR	APPD	DATE PUBLISHED
		8/26/26

APPROVAL INFORMATION
DRAWN: SL, AS, JM
CHECKED: LN

REV.	REVISION DESCRIPTION	DR	APPD	DATE
1	ISSUED FOR 90% SD			3/10/26
2	ISSUED FOR 100% SD			5/18/26
3	DEVELOPMENT PLAN			8/26/26

DRAWING TITLE
GRADING PLAN

PROJECT NUMBER - A/E
PROJECT NUMBER - AMGEN

SCALE
SEE SHEET

DRAWING NUMBER
50-C-33604-001

Appendix C

Air Quality and Greenhouse Gas Emissions

Amgen Thousand Oaks Building 50 Project

Technical Appendix for Air Quality and Greenhouse Gas Emissions

- Appendix 2-1: Air Quality and Greenhouse Gas Emissions Methodology
- Appendix 2-2: Air Quality Worksheets
  - Appendix 2-2.1: Summary of Air Pollutant Emissions
  - Appendix 2-2.3: Summary of Construction Assumptions
- Appendix 2-3: Greenhouse Gas Worksheets
  - Appendix 2-3.1: GHG Modeling Parameters and Summary of Emissions
    - GHG Emissions Summary
    - GHG VMT
- Appendix 2-4: Modeling Output Files
  - Appendix 2-4.1: CalEEMod Outputs
    - Existing Baseline
    - Project Construction and Buildout Operations

Amgen Thousand Oaks Building 50 Project

Appendix 2-1-Air Quality and Greenhouse Gas Emissions Methodology

AIR QUALITY AND GREENHOUSE GAS EMISSIONS METHODLOGY

Amgen Thousand Oaks Building 50 Project

Prepared by:

Eyestone Environmental, LLC

August 2026

Amgen Thousand Oaks Building 50 Project

Air Quality and Greenhouse Gas Emissions Methodology

1. Introduction

Eyestone Environmental has been retained to conduct a comprehensive greenhouse gas (GHG) and criteria air pollutant emissions assessment for the Amgen Thousand Oaks Building 50 Project (the "Project"). Emissions during both construction and operation of the Project were quantified. This assessment describes the methodology used to estimate the GHG and air pollutant emissions from existing and Project conditions and describes the methodology used to quantify GHG and air pollutant emission reductions from project design features and mitigation measures.

2. Air Pollutant and Greenhouse Gas Emissions Methodology

The Project would result in direct emissions of criteria pollutants and direct and indirect GHG emissions generated by different types of emissions sources, including:[1]

- Direct Emissions:
  - Construction: emissions associated with grading and construction-related equipment and vehicular activity;
  - Area source: emissions associated with consumer products, architectural coatings, and landscape equipment;
  - Energy source (building operations): emissions associated with space heating and cooling, and water heating;
  - Mobile source: emissions associated with vehicles accessing the project site;

[1] *Direct sources of emissions include Project-related vehicular trips and onsite combustion of fossil fuels (e.g., natural gas, propane, gasoline, and diesel). Whereas, indirect sources of emissions include offsite emissions associated with purchased electricity and embodied energy (e.g., energy used to convey, treat, and distribute water and wastewater)*

  - Stationary source: emissions associated with stationary equipment (e.g., emergency generators); and
  - Refrigerants: fugitive GHG emissions associated with building air conditioning and refrigeration equipment.

- Indirect Emissions:
  - Energy source (building operations): emissions associated with energy consumption, and lighting;
  - Solid Waste: emissions associated with the decomposition of the waste, which generates methane based on the total amount of degradable organic carbon; and
  - Water/Wastewater: emissions associated with energy used to pump, convey, deliver, and treat water.

a. Emission Inventories

Project-related construction and operation emissions were calculated using South Ventura County Air Pollution Control District's (SDAPCD) recommended California Emissions Estimator Model (CalEEMod). CalEEMod is a statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and GHG emissions associated with both construction and operations from a variety of land use projects. CalEEMod was developed in collaboration with the air districts of California. Data (e.g., emission factors, trip lengths, meteorology, source inventory, etc.) have been provided by the various California air districts to account for local requirements and conditions. The model is considered by the SDAPCD to be an accurate and comprehensive tool for quantifying criteria pollutant and GHG impacts from land use projects throughout California.[2]

CalEEMod utilizes widely accepted models for emission estimates combined with appropriate default data that can be used if site-specific information is not available. These models and default estimates use sources such as the United States Environmental Protection Agency's (USEPA) AP-42 emission factors, the California Air Resources Board's the California Air Resources Board's (CARB) on-road emission model (EMission FACtor model (EMFAC)) and off-road equipment emission model (Off-road Emissions Inventory Program model (OFFROAD)).

[2] *See www.caleemod.com.*

(1) Construction

Construction activities would generate emissions from off-road equipment usage, on-road vehicle travel (truck hauling, vendor deliveries, and workers commuting), architectural coating, and paving. Each of these source types is discussed in more detail below. The Project's construction emissions were calculated using the SDAPCD recommended CalEEMod (Version 2022.1). Please refer to CalEEMod construction output files for a complete listing of construction details modeled. CalEEMod default values were used for equipment and vehicle emission factors, equipment load factors and vehicle trip lengths. It should be noted that the maximum daily emissions were predicted values for the worst-case day and do not represent the emissions that would occur for every day of Project construction. The maximum daily emissions were compared to the SDAPCD daily regional numeric indicators. Annual emissions were calculated based on the total number of hours each piece of equipment was used and the total number of vehicular trips (i.e., worker, vendor, and haul) over the duration of construction. In accordance with the SDAPCD's guidance, GHG emissions from construction were amortized over the lifetime of the Project. The SDAPCD defines the lifetime of a project as 30 years.[3] Therefore, total construction GHG emissions were divided by 30 to determine an annual construction emissions estimate comparable to operational emissions.

(a) Emissions from Construction Equipment

The emission calculations associated with construction equipment are from off-road equipment engine use based on the equipment list and phase length. Since the majority of the off-road construction equipment used for construction projects are diesel fueled, CalEEMod assumes all of the equipment operates on diesel fuel. Construction equipment emissions vary with engine model years in which newer equipment will emit fewer pollutants. As a conservative assumption, the CalEEMod model uses an emission rate for equipment which represents an average model year for available equipment within the Air Basin. CalEEMod calculates the exhaust emissions based on CARB OFFROAD methodology using the equation presented below.

Construction Off-Road Equipment:

$$\text{Emissions Diesel [lbs]} = \left(\sum_i \left(EF_i \times Pop_i \times AvgHP_i \times Load_i \times Activity_i \right.\right.$$

Where: EF_i = Emission factor from OFFROAD (lbs/hr)

Pop_i = Population (quantity of same equipment)

[3] *SCAQMD, Interim CEQA GHG Significance Threshold for Stationary Sources, Rules and Plans, 2008.*

$AvgHP_i$ = Maximum rated average horsepower (hp)

$Load_i$ = Load Factor (dimensionless)

$Activity_i$ = Hours of operation (hours)

i = Summation index

Fugitive dust emissions from use of off-road equipment were also calculated using CalEEMod based on the types of equipment used during grading activities and based on the amount of import/export from loading or unloading dirt into haul trucks. These methods have been adapted from USEPA's AP-42 method for Western Coal Mining. As recommended by SDAPCD, the fugitive dust emissions from the grading phase are calculated using the methodology described in USEPA AP-42. Particulate Matter (PM) PM_{10} and $PM_{2.5}$ emissions from fugitive dust will be controlled by watering the construction site three times a day consistent with SDAPCD 55 and were estimated to be reduced by 76 percent in compliance with the rule.

(b) Emissions from On-Road Trips

Construction generates on-road vehicle exhaust, evaporative, and dust emissions from personal vehicles for worker commuting, vendor deliveries, and trucks for soil and material hauling. These emissions are based on the number of trips and vehicle miles traveled (VMT) along with emission factors from EMFAC. The emissions from mobile sources were calculated with the trip rates, trip lengths and emission factors for running from EMFAC as follows:

Construction On-Road Equipment:

Emissions pollutant (lbs) = VMT * EF running, pollutant

Where: VMT = vehicle miles traveled (miles)

EF running, pollutant = emission factor for running emissions (lbs/VMT)

Evaporative emissions, starting and idling emissions in CalEEMod were calculated by multiplying the number of trips times the respective emission factor for each pollutant.

(c) Emissions from Architectural Coating

Volatile organic compounds (VOC) off-gassing emissions result from evaporation of solvents contained in surface coatings. CalEEMod calculates the VOC evaporative emissions from application of residential and non-residential surface coatings using the following equation:

Construction Architectural Coating Emissions:

Emissions Architectural Coatings (lbs) $=EF_{AC}$ x F $*A_{paint}$

Where: EF_{AC} = Emission Factor (lb/sf)

A_{paint} = Building Surface Area (sf)

The CalEEMod tool assumes the total surface for painting equals 2.7 times the floor square footage for residential and 2 times that for nonresidential square footage. All of the land use information provided by a metric other than square footage were converted to square footage using the default conversions or user defined equivalence.

F = fraction of surface area [%].

The default values based on VCAPCD methods used in their coating rules are 75 percent for the interior surfaces and 25 percent for the exterior shell. Parking areas are based on 6-percent coverage.

The emission factor (EF) is based on the VOC content of the surface coatings and is calculated estimated using the equation below:

$EF_{AC} = C_{VOC}/454(g/lb)$ x 3.785(L/gal)/180*sf)

Where: EF = emission factor (lb/sf)

C = VOC content (g/L or gram per liter)

The emission factors for coating categories were calculated using the equation above based on default VOC content from provided by the air districts or CARB's statewide limits in CalEEMod. Architectural coating VOC emission factors are also consistent with VCAPCD Rule 74 as discussed above.

(d) Emissions from Paving

CalEEMod estimates VOC off-gassing emissions associated with asphalt paving of parking lots using the following equation:

$Emissions_{AP}$ (lbs) = EF_{AP} x $A_{parking}$

Where: EF = emission factor (lb/acre)

A = area of the parking lot (acre)

Note: The Sacramento Metropolitan Air Quality Management District (SMAQMD) default emission factor is 2.62 lb/acre. This value is used as the default emission factor within CalEEMod

(2) Operation

Similar to construction, the VCAPCD-recommended CalEEMod was used to calculate potential emissions generated by the Project, including area source, energy sources (electricity and natural gas), mobile source, stationary sources (emergency generator), solid waste generation and disposal, water usage/wastewater generation, and refrigeration.

(3) Area Source Emissions

Area source emissions were calculated using the CalEEMod emissions inventory model, which includes consumer products, architectural coatings, and landscape maintenance equipment. Pollutant emissions generated by the Project were calculated using CalEEMod defaults, based upon the land uses that will be included in each project.

Consumer products are chemically formulated products used by household and institutional consumers, including, but not limited to, detergents; cleaning compounds; polishes; floor finishes; cosmetics; personal care products; home, lawn, and garden products; disinfectants; sanitizers; aerosol paints; and automotive specialty products; but does not include other paint products, furniture coatings, or architectural coatings. VCAPCD did an evaluation of consumer product use compared to the total square footage of buildings using data from CARB consumer product Emission Inventory. To calculate the VOC emissions from consumer product use, the following equation was used in CalEEMod:

Emissions Consumer Products (lbs) = EF_{CP} x Building Area

Where:

EF_{CP} = pounds of VOC per building square foot

The factor is 1.98 x 10^{-5} lbs/sf for VCAPCD areas.

Building Area = the total square footage of all buildings including residential square footage (where applicable)

VOC off-gassing emissions result from evaporation of solvents contained in surface coatings such as in paints and primers. The operational emission methodology from architecture coating is the same as the construction methodology discussed above. All land use buildings are assumed to be repainted at a rate of 10 percent of area per year. This is based on the assumptions used by VCAPCD.

The combustion of fossil fuels to operate landscape equipment such as lawnmowers and trimmers, results in pollutant emissions. The emissions occur on-site and are considered a direct source of pollutant emissions. The emissions for landscaping equipment are based on the size of the land uses, the pollutant emission factors for fuel combustion. Pollutant emissions from landscaping equipment are generally calculated in CalEEMod as follows:

Landscaping Equipment:

Landscaping Equipment Emissions [lbs] = (Σ_i (Units × EF_{LE} × A_{LE})$_i$)

Where: Units = Number of land use units (same land use type) [1,000 sf]

EF_{LE} = Emission factor [grams (g)/1,000 sfday]

i = Summation index

Note: For residential land uses, emission factors are specified in units of dwelling units (DU) instead of 1,000 sf (where applicable).

(4) Energy Emissions (Electricity and Natural Gas)

Pollutant emissions are emitted as a result of activities in buildings when electricity and natural gas are used as energy sources. Combustion of any type of fuel emits pollutant emissions directly into the atmosphere; when this occurs in a building, it is a direct emission source associated with that building. Pollutant emissions are also emitted during the generation of electricity from fossil fuels. When electricity is used in a building, the electricity generation typically takes place off-site at the power plant; electricity use in a building generally causes emissions in an indirect manner.

Energy demand emissions were calculated using the CalEEMod emissions inventory model. Energy use in buildings is divided into energy consumed by the built environment and energy consumed by uses that are independent of the construction of the building such as in plug-in appliances. CalEEMod calculates energy use from systems covered by Title 24 Building Energy Efficiency Standards (e.g., heating, ventilation, and air conditioning [HVAC] system, water heating system, and lighting system); energy use from

lighting; and energy use from office equipment, appliances, plug-ins, and other sources not covered by Title 24 or lighting.

CalEEMod energy demand is based on the California Energy Commission (CEC) sponsored California Commercial End Use Survey (CEUS) study.[4] The data is specific for Electricity Demand Forecast Zones (EDFZ) and, therefore, EDFZ 8 was selected for the Project Site based on the Project's address. CalEEMod includes 2019 Title 24 Energy Efficiency Standards when calculating project energy usage.

(a) Electricity

Because power plants are existing stationary sources permitted by air districts and/or the USEPA, criteria pollutant emissions are generally associated with the power plants themselves, and not individual buildings or electricity users. Additionally, criteria pollutant emissions from power plants are subject to local, state, and federal control measures, which can be considered to be the maximum feasible level of mitigation for stack emissions. In contrast, GHG emissions from power plants are not subject to stationary source permitting requirements to the same degree as criteria pollutants. As such, GHGs emitted by power plants may be indirectly attributed to individual buildings and electricity users, who have the greatest ability to decrease usage by applying mitigation measures to individual electricity "end uses." CalEEMod therefore calculates GHG emissions (but not criteria pollutant emissions) from regional power plants associated with building electricity use.

Emissions associated with electricity demand are based on the size of the residential, commercial and retail land uses, the electrical demand factors for the land uses, the emission factors for the electricity utility provider, and the global warming potential (GWP) values for the GHGs emitted. Annual electricity GHG emissions in units of metric tons of CO2 equivalent ($MTCO_2e$) are calculated as follows:

[4] *2019 consumption estimates from the CEC's (2020, 2021) 2018–2030 Uncalibrated Commercial Sector Forecast (Commercial Forecast) and the RASS (refer to Table G-28) of Appendix G in CalEEMod User's Guide, 2022.*

Electricity:

Annual Emissions [$MTCO_2e$] = (Σ_i (Units × D_E × EF_E × GWP)$_i$) ÷ 2,204.62

Where: Units = Number of land use units (same land use type) [1,000 sf]

D_E = Electrical demand factor [megawatt-hour (MWh)/1,000 sf/yr]

EF_E = GHG emission factor [pounds per megawatt-hour (MWh)]

GWP = Global warming potential [CO_2 = 1, CH_4 = 21, N_2O = 310]

2,204.62 = Conversion factor [pounds/MT]

i = Summation index

Note: For residential land uses, emission factors are specified in units of dwelling units (DU) instead of 1,000 sf (where applicable).

GHG emissions from electricity use are directly dependent on the electricity utility provider. Southern California Edison (SCE) provides electric service to the Project Site. Thus, GHG intensity factors for SCE were selected in CalEEMod. Intensity factors for GHGs due to electrical generation to serve the electrical demands of the existing condition were obtained from the Southern California Edison 2024 Power Content Label. By 2030, at least 60 percent of electricity shall be obtained from renewable sources. As year-by-year data is currently not available, the CO_2 intensity factor for the Project buildout was determined based on straight line interpolation based on current and future year data points.

(b) Natural Gas

The direct source emissions associated with natural gas combustion are based on the size of the land uses and the natural gas combustion factors for the land uses in units of million British thermal units (MMBtu). Natural gas emissions are calculated in CalEEMod as follows:

Natural Gas:

Natural Gas Emissions (lbs) = (Σ_i (Units × D_{NG} × EF_{NG})$_I$)

Where: Units = Number of land use units (same land use type) [1,000 sf]

D_{NG} = Natural Gas combustion factor [MMBtu/1,000 sf]

EF_{NG} = Natural Gas combustion factor [pounds/MMBtu]

I = Summation index

Note: For residential land uses, emission factors are specified in units of dwelling units (DU) instead of 1,000 sf (where applicable).

In order to account for the Project's implementation of Project Design Feature GHG-PDF-1, calculations were performed to convert appliances which are typically powered by natural gas, to electricity powered. By default, CalEEMod 2022.1 assumes appliances such as water heating, clothes dryers and space heating are powered by natural gas. The CalEEMod 2022.1 model contains adjustments to take into account the increased electricity usage and decrease in GHG emissions as a result of all-electric development for residential uses. However, these adjustments are not yet available in CalEEMod 2022.1 for commercial uses (e.g., the Project). The CAPCOA GHG Handbook provides a methodology to calculate the equivalent electricity usage of an appliance that is normally powered by natural gas, such as clothes dryers, water heaters and space heating.[5] In order to account for the Project's compliance with the new all-electric ordinance, calculations were performed to convert appliances which are typically powered by natural gas, to electricity powered. Conservatively, the CAPCOA GHG Handbook also assumes some appliances that are typically powered by electricity to be powered by natural gas by default (e.g., refrigeration and air conditioning). As CalEEMod 2022.1 categorizes electricity usage as either Title 24 (e.g., space heating and water heating) versus non-Title 24 (e.g., appliances), a specific conversion for each category provided in the CAPCOA guidance was not available. Thus, some natural gas categories within the CAPCOA GHG Handbook (e.g., refrigeration) are likely already included as electric within CalEEMod. Thus, the conversion between natural gas to electricity for these categories within the CAPCOA GHG Handbook would be conservative and overstate the total electricity usage. The calculations are provided in Appendix 2 of this MND.

[5] *California Air Pollution Control Officers Association (CAPCOA) Handbook for Analyzing Greenhouse Gas Emissions Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity. Appendix C. Table E-15. December 2021.*

(5) Mobile Source Emissions

Mobile-source emissions were calculated using the CalEEMod emissions inventory model. CalEEMod calculates the emissions associated with on-road mobile sources associated with residents, employees, visitors, and delivery vehicles visiting the Project Site based on the number of daily trips generated and VMT. The trip generation rates calculated for the Project combined with default CalEEMod trip distances was entered into CalEEMod in calculating Project mobile source emissions.

Modeling was also conducted using the Ventura County vehicle fleet mix for all vehicle types as provided in EMFAC2021.

Mobile source emissions were generally calculated in CalEEMod as follows:

Mobile:

$$\text{Mobile Emissions [lbs]} = \left(\Sigma_i \left(\text{Units} \times \text{ADT} \times D_{TRIP} \times EF_i \right)\right.$$

Where: Units = Number of vehicles (same vehicle model year and class)

ADT = Average daily trip rate [trips/day]

D_{TRIP} = Trip distance [miles/trip]

EF = Pollutant emission factor [pounds per mile]

i = Summation index

Note: For residential land uses, emission factors are specified in units of dwelling units (DU) instead of 1,000 sf (where applicable).

CalEEMod 2022.1 incorporates CARB EMFAC2021 mobile source emission factors. EMFAC2025 is the latest emission inventory model that CARB uses to assess emissions from on-road motor vehicles, including cars, trucks, and buses in California. It supports CARB's planning and policy development efforts. The newest model incorporates CARB's current understanding of statewide and regional vehicle activities, emissions, and recently adopted regulations such as Advanced Clean Cars II, the Federal Clean Trucks Plan, and the Federal Heavy-Duty Phase 3 Greenhouse Gas (GHG) Rule. EMFAC2025 was integrated into CalEEMod by applying updated on-road mobile source emission factors and fleet mixes directly via the EMFAC Web Platform to override CalEEMod EMFAC2021 defaults.

(6) Stationary Source (Emergency Generator Emissions)

Emissions of GHGs associated with use of emergency generators were calculated using CalEEMod, in which emission factors are based on Table 3.4-1 (Gaseous Emission Factors for Large Stationary Diesel Engines) from EPA's AP-42: Compilation of Air Pollutant Emission Factors. The emissions are based on the horsepower rating of the diesel generator and the number of hours operated per year for testing purposes. Annual emergency generator GHG emissions in units of $MTCO_2e$ were calculated as follows:

Emergency Generator:

Emissions [lbs] = (Total HP x LF x HR × EF)

Where: Total HP = Total horsepower of emergency generators (Hp)
LF = Load Factor (CalEEMod default of 0.73)
HR = Hours Operated per Year
EF = AP-42 Emission Factor of 1.16 lb/hp-hr)

(7) Solid Waste Emissions

The generation of municipal solid waste (MSW) from day-to-day operational activities generally consists of product packaging, grass clippings, furniture, clothing, bottles, food scraps, newspapers, plastic, and other items routinely disposed of in trash bins. A portion of the MSW is diverted to waste recycling and reclamation facilities. Waste that is not diverted is usually sent to local landfills for disposal. MSW that is disposed in landfills results in GHG emissions of CO_2 and CH_4 from the decomposition of the waste that occurs over the span of many years.

Emissions of GHGs associated with solid waste disposal were calculated using the CalEEMod emissions inventory model. The emissions are based on the size of the retail and restaurant land uses, the waste disposal rate for the land uses, the waste diversion rate, the GHG emission factors for solid waste decomposition, and the GWP values for the GHGs emitted. Annual waste disposal GHG emissions in units of $MTCO_2e$ were calculated in CalEEMod as follows:

Solid Waste:

Annual Emissions [$MTCO_2e$] = (Σ_i (Units × D_{MSW} × EF_{MSW} × GWP)$_i$) ÷ 1.1023

Where: Units = Number of land use units (same land use type) [1,000 sf]

D_{MSW} = Waste disposal rate [tons/1,000 sf/yr]

EF_{MSW} = GHG emission factor [tons/ton waste]

GWP = Global warming potential [CO_2 = 1, CH_4 = 21, N_2O = 310]

1.1023 = Conversion factor [tons/MT]

i = Summation index

Note: For residential land uses, emission factors are specified in units of dwelling units (DU) instead of 1,000 sf (where applicable).

CalEEMod allows the input of several variables to quantify solid waste emissions. The model requires the amount of waste disposed, which is the product of the waste disposal rate times the land use units. CalEEMod default annaual solid waste disposal rates used. The GHG emission factors, particularly for CH_4, depend on characteristics of the landfill, such as the presence of a landfill gas capture system and subsequent flaring or energy recovery. The default values, as provided in CalEEMod, for landfill gas capture (e.g., no capture, flaring, energy recovery), which are statewide averages, were used in this assessment.

(8) Water Usage and Wastewater Generation Emissions

GHG emissions are related to the energy used to convey, treat, and distribute water and wastewater. Thus, these emissions are generally indirect emissions from the production of electricity to power these systems. Three processes are necessary to supply potable water and include: (1) supply and conveyance of the water from the source; (2) treatment of the water to potable standards; and (3) distribution of the water to individual users. After use, energy is used as the wastewater is treated and reused as reclaimed water.

Emissions related to water usage and wastewater generation were calculated using the CalEEMod emissions inventory model. The emissions are based on the size of the land uses, the water demand factors, the electrical intensity factors for water supply, treatment, and distribution and for wastewater treatment, the GHG emission factors for the electricity utility provider, and the GWP values for the GHGs emitted. CalEEMod default annual water demand and wastewater rates were used. GHG emissions due to electricity are calculated in CalEEMod as follows for indoor and outdoor water demand:

Water Supply, Treatment, and Distribution; Wastewater Treatment (electricity):

$$\text{Annual Emissions } [MTCO_2e] = (\Sigma_i \ (\text{Units} \times D_W \times (EI_W \div 1{,}000) \times EF_W \times GWP)_i \ ) \div 2{,}204.62$$

Where:
- Units = Number of land use units (same land use type) [1,000 sf]
- D_W = Water demand factor [million gallons (Mgal)/1,000 sf/yr]
- EI_W = Electricity intensity factor [kilowatt-hours (kWh)/Mgal]
- 1,000 = Conversion factor [kWh/MWh]
- EF_W = GHG emission factor [pounds/MWh]
- GWP = Global warming potential [CO_2 = 1, CH_4 = 21, N_2O = 310]
- 2,205 = Conversion factor [pounds/MT]
- *i* = Summation index

Note: For residential land uses, emission factors are specified in units of dwelling units (DU) instead of 1,000 sf (where applicable).

CalEEMod provides options to account for the use of water saving features such as the use of low-flow water fixtures (e.g., low-flow faucets, low-flow toilets). The same electricity GHG emissions factors discussed above were used for water and wastewater energy usage. In addition, the calculation of Project GHG emissions from water/wastewater usage accounts for a 20 percent reduction in water/wastewater emissions with implementation of CalGreen requirements.

(9) Refrigerant Emissions

The estimate the fugitive GHG emissions associated with building air conditioning (A/C) and refrigeration equipment is based on the different types of refrigeration equipment used by different types of land uses. For example, an office may use various types of A/C equipment, while a supermarket may use both A/C equipment and refrigeration equipment. All equipment that uses refrigerants has a charge size (i.e., quantity of refrigerant the equipment contains), operational and service refrigerant leak rates (from regular operation and routine servicing), and number of times serviced per lifetime. Each refrigerant has a GWP that is specific to that refrigerant. CalEEMod automatically generates a default A/C and refrigeration equipment inventory for each project land use subtype. CalEEMod quantifies refrigerant emissions from leaks during regular operation and routine servicing over the equipment lifetime and then derives average annual emissions from the lifetime estimate. Note that CalEEMod does not quantify emissions from the disposal of refrigeration and A/C equipment at the end of its lifetime.

Amgen Thousand Oaks Building 50 Project

Appendix 2-2-Air Quality Worksheets

- Appendix 2-2: Air Quality Worksheets
    - Appendix 2-2.1: Summary of Air Pollutant Emissions
    - Appendix 2-2.3: Summary of Construction Assumptions

Amgen Building 50

Operation Emissions (Without Mitigation) (Summer)						
Existing Regional Emissions (Buidout Year)	ROG	NO_x	CO	SO2	PM_{10}	$PM_{2.5}$
Mobile	11.53	13.63	137.22	0.40	40.24	10.38
Area	5.40	0.07	7.87	0.00	0.01	0.01
Energy	0.07	1.29	1.08	0.01	0.10	0.10
Total	17	15	146	<1	40	10
Project Regional Emissions (Buildout Year)	ROG	NO_x	CO	SO2	PM_{10}	$PM_{2.5}$
Mobile	17.97	21.24	213.75	0.62	62.69	16.16
Area	11.30	0.14	16.48	0.00	0.03	0.02
Energy	0.00	0.00	0.00	0.00	0.00	0.00
Emergency Generator	1.16	4.16	21.62	0.04	0.17	0.17
Total	30	26	252	<1	63	16
Incremental Regional Emissions (Project Less Existing)	ROG	NO_x	CO	SO2	PM_{10}	$PM_{2.5}$
Mobile	6.43	7.60	76.54	0.22	22.45	5.79
Area	5.90	0.07	8.60	0.00	0.02	0.01
Energy	-0.07	-1.29	-1.08	-0.01	-0.10	-0.10
Emergency Generator	1.16	4.16	21.62	0.04	0.17	0.17
Total	13	11	106	<1	23	6
Threshold	**25**	**25**				
Difference	**(12)**	**(14)**				
Impact	No	No	No	No	No	No

Operation Emissions (Without Mitigation) (Winter)						
Existing Regional Emissions (Buid	ROG	NO_x	CO	SO2	PM_{10}	$PM_{2.5}$
Mobile	11.47	15.19	129.19	0.38	40.24	10.38
Area	4.10					
Energy	0.07	1.29	1.08	0.01	0.10	0.10
Total	16	16	130	<1	40	10
Project Regional Emissions (Build	ROG	NO_x	CO	SO2	PM_{10}	$PM_{2.5}$
Mobile	17.87	23.67	201.25	0.597502	62.6886	16.163485
Area	8.589					
Energy	0.00	0.00	0.00	0.00	0.00	0.00
Emergency Generator	1.16	4.16	21.62	0.04	0.17	0.17
Total	28	28	223	<1	63	16
Incremental Regional Emissions (	ROG	NO_x	CO	SO2	PM_{10}	$PM_{2.5}$
Mobile	6.40	8.48	72.06	0.21	22.45	5.79
Area	4.48					
Energy	-0.07	-1.29	-1.08	-0.01	-0.10	-0.10
Emergency Generator	1.16	4.16	21.62	0.04	0.17	0.17
Total	12	11	93	<1	23	6
Threshold	**25**	**25**				
Difference	**(13)**	**(14)**				
Impact	No	No	No	No	No	No

ATO Building 50

Air Quality Analysis Assumptions

Insert Date of Information

The following information describes the quantity of construction equipment projected during the various stages of construction for a single phased project.

Construction Details	Start Date	End Date	Construction Duration (Months)	Work Days Per Week	Total Work Days (calculated)	Max Daily Employees	Avg Daily Employees	Max Daily Hauls	Avg Daily Hauls (calculated)	Hauls (calculated)	Max Daily Deliveries	Avg Daily Deliveries
Overall Duration	**7/13/2026**	**8/31/2029**	**38**									
Demolition												
Grading/Excavation	11/1/2026	11/30/2026	1	6	25	8	5	4	9	231	2	1
Building Foundation	12/1/2026	2/28/2027	3	6	96	50	40				4	3
Building Construction	3/1/2027	3/31/2029	25	6	630	300	250				12	8
Paving/Landscape	4/1/2029	8/31/2029	5	6	122	26	20				2	1

Site Acreage			
Demolition Quantities		**(calculated)**	
Building Square Footage (SF)		-	cy
Parking (SF)		-	cy
Parking (spaces)		-	cy
Import/Export Quantities during Grading	**(CY)**		
Import	0		
Export	3,228	No contaminated soil	

Note: It is assumed that demolition and import/export would use 14 cy haul trucks.

Landfill Location	One-way Dist. (miles)
Calabassas / Sunshine canyon	30

Onsite Travel	Paved	Unpaved	
Demolition/Site Prep	0	0	Feet
Grading	0	0	Feet

Note: If offsite staging areas are used, then please include the distance within the haul route.

Equipment	Worst-Case Day						
	Demo	Grading/ Excavation	Mat Foundation	Foundation	Building Construction	Paving/ Landscape	Blank
Air Compressor	0	0	0	1	4	0	
Aerial Lift	0	0	0	0	3	0	
Bore/Drill Rig	0	1	0	0	0	0	
Cement and Mortar Mixers	0	0	0	0	1	0	
Concrete/Industrial Saws	0	0	0	1	1	1	
Cranes (Tower)	0	0	0	0	0	0	
Cranes (Mobile)	0	0	0	1	3	0	
Crawler Tractors	0	0	0	2	1	1	
Crushing/Proc. Equipment	0	0	0	0	0	0	
Excavators	0	1	0	2	1	1	
Forklifts	0	1	0	1	1	1	
Generator Sets	0	0	0	0	1	0	
Graders	0	0	0	0	0	0	
Off-Highway Tractors	0	0	0	0	0	0	
Water Truck	0	0	0	0	0	0	
Pavers	0	0	0	0	0	1	
Paving Equipment	0	0	0	0	0	1	
Pumps	0	0	0	2	2	2	
Plate Compactors	0	0	0	1	0	1	
Rollers	0	1	0	0	0	1	
Rough Terrain Forklifts	0	1	0	1	1	1	
Rubber Tired Dozers	0	0	0	0	0	0	
Rubber Tired Loaders	0	1	0	0	0	0	
Scrapers	0	0	0	0	0	0	
Signal Boards	0	0	0	1	1	1	
Skid Steer Loaders	0	1	0	2	0	2	
Surfacing Equipment	0	0	0	0	0	1	
Tractors/Loaders/Backhoes	0	0	0	2	0	2	
Trenchers	0	0	0	0	0	0	
Welders	0	0	0	0	7	2	
Other ( )							
Total Pieces	0	7	0	17	27	19	0

Average Day						
Demo	Grading/ Excavation	Mat Foundation	Foundation	Building Construction	Paving/ Landscape	Blank
0	0	0	1	2	0	
0	0	0	0	1	0	
0	1	0	0	0	0	
0	0	0	0	1	0	
0	0	0	1	1	1	
0	0	0	0	0	0	
0	0	0	1	2	0	
0	0	0	1	1	1	
0	0	0	0	0	0	
0	1	0	1	1	1	
0	1	0	1	1	1	
0	0	0	0	1	0	
0	0	0	0	0	0	
0	0	0	0	0	0	
0	0	0	0	0	0	
0	0	0	0	0	1	
0	0	0	0	0	1	
0	0	0	1	1	1	
0	0	0	1	0	1	
0	1	0	0	0	1	
0	1	0	1	1	1	
0	0	0	0	0	0	
0	1	0	0	0	0	
0	0	0	0	0	0	
0	0	0	1	1	1	
0	1	0	1	0	1	
0	0	0	0	0	1	
0	0	0	1	0	1	
0	0	0	0	0		
0	0	0	0	5	1	
0						
0	7	0	12	19	15	0

Amgen Thousand Oaks Building 50 Project

Appendix 2-3-Greenhouse Gas Emissions Worksheets

- Appendix 2-3: Greenhouse Gas Worksheets
    - Appendix 2-3.1: GHG Modeling Parameters and Summary of Emissions
        - GHG Emissions Summary
        - GHG VMT Calculations

Amgen Building 50

Emissions Summary (GHG)

CalEEMod Output Summary	Project
Construction	**CO_2e**
2026	104
2027	1,977
2028	2,184
Total	5,131
Amortized	171
Baseline (Buildout Year)[a]	**CO_2e**
Area	3
Energy (Natural Gas)	1,031
Mobile	5,770
Emergency Generators	0
Solid Waste	70
Water/Wastewater	126
Refrig.	8
Total	7,007
Buildout (Buildout Year)[b]	
Area	6
Energy (Natural Gas and Electricity)[b]	2,240
Energy (Basecamp)	0
Mobile	8,988
Emergency Generators	790
Solid Waste	147
Water/Wastewater	264
Refrig.	16
Construction	171
Total	**12,621**
Project (Buildout less Baseline)	
Area	3
Energy (Natural Gas and Electricity)	1,209
Energy (Basecamp)	0
Mobile	3,218
Emergency Generators	790
Solid Waste	77
Water/Wastewater	138
Refrig.	9
Construction	171
Total	**5,614**

[a] Existing Uses

[b] Please refer to CalEEMod outputs for Future uses

Amgen (Building 50)

LADOT VMT Calculator Data

VMT Summary

	Existing	Proposed Project
Tech&Life Sciences (Sf)	**181058**	**378862**
Daily Trips	1,715	3,588

	Trip Rate			Daily Trips			
CalEEMod Default	**Weekday**	**Saturday**	**Sunday**	**Weekday**	**Saturday**	**Sunday**	**Scalar**
CalEEMod Default Trip Rate (Project)	3.369999886	2.539999962	1.24000001	1276.764897	962.309466	469.7888836	2.810227638
CalEEMod Default Trip Rate (Existing)	3.369999886	2.539999962	1.24000001	610.1654393	459.887313	224.5119217	1.343238684
CalEEMod Adjusted (Project)	9.470466819	7.137978094	3.484682298				
CalEEMod Adjuste (Existing)	12.72109739	9.588008304	4.680760066				
CalEEMod Default Trip Rate							

Amgen Thousand Oaks Building 50 Project

Appendix 2-4-Greenhouse Gas Emissions Worksheets and Modeling Output Files

- Appendix 2-4: Modeling Output Files
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Amgen Building Existing Conditions Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Amgen Building Existing Conditions
Operational Year	2029
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.70000
Precipitation (days)	1.60000
Location	34.1883542893481, -118.92368812397265
County	Ventura
City	Thousand Oaks
Air District	Ventura County APCD
Air Basin	South Central Coast
TAZ	3510
EDFZ	8
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.45

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
Industrial Park	181.058	1000sqft	4.27000	181,058	10,000.00	0.00000	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-5	Use Advanced Engine Tiers

2. Emissions Summary

2.3. 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.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	17.0020	14.9900	146.175	0.40573	0.35960	39.9943	40.3539	0.34068	10.1438	10.4845	48,570.0
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	15.6495	16.4861	130.272	0.39130	0.34567	39.9943	40.3400	0.33017	10.1438	10.4740	47,043.3
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	14.7681	14.3992	117.685	0.34533	0.32148	34.9400	35.2615	0.30624	8.86204	9.16828	42,322.2

Un/Mit.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.69518	2.62785	21.4776	0.06302	0.05867	6.37655	6.43522	0.05589	1.61732	1.67321	7,006.93

2.4. 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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Mobile	11.5326	13.6325	137.216	0.39751	0.24748	39.9943	40.2418	0.23197	10.1438	10.3758	41,079.9
Area	5.39838	0.06626	7.87463	0.00047	0.01399	—	0.01399	0.01057	—	0.01057	32.4984
Energy	0.07102	1.29124	1.08464	0.00775	0.09813	—	0.09813	0.09813	—	0.09813	6,225.00
Water	—	—	—	—	—	—	—	—	—	—	762.146
Waste	—	—	—	—	—	—	—	—	—	—	423.332
Refrig.	—	—	—	—	—	—	—	—	—	—	47.1302
Total	17.0020	14.9900	146.175	0.40573	0.35960	39.9943	40.3539	0.34068	10.1438	10.4845	48,570.0
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Mobile	11.4738	15.1948	129.188	0.38356	0.24754	39.9943	40.2419	0.23203	10.1438	10.3759	39,585.7
Area	4.10463	—	—	—	—	—	—	—	—	—	—
Energy	0.07102	1.29124	1.08464	0.00775	0.09813	—	0.09813	0.09813	—	0.09813	6,225.00
Water	—	—	—	—	—	—	—	—	—	—	762.146
Waste	—	—	—	—	—	—	—	—	—	—	423.332

Sector	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Refrig.	—	—	—	—	—	—	—	—	—	—	47.1302
Total	15.6495	16.4861	130.272	0.39130	0.34567	39.9943	40.3400	0.33017	10.1438	10.4740	47,043.3
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Mobile	9.95446	13.0753	112.717	0.33735	0.21645	34.9400	35.1565	0.20289	8.86204	9.06493	34,848.6
Area	4.74264	0.03267	3.88338	0.00023	0.00690	—	0.00690	0.00521	—	0.00521	16.0266
Energy	0.07102	1.29124	1.08464	0.00775	0.09813	—	0.09813	0.09813	—	0.09813	6,225.00
Water	—	—	—	—	—	—	—	—	—	—	762.146
Waste	—	—	—	—	—	—	—	—	—	—	423.332
Refrig.	—	—	—	—	—	—	—	—	—	—	47.1302
Total	14.7681	14.3992	117.685	0.34533	0.32148	34.9400	35.2615	0.30624	8.86204	9.16828	42,322.2
Annual	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.81669	2.38624	20.5709	0.06157	0.03950	6.37655	6.41606	0.03703	1.61732	1.65435	5,769.58
Area	0.86553	0.00596	0.70872	0.00004	0.00126	—	0.00126	0.00095	—	0.00095	2.65339
Energy	0.01296	0.23565	0.19795	0.00141	0.01791	—	0.01791	0.01791	—	0.01791	1,030.62
Water	—	—	—	—	—	—	—	—	—	—	126.182
Waste	—	—	—	—	—	—	—	—	—	—	70.0874
Refrig.	—	—	—	—	—	—	—	—	—	—	7.80294
Total	2.69518	2.62785	21.4776	0.06302	0.05867	6.37655	6.43522	0.05589	1.61732	1.67321	7,006.93

2.5. Operations Emissions by Sector, Mitigated

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

Sector	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Mobile	11.5326	13.6325	137.216	0.39751	0.24748	39.9943	40.2418	0.23197	10.1438	10.3758	41,079.9
Area	5.39838	0.06626	7.87463	0.00047	0.01399	—	0.01399	0.01057	—	0.01057	32.4984
Energy	0.07102	1.29124	1.08464	0.00775	0.09813	—	0.09813	0.09813	—	0.09813	6,225.00
Water	—	—	—	—	—	—	—	—	—	—	762.146
Waste	—	—	—	—	—	—	—	—	—	—	423.332
Refrig.	—	—	—	—	—	—	—	—	—	—	47.1302
Total	17.0020	14.9900	146.175	0.40573	0.35960	39.9943	40.3539	0.34068	10.1438	10.4845	48,570.0
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Mobile	11.4738	15.1948	129.188	0.38356	0.24754	39.9943	40.2419	0.23203	10.1438	10.3759	39,585.7
Area	4.10463	—	—	—	—	—	—	—	—	—	—
Energy	0.07102	1.29124	1.08464	0.00775	0.09813	—	0.09813	0.09813	—	0.09813	6,225.00
Water	—	—	—	—	—	—	—	—	—	—	762.146
Waste	—	—	—	—	—	—	—	—	—	—	423.332
Refrig.	—	—	—	—	—	—	—	—	—	—	47.1302
Total	15.6495	16.4861	130.272	0.39130	0.34567	39.9943	40.3400	0.33017	10.1438	10.4740	47,043.3
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Mobile	9.95446	13.0753	112.717	0.33735	0.21645	34.9400	35.1565	0.20289	8.86204	9.06493	34,848.6
Area	4.74264	0.03267	3.88338	0.00023	0.00690	—	0.00690	0.00521	—	0.00521	16.0266
Energy	0.07102	1.29124	1.08464	0.00775	0.09813	—	0.09813	0.09813	—	0.09813	6,225.00

Sector	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Water	—	—	—	—	—	—	—	—	—	—	762.146
Waste	—	—	—	—	—	—	—	—	—	—	423.332
Refrig.	—	—	—	—	—	—	—	—	—	—	47.1302
Total	14.7681	14.3992	117.685	0.34533	0.32148	34.9400	35.2615	0.30624	8.86204	9.16828	42,322.2
Annual	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.81669	2.38624	20.5709	0.06157	0.03950	6.37655	6.41606	0.03703	1.61732	1.65435	5,769.58
Area	0.86553	0.00596	0.70872	0.00004	0.00126	—	0.00126	0.00095	—	0.00095	2.65339
Energy	0.01296	0.23565	0.19795	0.00141	0.01791	—	0.01791	0.01791	—	0.01791	1,030.62
Water	—	—	—	—	—	—	—	—	—	—	126.182
Waste	—	—	—	—	—	—	—	—	—	—	70.0874
Refrig.	—	—	—	—	—	—	—	—	—	—	7.80294
Total	2.69518	2.62785	21.4776	0.06302	0.05867	6.37655	6.43522	0.05589	1.61732	1.67321	7,006.93

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	11.5326	13.6325	137.216	0.39751	0.24748	39.9943	40.2418	0.23197	10.1438	10.3758	41,079.9
Total	11.5326	13.6325	137.216	0.39751	0.24748	39.9943	40.2418	0.23197	10.1438	10.3758	41,079.9
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	11.4738	15.1948	129.188	0.38356	0.24754	39.9943	40.2419	0.23203	10.1438	10.3759	39,585.7
Total	11.4738	15.1948	129.188	0.38356	0.24754	39.9943	40.2419	0.23203	10.1438	10.3759	39,585.7
Annual	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	1.81669	2.38624	20.5709	0.06157	0.03950	6.37655	6.41606	0.03703	1.61732	1.65435	5,769.58
Total	1.81669	2.38624	20.5709	0.06157	0.03950	6.37655	6.41606	0.03703	1.61732	1.65435	5,769.58

4.1.2. Mitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	11.5326	13.6325	137.216	0.39751	0.24748	39.9943	40.2418	0.23197	10.1438	10.3758	41,079.9
Total	11.5326	13.6325	137.216	0.39751	0.24748	39.9943	40.2418	0.23197	10.1438	10.3758	41,079.9
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	11.4738	15.1948	129.188	0.38356	0.24754	39.9943	40.2419	0.23203	10.1438	10.3759	39,585.7
Total	11.4738	15.1948	129.188	0.38356	0.24754	39.9943	40.2419	0.23203	10.1438	10.3759	39,585.7

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Annual	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	1.81669	2.38624	20.5709	0.06157	0.03950	6.37655	6.41606	0.03703	1.61732	1.65435	5,769.58
Total	1.81669	2.38624	20.5709	0.06157	0.03950	6.37655	6.41606	0.03703	1.61732	1.65435	5,769.58

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	4,680.06
Total	—	—	—	—	—	—	—	—	—	—	4,680.06
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	4,680.06
Total	—	—	—	—	—	—	—	—	—	—	4,680.06
Annual	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	774.838
Total	—	—	—	—	—	—	—	—	—	—	774.838

4.2.2. Electricity Emissions By Land Use - Mitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	4,680.06
Total	—	—	—	—	—	—	—	—	—	—	4,680.06
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	4,680.06
Total	—	—	—	—	—	—	—	—	—	—	4,680.06
Annual	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	774.838
Total	—	—	—	—	—	—	—	—	—	—	774.838

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	0.07102	1.29124	1.08464	0.00775	0.09813	—	0.09813	0.09813	—	0.09813	1,544.94
Total	0.07102	1.29124	1.08464	0.00775	0.09813	—	0.09813	0.09813	—	0.09813	1,544.94
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	0.07102	1.29124	1.08464	0.00775	0.09813	—	0.09813	0.09813	—	0.09813	1,544.94
Total	0.07102	1.29124	1.08464	0.00775	0.09813	—	0.09813	0.09813	—	0.09813	1,544.94

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Annual	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	0.01296	0.23565	0.19795	0.00141	0.01791	—	0.01791	0.01791	—	0.01791	255.782
Total	0.01296	0.23565	0.19795	0.00141	0.01791	—	0.01791	0.01791	—	0.01791	255.782

4.2.4. Natural Gas Emissions By Land Use - Mitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	0.07102	1.29124	1.08464	0.00775	0.09813	—	0.09813	0.09813	—	0.09813	1,544.94
Total	0.07102	1.29124	1.08464	0.00775	0.09813	—	0.09813	0.09813	—	0.09813	1,544.94
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	0.07102	1.29124	1.08464	0.00775	0.09813	—	0.09813	0.09813	—	0.09813	1,544.94
Total	0.07102	1.29124	1.08464	0.00775	0.09813	—	0.09813	0.09813	—	0.09813	1,544.94
Annual	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	0.01296	0.23565	0.19795	0.00141	0.01791	—	0.01791	0.01791	—	0.01791	255.782
Total	0.01296	0.23565	0.19795	0.00141	0.01791	—	0.01791	0.01791	—	0.01791	255.782

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	3.87464	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.22999	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	1.29375	0.06626	7.87463	0.00047	0.01399	—	0.01399	0.01057	—	0.01057	32.4984
Total	5.39838	0.06626	7.87463	0.00047	0.01399	—	0.01399	0.01057	—	0.01057	32.4984
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	3.87464	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.22999	—	—	—	—	—	—	—	—	—	—
Total	4.10463	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.70712	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.04197	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.11644	0.00596	0.70872	0.00004	0.00126	—	0.00126	0.00095	—	0.00095	2.65339
Total	0.86553	0.00596	0.70872	0.00004	0.00126	—	0.00126	0.00095	—	0.00095	2.65339

4.3.2. Mitigated

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

Source	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	3.87464	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.22999	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	1.29375	0.06626	7.87463	0.00047	0.01399	—	0.01399	0.01057	—	0.01057	32.4984
Total	5.39838	0.06626	7.87463	0.00047	0.01399	—	0.01399	0.01057	—	0.01057	32.4984
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	3.87464	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.22999	—	—	—	—	—	—	—	—	—	—
Total	4.10463	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.70712	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.04197	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.11644	0.00596	0.70872	0.00004	0.00126	—	0.00126	0.00095	—	0.00095	2.65339
Total	0.86553	0.00596	0.70872	0.00004	0.00126	—	0.00126	0.00095	—	0.00095	2.65339

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	762.146
Total	—	—	—	—	—	—	—	—	—	—	762.146
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	762.146
Total	—	—	—	—	—	—	—	—	—	—	762.146
Annual	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	126.182
Total	—	—	—	—	—	—	—	—	—	—	126.182

4.4.2. Mitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	762.146
Total	—	—	—	—	—	—	—	—	—	—	762.146

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	762.146
Total	—	—	—	—	—	—	—	—	—	—	762.146
Annual	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	126.182
Total	—	—	—	—	—	—	—	—	—	—	126.182

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	423.332
Total	—	—	—	—	—	—	—	—	—	—	423.332
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	423.332
Total	—	—	—	—	—	—	—	—	—	—	423.332
Annual	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	70.0874

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Total	—	—	—	—	—	—	—	—	—	—	70.0874

4.5.2. Mitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	423.332
Total	—	—	—	—	—	—	—	—	—	—	423.332
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	423.332
Total	—	—	—	—	—	—	—	—	—	—	423.332
Annual	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	70.0874
Total	—	—	—	—	—	—	—	—	—	—	70.0874

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	47.1302
Total	—	—	—	—	—	—	—	—	—	—	47.1302
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	47.1302
Total	—	—	—	—	—	—	—	—	—	—	47.1302
Annual	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	7.80294
Total	—	—	—	—	—	—	—	—	—	—	7.80294

4.6.2. Mitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	47.1302
Total	—	—	—	—	—	—	—	—	—	—	47.1302
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	47.1302
Total	—	—	—	—	—	—	—	—	—	—	47.1302

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Annual	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	7.80294
Total	—	—	—	—	—	—	—	—	—	—	7.80294

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)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—

4.7.2. Mitigated

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

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	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)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—

4.8.2. Mitigated

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

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Annual	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—

4.9.2. Mitigated

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

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—

Species	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Subtotal	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

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

Vegetation	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Total	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

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

Species	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—

Species	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Sequestered	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

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
Industrial Park	2,303.26	1,735.99	847.489	735,202	56,624.6	42,678.5	20,835.2	18,074,641

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Industrial Park	2,303.26	1,735.99	847.489	735,202	56,624.6	42,678.5	20,835.2	18,074,641

5.10. Operational Area Sources

5.10.1. Hearths

Land Use	Hearth Type	Unmitigated (number)	Mitigated (number)
Industrial Park	Wood Fireplaces	0	0
Industrial Park	Gas Fireplaces	0	0
Industrial Park	Propane Fireplaces	0	0
Industrial Park	Electric Fireplaces	0	0
Industrial Park	No Fireplaces	0	0
Industrial Park	Conventional Wood Stoves	0	0
Industrial Park	Catalytic Wood Stoves	0	0
Industrial Park	Non-Catalytic Wood Stoves	0	0
Industrial Park	Pellet Wood Stoves	0	0

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)
0.00000	0.00000	271,587	90,529.0	—

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00000
Summer Days	day/yr	180.000

5.10.4. Landscape Equipment - Mitigated

Season	Unit	Value
Snow Days	day/yr	0.00000
Summer Days	day/yr	180.000

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)
Industrial Park	3,198,919	531.983	0.0330	0.0040	4,807,279

5.11.2. Mitigated

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)
Industrial Park	3,198,919	531.983	0.0330	0.0040	4,807,279

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Industrial Park	41,869,663	129,276

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Industrial Park	41,869,663	129,276

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Industrial Park	224.512	0.00000

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Industrial Park	224.512	0.00000

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Industrial Park	Other commercial A/C and heat pumps	R-410A	2,088.00	0.30000	4.00000	4.00000	18.0000

5.14.2. Mitigated

Land Use	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Industrial Park	Other commercial A/C and heat pumps	R-410A	2,088.00	0.30000	4.00000	4.00000	18.0000

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

5.15.2. Mitigated

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5.16.2. Process Boilers

5.17. User Defined

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

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

5.18.2.2. Mitigated

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

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	14.1200	annual days of extreme heat
Extreme Precipitation	4.95000	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	29.4500	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	1	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
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	1	1	1	2
Extreme Precipitation	N/A	N/A	N/A	N/A
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	47.3802
AQ-PM	41.4561
AQ-DPM	54.5862
Drinking Water	57.4997
Lead Risk Housing	26.1626
Pesticides	23.8621
Toxic Releases	25.9440
Traffic	87.9750
Effect Indicators	—
CleanUp Sites	76.7264

Indicator	Result for Project Census Tract
Groundwater	95.3678
Haz Waste Facilities/Generators	98.9543
Impaired Water Bodies	96.7871
Solid Waste	0.00000
Sensitive Population	—
Asthma	6.46810
Cardio-vascular	23.5917
Low Birth Weights	81.5114
Socioeconomic Factor Indicators	—
Education	42.2931
Housing	36.6540
Linguistic	78.9958
Poverty	41.6583
Unemployment	63.4175

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	50.891826
Employed	66.62389324

Indicator	Result for Project Census Tract
Median HI	80.00769922
Education	—
Bachelor's or higher	77.04350058
High school enrollment	100
Preschool enrollment	84.35775696
Transportation	—
Auto Access	24.89413576
Active commuting	79.73822661
Social	—
2-parent households	83.72898755
Voting	71.96201719
Neighborhood	—
Alcohol availability	57.74412935
Park access	81.35506224
Retail density	49.6856153
Supermarket access	58.44989093
Tree canopy	73.65584499
Housing	—
Homeownership	29.61632234
Housing habitability	34.69780572
Low-inc homeowner severe housing cost burden	54.20248941

Indicator	Result for Project Census Tract
Low-inc renter severe housing cost burden	35.30091107
Uncrowded housing	29.84729886
Health Outcomes	—
Insured adults	32.84999358
Arthritis	87.4
Asthma ER Admissions	88.5
High Blood Pressure	63.5
Cancer (excluding skin)	66.1
Asthma	51.9
Coronary Heart Disease	85.5
Chronic Obstructive Pulmonary Disease	68.2
Diagnosed Diabetes	85.5
Life Expectancy at Birth	96.6
Cognitively Disabled	85.7
Physically Disabled	76.0
Heart Attack ER Admissions	65.6
Mental Health Not Good	52.8
Chronic Kidney Disease	85.5
Obesity	61.8
Pedestrian Injuries	40.0
Physical Health Not Good	62.9

Indicator	Result for Project Census Tract
Stroke	84.7
Health Risk Behaviors	—
Binge Drinking	29.5
Current Smoker	53.5
No Leisure Time for Physical Activity	56.1
Climate Change Exposures	—
Wildfire Risk	28.4
SLR Inundation Area	0.0
Children	20.9
Elderly	92.9
English Speaking	14.1
Foreign-born	87.5
Outdoor Workers	82.9
Climate Change Adaptive Capacity	—
Impervious Surface Cover	53.1
Traffic Density	84.1
Traffic Access	23.0
Other Indices	—
Hardship	50.9
Other Decision Support	—
2016 Voting	82.3

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	61.0000
Healthy Places Index Score for Project Location (b)	75.0000
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
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

8.1. Justifications

Screen	Justification
Land Use	Site Specific

Screen	Justification
Construction: Construction Phases	Site Specific
Construction: Off-Road Equipment	Site Specific
Construction: Trips and VMT	Site Specific
Construction: Paving	Site Specific
Operations: Vehicle Data	Site Specific

8.3. Land Use

Model Parameter	Units	Default Value	New Value
Lot Area	acre	4.15652	4.27000
Landscape Area	sq. ft	—	10,000.00
Special Landscape Area	sq. ft	—	0.00000

8.5. Operations

8.5.1. Mobile Sources

8.5.1.1. Vehicle Data

Land Use	Model Parameter	Units	Default Value	New Value
Industrial Park	Weekday Trip Rate	size/day	3.37000	12.7211
Industrial Park	Saturday Trip Rate	size/day	2.54000	9.58801
Industrial Park	Sunday Trip Rate	size/day	1.24000	4.68076

Amgen Building 50 Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Amgen Building 50
Construction Start Date	7/13/2026
Operational Year	2029
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.70000
Precipitation (days)	1.60000
Location	34.1883542893481, -118.92368812397265
County	Ventura
City	Thousand Oaks
Air District	Ventura County APCD
Air Basin	South Central Coast
TAZ	3510
EDFZ	8
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas

Data Field	Value
App Version	2022.1.1.45

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
Industrial Park	378.862	1000sqft	4.27000	378,862	47,600.0	0.00000	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-5	Use Advanced Engine Tiers

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.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	13.5348	37.4532	72.5891	0.08271	1.08678	8.04791	9.13469	0.99530	1.89502	2.89032	15,807.2
Mit.	10.9735	22.2490	77.3128	0.08271	0.24700	8.04791	8.29491	0.23270	1.89502	2.12771	15,807.2
% Reduced	19%	41%	-7%	—	77%	—	9%	77%	—	26%	—

Un/Mit.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	13.5073	37.7951	69.3837	0.08271	1.08678	8.04791	9.13469	0.99530	1.89502	2.89032	15,442.9
Mit.	10.9460	22.5909	74.1075	0.08271	0.24700	8.04791	8.29491	0.23270	1.89502	2.12771	15,442.9
% Reduced	19%	40%	-7%	—	77%	—	9%	77%	—	26%	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	8.42656	30.9227	58.0414	0.07109	0.88422	6.91003	7.73289	0.81001	1.62698	2.38439	13,193.7
Mit.	6.22519	19.1128	62.2215	0.07109	0.20658	6.91003	7.11661	0.19901	1.62698	1.82599	13,193.7
% Reduced	26%	38%	-7%	—	77%	—	8%	75%	—	23%	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.53785	5.64339	10.5926	0.01297	0.16137	1.26108	1.41125	0.14783	0.29692	0.43515	2,184.36
Mit.	1.13610	3.48808	11.3554	0.01297	0.03770	1.26108	1.29878	0.03632	0.29692	0.33324	2,184.36
% Reduced	26%	38%	-7%	—	77%	—	8%	75%	—	23%	—

2.2. Construction Emissions by Year

2.2.1. Total Construction Emissions by Year, Unmitigated

Includes both onsite and offsite emissions.

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

Year	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—

Year	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
2027	6.31737	37.4532	72.5891	0.08270	1.08678	8.04791	9.13469	0.99530	1.89502	2.89032	15,807.2
2028	13.5348	35.6677	70.4761	0.08271	0.95739	8.04791	9.00529	0.88123	1.89502	2.77625	15,646.8
2029	2.16907	18.3143	29.6238	0.04946	0.55474	0.71391	1.26865	0.51043	0.16877	0.67921	5,636.54
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
2026	2.57111	20.6958	30.1806	0.04369	0.83692	1.37554	2.21246	0.76845	0.32529	1.09375	5,756.82
2027	6.28985	37.7951	69.3837	0.08270	1.08678	8.04791	9.13469	0.99530	1.89502	2.89032	15,442.9
2028	13.5073	36.0102	67.4091	0.08271	0.95739	8.04791	9.00529	0.88123	1.89502	2.77625	15,291.9
2029	13.0589	34.9036	65.3478	0.08271	0.87208	8.04791	8.91998	0.80274	1.89502	2.69776	15,146.1
Average Daily	—	—	—	—	—	—	—	—	—	—	—
2026	0.24248	2.06013	3.11241	0.00482	0.07806	0.13119	0.20925	0.07171	0.03171	0.10342	631.070
2027	4.84995	29.8741	54.0390	0.06548	0.88422	5.96762	6.85184	0.81001	1.40528	2.21530	11,939.3
2028	8.42656	30.9227	58.0414	0.07109	0.82287	6.91003	7.73289	0.75741	1.62698	2.38439	13,193.7
2029	3.52362	13.9018	24.3918	0.03523	0.38341	1.95515	2.33856	0.35286	0.46059	0.81344	5,227.15
Annual	—	—	—	—	—	—	—	—	—	—	—
2026	0.04425	0.37597	0.56802	0.00088	0.01425	0.02394	0.03819	0.01309	0.00579	0.01887	104.481
2027	0.88512	5.45203	9.86212	0.01195	0.16137	1.08909	1.25046	0.14783	0.25646	0.40429	1,976.69
2028	1.53785	5.64339	10.5926	0.01297	0.15017	1.26108	1.41125	0.13823	0.29692	0.43515	2,184.36
2029	0.64306	2.53708	4.45151	0.00643	0.06997	0.35682	0.42679	0.06440	0.08406	0.14845	865.414

2.2.2. Onsite 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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
2027	3.93362	34.2632	39.3757	0.07730	1.07599	0.00000	1.07599	0.98991	0.00000	0.98991	7,220.14
2028	11.2304	32.7914	39.2335	0.07732	0.95199	0.00000	0.95199	0.87583	0.00000	0.87583	7,221.59
2029	1.97390	18.0310	27.0676	0.04856	0.55384	0.00000	0.55384	0.50953	0.00000	0.50953	4,863.04
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
2026	2.16089	19.9021	24.7783	0.04190	0.83332	0.00196	0.83332	0.76666	0.00030	0.76666	4,235.67
2027	3.93362	34.2632	39.3757	0.07730	1.07599	0.00000	1.07599	0.98991	0.00000	0.98991	7,220.14
2028	11.2304	32.7914	39.2335	0.07732	0.95199	0.00000	0.95199	0.87583	0.00000	0.87583	7,221.59
2029	11.0929	31.7406	38.9963	0.07731	0.86668	0.00000	0.86668	0.79734	0.00000	0.79734	7,221.25
Average Daily	—	—	—	—	—	—	—	—	—	—	—
2026	0.20744	1.91822	2.64234	0.00427	0.07698	0.00013	0.07711	0.07082	0.00002	0.07084	440.618
2027	3.11143	27.2544	31.7162	0.06135	0.87596	0.00000	0.87596	0.80588	0.00000	0.80588	5,775.25
2028	6.45780	28.1839	33.7208	0.06645	0.81823	0.00000	0.81823	0.75277	0.00000	0.75277	6,206.89
2029	3.05293	13.1798	17.9565	0.03377	0.38195	0.00000	0.38195	0.35139	0.00000	0.35139	3,271.58
Annual	—	—	—	—	—	—	—	—	—	—	—
2026	0.03786	0.35007	0.48223	0.00078	0.01405	0.00002	0.01407	0.01292	< 0.000005	0.01293	72.9493
2027	0.56784	4.97394	5.78820	0.01120	0.15986	0.00000	0.15986	0.14707	0.00000	0.14707	956.158
2028	1.17855	5.14356	6.15405	0.01213	0.14933	0.00000	0.14933	0.13738	0.00000	0.13738	1,027.62
2029	0.55716	2.40531	3.27707	0.00616	0.06971	0.00000	0.06971	0.06413	0.00000	0.06413	541.647

2.2.3. Offsite 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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
2027	2.38374	3.19000	33.2134	0.00540	0.01079	8.04791	8.05870	0.00540	1.89502	1.90041	8,587.08
2028	2.30438	2.87629	31.2426	0.00540	0.00540	8.04791	8.05330	0.00540	1.89502	1.90041	8,425.19
2029	0.19517	0.28327	2.55618	0.00090	0.00090	0.71391	0.71481	0.00090	0.16877	0.16967	773.501
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
2026	0.41022	1.23418	5.40227	0.00619	0.01203	1.37554	1.37914	0.01113	0.32529	0.32709	1,521.15
2027	2.35623	3.53196	30.0080	0.00540	0.01079	8.04791	8.05870	0.00540	1.89502	1.90041	8,222.77
2028	2.27686	3.21878	28.1756	0.00540	0.00540	8.04791	8.05330	0.00540	1.89502	1.90041	8,070.33
2029	1.96601	3.16302	26.3516	0.00540	0.00540	8.04791	8.05330	0.00540	1.89502	1.90041	7,924.87
Average Daily	—	—	—	—	—	—	—	—	—	—	—
2026	0.03504	0.14191	0.47008	0.00055	0.00109	0.13106	0.13214	0.00089	0.03169	0.03258	190.452
2027	1.73851	2.61966	22.3228	0.00413	0.00825	5.96762	5.97588	0.00413	1.40528	1.40941	6,164.09
2028	1.96877	2.73878	24.3206	0.00464	0.00464	6.91003	6.91466	0.00464	1.62698	1.63162	6,986.78
2029	0.47068	0.72202	6.43529	0.00146	0.00146	1.95515	1.95661	0.00146	0.46059	0.46205	1,955.57
Annual	—	—	—	—	—	—	—	—	—	—	—
2026	0.00639	0.02590	0.08579	0.00010	0.00020	0.02392	0.02412	0.00016	0.00578	0.00595	31.5316
2027	0.31728	0.47809	4.07392	0.00075	0.00151	1.08909	1.09060	0.00075	0.25646	0.25722	1,020.54
2028	0.35930	0.49983	4.43851	0.00085	0.00085	1.26108	1.26193	0.00085	0.29692	0.29777	1,156.74

Year	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
2029	0.08590	0.13177	1.17444	0.00027	0.00027	0.35682	0.35708	0.00027	0.08406	0.08432	323.767

2.2.4. Total Construction Emissions by Year, Mitigated

Includes both onsite and offsite emissions.

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

Year	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
2027	3.57961	22.2490	77.3128	0.08270	0.24700	8.04791	8.29491	0.23270	1.89502	2.12771	15,807.2
2028	10.9735	21.9271	75.3394	0.08271	0.24035	8.04791	8.28826	0.23155	1.89502	2.12656	15,646.8
2029	1.00691	10.7180	33.9387	0.04946	0.15871	0.71391	0.87262	0.15293	0.16877	0.32170	5,636.54
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
2026	1.11044	9.90517	32.6019	0.04369	0.15231	1.37554	1.52785	0.14454	0.32529	0.46983	5,756.82
2027	3.55209	22.5909	74.1075	0.08270	0.24700	8.04791	8.29491	0.23270	1.89502	2.12771	15,442.9
2028	10.9460	22.2696	72.2725	0.08271	0.24035	8.04791	8.28826	0.23155	1.89502	2.12656	15,291.9
2029	10.6341	22.2072	70.4465	0.08271	0.23934	8.04791	8.28725	0.23061	1.89502	2.12563	15,146.1
Average Daily	—	—	—	—	—	—	—	—	—	—	—
2026	0.10092	1.03026	3.37488	0.00482	0.01438	0.13119	0.14556	0.01375	0.03171	0.04545	631.243
2027	2.69470	17.5768	57.7806	0.06548	0.19846	5.96762	6.16609	0.18712	1.40528	1.59240	11,939.3
2028	6.22519	19.1128	62.2215	0.07109	0.20658	6.91003	7.11661	0.19901	1.62698	1.82599	13,193.7
2029	2.59403	8.49207	27.0181	0.03523	0.10754	1.95515	2.06270	0.10363	0.46059	0.56421	5,227.15

Year	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Annual	—	—	—	—	—	—	—	—	—	—	—
2026	0.01842	0.18802	0.61592	0.00088	0.00262	0.02394	0.02657	0.00251	0.00579	0.00830	104.509
2027	0.49178	3.20777	10.5450	0.01195	0.03622	1.08909	1.12531	0.03415	0.25646	0.29061	1,976.69
2028	1.13610	3.48808	11.3554	0.01297	0.03770	1.26108	1.29878	0.03632	0.29692	0.33324	2,184.36
2029	0.47341	1.54980	4.93080	0.00643	0.01963	0.35682	0.37644	0.01891	0.08406	0.10297	865.414

2.2.5. Onsite Construction Emissions by Year, Mitigated

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

Year	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
2027	1.19586	19.0590	44.0995	0.07730	0.23621	0.00000	0.23621	0.22730	0.00000	0.22730	7,220.14
2028	8.66913	19.0508	44.0968	0.07732	0.23496	0.00000	0.23496	0.22615	0.00000	0.22615	7,221.59
2029	0.81174	10.4347	31.3825	0.04856	0.15781	0.00000	0.15781	0.15203	0.00000	0.15203	4,863.04
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
2026	0.70022	9.11143	27.1996	0.04190	0.14871	0.00196	0.14871	0.14274	0.00030	0.14274	4,235.67
2027	1.19586	19.0590	44.0995	0.07730	0.23621	0.00000	0.23621	0.22730	0.00000	0.22730	7,220.14
2028	8.66913	19.0508	44.0968	0.07732	0.23496	0.00000	0.23496	0.22615	0.00000	0.22615	7,221.59
2029	8.66812	19.0441	44.0949	0.07731	0.23394	0.00000	0.23394	0.22522	0.00000	0.22522	7,221.25
Average Daily	—	—	—	—	—	—	—	—	—	—	—
2026	0.06588	0.88835	2.90480	0.00427	0.01329	0.00013	0.01342	0.01285	0.00002	0.01288	440.790

Year	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
2027	0.95618	14.9572	35.4578	0.06135	0.19021	0.00000	0.19021	0.18299	0.00000	0.18299	5,775.25
2028	4.25642	16.3740	37.9009	0.06645	0.20194	0.00000	0.20194	0.19437	0.00000	0.19437	6,206.89
2029	2.12335	7.77005	20.5828	0.03377	0.10608	0.00000	0.10608	0.10216	0.00000	0.10216	3,271.58
Annual	—	—	—	—	—	—	—	—	—	—	—
2026	0.01202	0.16212	0.53013	0.00078	0.00243	0.00002	0.00245	0.00235	< 0.000005	0.00235	72.9778
2027	0.17450	2.72968	6.47104	0.01120	0.03471	0.00000	0.03471	0.03340	0.00000	0.03340	956.158
2028	0.77680	2.98825	6.91691	0.01213	0.03685	0.00000	0.03685	0.03547	0.00000	0.03547	1,027.62
2029	0.38751	1.41803	3.75636	0.00616	0.01936	0.00000	0.01936	0.01865	0.00000	0.01865	541.647

2.2.6. Offsite Construction Emissions by Year, Mitigated

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

Year	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
2027	2.38374	3.19000	33.2134	0.00540	0.01079	8.04791	8.05870	0.00540	1.89502	1.90041	8,587.08
2028	2.30438	2.87629	31.2426	0.00540	0.00540	8.04791	8.05330	0.00540	1.89502	1.90041	8,425.19
2029	0.19517	0.28327	2.55618	0.00090	0.00090	0.71391	0.71481	0.00090	0.16877	0.16967	773.501
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
2026	0.41022	1.23418	5.40227	0.00619	0.01203	1.37554	1.37914	0.01113	0.32529	0.32709	1,521.15
2027	2.35623	3.53196	30.0080	0.00540	0.01079	8.04791	8.05870	0.00540	1.89502	1.90041	8,222.77
2028	2.27686	3.21878	28.1756	0.00540	0.00540	8.04791	8.05330	0.00540	1.89502	1.90041	8,070.33

Year	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
2029	1.96601	3.16302	26.3516	0.00540	0.00540	8.04791	8.05330	0.00540	1.89502	1.90041	7,924.87
Average Daily	—	—	—	—	—	—	—	—	—	—	—
2026	0.03504	0.14191	0.47008	0.00055	0.00109	0.13106	0.13214	0.00089	0.03169	0.03258	190.452
2027	1.73851	2.61966	22.3228	0.00413	0.00825	5.96762	5.97588	0.00413	1.40528	1.40941	6,164.09
2028	1.96877	2.73878	24.3206	0.00464	0.00464	6.91003	6.91466	0.00464	1.62698	1.63162	6,986.78
2029	0.47068	0.72202	6.43529	0.00146	0.00146	1.95515	1.95661	0.00146	0.46059	0.46205	1,955.57
Annual	—	—	—	—	—	—	—	—	—	—	—
2026	0.00639	0.02590	0.08579	0.00010	0.00020	0.02392	0.02412	0.00016	0.00578	0.00595	31.5316
2027	0.31728	0.47809	4.07392	0.00075	0.00151	1.08909	1.09060	0.00075	0.25646	0.25722	1,020.54
2028	0.35930	0.49983	4.43851	0.00085	0.00085	1.26108	1.26193	0.00085	0.29692	0.29777	1,156.74
2029	0.08590	0.13177	1.17444	0.00027	0.00027	0.35682	0.35708	0.00027	0.08406	0.08432	323.767

2.3. 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.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	30.4255	25.5324	251.848	0.66096	0.58107	62.3030	62.8840	0.54977	15.8020	16.3518	84,523.6
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	27.6267	27.8274	222.865	0.63824	0.55189	62.3030	62.8549	0.52774	15.8020	16.3298	82,127.9
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—

Un/Mit.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Unmit.	26.7065	24.9926	207.405	0.57066	0.53384	54.4294	54.9632	0.50919	13.8052	14.3144	75,199.3
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	4.87394	4.56115	37.8515	0.10415	0.09743	9.93336	10.0308	0.09293	2.51946	2.61238	12,450.1

2.4. 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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Mobile	17.9655	21.2367	213.754	0.61924	0.38552	62.3030	62.6885	0.36137	15.8020	16.1634	63,994.0
Area	11.2961	0.13864	16.4776	0.00098	0.02927	—	0.02927	0.02212	—	0.02212	68.0025
Energy	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	13,528.3
Water	—	—	—	—	—	—	—	—	—	—	1,597.46
Waste	—	—	—	—	—	—	—	—	—	—	885.817
Refrig.	—	—	—	—	—	—	—	—	—	—	98.6195
Stationary	1.16396	4.15701	21.6165	0.04074	0.16628	0.00000	0.16628	0.16628	0.00000	0.16628	4,351.41
Total	30.4255	25.5324	251.848	0.66096	0.58107	62.3030	62.8840	0.54977	15.8020	16.3518	84,523.6
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Mobile	17.8739	23.6704	201.248	0.59750	0.38561	62.3030	62.6886	0.36146	15.8020	16.1635	61,666.3
Area	8.58889	—	—	—	—	—	—	—	—	—	—
Energy	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	13,528.3

Sector	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Water	—	—	—	—	—	—	—	—	—	—	1,597.46
Waste	—	—	—	—	—	—	—	—	—	—	885.817
Refrig.	—	—	—	—	—	—	—	—	—	—	98.6195
Stationary	1.16396	4.15701	21.6165	0.04074	0.16628	0.00000	0.16628	0.16628	0.00000	0.16628	4,351.41
Total	27.6267	27.8274	222.865	0.63824	0.55189	62.3030	62.8549	0.52774	15.8020	16.3298	82,127.9
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Mobile	15.5070	20.3686	175.590	0.52553	0.33718	54.4294	54.7666	0.31606	13.8052	14.1213	54,286.9
Area	9.92393	0.06837	8.12593	0.00048	0.01443	—	0.01443	0.01091	—	0.01091	33.5355
Energy	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	13,528.3
Water	—	—	—	—	—	—	—	—	—	—	1,597.46
Waste	—	—	—	—	—	—	—	—	—	—	885.817
Refrig.	—	—	—	—	—	—	—	—	—	—	98.6195
Stationary	1.27558	4.55563	23.6893	0.04465	0.18223	0.00000	0.18223	0.18223	0.00000	0.18223	4,768.67
Total	26.7065	24.9926	207.405	0.57066	0.53384	54.4294	54.9632	0.50919	13.8052	14.3144	75,199.3
Annual	—	—	—	—	—	—	—	—	—	—	—
Mobile	2.83003	3.71727	32.0452	0.09591	0.06154	9.93336	9.99490	0.05768	2.51946	2.57714	8,987.82
Area	1.81112	0.01248	1.48298	0.00009	0.00263	—	0.00263	0.00199	—	0.00199	5.55218
Energy	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	2,239.76
Water	—	—	—	—	—	—	—	—	—	—	264.478
Waste	—	—	—	—	—	—	—	—	—	—	146.657
Refrig.	—	—	—	—	—	—	—	—	—	—	16.3276

Sector	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Stationary	0.23279	0.83140	4.32329	0.00815	0.03326	0.00000	0.03326	0.03326	0.00000	0.03326	789.507
Total	4.87394	4.56115	37.8515	0.10415	0.09743	9.93336	10.0308	0.09293	2.51946	2.61238	12,450.1

2.5. Operations Emissions by Sector, Mitigated

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

Sector	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Mobile	17.9655	21.2367	213.754	0.61924	0.38552	62.3030	62.6885	0.36137	15.8020	16.1634	63,994.0
Area	11.2961	0.13864	16.4776	0.00098	0.02927	—	0.02927	0.02212	—	0.02212	68.0025
Energy	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	13,528.3
Water	—	—	—	—	—	—	—	—	—	—	1,597.46
Waste	—	—	—	—	—	—	—	—	—	—	885.817
Refrig.	—	—	—	—	—	—	—	—	—	—	98.6195
Stationary	1.16396	4.15701	21.6165	0.04074	0.16628	0.00000	0.16628	0.16628	0.00000	0.16628	4,351.41
Total	30.4255	25.5324	251.848	0.66096	0.58107	62.3030	62.8840	0.54977	15.8020	16.3518	84,523.6
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Mobile	17.8739	23.6704	201.248	0.59750	0.38561	62.3030	62.6886	0.36146	15.8020	16.1635	61,666.3
Area	8.58889	—	—	—	—	—	—	—	—	—	—
Energy	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	13,528.3
Water	—	—	—	—	—	—	—	—	—	—	1,597.46

Sector	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Waste	—	—	—	—	—	—	—	—	—	—	885.817
Refrig.	—	—	—	—	—	—	—	—	—	—	98.6195
Stationary	1.16396	4.15701	21.6165	0.04074	0.16628	0.00000	0.16628	0.16628	0.00000	0.16628	4,351.41
Total	27.6267	27.8274	222.865	0.63824	0.55189	62.3030	62.8549	0.52774	15.8020	16.3298	82,127.9
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Mobile	15.5070	20.3686	175.590	0.52553	0.33718	54.4294	54.7666	0.31606	13.8052	14.1213	54,286.9
Area	9.92393	0.06837	8.12593	0.00048	0.01443	—	0.01443	0.01091	—	0.01091	33.5355
Energy	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	13,528.3
Water	—	—	—	—	—	—	—	—	—	—	1,597.46
Waste	—	—	—	—	—	—	—	—	—	—	885.817
Refrig.	—	—	—	—	—	—	—	—	—	—	98.6195
Stationary	1.27558	4.55563	23.6893	0.04465	0.18223	0.00000	0.18223	0.18223	0.00000	0.18223	4,768.67
Total	26.7065	24.9926	207.405	0.57066	0.53384	54.4294	54.9632	0.50919	13.8052	14.3144	75,199.3
Annual	—	—	—	—	—	—	—	—	—	—	—
Mobile	2.83003	3.71727	32.0452	0.09591	0.06154	9.93336	9.99490	0.05768	2.51946	2.57714	8,987.82
Area	1.81112	0.01248	1.48298	0.00009	0.00263	—	0.00263	0.00199	—	0.00199	5.55218
Energy	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	2,239.76
Water	—	—	—	—	—	—	—	—	—	—	264.478
Waste	—	—	—	—	—	—	—	—	—	—	146.657
Refrig.	—	—	—	—	—	—	—	—	—	—	16.3276
Stationary	0.23279	0.83140	4.32329	0.00815	0.03326	0.00000	0.03326	0.03326	0.00000	0.03326	789.507

Sector	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Total	4.87394	4.56115	37.8515	0.10415	0.09743	9.93336	10.0308	0.09293	2.51946	2.61238	12,450.1

3. Construction Emissions Details

3.1. Site Prep-Grading (2026)

3.1.1. Onsite - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.73189	6.85289	12.2423	0.01777	0.23818	—	0.23818	0.21913	—	0.21913	1,931.11
Dust From Material Movement	—	—	—	—	—	0.00196	0.00196	—	0.00030	0.00030	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05013	0.46938	0.83851	0.00122	0.01631	—	0.01631	0.01501	—	0.01501	132.268
Dust From Material Movement	—	—	—	—	—	0.00013	0.00013	—	0.00002	0.00002	—

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00915	0.08566	0.15303	0.00022	0.00298	—	0.00298	0.00274	—	0.00274	21.8984
Dust From Material Movement	—	—	—	—	—	0.00002	0.00002	—	< 0.000005	< 0.000005	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.1.2. Offsite - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06455	0.07831	0.84922	0.00000	0.00000	0.20914	0.20914	0.00000	0.04902	0.04902	202.875
Vendor	0.00339	0.15215	0.04732	0.00090	0.00180	0.03422	0.03602	0.00090	0.00946	0.01035	126.588
Hauling	0.00970	1.00372	0.22223	0.00529	0.01023	0.20995	0.22018	0.01023	0.05888	0.06911	819.881
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00440	0.00532	0.05823	0.00000	0.00000	0.01431	0.01431	0.00000	0.00335	0.00335	14.0173
Vendor	0.00024	0.01036	0.00319	0.00006	0.00012	0.00234	0.00247	0.00006	0.00065	0.00071	8.67719
Hauling	0.00069	0.06891	0.01510	0.00036	0.00070	0.01437	0.01507	0.00070	0.00403	0.00473	56.1976
Annual	—	—	—	—	—	—	—	—	—	—	—

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Worker	0.00080	0.00097	0.01063	0.00000	0.00000	0.00261	0.00261	0.00000	0.00061	0.00061	2.32073
Vendor	0.00004	0.00189	0.00058	0.00001	0.00002	0.00043	0.00045	0.00001	0.00012	0.00013	1.43661
Hauling	0.00013	0.01258	0.00276	0.00007	0.00013	0.00262	0.00275	0.00013	0.00074	0.00086	9.30415

3.1.3. Onsite - Mitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.21767	3.28573	13.5008	0.01780	0.03597	—	0.03597	0.03597	—	0.03597	1,933.62
Dust From Material Movement	—	—	—	—	—	0.00196	0.00196	—	0.00030	0.00030	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01491	0.22505	0.92472	0.00122	0.00246	—	0.00246	0.00246	—	0.00246	132.440
Dust From Material Movement	—	—	—	—	—	0.00013	0.00013	—	0.00002	0.00002	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Off-Road Equipment	0.00272	0.04107	0.16876	0.00022	0.00045	—	0.00045	0.00045	—	0.00045	21.9270
Dust From Material Movement	—	—	—	—	—	0.00002	0.00002	—	< 0.000005	< 0.000005	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.1.4. Offsite - Mitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06455	0.07831	0.84922	0.00000	0.00000	0.20914	0.20914	0.00000	0.04902	0.04902	202.875
Vendor	0.00339	0.15215	0.04732	0.00090	0.00180	0.03422	0.03602	0.00090	0.00946	0.01035	126.588
Hauling	0.00970	1.00372	0.22223	0.00529	0.01023	0.20995	0.22018	0.01023	0.05888	0.06911	819.881
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00440	0.00532	0.05823	0.00000	0.00000	0.01431	0.01431	0.00000	0.00335	0.00335	14.0173
Vendor	0.00024	0.01036	0.00319	0.00006	0.00012	0.00234	0.00247	0.00006	0.00065	0.00071	8.67719
Hauling	0.00069	0.06891	0.01510	0.00036	0.00070	0.01437	0.01507	0.00070	0.00403	0.00473	56.1976
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00080	0.00097	0.01063	0.00000	0.00000	0.00261	0.00261	0.00000	0.00061	0.00061	2.32073
Vendor	0.00004	0.00189	0.00058	0.00001	0.00002	0.00043	0.00045	0.00001	0.00012	0.00013	1.43661

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Hauling	0.00013	0.01258	0.00276	0.00007	0.00013	0.00262	0.00275	0.00013	0.00074	0.00086	9.30415

3.2. Building Foundation (2026)

3.2.1. Onsite - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.16089	19.9021	24.7783	0.04190	0.83332	—	0.83332	0.76666	—	0.76666	4,235.67
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15731	1.44884	1.80382	0.00305	0.06066	—	0.06066	0.05581	—	0.05581	308.350
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02871	0.26441	0.32920	0.00056	0.01107	—	0.01107	0.01019	—	0.01019	51.0509
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.2.2. Offsite - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.40345	0.48943	5.30763	0.00000	0.00000	1.30709	1.30709	0.00000	0.30638	0.30638	1,267.97
Vendor	0.00677	0.30431	0.09464	0.00180	0.00360	0.06845	0.07205	0.00180	0.01891	0.02071	253.175
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02921	0.03531	0.38679	0.00000	0.00000	0.09506	0.09506	0.00000	0.02228	0.02228	93.1151
Vendor	0.00051	0.02202	0.00677	0.00013	0.00026	0.00498	0.00524	0.00013	0.00138	0.00151	18.4452
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00533	0.00644	0.07059	0.00000	0.00000	0.01735	0.01735	0.00000	0.00407	0.00407	15.4163
Vendor	0.00009	0.00402	0.00124	0.00002	0.00005	0.00091	0.00096	0.00002	0.00025	0.00027	3.05382
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.2.3. Onsite - Mitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.70022	9.11143	27.1996	0.04190	0.14871	—	0.14871	0.14274	—	0.14274	4,235.67
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05097	0.66330	1.98009	0.00305	0.01083	—	0.01083	0.01039	—	0.01039	308.350
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00930	0.12105	0.36137	0.00056	0.00198	—	0.00198	0.00190	—	0.00190	51.0509
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.2.4. Offsite - Mitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.40345	0.48943	5.30763	0.00000	0.00000	1.30709	1.30709	0.00000	0.30638	0.30638	1,267.97
Vendor	0.00677	0.30431	0.09464	0.00180	0.00360	0.06845	0.07205	0.00180	0.01891	0.02071	253.175
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02921	0.03531	0.38679	0.00000	0.00000	0.09506	0.09506	0.00000	0.02228	0.02228	93.1151
Vendor	0.00051	0.02202	0.00677	0.00013	0.00026	0.00498	0.00524	0.00013	0.00138	0.00151	18.4452
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00533	0.00644	0.07059	0.00000	0.00000	0.01735	0.01735	0.00000	0.00407	0.00407	15.4163
Vendor	0.00009	0.00402	0.00124	0.00002	0.00005	0.00091	0.00096	0.00002	0.00025	0.00027	3.05382
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.3. Building Foundation (2027)

3.3.1. Onsite - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.05531	19.0056	24.6921	0.04190	0.74173	—	0.74173	0.68239	—	0.68239	4,236.12
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Off-Road Equipment	0.28477	2.63325	3.42114	0.00581	0.10277	—	0.10277	0.09455	—	0.09455	586.923
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05197	0.48057	0.62436	0.00106	0.01876	—	0.01876	0.01725	—	0.01725	97.1718
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.3.2. Offsite - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.39022	0.44423	4.95599	0.00000	0.00000	1.30709	1.30709	0.00000	0.30638	0.30638	1,246.22
Vendor	0.00497	0.28886	0.09069	0.00180	0.00360	0.06845	0.07205	0.00180	0.01891	0.02071	248.483
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05376	0.06094	0.68865	0.00000	0.00000	0.18091	0.18091	0.00000	0.04240	0.04240	174.155
Vendor	0.00071	0.04000	0.01235	0.00025	0.00050	0.00948	0.00997	0.00025	0.00262	0.00287	34.4498
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Worker	0.00981	0.01112	0.12568	0.00000	0.00000	0.03302	0.03302	0.00000	0.00774	0.00774	28.8334
Vendor	0.00013	0.00730	0.00225	0.00005	0.00009	0.00173	0.00182	0.00005	0.00048	0.00052	5.70356
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.3.3. Onsite - Mitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.69899	9.10521	27.1976	0.04190	0.14775	—	0.14775	0.14185	—	0.14185	4,236.12
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09685	1.26154	3.76828	0.00581	0.02047	—	0.02047	0.01965	—	0.01965	586.923
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01767	0.23023	0.68771	0.00106	0.00374	—	0.00374	0.00359	—	0.00359	97.1718
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.3.4. Offsite - Mitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.39022	0.44423	4.95599	0.00000	0.00000	1.30709	1.30709	0.00000	0.30638	0.30638	1,246.22
Vendor	0.00497	0.28886	0.09069	0.00180	0.00360	0.06845	0.07205	0.00180	0.01891	0.02071	248.483
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05376	0.06094	0.68865	0.00000	0.00000	0.18091	0.18091	0.00000	0.04240	0.04240	174.155
Vendor	0.00071	0.04000	0.01235	0.00025	0.00050	0.00948	0.00997	0.00025	0.00262	0.00287	34.4498
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00981	0.01112	0.12568	0.00000	0.00000	0.03302	0.03302	0.00000	0.00774	0.00774	28.8334
Vendor	0.00013	0.00730	0.00225	0.00005	0.00009	0.00173	0.00182	0.00005	0.00048	0.00052	5.70356
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.4. Building Construction (2027)

3.4.1. Onsite - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.93362	34.2632	39.3757	0.07730	1.07599	—	1.07599	0.98991	—	0.98991	7,220.14
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.93362	34.2632	39.3757	0.07730	1.07599	—	1.07599	0.98991	—	0.98991	7,220.14
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.82666	24.6212	28.2950	0.05555	0.77319	—	0.77319	0.71134	—	0.71134	5,188.33
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.51587	4.49337	5.16384	0.01014	0.14111	—	0.14111	0.12982	—	0.12982	858.987
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.4.2. Offsite - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Worker	2.36776	2.35454	32.9503	0.00000	0.00000	7.84256	7.84256	0.00000	1.83828	1.83828	7,840.35
Vendor	0.01598	0.83546	0.26307	0.00540	0.01079	0.20534	0.21614	0.00540	0.05673	0.06213	746.731
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	2.34131	2.66539	29.7359	0.00000	0.00000	7.84256	7.84256	0.00000	1.83828	1.83828	7,477.32
Vendor	0.01492	0.86658	0.27207	0.00540	0.01079	0.20534	0.21614	0.00540	0.05673	0.06213	745.448
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	1.67294	1.89631	21.4298	0.00000	0.00000	5.62981	5.62981	0.00000	1.31953	1.31953	5,419.47
Vendor	0.01110	0.62241	0.19208	0.00388	0.00776	0.14743	0.15519	0.00388	0.04074	0.04461	536.015
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	0.30531	0.34608	3.91093	0.00000	0.00000	1.02744	1.02744	0.00000	0.24081	0.24081	897.255
Vendor	0.00203	0.11359	0.03506	0.00071	0.00142	0.02691	0.02832	0.00071	0.00743	0.00814	88.7435
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.4.3. Onsite - Mitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Off-Road Equipment	1.19586	19.0590	44.0995	0.07730	0.23621	—	0.23621	0.22730	—	0.22730	7,220.14
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.19586	19.0590	44.0995	0.07730	0.23621	—	0.23621	0.22730	—	0.22730	7,220.14
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.85934	13.6956	31.6895	0.05555	0.16974	—	0.16974	0.16334	—	0.16334	5,188.33
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15683	2.49945	5.78333	0.01014	0.03098	—	0.03098	0.02981	—	0.02981	858.987
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.4.4. Offsite - Mitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	2.36776	2.35454	32.9503	0.00000	0.00000	7.84256	7.84256	0.00000	1.83828	1.83828	7,840.35
Vendor	0.01598	0.83546	0.26307	0.00540	0.01079	0.20534	0.21614	0.00540	0.05673	0.06213	746.731

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	2.34131	2.66539	29.7359	0.00000	0.00000	7.84256	7.84256	0.00000	1.83828	1.83828	7,477.32
Vendor	0.01492	0.86658	0.27207	0.00540	0.01079	0.20534	0.21614	0.00540	0.05673	0.06213	745.448
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	1.67294	1.89631	21.4298	0.00000	0.00000	5.62981	5.62981	0.00000	1.31953	1.31953	5,419.47
Vendor	0.01110	0.62241	0.19208	0.00388	0.00776	0.14743	0.15519	0.00388	0.04074	0.04461	536.015
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	0.30531	0.34608	3.91093	0.00000	0.00000	1.02744	1.02744	0.00000	0.24081	0.24081	897.255
Vendor	0.00203	0.11359	0.03506	0.00071	0.00142	0.02691	0.02832	0.00071	0.00743	0.00814	88.7435
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.5. Building Construction (2028)

3.5.1. Onsite - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Off-Road Equipment	3.75579	32.7914	39.2335	0.07732	0.95199	—	0.95199	0.87583	—	0.87583	7,221.59
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.75579	32.7914	39.2335	0.07732	0.95199	—	0.95199	0.87583	—	0.87583	7,221.59
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.22807	28.1839	33.7208	0.06645	0.81823	—	0.81823	0.75277	—	0.75277	6,206.89
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.58912	5.14356	6.15405	0.01213	0.14933	—	0.14933	0.13738	—	0.13738	1,027.62
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.5.2. Offsite - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	2.28840	2.08337	30.9860	0.00000	0.00000	7.84256	7.84256	0.00000	1.83828	1.83828	7,697.39
Vendor	0.01598	0.79292	0.25662	0.00540	0.00540	0.20534	0.21074	0.00540	0.05673	0.06213	727.796

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	2.26194	2.39422	27.9105	0.00000	0.00000	7.84256	7.84256	0.00000	1.83828	1.83828	7,343.62
Vendor	0.01492	0.82456	0.26508	0.00540	0.00540	0.20534	0.21074	0.00540	0.05673	0.06213	726.712
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	1.95549	2.03507	24.0969	0.00000	0.00000	6.73369	6.73369	0.00000	1.57826	1.57826	6,361.85
Vendor	0.01328	0.70370	0.22374	0.00464	0.00464	0.17634	0.18098	0.00464	0.04872	0.05336	624.935
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	0.35688	0.37140	4.39768	0.00000	0.00000	1.22890	1.22890	0.00000	0.28803	0.28803	1,053.28
Vendor	0.00242	0.12843	0.04083	0.00085	0.00085	0.03218	0.03303	0.00085	0.00889	0.00974	103.465
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.5.3. Onsite - Mitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.19453	19.0508	44.0968	0.07732	0.23496	—	0.23496	0.22615	—	0.22615	7,221.59
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.19453	19.0508	44.0968	0.07732	0.23496	—	0.23496	0.22615	—	0.22615	7,221.59
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.02669	16.3740	37.9009	0.06645	0.20194	—	0.20194	0.19437	—	0.19437	6,206.89
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.18737	2.98825	6.91691	0.01213	0.03685	—	0.03685	0.03547	—	0.03547	1,027.62
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.5.4. Offsite - Mitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	2.28840	2.08337	30.9860	0.00000	0.00000	7.84256	7.84256	0.00000	1.83828	1.83828	7,697.39
Vendor	0.01598	0.79292	0.25662	0.00540	0.00540	0.20534	0.21074	0.00540	0.05673	0.06213	727.796
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Worker	2.26194	2.39422	27.9105	0.00000	0.00000	7.84256	7.84256	0.00000	1.83828	1.83828	7,343.62
Vendor	0.01492	0.82456	0.26508	0.00540	0.00540	0.20534	0.21074	0.00540	0.05673	0.06213	726.712
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	1.95549	2.03507	24.0969	0.00000	0.00000	6.73369	6.73369	0.00000	1.57826	1.57826	6,361.85
Vendor	0.01328	0.70370	0.22374	0.00464	0.00464	0.17634	0.18098	0.00464	0.04872	0.05336	624.935
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	0.35688	0.37140	4.39768	0.00000	0.00000	1.22890	1.22890	0.00000	0.28803	0.28803	1,053.28
Vendor	0.00242	0.12843	0.04083	0.00085	0.00085	0.03218	0.03303	0.00085	0.00889	0.00974	103.465
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.6. Building Construction (2029)

3.6.1. Onsite - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.61831	31.7406	38.9963	0.07731	0.86668	—	0.86668	0.79734	—	0.79734	7,221.25

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.76473	6.70839	8.24188	0.01634	0.18317	—	0.18317	0.16852	—	0.16852	1,526.21
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13956	1.22428	1.50414	0.00298	0.03343	—	0.03343	0.03075	—	0.03075	252.682
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.6.2. Offsite - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	1.95109	2.38099	26.0983	0.00000	0.00000	7.84256	7.84256	0.00000	1.83828	1.83828	7,217.27
Vendor	0.01492	0.78202	0.25323	0.00540	0.00540	0.20534	0.21074	0.00540	0.05673	0.06213	707.596
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	0.40677	0.44591	5.55083	0.00000	0.00000	1.65583	1.65583	0.00000	0.38810	0.38810	1,537.35
Vendor	0.00315	0.16405	0.05263	0.00114	0.00114	0.04336	0.04450	0.00114	0.01198	0.01312	149.615

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07424	0.08138	1.01303	0.00000	0.00000	0.30219	0.30219	0.00000	0.07083	0.07083	254.526
Vendor	0.00058	0.02994	0.00960	0.00021	0.00021	0.00791	0.00812	0.00021	0.00219	0.00239	24.7704
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.6.3. Onsite - Mitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.19352	19.0441	44.0949	0.07731	0.23394	—	0.23394	0.22522	—	0.22522	7,221.25
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.25225	4.02499	9.31947	0.01634	0.04944	—	0.04944	0.04760	—	0.04760	1,526.21
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04604	0.73456	1.70080	0.00298	0.00902	—	0.00902	0.00869	—	0.00869	252.682
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.6.4. Offsite - Mitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	1.95109	2.38099	26.0983	0.00000	0.00000	7.84256	7.84256	0.00000	1.83828	1.83828	7,217.27
Vendor	0.01492	0.78202	0.25323	0.00540	0.00540	0.20534	0.21074	0.00540	0.05673	0.06213	707.596
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	0.40677	0.44591	5.55083	0.00000	0.00000	1.65583	1.65583	0.00000	0.38810	0.38810	1,537.35
Vendor	0.00315	0.16405	0.05263	0.00114	0.00114	0.04336	0.04450	0.00114	0.01198	0.01312	149.615
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07424	0.08138	1.01303	0.00000	0.00000	0.30219	0.30219	0.00000	0.07083	0.07083	254.526
Vendor	0.00058	0.02994	0.00960	0.00021	0.00021	0.00791	0.00812	0.00021	0.00219	0.00239	24.7704
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.7. Paving (2029)

3.7.1. Onsite - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.93390	18.0310	27.0676	0.04856	0.55384	—	0.55384	0.50953	—	0.50953	4,863.04
Paving	0.04000	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.69409	6.47141	9.71467	0.01743	0.19878	—	0.19878	0.18287	—	0.18287	1,745.37
Paving	0.01436	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12667	1.18103	1.77293	0.00318	0.03628	—	0.03628	0.03337	—	0.03337	288.965
Paving	0.00262	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.7.2. Offsite - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Worker	0.19260	0.15820	2.51521	0.00000	0.00000	0.67969	0.67969	0.00000	0.15932	0.15932	655.421
Vendor	0.00257	0.12506	0.04097	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	118.080
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05987	0.06563	0.81693	0.00000	0.00000	0.24369	0.24369	0.00000	0.05712	0.05712	226.257
Vendor	0.00089	0.04643	0.01489	0.00032	0.00032	0.01227	0.01260	0.00032	0.00339	0.00371	42.3446
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01093	0.01198	0.14909	0.00000	0.00000	0.04447	0.04447	0.00000	0.01042	0.01042	37.4594
Vendor	0.00016	0.00847	0.00272	0.00006	0.00006	0.00224	0.00230	0.00006	0.00062	0.00068	7.01064
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.7.3. Onsite - Mitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.77174	10.4347	31.3825	0.04856	0.15781	—	0.15781	0.15203	—	0.15203	4,863.04
Paving	0.04000	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.27698	3.74506	11.2633	0.01743	0.05664	—	0.05664	0.05456	—	0.05456	1,745.37
Paving	0.01436	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05055	0.68347	2.05555	0.00318	0.01034	—	0.01034	0.00996	—	0.00996	288.965
Paving	0.00262	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.7.4. Offsite - Mitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.19260	0.15820	2.51521	0.00000	0.00000	0.67969	0.67969	0.00000	0.15932	0.15932	655.421
Vendor	0.00257	0.12506	0.04097	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	118.080
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Worker	0.05987	0.06563	0.81693	0.00000	0.00000	0.24369	0.24369	0.00000	0.05712	0.05712	226.257
Vendor	0.00089	0.04643	0.01489	0.00032	0.00032	0.01227	0.01260	0.00032	0.00339	0.00371	42.3446
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01093	0.01198	0.14909	0.00000	0.00000	0.04447	0.04447	0.00000	0.01042	0.01042	37.4594
Vendor	0.00016	0.00847	0.00272	0.00006	0.00006	0.00224	0.00230	0.00006	0.00062	0.00068	7.01064
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.8. Architectural Coating (2028)

3.8.1. Onsite - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	7.47460	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	7.47460	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	3.22973	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.58943	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.8.2. Offsite - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Worker	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.8.3. Onsite - Mitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	7.47460	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	7.47460	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	3.22973	—	—	—	—	—	—	—	—	—	—

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.58943	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.8.4. Offsite - Mitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.9. Architectural Coating (2029)

3.9.1. Onsite - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	7.47460	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	1.57976	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.28831	—	—	—	—	—	—	—	—	—	—

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.9.2. Offsite - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.9.3. Onsite - Mitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	7.47460	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	1.57976	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.28831	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.9.4. Offsite - Mitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	17.9655	21.2367	213.754	0.61924	0.38552	62.3030	62.6885	0.36137	15.8020	16.1634	63,994.0

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Total	17.9655	21.2367	213.754	0.61924	0.38552	62.3030	62.6885	0.36137	15.8020	16.1634	63,994.0
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	17.8739	23.6704	201.248	0.59750	0.38561	62.3030	62.6886	0.36146	15.8020	16.1635	61,666.3
Total	17.8739	23.6704	201.248	0.59750	0.38561	62.3030	62.6886	0.36146	15.8020	16.1635	61,666.3
Annual	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	2.83003	3.71727	32.0452	0.09591	0.06154	9.93336	9.99490	0.05768	2.51946	2.57714	8,987.82
Total	2.83003	3.71727	32.0452	0.09591	0.06154	9.93336	9.99490	0.05768	2.51946	2.57714	8,987.82

4.1.2. Mitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	17.9655	21.2367	213.754	0.61924	0.38552	62.3030	62.6885	0.36137	15.8020	16.1634	63,994.0
Total	17.9655	21.2367	213.754	0.61924	0.38552	62.3030	62.6885	0.36137	15.8020	16.1634	63,994.0
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	17.8739	23.6704	201.248	0.59750	0.38561	62.3030	62.6886	0.36146	15.8020	16.1635	61,666.3
Total	17.8739	23.6704	201.248	0.59750	0.38561	62.3030	62.6886	0.36146	15.8020	16.1635	61,666.3
Annual	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	2.83003	3.71727	32.0452	0.09591	0.06154	9.93336	9.99490	0.05768	2.51946	2.57714	8,987.82
Total	2.83003	3.71727	32.0452	0.09591	0.06154	9.93336	9.99490	0.05768	2.51946	2.57714	8,987.82

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	13,528.3
Total	—	—	—	—	—	—	—	—	—	—	13,528.3
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	13,528.3
Total	—	—	—	—	—	—	—	—	—	—	13,528.3
Annual	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	2,239.76
Total	—	—	—	—	—	—	—	—	—	—	2,239.76

4.2.2. Electricity Emissions By Land Use - Mitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	13,528.3
Total	—	—	—	—	—	—	—	—	—	—	13,528.3

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	13,528.3
Total	—	—	—	—	—	—	—	—	—	—	13,528.3
Annual	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	2,239.76
Total	—	—	—	—	—	—	—	—	—	—	2,239.76

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	0.00000
Total	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	0.00000
Total	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	0.00000
Total	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	0.00000

4.2.4. Natural Gas Emissions By Land Use - Mitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	0.00000
Total	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	0.00000
Total	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	0.00000
Total	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	0.00000

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	8.10765	—	—	—	—	—	—	—	—	—	—

Source	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Architectural Coatings	0.48124	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	2.70717	0.13864	16.4776	0.00098	0.02927	—	0.02927	0.02212	—	0.02212	68.0025
Total	11.2961	0.13864	16.4776	0.00098	0.02927	—	0.02927	0.02212	—	0.02212	68.0025
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	8.10765	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.48124	—	—	—	—	—	—	—	—	—	—
Total	8.58889	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	1.47965	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.08783	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.24364	0.01248	1.48298	0.00009	0.00263	—	0.00263	0.00199	—	0.00199	5.55218
Total	1.81112	0.01248	1.48298	0.00009	0.00263	—	0.00263	0.00199	—	0.00199	5.55218

4.3.2. Mitigated

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

Source	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—

Source	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Consumer Products	8.10765	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.48124	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	2.70717	0.13864	16.4776	0.00098	0.02927	—	0.02927	0.02212	—	0.02212	68.0025
Total	11.2961	0.13864	16.4776	0.00098	0.02927	—	0.02927	0.02212	—	0.02212	68.0025
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	8.10765	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.48124	—	—	—	—	—	—	—	—	—	—
Total	8.58889	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	1.47965	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.08783	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.24364	0.01248	1.48298	0.00009	0.00263	—	0.00263	0.00199	—	0.00199	5.55218
Total	1.81112	0.01248	1.48298	0.00009	0.00263	—	0.00263	0.00199	—	0.00199	5.55218

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	1,597.46
Total	—	—	—	—	—	—	—	—	—	—	1,597.46
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	1,597.46
Total	—	—	—	—	—	—	—	—	—	—	1,597.46
Annual	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	264.478
Total	—	—	—	—	—	—	—	—	—	—	264.478

4.4.2. Mitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	1,597.46
Total	—	—	—	—	—	—	—	—	—	—	1,597.46
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	1,597.46

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Total	—	—	—	—	—	—	—	—	—	—	1,597.46
Annual	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	264.478
Total	—	—	—	—	—	—	—	—	—	—	264.478

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	885.817
Total	—	—	—	—	—	—	—	—	—	—	885.817
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	885.817
Total	—	—	—	—	—	—	—	—	—	—	885.817
Annual	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	146.657
Total	—	—	—	—	—	—	—	—	—	—	146.657

4.5.2. Mitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	885.817
Total	—	—	—	—	—	—	—	—	—	—	885.817
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	885.817
Total	—	—	—	—	—	—	—	—	—	—	885.817
Annual	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	146.657
Total	—	—	—	—	—	—	—	—	—	—	146.657

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	98.6195
Total	—	—	—	—	—	—	—	—	—	—	98.6195

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	98.6195
Total	—	—	—	—	—	—	—	—	—	—	98.6195
Annual	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	16.3276
Total	—	—	—	—	—	—	—	—	—	—	16.3276

4.6.2. Mitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	98.6195
Total	—	—	—	—	—	—	—	—	—	—	98.6195
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	98.6195
Total	—	—	—	—	—	—	—	—	—	—	98.6195
Annual	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	16.3276
Total	—	—	—	—	—	—	—	—	—	—	16.3276

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)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—

4.7.2. Mitigated

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

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
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)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	1.16396	4.15701	21.6165	0.04074	0.16628	0.00000	0.16628	0.16628	0.00000	0.16628	4,351.41
Total	1.16396	4.15701	21.6165	0.04074	0.16628	0.00000	0.16628	0.16628	0.00000	0.16628	4,351.41
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	1.16396	4.15701	21.6165	0.04074	0.16628	0.00000	0.16628	0.16628	0.00000	0.16628	4,351.41
Total	1.16396	4.15701	21.6165	0.04074	0.16628	0.00000	0.16628	0.16628	0.00000	0.16628	4,351.41
Annual	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	0.23279	0.83140	4.32329	0.00815	0.03326	0.00000	0.03326	0.03326	0.00000	0.03326	789.507
Total	0.23279	0.83140	4.32329	0.00815	0.03326	0.00000	0.03326	0.03326	0.00000	0.03326	789.507

4.8.2. Mitigated

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

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	1.16396	4.15701	21.6165	0.04074	0.16628	0.00000	0.16628	0.16628	0.00000	0.16628	4,351.41
Total	1.16396	4.15701	21.6165	0.04074	0.16628	0.00000	0.16628	0.16628	0.00000	0.16628	4,351.41
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	1.16396	4.15701	21.6165	0.04074	0.16628	0.00000	0.16628	0.16628	0.00000	0.16628	4,351.41
Total	1.16396	4.15701	21.6165	0.04074	0.16628	0.00000	0.16628	0.16628	0.00000	0.16628	4,351.41
Annual	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	0.23279	0.83140	4.32329	0.00815	0.03326	0.00000	0.03326	0.03326	0.00000	0.03326	789.507
Total	0.23279	0.83140	4.32329	0.00815	0.03326	0.00000	0.03326	0.03326	0.00000	0.03326	789.507

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—

4.9.2. Mitigated

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

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—

Species	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Subtotal	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

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

Vegetation	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

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

Species	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—

Species	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
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
Site Prep-Grading	Grading	11/1/2026	11/30/2026	6.00000	25.0000	—

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Building Foundation	Building Construction	12/1/2026	2/28/2027	6.00000	77.0000	—
Building Construction	Building Construction	3/1/2027	3/31/2029	6.00000	654.000	—
Paving	Paving	4/1/2029	8/31/2029	6.00000	131.000	—
Architectural Coating	Architectural Coating	7/1/2028	3/31/2029	6.00000	235.000	—

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
Site Prep-Grading	Excavators	Diesel	Average	1.000000	8.00000	36.0000	0.38000
Site Prep-Grading	Bore/Drill Rigs	Diesel	Average	1.000000	8.00000	83.0000	0.50000
Site Prep-Grading	Forklifts	Diesel	Average	1.000000	8.00000	82.0000	0.20000
Site Prep-Grading	Rollers	Diesel	Average	1.000000	8.00000	36.0000	0.38000
Site Prep-Grading	Rough Terrain Forklifts	Diesel	Average	1.000000	8.00000	96.0000	0.40000
Site Prep-Grading	Skid Steer Loaders	Diesel	Average	1.000000	8.00000	71.0000	0.37000
Site Prep-Grading	Rubber Tired Loaders	Diesel	Average	1.000000	8.00000	150.000	0.36000
Building Foundation	Cranes	Diesel	Average	1.000000	8.00000	367.000	0.29000
Building Foundation	Forklifts	Diesel	Average	1.000000	8.00000	82.0000	0.20000
Building Foundation	Tractors/Loaders/ Backhoes	Diesel	Average	2.00000	8.00000	84.0000	0.37000
Building Foundation	Air Compressors	Diesel	Average	1.000000	8.00000	37.0000	0.48000

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Building Foundation	Concrete/Industrial Saws	Diesel	Average	1.000000	8.00000	33.0000	0.73000
Building Foundation	Crawler Tractors	Diesel	Average	2.00000	8.00000	87.0000	0.43000
Building Foundation	Excavators	Diesel	Average	2.00000	8.00000	36.0000	0.38000
Building Foundation	Pumps	Diesel	Average	2.00000	8.00000	11.0000	0.74000
Building Foundation	Plate Compactors	Diesel	Average	1.000000	8.00000	8.00000	0.43000
Building Foundation	Rough Terrain Forklifts	Diesel	Average	1.000000	8.00000	96.0000	0.40000
Building Foundation	Signal Boards	Diesel	Average	1.000000	8.00000	6.00000	0.82000
Building Foundation	Skid Steer Loaders	Diesel	Average	2.00000	8.00000	71.0000	0.37000
Building Construction	Cranes	Diesel	Average	3.00000	8.00000	367.000	0.29000
Building Construction	Forklifts	Diesel	Average	1.000000	8.00000	82.0000	0.20000
Building Construction	Generator Sets	Diesel	Average	1.000000	8.00000	14.0000	0.74000
Building Construction	Welders	Diesel	Average	7.00000	8.00000	46.0000	0.45000
Building Construction	Air Compressors	Diesel	Average	4.00000	8.00000	37.0000	0.48000
Building Construction	Aerial Lifts	Diesel	Average	3.00000	8.00000	46.0000	0.31000
Building Construction	Cement and Mortar Mixers	Diesel	Average	1.000000	8.00000	10.00000	0.56000
Building Construction	Concrete/Industrial Saws	Diesel	Average	1.000000	8.00000	33.0000	0.73000
Building Construction	Crawler Tractors	Diesel	Average	1.000000	8.00000	87.0000	0.43000
Building Construction	Excavators	Diesel	Average	1.000000	8.00000	36.0000	0.38000
Building Construction	Pumps	Diesel	Average	2.00000	8.00000	11.0000	0.74000

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Building Construction	Rough Terrain Forklifts	Diesel	Average	1.000000	8.00000	96.0000	0.40000
Building Construction	Signal Boards	Diesel	Average	1.000000	8.00000	6.00000	0.82000
Paving	Pavers	Diesel	Average	1.000000	8.00000	81.0000	0.42000
Paving	Paving Equipment	Diesel	Average	1.000000	8.00000	89.0000	0.36000
Paving	Rollers	Diesel	Average	1.000000	8.00000	36.0000	0.38000
Paving	Tractors/Loaders/ Backhoes	Diesel	Average	2.00000	8.00000	84.0000	0.37000
Paving	Concrete/Industrial Saws	Diesel	Average	1.000000	8.00000	33.0000	0.73000
Paving	Crawler Tractors	Diesel	Average	1.000000	8.00000	87.0000	0.43000
Paving	Excavators	Diesel	Average	1.000000	8.00000	36.0000	0.38000
Paving	Forklifts	Diesel	Average	1.000000	8.00000	82.0000	0.20000
Paving	Pumps	Diesel	Average	2.00000	8.00000	11.0000	0.74000
Paving	Plate Compactors	Diesel	Average	1.000000	8.00000	8.00000	0.43000
Paving	Rough Terrain Forklifts	Diesel	Average	1.000000	8.00000	96.0000	0.40000
Paving	Signal Boards	Diesel	Average	1.000000	8.00000	6.00000	0.82000
Paving	Skid Steer Loaders	Diesel	Average	2.00000	8.00000	71.0000	0.37000
Paving	Surfacing Equipment	Diesel	Average	1.000000	8.00000	399.000	0.30000
Paving	Welders	Diesel	Average	2.00000	8.00000	46.0000	0.45000

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Prep-Grading	Excavators	Diesel	Tier 4 Final	1.000000	8.00000	36.0000	0.38000
Site Prep-Grading	Bore/Drill Rigs	Diesel	Tier 4 Final	1.000000	8.00000	83.0000	0.50000
Site Prep-Grading	Forklifts	Diesel	Tier 4 Final	1.000000	8.00000	82.0000	0.20000
Site Prep-Grading	Rollers	Diesel	Tier 4 Final	1.000000	8.00000	36.0000	0.38000
Site Prep-Grading	Rough Terrain Forklifts	Diesel	Tier 4 Final	1.000000	8.00000	96.0000	0.40000
Site Prep-Grading	Skid Steer Loaders	Diesel	Tier 4 Final	1.000000	8.00000	71.0000	0.37000
Site Prep-Grading	Rubber Tired Loaders	Diesel	Tier 4 Final	1.000000	8.00000	150.000	0.36000
Building Foundation	Cranes	Diesel	Tier 4 Final	1.000000	8.00000	367.000	0.29000
Building Foundation	Forklifts	Diesel	Tier 4 Final	1.000000	8.00000	82.0000	0.20000
Building Foundation	Tractors/Loaders/ Backhoes	Diesel	Tier 4 Final	2.00000	8.00000	84.0000	0.37000
Building Foundation	Air Compressors	Diesel	Tier 4 Final	1.000000	8.00000	37.0000	0.48000
Building Foundation	Concrete/Industrial Saws	Diesel	Tier 4 Final	1.000000	8.00000	33.0000	0.73000
Building Foundation	Crawler Tractors	Diesel	Tier 4 Final	2.00000	8.00000	87.0000	0.43000
Building Foundation	Excavators	Diesel	Tier 4 Final	2.00000	8.00000	36.0000	0.38000
Building Foundation	Pumps	Diesel	Average	2.00000	8.00000	11.0000	0.74000
Building Foundation	Plate Compactors	Diesel	Average	1.000000	8.00000	8.00000	0.43000
Building Foundation	Rough Terrain Forklifts	Diesel	Tier 4 Final	1.000000	8.00000	96.0000	0.40000
Building Foundation	Signal Boards	Diesel	Average	1.000000	8.00000	6.00000	0.82000
Building Foundation	Skid Steer Loaders	Diesel	Tier 4 Final	2.00000	8.00000	71.0000	0.37000

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Building Construction	Cranes	Diesel	Tier 4 Final	3.00000	8.00000	367.000	0.29000
Building Construction	Forklifts	Diesel	Tier 4 Final	1.000000	8.00000	82.0000	0.20000
Building Construction	Generator Sets	Diesel	Average	1.000000	8.00000	14.0000	0.74000
Building Construction	Welders	Diesel	Tier 4 Final	7.00000	8.00000	46.0000	0.45000
Building Construction	Air Compressors	Diesel	Tier 4 Final	4.00000	8.00000	37.0000	0.48000
Building Construction	Aerial Lifts	Diesel	Tier 4 Final	3.00000	8.00000	46.0000	0.31000
Building Construction	Cement and Mortar Mixers	Diesel	Average	1.000000	8.00000	10.00000	0.56000
Building Construction	Concrete/Industrial Saws	Diesel	Tier 4 Final	1.000000	8.00000	33.0000	0.73000
Building Construction	Crawler Tractors	Diesel	Tier 4 Final	1.000000	8.00000	87.0000	0.43000
Building Construction	Excavators	Diesel	Tier 4 Final	1.000000	8.00000	36.0000	0.38000
Building Construction	Pumps	Diesel	Average	2.00000	8.00000	11.0000	0.74000
Building Construction	Rough Terrain Forklifts	Diesel	Tier 4 Final	1.000000	8.00000	96.0000	0.40000
Building Construction	Signal Boards	Diesel	Average	1.000000	8.00000	6.00000	0.82000
Paving	Pavers	Diesel	Tier 4 Final	1.000000	8.00000	81.0000	0.42000
Paving	Paving Equipment	Diesel	Tier 4 Final	1.000000	8.00000	89.0000	0.36000
Paving	Rollers	Diesel	Tier 4 Final	1.000000	8.00000	36.0000	0.38000
Paving	Tractors/Loaders/ Backhoes	Diesel	Tier 4 Final	2.00000	8.00000	84.0000	0.37000
Paving	Concrete/Industrial Saws	Diesel	Tier 4 Final	1.000000	8.00000	33.0000	0.73000
Paving	Crawler Tractors	Diesel	Tier 4 Final	1.000000	8.00000	87.0000	0.43000

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Paving	Excavators	Diesel	Tier 4 Final	1.000000	8.00000	36.0000	0.38000
Paving	Forklifts	Diesel	Tier 4 Final	1.000000	8.00000	82.0000	0.20000
Paving	Pumps	Diesel	Average	2.00000	8.00000	11.0000	0.74000
Paving	Plate Compactors	Diesel	Average	1.000000	8.00000	8.00000	0.43000
Paving	Rough Terrain Forklifts	Diesel	Tier 4 Final	1.000000	8.00000	96.0000	0.40000
Paving	Signal Boards	Diesel	Average	1.000000	8.00000	6.00000	0.82000
Paving	Skid Steer Loaders	Diesel	Tier 4 Final	2.00000	8.00000	71.0000	0.37000
Paving	Surfacing Equipment	Diesel	Tier 4 Final	1.000000	8.00000	399.000	0.30000
Paving	Welders	Diesel	Tier 4 Final	2.00000	8.00000	46.0000	0.45000

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Prep-Grading	Worker	16.0000	18.5000	LDA,LDT1,LDT2
Site Prep-Grading	Vendor	4.00000	10.2000	HHDT,MHDT
Site Prep-Grading	Hauling	8.00000	29.0000	HHDT
Site Prep-Grading	Onsite truck	—	—	HHDT
Building Foundation	Worker	100.0000	18.5000	LDA,LDT1,LDT2
Building Foundation	Vendor	8.00000	10.2000	HHDT,MHDT
Building Foundation	Hauling	0.00000	20.0000	HHDT

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Building Foundation	Onsite truck	—	—	HHDT
Building Construction	Worker	600.000	18.5000	LDA,LDT1,LDT2
Building Construction	Vendor	24.0000	10.2000	HHDT,MHDT
Building Construction	Hauling	0.00000	20.0000	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	Worker	52.0000	18.5000	LDA,LDT1,LDT2
Paving	Vendor	4.00000	10.2000	HHDT,MHDT
Paving	Hauling	0.00000	20.0000	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	Worker	0.00000	18.5000	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	10.2000	HHDT,MHDT
Architectural Coating	Hauling	0.00000	20.0000	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Prep-Grading	Worker	16.0000	18.5000	LDA,LDT1,LDT2
Site Prep-Grading	Vendor	4.00000	10.2000	HHDT,MHDT
Site Prep-Grading	Hauling	8.00000	29.0000	HHDT
Site Prep-Grading	Onsite truck	—	—	HHDT
Building Foundation	Worker	100.0000	18.5000	LDA,LDT1,LDT2

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Building Foundation	Vendor	8.00000	10.2000	HHDT,MHDT
Building Foundation	Hauling	0.00000	20.0000	HHDT
Building Foundation	Onsite truck	—	—	HHDT
Building Construction	Worker	600.000	18.5000	LDA,LDT1,LDT2
Building Construction	Vendor	24.0000	10.2000	HHDT,MHDT
Building Construction	Hauling	0.00000	20.0000	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	Worker	52.0000	18.5000	LDA,LDT1,LDT2
Paving	Vendor	4.00000	10.2000	HHDT,MHDT
Paving	Hauling	0.00000	20.0000	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	Worker	0.00000	18.5000	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	10.2000	HHDT,MHDT
Architectural Coating	Hauling	0.00000	20.0000	HHDT
Architectural Coating	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%

Control Strategies Applied	PM10 Reduction	PM2.5 Reduction
Limit vehicle speeds on unpaved roads to 25 mph	44%	44%

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	0.00000	0.00000	568,293	189,431	—

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Site Prep-Grading	0.00000	3,228.00	0.00000	0.00000	0.00000
Paving	0.00000	0.00000	0.00000	0.00000	2.00000

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	3	74%	74%

5.7. Construction Paving

Phase Name	Land Use	Area Paved (acres)	% Asphalt
Paving	Industrial Park	2.00000	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	0.00000	531.983	0.03300	0.00400
2027	0.00000	531.983	0.03300	0.00400
2028	0.00000	531.983	0.03300	0.00400
2029	0.00000	531.983	0.03300	0.00400

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
Industrial Park	3,588.00	2,704.31	1,320.21	1,145,293	88,209.6	66,484.4	32,456.9	28,156,575

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Industrial Park	3,588.00	2,704.31	1,320.21	1,145,293	88,209.6	66,484.4	32,456.9	28,156,575

5.10. Operational Area Sources

5.10.1. Hearths

Land Use	Hearth Type	Unmitigated (number)	Mitigated (number)
Industrial Park	Wood Fireplaces	0	0

Land Use	Hearth Type	Unmitigated (number)	Mitigated (number)
Industrial Park	Gas Fireplaces	0	0
Industrial Park	Propane Fireplaces	0	0
Industrial Park	Electric Fireplaces	0	0
Industrial Park	No Fireplaces	0	0
Industrial Park	Conventional Wood Stoves	0	0
Industrial Park	Catalytic Wood Stoves	0	0
Industrial Park	Non-Catalytic Wood Stoves	0	0
Industrial Park	Pellet Wood Stoves	0	0

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)
0.00000	0.00000	568,293	189,431	—

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00000
Summer Days	day/yr	180.000

5.10.4. Landscape Equipment - Mitigated

Season	Unit	Value
Snow Days	day/yr	0.00000

Season	Unit	Value
Summer Days	day/yr	180.000

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)
Industrial Park	9,246,856	531.983	0.0330	0.0040	0.00000

5.11.2. Mitigated

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)
Industrial Park	9,246,856	531.983	0.0330	0.0040	0.00000

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Industrial Park	87,611,838	615,351

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Industrial Park	87,611,838	615,351

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Industrial Park	469.789	0.00000

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Industrial Park	469.789	0.00000

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Industrial Park	Other commercial A/C and heat pumps	R-410A	2,088.00	0.30000	4.00000	4.00000	18.0000

5.14.2. Mitigated

Land Use	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Industrial Park	Other commercial A/C and heat pumps	R-410A	2,088.00	0.30000	4.00000	4.00000	18.0000

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

5.15.2. Mitigated

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	2.00000	0.50000	200.000	5,166.00	0.73000

5.16.2. Process Boilers

5.17. User Defined

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

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

5.18.2.2. Mitigated

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

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	14.1200	annual days of extreme heat
Extreme Precipitation	4.95000	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	29.4500	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	1	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	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

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
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	1	1	1	2
Extreme Precipitation	N/A	N/A	N/A	N/A
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	47.3802
AQ-PM	41.4561
AQ-DPM	54.5862
Drinking Water	57.4997
Lead Risk Housing	26.1626
Pesticides	23.8621
Toxic Releases	25.9440
Traffic	87.9750
Effect Indicators	—
CleanUp Sites	76.7264
Groundwater	95.3678
Haz Waste Facilities/Generators	98.9543

Indicator	Result for Project Census Tract
Impaired Water Bodies	96.7871
Solid Waste	0.00000
Sensitive Population	—
Asthma	6.46810
Cardio-vascular	23.5917
Low Birth Weights	81.5114
Socioeconomic Factor Indicators	—
Education	42.2931
Housing	36.6540
Linguistic	78.9958
Poverty	41.6583
Unemployment	63.4175

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	50.891826
Employed	66.62389324
Median HI	80.00769922
Education	—

Indicator	Result for Project Census Tract
Bachelor's or higher	77.04350058
High school enrollment	100
Preschool enrollment	84.35775696
Transportation	—
Auto Access	24.89413576
Active commuting	79.73822661
Social	—
2-parent households	83.72898755
Voting	71.96201719
Neighborhood	—
Alcohol availability	57.74412935
Park access	81.35506224
Retail density	49.6856153
Supermarket access	58.44989093
Tree canopy	73.65584499
Housing	—
Homeownership	29.61632234
Housing habitability	34.69780572
Low-inc homeowner severe housing cost burden	54.20248941
Low-inc renter severe housing cost burden	35.30091107
Uncrowded housing	29.84729886

Indicator	Result for Project Census Tract
Health Outcomes	—
Insured adults	32.84999358
Arthritis	87.4
Asthma ER Admissions	88.5
High Blood Pressure	63.5
Cancer (excluding skin)	66.1
Asthma	51.9
Coronary Heart Disease	85.5
Chronic Obstructive Pulmonary Disease	68.2
Diagnosed Diabetes	85.5
Life Expectancy at Birth	96.6
Cognitively Disabled	85.7
Physically Disabled	76.0
Heart Attack ER Admissions	65.6
Mental Health Not Good	52.8
Chronic Kidney Disease	85.5
Obesity	61.8
Pedestrian Injuries	40.0
Physical Health Not Good	62.9
Stroke	84.7
Health Risk Behaviors	—

Indicator	Result for Project Census Tract
Binge Drinking	29.5
Current Smoker	53.5
No Leisure Time for Physical Activity	56.1
Climate Change Exposures	—
Wildfire Risk	28.4
SLR Inundation Area	0.0
Children	20.9
Elderly	92.9
English Speaking	14.1
Foreign-born	87.5
Outdoor Workers	82.9
Climate Change Adaptive Capacity	—
Impervious Surface Cover	53.1
Traffic Density	84.1
Traffic Access	23.0
Other Indices	—
Hardship	50.9
Other Decision Support	—
2016 Voting	82.3

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	61.0000
Healthy Places Index Score for Project Location (b)	75.0000
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
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

8.1. Justifications

Screen	Justification
Land Use	Site Specific
Construction: Construction Phases	Site Specific

Screen	Justification
Construction: Off-Road Equipment	Site Specific
Construction: Trips and VMT	Site Specific
Construction: Paving	Site Specific
Operations: Vehicle Data	Site Specific
Operations: Energy Use	No Natural Gas Usage Building Envelope
Operations: Emergency Generators and Fire Pumps	Emergency generators will meet Tier 4 standards and hours per day reflect routine testing.
Operations: Generators + Pumps EF	Tier IV

8.3. Land Use

Model Parameter	Units	Default Value	New Value
Lot Area	acre	8.69747	4.27000
Landscape Area	sq. ft	—	47,600.0
Special Landscape Area	sq. ft	—	0.00000

8.4. Construction

8.4.1. Construction Phases

Phase Type	Phase Name	Model Parameter	Default Value	New Value
Building Construction	Building Construction	Start Date	8/31/2026	3/1/2027
Building Construction	Building Construction	End Date	7/19/2027	3/31/2029
Building Construction	Building Construction	Days/Week	5.00000	6.00000

Phase Type	Phase Name	Model Parameter	Default Value	New Value
Building Construction	Building Construction	Work Days per Phase	230.000	654.000
Paving	Paving	Start Date	7/20/2027	4/1/2029
Paving	Paving	End Date	8/14/2027	8/31/2029
Paving	Paving	Days/Week	5.00000	6.00000
Paving	Paving	Work Days per Phase	18.0000	131.000
Architectural Coating	Architectural Coating	Start Date	8/15/2027	7/1/2028
Architectural Coating	Architectural Coating	End Date	9/9/2027	3/31/2029
Architectural Coating	Architectural Coating	Days/Week	5.00000	6.00000
Architectural Coating	Architectural Coating	Work Days per Phase	18.0000	235.000

8.4.2. Off-Road Equipment

Phase Name	Equipment Type	Model Parameter	Default Value	New Value
Building Foundation	Cranes	Hours Per Day	7.00000	8.00000
Building Foundation	Forklifts	Number per Day	3.00000	1.000000
Building Foundation	Tractors/Loaders/Backhoes	Number per Day	3.00000	2.00000
Building Foundation	Tractors/Loaders/Backhoes	Hours Per Day	7.00000	8.00000
Building Foundation	Excavators	Number per Day	1.000000	2.00000
Building Construction	Cranes	Number per Day	1.000000	3.00000
Building Construction	Cranes	Hours Per Day	7.00000	8.00000
Building Construction	Forklifts	Number per Day	3.00000	1.000000
Building Construction	Welders	Number per Day	1.000000	7.00000

Phase Name	Equipment Type	Model Parameter	Default Value	New Value
Paving	Paving Equipment	Number per Day	2.00000	1.000000
Paving	Paving Equipment	Hours Per Day	6.00000	8.00000
Paving	Rollers	Number per Day	2.00000	1.000000
Paving	Rollers	Hours Per Day	6.00000	8.00000
Paving	Tractors/Loaders/Backhoes	Number per Day	1.000000	2.00000

8.4.6. Trips and VMT

Phase Name	Trip Type	Model Parameter	Default Value	New Value
Site Prep-Grading	Worker	One-Way Trips per Day	17.5000	16.0000
Site Prep-Grading	Hauling	One-Way Trips per Day	16.1600	8.00000
Site Prep-Grading	Hauling	Miles per Trip	20.0000	29.0000
Building Foundation	Worker	One-Way Trips per Day	159.122	100.0000
Building Foundation	Vendor	One-Way Trips per Day	62.0955	8.00000
Building Construction	Worker	One-Way Trips per Day	159.122	600.000
Building Construction	Vendor	One-Way Trips per Day	62.0955	24.0000
Paving	Worker	One-Way Trips per Day	47.5000	52.0000
Architectural Coating	Worker	One-Way Trips per Day	63.6488	0.00000

8.4.9. Paving

Phase Name	Land Use	Model Parameter	Units	Default Value	New Value
Paving	Industrial Park	Area Paved	acres	0.00000	2.00000

Phase Name	Land Use	Model Parameter	Units	Default Value	New Value
Paving	Industrial Park	% Asphalt	%	0.00000	100.0000

8.5. Operations

8.5.1. Mobile Sources

8.5.1.1. Vehicle Data

Land Use	Model Parameter	Units	Default Value	New Value
Industrial Park	Weekday Trip Rate	size/day	3.37000	9.47047
Industrial Park	Saturday Trip Rate	size/day	2.54000	7.13798
Industrial Park	Sunday Trip Rate	size/day	1.24000	3.48468

8.5.3. Energy Usage

Land Use	Model Parameter	Units	Default Value	New Value
Industrial Park	Electricity	kWh/yr	6,693,705	9,246,856
Industrial Park	Electricity (Subject to Title 24)	kWh/yr	5,418,743	7,485,590
Industrial Park	Electricity (Not Subject to Title 24)	kWh/yr	1,274,962	1,761,266
Industrial Park	Natural Gas	kBTU/yr	10,059,182	0.00000
Industrial Park	Natural Gas (Subject to Title 24)	kBTU/yr	8,036,393	0.00000
Industrial Park	Natural Gas (Not Subject to Title 24)	kBTU/yr	2,022,789	0.00000

8.5.8. Stationary Sources

8.5.8.1. Emergency Generators and Fire Pumps

Equipment Type	Model Parameter	Default Value	New Value
Emergency Generator	Hours per Day	1.000000	0.50000

8.5.8.2. Generators + Pumps EF

Equipment Type	Model Parameter	Default Value	New Value
Emergency Generator	ROG	1.01956	0.14000
Emergency Generator	NOx	4.56000	0.50000
Emergency Generator	PM10E	0.15000	0.02000
Emergency Generator	PM2.5E	0.15000	0.02000

Appendix D

Archaeological Resources Assessment

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TECHNICAL MEMORANDUM

To: Eyestone Environmental
101 Continental Boulevard, Suite 240
El Segundo, CA 90245

From: Tiffany Clark, Principal Archaeologist
Chris Millington, Principal Archaeologist

Date: August 9, 2026

Re: **Archaeological Resources Assessment for the Amgen Specific Plan Amendment Project, Thousand Oaks, Ventura County, California**

INTRODUCTION

Eyestone Environmental (Eyestone) retained SWCA Environmental Consultants (SWCA) to analyze archaeological resources for a proposed Specific Plan Amendment (SPA) to the Amgen Specific Plan (SP-16) in Thousand Oaks, Ventura County, California. The SPA would facilitate a Development Permit for a new research facility (the "Project"). The proposed Project consists of the construction of a multi-story building (Building 50) with installation of hardscape and landscape elements, as well as an off-site storm drain and bio basins. The Project is subject to California Environmental Quality Act (CEQA) with the City of Thousand Oaks (the City) acting as the lead CEQA agency.

SWCA's study was conducted in accordance with the requirements of Mitigation Measure (MM) CUL-2 (Archaeological Resources Assessment) of the City's General Plan 2045 Program Environmental Impact Report (EIR) (City of Thousand Oaks 2023a). The investigation included a California Historical Resources Information System (CHRIS) record search at the South Central Coastal Information Center (SCCIC), a Sacred Lands File (SLF) search by the Native American Heritage Commission (NAHC), and background research conducted by SWCA. Because of the developed nature of the Project Site, a Phase I pedestrian survey was not conducted as part of the archaeological resources assessment.

This technical memorandum provides a review of available evidence for known archaeological resources within or immediately adjacent to the Project Site and analyzes the likelihood (i.e., sensitivity) for as-yet unknown resources that could be present in or immediately adjacent to the Project Site as buried deposits. The results of this study are intended to provide a basis for determining the Project's potential for impacting archaeological resources in accordance with the programmatic cultural resource mitigation that is governed by the CEQA guidelines and the City's General Plan (City of Thousand Oaks 2023b).

This report was prepared by Tiffany Clark, Ph.D., Registered Professional Archaeologist. Dr. Clark meets the Secretary of the Interior Professional Qualification Standards in archeology and the Society for California Archaeology's standards for a principal investigator. Chris Millington, M.A., RPA, provided quality control and reviewed the report for accuracy and consistency. Copies of this report are on file with Eyestone, the City's Planning Division, and the SCCIC at California State University, Fullerton. All background materials are on file with SWCA's office in Pasadena, California, and referenced as project number 106838.

PROJECT LOCATION AND DESCRIPTION

The proposed Project is located at 701 Pauling Drive in Thousand Oaks, Ventura County, California (Figure 1). The Project Site is developed with an existing 181,000 square foot building (Building 14) that is currently under demolition. It lies within Section 12, Township 1 North, Range 20 West (San Bernardino Base and Meridian) of the U.S. Geological Survey (USGS) Newbury Park, California, 7.5-minute quadrangle (Figure 2). The property is bounded on the south by West Hillcrest Drive and on the east by Pauling Drive (Figure 3).

The proposed Project involves the construction of a four-story 377,256 square foot technology and life sciences facility (Building 50), which is on Assessor's Parcel Number (APN) 526-0-210-145. The building is proposed at 75 feet (22.9 meters) in height with an additional 12.5 feet (3.81 meters) of roof top equipment screening. The total proposed development occurs on approximately 4.27 acres that includes hardscape and landscape improvements extending onto portions of APNs 526-0-210-135, 526-0-210-115 and 526-0-210-095; off-site improvements include the installation of a storm drain and bio basins extending eastward along the northern edge of West Hillcrest Drive (Figure 3). Based on the current design plans (Gorian and Associates, Inc. [GAI] 2026), the maximum depth of excavation required for the foundational elements of the proposed building is 21.5 feet (6.6 meters), which is at or near the existing Building 14 basement elevation. As such, no significant grading or over-excavation for the construction of the basement for Building 50 is anticipated. The installation of hardscape and landscape elements, as well as utility excavations, in the Project Site is expected to extend up to 7 feet (2.1 meters) below grade. In the off-site improvement area, the new storm drain will be placed 3 to 5 feet (0.9 to 1.5 meters) below the current grade.

The Project is located within the SP-16 area, which encompasses approximately 91 acres. The Project requires an SPA to extend the maximum building height of 75 feet (22.9 meters) currently allowed in Height District 3 to Height District 2. The proposed height increase within the SP-16 area is consistent with base height allowance for the Industrial Flex land use designation of the Thousand Oaks 2045 General Plan Program (City of Thousand Oaks 2023b). Other components of the SPA include exceptions to the height limits for specified mechanical equipment above rooftop screening, parking locational criteria and architectural massing step backs where there is an over height first floor.

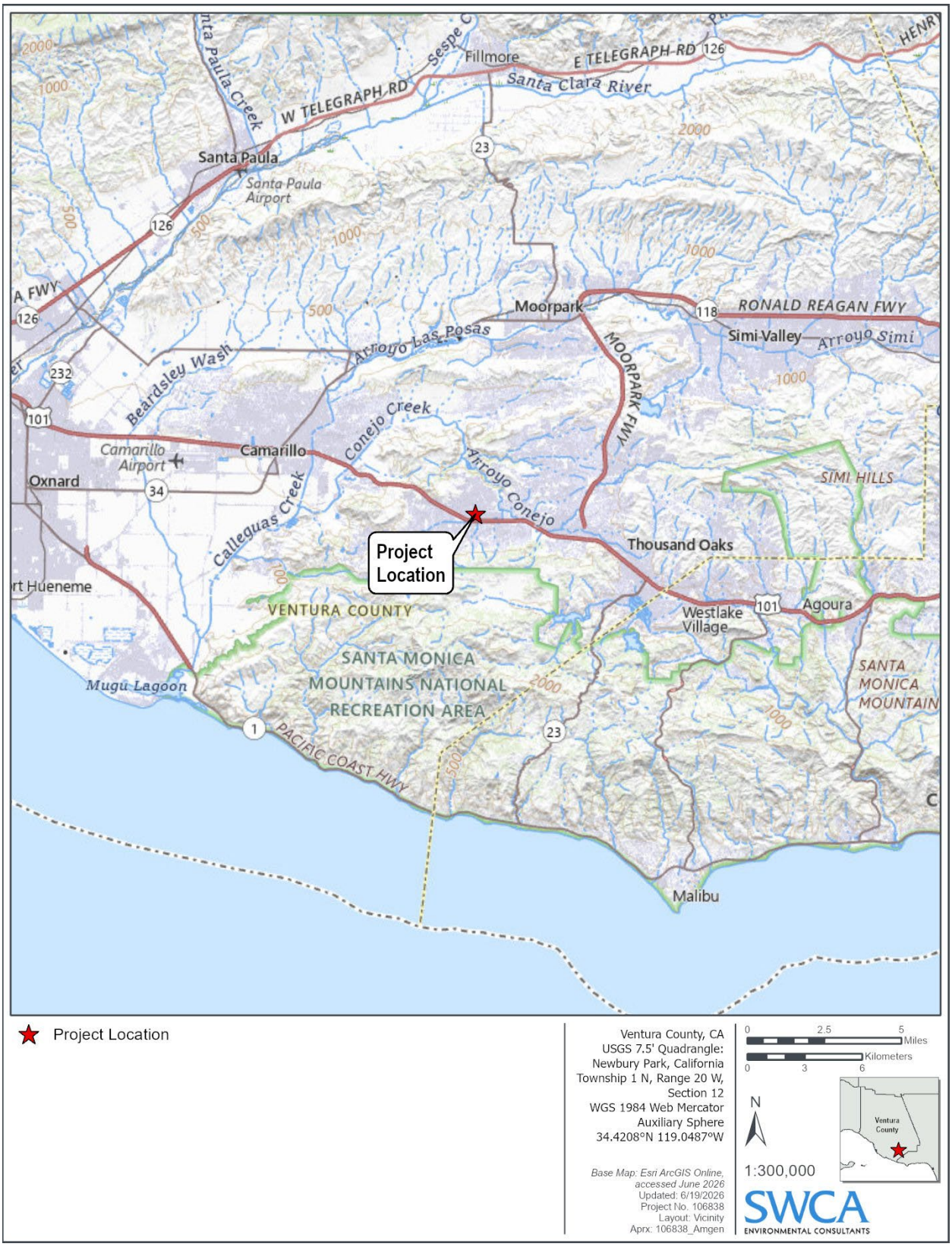

Figure 1. Project vicinity map.

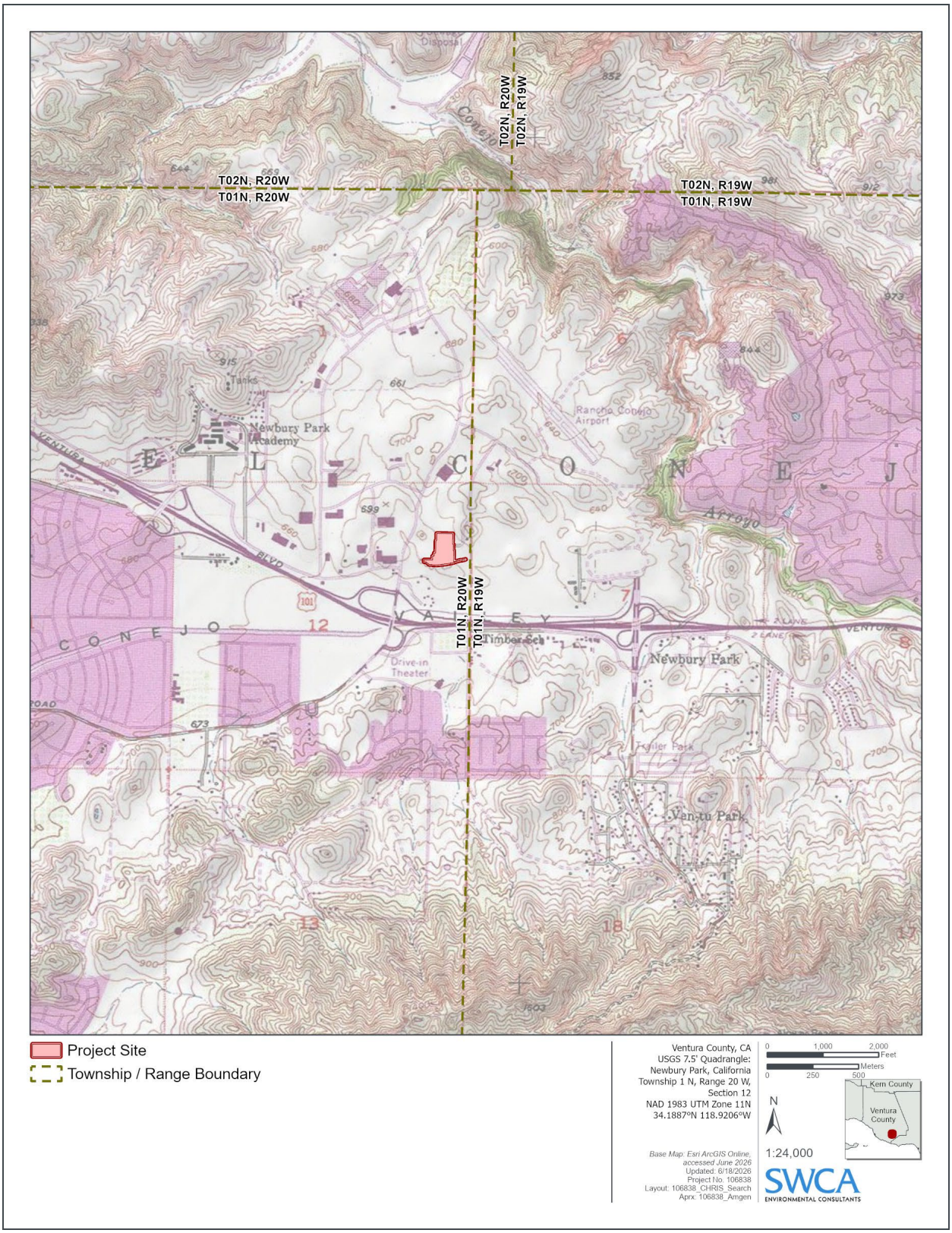

Figure 2. Project Site plotted on the USGS Newbury Park, California, 7.5-minute topographic quadrangle.

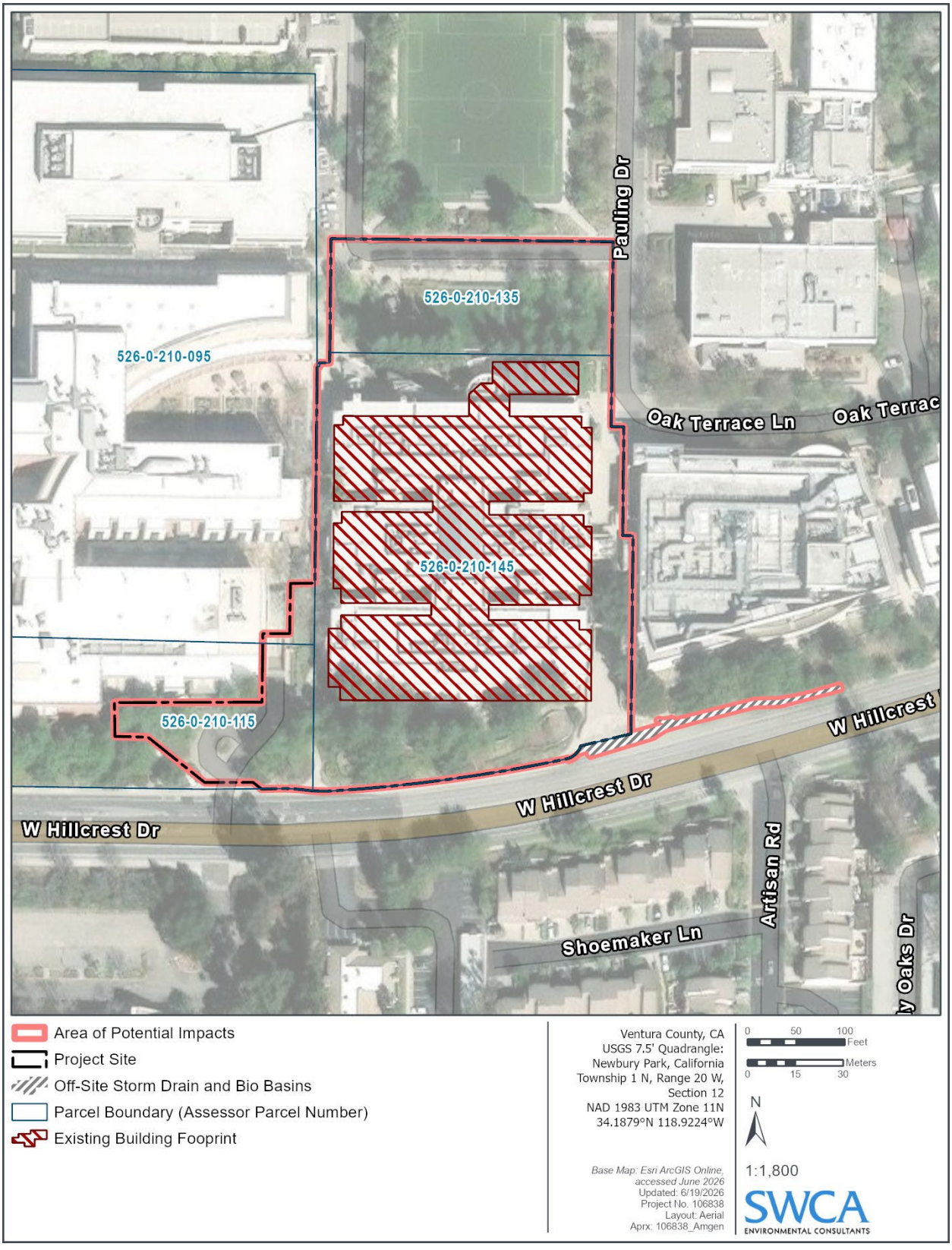

Figure 3. Aerial photograph of the Project Site and surrounding streets.

REGULATORY SETTING

State Regulations

California Environmental Quality Act

The California Office of Historic Preservation, a division of the California Department of Parks and Recreation, performs certain duties described in the California Public Resources Code (PRC) and maintains the California Historic Resources Inventory and California Register of Historical Resources (CRHR). The state-level regulatory framework includes CEQA, which requires the identification, and mitigation, if necessary, of substantial adverse impacts that may affect the significance of archaeological resources.

Under CEQA, a "project that may cause a substantial adverse change in the significance of a historical resource is a project that may have a significant effect on the environment" (PRC Section 21084.1). Lead agencies are also required to determine if a project may have a significant effect on unique archaeological resources (PRC Section 21083.2). CEQA Guidelines further clarify that CEQA applies to effects on archaeological sites, which may be a historical resource or unique archaeological resource (14 California Code of Regulations [CCR] Section 15064.5[c]). Archaeological resources are classified as a type of cultural resource in the Environmental Checklist Form included in Appendix G of CEQA Guidelines (14 CCR Division 6, Chapter 3), which asks if the project would "[c]ause a substantial adverse change in the significance of an archaeological resource pursuant to [Section] 15064.5?"

Answering these questions is a two-part process: determining whether the proposed project involves a resource. If a resource is present, then the proposed project must be analyzed for a potential to cause a substantial adverse change in the significance of the resource. CEQA Guidelines specify that a "substantial adverse change in the significance of an historical resource means physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired" (CEQA Guidelines, Section 15064.5). Material impairment occurs when the adverse project activities occur to the physical characteristics of an historical resource that convey its historical significance and that justify its inclusion or eligibility for the National Register of Historic Places (NRHP), CRHR, or a local register. In addition, pursuant to CEQA Guidelines Section 15126.2, the "direct and indirect significant effects of the project on the environment shall be clearly identified and described, giving due consideration to both the short-term and long-term effects."

HISTORICAL AND ARCHAEOLOGICAL RESOURCES

According to CEQA Guidelines (CCR Section 15064.5), historical resources are:

- A resource listed in, or formally determined to be eligible by the State Historical Resources Commission, for listing in the CRHR (PRC Section 5024.1, 14 CCR Section 4850 et seq.).
- A resource included in a local register of historical resources, as defined in PRC Section 5020.1(k), or identified as significant in a historic resources survey by meeting the requirements of PRC Section 5024.1(g).
- Any object, building, structure, site, area, place, record, or manuscript that the lead agency determines to be eligible for national, state, or local landmark listing; generally, a resource shall be considered by the lead agency to be historically significant (and therefore a historic resource under CEQA) if the resource meets the criteria for listing on the CRHR (as defined in PRC Section 5024.1, 14 CCR Section 4852).

Thus, an archaeological site (also referred to as an archaeological resource) that meets the criteria for listing on the CRHR is a historical resource under CEQA.

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 Sections 21083.2 and 21084.1). Certain properties, including those listed in or formally determined eligible for listing in the 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 historical resources surveys, or designated by local landmarks programs, may be nominated for inclusion in the CRHR. According to PRC Section 5024.1(c), 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:

- **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, or 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 convey the reasons for their significance. Resources whose historic integrity does not meet NRHP criteria may still be eligible for listing in the CRHR. Although all sites are evaluated according to all four of the CRHR criteria, the eligibility for archaeological resources is typically considered under Criterion 4. Most prehistoric archaeological sites lack identifiable or important association with specific persons or events of regional or national history (Criteria 1 and 2), and/or lack the formal and structural attributes necessary to qualify as eligible under Criterion 3.

An archaeological site may be considered significant if it displays one or more of the following attributes: chronologically diagnostic, functionally diagnostic, or exotic artifacts; datable materials; definable activity areas; multiple components; faunal or floral remains; archaeological or architectural features; notable complexity, size, integrity, time span, or depth; or stratified deposits. Determining the period(s) of occupation at a site provides a context for the types of activities undertaken and may well supply a link with other sites and cultural processes in the region. Moreover, well-defined temporal parameters can help illuminate processes of culture change and continuity in relation to natural environmental factors and interactions with other cultural groups. For example, the content of an archaeological site can provide information regarding its cultural affiliations, temporal periods of use, functionality, and other aspects of its occupation history. The range and variability of artifacts present in the site can allow for reconstruction of changes in ethnic affiliation, diet, social structure, economics, technology, industrial change, and other aspects of culture.

Finally, chronological controls (i.e., estimating the age of a resource) provide a way to link historical information from a resource to regionally important research questions and relevant topics. As a result, the ability to determine the time of a site's occupation is critical for determining eligibility under

Criterion 4 (information potential). A site that cannot be dated is unlikely to possess the significance required for CRHR eligibility or be considered a unique archaeological resource.

UNIQUE ARCHAEOLOGICAL RESOURCES

In terms of archaeological resources, PRC Section 21083.2(g) defines a unique archaeological resource as an archaeological artifact, object, or site about which it can be clearly demonstrated that without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

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

HUMAN REMAINS

The discovery of human remains outside a dedicated cemetery are addressed under California Health and Safety Code (HSC) Section 7050.5, which requires that no further disturbance shall occur to the discovery site or areas reasonably suspected of containing additional human remains until the County coroner has made the necessary findings as to origin and disposition. California PRC Section 5097.98 and CEQA Guidelines Section 15064.5(e) requires that work stop near the discovery until a coroner can determine that no investigation into the cause of death is required and whether the remains are Native American in origin. The following procedures from PRC Section 5097.98 and CEQA Guidelines Section 15064.5(e) summarize the process to be followed if human remains are discovered:

- Stop immediately and contact the County coroner.
- If the remains are determined to be of Native American descent, the coroner has 24 hours to notify the NAHC.
- The NAHC will immediately notify the person it believes to be the most likely descendant (MLD) of the deceased Native American.
- The MLD has 48 hours to make recommendations to the owner, or representative, for the treatment or disposition, with proper dignity, of the human remains and grave goods.
- If the owner does not accept the MLD's recommendations, the owner or the MLD may request mediation by the NAHC.

Local Regulations

City of Thousand Oaks General Plan 2045 Program

Goals and Policies

Chapter 7, the Conservation Element of the Thousand Oaks General Plan 2045 Program (City of Thousand Oaks 2023b), includes the following goal and policies to preserve archaeological resources:

Goal C-11: Protect historical and culturally significant resources, which contribute to the community's sense of identity.

Policy 11.1 Cultural resource identification and recognition. Identify and, as appropriate, recognize significant cultural resources by identifying significant cultural resources with landmark designation plaques, directional signage, self-guided tours, programs, and events.

Policy 11.2 Cultural resource preservation. Require that new development preserve or mitigate impacts to significant historic, archaeological, and paleontological resources.

Policy 11.3 Archeological site protection. The preferred method for protecting any previously recorded archeological site shall be by deed restriction as permanent "open space", in order to prevent any future development or use that might otherwise adversely impact these resources.

Policy 11.4 Native American consultation. Conduct Native American consultation consistent with most recent regulations when new development is proposed in culturally sensitive areas.

Policy 11.5 Historic resource management. Maintain, rehabilitate, and reuse significant historic resources, as feasible.

Policy 11.6 Archaeological site confidentiality. Maintain a list of the locations of previously recorded archaeological sites confidential unless the release of such information to the public is specifically authorized by local Native American organizations or other entities with jurisdiction over such sites.

Policy 11.7 Resource stakeholder engagement. Decisions pertaining to the disposition of archaeological, paleontological, historical, and cultural resources shall be made in concert with recognized public agencies, groups or individuals having jurisdiction, expertise, or interest in these matters, including but not limited to the State Office of Historic Preservation, Ventura County Cultural Heritage Board, and local Native American organizations, and affected property owners.

Policy 11.8 Public and private involvement. Collaborate with private and public entities whose goals are to protect and preserve historic resources and important cultural resources.

Mitigation Measures

The following three mitigation measures were adopted as part of the Mitigation Monitoring and Reporting Program (MMRP) for the City's General Plan 2045 Program EIR to reduce potential impacts to archaeological resources to a less-than-significant level (City of Thousand Oaks 2023a):

CUL-2: Archaeological Resources Assessment. Prior to project approval of a project that involves ground-disturbance activities (that may include, but are not limited to, pavement removal, potholing, grubbing, tree removal, and grading), the project applicant shall submit to the City an Archaeological Resources Assessment prepared by a qualified archaeologist who meets the Secretary of the Interior's Professional Qualifications Standards in either Prehistoric or Historic Archaeology. Assessments shall include a California Historical Resources Information System records search at the South Central Coast Information Center and a Sacred Lands File Search from the NAHC. The records searches shall characterize the results of previous cultural resource surveys and disclose any cultural resources that have been recorded and/or evaluated in and around the development site. A qualified professional shall conduct a Phase I pedestrian survey for those projects that include undeveloped areas to locate any surface cultural materials.

If the Phase I archaeological survey identifies resources that may be affected, the applicant shall also conduct Phase II testing and evaluation. If resources are determined significant or unique through Phase II testing and site avoidance is not possible, the qualified professional shall identify appropriate site-specific mitigation measures in the Phase II evaluation. These measures

may include, but would not be limited to, a Phase III data recovery program, avoidance, or other appropriate actions to be determined by a qualified archaeologist. If significant archaeological resources cannot be avoided, impacts may be reduced to a less-than-significant level by filling on top of the sites rather than cutting into the cultural deposits. Alternatively, and/or in addition, a data collection program may be warranted, including mapping the location of artifacts, surface collection of artifacts, or excavation of the cultural deposit, to characterize the nature of the buried portions of sites. Curation of the excavated artifacts or samples would occur as specified by the archaeologist. The City shall review and approve the Archaeological Resources Assessment prior to project approval.

CUL-3: Unanticipated Discoveries. For projects whose Phase I archaeological survey identifies archaeological resources that may be affected, the applicant shall retain a qualified cultural resource specialist to monitor construction activities that involve ground-disturbing activities greater than 12 inches in depth and occur within 60 feet of a potentially significant cultural resource. If archaeological resources are encountered during ground-disturbing activities, work in the immediate area shall halt and an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for Archaeology shall be contacted immediately to evaluate the find. If necessary, the evaluation may require preparation of a treatment plan and archaeological testing for CRHR eligibility. If the discovery proves to be significant pursuant to the CEQA and cannot be avoided by the project, additional work, such as excavating the cultural deposit to fully characterize its extent and collecting and curating artifacts may be warranted to mitigate any significant impacts to cultural resources. If archaeological resources of Native American origin are identified during construction, a qualified archaeologist shall consult with the City to begin Native American consultation procedures, which are outlined in Mitigation Measure CUL-4. Periodic reports of the find and subsequent evaluations shall be submitted to the City during construction.

CUL-4: Suspend Work Around Tribal Cultural Resources Identified During Construction. In the event that cultural resources of Native American origin are identified during ground disturbance during construction of a project implemented under TO2045, all earth-disturbing work in the vicinity of the find shall be temporarily suspended or redirected until an archaeologist has evaluated the nature and significance of the find as a cultural resource and an appropriate local Native American representative is consulted. If the City, in consultation with local Native Americans, determines that the resource is a tribal cultural resource and, thus, significant under CEQA, a mitigation plan shall be prepared and implemented in accordance with State guidelines and in consultation with local Native American group(s). The mitigation plan shall include avoidance of the resource or, if avoidance of the resource is infeasible, the plan shall outline the appropriate treatment of the resource in coordination with the appropriate local Native American tribal representative and, if applicable, a qualified archaeologist. Examples of appropriate mitigation for tribal cultural resources include, but are not limited to, protecting the cultural character and integrity of the resource, protecting traditional use of the resource, protecting the confidentiality of the resource, or heritage recovery.

Amgen SP-16 (SP-16)

The Amgen Specific Plan EIR evaluated the development of SP-16 and was certified by the City on April 5, 1994 (City of Thousand Oaks 1994). The EIR analyzed a total maximum permitted development within the Specific Plan area of 3,807,294 square feet (100 acres), including minimum parking based on specific uses as set forth in the Specific Plan. In 1996, the City administratively approved an amendment (Amendment 1) to the Specific Plan, which allowed for the use of up to five exterior building colors in Height Districts 2 and 3. In 1n 2016, the City Council approved an amendment (Amendment 2) to the Specific Plan, which removed the property commonly known as 2150 West Hillcrest Drive from the

Specific Plan area and reduced the maximum buildout within the SP-16 area to 3,637,294 square feet (City of Thousand Oaks 2016). This action was done through a Categorical Exemption pursuant to Section 15061 (b)(3). Through the development of Building 50, the Amgen campus will contain approximately 3,219,542 square feet (91 acres) of development, which is under the maximum buildout of 3,637,294 square feet (91 acres).

Neither the Amgen Specific Plan EIR nor Amendments 1 and 2 includes mitigation for archaeological resources. Instead, these resources are addressed exclusively by programmatic measures established in the MMRP for the City's General Plan 2045 Program EIR (City of Thousand Oaks 2023a) (see above).

ENVIRONMENTAL SETTING

The Project Site is located in the Conejo Valley, a raised interior valley that is bounded by the Mountclef Ridge to the north, Simi Hills to the east, Santa Monica Mountains to the south, and the Conejo Hills and Oxnard Plain to the west. It lies in the western extent of the Transverse Ranges Geomorphic Province, a 250-mile-long east-west-trending structural block that extends from the Pacific to the eastern San Bernardino Mountains (Campbell et al. 2016). This province is characterized by mountains and valleys that trend in a west-east direction, in contrast with north-south trending ranges to the north and to the south, as shaped by the San Andreas Fault (Campbell et al. 2016). Sediments in the Project vicinity consist of Quaternary alluvium that are surrounded by exposures of the Conejo Volcanics, an igneous rock sequence from the Miocene Epoch (Dibblee and Ehrenspeck 1990; Taliaferro 1924). The alluvial sedimentary deposits found within the valley represent an accumulation of clasts derived from the igneous deposits in the adjacent Conejo Hills (Yerkes and Campbell 1995). The elevation of the Project Site is approximately 650 feet (198 meters) above mean sea level. Prior to development, this portion of the Conejo Valley would have been characterized by native chaparral and coastal sage plant communities.

The surficial geology for the Project Site is composed of late Pleistocene (11,700 to 129,000 years ago) older dissected surficial deposits (Qoa) with a small area of Holocene (present to 11,700 years ago) alluvium (Qa) located in the off-site improvement area (Biewer and Adams 2026). The late Pleistocene deposits consist of dissected, weakly indurated alluvial gravel, sand, and clay with Holocene alluvium composed of gravel, sand, and clay (Dibblee and Ehrenspeck 1990). The geotechnical report prepared for the Project indicates that artificial fill is also present in the Project Site to depths of 7 to 15 feet (2.1 to 4.6 meters) below ground surface (bgs) (GAI 2026).

CULTURAL SETTING

Overview of Native American Archaeology

Numerous chronological sequences have been devised to aid in understanding cultural changes within Southern California. Table 1 provides a reference point for the primary periods and cultural traditions and is a composite of several cultural chronologies that have been advanced by researchers working in the region over the last hundred years. Geologic time periods are used as the primary temporal designations—Terminal Pleistocene and Early, Middle, and Late Holocene—and the corresponding chronologies are denoted by years before present (BP) and calendar ages (BC and AD). California prehistory is generally divided into three cultural periods referred to as the Paleoindian, Archaic, and Emergent periods. These were originally put forward by Fredrickson (1973, 1974, 1994) as a means of characterizing similar cultural characteristics observed throughout the state, which are understood to have been generally governed by climatic and environmental variables, such as the drying of pluvial lakes at the transition from the Paleoindian to the Lower Archaic.

Table 1. Precontact Cultural Chronology for the Southern California Coast

Years BP	Calendar Age	Geologic Period*	California Prehistory Periods†	Horizons/Traditions‡	King's Chronology§
13,000 BP	11,000 BC	**Terminal Pleistocene**	**Paleoindian/ Paleocoastal** ~13,000–8,000 BP ~11,000–6000 BC	**Paleoindian**	
10,000 BP	8000 BC	**Early Holocene**		**Horizon I /** San Dieguito	
			Archaic Period ~8,000–1,500 BP ~6000 BC–AD 500	**Horizon II/** Milling Stone Horizon/ Encinitas Tradition	**King's Early Period** 5500–1350 BC
7000 BP	5000 BC	**Middle Holocene**			
				Horizon III / Intermediate Horizon/ Campbell Tradition	
3500 BP	1500 BC	**Late Holocene**			**King's Middle Period** 1350 BC–AD 1200
1500 BP	AD 500		**Emergent Period** ~1,500 BP–Historic Contact ~AD 500–Historic Contact	**Horizon IV/** Late Prehistoric / Chumash Tradition	
					King's Late Period AD 1200–Historic Contact
Historic Contact					

*Erlandson and Colten (1991).
†Fredrickson (1973, 1974, 1994).
‡Wallace (1955, 1978); Warren (1968).
§King (1981, 1990).

The earliest evidence for human occupation in Southern California is found on the northern Channel Islands, where multiple Terminal Pleistocene sites have been identified and dated in the past couple decades, firmly establishing the presence of early coastal-adapted people in the region (Erlandson et al. 1996, 2011; Erlandson and Braje 2008). On Santa Rosa Island, human remains have been dated from the Arlington Springs site to approximately 13,000 years ago (Johnson et al. 2002), and recent excavations and radiometric dating of multiple archaeological assemblages on San Miguel, Santa Rosa, and Santa Cruz islands document Paleoindian technologies, subsistence strategies, and seasonality of site occupation during the Terminal Pleistocene with similarities to the Western Stemmed Tradition found across much of western North America (Braje et al. 2013; Erlandson 2013; Erlandson et al. 2011, 2015; Erlandson and Braje 2008; Jew et al. 2013; Rick et al. 2013). It is important to recognize that the Terminal Pleistocene was a period of shifting climate and sea level rise that has now inundated many kilometers of shoreline worldwide and along Southern California shorelines specifically (i.e., Reeder-Myers et al. 2015). Accordingly, any evidence of human occupation in what now are coastal settings is likely only a small fraction of what originally existed (see Erlandson et al. 2007; Erlandson et al. 2015). It is likely that similarly early sites were present on the mainland California coast; however, the rate and degree of development have likely destroyed most early sites along the California mainland coast. Although few Clovis-like or Folsom-like fluted points have been found in Southern California (e.g., Dillon 2002; Erlandson et al. 1987), it is generally thought that small, mobile populations may have been more numerous than current data suggests.

Decades before Fredrickson, Wallace (1955, 1978) developed an archaeological chronology for Southern California based on four sequential horizons: Early Man (Horizon I); Milling Stone (Horizon II); Intermediate (Horizon III); and Late Prehistoric (Horizon IV). This regional cultural chronology is summarized in Table 2 and describes some of the basic characteristics in the respective periods. Wallace's

(1955) original synthesis initially lacked chronological precision; however, the advent of radiocarbon dating in the 1950s allowed researchers to further refine and revise these periods as radiocarbon datasets grew and additional analyses were conducted, resulting in more refined chronologies and sequences, including not only those of Frederickson but also several others (e.g., Byrd and Raab 2007:217; Koerper and Drover 1983; Koerper et al. 2002; Mason and Peterson 1994; Moratto 1984). Additional primary syntheses for Southern California prehistory were developed by Warren (1968) and King (1981, 1990), which used the growing archaeological datasets of specific subregions within Southern California to define increasingly localized cultural sequences.

Table 2. Precontact Cultural Chronology based on Wallace's Periods

Period	Key Characteristics	Date Range
Early Man	• Diverse mixture of hunting and gathering • Greater emphasis on hunting	ca. 10,000–6000 BC
Milling Stone	• Subsistence strategies centered on collecting plant foods and small animals • Extended and loosely flexed burials	6000–3000 BC
Intermediate	• Shift toward a hunting and maritime subsistence strategy, along with a wider use of plant foods • Trend toward greater adaptation to regional or local resources • Fully flexed burials, placed facedown or faceup, and oriented toward the north or west	3000 BC–AD 500
Late Prehistoric	• Increase in the use of plant food resources, as well as an increase in land and sea mammal hunting • Increase in the diversity and complexity of material culture • Increased usage of the bow and arrow • Increase in population size, accompanied by the advent of larger, more permanent villages	AD 500–ca. 1769

Ethnographic Overview

The Project Site is within the southeastern portion of the Chumash territorial boundary (and the Ventureño language group) (Figure 4). The Chumash people lived between Malibu in Los Angeles County and San Marcos Creek near the Monterey County line, on all four of the northern Channel Islands, and as far east as the edge of Kern County (Milliken and Johnson 2005). The Chumash territory was divided into seven parts, each representing various linguistic subgroups, some of which were nearly mutually unintelligible (Kroeber 1925; Milliken and Johnson 2005). Most of our information regarding Chumash traditional culture comes from the ethnographic studies conducted by J. P. Harrington, who worked among the surviving Chumash population between 1912 and 1958. The following descriptions of Chumash society are compiled from scant ethnographic and ethnohistoric sources that entail numerous biases and should be taken as general accounts of Native lifeways observed at the time of European contact and later (after indigenous lifeways had been severely disrupted by European presence in the Americas) that likely preclude primary aspects of cultural identity and practices.

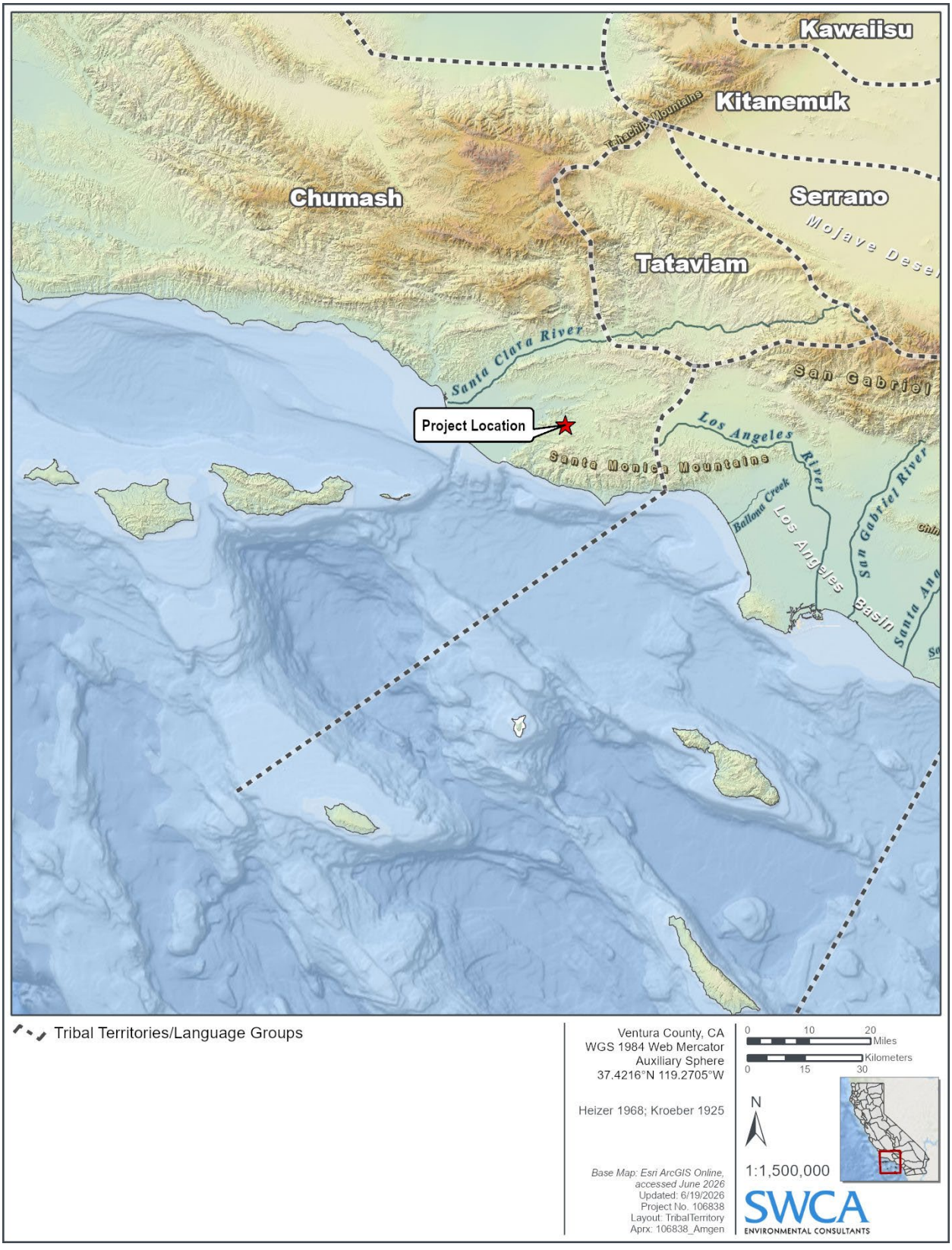

Figure 4. Overview of traditional tribal territories and/or language boundaries recorded in ethnographic sources from California.

The Chumash spoke at least six closely related Chumashan languages, which have been divided into two broad groups—Northern Chumash (consisting only of Obispeño) and Southern Chumash (Purisimeño, Ineseño, Barbareño, Ventureño, and Island Chumash) (Mithun 2001). While Island Chumash was the most divergent of the five southern languages, Ventureño may have had the most internal variation with at least six distinct dialects. The Project Site is situated within the territory of indigenous people who identify as or are otherwise recognized as Ventureño. The Chumashan languages are considered by some to be part of the Hokan language family, though others consider Chumashan to be an isolate stock with a long history in the Santa Barbara region, and not part of the Hokan linguistic family (Mithun 2001).

Numerous large Chumash villages extended along the Santa Barbara coastline at the time of European contact, particularly at the mouths of large drainages (Grant 1978a:Figure 1), suggesting extensive use of the greater area by indigenous peoples. Estimates of total Chumash population for the initial contact period vary from 8,000–10,000 (Kroeber 1925:551) to 18,000–22,000 (Cook and Heizer 1965:21). Coastal Ventureño and Barbareño Chumash villages were described as containing anywhere from 30 to 120 houses with several hundred to over 1,000 inhabitants and multiple canoes (Brown 2001; Grant 1978b). Early accounts by Spanish explorers note that inland villages were smaller than their coastal counterparts, with 100 to 500 occupants. The closest documented Chumash village to the Project Site is *sapwi* ("House of Deer"), which lies approximately 0.9 mile to the southeast (Figure 5).

Houses in the smaller inland villages were described as rectangular in shape (Grant 1978a:518). The chief's house was often the largest dwelling, encompassing his extended household and providing for his hospitality duties. Villages often contained storehouses, one or more subterranean sweat lodges, and a semi-circular dance ground and associated sacred ceremonial enclosure, with a nearby game field surrounded by low walls (McCall and Perry 1986). Satellite gathering or processing areas included earth ovens used to roast yucca and other foods, rockshelters, quarries, and bedrock mortars for processing acorns and similar plant resources (King 1994).

Every village had a chief, or *wot*, who was usually male, but hereditary rights to this role were passed down matrilineally (Johnson 1987). The *wot* had both political and religious ceremonial duties to perform and was assisted by the *paha*. Other officials known as *ksen* were "messengers who traveled from place to place, making announcements and gathering news for the *wot*" (McCall and Perry 1986:40). A large village usually had three to four chiefs, one of whom would be the head chief (Brown 2001). Portions of Chumash territory were also organized into provinces, or groups of villages that were ruled by a single chief.

Acorns were a dietary staple of inland Chumash groups and were gathered in the autumn and stored in villages, where they were ground to a meal, leached, and then cooked daily. In addition to acorns—mainly from the coast live oak (*Quercus agrifolia*)—other nuts, such as pine nuts and walnuts, were collected. Chumash diet also included cattail roots, fruits, and pads from *Opuntia* cactus, along with bulbs and tubers (Miller 1988; Timbrook 2007). Yucca stalks were harvested and roasted, and the buds and flowers were also gathered and consumed. Staples included small hard seeds of several annual and perennial plants such as grass, chia and other sages, and buckwheat. Seasonal resources included berries (blackberry, elderberry, grape, madrone, laurel, and wild cherry), mushrooms, and cress.

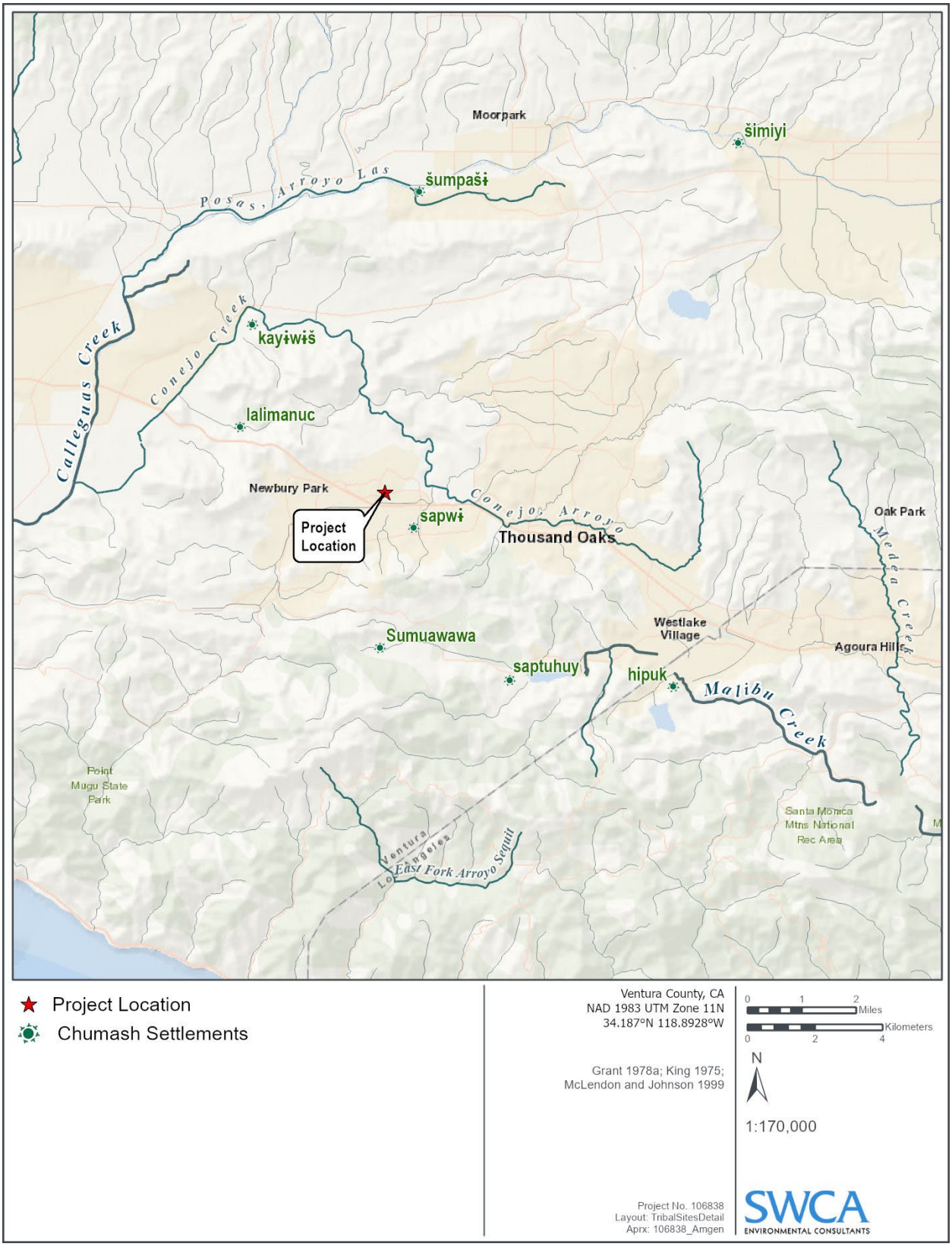

Figure 5. Overview of documented Chumash settlements in the vicinity of the Project Site.

Seeds were processed using various grinding implements including wooden and stone mortars, pestles, bedrock mortars, and hand stones. Tools used to gather plant foodstuffs consisted of at least several forms of gathering and winnowing baskets, woven seed beaters, and sharpened digging sticks. A variety of basket styles were manufactured for the processing and serving of foods, including straining and leaching acorn meal, and processed meal and other foods were cooked in water-tight baskets (Miller 1988). Other baskets were made for storing grains, acorns, meal, prepared foods, and other dietary resources. Carved steatite bowls, ollas, and comals also were used for cooking, and meals were sometimes served on wooden plates and bowls.

Inland Chumash populations captured mule deer, antelope, cottontail, jackrabbit, mice, and wood rats; mountain and valley quail, dove, and resident and migratory waterfowl, among other birds; and various types of reptiles, amphibians, and insects. Larger animals, such as mule deer, coyote, and fox, were hunted with the bow and arrow; smaller game was captured with traps and snares. Hunting was accomplished by various means, with the bow and arrow, spears, slings, throwing sticks, traps, and deadfalls (Hudson and Blackburn 1979).

Trade was an integral component of Chumash subsistence, and trade relationships among inland, coastal, and island groups were well established. Inland Chumash groups traded with the coastal Chumash, as well as Yokut, Tataviam, Kitanemuk, and Gabrielino neighbors to the north, east, and south (Miller 1988). Extensive trade network increased the diversity of goods available throughout Chumash territory, encouraged craft specialization, and established the coastal villages as middlemen.

Chumash religion was well developed and integrated into everyday life. Rituals and ceremonies were observed throughout the year; the most important was performed at the Winter Solstice, when a large festival was held in honor of the Sun. Astronomers carefully marked the shortest day of the year to know when to begin the rites and dances and used the observation to recalibrate their calendar. The *Hutush* autumn harvest festival, a time of thanksgiving, celebrated the Earth Goddess as provider of all foods (McCall and Perry 1986). Ceremonies were performed in everyday life and to mark special occasions; rituals were performed to name children, cure the sick of various ailments, and initiate young men into the mysteries of religion. The *'antap* society, restricted to the upper class, was also the federation of shamans who controlled ceremonial observances.

Historic Overview

Mission and Rancho Period (1769–1848)

Although Spanish, Russian, and British explorers visited the area for brief periods between 1529 and 1769, the Mission period in California began with the establishment in 1769 of a settlement at San Diego by the Spanish and the founding of Mission San Diego de Alcalá. Independence from Spain in 1821 marks the beginning of the Mexican era of governance within California, and the signing of the Treaty of Guadalupe Hidalgo in 1848, ending the Mexican–American War, signals the beginning of the American period, when California became a territory of the United States.

Spanish explorers made sailing expeditions along the coast of southern California between the mid-1500s and mid-1700s. In search of the legendary Northwest Passage, Juan Rodríquez Cabrílllo stopped in 1542 at present-day San Diego Bay. With his crew, Cabrílllo explored the shorelines of present Catalina Island as well as San Pedro and Santa Monica Bays. Much of the present California and Oregon coastline was mapped and recorded in the next half-century by Spanish naval officer Sebastián Vizcaíno. Vizcaíno's crew also landed on Santa Catalina Island and at San Pedro and Santa Monica Bays, giving each location their long-standing names. The Spanish crown laid claim to California based on the surveys conducted by Cabrílllo and Vizcaíno (Bancroft 1886:96–99; Gumprecht 2001:35).

The first recorded Spanish explorer to enter the Conejo Valley was Gaspar de Portolá on his return journey along the California coast in 1770. Portolá entered the valley from the northwest traveling up and over the Conejo Grade and continuing eastward to the San Fernando Valley. In 1774, Juan Bautista de Anza traveled this same route on his way north to the San Francisco Bay area.

A major emphasis during the Spanish era of governance during the Mission period in California was the construction of missions and associated presidios. A total of 21 missions were established along the California coast between 1769 and 1833. Though the main purpose of the missions was to convert indigenous populations to Christianity and integrate them into the colonial economy, they also acted as nodes for early Spanish settlement. Presidios were built nearby to serve as military bases and protect the missions. The Spanish Crown issued land grants, primarily to soldiers and settlers, to promote colonization and support the missions and presidios. The area encompassing the Conejo Valley was part of one such land grant, Rancho El Conejo, which was given to two former soldiers (Jose Polanco and Ygnacio Rodriguez) in 1803. Totaling 48,671 acres, the rancho boundary ran westward from what is now Westlake Village near Lindero Canyon Road north to the Simi Hills, southwest to the Conejo Grade, and south to Hidden Valley in the Santa Monica Mountains (Figure 6). Polanco eventually lost his land due to neglect. In 1822, army officer José de la Guerra y Noriega was granted Polanco's claim by the Spanish Governor.

After more than a decade of intermittent rebellion and warfare, New Spain (Mexico and the California territory) won independence from Spain in 1821. In 1822, the Mexican legislative body in California ended isolationist policies designed to protect the Spanish monopoly on trade, and decreed California ports open to foreign merchants. The authority of the California missions gradually declined, culminating in their secularization by the central Mexican government in 1833, and by the Alta California legislature in 1834.

During the time that Mexico controlled California, extensive land grants were established in the interior, in part to increase the population inland from the more settled coastal areas where the Spanish had first concentrated their colonization efforts. The secularization of the missions following Mexico’s independence from Spain resulted in the subdivision of former mission lands and establishment of many additional ranchos. During the supremacy of the Mexico ranchos (1834–1848), landowners largely focused on the cattle industry and devoted large tracts to grazing. Cattle hides became a primary southern California export, providing a commodity to trade for goods from the east and other areas in the United States and Mexico. The number of non-Native inhabitants increased during this period because of the influx of explorers, trappers, and ranchers associated with the land grants. The rising California population contributed to the introduction and rise of diseases foreign to the Native American population, who had no associated immunities.

American Period (1848–Present)

War in 1846 between Mexico and the United States began at the Battle of Chino, a clash between resident Californios and Americans in the San Bernardino area. This battle was a defeat for the Americans and bolstered the Californios’ resolve against American rule, emboldening them to continue the offensive in later battles at Dominguez Field and in San Gabriel (Beattie 1942). However, this early skirmish was not a sign of things to come, and the Americans were ultimately the victors of this 2-year war. The Mexican–American War officially ended with the Treaty of Guadalupe Hidalgo in 1848, which resulted in the annexation of California and much of the present-day southwest, ushering California into its American period.

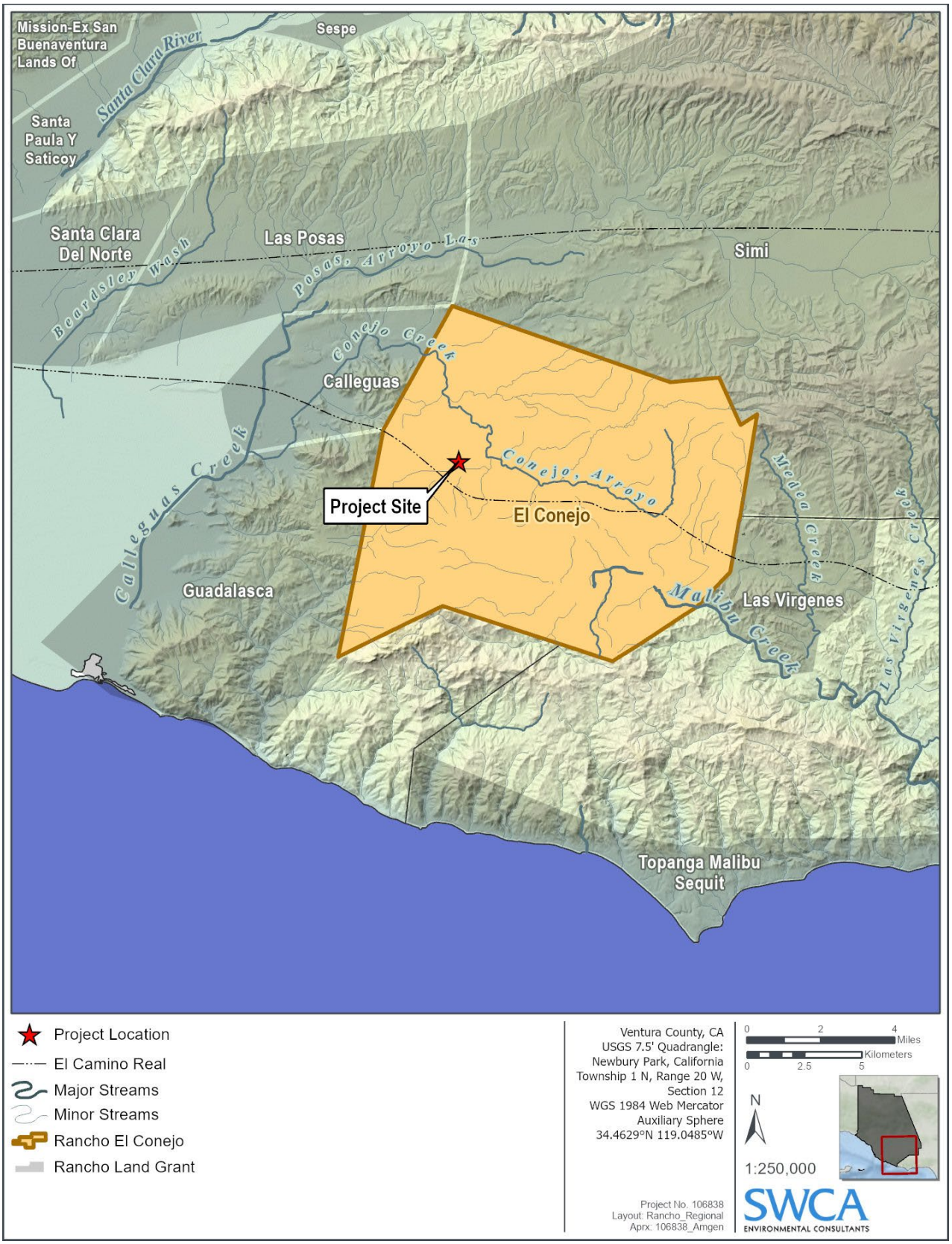

Figure 6. El Conejo Rancho boundary in relation to Project Site.

California officially became a state with the Compromise of 1850, which also designated Utah and New Mexico (with present-day Arizona) as U.S. Territories. Horticulture and livestock, based primarily on cattle as the currency and staple of the rancho system, continued to dominate the southern California economy through 1850s. The Gold Rush began in 1848, and with the influx of people seeking gold, cattle were no longer desired mainly for their hides but also as a source of meat and other goods. During the 1850s cattle boom, rancho vaqueros drove large herds from southern to northern California to feed that region's burgeoning mining and commercial boom. Cattle were at first driven along major trails or roads such as the Gila Trail or Southern Overland Trail, then were transported by trains when available. The cattle boom ended for southern California as neighbor states and territories drove herds to northern California at reduced prices. Operation of the huge ranchos became increasingly difficult, and droughts severely reduced their productivity (Cleland 1941).

By 1860, the population of California exceeded 300,000 (State of California 2026). Thousands of settlers and immigrants continued to move into the state in the following decades, particularly after the completion of the transcontinental railroad in 1869 (Dumke 1944). Throughout the nineteenth century, settlers established ranches, farms, and orchards in the Conejo Valley. The first post office was built in 1875, with a small settlement that would become Newbury Park founded as a stop on the stagecoach route between Los Angeles and San Francisco (City of Thousand Oaks 2026). The following year, the Grand Union Hotel (later renamed the Stagecoach Inn) opened for business, providing bed and board to stagecoach passengers and horseback riders (McKinney 2002). The valley's first school, Timber School, was established in 1889 and was the first public building in the area with electricity and indoor plumbing (Huey 2014).

With the invention of the motor car and construction of the highway linking Los Angeles and San Francisco, settlement within the Conejo Valley began to evolve. The first major highway through the area was the Coast Highway, which later became part of U.S. Route 101. Since its opening in 1926, the section of U.S. Route 101 running through the Conejo Valley has undergone numerous improvements and expansions. Key among these was the 1937 realignment of a four-mile stretch of the Conejo Grade connecting the Conejo Valley with Camarillo and the Oxnard Plain; the new route eliminated many of the dangerous curves that characterized the original 1915 roadway (Conejo Valley Guide 2024).

In the mid-twentieth century, the previously sparsely populated ranch and farmland of the Conejo Valley experienced significant growth and development. The area became a popular location for planned communities delivering a high quality of life and offering proximity to nearby Los Angeles (County of Ventura 2026). In 1964, voters approved incorporation, naming the new city "Thousand Oaks", in honor of the abundant oak trees in the area. In the city's early years, approximately 20,000 people lived within its 14.28-square-mile boundaries (City of Thousand Oaks 2026). Over the subsequent decades, the city's economy has shifted away from agriculture and now houses growing technology and healthcare industries, including Amgen. Today, the City encompasses approximately 56 square miles with more than 127,000 residents (City of Thousand Oaks 2026).

METHODS

CHRIS Records Search

SWCA reviewed CHRIS record search data that were obtained from the SCCIC at California State University, Fullerton on August 6, 2026. The record search included the current Project Site and surrounding 0.5 mile (0.8-kilometer [km]) buffer. The purpose of the review was to obtain information on archaeological resources and studies that had been conducted in the vicinity of the Project Site. The SCCIC maintains cultural resources records for Ventura County, which were included in the review.

Background research also included a review of the NRHP, CRHR, California Points of Historical Interest list, California Historical Landmarks list, and Archaeological Resources Directory.

NAHC SLF Search

SWCA submitted an SLF request to the NAHC on June 19, 2026. The NAHC maintains a list of Sacred Lands that are of interest to Native American tribal groups within California and could potentially be impacted by development projects. The NAHC also maintains a current CEQA tribal consultation list for consultants so that they can contact tribal representatives for further input into a project.

Archival Research

SWCA examined historical maps, aerial images, and archival records as part of the archaeological resource assessment. These include the Triunfo Pass, California 15-minute quadrangle (USGS 1900, 1921, 1943), Camulos, California 30-minute quadrangle (USGS 1903), and Newbury Park, California 7.5-minute USGS quadrangle (USGS 1950, 2012). Additionally, aerial photographs archived at the University of California, Santa Barbara (UCSB) Library Geospatial Collection dating to 1936, 1945, 1961, 1970, and 1977, along with NETROnline (2026) imagery dating to 1947, 1959, 1965, 1967, 1980, 1985, 1989, 1994, 2002, 2005, 2009, 2010, 2014, 2018, 2020, and 2024, were examined.

Buried Sensitivity Assessment

SWCA assessed the potential of encountering unknown, buried archaeological sites in the Project Site. A sensitivity assessment considers precontact and historical land use of the Project vicinity, broadly, as well as the physical setting of the Project Site, including whether the depositional context is conducive to the preservation of intact buried archaeological material. The results of such assessments are by nature qualitative, ranging along a three-tier scale of increasing probability for encountering buried significant cultural artifacts and features, designated here as low, moderate, and high.

The primary sources of information used to assess the sensitivity for buried precontact sites derived from record search and geological mapping data. The prevalence and types of precontact archaeological resources that have been documented within an area can be used to broadly characterize the extent and nature of precontact settlement and land use practices. Geological mapping information can be used to identify sensitive sedimentary deposits produced by alluvial, colluvial, eolian, and other natural processes, as well as paleosols, dating from the terminal Pleistocene through the Holocene epoch. The presence of surface artifacts and/or features of Native American origin in Holocene-age depositional environments conducive to the preservation of buried archaeological materials increases the buried site sensitivity of an area. Indicators of buried historic-period archaeological resources primarily relied on information obtained from historic-era aerial photographs and topographic maps, which were used to characterize the development history in the Project Site. Areas that lack substantial historic-era development (e.g., rural and agricultural areas) have a lower sensitivity for buried historic-period archaeological resources compared with areas characterized by more intensive occupations (e.g., settlements and townsites). Finally, the degree of existing ground disturbance also impacts the potential for buried archaeological deposits. Areas exhibiting little to no evidence of recent, deep subsurface disturbance may have a higher sensitivity for containing intact buried precontact or historic period archaeological resources than areas that have been mass or deep graded.

RESULTS

CHRIS Records Search

Previously Conducted Studies

SWCA received the results of the CHRIS records search from the SCCIC on August 6, 2026. The record search data indicate that nineteen cultural resources studies have been conducted within 0.5-mile of the Project Site (Table 3). None of these studies overlap the current Project Site. A confidential results map depicting the results is in Appendix A.

Table 3. Cultural Resources Studies Identified in the CHRIS Search

Report Number	Title	Author (Affiliation)	Year
VN-00028	Evaluation of the Archaeological Resources and Potential Impact of Proposed Widening and Realignment of the Ventura Freeway (Federal Highway 101), Ventura County	Rosen, Martin D. (University of California, Los Angeles (UCLA) Archaeological Survey)	1975
VN-00035	Evaluation of the Archaeological Resources and Potential Impact of Proposed Industrial Tract 2461, Ventura County.	Kaufman, Susan Hector (UCLA Archaeological Survey)	1975
VN-00041	Evaluation of the Archaeological Resources and Potential Impact of Proposed Industrial Tract 2488, RPD-75-141, Ventura County	Kaufman, Susan Hector (UCLA Archaeological Survey)	1976
VN-00084	An Archaeological Resource Survey and Preliminary Impact Assessment of the MGM Ranch Property, Thousand Oaks, California	Clewlow, William C., Jr. (Ancient Enterprises, Inc.)	1977
VN-00172	Final Archaeological Impact Report. Ventu Park Road General Plan Amendment Study C-76-6, City of Thousand Oaks and Tract 2501/RPD-75-149, Laston Associates/Nicobar Corporation	Davis, David, C. Singer, N. Leonard III, and J. Clewlow	1976
VN-00342	An Archaeological Reconnaissance of the 14.96 Acre Tract 2693, Rancho Conejo Industrial Park, City of Thousand Oaks, Ventura County, California	Lopez, Robert	1978
VN-00487	Archaeological Survey of Oakview Gardens, Newbury Park, California	Underwood, Jackson, and Dennis Gallegos (Westec Services, Inc.)	1986
VN-00942	An Archaeological Reconnaissance of the Thirty-Six Acres Involved in the Borchard Villas (Tract 4707), Newbury Park, City of Thousand Oaks, Ventura County, California	Lopez, Robert (Robert Lopez, Archaeological Consultant)	1990
VN-01040	For Improvement of the Operational Characteristics of Route 101, the Ventura Freeway in Los Angeles and Ventura Counties, Between Route 405 in Los Angeles, and the Santa Clara River in Oxnard	Stelle, Kenneth, and Albert Gallardo (California Department of Transportation (Caltrans) and Federal Highway Administration (FHWA))	1982
VN-01130	Environmental Impact Evaluation: An Archaeological Assessment of Vesting Tentative Tract Map 4366—Rancho Conejo, City of Thousand Oaks, California	Drover, Christopher E. (Christopher E. Drover, Ph.D.)	1988
VN-01520	Archaeological Survey Report for the 07-LA/VEN 101 Project P.M. 17.1-38.2/0.0-22.7 07351-076620	Romani, John F. (Caltrans)	1982
VN-01527	An Historic Study of the Property Known as the MGM Ranch, a Planned Community by Shapell Industries, Inc.	Allen, Patricia A. (Conejo Valley Historical Society)	1978
VN-01533	A Cultural Resources Survey and Impact Assessment of Community Development Block Grant (CDBG) Project Sites #1, 2, 3, 4 and Storm Drain, City of Thousand Oaks, Ventura County	Whitley, David S. (Ancient Enterprises, Inc.)	1980
VN-01539	Phase 1 Archaeological Survey VEN 101 P.M. 4.1/23.0 Freeway Widening and Pavement Reconstruction	Huey, Gene (Caltrans)	1978

Report Number	Title	Author (Affiliation)	Year
VN-01580	Results of an Archaeological Records Check and Field Reconnaissance Study for the Proposed Kelley Road Storm Drain and Newbury Road Improvement Project (Units A & B), Thousand Oaks, Ventura County, California	McKenna, Jeanette A. (McKenna et al.)	1998
VN-01997	Phase I Archaeological Survey of the Thousand Oaks Drive-In Study Area, Ventura County, California	Whitley, David S. (W&S Consultants)	1999
VN-02843	Conejo Fire Mitigation, Conejo Recreation and Park District, FEMA-1498-DR-CA, HMGP #1498-98-36	Amaglio, Alessandro (URS)	2005
VN-02872	TEA-21 Rural Roadside Inventory: Native American Consultants and Ethnographic Study for Caltrans District 7, Ventura County	Fortier, Jana (ICF Jones & Stokes)	2009
VN-03018	New Tower Submission Packet, FCC Form 620. Rancho Conejo Park & Ride. LA5658A. Ventura Freeway & Borchard Road, Thousand Oaks, Ventura County	Billat, Scott (EarthTouch, Inc.)	2011

Previously Recorded Archaeological Resources

The CHRIS records search results indicate that no archaeological resources have been documented in the Project Site or the search radius.

NAHC SLF Search

The NAHC responded to SWCA's request on June 25, 2026, noting that the SLF search was negative. The NAHC recommended that eight individuals, representing four Native American tribal groups who may have additional knowledge on archaeological resources in the Project Site, be contacted. The SLF search request letter, the NAHC response, and the list of contacts are included in Appendix B.

Archival Research

The 1900 Triunfo Pass, California topographic quadrangle map shows the Project Site as an undeveloped area located north of the South Branch of the Arroyo Conejo (USGS 1900) (Figure 7). An east-west running road (El Camino Real) is located approximately 0.5 mile to the south with scattered buildings along its alignment. A north-south trending unimproved road lies approximately 0.4 mile to the west. A 1936 aerial photograph depicts the Project Site as undeveloped land on a low northwest-southeast oriented hill; several houses and small orchards lie along the east-west running road (now U.S. Route 101) south of the Project Site (UCSB Library 2026a). By 1943, U.S. Route 101 has been improved (USGS 1943). A 1945 aerial photograph depicts the Project Site within a rectangular-shaped farmstead property that extends north from U.S. Route 101 that is bordered by linear rows of trees on its west, north, and east sides (UCSB Library 2026b). Most of the property appears to be under cultivation with residential and ancillary buildings located north and west of the Project Site, respectively. At this time, much of the land surrounding the Project Site is also being used for agricultural purposes.

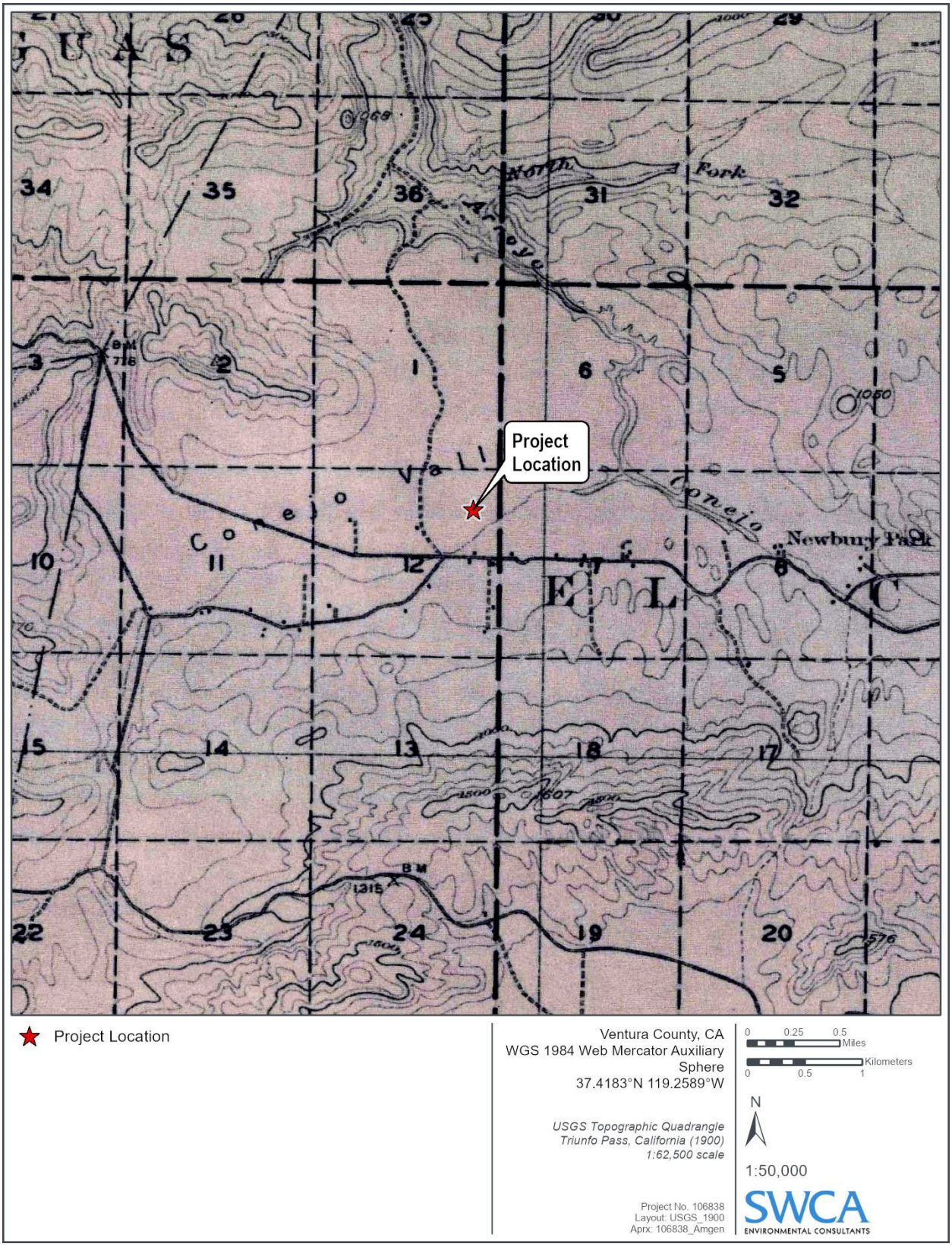

Figure 7. 1900 USGS Triunfo Pass, California topographic map showing location of Project Site.

Topographic maps and aerial images suggest that farmstead property that contained the Project Site remained relatively unchanged throughout the 1950s and 1960s (NETROnline 2026; UCSB Library 2026c; USGS 1950). Development is seen in the surrounding area with the construction of several large commercial buildings west of the Project Site by 1961 (UCSB Library 2026c). Sometime between 1967 and 1977, West Hillcrest Drive was constructed through the southern extent of the farmstead property and the hills on which the Project Site is located were graded (UCSB Library 2026d). The residence north of the Project Site is still extant at this time with increasing development in the surrounding areas including numerous commercial buildings to the west and an apartment complex and housing tract to the southeast. Between 1980 and 1985, the portion of the farmstead property north of West Hillcrest Drive is developed with a commercial building constructed on the Project Site. This building appears to be demolished and replaced with a new building (Building 14) between 1989 and 1994 (NETROnline 2026).

Buried Sensitivity Assessment

As previously mentioned, geologic mapping indicates that the Project Site is characterized by late Pleistocene alluvium (Qoa) which is more than 11,700 years old (Dibblee and Ehrenspeck 1990). Given the age of the geologic unit, it is likely that Qoa sediments were deposited prior to human occupation of the area. Consequently, any Native American archaeological remains associated with Pleistocene alluvium would have been located on the surface or near-surface of the landform and would probably have been destroyed by historic-era agricultural and grading activities that took place on the Project Site in the mid- to late twentieth century. Historic-era archaeological remains would likely be limited to minor and ubiquitous agriculture-related features, such as irrigation pipes and drainage ditches, associated with use of the farmstead property. Based on these findings, the potential to encounter significant buried Native American and historic-era archaeological deposits in Pleistocene alluvium is low.

GAI's (2026) geotechnical study found that the Project Site contains a layer of artificial fill that overlies the Pleistocene deposits and extends from the surface to depths between 7 to 15 feet (2.1 and 4.6 meters) bgs. It is not known when the layer of fill was deposited. However, GAI (2026:2) noted that it was sometime prior to the construction of Building 14 in 1993. Historical aerials indicate that the area did not experience significant ground modifications until the late 1960s or early 1970s when West Hillcrest Drive was constructed and the hills on which the Project Site is located were graded (UCSB Library 2026d). These findings indicate that the fill layer was likely deposited no more than 60 years ago. Although artificial fill has the potential to contain cultural materials, intact archaeological features and sites are very unlikely to be preserved in such contexts. As such, the fill layer has a low sensitivity for intact buried Native American or historic-era archaeological deposits.

Geologic mapping indicates that a small area designated for off-site improvements extends into Holocene alluvium (Qa) (Dibblee and Ehrenspeck 1990). Although the alluvium is young enough to contain buried archaeological remains, the absence of documented Native American archaeological resources within 0.5 mile of the Project Site suggests the area may not have experienced extensive use in the precontact period. During the subsequent historic period, development appears to have been limited to mid- to late twentieth century agricultural activities. Any surficial Native American or historic-era archaeological deposits that may have been present in the off-site improvement area were likely destroyed by the construction of West Hillcrest Drive. Because GAI's (2026) geotechnical study did not extend into the off-site improvement area, the depth of artificial fill in this portion of the Project is not known nor is the extent of existing ground disturbance. It is possible that intact archaeological deposits may be preserved in more deeply buried contexts below the artificial fill layer. Therefore, deeper excavations in the off-site improvement areas have moderate potential to encounter intact archaeological deposits.

IMPACT ANALYSIS

Based on current Project plans, the basement of the proposed building is expected to extend to a maximum depth of 21.5 feet (6.6 meters) below the current grade, which is at or near the existing Building 14 basement elevation. As such, no significant grading or over-excavation for the construction of the basement for Building 50 is anticipated. The installation of hardscape and landscape elements, as well as utility excavations, in the Project Site is expected to extend no more than 7 feet (2.1 meters) bgs. The geotechnical data indicate that these ground-disturbing activities will be confined to the layer of artificial fill.

In the off-site improvement area, the new storm drain will be placed 3 to 5 feet (0.9 to 1.5 meters) below the current grade. The depth of existing disturbance along West Hillcrest Drive is not known. However, given the extent of development in the area, it is likely that the upper 2-3 feet (0.6 to 0.9 meter) of sediment has been previously disturbed by the construction of West Hillcrest Drive. Based on these findings, only the deepest excavations associated with the storm drain installation have the potential to extend into undisturbed native sediments.

There are no known archaeological resources in the vicinity of the Project Site. SWCA's sensitivity analysis concluded that there is an overall low probability of a significant archaeological resource being preserved within the Project Site as a buried deposit. While unlikely, the potential cannot be ruled out for an archaeological resource to be encountered during construction for the Project, particularly for deeper excavations in the off-site improvement area where Holocene-aged alluvium may be present beneath disturbed sediments or artificial fill that otherwise characterizes the subsurface. The MMRP for the City's General Plan 2045 Program EIR includes MM CUL-3 (Unanticipated Discoveries), which requires that work be halted in the event an archaeological resource is discovered until appropriate treatment measures are implemented. Although no archaeological resources were identified, SWCA finds MM CUL-3 is applicable to the Project Site and off-site improvement area and accordingly should be applied to the Project. With incorporation of this measure, the proposed Project would result in less-than-significant impacts to archaeological resources. As such, in comparison to the analysis and conclusions of the City's General Plan 2045 Program EIR, the Project would not result in a new significant impact or a substantially more severe impact to archaeological resources.

CONCLUSION

The archaeological resources assessment identified no substantial changes proposed in the Project that will result in new significant environmental effects or a substantial increase in the severity of previously identified significant effects with respect to archaeological resources. Implementation of MM CUL-3 from the City's General Plan 2045 Program EIR would reduce impacts to archaeological resources to a less than significant level. Per the measure, in the unlikely event that an archaeological resource is inadvertently discovered, an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for Archaeology would be contacted immediately to evaluate the find. By implementing this mitigation, Project impacts to archaeological resources would be reduced to a less-than-significant level, as required by CEQA and all applicable local policies and regulations.

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APPENDIX A

California Historical Resources Information System Records Search Results (Partially Confidential)

South Central Coastal Information Center
California State University, Fullerton
Department of Anthropology MH-426
800 North State College Boulevard
Fullerton, CA 92834-6846
657.278.5395 / FAX 657.278.5542
sccic@fullerton.edu
California Historical Resources Information System
Orange, Los Angeles, and Ventura Counties

8/6/2026 Records Search File No.: 28220.14217

Tiffany Clark
SWCA Environmental Consultants
320 N. Halstead St. Suite 120
Pasadena CA 91107

Re: Records Search Results for the Amgen Thousand Oaks (SWCA Project No. 106838-000-PAS) Project

The South Central Coastal Information Center received your records search request for the project area referenced above, located on the Newbury Park, CA USGS 7.5' quadrangle. The following reflects the results of the records search for the project area and a ½-mile radius:

As indicated on the data request form, the locations of archaeological resources and reports are provided in the following format: ☐ custom GIS maps ☒ shape files ☐ hand-drawn maps

Archaeological resources within project area: 0	None
Archaeological resources within ½-mile radius: 0	None
Reports within project area: 0	None
Reports within ½-mile radius: 19	SEE ATTACHED LIST

Resource Database Printout (list): ☐ enclosed ☒ not requested ☐ nothing listed
Resource Database Printout (details): ☐ enclosed ☒ not requested ☐ nothing listed
Resource Digital Database (spreadsheet): ☐ enclosed ☐ not requested ☒ nothing listed
Report Database Printout (list): ☐ enclosed ☒ not requested ☐ nothing listed
Report Database Printout (details): ☐ enclosed ☒ not requested ☐ nothing listed
Report Digital Database (spreadsheet): ☒ enclosed ☐ not requested ☐ nothing listed
Resource Record Copies: ☐ enclosed ☐ not requested ☒ nothing listed
Report Copies: ☐ enclosed ☐ not requested ☒ nothing listed
OHP Built Environment Resources Directory (BERD) 2022: ☒ available online; please go to https://ohp.parks.ca.gov/?page_id=30338
Archaeological Resources Directory 2026: ☐ enclosed ☒ not requested ☐ nothing listed
Historical Maps: ☐ enclosed ☒ not requested ☐ nothing listed
Ethnographic Information: ☒ not available at SCCIC
Historical Literature: ☒ not available at SCCIC
GLO and/or Rancho Plat Maps: ☒ not available at SCCIC
Caltrans Bridge Survey: ☒ not available at SCCIC; please go to

http://www.dot.ca.gov/hq/structur/strmaint/historic.htm
Shipwreck Inventory: ☒ not available at SCCIC; please go to http://shipwrecks.slc.ca.gov/ShipwrecksDatabase/Shipwrecks_Database.asp
Soil Survey Maps: (see below) ☒ not available at SCCIC; please go to http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx

Please forward a copy of any resulting reports from this project to the office as soon as possible. Due to the sensitive nature of archaeological site location data, we ask that you do not include resource location maps and resource location descriptions in your report if the report is for public distribution. If you have any questions regarding the results presented herein, please contact the office at the phone number listed above.

The provision of CHRIS Data via this records search response does not in any way constitute public disclosure of records otherwise exempt from disclosure under the California Public Records Act or any other law, including, but not limited to, records related to archeological site information maintained by or on behalf of, or in the possession of, the State of California, Department of Parks and Recreation, State Historic Preservation Officer, Office of Historic Preservation, or the State Historical Resources Commission.

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

Should you require any additional information for the above referenced project, reference the record search number listed above when making inquiries. Requests made after initial invoicing will result in the preparation of a separate invoice.

Thank you for using the California Historical Resources Information System,

Michelle Galaz Cornforth
Assistant Coordinator
Enclosures:

(X) Report Digital Database (spreadsheet) – 19 lines

(X) Invoice # 28220.14217

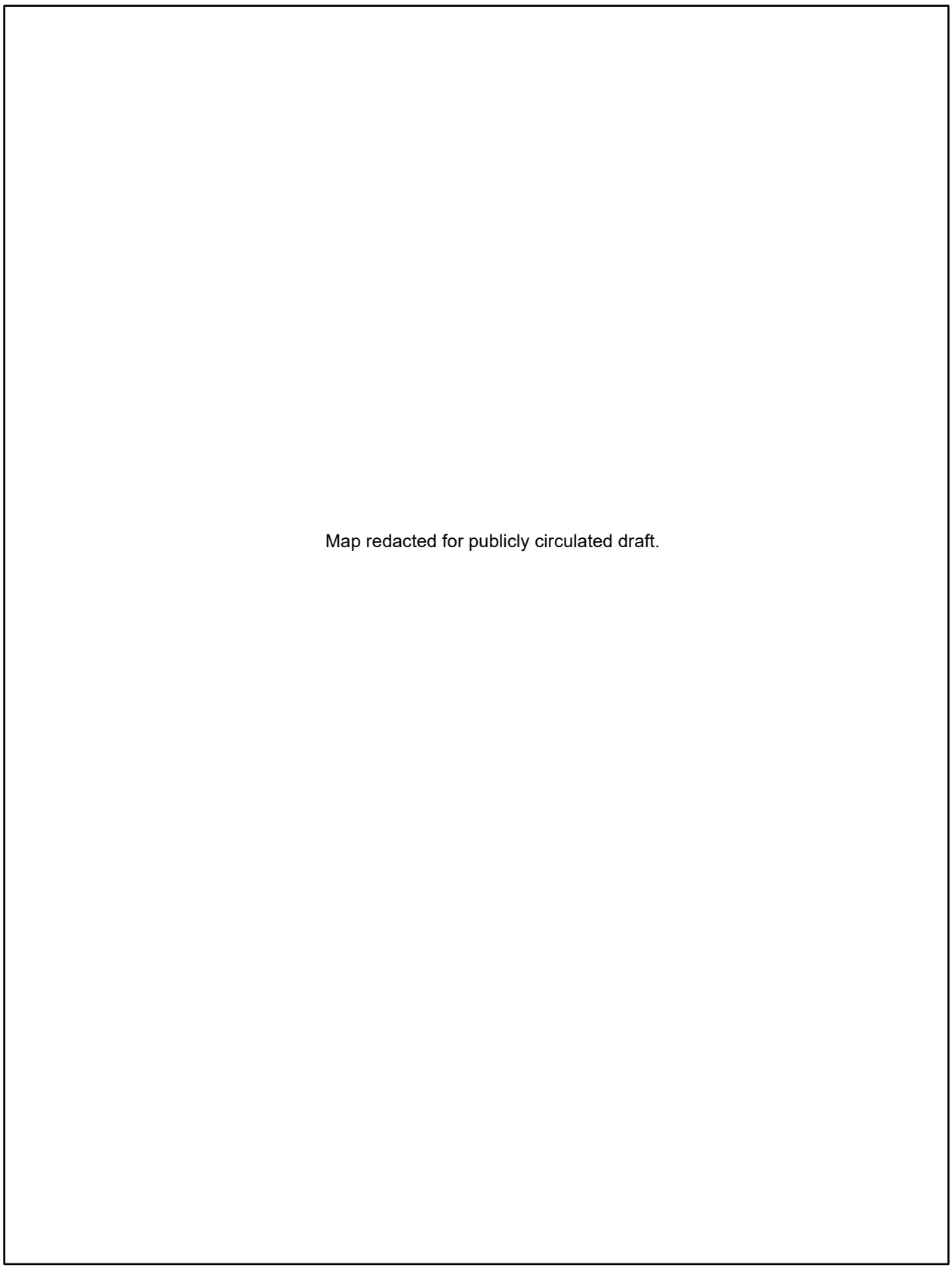

Figure A-1. CHRIS records search results. CONFIDENTIAL—NOT FOR PUBLIC DISTRIBUTION

APPENDIX B

Native American Heritage Commission
Sacred Lands File Search Results

NATIVE AMERICAN HERITAGE COMMISSION

CHAIRPERSON
Reginald Pagaling
Chumash

VICE-CHAIRPERSON
Buffy McQuillen
Yokayo Pomo, Yuki, Nomlaki

SECRETARY
Isaac Bojorquez
Ohlone-Costanoan

PARLIAMENTARIAN
Wayne Nelson
Luiseño

COMMISSIONER
Sara Dutschke
Miwok

COMMISSIONER
Stanley Rodriguez
Kumeyaay

COMMISSIONER
Bennae Calac
Pauma-Yuima Band of Luiseño Indians

COMMISSIONER
Vacant

COMMISSIONER
Vacant

EXECUTIVE SECRETARY
Andrew Alejandre
Paskenta Band of Nomlaki Indians

NAHC HEADQUARTERS
1550 Harbor Boulevard
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West Sacramento,
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(916) 373-3710
nahc@nahc.ca.gov

June 25, 2026

Tiffany Clark
SWCA Environmental Consultants

Via Email to: tiffany.clark@swca.com

Re: Amgen Thousand Oaks Project, Ventura County

To Whom It May Concern:

As requested, a search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed based on information submitted for the above referenced project. The results were negative. Be aware that tribes do not always record their sacred sites in the SLF, nor are they required to do so. As such, an SLF search is not a substitute for consultation with all tribes that are traditionally and culturally affiliated with a project's geographic area.

Attached is a list of Native American tribes that are traditionally and culturally affiliated with the project's geographic area. Please contact all of the listed tribes as they may have information about sacred sites within the project area that is not listed with the NAHC.

If within two weeks of notification, a response has not been received, the Commission requests that you follow up with a telephone call or email to ensure that the project information was received.

If you receive notification of a change of address or phone number from a tribe, please inform the NAHC so that we can assure that our lists contain current information.

In addition to engaging in tribal consultation, you should consult the appropriate regional California Historical Research Information System (CHRIS) information center to determine whether it has information regarding the presence of recorded archaeological sites within the project area.

If you have any questions or need additional information, please contact me at Mathew.lin@nahc.ca.gov.

Sincerely,

Mathew Lin

Mathew Lin, MPP
Cultural Resources Analyst

Attachment

Native American Heritage Commission
Native American Contact List
Ventura County
6/25/2026

County	Tribe Name	Fed (F) Non-Fed (N)	Contact Person	Contact Address	Phone #	Fax #	Email Address	Cultural Affiliation	Counties	Last Updated
Ventura	Barbareño/Ventureño Band of Mission Indians	N	Cultural Resource Committee,	P.O. Box 364 Ojai, CA, 93024	(805) 746-6685		CR@bvbmi.com	Chumash	Kern,Los Angeles,San Luis Obispo,Santa Barbara,Ventura	6/19/2023
	Coastal Band of the Chumash Nation	N	Mati Waiya, Tribal Chair	16500 S Mountain Drive Santa Paula, CA, 93060	(805) 794-1248		tribalchair@coastalband.org	Chumash	Kern,Los Angeles,San Luis Obispo,Santa Barbara,Ventura	5/14/2025
	Coastal Band of the Chumash Nation	N	Janet Hall, CBCN Cultural Resources Manager	1529 West Lemon Ave. Lompoc, CA, 93436	(805) 451-8757		tasinhall@yahoo.com	Chumash	Kern,Los Angeles,San Luis Obispo,Santa Barbara,Ventura	5/14/2025
	Coastal Band of the Chumash Nation	N	Michael Khuz-Zarate, CBCN Vice Chairman	5151 W Vartikian Ave. Fresno, CA, 93722	(559) 761-9827		mkhus70@gmail.com	Chumash	Kern,Los Angeles,San Luis Obispo,Santa Barbara,Ventura	5/14/2025
	Northern Chumash Tribal Council	N	Violet Walker, Chairperson	P.O. Box 6533 Los Osos, CA, 93412	(760) 549-3532		violetsagewalker@gmail.com	Chumash	Kern,Los Angeles,San Luis Obispo,Santa Barbara,Ventura	6/5/2023
	Santa Ynez Band of Chumash Indians	F	Amanda Dobrov, Cultural Resources Archeologist	PO Box 517, Santa Ynez, CA 93460	(805) 894-3730		adobrov@chumash.gov	Chumash	Kern,Los Angeles,San Luis Obispo,Santa Barbara,Ventura	12/1/2025
	Santa Ynez Band of Chumash Indians	F	, CRM Consultation	PO Box 517, Santa Ynez, CA 93460 Santa Ynez, CA, 93460	(805) 688-7997		CRMConsultation@chumash.gov	Chumash	Kern,Los Angeles,San Luis Obispo,Santa Barbara,Ventura	11/7/2025
	Santa Ynez Band of Chumash Indians	F	Nakia Zavalla, Tribal Historic Preservation Officer	PO Box 517, Santa Ynez, CA 93460 Santa Ynez, CA, 93460	(805) 688-7997		nzavalla@chumash.gov	Chumash	Kern,Los Angeles,San Luis Obispo,Santa Barbara,Ventura	11/7/2025

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed Amgen Thousand Oaks Project, Ventura County.

Record: PROJ-2026-003349
Report Type: List of Tribes
Counties: Ventura
NAHC Group: All

Appendix E

Energy

Amgen Thousand Oaks Building 50 Project

Appendix 5
Energy Analysis Spreadsheets

- Appendix 5: Energy Analysis
    - Energy Consumption Summary
    - Construction Energy Usage
        - Construction Electricity Consumption
        - Off-Road Equipment
        - On-Road Fuel Usage Rates
        - On-Road Vehicles
        - Construction Water Usage
    - Operational Energy Usage
        - Existing
        - Buildout
        - EMFAC Operations
        - Implementation of Project Design Feature PDF-GHG-1 Energy Calculations

Summary of Energy Use During Construction

Electricty		
Water Consumption	30,521	kWh
Temporary Power (lighting, tools)	32,962	kWh
Electric Equipment	5,080	kWh
Total:	**68,563**	kWh
Gasoline		
On Road	187,289	Gallons
Off Road	0	Gallons
Total:	**187,289**	Gallons
Diesel		
On Road	17,556	Gallons
Off Road	139,864	Gallons
Total:	**157,420**	Gallons
Total Mobile	**344,710**	

Summary of Energy Use During Operations

		Baseline (Buildout)	**Buildout Without Mitigation**	**Project (Buildout - Baseline (Buildout)**	Units
Electricity					
Electricity (building)		3,198,919	9,246,856	6,047,937	kWh/year
Electricity (water)		466,471	979,441	512,969	kWh/year
	Electricity Total	**3,665,390**	**10,226,297**	**6,560,906**	**kWh/year**
Natural Gas		**4,578,361**	**0**	-4,578,361	**cu ft/year**
Mobile					
Gasoline		708,358	1,103,477	395,118	Gallons/year
Diesel		163,555	254,785	91,230	Gallons/year
Diesel Generator		0	7,000	7,000	Gallons/year
	Mobile Total	**871,913**	**1,365,261**	493,348	**Gallons/year**

Construction Electricity Usage

Caterpillar 40-C4.4 Generator[a]

Peak Power Rating - Prime (kW)	36
Typical Load	70%
Average Output (kW)	25.2
Hours per Day	2
Average Daily Output (kWh)	50.4
Building Construction Phase Duration (days)	654
Total Construction (kWh)	32,962
Total Construction (MWh)	33.0

[a]https://www.albancat.com/content/uploads/2014/06/40-C4.4-Spec-Sheet.pdf

Calculation of Diesel Usage During Cosnstruciton (Offroad Equipment):

Phase Name	Off Road Equipment Type	Units	Hours	HP	Load Factor	Avg. Daily Factor	Number of Days	Diesel Fuel Usage	
Site Prep-Grading	Excavators	1	8	36	0.38	0.6	25	82	
Site Prep-Grading	Bore/Drill Rigs	1	8	83	0.5	0.6	25	249	
Site Prep-Grading	Forklifts	1	8	82	0.2	0.6	25	98	
Site Prep-Grading	Rollers	1	8	36	0.38	0.6	25	82	
Site Prep-Grading	Rough Terrain Forklifts	1	8	96	0.4	0.6	25	230	
Site Prep-Grading	Skid Steer Loaders	1	8	71	0.37	0.6	25	158	
Site Prep-Grading	Rubber Tired Loaders	1	8	150	0.36	0.6	25	324	
Building Foundation	Cranes	1	8	367	0.29	0.6	77	1,967	
Building Foundation	Forklifts	1	8	82	0.2	0.6	77	303	
Building Foundation	Tractors/Loaders/Backhoes	2	8	84	0.37	0.6	77	1,149	
Building Foundation	Air Compressors	1	8	37	0.48	0.6	77	328	
Building Foundation	Concrete/Industrial Saws	1	8	33	0.73	0.6	77	445	
Building Foundation	Crawler Tractors	2	8	87	0.43	0.6	77	1,383	
Building Foundation	Excavators	2	8	36	0.38	0.6	77	506	
Building Foundation	Pumps	2	8	11	0.74	0.6	77	301	
Building Foundation	Plate Compactors	1	8	8	0.43	0.6	77	64	
Building Foundation	Rough Terrain Forklifts	1	8	96	0.4	0.6	77	710	
Building Foundation	Signal Boards	1	8	6	0.82	0.6	77	91	
Building Foundation	Skid Steer Loaders	2	8	71	0.37	0.6	77	971	
Building Construction	Cranes	3	8	367	0.29	0.6	654	50,116	
Building Construction	Generator Sets	1	8	14	0.74	0.6	654	1,626	
Building Construction	Welders	7	8	46	0.45	0.6	654	22,744	
Building Construction	Air Compressors	4	8	37	0.48	0.6	654	11,150	
Building Construction	Aerial Lifts	3	8	46	0.31	0.6	654	6,715	
Building Construction	Cement and Mortar Mixers	1	8	10	0.56	0.6	654	879	
Building Construction	Concrete/Industrial Saws	1	8	33	0.73	0.6	654	3,781	
Building Construction	Crawler Tractors	1	8	87	0.43	0.6	654	5,872	
Building Construction	Excavators	1	8	36	0.38	0.6	654	2,147	
Building Construction	Pumps	2	8	11	0.74	0.6	654	2,555	
Building Construction	Rough Terrain Forklifts	1	8	96	0.4	0.6	654	6,027	
Building Construction	Signal Boards	1	8	6	0.82	0.6	654	772	
Paving	Pavers	1	8	81	0.42	0.6	131	1,070	
Paving	Paving Equipment	1	8	89	0.36	0.6	131	1,007	
Paving	Rollers	1	8	36	0.38	0.6	131	430	
Paving	Tractors/Loaders/Backhoes	2	8	84	0.37	0.6	131	1,954	
Paving	Concrete/Industrial Saws	1	8	33	0.73	0.6	131	757	
Paving	Crawler Tractors	1	8	87	0.43	0.6	131	1,176	
Paving	Excavators	1	8	36	0.38	0.6	131	430	
Paving	Forklifts	1	8	82	0.2	0.6	131	516	
Paving	Pumps	2	8	11	0.74	0.6	131	512	
Paving	Plate Compactors	1	8	8	0.43	0.6	131	108	
Paving	Rough Terrain Forklifts	1	8	96	0.4	0.6	131	1,207	
Paving	Signal Boards	1	8	6	0.82	0.6	131	155	
Paving	Skid Steer Loaders	2	8	71	0.37	0.6	131	1,652	
Paving	Surfacing Equipment	1	8	399	0.3	0.6	131	3,763	
Paving	Welders	2	8	46	0.45	0.6	131	1,302	
						Total Diesel Usage for Construction (Offr		**139,863.8**	**gallons of diesel fuel**

gallons of diesel fuel per horsepower-hour=	0.05

Notes: Equipment assumptions are provide in the CalEEMod output files and fuel usage estimate of 0.05 gallons of diesel fuel per horsepower-hour is from the SCAQMD CEQA Air Quality Handbook, Table A9-3E.

EMFAC2021 Emissions Inventory
Region Type: County
Region: Ventura
Calendar Year: 2026
Season: Annual
Vehicle Classification: EMFAC2011 Categories

Region	Veh_Class	Fuel	Speed (miles/hr)	Population (vehicles)	VMT (miles/day)	Trips (trips/day)	Fuel_Gas (1000 gallons/day)	Fuel_DSL (1000 gallons/day)	Miles per Gallon
South Coast	LDA	Gasoline	Aggregate	4,782,615	146,691,660	21,029,677	5,569	0	26.3
South Coast	LDT1	Gasoline	Aggregate	446,822	13,306,495	1,829,406	607	0	21.9
South Coast	LDT2	Gasoline	Aggregate	2,456,269	86,084,859	11,814,123	3,919	0	22.0
						Construction Worker Trip (Composite LDA/LDT1/LDT2):			**24.1**
South Coast	HHDT	Diesel	Aggregate	96,165	12,816,458	1,620,048	0	2038.3	**6.3**

Notes: Consistent with CalEEMod, a construction worker trip is assumed to be a composite of 50% LDA , 25% for LDT1, and 25% for LDT2. Used EMFAC 2011 Categories for construciton as EMFAC2011 has specific categories for vehicle class T7.

Calculation of Gasoline and Diesel Usage During Construction (Onroad Vehicles):

Phase Name	Daily Worker Trips	Daily Vendor Trips	Daily Haul Trips	Days	Total Worker Trips	Total Vendor Trips	Total Haul Trips	Trip Length (miles)			Total Length (miles)			Avg. Daily Factor	Gallons of Fuel	
								Worker	Vendor	Haul	Worker	Vendor	Haul	(worker and vendor)	Gasoline	Diesel
Site Prep-Grading	16	4	8	25	400	100	200	18.5	10.2	29	7400	1020	5800	0.6	183.9	1,019.8
Building Foundation	100	8	0	77	7700	616	0	18.5	10.2	20	142450	6283.2	0	0.6	3,540.6	599.6
Building Construction	600	24	0	654	392400	15696	0	18.5	10.3	20	7259400	161668.8	0	0.6	180,432.6	15,427.0
Paving	52	4	0	131	6812	524	0	18.5	10.2	20	126022	5344.8	0	0.6	3,132.3	510.0
Architectural Coating	0	0	0	235	0	0	0	18.5	10.2	20	0	0	0	0.6	0.0	0.0
														Total:	**187,289.4**	**17,556.3**

Worker Miles per gallon=	24.14	gasoline
Vedor/Haul miles per gallon=	6.29	diesel

Notes: Consistent with CalEEMod worker vehicles are assumed to be gasoline and 50% LDA, 25%LDT1, and 25% LDT2. Vendor and haul trips are assumed to be 100% diesel Heavy Duty Trucks (T7)

Water Usage for Control of Fugitive Dust during Construction:

Phase	Days	Average Daily Acreage Distrubed	Gallons Per Year	Electricity (kWhr)
Site Prep-Grading	25	4.0	302,000	2,938
Building Foundation	77	2.0	465,080	4,524
Building Construction	654	1.0	1,975,080	19,212
Paving	131	1.0	395,620	3,848
Architectural Coating	235	0.0	0	0
		Total:	**3,137,780**	**30,521**

Water application rate=	3020	gal/acre/day
kWhr equivalent=	0.01	kWhr

Notes: 1) Gallons per year of water usage for dust control is calculated based on a minimum control efficiency of 66% (three times daily) with an application rate of 3,020 gal/acre/day (Air & Waste Management Association Air Pollution Engineering Manual (1992 Edition)) and average of 26 construction days per month.
2) CalEEMod Default: Each gallon of delivered potable water in Southern California is associated with 0.009727 kWhr of electricity).

Amgen (Building 50)- Existing Operations Buildout Year

Trip Summary Information

Land Uses	*Average Daily Trip Rate*			*Annual VMT*
	Weekday	*Saturday*	*Sunday*	
Total	**2,303**	**1,736**	**848**	**18,074,641**

Gasoline and Diesel Usage

	Buildout Year		Existing (Baseline) Year	
	Gasoline	*Diesel*	*Gasoline*	*Diesel*
Miles/Gallon	23.4	9.2	21.7	8.3
% Fleet Mix	91.6%	8.4%	93.1%	6.9%
Total (Gallons):	**708,358**	**163,555**	**775,585**	**149,986**

Energy by Land Use - Natural Gas

Land Uses	*kBTU/yr*	cu ft/year
Industrial Park	4,807,279	4,578,361
Total	**4,807,279**	**4,578,361**

Energy by Land Use - Electricity

Land Uses	*kWH/yr*
Industrial Park	3,198,919
Total	3,198,919

Water Detail

Land Uses	*Indoor Use (Mgal)*	*Outdoor Use (Mgal)*	*Electricity Use (kWh/yr)*
Industrial Park	41.870	0.129	466,471
Total	41.870	0.129	**466,471**

Notes: Indoor water results in 0.0111 kWhr of electricity usage per gallon from delivery, treatment, and distribution of water within Southern California (CalEEMod). Outdoor water results in 0.009727 kWhr of electricity usage per gallon from delivery and distribution of water within Southern California (CalEEMod).

Amgen (Building 50) - Buildout Operations

Trip Summary Information

Land Uses	*Average Daily Trip Rate*			*Mitigated*
	Weekday	*Saturday*	*Sunday*	
Total	3,588	2,704	1,320	28,156,575

Mitigated Gasoline and Diesel Usage

	Gasoline	*Diesel*
Miles/Gallon	23.4	9.2
% Fleet Mix	91.6%	8.4%
Total (Gallons):	**1,103,477**	**254,785**

Energy by Land Use - Natural Gas (Mitigated)

Land Uses	*kBTU/yr*	cu ft/year
Industrial Park	0	0
Total	0	**0**

Energy by Land Use - Electricity (Mitigated)

Land Uses	*kWH/yr*
Industrial Park	9,246,856
Total	**9,246,856**

Note: Reduction in electricity usage reflects Title 24 energy efficiency standards.

Water Detail (Unmitigated)

Land Uses	*Indoor Use (Mgal)*	*Outdoor Use (Mgal)*	*Electricity Use (kWh/yr)*
Industrial Park	87.612	0.615	979,441
Total	87.61	0.62	**979,441**

Notes: Indoor water results in 0.0111 kWhr of electricity usage per gallon from delivery, treatment, and distribution of water within Southern California (CalEEMod). Outdoor water results in 0.009727 kWhr ofelectricity usage per gallon from delivery and distribution of water within Southern California (CalEEMod).

Amgen (Building 50)

All Electric Calculation

CAPCOA Consumption Rate[a]

	Natural Gas (Therm/yr/KSF)							Electricity (kWh/yr/KSF)						
Building Type	**Water Heater**	**Primary Heat**	**Cooking**	**Dryer**	**Cooling**	**Misc**	**Refrig.**	**Water Heater**	**Primary Heat**	**Cooking**	**Dryer**	**Cooling**	**Misc**	**Refrig.**
Industrial Park	26	163	1		23	52	1	70	630	12		3661	2352	14

[a] California Air Pollution Control Officers Association (CAPCOA) Handbook for Analyzing Greenhouse Gas Emissions Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity. Appendix C. Table E-15. December 2021.

Project Energy Demand

		Natural Gas (Therm/yr/KSF)								Electricity (kWh/yr/KSF)							
Project Uses	**Amount (DU/KSF)**	**Water Heater**	**Primary Heat**	**Cooking**	**Dryer**	**Cooling**	**Misc**	**Refrig.**	**Total**	**Water Heater**	**Primary Heat**	**Cooking**	**Dryer**	**Cooling**	**Misc**	**Refrig.**	**Total**
Industrial Park	**378.862**	9,850	61,755	379	0	8,714	19,701	189	**100,588**	26,520	238,683	4,546	0	1,387,014	891,083	5,304	**2,553,151**
Total		9,850	61,755	379	0	8,714	19,701	189	**100,588**	26,520	238,683	4,546	0	1,387,014	891,083	5,304	**2,553,151**

CalEEMod Adjustments

Default Values

	Total Electricity	Total Natural Gas	Check	Difference between CalEEMod and CAPCOA natural gas usage		
Industrial Park	6,693,705	10,059,182	10,058,786	0.0%		
Water	979,441					
Total	7,673,146	10,059,182	10,058,786	0%	9,580,173	cf

Adjusted Values

9246856

	Total Electricity	Total Natural Gas			
Industrial Park	9,246,856	0			
Water	946,920				
Total	10,193,776	0	0	cf	7,977,296
	2520630.37				
	0.328500267				

Appendix F

Geotechnical Site Evaluation

Geotechnical Site Evaluation Update
Amgen Thousand Oaks (ATO)
Building B50 (Previously B14)
701 Pauling Drive
Thousand Oaks, California

prepared for

Amgen Inc.
One Amgen Center Drive
Thousand Oaks, CA 91320-1799

GORIAN & ASSOCIATES, INC.

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GORIAN & ASSOCIATES, INC.

Applied Earth Sciences
Geotechnical Engineers
Engineering Geologists
DSA Accepted Testing Laboratory
Special Inspection and Materials Testing

3595 Old Conejo Road
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805 375-9262

February 2, 2026

Amgen Inc.
One Amgen Center Drive
Thousand Oaks, CA 91320-1799

Work Order: 1583-B50-0-100R

Subject: **Geotechnical Site Evaluation Update, Amgen Thousand Oaks (ATO) Building B50 (Previously B14), 701 Pauling Drive, Thousand Oaks, California**

1. INTRODUCTION

Presented herein is Gorian and Associates, Inc.'s (GAI) geotechnical site evaluation update for design and construction of biomedical research building B50 at 701 Pauling Drive (site) within Amgen Thousand Oaks (ATO) in the Newbury Park area of Thousand Oaks, California (see the attached Vicinity Map, Figure 1). The site is currently occupied by ATO building B14 for which GAI previously prepared a geotechnical site evaluation and performed geotechnical observation and testing during construction of B14 (GAI evaluation report dated July 20, 1990).

In preparation for construction of B50, B14 will be demolished; however, the basement walls of B14 will be retained as temporary shoring for B50 construction. Therefore, B50 will basically be constructed within the prior footprint of B14. B50 will have four levels above ground over one basement level based on concept plans by Johnson Faine.

This report is based on geotechnical data obtained by this firm for design and construction of building B14 as well as other projects with ATO (see the attached reference list). Based on our site evaluation, the site is suitable for construction of building B50 from a geotechnical standpoint provided recommendations presented herein are implemented in the project design and construction. Descriptions of the site and geologic units along with our conclusions and recommendations are presented within the text of this report.

2. PROPOSED DEVELOPMENT

ATO building B50 will be constructed within the former footprint of building No. 14, which will be removed entirely except for the basement walls retained as shoring for construction of the new basement level. Therefore, basement level of B50 will be at or near the existing B14 basement elevation and no significant grading is anticipated for construction of B50. B50 will be constructed for biomedical purposes similar to the adjacent buildings within ATO. The building will be supported on conventional footings as was B14 with unfactored dead and live loads at a typical interior column on the order of 900 kips DL and 1,000 kips LL. Undercutting of the lower level is not anticipated for the foundation construction. However, some site preparation will be required to remove existing at grade construction and repair the subgrade if disturbed during demolition. The building will have a loading basement level dock at the southwest corner of the

building with access directly from Hillcrest Drive on the south side of the site. Buildings to the east and west of the site along with Pauling Drive to the north will remain unchanged along with the majority of underground utilities adjacent the site.

3. PURPOSE AND SCOPE OF SERVICES

This update report was prepared to provide recommendations for design and construction of ATO B50 from a geotechnical standpoint based on previous evaluations for the site and adjacent sites prepared by GAI. This report also contains the logs of prior evaluation borings excavated within the B14 site and adjacent sites within ATO along with the prior laboratory testing for B14 presented in Appendices A and B, respectively. The approximate locations of the borings and cone penetration test (CPT) are shown on the attached Location Map, Plate 1.

4. SITE CONDITIONS

4.1. SURFACE CONDITIONS

ATO is a fully developed campus with numerous buildings and parking structures including hardscaped and landscaped open areas. B50 will be constructed in the footprint of B14, which is at 701 Pauling Drive (site) near the southwest corner of ATO. Pauling Drive is elevated above Hillcrest Drive along the south edge of the site, which allows the current driveway off of Hillcrest to access the basement level of B14.

4.2. REGIONAL GEOLOGY

The site is within the Conejo Valley basin area of Ventura County. The Conejo Valley basin is a non-structural basin bounded on the south and west by the western Santa Monica Mountains and on the north and east by highlands formed of the Conejo Volcanics (see Regional Geologic Map, Figure 2). The basin is part of the Transverse Ranges Province, a series of sub parallel east to west trending ridgelines and valleys. This province is tectonically characterized by active compression in a north south direction with associated east to west trending reverse/thrust faulting, folding, and normal faulting.

4.3. SUBSURFACE CONDITIONS

Five geotechnical borings were drilled for the evaluation of the B14 site prior to construction of B14 as presented in the referenced geotechnical report of July 20, 1990. Based on soils encountered in the prior borings, the majority of the site was blanketed by a layer of fill, observed to be 14 feet thick in Boring 1, 15 feet thick in Boring 2, 10 feet thick in Boring 3, and 7 feet thick in Boring 5. These fill depths are prior to the excavation of the basement for B14. As documented in Action Geotechnical Consultants, Inc., October 11, 1984 and confirmed by our field and laboratory test data, it appears the fill is competent engineered compacted fill. The fill soils are slightly expansive. Fill was not encountered in Boring 4. Logs of these borings are presented in Appendix A.

Below the fill, the native soils are Pleistocene age Older Alluvium deposits consisting of sandy silty clays, sandy clays, clayey and silty sands, and clayey silts. These soils are generally lightly to moderately cemented, very stiff to hard, dense to very dense deposits of low compressibility and low to medium expansiveness.

Compacted backfill was placed along the basement walls as shown on the attached Location Map from Gorian, 1992.

4.4. GROUNDWATER

Groundwater was encountered at depths ranging from 31 to 35 feet (elevation 623 to 628 feet) in Borings 1 through 3 & 5. Seepage was observed in Borings 1 & 2 at an approximate depth of 8 feet (elevation 651 feet), and in Boring 4 at 17 feet (elevation 638 feet). Surface flows or natural springs were not observed on-site during our prior field investigation. As in any groundwater situation, groundwater level fluctuations should be anticipated during the life of the project.

4.5. FAULTING AND SEISMICITY

The Conejo Valley/Santa Monica Mountains area is in a seismically active region prone to occasional damaging earthquakes. The destructive power of earthquakes can be grouped into fault-rupture, ground shaking (strong motion), and secondary effects of ground shaking such as tsunami, liquefaction, settlement, landslides, etc. The hazard of fault-rupture is generally thought to be associated with a relatively narrow zone along well-defined pre-existing active or potentially active faults. No doubt there are and will be exceptions to this because it is not possible to predict the precise location of a new fault where none existed before (CDMG, 1975).

Holocene-active faults are not known to cross the site nor is the project site currently within an Alquist-Priolo (A-P) Earthquake Fault Zone as defined by the State Geologist (CGS 2018). However, based on the Fault Activity Map of California (Jennings, et.al., 2010), the closest active fault is the Simi Santa Rosa Fault Zone which lies approximately 3.5 miles north of the site. The potential for ground rupture on-site due to faulting during the time period of concern is considered remote.

Although no active or potentially active faults are known to exist within or adjacent the site, the area will be subject to strong ground motion from occasional earthquakes in the region. Four significant earthquakes have occurred epicentered within Southern California; the March 11, 1933 Long Beach earthquake (6.4 magnitude), the February 9, 1971 San Fernando earthquake (6.6 magnitude), the October 1, 1987 Whittier Narrows earthquake (5.9 magnitude) and the January 17, 1994 Northridge earthquake (6.7 magnitude). Significant earthquakes will likely occur in this area within the life expectancy of the project, and the site will experience strong ground shaking from these events.

Based on the latest United States Geological Survey (USGS) interactive web application, Unified Hazard Tool https://earthquake.usgs.gov/hazards/interactive/ probabilistic seismic hazard analyses (PSHA) predict the Design Basis Earthquake (2475-year return period) peak horizontal ground acceleration will be on the order of 0.70g for the soil conditions on site. The mean magnitude from this PSHA is 6.79 (Mw) with a mean distance of approximately 12.01 km from the property.

Secondary effects of strong ground motion include tsunami, seiche, liquefaction, seismic settlement, earthquake triggered landslides, and flooding from dam failures. Tsunamis are impulsively generated water waves that can cause damage to ocean shoreline areas. A seiche is an oscillation wave within an enclosed body of water. The site is not near the ocean or adjacent a body of water and therefore is not subject to tsunami and seiche hazards. Furthermore, the site is not in the vicinity of a dam failure inundation zone. Earthquake induced landslides, liquefaction, and seismic settlement affecting the proposed site development are discussed below.

The site is not within an area shown to have a potential for liquefaction on the State's Seismic Hazard Zones Map (CDMG, 2002). ATO is an engineered graded surface with no significant natural or graded slopes. Due to the graded nature of the ATO, it is not considered to be susceptible to seismically induced landsliding.

4.6. FLOOD POTENTIAL

The site is in an area of minimal flood hazard based on the FEMA flood hazard zone as indicated on the FEMA Flood Zone FIRM Panel: 06111C0958E (effective on 01/20/2010).

4.7. HYDROCONSOLIDATION

Hydroconsolidation occurs when the soil structure collapses due to soil wetting resulting in consolidation of the soil column. Hydroconsolidation was not observed in the consolidation tests performed on samples of the older alluvial soils. The potential for hydroconsolidation is negligible.

5. CONCLUSIONS AND RECOMMENDATIONS

5.1. GENERAL

The site was evaluated from a geotechnical site standpoint and is considered suitable for design and construction of biomedical research building B50 as described herein at 701 Pauling Drive within Amgen Thousand Oaks. The alluvial soil deposits underlying the site are suitable for support of the structure. The project may be developed as described earlier in this report provided recommendations presented herein are followed and incorporated into the project design and construction.

5.2. SUBTERRANEAN EXCAVATION

5.2.1. General

The shoring should be designed to include the lowest construction elevation (bottom of footing) and will consist of tiebacks through the existing basement walls. If needed, recommendations are also presented for soldier beam design and construction. Where new lagging is needed, grouting is the preferred method to fill voids between the cut and lagging. Care will be required to avoid damaging buried utilities or possible foundations of adjacent structures. The shoring will encounter soil deposits as described previously herein and in the attached Logs of Subsurface Data (Appendix A).

5.2.2. Temporary Slopes

Short term temporary slopes, if required, should be at a gradient of 1(horizontal):1(vertical) or flatter. Temporary vertical cuts (not surcharged) into soil should be limited to a maximum of 4 feet. Sloped excavations can be evaluated when the locations and depths are known. Surcharge loading, such as construction equipment or vehicle traffic, should be setback from the top of temporary excavations a minimum horizontal distance of 10 feet or more depending upon the depth of excavation or shoring designed for the anticipated loading.

During construction, the contractor is responsible for excavation and maintenance of safe and stable slope angles considering the subsurface conditions and methods of operations. Temporary excavations should be made per applicable requirements of the Cal/OSHA excavation regulations.

5.2.3. Surcharge Loading

Surcharges from traffic and light construction may be taken as 100 psf over the top 10 feet of the shored wall. As an alternate, an area surcharge of 300 psf may be assumed in the shoring design where the shoring is near vehicle traffic. Several methods are available to evaluate the lateral pressure from surcharge loads. The lateral pressure on the shoring due to a uniform area surcharge of intensity q (force/area) is equal to a uniform pressure of 0.4q over the entire height of the wall. Use of the Boussinesq method is acceptable providing the value is doubled. Another method is provided in the City of Los Angeles Information Bulletin, *Retaining Wall Design* (attached).

5.2.4. Soil Pressure

Shoring should be designed for lateral earth pressure plus lateral pressure imposed by existing adjacent foundations or surcharges. The lateral earth pressure may be assumed as a uniform pressure, rectangular distribution, equal to 18H psf, where H is the depth of excavation below existing grade without traffic or equipment loading, measured to the bottom of the new basement level foundations.

The west end of B8 is supported on conventional footings. Assuming the back of shoring 4 feet horizontally from any foundation, and an existing continuous wall footing loaded to 3000 pounds per linear foot, assume an additional resultant load of 1800 pounds per linear foot on the shoring applied one-third of the distance from the bottom of existing footing to the bottom of excavation. This is illustrated on Figure 11 from the referenced Gorian report of July 20, 1990 (attached). Pressures imposed on the shoring for other loads and dimensions can be provided later when more details are available. Surcharge loading is not required

if the adjacent footings are below a 2(horizontal):1(vertical) line extending up from the bottom of the shored wall.

Cantilevered shoring systems should be designed for an active earth pressure distribution of 40 psf/ft with level ground behind the shoring. The shoring pressures do not include lateral loads from surcharges (such as crane loading) near the top of the excavation. The width of active pressure acting on the pile below the bottom of the excavation may be taken as the pile diameter. The width should be increased to two pile diameters for a cantilevered soldier pile.

5.2.5. Passive Pressure with Soldier Piles and Foundations
For isolated piles (spaced at least 3 diameters center to center) and footings, the passive earth pressure should start at zero at the excavated grade. This value may be increased at a rate of 450 psf for each foot of depth below the proposed base of excavation to a maximum of 4000 psf. The surface area (pile diameter) in the determination of passive resistance may be doubled for soldier beams that are a minimum of 3 diameters apart center to center. A friction value of 0.45 may be used below foundations and may be added to the passive resistance without reduction.

5.2.6. Cantilever Shoring Tilt
Similar to a cantilever retaining wall, cantilever shoring is allowed to yield at the top to develop full active pressure. Generally, tilt is a function of the wall height and is estimated at .001 to .002 of the wall height.

5.2.7. Axial Capacity
For vertical support, a unit friction value of 450 pounds per square foot may be used for the portion of soldier pile encased in structural concrete or drilled and cast concrete pile extending below the lowest depth of excavation. The unit of friction is independent of the pile diameter; however, piles should be at least 24-inch diameter with a minimum embedment depth of 15 feet below the lowest excavation depth. Fixity may be assumed at 5 feet below the lowest unsupported grade (such as the basement excavation).

5.2.8. Bearing Capacity
A bearing capacity of 4,000 pounds per square foot may be used for review of footings at the bottom of the existing basement wall.

5.2.9. Pile Construction
Caving should be anticipated within deep subsurface excavations. Therefore, to minimize caving, 24-inch diameter piles should be considered where possible. Slurry should be used to support the pile excavations if caving occurs. The slurry may consist of a mixture of water mixed with chemical polymers. The method selected by the contractor for excavation and construction of the drilled shafts should be discussed with this office. Piles should be drilled and cast in the same day, or within a maximum period of 24 hours.

5.2.10. Friction Values for Anchors
Tieback anchors should extend into the embankment at an angle of about 20° to 35° below horizontal. The bond or anchor length of the tieback is the portion located behind the active wedge, a 60° plane from horizontal generated upwards from the toe of the proposed excavation. The portion of the tieback extending from the soldier pile to the 60° plane is identified as the free anchor length. Tieback anchors are to be designed to obtain their capacities from within the bond length. Capacity should not be assumed from within the free anchor length, nor should the free anchor length be grouted prior to tensioning of the tendon.

The frictional resistance of pressure grouted anchor with a diameter of 8 inches or less may be taken as . 25 pounds per square inch (psi). This is provided the minimum bonded length is 20 feet.

The capacities presented above are based on minimum spacing requirements. The minimum spacing between adjacent tiebacks should be 3 diameters center to center where the diameter is the largest diameter of the tiebacks.

5.2.11. Lagging

Lagging, where needed, should consist of treated timber the entire depth of the shored excavation. Wood lagging should be new rough timber (full dimension) Douglas Fir, straight, free of bends, and free from defects that might impair structural strength. Lagging to be left in-place shall be pressure treated for contact with soil. The upper two feet (or 8 feet where adjacent a public right of way) of the shoring and lagging measured from the adjacent grade should be removed when the shoring is no longer needed for support of the excavation. The resulting cavity from removed shoring should be backfilled with grout/slurry or soil compacted to a minimum of 90% relative compaction. The cavity may be filled with concrete when the area is below a slab or walkway.

Lagging should be designed to resist an equivalent fluid pressure equal to 35 pcf measured below the ground surface. A maximum lagging pressure of 400 psf may be assumed where the maximum spacing of soldier piles does not exceed 8 feet center to center. An alternate to installing lagging would be to construct the shoring as a continuous gunite/shotcrete wall descending as the excavation proceeds. Cavities behind the lagging and retained soils should be filled with sand/cement slurry (preferred).

5.2.12. General Considerations

Soils between existing foundations (where this may occur) and the shoring system should be maintained in an undisturbed and intact condition. The shoring contractor should be prepared to provide methods to prevent caving such as the use of casing or drilling fluid.

Caving of tieback excavations should be considered since sandy materials may be encountered. Where caving soils are encountered within the free length of the tieback excavation, that portion of the excavation may be backfilled with sand or low strength sand/cement slurry before testing the anchor. The sand backfill should be placed by pumping. In no cases should the free length portion of the friction tieback be grouted restricting the movement of the bond length prior to testing.

5.2.13. Barricades

Appropriate barricades should be placed at the top of all temporary excavations approached by pedestrians or public vehicle traffic (such as in streets or parking areas).

5.2.14. Tieback Testing

Testing of the anchors should be per the shoring engineer's recommendation, or the suggested tieback testing is provided in the following sections, whichever is the more rigorous.

5.2.15. Performance Testing of Tiebacks

Failure or yielding of anchors generally occurs within the soil surrounding the anchor, not at the soil/concrete interface. The capacity of any anchor is calculated based on soil strength. Each tieback should be tested to verify the design strengths. The initial three anchors should be performance tested to 200 percent of the design load prior to installing the remaining production anchors. Piles and tiebacks should be designed to permit the performance testing (i.e., increased tieback reinforcement may be required). A minimum of 10 percent of the total anchors should be performance tested. All anchors should be tested to a least 150 percent of the design load. If soil properties change or if significant variations in tieback construction occur, performance testing should be performed for each variety of tieback. This office should review the testing program outlined on the shoring plans prior to construction.

After satisfactory testing of each tieback, each tieback should be locked off at the design load. The locked-off load should be verified. If the locked-off load varies by more than 10% of the design load, the load should be reset until the anchor is locked off to within 10% of the design load.

5.2.16. Anchor Creep Rate (Performance Tests)
Testing of the anchors should be per the shoring engineer's recommendation. However, the 200% load tests may be terminated if the anchor movement after the 200% load has been applied for 30 minutes is less than 0.5 inches and the movement during the following 4 hours is less than 0.1 inches.

5.2.17. 200% Quick Tests
Based on the favorable results on past projects, a portion of the tiebacks after the initial 3 may be "quick" tested. The remaining tiebacks (4/5 of 10% of total) may be "quick" tested.

The "quick" test should be at 200% of the design load and the test load should be maintained for 30 minutes. The total deflection of the tieback should not exceed 8 inches, and the anchor movement should not exceed 0.25 inches during the 30-minute test period (measured after the 200% test load is applied). In the event the anchor movement exceeds 0.25 inches in 30 minutes, the test shall proceed as a regular performance test as described above.

5.2.18. 150% Proof Tests
Proof testing should be performed on all tiebacks, not being performance tested. Proof testing should be conducted at 150% of the design load. The test should be maintained for 15 minutes after achieving the test load. The allowable deflection in 15 minutes is 0.1 inch.

5.2.19. Load Application Rate
Loads should be applied to the test anchors in increments of 25 percent of the design load.

5.2.20. Shoring System Monitoring
The shoring system should be monitored by the Contractor for vertical and horizontal movements at the top of each soldier pile. Reference points for horizontal movement should also be selectively placed at various tieback levels as the excavation progresses. A licensed surveyor should perform the surveying.

The reference points and pile tops should be read prior to commencing the excavation. To create a baseline, all soldier piles should be surveyed twice (approximately one day apart) before beginning excavation. Additional readings should be performed roughly biweekly throughout construction until the shoring and excavation is complete. More frequent readings may be required at critical times of construction or if significant movement is indicated. After completion of the shoring construction and excavation, readings may be taken biweekly until the shoring is no longer needed for support of the excavation.

The survey data should be submitted to Gorian and Associates, Inc. within 24 hours of the measurements. The tolerable movement at any location within the structure will be evaluated with the data and is dependent on the soil conditions at that location, the stage of construction, and adjacent structures or loading. Some movement of the shoring can be expected and is considered tolerable providing the movement of the tiebacks is within tolerable limits. In general, movement in excess of 1 inch horizontally or vertically will require supplemental shoring before excavation continues.

5.2.21. Shoring Plan Review and Construction Inspection
Our office should be provided with a copy of the proposed shoring plans and calculations for review. Variations in subgrade conditions or construction techniques exercised by the Shoring Contractor may require this office to provide specific modifications to the shoring system or installation. Therefore, this office should perform all geotechnical observations to confirm the subsurface conditions.

5.3. SITE PREPARATION

5.3.1. General
Building B50 will be constructed basically within the footprint of B14; therefore, grading and site preparation is anticipated to be minimal consisting of mainly removal and compaction of soils disturbed during removal of B14. Site preparation outside of B14 will consist of removal and recompaction of loose surface soils and landscaped soils. The following sections contain geotechnical recommendations concerning site preparation, which should be per the City of Thousand Oaks Building Code unless superseded by recommendations herein.

5.3.2. Demolition
Presently, the area is covered by facilities related to the prior use of the property that are planned for demolition. Utilities to remain should be protected in place.

5.3.3. Site Cleanup
Site cleanup should consist of the removal and wasting off-site of trash, debris, vegetation, or deleterious materials present within areas of construction. This office should observe the surface of the cleared area prior to fill placement if needed.

5.3.4. Soil Removal Northern Portion of the Property
Remedial grading should be performed within the site to remove soils disturbed during demolition of the prior site improvements within the building areas (including parking and drive areas). The removals should extend to firm in place soils. Soil removals should not extend below a 2(horizontal)1(vertical) line extending down from the property lines or from the bottom of an adjacent footing.

The removal area should be observed by this office prior to fill placement to evaluate if deeper removals are necessary.

5.3.5. Utility Lines and Tank/Pit Removal
A series of utility lines and tanks/pits are below the concrete slab on grade within building B14. In prior Gorian reports, the tanks are reported to be 9 to 13 feet below the finished floor and range in diameter from 4 to 6 feet. In Gorian, January 22, 1993 shows backfill for 4 of the tanks. The locations of the tanks and utility lines should be located and identified. For utilities to be removed, the trenches should be cleaned of loose materials and the excavations filled with compacted soils similar to the surrounding areas.

The shallow tanks should be removed entirely, and the resulting cavity cleaned of loose materials and backfilled with compacted soils similar to the surrounding areas. For deeper tanks the could not be removed entirely, the bottom of the tank should be backfilled with 3 sack cement slurry to either the slab subgrade or 5 feet below any footing adjacent the pit. The upper section of the pit should be backfilled with compacted soils similar to the surrounding area.

5.3.6. In-Place Soil Processing
The surface on which fill will be placed should be processed consisting of scarifying the exposed surface to a depth of roughly 6 to 8 inches, conditioning the scarified soil to above the optimum moisture content, and compacting the scarified soil. Processed soil should be compacted to at least 95 percent relative compaction within the building footprint and 90 percent relative compaction outside the building footprint.

5.3.7. Fill Placement
Soils generated from the removal areas should be suitable for reuse as fill. Import fill if required should be similar to on-site materials. This office should observe the source of import fill prior to placement.

Fill soils should be free of significant vegetation, rocks greater than 6 inches in maximum linear dimension, and other deleterious materials. In addition, fill soils should be mixed and blended. Fill soils should be placed in lifts not exceeding 8 inches in maximum loose thickness, moisture conditioned to slightly over optimum moisture content and compacted to at least 95 percent relative compaction within the building footprint and 90 percent relative compaction outside the building footprint.

5.3.8. Relative compaction
Relative compaction is the ratio of the in-place dry soil density to the maximum dry soil density as determined in general accordance with ASTM laboratory standard D-1557.

5.3.9. Utility Trenches
Utility trench backfill within building, parking, drive, and loading areas be compacted to a minimum of 90% relative compaction.

5.4. SOIL EXPANSIVENESS
Previously, soil expansion tests were performed on representative soil samples obtained from the site. Test results indicate the underlying materials have a low to moderate expansion potential, in the 0-20 and 21-50 Soil Expansion Index ranges.

Expansive soils contain clay particles that change in volume (shrink or swell) due to a change in the soil moisture content. The amount of volume change depends upon the soil swell potential (amount of expansive clay in the soil), availability of water to the soil, and the soil confining pressure. Swelling occurs when soils containing clay become wet due to excessive water from poor surface drainage, over-irrigation of lawns and planters, and sprinkler or plumbing leaks. Swelling clay soils can cause distress to structures, walks, drains, and patio slabs.

5.5. GEOTECHNICAL SEISMIC DESIGN
As previously discussed, active faults identified by the State are not onsite nor is the site within an Alquist-Priolo Earthquake Fault Zone. Nevertheless, the site is within a seismically active region prone to occasional damaging earthquakes.

Structures within the site may be designed using procedures for seismic design presented in ASCE/SEI 7-16 or 22. The Site Classification is based the shear wave of the upper 30 meters of the site. For B50, a shear wave of 1552 feet per second is used based on shear wave testing within CPT-5 in the southeast corner of ATO B29 adjacent the southwest corner of B14 as shown on the attached Geotechnical Map. A series of CPTs were performed within the campus for GAI October 22, 2010. This shear wave places B50 in the Site Clas of C (very dense soil and soft rock) in both ASCE 7-16 and -22, Tables 20.3-1 and 20.2-1 for ASCE 7-16 and -22, respectively.

The S_s and S_1 values are adjusted to obtain the maximum considered earthquake (MCE) spectral acceleration values for the site based on its site class of C. The seismic design parameters for the site's coordinates (latitude 34.1878 N and longitude 118.9224 W) were obtained from the ASCE Hazard Tool website https://ascehazardtool.org/. The ASCE Hazard Tool Reports are attached in Appendix C for ASCE 7-16 and -22 for a Risk Category of II.

The purpose of the building code earthquake provisions is primarily to safeguard against major structural failures and loss of life, not to limit damage nor maintain function. Therefore, values provided in the building code should be considered minimum design values and should be used with the understanding site acceleration could be higher than addressed by code-based parameters. Cracking of walls and possible structural damage should be anticipated in a significant seismic event.

5.6. FOUNDATIONS

5.6.1. Design Data

Building foundations may be supported on previously engineered compacted fills or firm native soils. Footings should have a minimum width of 18 inches and should be established at least 24 inches below lowest adjacent grade. These dimensions apply for either continuous wall footings and/or individual spread footings. In the basement area, the lowest adjacent grade is the top of the slab-on-grade.

In the basement area, for the minimum width and depth, footings may be designed using an allowable bearing pressure of 4000 psf. This may be increased by 400 psf for each additional foot of width (in only one direction) and 750 psf for each additional foot of depth to a maximum of 8000 psf. For shallow footings in non-basement areas, two-thirds of these values should be used. If shallow footings are planned adjacent to basement walls, they should be stepped down below a 2(horizontal):1(vertical) plane projecting upward from the bottom of basement footings. These pressures apply for dead plus live loads; they may be increased by one-third when considering wind or seismic loads.

5.6.2. Lateral Passive Earth Pressures

Lateral forces on foundations may be resisted by passive earth pressure and base friction. For the sides of footings bearing against engineered compacted fill or competent native soils, the lateral passive earth pressure may be considered equal to that exerted by an equivalent fluid weighing 450 pcf. Base friction may be computed at 0.45 times the normal load. Base friction and passive earth pressure may be combined without reduction.

5.6.3. Mat Slab Design Data

Mat slabs may be designed using an allowable soil bearing pressure of 1,500 pounds per square foot (at the ground surface) or a modulus of subgrade reaction "K" of 200 pounds per cubic inch (pci) at the surface of a properly prepared building pad. The project structural engineer should determine steel reinforcement and concrete compressive strength. Slabs supporting interior walls should be a minimum of 8 inches thick. A mat slab should be underlain by a minimum 6-inch-thick layer of ½ inch or larger clean aggregate or per applicable building codes, whichever is the more restrictive. In addition, interior mat slab design should include a moisture retarder as indicated under *Slabs on Grade* below.

5.6.4. Estimated Settlements

Previously for building B14, to estimate settlements, we assumed wall loads will be 5000 pounds per linear foot or less, and individual column loads will be 350 kips or less. Based on these assumptions, we estimate settlement of continuous wall footings will be 1/3 inch or less, and settlement of individual column spread footings will be 1/2 inch or less. Settlements are expected to occur rapidly as the loads are applied. After construction is completed, no long-term settlements are anticipated. Differential settlements between adjacent foundations with similar loadings are anticipated at 1/4 inch or less.

Settlement within the new building is anticipated to be a combination of rebound loading (from removal of the existing building) and increased loading above that of the prior building. Loading within the replacement building is estimated to be unfactored dead and live loads at a typical interior column on the order of 900 kips and 1,000 kips, respectively. The building settlement based on the new loading is estimated at roughly one inch or less.

For an example of building settlement prior to building construction, for building B29 the following estimates were provided “Foundation settlement potential was evaluated for three typical load cases. The allowable soil bearing pressure varied from 8000 psf to 4000 psf. Settlements are expected to occur rapidly as the loads are applied. After construction is completed, no long-term settlements are anticipated. Allowable differential settlement for the structure as determined by kpff is roughly 0.5 inch within a 30 foot span.”

Foundation Settlements

Allowable Soil Bearing Pressure (lbs/sq ft)	Potential Total Settlement (inches)	Potential Differential Settlement (inches)
8000	2	.75
6000	1.5	.5
4000	1	.25

The settlements for B29 shown above are based on conditions prior to construction of B14 and B29, which have preloaded the subsoils causing some potential settlement to be absorbed.

All structures settle during construction, and some minor settlement of structures can occur after construction during the life of the project. Minor wall cracking could occur within the structure associated with expansion and contraction of the structural members. In addition, wall or slab cracking may be associated with settlement or expansive soil movement. Additional settlement/soil movement could occur if the soils dry or become saturated due to excessive water infiltration generally caused by excessive irrigation, poor drainage, etc.

5.6.5. Footing Excavations

Excavation of the footings should be started directly after the excavation of the basement, and the footings should be poured soon after footing excavation is complete. This office should observe the footing excavations prior to placing reinforcing steel. All footings should be cut square and level and cleaned of loose soils. Soil excavated from the footing and utility trenches should not be spread over any areas of construction unless properly compacted. Soils silted into the footing excavations should be removed to the required depth prior to casting the concrete. The footings should be cast as soon as possible to avoid deep desiccation of the footing subsoils.

5.6.6. Premoistening

Footing subsoils below heavily loaded footings (bearing pressure greater than 2000 psf) should be maintained in a moist condition until the placement of concrete. Site drainage should not be allowed into the footings. The only water placed in the footings should be to maintain a moist condition. Saturation should not be performed below heavily loaded footings (bearing pressure greater than 2000 psf). The subgrade for footings designed using a 2000 psf bearing pressure should be premoistened to 3% over the optimum moisture content to a depth of 18 inches below the footing subgrade.

5.7. SLABS-ON-GRADE

5.7.1. Site Preparation

Concrete slabs on-grade within the building may be supported on the existing undisturbed slab subgrade or compacted engineered fill soils. Slab subgrade soils should be recompacted if the soils are disturbed during footing or utility construction.

5.7.2. Design Data

Concrete slabs on-grade should be 8 inches thick (or as specified by the project structural engineer) and underlain by minimum 6-inch-thick layer of ½ inch or larger clean aggregate or per applicable building codes, whichever is the more restrictive. The slab should be reinforced with a minimum of number 3 bars at 18-inch centers in each direction, placed and kept at slab mid-depth. The above slab design is for a lightly loaded slab only and an alternate design may be necessary for heavily loaded slabs, which should be designed by the project structural engineer.

5.7.3. Premoistening

Soils under lightly loaded slabs on-grade should be premoistened to 3% over the optimum moisture content for a depth of 18 inches.

5.7.4. Moisture Vapor Retarder

Moisture migration occurs when there is a differential potential in the relative moisture below and above the concrete slab on grade. Therefore, areas of the concrete slabs on grade within the building considered sensitive to moisture should have an appropriate moisture vapor retarder layer installed and maintained below concrete slabs-on-grade prior to concrete placement.

The following are recommendations for a moisture retarder. If the project requires a higher level of moisture retarder or waterproofing, the system should be designed by a firm specializing in this type of system.

The water vapor retarder should be one specifically designed as a vapor retarder and consist of a minimum 15 mil extruded polyolefin plastic and complying with Class A requirements under ASTM E1745 (Standard Specification for Plastic Water Vapor Retarders Used in Contact with Soil or Granular Fill under Concrete Slabs). The vapor retarder should be installed in accordance with ASTM E1643. The water vapor retarder should be installed in direct contact with the concrete slab along with a concrete mix design to control bleeding, shrinkage, and curling (ACI 302.2R). The vapor retarder shall be installed over a minimum 6-inch-thick layer of ½ inch or larger clean aggregate or per applicable building codes, whichever is the more restrictive. The vapor retarder should be placed per ASTM E1643-98(2005) Standard Practice for Installation of Water Vapor Retarders Used in Contact with Earth or Granular Fill Under Concrete Slabs. In addition, various trades and the concrete contractor should be required to protect the moisture retarder during construction.

Joints in the vapor retarder layer should be lapped and sealed. Perforations through the moisture vapor retarder such as at pipes, conduits, columns, grade beams, and wall footing penetrations should be sealed per the manufacture’s specifications or ASTM E1643. Proper construction practices should be followed during construction of slabs on-grade. Tears or punctures in the moisture barrier should be repaired and sealed prior to concrete placement.

Minimizing shrinkage cracks in the slab on-grade can further minimize moisture vapor emissions. A properly cured slab utilizing low-slump concrete will reduce the risk of shrinkage cracks in the slab as described herein.

The concrete subcontractor should make the necessary changes in the concrete placement and curing for concrete placed directly over the retarder. Placing the concrete directly on top of the moisture vapor retarder layer allows the layer to be observed for damage directly prior to concrete placement.

Slabs should be tested for moisture content prior to the selection of the flooring and adhesives. Moisture in the slabs should not exceed the flooring manufacture's specifications. The concrete surface should be sealed per the manufacture's specifications if the moisture readings are excessive. It may be necessary to select floor coverings applicable to high moisture conditions.

Where cuts are made into the slab for future construction, the moisture vapor retarder layer should be repaired per the manufacture’s recommendation. Information regarding the need to repair the moisture vapor retarder layer and information on the selection of acceptable floor coverings should be conveyed to the building tenants.

5.7.5. Concrete Placement and Cracking

Minor cracking of concrete slabs is common and generally the result of concrete shrinkage continuing after construction. Concrete shrinks as it cures resulting in shrinkage tension within the concrete mass. Since concrete is weak in tension, development of tension results in cracks within the concrete. Concrete should be placed using procedures to minimize the cracking within the slab. Shrinkage cracks can become excessive if water is added to the concrete above the allowable limit and proper finishing and curing practices are not followed. Concrete mixing, placement, finishing, and curing should be performed per the American Concrete Institute Guide for Concrete Floor and Slab Construction (ACI 302.1). Concrete slump during concrete placement should not exceed the design slump specified by the structural engineer. Concrete slabs on grade should be provided with tooled or saw cut (saw cuts should be made the same day a maximum within few hours of the pour or per the structural engineer's recommendations) crack control joints at 10–15-foot centers or as specified by the structural engineer.

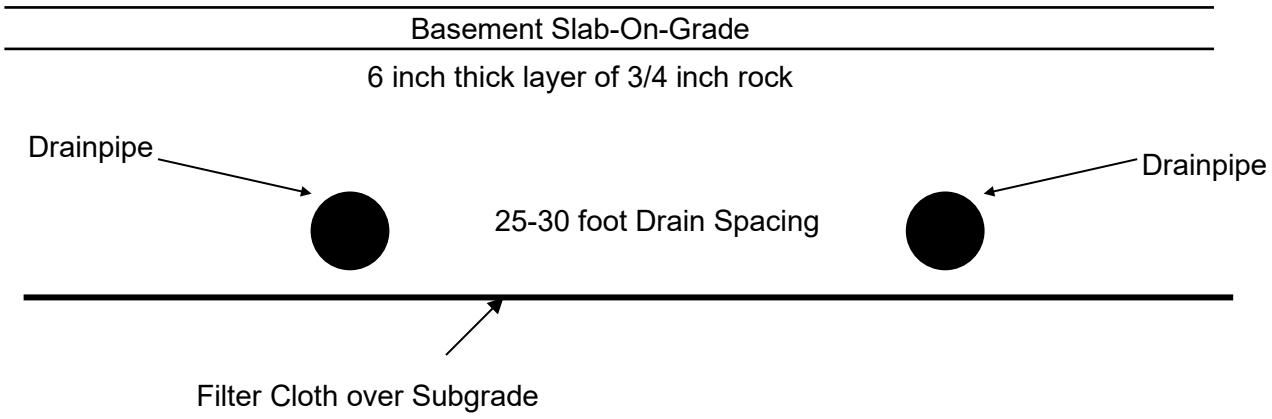
5.8. SUBTERRANEAN DRAINAGE

The perimeter drains behind the retaining wall generally will not relieve coming up below the concrete slab on grade. Therefore, if there are concerns of this condition, a subdrain is suggested below the slab within the basement. This would be in addition to the retaining walls being waterproofed with back drains.

Below slab drains are intended to provide drainage of water from below the basement floor, should this condition occur. However, drains will not drain water naturally held by the soils or stop vapor migration.

The interior slab should be constructed on minimum 6-inch-thick layer of ½ inch or larger clean aggregate or per applicable building codes, whichever is the more restrictive.. An acceptable gradation would be as specified in the Standard Specifications for Public Works Construction (Greenbook) Table 200-1.2, Crushed Rock and Rock Dust. However, the rock may be rounded or crushed. The rock should be placed on a properly prepared subgrade as addressed herein and should be separated from the subgrade by a single layer of filter cloth. Filter cloth having a maximum equivalent opening of 0.212 mm (70 U.S. sieve size) should be lapped at least 12 inches at the seams and the seams sealed per the manufacture's specifications.

Directly above the filter cloth within the rock, rows of 4 inch PVC (Schedule 40) perforated pipes should be placed with holes down at a maximum pipe spacing of 25-30 feet and preferably with a slight slope to drain (or horizontal if necessary). Where piping must cross a structural element, a sleeve should be constructed per the structural engineer's design. Manifold piping or solid piping connecting the drains to the sump system or storm drain may be 4 inch or larger PVC (Schedule 40) that is non-perforated with glued connections. Drainpipes should be connected to a single outlet pipe prior to exiting the building or into a sump. Connector pipes should be placed preferably with a slight slope to drain (or horizontal if necessary). Rock should be carefully placed over the piping so as not to disturb the pipe layout or distort the piping.



Suggested Below Slab Drain Detail (NTS)

5.9. BASEMENT RETAINING WALLS

5.9.1. Lateral Earth Pressures

Basement walls restrained at the top should be designed for a lateral earth pressure equal to 22H with a trapezoidal distribution. The lateral earth pressure at the ground surface may be taken as zero. The pressure will increase with depth to 22H at a depth of .2H below the ground surface. The earth pressure would then extend uniformly at 22H to a depth of 0.8H and decrease uniformly to zero at the base of the excavation. H is the supported height of the wall. The resultant of 22H is in units of psf. The above lateral pressure is an ultimate value with no factor of safety included. No additional surcharge has been included in this lateral earth pressure. The basement wall should be designed for the appropriate factor of safety as determined by the structural engineer. The above active pressure should be reviewed when the depth and location of the subterranean excavation is provided to this office.

Retaining walls that are allowed to yield at the top may be designed for an active pressure of 40 pcf for a level backfill condition. This value is an ultimate value with no factor of safety included.

Aerial surcharge may be treated as additional height of backfill where one foot of additional height is assumed for each 125 psf of aerial surcharge. Light vehicle wheel loads may be taken as 300 psf of additional surcharge. Where surcharge conditions from adjacent foundations are identified, we can provide a pressure distribution of the surcharge for retaining wall design.

5.9.2. Lateral Seismic Pressure

Seismic pressure on a retaining wall (where the wall is greater than 6 feet high) may be taken as a uniform rectangular pressure of 8H in addition to the above static conditions. The seismic pressure could also be taken as an equivalent fluid pressure of 15 pcf (triangular pressure distribution) where the resultant acts at 1/3H above the base of wall.

5.9.3. Waterproofing

Basement walls should be waterproofed on the exterior prior to installing the drainage system and wall backfill. A waterproofing consultant should be consulted for recommendations regarding the basement walls and slab on-grade.

5.9.4. Drainage

A drainage system should be constructed behind the basement and site retaining walls to relieve any buildup of hydrostatic pressures. The drainage system for basement walls may consist of a prefabricated drainage composite consisting of a filter fabric bonded to a corrugated panel. Site retaining walls outside the building should be provided with either a drainage composite or granular drain consisting of a minimum 12 inch wide zone of clean sand and #4 rock at a 1:1 ratio. The drainage system should extend to within 2 feet of finish grade with the upper 2 feet backfilled with native material. A layer of filter cloth should be placed over and behind the granular drainage material to prevent clogging with fines from the native backfill. The drainage system should be hydraulically connected to a perimeter pipe drain consisting of a minimum 4 inch diameter perforated PVC (Schedule 40) pipe or equivalent. The pipe may be laid horizontally on the footing; however, the pipe invert should be at least 6 inches below the top of slab-on-grade. The outlet pipe from the perimeter drain should be a non-perforated 4 inch diameter PVC (Schedule 40) pipe that is sloped to and connected to a storm drain system or sump. An as-built plan should be prepared detailing the location of the wall drainage system.

5.9.5. Backfilling

The new B50 basement walls will be constructed within the existing B14 basement wall with a narrow gap between the two walls. If this area is to be drained, the backfill should consist of permeable granular materials. If the void is to be filled with material capable of transferring lateral loads to the perimeter adjacent ground, the void should be filled with a 3 sack sand mix or stronger (per the structural

requirements). The selected backfill should be reviewed by this office and kpff prior to placement.. Bracing needed to resist basement wall movement should be in-place prior to placing the backfill.

5.10. SOIL CORROSION

The prior corrosion report by M. J. Shiff for B14 is attached in Appendix B along with the corrosion report for the adjacent B29.

5.11. SITE DRAINAGE

Positive drainage should be provided away from the structure during and after construction. Planters near a structure should be constructed so that irrigation water will not saturate the soils underlying the footings and slabs and behind the basement walls. The building pad should be graded at a minimum gradient of 2 percent away from the structure towards an approved drainage course. Trees should not be planted where the roots could extend under hardscape or foundations.

5.12. GUTTERS AND DOWNSPOUTS

Gutters and downspouts should be installed to collect roof water that might otherwise infiltrate the soils adjacent to structures. The downspouts should drain into collector pipes that will carry the water away from the building.

5.13. EXTERIOR SLABS AND WALKWAYS (Hardscape)

Lightly loaded exterior concrete hardscape (non-auto traffic) and walkways should be a minimum of 4 inches thick and underlain by a minimum of 4 inches of sand. Slabs should be reinforced with a minimum of #3 bars on 24-inch centers in each direction placed at mid-height in the slab. Slabs should have crack control joints at intervals of 10 to 15 feet or per the structural engineer's recommendation. Sidewalks may be constructed of non-reinforced concrete provided they are cut into square panels (i.e., 4-foot-wide walks should be cut into 4 foot by 4-foot squares).

Concrete slab subgrade soils should be properly placed and compacted for support of concrete flatwork. Prior to placing concrete, subgrade soils should be premoistened to a minimum of 3% over the optimum moisture content for a minimum depth of 18 inches. Proper premoistening can reduce the risk of slab subgrade expansion, if used in addition to other preventive measures.

5.14. PAVEMENT DESIGN

5.14.1. Structural Section

Structural sections consisting of asphaltic concrete (AC) placed over a compacted layer of aggregate base are provided in the table on the following page based on an R value for the subgrade soils of 23. The project civil engineer should determine the appropriate traffic index for the pavement area.

Asphalt pavements should be maintained by filling cracks that appear and with periodic application of fog sealers to replace surface oils that are lost due to weathering and wear. Planter areas should be graded so that water drains onto, rather than beneath, adjacent AC pavement and curbs.

Location	Recommended Structural Section
Parking Stalls	3"A.C. / 6" A.B.
Drive Areas	3"A.C. / 8" A.B.
Existing Road (repairs if necessary)	4"A.C. / 14" A.B. or meet existing, whichever is greater

A.C. = Asphaltic Concrete A.B. = Aggregate Base

Portland Cement Concrete Pavement Designs

Location: Entrance Drive Area, Heavy Truck Traffic Areas, and trash enclosure aprons.

Recommended Concrete Thickness	Recommended Aggregate Base Thickness	Minimum Concrete Design Strength	Recommended Steel Reinforcement
7.5"	4"	3500 psi	#3 bars @ 18" O.C. each way

5.14.2. Subgrade Preparation
Subgrade soils within areas of paving should be moistened to slightly above the optimum moisture content and compacted to at least 90% of the laboratory standard prior to placing aggregate base.

5.14.3. Aggregate Base Preparation
Aggregate base materials should be moistened to slightly above the optimum moisture content and compacted to at least 95% of the laboratory standard prior to placing concrete.

6. CLOSURE

This report was prepared under the direction of a State Registered Geotechnical Engineer. No warranty, express or implied, is made as to conclusions and professional advice included in this report. Gorian and Associates, Inc. disclaim responsibility and liability for problems that may occur if the recommendations presented in this report are not followed.

This report was prepared for Amgen Inc. and their design consultants solely for design and construction of the project as described herein. It may not contain sufficient information for other uses or the purposes of other parties. These recommendations should not be extrapolated to other areas or used for other facilities without consulting Gorian and Associates, Inc.

The scope of the services provided by Gorian and Associates, Inc. and its staff, excludes responsibility and/or liability for work conducted by others. Such work includes, but is not limited to, means and methods of work performance, quality control of the work, superintendence, sequencing of construction and safety in, on, or about the jobsite.

Recommendations are based on interpretations of the subsurface conditions concluded from information gained from prior subsurface exploration and a surficial reconnaissance. Interpretations may differ from actual subsurface conditions, which can vary horizontally and vertically across the property. Due to possible subsurface variations, this office should observe all aspects of field construction addressed in this report. Persons using this report for bidding or construction purposes should perform such independent investigations, as they deem necessary.

oOo

Please contact our office if you have questions regarding the information and recommendations contained in this report or require additional consultation.

Respectfully submitted,

Gorian and Associates, Inc.

By: Jerome J. Blunck, GE 151
Principal Geotechnical Engineer

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VICINITY MAP

Proposed Amgen B50
701 Pauling Drive, Thousand Oaks
Ventura County, California

Source
CGS Information Warehouse
https://maps.conservation.ca.gov/cgs/informationwarehouse/

GORIAN & ASSOCIATES, INC.
APPLIED EARTH SCIENCES

Job No: 1583-B50-0-100		
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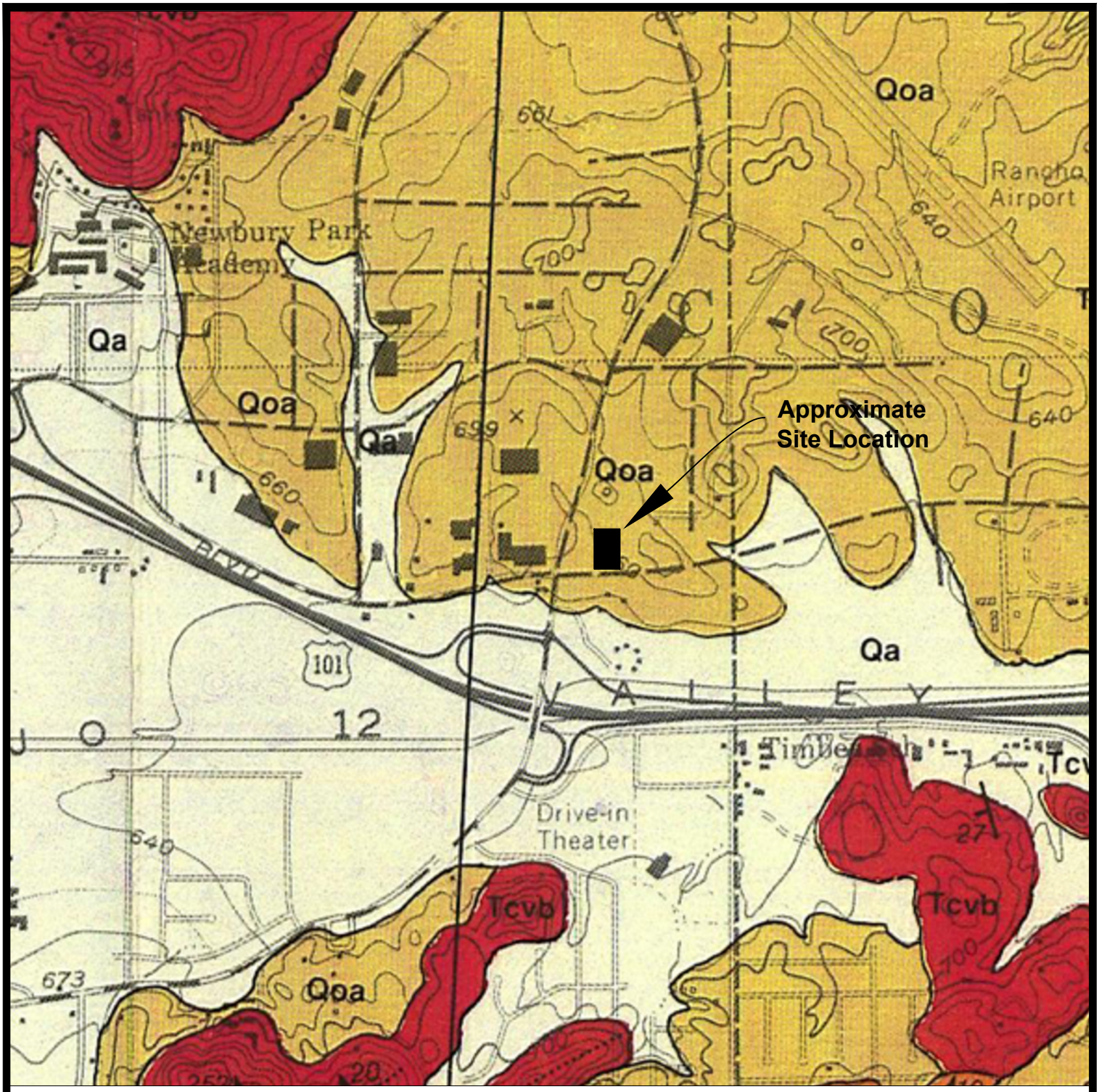
	Approved by:	



REGIONAL GEOLOGIC MAP

Proposed Amgen B50

701 Pauling Drive, Thousand Oaks

Ventura County, California

Explanation

Qoa - Older Surficial Sediments - dissected, weakly infuriated alluvial gravel, sand, and clay.

Source

Dibblee, Thomas W. Jr., & Ehrenspeck, Helmut E., 1990. Geologic Map of the Camarillo and Newbury Park Quadrangles Ventura County, California
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GORIAN & ASSOCIATES, INC.
APPLIED EARTH SCIENCES

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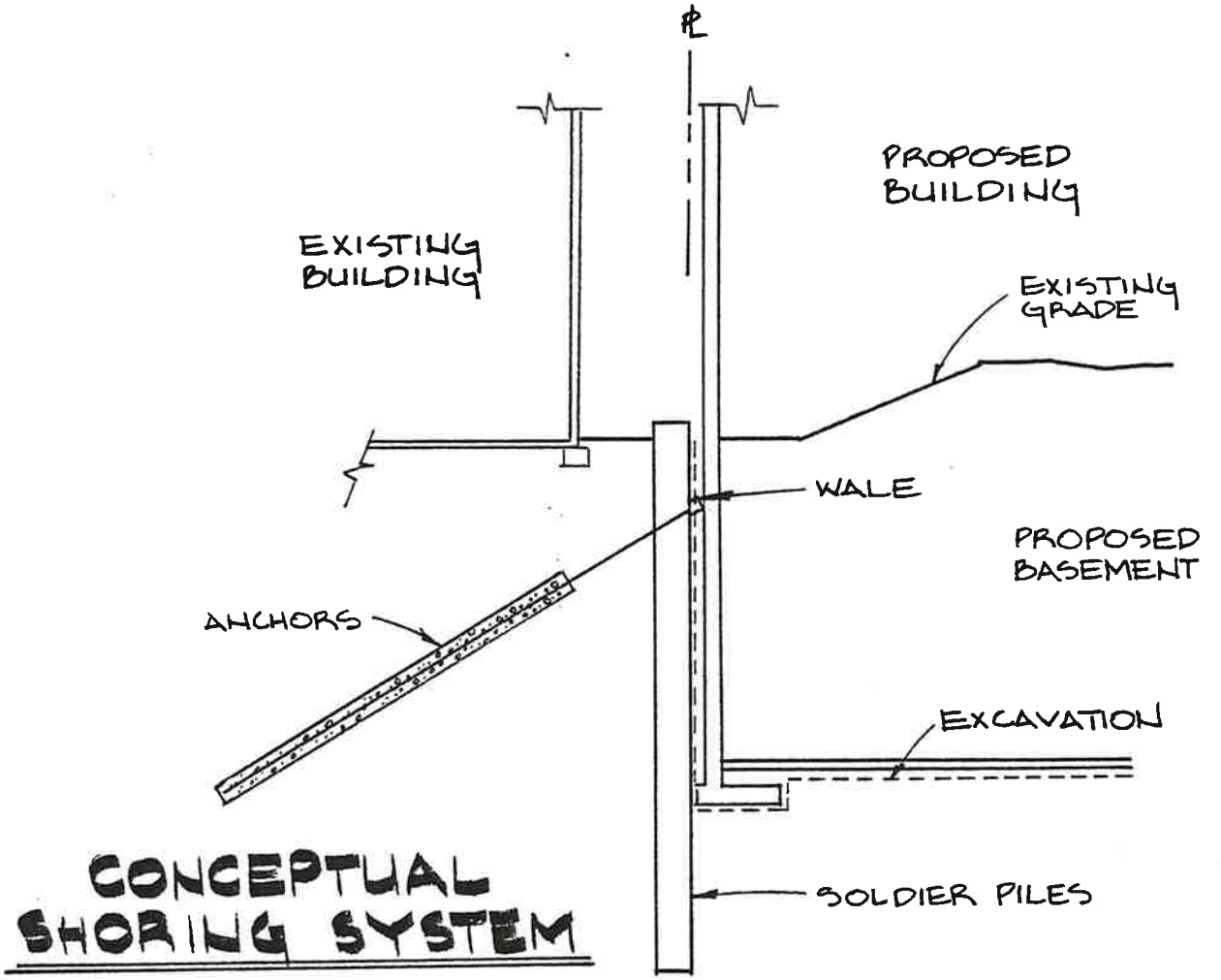
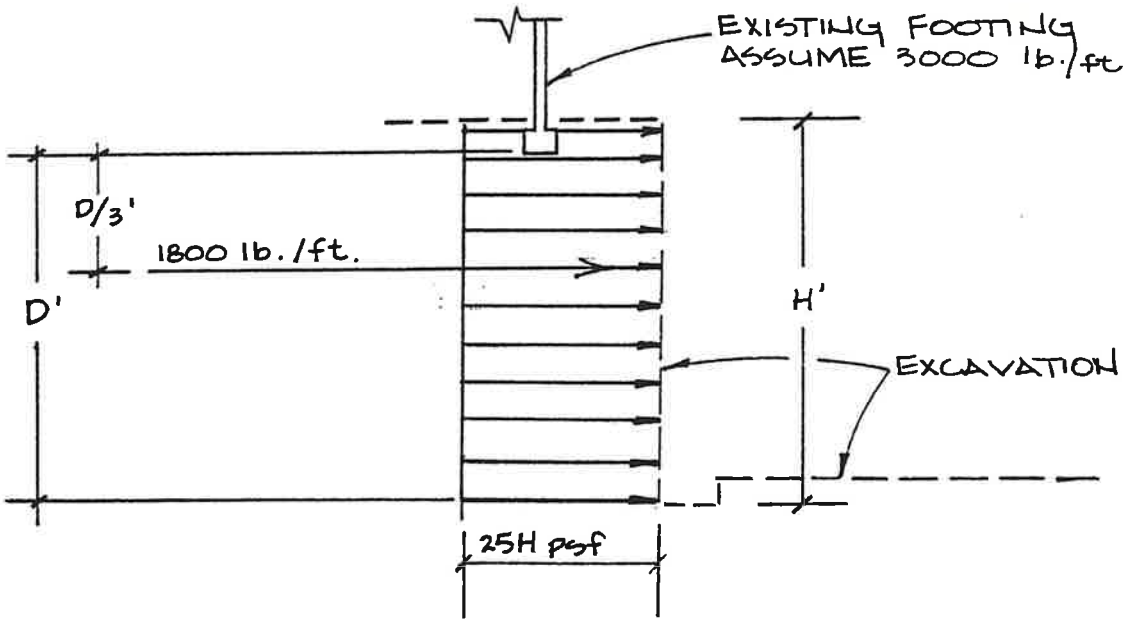
	Approved by:	



CONCEPTUAL SHORING SYSTEM



LATERAL PRESSURES ON SHORING

SOIL AND FOUNDATION ENGINEERS — GORIAN AND ASSOCIATES, Inc. — APPLIED EARTH SCIENCES			
JOB NUMBER: 1583-8-10		DATE: 6-18-90	
SCALE: NONE	APPROVED BY: RMM	DRAWN BY: MAP	LOG NO: 14459

Building B14

BISHOP GRAPHICS/ACCUPRESS
REORDER NO. A43391

FIGURE 11

APPENDIX A

LOGS OF SUBSURFACE DATA

The attached boring logs are for borings previously drilled for Amgen buildings B14, B29, and B5. The approximate locations of the borings are shown on Plate 1, Boring Location Map.

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SUB-SURFACE DATA

PROJECT: AMGEN - Building #14_ **W.O.#** 1583-7-10

Method of Drilling: 18" Bucket Auger **Logged by:** EAB **LOG NO.** B-1

Ground Elevation: 660±' **Location:** See Map **Date Observed:** 06/06/90

	USC	S	U	B	MC	DD	Description	SMC
0							3" A.C. pavement in good condition over 6" of sand and gravel base material.	
			■	■	23.0	102		
			■		22.7	103		
5	SM		■		24.4	102	COMPACTED FILL: Medium brown very clayey silty sand mottled with dark greenish gray sandy silty clay (moist, very dense). Dark gray clay is odorous. Becomes wet at 8', seepage @ 9' within a gravelly layer with some caving.	
				■				
10			■	■	19.8	104		
	CH						Dark greenish gray sand silty clay (medium stiff to very stiff, wet). Numerous grass fragments, organic odor.	
	CH							
15			■		18.6	108		
	SM			■			OLDER ALLUVIUM: Dark gray-brown sand and silty clay (very moist, very dense).	
20	ML		■		27.4	96		
							Reddish brown silty clayey sand with some gravel (very moist, very dense).	
				■				
25			■		21.1	107		
							Light brown to grayish brown slightly sandy clayey silt (moist, very stiff to hard) some visible pinhole porosity. Interlayered reddish brown fine sandy lenses are common. Increased % of sand with depth.	
30		▽	■		31.6	91		
	ML			■				
							Light gray clayey silt (saturated, very stiff to hard), trace charcoal fragments.	
35			■		13.3	116		
	SM						Reddish brown slightly silty fine to coarse sand with fine to coarse gravel (saturated, very dense).	
			■		14.3	117		
40								
							Total Depth 40' Groundwater @ 32½', Seepage @ 9' Minor Caving 8' to 11'	

LEGEND:

USC Unified Classification Soil System
U Undisturbed Sample
MC Moisture Content (%)
S Symbol/ SMC % Sand Silt Clay
B Bulk Sample
DD In place Dry Density

FIGURE 1

GORIAN AND ASSOCIATES, Inc.

SUB-SURFACE DATA

PROJECT: AMGEN - Building #14_ **W.O.#** 1583-7-10

Method of Drilling: 18" Bucket Auger **Logged by:** EAB **LOG NO.** B-2

Ground Elevation: 658±' **Location:** See Map **Date Observed:** 06/06/90

	USC	S	U	B	MC	DD	Description	SMC
0		A.C.					3" A.C. Pavement in good condition over 6" of sand and gravel base material.	
			■		25.8	100		
			■		18.3	105		
5	SM			■			COMPACTED FILL: Medium brown very clayey silty sand mottled with greenish dark gray slightly sandy silty clay (moist to wet, dense to very dense). Dark gray clay is odorous. Seepage and some minor caving at 7½'.	
			■		23.9	97		
10			■		20.5	106		
	CH			■			Dark gray to greenish gray sandy silty clay (damp, very stiff) numerous grass fragments and odorous throughout. Less moisture between 13' to 14'.	
15	CH		■		11.0	106		
				■			OLDER ALLUVIUM: Dark gray-brown to dark brown sandy silty clay (moist, very stiff), occasional rootlets.	
20	SM		■		12.2	117		
	CL			■			Light to medium brown very silty sand w/ trace gravel (moist, very dense).	
25			■		17.4	110		
	SM						Grades to become very sandy silty clay (moist, very stiff).	
30	ML		■		25.3	98.6	Reddish brown silty fine to coarse sand (moist, very dense), occasional interstratified clayier layers.	
	SM			■			Light gray-brown clayey silt (moist, very stiff to hard) noticable $CaCO_3$ deposition.	
35			■		14.8			
							Medium brown silty fine to coarse sand with gravel (wet to saturated, very dense).	
40							Total Depth 36' Groundwater @ 34½', Seepage @ 7½' Minor Caving @ 7½'	

LEGEND:

USC Unified Classification Soil System
U Undisturbed Sample
MC Moisture Content (%)
S Symbol/ SMC % Sand Silt Clay
B Bulk Sample
DD In place Dry Density

FIGURE 2

GORIAN AND ASSOCIATES, Inc.

SUB-SURFACE DATA

PROJECT: AMGEN - Building #14_ **W.O.#** 1583-7-10

Method of Drilling: 18" Bucket Auger **Logged by:** EAB **LOG NO.** B-3

Ground Elevation: 658±' **Location:** See Map **Date Observed:** 06/06/90

	USC	S	U	B	MC	DD	Description	SMC
0							3" A.C. pavement in good condition over 6" of sand and gravel base material.	
			■		18.3	107		
			■	■	23.6	101		
5	SM		■		21.4	103	COMPACTED FILL: Grayish medium brown clay silty sand with trace gravel (moist, very dense).	
	CL			■			Bluish gray-brown sandy silty clay (moist, very stiff), odorous, occasionally mottled with light gray silty clay.	
10			■		17.5	104		
				■				
	CL						OLDER ALLUVIUM: Dark gray-brown sandy silty clay (moist, medium stiff to very stiff) some visible pinhole porosity. @ 13½' color has become medium brown and soil is very stiff.	
15			■		18.9	109		
				■				
20			■		19.9	105		
	SM						Reddish brown slightly clayey silty fine to coarse sand with some gravel (moist, very dense) occasional interstratified clayer layers.	
				■				
25			■		14.3	115		
	SM						Reddish brown silty fine to coarse sand with gravel (moist, very dense) perched water @ 28½'.	
30	ML		■	■	24.2	100	Light gray brown clayey silt (wet, very stiff to hard).	
35	SM		■		16.4	113	Medium brown silty fine to coarse sand with gravel (saturated, very dense), gravels are rounded to well rounded.	
					16.3	122		
40							Total Depth 40' Groundwater @ 35', Perched Water @ 28½' Minor Caving below 35'	

LEGEND:

USC Unified Classification Soil System
U Undisturbed Sample
MC Moisture Content (%)
S Symbol/ SMC % Sand Silt Clay
B Bulk Sample
DD In place Dry Density

FIGURE 3

GORIAN AND ASSOCIATES, Inc.

SUB-SURFACE DATA

PROJECT: AMGEN - Building #14_ **W.O.#** 1583-7-10

Method of Drilling: 18" Bucket Auger **Logged by:** EAB **LOG NO.** B-4

Ground Elevation: 655± **Location:** See Map **Date Observed:** 07/10/90

USC	S	U	B	MC	DD	Description	SMC
						3" A/C Pavement in good condition, 6" base material.	
SM/ ML		■		26.4	98		
		■		24.2	102	OLDER ALLUVIUM: Reddish brown slightly clayey silty fine to medium sand to clayey sandy silt (moist, very dense), no visible porosity, charcoal fragments common.	
		■	■	21.4	106		
CL		■		17.9	108	Light gray sandy silty clay (moist, very stiff), some pinhole porosity visible.	
SM		■	■	16.3	114	Medium brown clayey silty fine to coarse sand with gravel (moist to wet, very dense). Perched groundwater @ 17' to 18.5' within gravel layer.	
SM						Reddish brown very clayey silty fine sand (moist, very dense).	
		■		27.1	97		
CL		■	■	28.4	93	Light gray sandy silty clay (moist, very stiff). Trace pinhole porosity.	
SM		■		23.5	101	Grades to become reddish brown very clayey silty fine to medium sand.	
						Total Depth 30' Perched Groundwater @ 17' Minor Caving 17' to 18.5'	

0, 5, 10, 15, 20, 25, 30, 35, 40

LEGEND:

USC Unified Classification Soil System S Symbol/ SMC % Sand Silt Clay

U Undisturbed Sample B Bulk Sample

MC Moisture Content (%) DD In place Dry Density

FIGURE 4

GORIAN AND ASSOCIATES, Inc.

SUB-SURFACE DATA

PROJECT: AMGEN - Building #14 **W.O.#** 1583-7-10

Method of Drilling: 18" Bucket Auger **Logged by:** EAB **LOG NO.** B-5

Ground Elevation: 659± **Location:** See Map **Date Observed:** 07/10/90

	USC	S	U	B	MC	DD	Description	SMC
0	SM		■	■	18.8	103	COMPACTED FILL: Khaki-brown to reddish brown clayey silty fine to coarse sand with gravel (moist, very dense). Upper 12" is loose with numerous roothairs.	
			■		17.6	108		
5			■		16.7	103		
	SM/ ML		■	■	26.9	97	OLDER ALLUVIUM: Khaki-brown very clayey silty fine sand to very clayey sandy silt (moist, very dense), no visible porosity, frequent very clayey lenses.	
10								
15	ML		■		22.4	103	Light gray sandy clayey silt (moist, very stiff). Some visible pinhole porosity.	
	SM		■	■	12.2	101	Reddish brown clay silty fine to coarse sand with gravel (moist, very dense), lesser fines with depth, coarser fraction is typically well rounded.	
20								
25			■		13.4	101	Perched Groundwater @ 30.5'	
				■				
30			■		13.6	105		
	ML						Light gray sandy clayey silt lens (moist).	
	SM		■		23.8	100	Reddish brown silty fine to coarse sand with some gravel (saturated, very dense).	
35								
40							Total Depth 37' Groundwater @ 31' Caving Below 32' (drilling became difficult)	

FIGURE 5

LEGEND:

USC Unified Classification Soil System — S Symbol/ SMC % Sand Silt Clay

U Undisturbed Sample — B Bulk Sample

MC Moisture Content (%) — DD In place Dry Density

GORIAN AND ASSOCIATES, Inc.

SUB-SURFACE DATA

EXCAVATION NUMBER: B - 2

Project: AMGEN Building #29, Hillcrest and Rancho Conejo, Thousand Oaks, CA

Work Order: 1583-29-10

Method of Excavation: 18" Diameter Bucket Auger Rig

Logged by: EAB

Ground Elevation: 656±

Location: See Location Map

Date Observed: 2/1/93

D	USC	SYM	U	B	S	MC	DD	DESCRIPTION	REMARKS
1	SC							Artificial Fill: Dark brown very sandy silty clay with scattered gravel; moist; medium stiff to stiff.	
2	SC		■			16.3	109	Alluvium: Reddish brown clayey silty fine to coarse sand with scattered gravels; moist; very dense. Occasional very gravelly layers.	
3									
4			■			13.0	106		
5									
6			■			16.7	106		
7	CL							Light gray sandy silty clay lense; moist.	
8									
9	SC			■				Reddish brown very clayey silty fine to coarse sand with scattered gravels; moist, very dense.	
10			■			24.8	96		
11									
12									
13									
14	CL			■				Light grey very sandy silty clay; moist; very stiff.	
15			■			23.5	101		
16									
17									
18	SC							Becomes slightly reddish brown very clayey silty fine to coarse sand with scattered gravels; moist; very dense.	
19									
20			■			22.4	104		
21									
22									
23									
24				■					
25	SM		■			18.1	111	Reddish brown silty fine to coarse sand and gravel; wet to saturated; very dense.	
26									
27									
28									

This log applies only at the location of this excavation and at the time of excavating. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented are a simplification of actual conditions encountered.

LEGEND:

B - Bulk Sample
D - Depth Below Ground Elevation (ft)
DD - In Place Dry Density (pcf)
MC - Moisture Content (%)
N - SPT Blows From 6" to 18"
SMC - %Sand-%Silt-%Clay
S/SPT - Standard Penetration Test
SYM - Graphic Symbol
U - Relatively Undisturbed Drive Sample
USC - Unified Soil Classification System

Figure A.2a

GORIAN & ASSOCIATES INC

LOGS\16305

SUB-SURFACE DATA

EXCAVATION NUMBER: B - 2

Project: AMGEN Building #29, Hillcrest and Rancho Conejo, Thousand Oaks, CA

Work Order: 1583-29-10

Method of Excavation: 18" Diameter Bucket Auger Rig

Logged by: EAB

Ground Elevation: 656±

Location: See Location Map

Date Observed: 2/1/93

D	USC	SYM	U	B	S	MC	DD		DESCRIPTION	REMARKS
28									For description see previous page.	
29										
30	SM		■			24.2	98		(sample disturbed)	
31									Khaki brown sandy silty clay; moist; very stiff. Occasional sandier lenses.	
32										
33									Scattered Charcoal.	
34	CL									
35			■			34.5	82			
36										
37									Total Depth 36 feet	
38									Groundwater @ 28 feet	
39									No Caving	
40										
41										
42										
43										
44										
45										
46										
47										
48										
49										
50										
51										
52										
53										
55										
56										
57										

This log applies only at the location of this excavation and at the time of excavating. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented are a simplification of actual conditions encountered.

LEGEND:

B - Bulk Sample
D - Depth Below Ground Elevation (ft)
DD - In Place Dry Density (pcf)
MC - Moisture Content (%)
N - SPT Blows From 6" to 18"
SMC - %Sand-%Silt-%Clay
S/SPT - Standard Penetration Test
SYM - Graphic Symbol
U - Relatively Undisturbed Drive Sample
USC - Unified Soil Classification System

Figure A.2b

GORIAN & ASSOCIATES INC

LOGS\16305

SUB-SURFACE DATA

EXCAVATION NUMBER: B - 3

Project: AMGEN Building #29, Hillcrest and Rancho Conejo, Thousand Oaks, CA

Work Order: 1583-29-10

Method of Excavation: 18" Diameter Bucket Auger Rig

Logged by: EAB

Ground Elevation: 657±

Location: See Location Map

Date Observed: 2/1/93

D	USC	SYM	U	B	S	MC	DD	DESCRIPTION	REMARKS
								Asphaltic Concrete: 1½" thick; good condition.	
1	SC							Artificial Fill: Reddish brown clayey silty fine to coarse sand with gravel; moist; very dense.	
2			■			19.5	99		
3				■				Alluvium: Reddish brown very clayey silty fine to coarse sand with gravel; moist; very dense.	
4			■			17.8	103		
5	SM								
6			■			17.4	107		
7									
8				■					
9									
10			■			20.2	100	Light grey sandy silty clay; moist; very stiff. Interlayered with reddish brown very clayey silty sand lenses.	
11									
12	CL/ SM			■					
13								very clayey lens @ 13½ to 14½ feet	
14									
15			■			13.8	106		
16									
17								Light grey clayey lens @ 16 to 17 feet.	
18									
19				■				Light grey sandy silty clay; moist to wet; very stiff.	
20	CL		■			31.1	91		
21									
22									
23									
24									
25			■			22.1	102		
26								Sandy lens @ 25 feet.	
27									
28								Water seepage @ 28 feet.	

This log applies only at the location of this excavation and at the time of excavating. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented are a simplification of actual conditions encountered.

LEGEND:

B - Bulk Sample
D - Depth Below Ground Elevation (ft)
DD - In Place Dry Density (pcf)
MC - Moisture Content (%)
N - SPT Blows From 6" to 18"
SMC - %Sand-%Silt-%Clay
S/SPT - Standard Penetration Test
SYM - Graphic Symbol
U - Relatively Undisturbed Drive Sample
USC - Unified Soil Classification System

Figure A.3a

GORIAN & ASSOCIATES, INC

LOGS\16305

SUB-SURFACE DATA

EXCAVATION NUMBER: B - 3

Project: AMGEN Building #29, Hillcrest and Rancho Conejo, Thousand Oaks, CA

Work Order: 1583-29-10

Method of Excavation: 18" Diameter Bucket Auger Rig

Logged by: EAB

Ground Elevation: 657±

Location: See Location Map

Date Observed: 2/1/93

D	USC	SYM	U	B	S	MC	DD		DESCRIPTION	REMARKS
28									For description see previous page.	
29										
30										
31						21.5	102		Visible porosity at 30.0 < 1/16" diameter.	
32	CL									
33										
34										
35										
36						29.7	93			
37									Total Depth 36 feet Groundwater @ 28 feet No Caving	
38										
39										
40										
41										
42										
43										
44										
45										
46										
47										
48										
49										
50										
51										
52										
53										
55										
56										
57										

This log applies only at the location of this excavation and at the time of excavating. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented are a simplification of actual conditions encountered.

LEGEND:

B - Bulk Sample
D - Depth Below Ground Elevation (ft)
DD - In Place Dry Density (pcf)
MC - Moisture Content (%)
N - SPT Blows From 6" to 18"
SMC - %Sand-%Silt-%Clay
S/SPT - Standard Penetration Test
SYM - Graphic Symbol
U - Relatively Undisturbed Drive Sample
USC - Unified Soil Classification System

Figure A.3b

GORIAN & ASSOCIATES INC

LOGS\16305

SUB-SURFACE DATA

EXCAVATION NUMBER: B - 4

Project: AMGEN Building #29, Hillcrest and Rancho Conejo, Thousand Oaks, CA

Work Order: 1583-29-10

Method of Excavation: 6½" Diameter Hollow Stem Auger Rig

Logged by: EAB

Ground Elevation: 660±

Location: See Location Map

Date Observed: 5/25/93

D	USC	SYM	U	B	S	MC	DD	DESCRIPTION	REMARKS
								Asphalt Concrete: 3½" thick, fair condition.	
1	SC							Artificial fill: Brown very clayey silty sand w/numerous gravels; damp; very dense.	
2			■			20.0	103		
3								Alluvium: Reddish brown very clayey silty sand with numerous gravels; damp; very dense. Clayier lenses are typically porous with pore diameters of 1/16" or smaller.	
4			■			18.8	102		
5									
6	SM		■			16.1	106		
7									
8									
9									
10			■			18.1	108	At 10 feet becomes sandier, less gravels.	
11									
12								Khaki brown clayey silty sand to very sandy clay; damp; very dense. Trace pinhole porosity.	
13									
14									
15			■			26.3	95		
16	SC/CL							At 15 feet becomes slightly clayier.	
17									
18									
19									
20	SM		■			11.2	109	Brown slightly clayey silty sand; damp; very dense.	
21									
22								Khaki brown slightly sandy silty clay; damp; very stiff.	
23									
24	CL								
25									
26									
27									
28			■			21.7	105		

This log applies only at the location of this excavation and at the time of excavating. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented are a simplification of actual conditions encountered.

LEGEND:

B - Bulk Sample
D - Depth Below Ground Elevation (ft)
DD - In Place Dry Density (pcf)
MC - Moisture Content (%)
N - SPT Blows From 6" to 18"
SMC - %Sand-%Silt-%Clay
S/SPT - Standard Penetration Test
SYM - Graphic Symbol
U - Relatively Undisturbed Drive Sample
USC - Unified Soil Classification System

Figure A.4a

GORIAN & ASSOCIATES, INC

LOGS\16305

SUB-SURFACE DATA

EXCAVATION NUMBER: B - 4

Project: AMGEN Building #29, Hillcrest and Rancho Conejo, Thousand Oaks, CA

Work Order: 1583-29-10

Method of Excavation: 6½" Diameter Hollow Stem Auger Rig

Logged by: EAB

Ground Elevation: 660±

Location: See Location Map

Date Observed: 5/25/93

D	USC	SYM	U	B	S	MC	DD		DESCRIPTION	REMARKS
-28	CL		■			21.7	105		For description see previous page.	
-29										
-30			■			20.2	98			
-31	SM								Brown slightly clayey silty sand; damp, very dense.	
-32	CL								Khaki brown sandy silty clay; moist; very stiff. No visible porosity. Becomes moister with depth.	
-33										
-34										
-35			■			23.2	98			
-36										
-37										
-38										
-39	CL								Grey silty clay; moist; very stiff to hard.	
-40			■			22.1	101			
-41	GP								Very gravelly zone, no sample recovery; ground water	
-42										
-43										
-44										
-45										
-46										
-47									Total Depth 46 feet Groundwaterr @ 30 feet Caving below 41 feet	
-48										
-49										
-50										
-51										
-52										
-53										
-55										
-56										
-57										

This log applies only at the location of this excavation and at the time of excavating. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented are a simplification of actual conditions encountered.

LEGEND:

B - Bulk Sample
D - Depth Below Ground Elevation (ft)
DD - In Place Dry Density (pcf)
MC - Moisture Content (%)
N - SPT Blows From 6" to 18"
SMC - %Sand-%Silt-%Clay
S/SPT - Standard Penetration Test
SYM - Graphic Symbol
U - Relatively Undisturbed Drive Sample
USC - Unified Soil Classification System

Figure A.4b

LOGS\16305

GORIAN & ASSOCIATES INC

SUB-SURFACE DATA

EXCAVATION NUMBER: B - 5

Project: AMGEN Building #29, Hillcrest and Rancho Conejo, Thousand Oaks, CA

Work Order: 1583-29-10

Method of Excavation: 6½" Diameter Hollow Stem Auger Rig

Logged by: EAB

Ground Elevation: 660±

Location: See Location Map

Date Observed: 5/29/93

D	USC	SYM	U	B	S	MC	DD	DESCRIPTION	REMARKS
								Asphalt Concrete: 3½" thick; fair condition over 6" base.	
1									
2			■			23.2	101	Alluvium: Brown clayey silty sand with gravel; damp; very dense. Upper 1 foot disturbed.	
3									
4			■			12.5	107		
5									
6	SM		■			11.2	110	Some visible porosity, as big as 1/16" diameter in clayey lenses.	
7									
8									
9									
10			■			14.5	113	At 10 feet - sand and gravel.	
11									
12									
13									
14								Brown to khaki brown very sandy silty clay; moist; very stiff.	
15			■			26.4	95		
16	CL								
17									
18									
19									
20			■			23.0	96	Reddish brown clayey sand and gravel; moist, very dense. Occasional very clayey lenses.	
21	SM								
22									
23									
24									
25			■			28.2	95	Gray slightly sandy silty clay; moist; very stiff to hard. No visible porosity. Trace gravels.	
26	CL								
27									
28									

This log applies only at the location of this excavation and at the time of excavating. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented are a simplification of actual conditions encountered.

LEGEND:

B - Bulk Sample
D - Depth Below Ground Elevation (ft)
DD - In Place Dry Density (pcf)
MC - Moisture Content (%)
N - SPT Blows From 6" to 18"
SMC - %Sand-%Silt-%Clay
S/SPT - Standard Penetration Test
SYM - Graphic Symbol
U - Relatively Undisturbed Drive Sample
USC - Unified Soil Classification System

LOGS\16305

Figure A.5a

GORIAN & ASSOCIATES INC

SUB-SURFACE DATA

EXCAVATION NUMBER: B - 5

Project: AMGEN Building #29, Hillcrest and Rancho Conejo, Thousand Oaks, CA

Work Order: 1583-29-10

Method of Excavation: 6½" Diameter Hollow Stem Auger Rig

Logged by: EAB

Ground Elevation: 660±

Location: See Location Map

Date Observed: 5/25/93

D	USC	SYM	U	B	S	MC	DD	DESCRIPTION	REMARKS
-28								For description see previous page.	
-29								Becomes sandier with depth.	
-30	CL		■			16.4	109	Groundwater at 29 feet.	
-31									
-32								Reddish brown slight clayey silty sand with gravel; saturated, very dense. Occassional sandy clay lenses.	
-33									
-34									
-35	SM		■			21.4	103		
-36									
-37									
-38									
-39								Grey to khaki brown slightly sandy silty clay; saturated; very stiff to hard. No visible porosity.	
-40			■			35.3	87		
-41	CL								
-42									
-43									
-44			■			36.1	85		
-45									
-46								Total depth 45 feet Groundwater at 29 feet No Caving	
-47									
-48									
-49									
-50									
-51									
-52									
-53									
-55									
-56									
-57									

This log applies only at the location of this excavation and at the time of excavating. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented are a simplification of actual conditions encountered.

LEGEND:

B - Bulk Sample
D - Depth Below Ground Elevation (ft)
DD - In Place Dry Density (pcf)
MC - Moisture Content (%)
N - SPT Blows From 6" to 18"
SMC - %Sand-%Silt-%Clay
S/SPT - Standard Penetration Test
SYM - Graphic Symbol
U - Relatively Undisturbed Drive Sample
USC - Unified Soil Classification System

Figure A.5b

GORIAN & ASSOCIATES INC

LOGS\16305

GORIAN & ASSOCIATES, INC.

Project: Amgen, Inc., Building 5

Work Order: 1583-5-0-100

SUBSURFACE LOG

Excavation Number: B-3

Page Number: 1

Date(s) Excavated 3/10/06	Logged By CHD	Excavation Location See Geotechnical Map	Approximate Surface Elevation 667'±
Excavation Dimension 8"	Equipment Contractor S & G Drilling	Equipment Type CME 75	Hammer Data 140#, Auto

Elevation / Depth (ft.)	Bulk Sample Type	Blow Counts	Moisture Content (% dry weight)	Dry Density (pcf)	USCS	Soil / Lithology	Description	Remarks
0 / 667							ASPHATIC CONCRETE (3½") ON AGGREGATE BASE (5½")	
							No Data 9" to 6½'; previously excavated	
5 / 665								
660					SC		OLDER ALLUVIUM: Yellowish brown clayey fine to coarse SAND, some fine to coarse gravel (moist, medium dense).	
10		11/ 11/ 13 44	13.0	112				
655					SC		Reddish brown clayey fine SAND, few fine gravel (very moist, medium dense). Locally interbedded with silty clay.	
15		7/ 10/ 14 34	25.0	100				
650					CL		Pale brown sandy CLAY grading to clayey fine sand (moist, very stiff to medium dense).	
20		7/ 12/ 17 40	19.5	108				
645					CL		Pale brown silty CLAY (very moist to wet, very stiff to hard). Trace fine sand.	
25		22/ 17/ 21/ 28	23.0	100				
640								
30		29	27.4	97				
635								
35		9/ 14/ 15/ 51	14.9	109	SC		Reddish brown clayey fine to coarse SAND, some fine gravel (moist, dense). Grading silty with depth.	
630							At 38'; groundwater	

GORIAN & ASSOCIATES, INC.

Project: Amgen, Inc., Building 5

Work Order: 1583-5-0-100

SUBSURFACE LOG

Excavation Number: B-3

Elevation / Depth (ft.)	Bulk	Sample Type	Blow Counts	Moisture Content (% dry weight)	Dry Density (pcf)	USCS	Soil / Lithology	Description	Remarks
								At 39'-40'; gravels	
40						CL		Reddish brown silty CLAY grading to clayey fine sand (very moist , hard to dense).	
625									
			33	23.2	100				
45									
620								At 47'; chatter per driller	
						SM		Reddish brown silty fine to coarse SAND, common fine to coarse gravel (saturated, dense).	
			75/ 11"	16.8	119			Below 49'; heavy chatter	
50									
615									
			16/ 40/ 33					After sample at 53½'; difficult to advance, boring terminated	
55								Total Depth 55' (Practical Refusal) Groundwater at 38' No caving Boring backfilled with medium Bentonite chips to 25'. Soil cuttings used above 25'	
610									
60									
605									
65									
600									
70									
595									
75									
590									
80									
585									

Project: Amgen, Inc., Building 5

Work Order: 1583-5-0-100

SUBSURFACE LOG

Excavation Number: B-4

Date(s) Excavated 3/10/06	Logged By CHD	Excavation Location See Geotechnical Map	Approximate Surface Elevation 664½'±
Excavation Dimension 8"	Equipment Contractor S & G Drilling	Equipment Type CME 75	Hammer Data 140#, Auto

Elevation / Depth (ft.)	Bulk Sample Type	Blow Counts	Moisture Content (% dry weight)	Dry Density (pcf)	USCS	Soil / Lithology	Description	Remarks
0							ASPHATIC CONCRETE (2½") ON AGGREGATE BASE (5½")	
							No Data 8" to 5'; previously excavated	
660								
5					CL		Very dark grayish brown silty CLAY, trace sand (very moist, medium stiff). Mottled.	
655		12	20.5	100				
10		4/3/4						
650		8	24.2	94			At 13½'; becoming wet.	
15		2/3/4						
645		30	21.1	105	CL-SC		OLDER ALLUVIUM: Brown sandy CLAY (very moist, very stiff). Interbedded with clayey fine to coarse sand. Some gravel.	
20		8/16/21						
640		26	35.3	88	CL		Pale olive to olive brown silty CLAY (wet to saturated, very stiff). Some manganese specks.	
25		4/6/9						
					CL		Yellowish brown sandy CLAY (moist, hard) to clayey fine sand (dense).	
635		37	19.2	105				
30		9/14/21						
							At 33'; groundwater	
630		34	28.2	94				
35		8/8/12			SM		Reddish brown silty fine SAND (moist, medium dense to dense).	
					CL		Pale brown silty CLAY (saturated, very stiff).	
625		28	30.9	90				

GORIAN & ASSOCIATES, INC.

Project: Amgen, Inc., Building 5

Work Order: 1583-5-0-100

SUBSURFACE LOG

Excavation Number: B-4

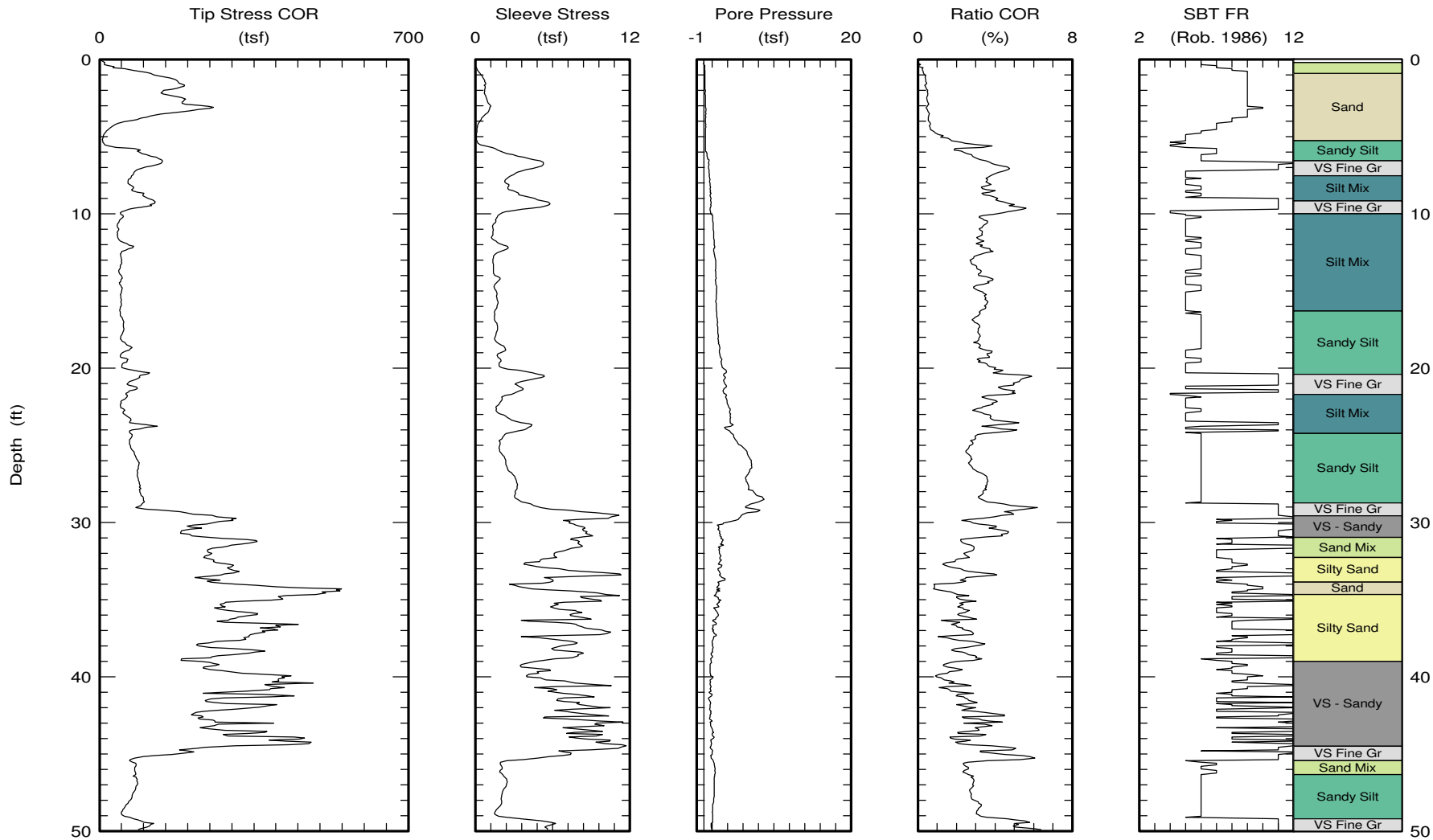
Elevation / Depth (ft.)	Bulk	Sample Type	Blow Counts	Moisture Content (% dry weight)	Dry Density (pcf)	USCS	Soil / Lithology	Description	Remarks
40									
						CL		Reddish brown sandy CLAY (very moist, hard to very stiff). Few gravel.	
620 45			30	21.8	105				
						SM		Reddish brown silty fine to coarse SAND, common fine to coarse gravel (saturated, very dense).	
615 50			50/ 6"	16.6	110				
610			58/ 11"	16.0	114			At 53'; common coarse gravel.	
55			50/ 6"					Total Depth 55' Groundwater at 33' No caving Boring backfilled with medium Bentonite chips to 31'. Soil cuttings used as backfill above 18'.	
605 60									
600 65									
595 70									
590 75									
585 80									

Kehoe Testing & Engineering
Office: (714) 901-7270
Fax: (714) 901-7289
rich@kehoetesting.com
www.kehoetesting.com

CPT Data
30 ton rig

Date: 30/Sep/2010
Test ID: CPT-5
Project: ThousandOaks

Customer: Gorian & Associates, Inc.
Job Site: Amgen



Maximum depth: 100.03 (ft)

Kehoe Testing & Engineering
Office: (714) 901-7270
Fax: (714) 901-7289
rich@kehoetesting.com
www.kehoetesting.com

CPT Data
30 ton rig

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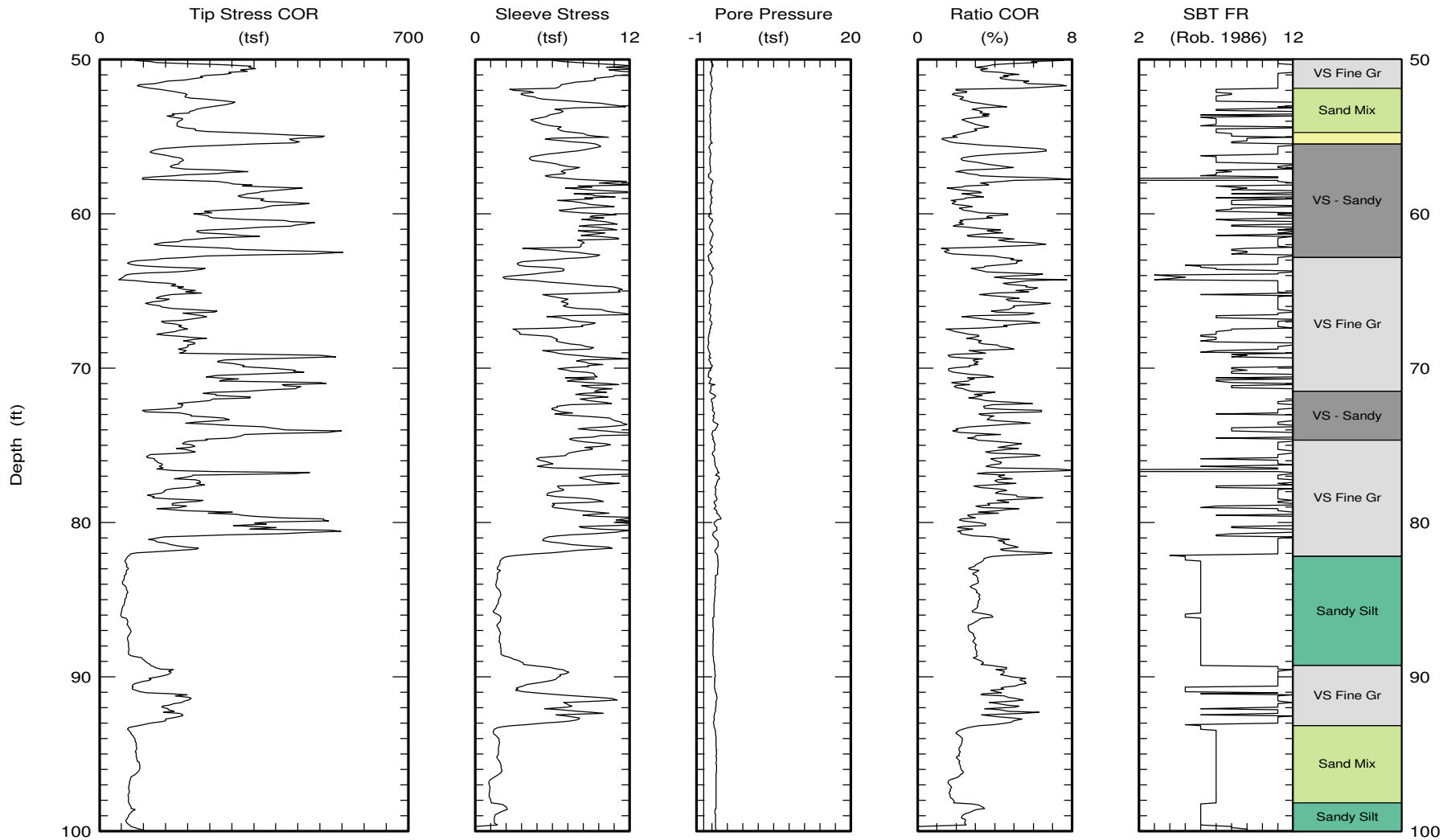

Maximum depth: 100.03 (ft)

1000 N. Ventu Park Rd
Thousand Oaks, CA

CPT Shear Wave Measurements

	Depth (ft)	Travel Distance (ft)	S-Wave Arrival (msec)	S-Wave Velocity from Surface (ft/sec)	Interval S-Wave Velocity (ft/sec)
CPT-1	10.09	11.26	10.52	1070	
	20.09	20.70	18.23	1136	1225
	30.13	30.54	27.58	1107	1052
	40.08	40.39	35.11	1150	1308
	50.00	50.25	42.38	1186	1356
	60.11	60.32	49.72	1213	1372
	70.20	70.38	57.18	1231	1349
	80.00	80.16	63.78	1257	1482
	87.72	87.86	68.78	1277	1541
CPT-2	10.13	11.30	14.25	793	
	20.09	20.70	22.20	933	1183
	30.08	30.49	31.81	959	1019
	40.75	41.06	37.95	1082	1720
	50.09	50.34	44.34	1135	1453
	60.45	60.66	51.45	1179	1451
	70.03	70.21	57.61	1219	1551
	78.07	78.23	62.01	1262	1823
CPT-3	10.26	11.41	8.85	1290	
	20.06	20.67	15.23	1357	1451
	30.14	30.55	23.14	1320	1249
	40.12	40.43	31.04	1303	1250
	50.13	50.38	39.77	1267	1140
	60.08	60.29	48.18	1251	1178
	70.11	70.29	54.39	1292	1610
	80.13	80.29	60.43	1329	1655
	90.33	90.47	65.72	1377	1925
	100.17	100.29	70.82	1416	1927
CPT-4	10.23	11.39	8.65	1316	
	20.01	20.63	17.87	1154	1002
	30.20	30.61	30.10	1017	817
	40.15	40.46	40.41	1001	955
	50.16	50.41	49.67	1015	1074
	60.13	60.34	57.60	1048	1252
	70.15	70.33	64.71	1087	1405
	79.92	80.08	71.95	1113	1346
	87.49	87.63	76.20	1150	1778

	Depth (ft)	Travel Distance (ft)	S-Wave Arrival (msec)	S-Wave Velocity from Surface (ft/sec)	Interval S-Wave Velocity (ft/sec)
CPT-5	10.08	11.25	8.46	1330	
	20.04	20.65	17.87	1156	999
	29.95	30.36	25.29	1201	1309
	40.13	40.44	31.04	1303	1752
	50.04	50.29	36.87	1364	1689
	60.06	60.27	42.68	1412	1717
	70.14	70.32	47.59	1478	2047
	80.02	80.18	52.37	1531	2062
	90.06	90.20	58.39	1545	1665
	100.05	100.17	64.40	1556	1660

Shear Wave Source Offset = 5 ft

S-Wave Velocity from Surface = Travel Distance/S-Wave Arrival
Interval S-Wave Velocity = (Travel Dist2-Travel Dist1)/(Time2-Time1)

APPENDIX B

LABORATORY TESTING

General

The following test results are from prior tests performed for evaluations of Amgen building B14 with additional consolidation test results from buildings B29 and B5. The tests were performed on selected undisturbed and bulk samples to evaluate index properties such as gradation, in situ moisture content and dry density; and geotechnical engineering properties such as compaction characteristics, shear strength, compressibility and expansiveness. Test procedures and results are described below.

Density and Moisture Tests

In-situ dry density and moisture content were determined from the relatively undisturbed drive samples obtained during exploratory operations. The test results and a detailed description of the earth materials encountered are shown on the attached Logs of Subsurface Data, Appendix A.

Gradation Tests

Hydrometer tests were performed to assist in soil classification, for correlation between borings, and to evaluate the percentages of sand, silt and clay in selected samples. The hydrometer test were performed in accordance with Test Method No. Calif. 203-C. The results are tabulated below:

Boring Number	Depth (Feet)	Percent Sand	Percent Silt	Percent Clay	Classification
1	9	44	30	26	(ML) Clayey sandy silt
1	17	60	14	26	(SC) Silty clayey sand
2	5	52	24	24	(SM) Clayey silty sand

Maximum Density/Optimum Moisture

Maximum density/optimum moisture tests (compaction characteristics) were performed on selected bulk samples. The tests were performed in accordance with ASTM D 1557, modified to three layers. The results are as follows:

Boring Number	Depth (feet)	Soil Classification	Maximum Dry Density (pcf)	Optimum Moisture Content (%)
1	11	(CH) Sandy silty clay	113.0	14.0
2	5	(SM) Clayey silty sand	117.0	14.5

Soil Expansiveness

Expansion index tests were performed to evaluate expansion potential of the soils at different levels. The tests were performed in accordance with City of Thousand Oaks building ordinance. The results are as follows:

Boring Number	Depth (feet)	Expansion Index	Expansiveness Category
1	2	40	21-50 (Low)
3	12	79	51-90 (Medium)

Direct Shear Tests
Direct shear tests were performed on two selected undisturbed samples to evaluate soil shear strength parameters. The sample sets were sheared under normal pressures of 920 to 3680 psf at a rate of 0.05 inches per minute. The results are attached as graphic summaries.

Consolidation Tests
Consolidation (confined compression) tests were performed on selected samples of the soils below anticipated foundation depths to evaluate compressibility characteristics. The samples were loaded in increments to a maximum of 8,000 to 16,000 psf and then rebounded. The samples were inundated at pressures ranging from 1000 to 4000 psf to evaluate the effect of moisture infiltration on compression behavior and to check on possible expansion or collapse of soils when saturated under load. The load-consolidation curves are attached as graphic summaries.

.

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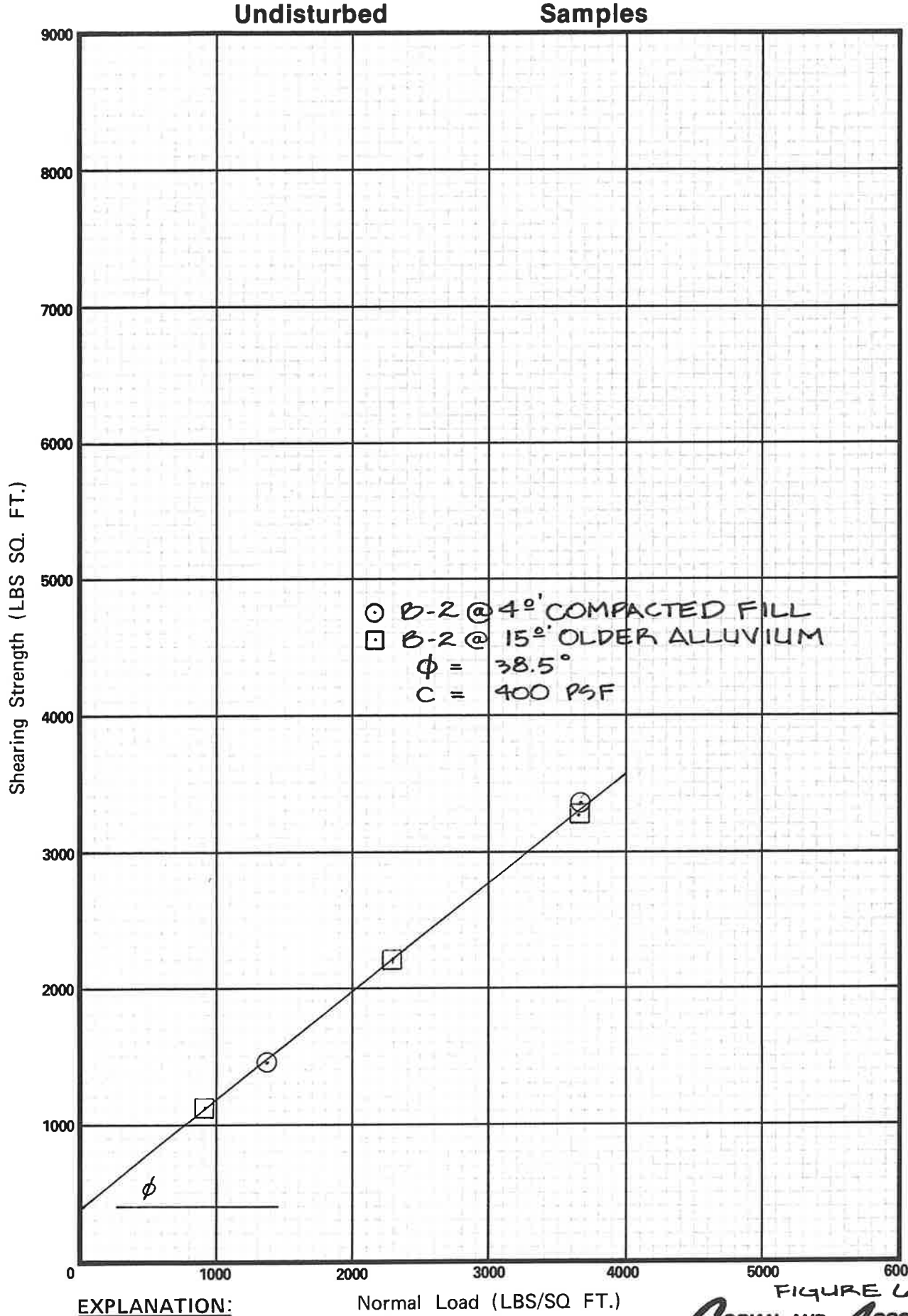
RESULTS OF SHEARING STRENGTH TESTS



EXPLANATION:

B-9 @12' = Sample taken from Boring 9 at 12 Feet in Depth

FIGURE 6

GORIAN AND ASSOCIATES, Inc.

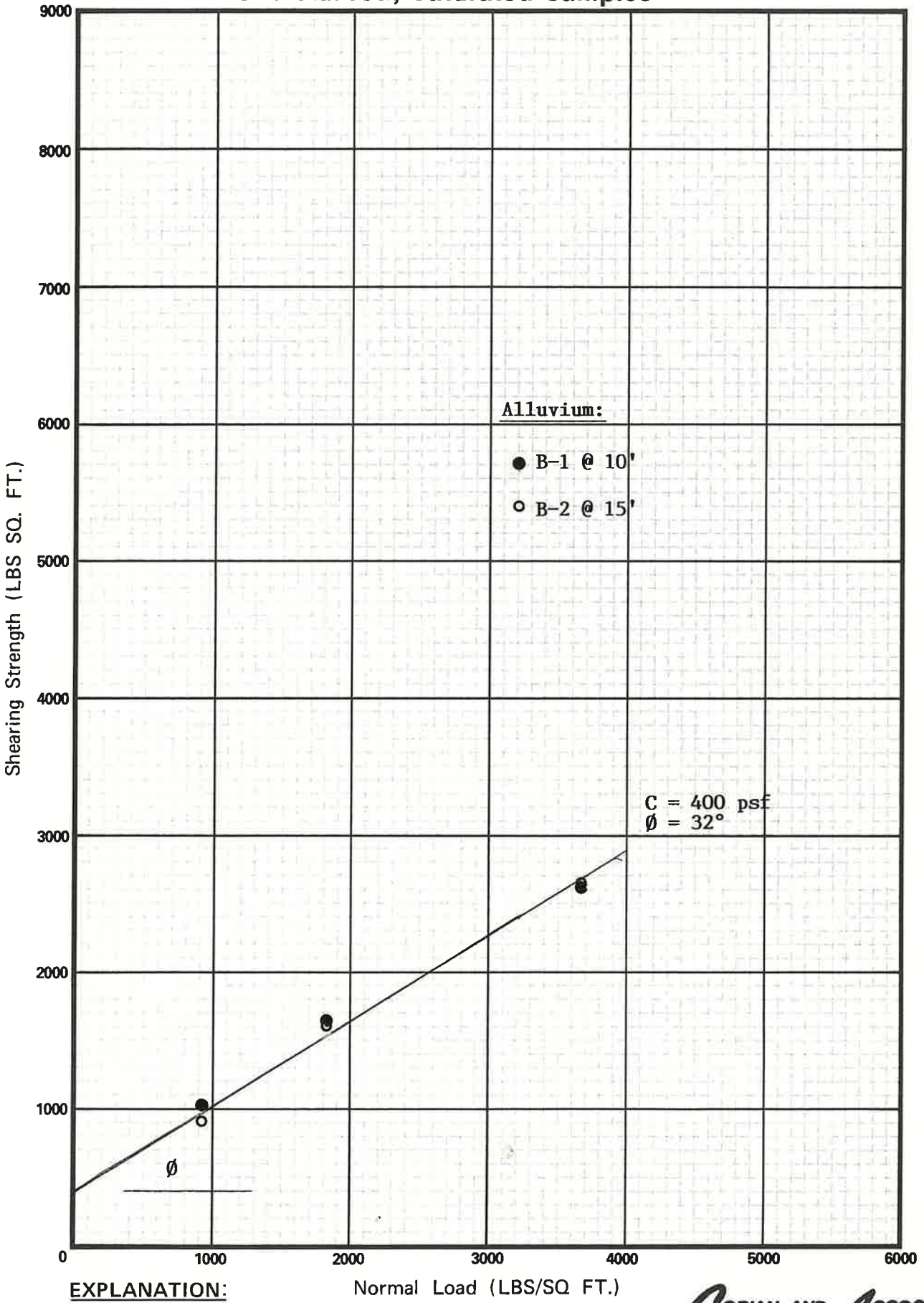
W.o. # 1583-7-10

Building B14

REORDER NO. A10474

RESULTS OF SHEARING STRENGTH TESTS

Undisturbed, Saturated Samples



EXPLANATION:

B-9 @12' = Sample taken from Boring 9 at 12 Feet in Depth

Figure 6

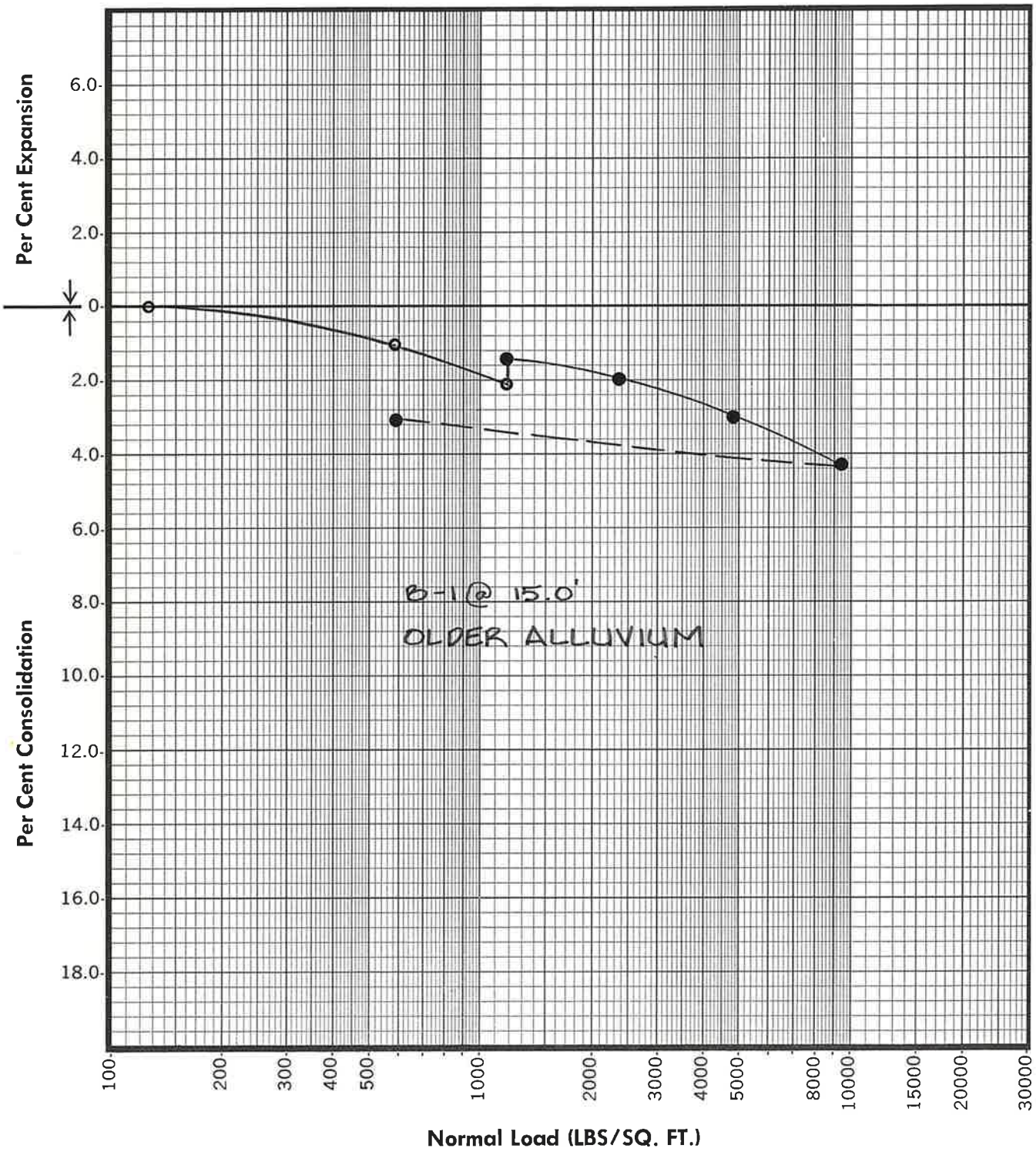
GORIAN AND ASSOCIATES, Inc.

W.o. # 1583-29-10

REORDER NO. A10474

LOAD CONSOLIDATION TESTS

W.O.1583-7-10



Building B14
sample elevation 645 feet

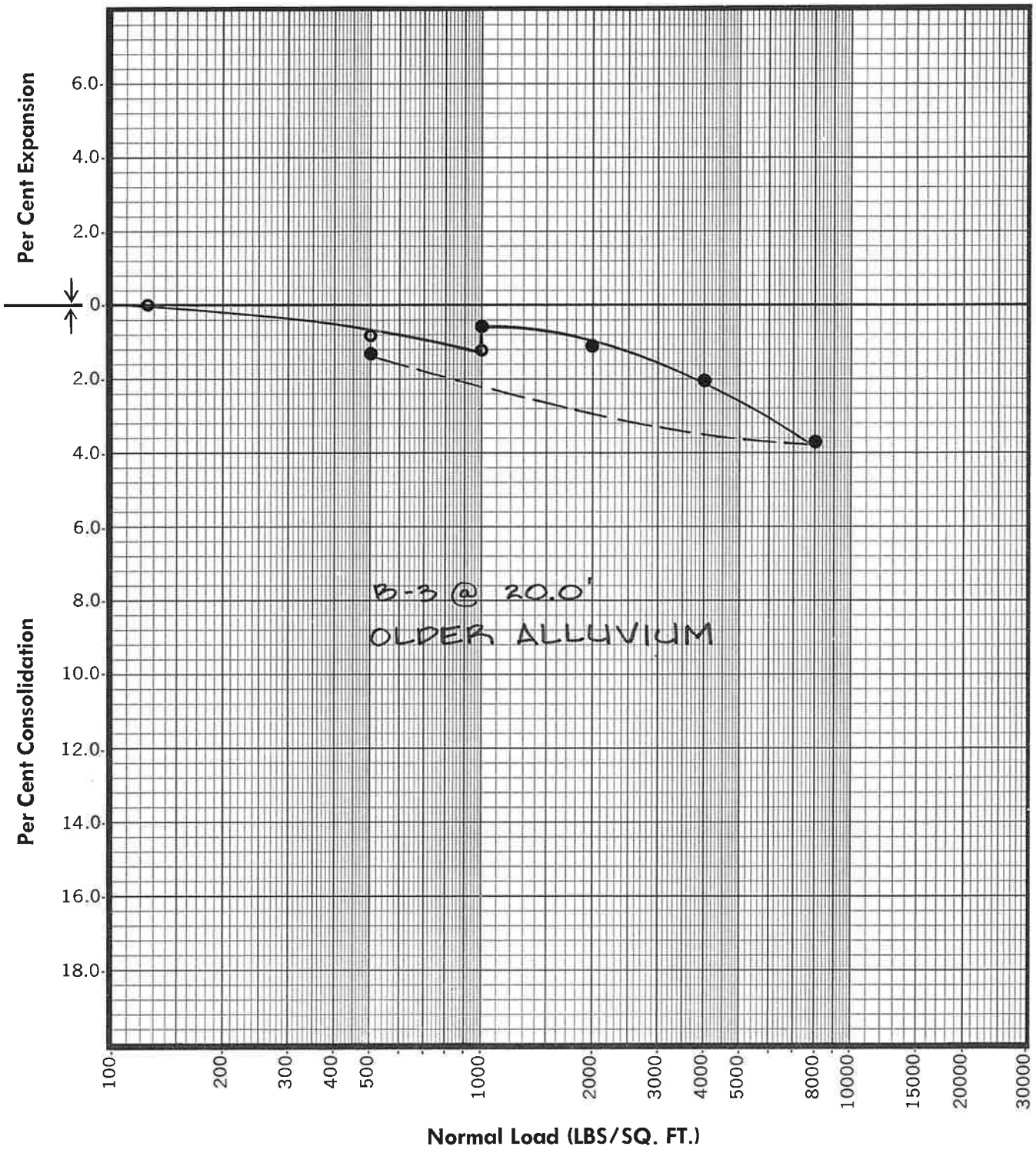
FIGURE 7

GORIAN AND ASSOCIATES

REORDER NO. A-7308

LOAD CONSOLIDATION TESTS

W.O. 1583-7-10



○ FIELD MOISTURE

● EFFECT of ADDING MOISTURE

— — — REBOUND

Building B14
sample elevation 638 feet

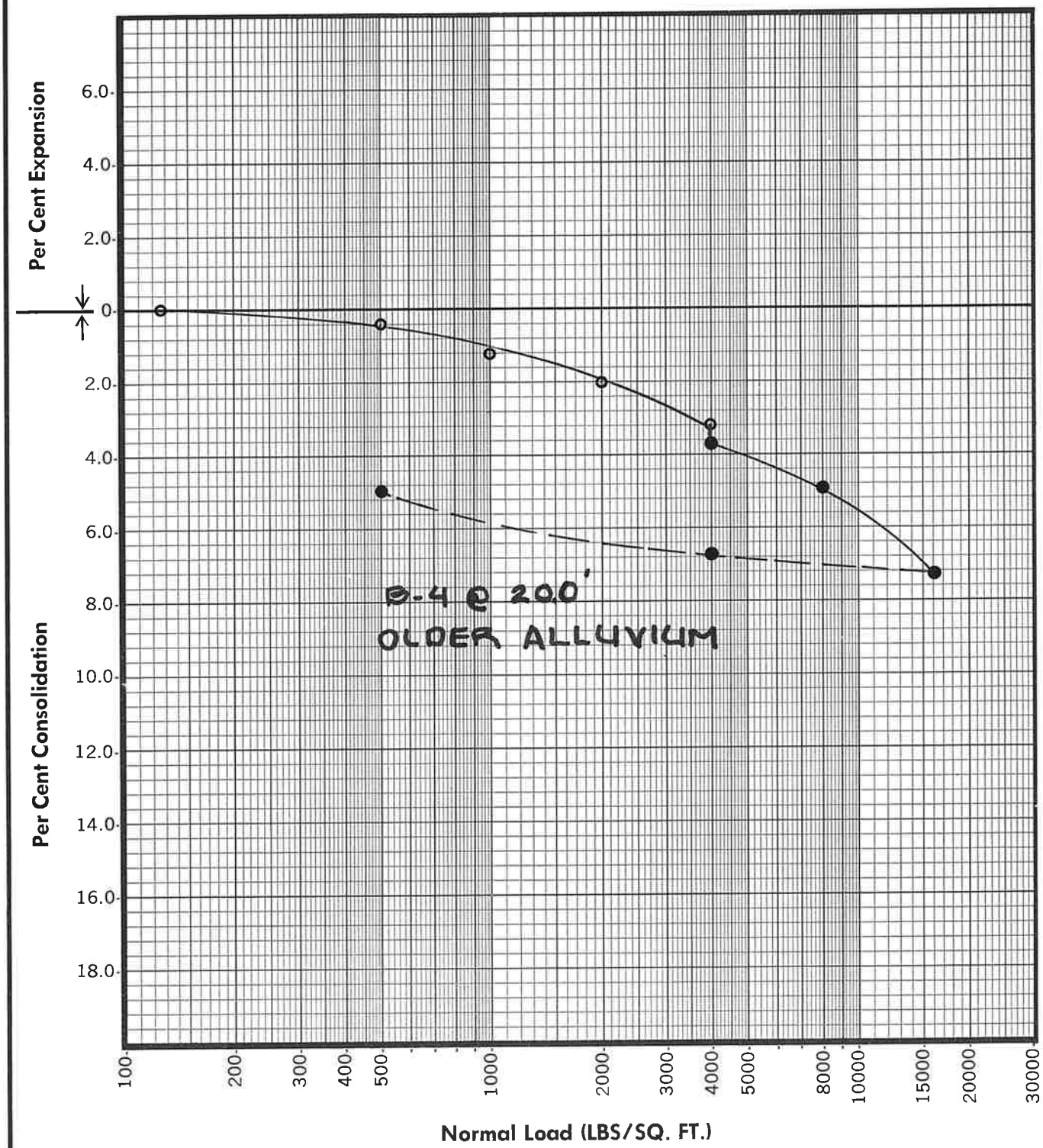
FIGURE 8

GORIAN AND ASSOCIATES

REORDER NO. A-7308

LOAD CONSOLIDATION TESTS

W.O. 1583-7-10



O FIELD MOISTURE

● EFFECT of ADDING MOISTURE

– – – REBOUND

Building B14
sample elevation 635 feet

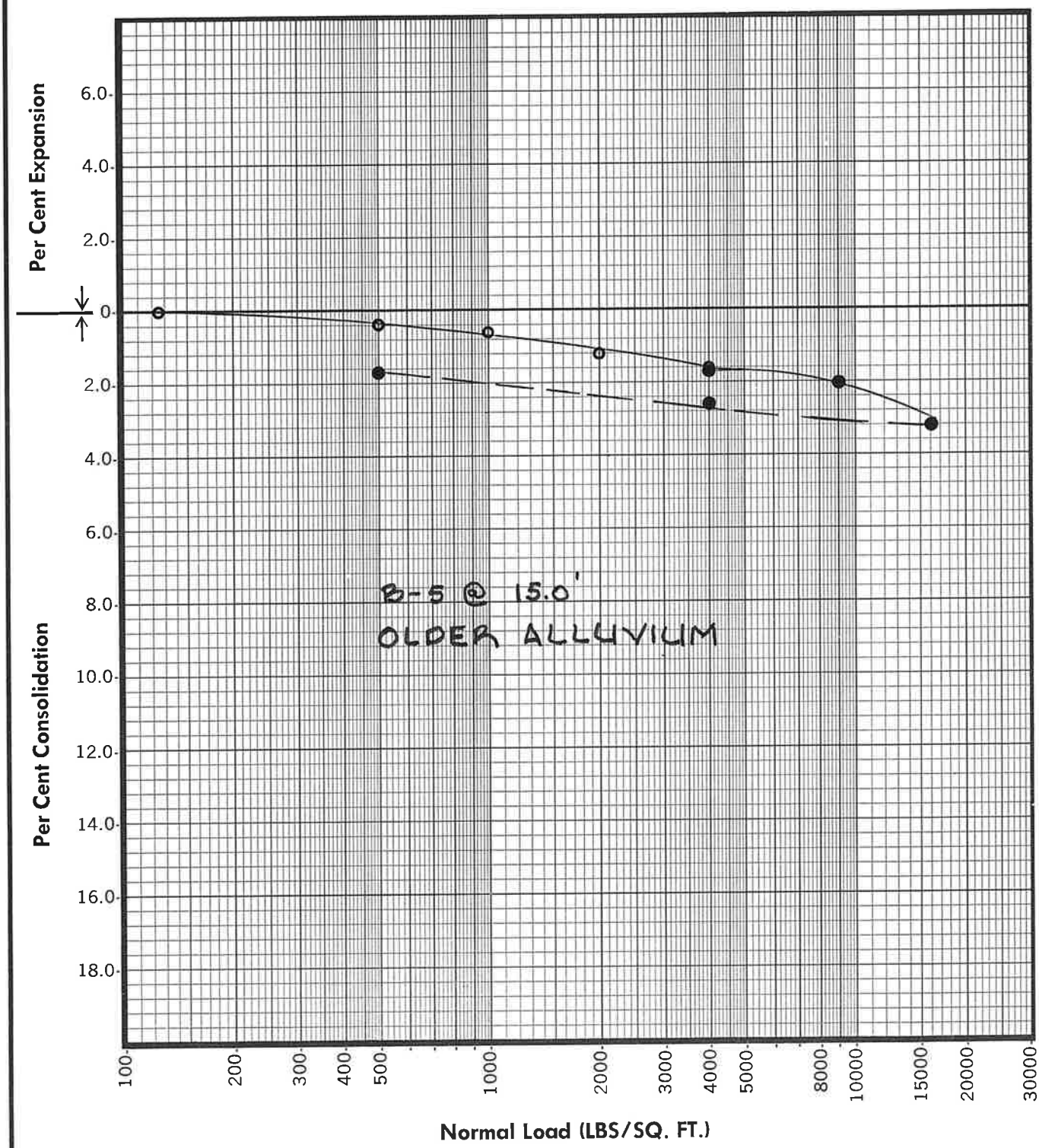
FIGURE 9

GORIAN AND ASSOCIATES

REORDER NO. A-7308

LOAD CONSOLIDATION TESTS

W.O. 1583-7-10



O FIELD MOISTURE

● EFFECT of ADDING MOISTURE

— — — REBOUND

Building B14
sample elevation 644 feet

FIGURE 10

GORIAN AND ASSOCIATES

REORDER NO. A-7308

LOAD CONSOLIDATION TESTS

W.O. 1583-29-10

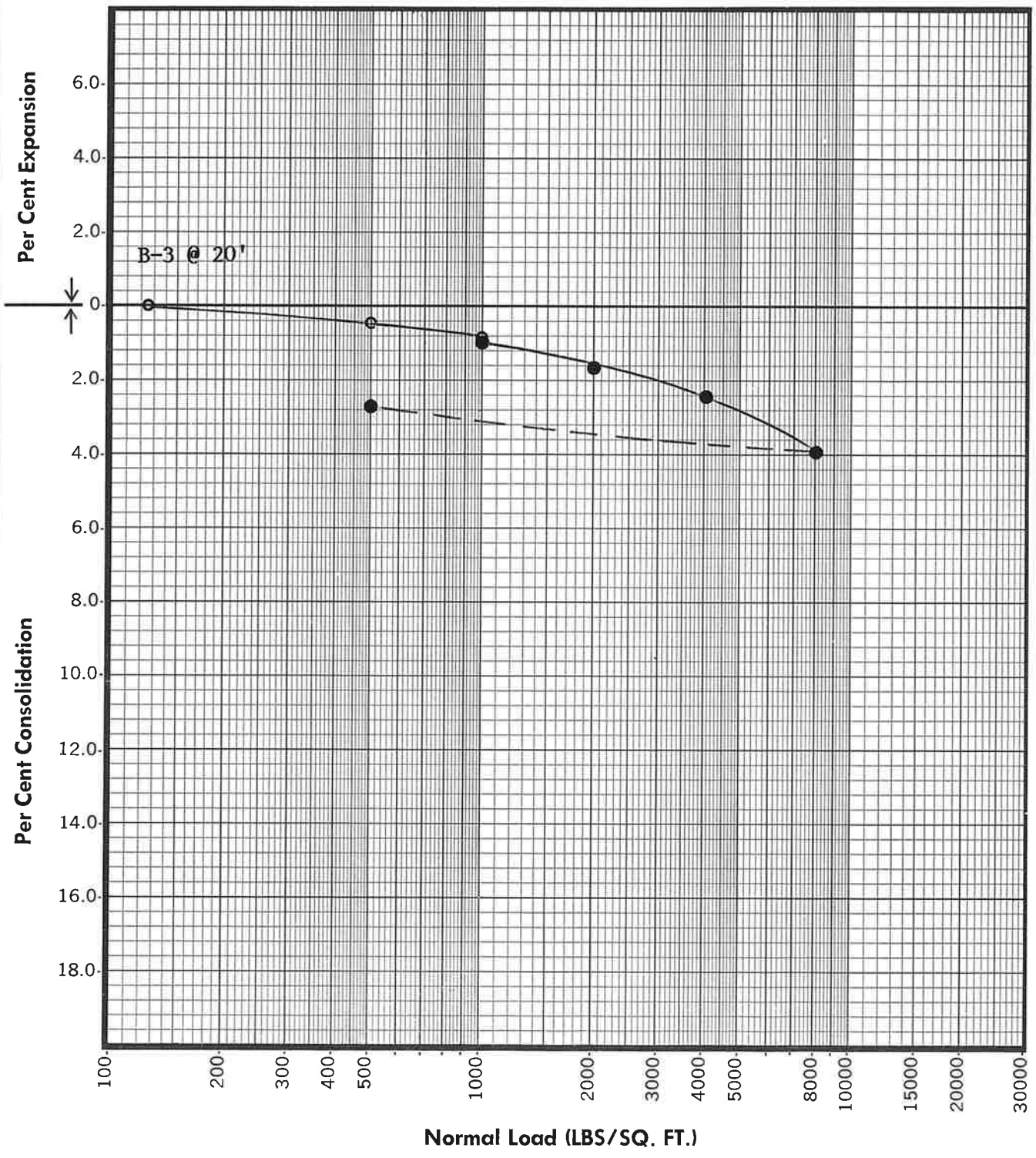


Figure 8

Building B29
sample elevation 637 feet

GORIAN AND ASSOCIATES

LOAD CONSOLIDATION TESTS

W.O. 1583-29-10

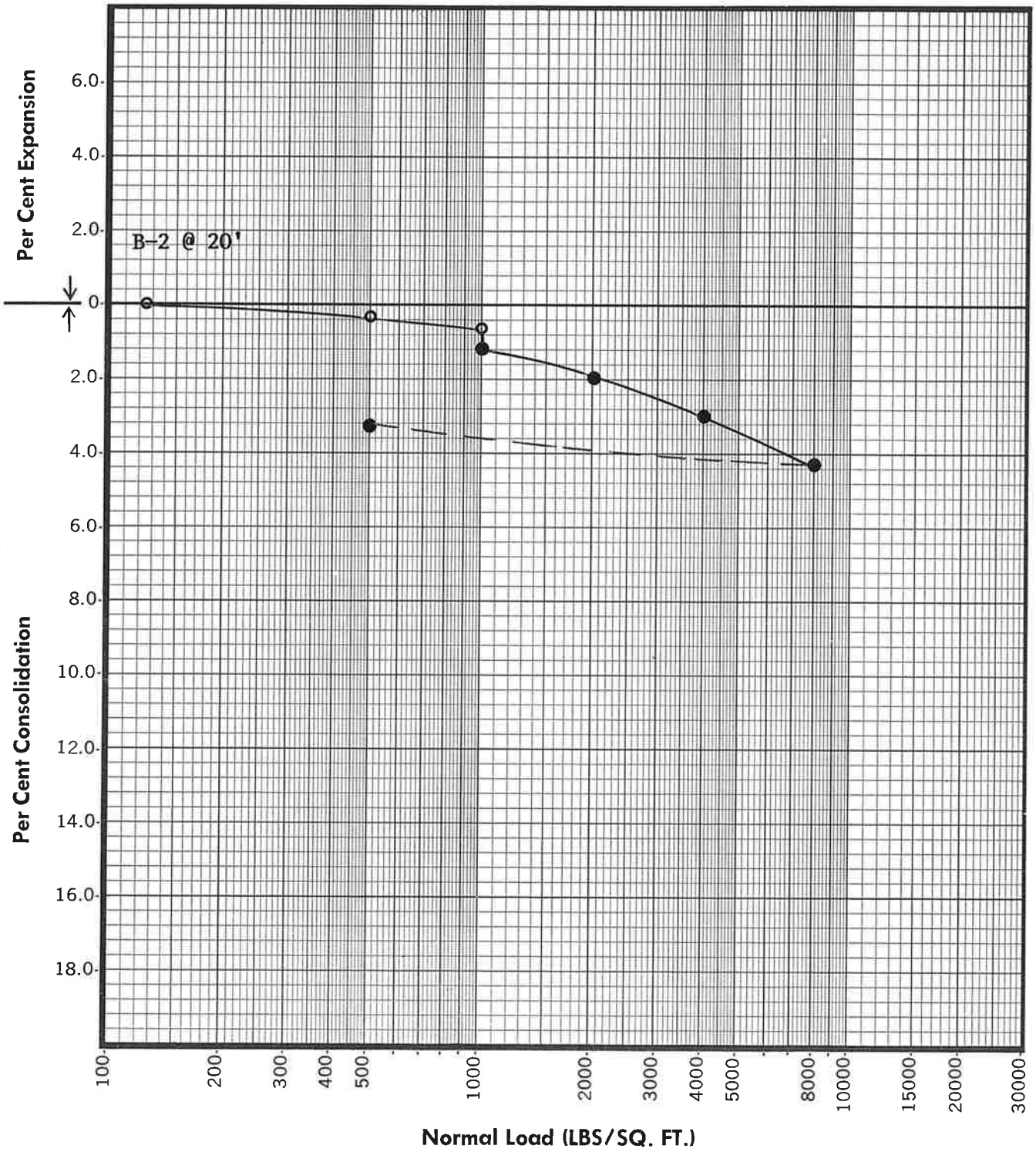


Figure 7

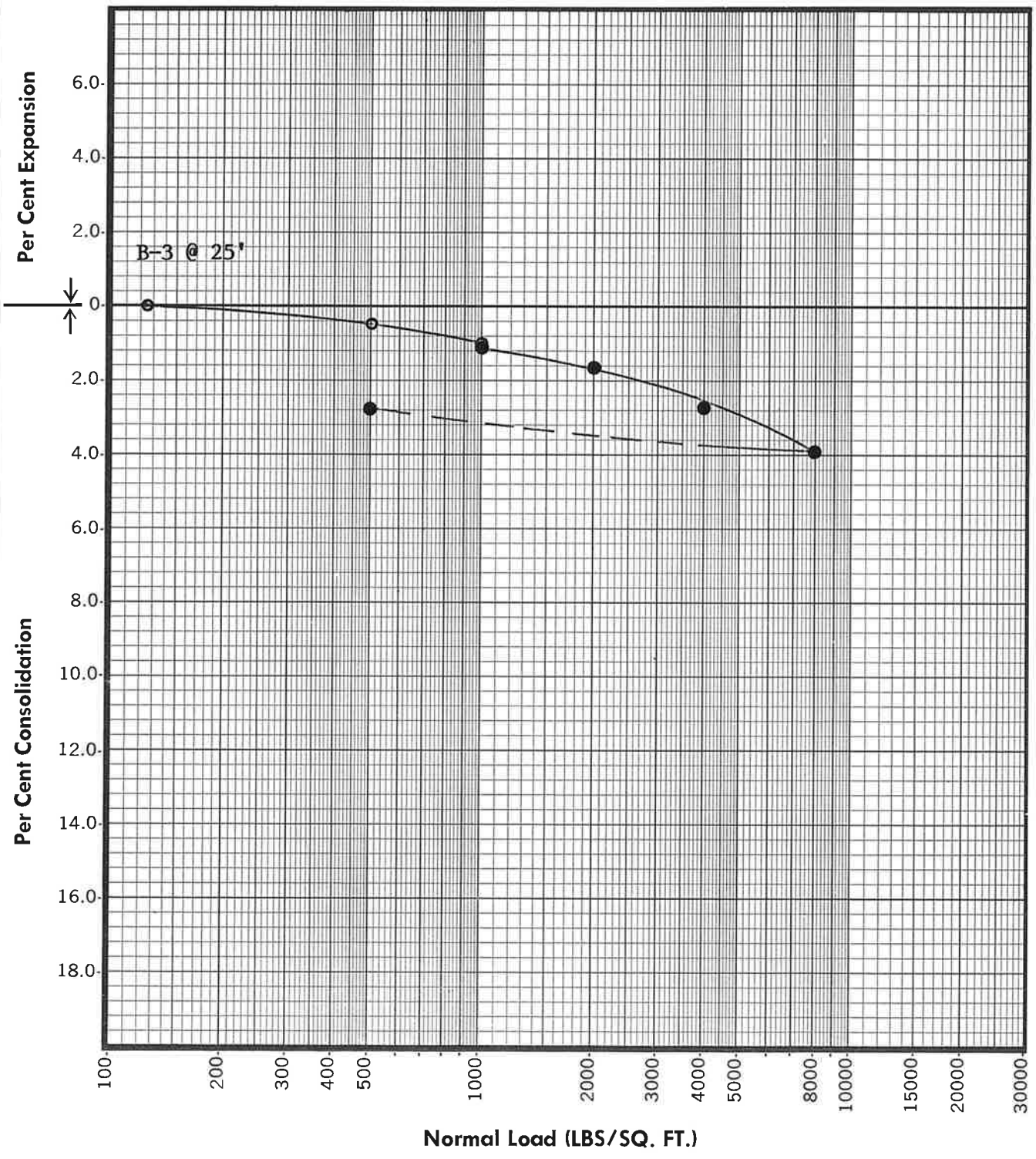
Building B29
sample elevation 636 feet

GORIAN AND ASSOCIATES

REORDER NO. A-7308

LOAD CONSOLIDATION TESTS

W.O. 1583-29-10

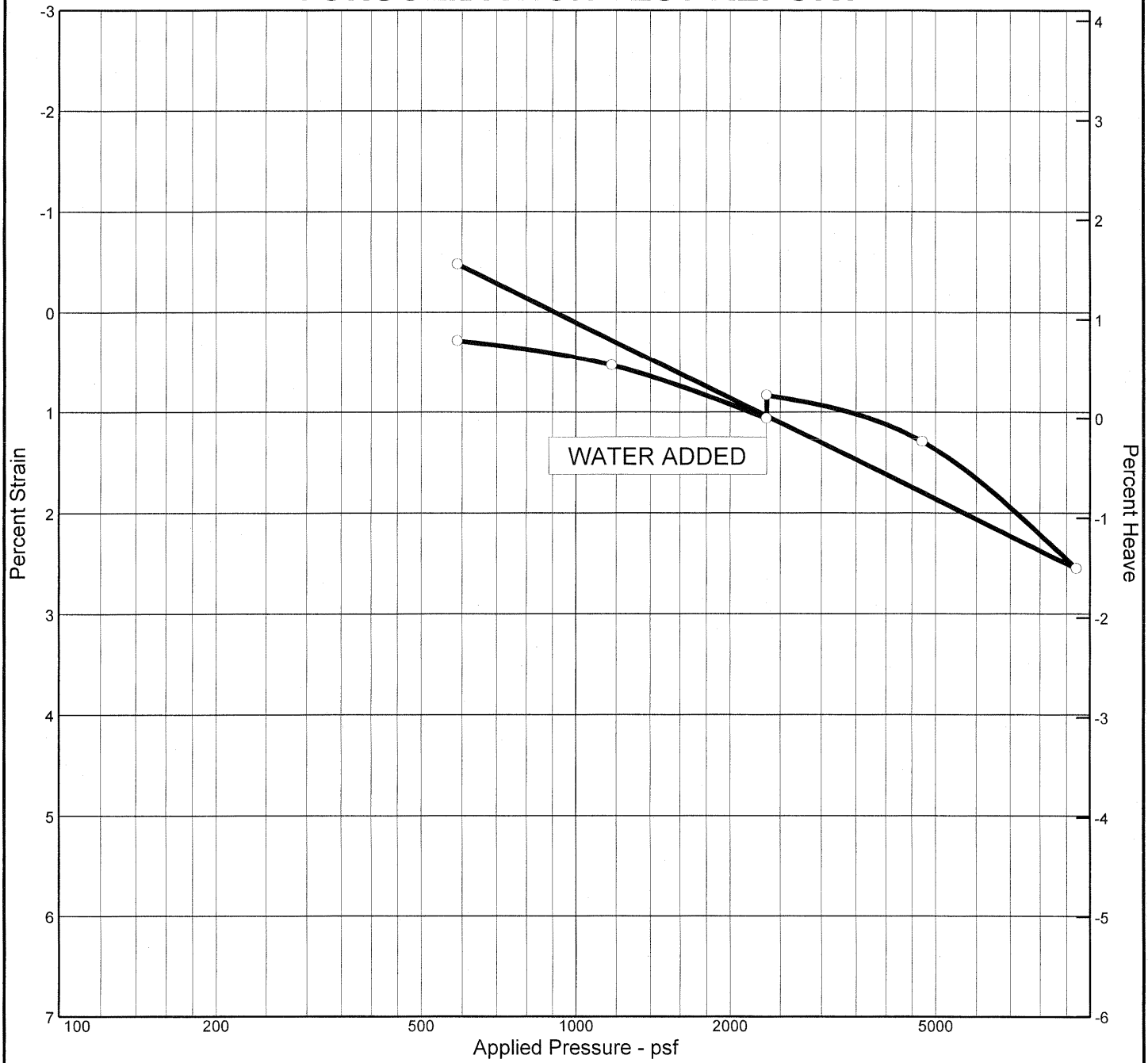


Building B29
Sample elevation 632 feet

Figure 9

GORIAN AND ASSOCIATES

CONSOLIDATION TEST REPORT



Natural		Dry Dens. (pcf)	LL	PI	Sp. Gr.	USCS	AASHTO	Initial Void Ratio
Saturation	Moisture							
96.3 %	26.1 %	96.2			2.65			0.719

MATERIAL DESCRIPTION

Older Alluvium: Brown Clayey Silty SAND

Project No. 1583-5-0- **Client:** Amgen, Inc.

Project: Amgen, Inc., Building 5

Building B5

Location: Boring 3 @ 29' sample elevation 638 feet

Remarks:

CONSOLIDATION TEST REPORT

GORIAN & ASSOCIATES, INC.

Figure

M. J. SCHIFF & ASSOCIATES, INC.

Consulting Corrosion Engineers - Since 1959

1291 North Indian Hill Boulevard
Claremont, California 91711-3897
Phone 909-626-0967
FAX 909-621-1419
E-mail SCHIFFCORR@AOL.COM

MAR 2 3 1996

March 22, 1996

GEOTECHNICAL ASSOCIATES, INC.
766 Lakefield Road
Westlake Village, California 91361

Attention: Mr. Eric A. Boone

Re: Soil Corrosivity
AMGEN, Inc., Building #29
Thousand Oaks, California
MJS&A #96073

Dear Eric:

We were asked by Michael Dygean of KPFF about corrosion control of tie-back anchors for permanent shoring for the subject project. He provided catalog cuts of the Dywidag Systems threadbar anchors and multistrand anchors and asked us to address our comments on corrosion control to you.

Our soil corrosivity study (MJS&A #93013) was dated February 16, 1993. The soils were classified as corrosive to ferrous metals. The soil pH values were slightly acidic to neutral and the chemical content was low.

Based on the corrosive data the single corrosion protection for threadbar and multistrand anchors would be sufficient protection. The polyethylene sheath prevents the free stressing portion from contacting the soil, and the cement grout for the bond length is sufficient protection for the steel since soil chloride concentration is low. It is very important that the grout extends onto the sheathing to insure that there is no steel exposed to the soil.

Please call if you have any questions.

Respectfully submitted,
M. J. SCHIFF & ASSOCIATES, INC.

Paul R Smith for

Robert A. Pannell
docs-96\96073.doc

M. J. SCHIFF & ASSOCIATES

Consulting Corrosion Engineers

1291 NORTH INDIAN HILL BOULEVARD
CLAREMONT, CALIFORNIA 91711-3860
714/626-0967
FAX 714/621-1419

February 16, 1993

GORIAN AND ASSOCIATES
766 Lakefield Road, Suite A
Westlake Village, California 91361

Attention: Mr. Eric A. Boone

Re: Soil Corrosivity Study
AMGEN Inc., Building #29
Thousand Oaks, California
Your #1583-29-10, MJS&A #93013

Gentlemen:

Laboratory tests have been completed on three soil samples you provided from your borings for the subject project northeast of the intersection of Hillcrest Drive and Rancho Canejo Boulevard. The purpose of these tests was to determine if the soils may have deleterious effects on underground utilities, hydraulic elevator cylinders, and concrete foundations.

The electrical resistivity of each sample was measured in its as-received condition and again after saturation with distilled water. Resistivities are at about their lowest value when the soil is saturated. The samples were chemically analyzed for the major anions and cations, and pH was measured. Test results are shown on Table 1.

A major factor in determining soil corrosivity is electrical resistivity. The electrical resistivity of a soil is a measure of its resistance to the flow of electrical current. Corrosion of buried metal is an electrochemical process in which the amount of metal loss due to corrosion is directly proportional to the flow of electrical current (DC) from the metal into the soil. Corrosion currents, following Ohm's Law, are inversely proportional to soil resistivity. Lower electrical resistivities result from higher moisture and chemical contents and indicate corrosive soil.

A correlation between electrical resistivity and corrosivity toward ferrous metals is:

Soil Resistivity in ohm-centimeters	Corrosivity Category
0 to 1,000	severely corrosive
1,000 to 2,000	corrosive
2,000 to 10,000	moderately corrosive
over 10,000	mildly corrosive

Electrical resistivities measured in the laboratory with as-received moisture content and after saturation were in the corrosive category. The samples had resistivities near their saturated values with as-received moisture content.

Soil pH values varied from 6.2 to 6.5. These values are slightly acidic. Copper is susceptible to acid attack.

The chemical content of the samples was low.

Tests were not made for sulfides or negative oxidation-reduction (redox) potentials because they would not exist in these aerated samples.

This soil is classified as corrosive to ferrous metals.

In addition to soil corrosivity, the life of buried materials depends on thickness, strength, loads, construction details, soil moisture, etc. and is, therefore, difficult to predict. Of more practical value are corrosion control methods that will increase the life of materials that would be subject to significant corrosion. The following corrosion control measures are recommended:

Abrasive blast underground steel utilities and apply a high quality protective coating such as extruded polyethylene, a tape coating system, hot applied coal tar enamel, or fusion bonded epoxy.

Apply cathodic protection to steel piping.

Electrically insulate buried steel piping from dissimilar metals, cement-mortar or concrete coated steel, and above ground steel pipe to prevent dissimilar metal corrosion cells and to facilitate the application of cathodic protection.

Underground steel pipe with rubber gasketed, mechanical, grooved end, or other non-conductive type joints must be bonded for electrical continuity. Electrical continuity is necessary for corrosion monitoring and cathodic protection.

Encase pressurized cast and ductile iron pipe, valves, and fittings in an 8 mil polyethylene tube or wrap per AWWA Standard C105/ANSI 21.5. Iron piping not under pressure, such as sewers and drains, may be directly buried or encased in polyethylene. Electrically insulate underground iron pipe from dissimilar metals and above ground pipe.

Bare copper tubing should be bedded and backfilled in alkalized sand (60 pounds hydrated lime mixed into each cubic yard of sand) at least 2 inches thick surrounding the tubing.

No special precautions are required for reinforced concrete, asbestos-cement, or plastic piping placed underground from a corrosion viewpoint. Protect any iron valves and fittings as mentioned above.

Where metallic pipelines penetrate concrete structures such as building floors or walls, use plastic sleeves, rubber seals, or other dielectric material to prevent pipe contact with the concrete and reinforcing steel.

On any type of pipe, coat bare steel appurtenances such as bolts, joint harnesses, or flexible couplings with a coal tar or rubber based mastic, coal tar epoxy, or wax tape after assembly.

Standard construction practices and concrete mixes may be used for concrete in contact with these soils using type 1 or 2 cement.

The scope of this study is limited to a determination of soil corrosivity and its general effects on materials likely to be used for construction. If the architects and/or engineers desire more specific information, designs, specifications, or review of design, we will be happy to work with them as a separate phase of this project.

Respectfully submitted,
M. J. SCHIFF & ASSOCIATES

Robert A. Pannell
cb

Enc: Table 1

L73/93013

TABLE 1
LABORATORY TESTS ON SOIL SAMPLES

Location and Depth	Soil Type	Soil Resistivity ohm-centimeters As Rec'd	Sat'd	pH	Chemical Analysis in mg/kg (ppm) of dry soil: Calcium Ca	Magnesium Mg	Sodium Na	Bicarbonate HCO3	Chloride Cl	Sulfate SO4
B1 9'	sandy, silty clay	1,800	1,500	6.2	20	trace	126	61	35	192
B3 19'	sandy, silty clay	1,800	1,500	6.4	20	trace	34	61	35	72
B3 29'	sandy, silty clay	1,600	1,300	6.5	20	trace	34	61	35	48

Carbonate = 0 for all samples

AMGEN Inc., Building #29
Thousand Oaks, California
Your #1583-29-10, MJS&A #93013
F18

M. J. SCHIFF & ASSOCIATES

Consulting Corrosion Engineers

1291 NORTH INDIAN HILL BOULEVARD
CLAREMONT, CALIFORNIA 91711-3860
714/626-0967
FAX 714/621-1419

APPENDIX A

July 13, 1990

GORIAN & ASSOCIATES
766 Lakefield Road, Suite A
Westlake Village, California 91361

Attention: Mr. Eric A. Boone

Re: Soil Corrosivity Study
Amgen Inc., Building #14
Thousand Oaks, California
Your #1583-7-10, MJS&A #90200

Gentlemen:

Laboratory tests have been completed on three soil samples you provided for the subject office building project west of the intersection of Pauling Drive and Oak Terrace Lane. The purpose of these tests was to determine if the soils may have deleterious effects on underground utilities, hydraulic elevator cylinders, and concrete foundations.

The electrical resistivity of each sample was measured in its as-received condition and again with distilled water added to create the standardized condition of saturation. Resistivities are at about their lowest value when the soil is saturated. The samples were chemically analyzed for the major anions and cations, and pH was measured. Sulfides and oxidation-reduction (redox) potential were determined on one sample. Results are shown on Table 1.

One of the most useful factors in determining soil corrosivity is electrical resistivity. The electrical resistivity of a soil is a measure of its resistance to the flow of electrical current. Corrosion of buried metal is an electrochemical process in which the amount of metal loss due to corrosion is directly proportional to the flow of electrical current (DC) from the metal into the soil. A soil's resistivity decreases and, therefore, its corrosivity increases as its moisture and chemical contents increase.

A commonly accepted correlation between electrical resistivity and corrosivity toward ferrous metals is:

Soil Resistivity in ohm-centimeters	Corrosivity Category
0 to 1,000	severely corrosive
1,000 to 2,000	corrosive
2,000 to 10,000	moderately corrosive
over 10,000	mildly corrosive

Electrical resistivities measured in the laboratory with as-received moisture content were in moderately corrosive and corrosive categories. When saturated, they were all in the corrosive category. The samples had resistivities near their saturated values with as-received moisture content.

pH values varied from 7.1 to 8.0 which are neutral to moderately alkaline. This is not significant in evaluating corrosivity in this case.

The chemical content of the samples was moderate. The concentrations were not high enough to be of special concern.

Sulfides, which are aggressive to copper and ferrous metals, showed no reaction in a qualitative test. The positive redox potential indicates oxidizing conditions in which anaerobic, sulfide producing bacteria are inactive.

This soil is classified as corrosive to ferrous metals.

The life of buried materials depends on thickness, strength, loads, construction details, and soil moisture as well as soil corrosivity and is, therefore, difficult to predict. Of more practical value are corrosion control methods that will increase the life of the material at a reasonable cost. The following corrosion control measures are recommended to prolong the life of materials buried in these soils.

Underground steel utilities should be blasted and given a high quality protective coating such as extruded polyethylene, a tape coating system, hot applied coal tar enamel, or fusion bonded epoxy, and cathodic protection should be applied.

Buried steel piping must be electrically insulated from dissimilar metals, cement-mortar or concrete coated steel, and above ground steel pipe to prevent dissimilar metal corrosion cells and to facilitate the application of cathodic protection.

Underground steel pipe with rubber gasketed, mechanical, grooved end, or other nonconductive type joints must be bonded for electrical continuity for corrosion monitoring and cathodic protection.

Hydraulic elevator cylinders should be well coated as described above. Each cylinder should be isolated from building metals by installing dielectric material between the piston platen and car and also in the oil line. The oil line should be placed above ground if possible but, if underground, should be protected as described above for steel utilities. Cathodic protection is recommended for hydraulic cylinders or, as an alternate, each cylinder may be placed in a plastic casing with a plastic watertight seal at the bottom.

Cast or ductile iron pipe, valves, and fittings do not require special protective measures such as a plastic wrap. However, to avoid possibly creating corrosion problems, iron should not be placed partially in contact with concrete such as thrust blocks. Coatings mentioned above for steel or polyethylene plastic sheets 8 mils thick may be used to prevent such contact. Underground iron pipe should also be electrically insulated from dissimilar metals and above ground iron pipe.

No special precautions are required for copper, asbestos-cement, or plastic utilities placed underground from a corrosion viewpoint. However, any iron valves or fittings should be protected as mentioned above.

Where metallic pipelines penetrate concrete structures such as building floors or walls, plastic sleeves, rubber seals, or other dielectric material should be used to prevent pipe contact with the concrete and reinforcing steel.

On any type of pipe, bare steel appurtenances such as bolts, joint harnesses, or flexible couplings should be coated with a coal tar or rubber based mastic after assembly.

Standard construction practices and concrete mixes may be used for concrete in contact with these soils using type 2 cement.

The scope of this study is limited to a determination of soil corrosivity and its general effects on materials likely to be used for construction. If the architect and/or engineers desire more specific information, designs, specifications, or review of design, we will be happy to work with them as a separate phase of this project.

Respectfully submitted,
M. J. SCHIFF & ASSOCIATES

Robert A. Pannell

Robert A. Pannell

sm
Enc: Table 1
L48

Table 1 - LABORATORY TESTS ON SOIL SAMPLES

Boring and Depth	Soil Type	Soil Resistivity ohm-centimeters As Rec'd	Sat'd	pH	Chemical Analysis in mg/kg (ppm) of dry soil: Calcium Ca	Magnesium Mg	Sodium Na	Bicarbonate HCO3	Chloride Cl	Sulfate SO4	Sulfide S	Redox mV
B1 2'	clayey silty sand	1,600	1,400	7.3	40	trace	172	366	142	20		
B1 9	clayey silty sand	2,200	1,400	8.0	80	trace	161	366	212	25		
B3 15'	sandy silty clay	3,300	1,500	7.1	40	24	115	122	354	15	none	+210

Carbonate = 0 for all samples

Amgen Inc., Building #14
Thousand Oaks, California
Your #1583-7-10, MJS&A #90200
F13

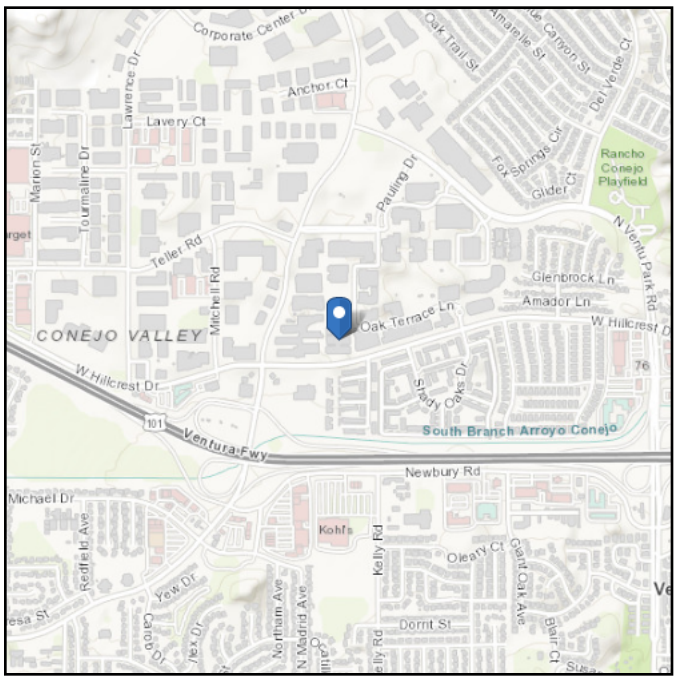
APPENDIX C

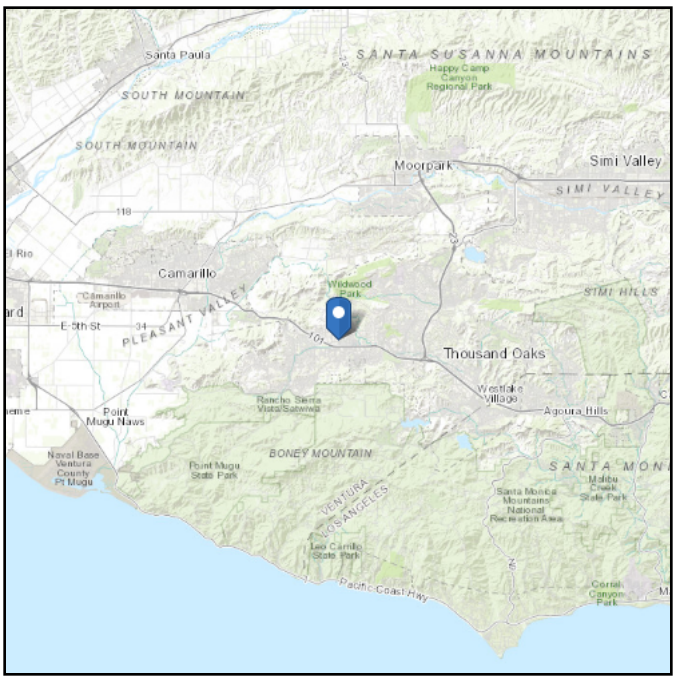
SEISMIC HAZARD REPORT

ASCE Hazards Report

Address:
701 Pauling Dr
Newbury Park, California
91320

Standard:	ASCE/SEI 7-16	**Latitude:**	34.187783
Risk Category:	II	**Longitude:**	-118.922422
Soil Class:	C - Very Dense Soil and Soft Rock	**Elevation:**	658.3663570388514 ft (NAVD 88)





Seismic

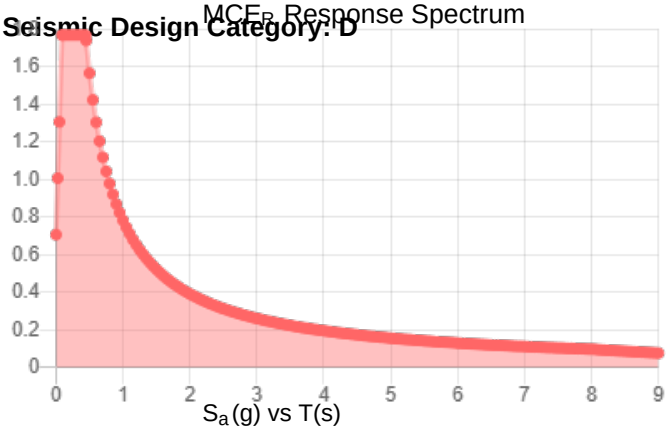
Site Soil Class: C - Very Dense Soil and Soft Rock

Results:

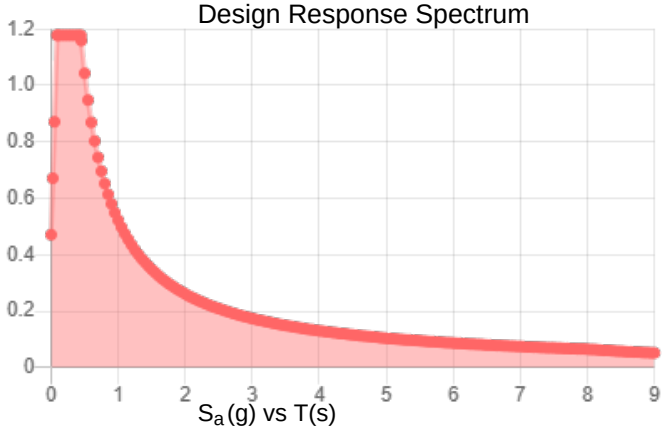
S_S :	1.473	S_{D1} :	0.522
S_1 :	0.534	T_L :	8
F_a :	1.2	PGA :	0.561
F_v :	1.466	PGA_M :	0.673
S_{MS} :	1.768	F_{PGA} :	1.2
S_{M1} :	0.782	I_e :	1
S_{DS} :	1.178	C_v :	1.195

Seismic Design Category: D

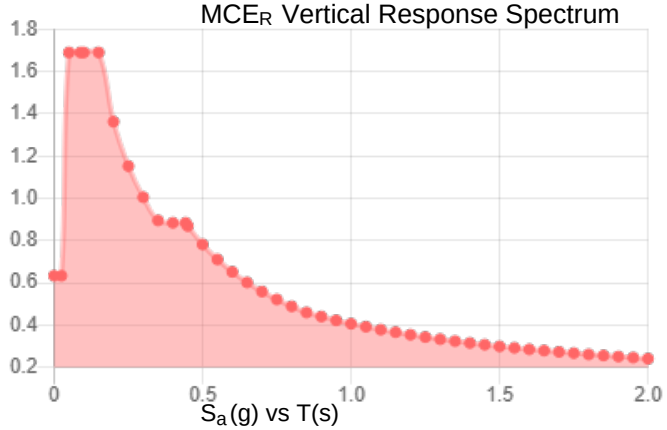
MCE_R Response Spectrum



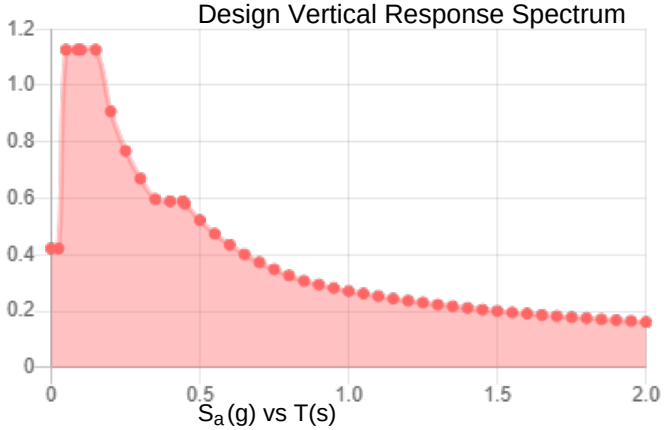
Design Response Spectrum



MCE_R Vertical Response Spectrum



Design Vertical Response Spectrum



Data Accessed: **Fri Dec 05 2025**

Date Source:

USGS Seismic Design Maps based on ASCE/SEI 7-16 and ASCE/SEI 7-16 Table 1.5-2. Additional data for site-specific ground motion procedures in accordance with ASCE/SEI 7-16 Ch. 21 are available from USGS.

The ASCE Hazard Tool is provided for your convenience, for informational purposes only, and is provided “as is” and without warranties of any kind. The location data included herein has been obtained from information developed, produced, and maintained by third party providers; or has been extrapolated from maps incorporated in the ASCE standard. While ASCE has made every effort to use data obtained from reliable sources or methodologies, ASCE does not make any representations or warranties as to the accuracy, completeness, reliability, currency, or quality of any data provided herein. Any third-party links provided by this Tool should not be construed as an endorsement, affiliation, relationship, or sponsorship of such third-party content by or from ASCE.

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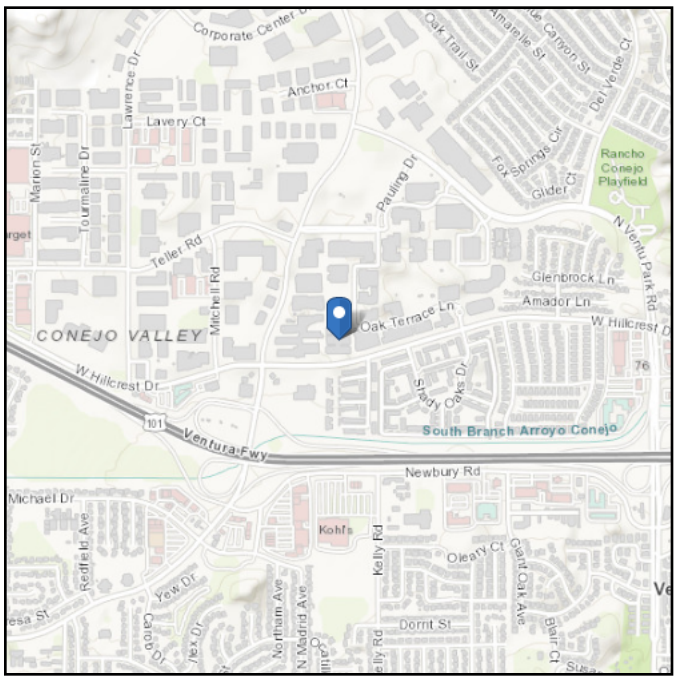
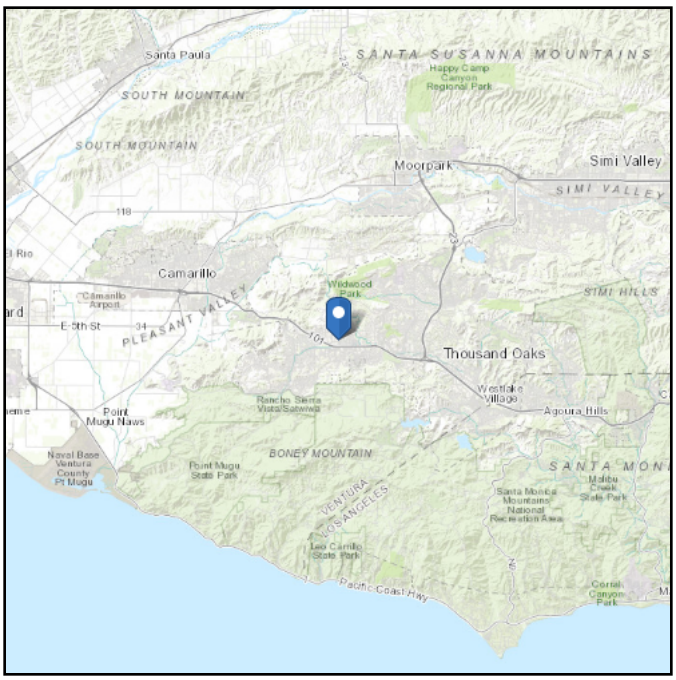
ASCE Hazards Report

Address:
701 Pauling Dr
Newbury Park, California
91320

Standard:	ASCE/SEI 7-22	**Latitude:**	34.187783
Risk Category:	II	**Longitude:**	-118.922422
Soil Class:	C - Very Dense Soil and Soft Rock	**Elevation:**	658.3663570388514 ft (NAVD 88)





Seismic

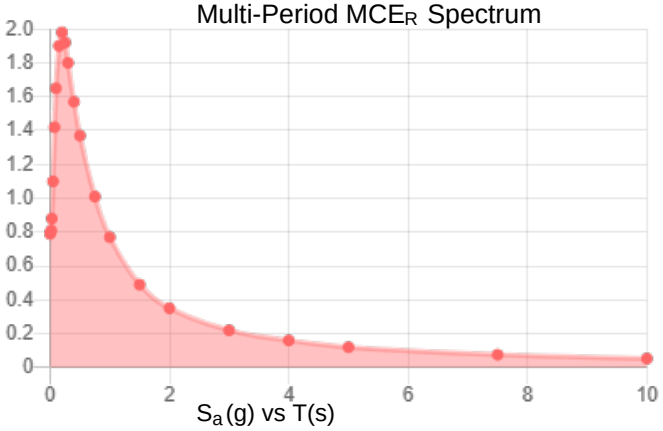
Site Soil Class: C - Very Dense Soil and Soft Rock

Results:

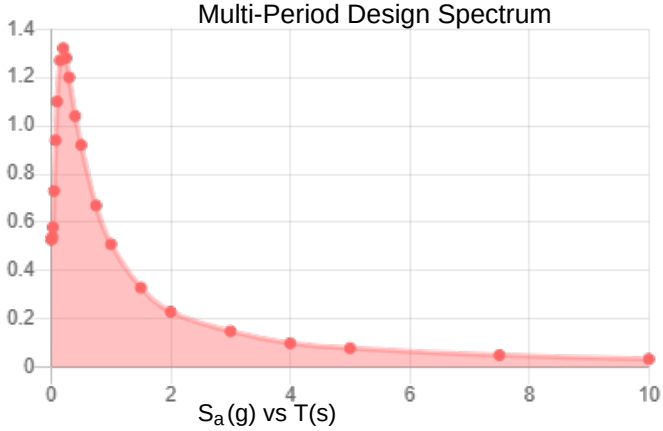
PGA_M :	0.71	T_L :	8
S_{MS} :	1.78	S_S :	1.68
S_{M1} :	0.77	S_1 :	0.54
S_{DS} :	1.19	V_{S30} :	530
S_{D1} :	0.51		

Seismic Design Category: D

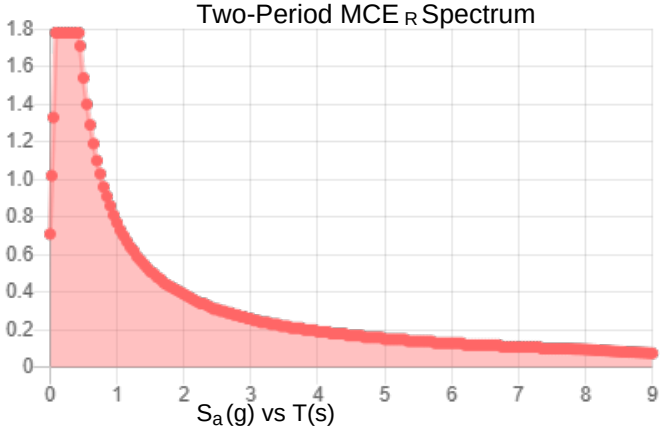
Multi-Period MCE_R Spectrum



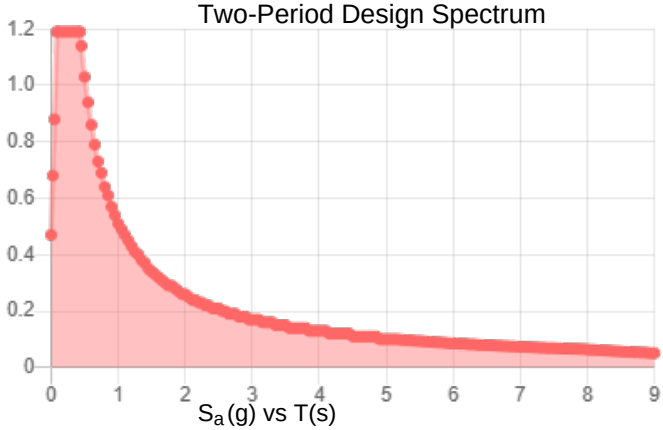
Multi-Period Design Spectrum



Two-Period MCE_R Spectrum



Two-Period Design Spectrum



MCE_R Vertical Response Spectrum

Vertical ground motion data has not yet been made available by USGS.

Design Vertical Response Spectrum

Vertical ground motion data has not yet been made available by USGS.

Data Accessed: **Fri Dec 05 2025**

Date Source:
USGS Seismic Design Maps based on ASCE/SEI 7-22 and ASCE/SEI 7-22 Table 1.5-2. Additional data for site-specific ground motion procedures in accordance with ASCE/SEI 7-22 Ch. 21 are available from USGS.

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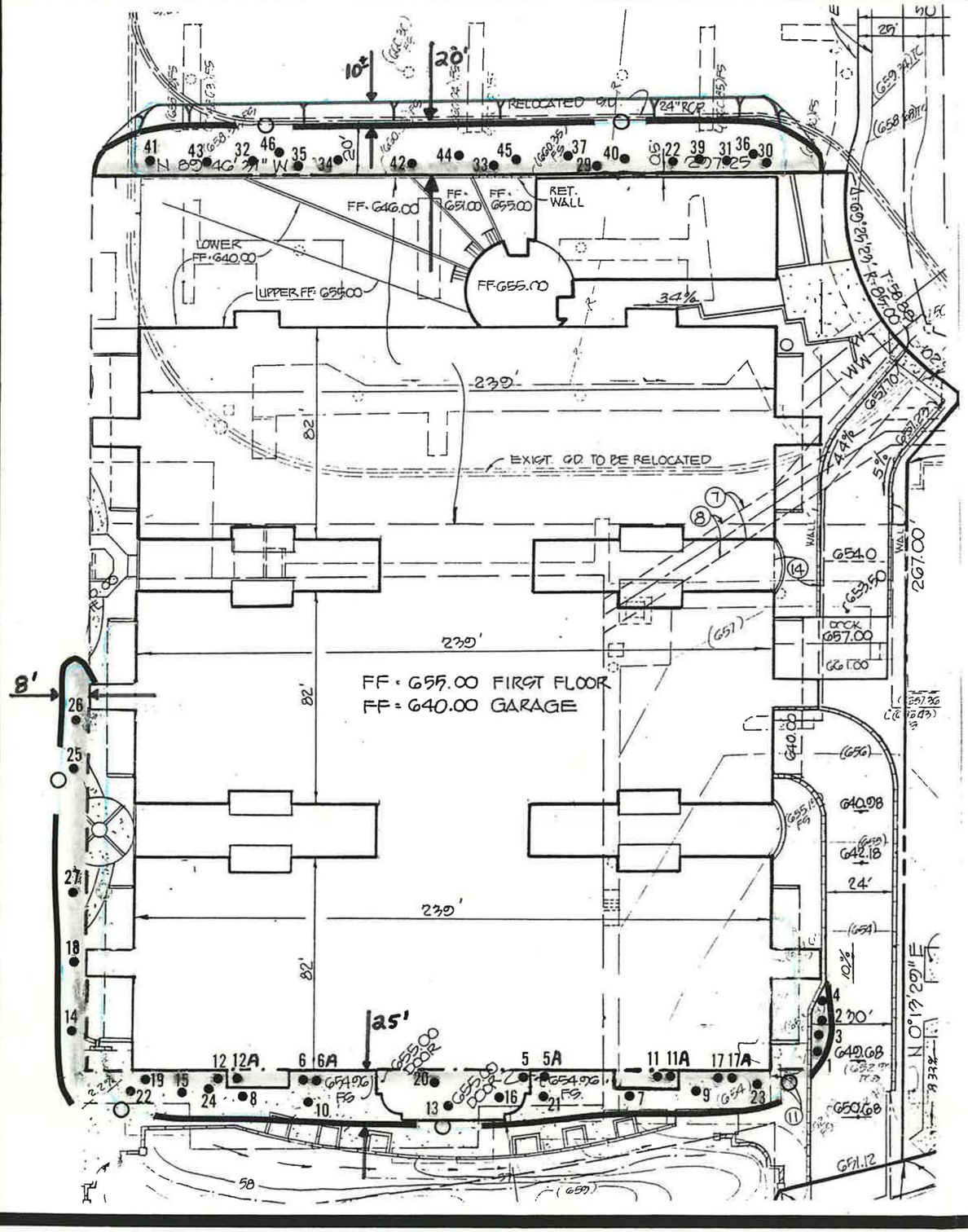

LOCATION MAP
FOR
AMGEN BUILDING #14
701 Pauling Drive
City of Thousand Oaks, California

EXPLANATION

•46 APPROXIMATE LOCATION OF FIELD COMPACTION TEST

APPROXIMATE LIMIT OF COMPACTED FILL

SOIL AND FOUNDATION ENGINEERS	GORIAN AND ASSOCIATES, Inc.	APPLIED EARTH SCIENCES
JOB NUMBER: 1583-7-20		DATE: 3-27-92
SCALE: 1" = 46'	APPROVED BY: PW	DRAWN BY: CHD LOG NO: 15694

EXPLANATION

- B-5 — Approximate Location of Boring Drilled for B14 701 Pauling Drive (soccer field), Gorian, 1990
- B-5 — Approximate Location of Boring Drilled for B29 700 Rancho Conejo Blvd., Gorian, 1993
- B-4 — Approximate Location of Boring Drilled for B5 707 Pauling Drive, Gorian, 2006
- CPT -5 — Approximate Location of Cone Penetration Test (CPT) Gorian, 2010

Boring Location Map

GORIAN & ASSOCIATES, INC. *Applied Earth Sciences*		
Job No.: 1583-B50-0-100		Date: 3/31/06
Scale: 1"=30'	Drawn By:	PLATE 1
	Approved By:	

SITE PLAN
SCALE: 1" = 30'-0"

N

Appendix G

Paleontological Resources Assessment

SWCA
ENVIRONMENTAL CONSULTANTS
Sound Science. Creative Solutions.®

320 North Halstead Street, Suite 120
Pasadena, California 91107
Tel 626.240.0587 Fax 626.568.2958
www.swca.com

Technical Memorandum

To: Eyestone Environmental
101 Continental Boulevard, Suite 240
El Segundo, California 90245

From: Jacob Biewer, M.S., Assistant Project Paleontologist
Jason Adams, M.S., Lead Paleontologist

Date: September 9, 2026

Re: **Paleontological Resources Assessment for the Amgen Thousand Oaks Project, Thousand Oaks, California**

INTRODUCTION

Eyestone Environmental retained SWCA Environmental Consultants (SWCA) to prepare a paleontological resources assessment in support of the Amgen Thousand Oaks Project (the Project) in Thousand Oaks, California (Figure A-1 in Attachment A). The SPA would facilitate a Development Permit for a new technology and life sciences facility (the "Project"). The proposed Project consists of the construction of a multi-story building (Building 50) with installation of hardscape and landscape elements, as well as an off-site storm drain and bio basins. The Project is subject to California Environmental Quality Act (CEQA) with the City of Thousand Oaks (the City) acting as the lead CEQA agency.

This technical memorandum (memo) summarizes the review of geologic maps, scientific literature, fossil locality records from the Natural History Museum of Los Angeles County (NHMLA), and other relevant information. The purpose of the study is to determine the potential of the Project to impact scientifically significant paleontological resources pursuant to CEQA. The study was conducted in accordance with mitigation measure (MM) PAL-1 of the City's General Plan 2045 Program Environmental Impact Report (EIR) (City of Thousand Oaks 2023a). It follows the guidelines of the Society of Vertebrate Paleontology (SVP) and *Best Practices in Mitigation Paleontology* (Murphey et al. 2019; SVP 2010).

SWCA Assistant Project Paleontologist Jake Biewer, M.S., conducted the background research and authored this memo. SWCA Lead Paleontologist Jason Adams, M.S., provided quality assurance/quality control (QA/QC) of the memo. SWCA Principal Archaeologist Chris Millington, M.A., RPA, provided additional QA/QC. Figures were generated by SWCA Assistant Project Geospatial Scientist Marty Kooistra. Copies of this memo are on file with SWCA's office in Pasadena, California.

PROJECT LOCATION AND DESCRIPTION

The proposed Project is located at 701 Pauling Drive in Thousand Oaks, California (see Figure A-1). The Project Site is developed and contains an existing 181,000-square-foot building (Building 14) that is currently under demolition. The Project Site lies within Section 12, Township 1 North, Range 20 West (San Bernardino Base and Meridian) of the U.S. Geological Survey (USGS) Newbury Park, California, 7.5-minute quadrangle (Figure A-2 in Attachment A) (USGS 1967). The property is bounded on the south by West Hillcrest Drive and on the east by Pauling Drive (Figure A-3 in Attachment A).

The proposed Project involves the construction of a four-story 378,862-square-foot technology and life sciences facility (Building 50), which is on Assessor's Parcel Number (APN) 526-0-210-145. The building is proposed to be 75 feet tall, with an additional 12.5 feet of rooftop equipment screening. The total proposed development occurs on approximately 4.27 acres that includes hardscape and landscape improvements extending onto portions of APNs 526-0-210-135, 526-0-210-115, and APN 526-0-210-095; off-site improvements include the installation of a storm drain and bio basins extending eastward along the northern edge of West Hillcrest Drive (Figure A-3). Based on the current design plans (Gorian and Associates, Inc. [GAI] 2026), the maximum depth of excavation required for the foundational elements of the proposed building is 21.5 feet (6.6 meters), which is at or near the existing Building 14 basement elevation. As such, no significant grading or over-excavation for the construction of the basement for Building 50 is anticipated. The installation of hardscape and landscape elements, as well as utility excavations, in the Project Site is expected to extend up to 7 feet (2.1 meters) below grade. In the off-site improvement area, the new storm drain will be placed 3 to 5 feet (0.9 to 1.5 meters) below the current grade.

The Project is located within the SP-16 area, which encompasses approximately 91 acres. The Project requires an SPA to extend the maximum building height of 75 feet currently allowed in Height District 3 to Height District 2. The proposed height increase within the SP-16 area is consistent with base height allowance for the Industrial Flex land use designation of the Thousand Oaks 2045 General Plan (City of Thousand Oaks 2023b). Other components of the SPA include exceptions to the height limits for specified mechanical equipment above rooftop screening, parking locational criteria and architectural massing step backs where there is an over height first floor.

PROFESSIONAL STANDARDS

The SVP has established standard guidelines that outline professional protocols and practices for conducting paleontological resource assessments and surveys; monitoring and mitigation; data and fossil recovery; sampling procedures; and specimen preparation, identification, analysis, and curation (SVP 2010). Most practicing professional mitigation paleontologists in California adhere closely to the SVP's assessment, mitigation, and monitoring requirements as specifically provided in its standard guidelines. Most state regulatory agencies with paleontological laws, ordinances, regulations, and standards accept and use the professional standards set forth by the SVP.

Scientific Significance

Numerous paleontological studies have developed criteria for the assessment of scientific significance for fossil discoveries (e.g., Eisentraut and Cooper 2002; Murphey et al. 2019; Scott and Springer 2003). In general, these studies assess fossils as significant if one or more of the following criteria apply:

1. The fossils provide information on the evolutionary relationships and developmental trends among organisms, living or extinct.

2. The fossils provide data useful in determining the age(s) of the rock unit or sedimentary stratum, including data important in determining the depositional history of the region and the timing of geologic events therein.
3. The fossils provide data regarding the development of biological communities or interaction between paleobotanical and paleozoological biotas.
4. The fossils demonstrate unusual or spectacular circumstances in the history of life.
5. The fossils are in short supply and/or are in danger of being depleted or destroyed by the elements, vandalism, or commercial exploitation and are not found in other geographic locations.

As defined by the SVP, scientifically significant paleontological resources are:

> fossils and fossiliferous deposits, here defined as consisting of identifiable vertebrate fossils, large or small, uncommon invertebrate, plant, and trace fossils, and other data that provide taphonomic, taxonomic, phylogenetic, paleoecologic, stratigraphic, and/or biochronologic information. Paleontological resources are considered to be older than recorded human history and/or older than middle Holocene (i.e., older than about [4,200 years ago (Cohen et al. 2024)]). (SVP 2010:11)

Geologic units known to preserve significant fossils or fossil localities are likely to contain additional undiscovered and potentially significant fossils and are generally considered sensitive for paleontological resources throughout their areal and stratigraphic extent.

Paleontological Potential

Paleontological potential is defined as the potential for a geologic unit to produce scientifically significant fossils. This is determined by rock type, history of the geologic unit in producing significant fossils, and fossil localities recorded from that unit. Paleontological potential is derived from the known fossil data collected from the entire geologic unit, not just from a specific survey. The potential ranking provides the basis for determining which mitigation measures or recommendations, if any, are appropriate for a particular project. In *Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources* (SVP 2010:1–2), the SVP defines four categories of paleontological potential for rock units: high, low, undetermined, and no potential:

> **High Potential**. Rock units from which vertebrate or significant invertebrate, plant, or trace fossils have been recovered are considered to have a high potential for containing additional significant paleontological resources. Rocks units classified as having high potential for producing paleontological resources include, but are not limited to, sedimentary formations and some volcaniclastic formations (e.g., ash or tephra), and some low-grade metamorphic rocks which contain significant paleontological resources anywhere within their geographical extent, and sedimentary rock units temporally or lithologically suitable for the preservation of fossils (e.g., middle Holocene and older, fine-grained fluvial sandstone, argillaceous and carbonate-rich paleosols, cross-bedded point bar sandstone, fine-grained marine sandstone, etc.). Paleontological potential consists of both a) the potential for yielding abundant or significant vertebrate fossils or for yielding a few significant fossils, large or small, vertebrate, invertebrate, plant, or trace fossils and b) the importance of recovered evidence for new and significant taxonomic, phylogenetic, paleoecologic, taphonomic, biochronologic, or stratigraphic data. Rock units that contain potentially datable organic remains older than late Holocene, including deposits associated with animal nests or middens, and rock units that may contain new vertebrate deposits, traces, or trackways are also classified as having high potential.

Low Potential. Reports in the paleontological literature or field surveys by a qualified professional paleontologist may allow determination that some rock units have low potential for yielding significant fossils. Such rock units will be poorly represented by fossil specimens in institutional collections or based on general scientific consensus only preserve fossils in rare circumstances and the presence of fossils is the exception not the rule, e.g., basalt flows or recent colluvium. Rock units with low potential typically will not require impact mitigation measures to protect fossils.

Undetermined Potential. Rock units for which little information is available concerning their paleontological content, geologic age, and depositional environment are considered to have undetermined potential. Further study is necessary to determine whether these rock units have high or low potential to contain significant paleontological resources. A field survey by a qualified professional paleontologist to specifically determine the paleontological resource potential of these rock units is required before a Paleontological Resources Impact Mitigation Program (PRIMP) can be developed. In cases where no subsurface data are available, paleontological potential can sometimes be determined by strategic excavations into subsurface stratigraphy.

No Potential. Some rock units have no potential to contain significant paleontological resources, for instance high-grade metamorphic rocks (such as gneisses and schists) and plutonic igneous rocks (such as granites and diorites). Rock units with no potential require no protection or impact mitigation measures relative to paleontological resources.

REGULATORY SETTING

State Regulations

California Environmental Quality Act

CEQA is the principal statute governing environmental review of projects occurring in the state of California and is codified at California Public Resources Code (PRC) Section 21000 et seq. CEQA requires lead agencies to determine whether a proposed project would have a significant effect on the environment, including significant effects on paleontological resources. The State CEQA Guidelines for the implementation of CEQA (Title 14, Chapter 3, California Code of Regulations 15000 et seq.) define procedures, types of activities, persons, and public agencies required to comply with CEQA. Section VII(f) of the Environmental Checklist (State CEQA Guidelines Appendix G) asks whether a project would directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

Public Resources Code Section 5097.5

Requirements for paleontological resource management are included in PRC Division 5, Chapter 1.7, Section 5097.5, which states,

> No person shall knowingly and willfully excavate upon, or remove, destroy, injure or deface any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over such lands. Violation of this section is a misdemeanor.

These statutes prohibit the removal, without permission, of any paleontological site or feature from land under the jurisdiction of the state or any city, county, district, authority, or public corporation, or any agency thereof. Consequently, local agencies are required to comply with PRC Section 5097.5 for their own activities, including construction and maintenance, as well as for permit actions (e.g., encroachment permits) undertaken by others. PRC Section 5097.5 also establishes the removal of paleontological resources as a misdemeanor and requires reasonable mitigation of adverse impacts to paleontological resources from developments on public (state, county, city, and district) land.

Local Regulations

City of Thousand Oaks

Chapter 7, the Conservation Element of the Thousand Oaks General Plan 2045 (City of Thousand Oaks 2023b), includes the following goal and policies to preserve paleontological resources:

> **Goal C-11:** Protect historical and culturally significant resources, which contribute to the community's sense of identity.
>
> > **Policy 11.2**: **Cultural resource preservation.** Require that new development preserve or mitigate impacts to significant historic, archaeological, and paleontological resources.
> >
> > **Policy 11.7: Resource stakeholder engagement.** Decisions pertaining to the disposition of archaeological, paleontological, historical, and cultural resources shall be made in concert with recognized public agencies, groups or individuals having jurisdiction, expertise, or interest in these matters, including but not limited to the State Office of Historic Preservation, Ventura County Cultural Heritage Board, and local Native American organizations, and affected property owners.

Amgen Specific Plan (SP-16) and SP-16 Amendment 1

The Amgen Specific Plan EIR evaluated the development of SP-16 and was certified by the City on April 5, 1994 (City of Thousand Oaks 1994). The EIR analyzed a total maximum permitted development within the Specific Plan area of 3,807,294 square feet (100 acres), including minimum parking based on specific uses as set forth in the Specific Plan. In 1996, the City administratively approved an amendment (Amendment 1) to the Specific Plan, which allowed for the use of up to five exterior building colors in Height Districts 2 and 3. In 1n 2016, the City Council approved an amendment (Amendment 2) to the Specific Plan, which removed the property commonly known as 2150 West Hillcrest Drive from the Specific Plan area and reduced the maximum buildout within the SP-16 area to 3,637,294 square feet (City of Thousand Oaks 2016). This action was done through a Categorical Exemption pursuant to Section 15061 (b)(3). Through the development of Building 50, the Amgen campus will contain approximately 3,219,542 square feet (91 acres) of development, which is under the maximum buildout of 3,637,294 square feet (91 acres).

Neither the Amgen Specific Plan EIR nor Amendments 1 and 2 addressed paleontological resources. Instead, these resources are addressed exclusively by programmatic measures established in the Mitigation Monitoring and Reporting Program (MMRP) for the City's General Plan 2045 Program EIR (City of Thousand Oaks 2023a) (see below).

Project-Specific Mitigation Measure

The following mitigation measure was adopted as part of the MMRP for the City's General Plan 2045 EIR to reduce potential impacts to paleontological resources to a less-than-significant level (City of Thousand Oaks 2023a):

PAL-1 Retention of Qualified Professional Paleontologist. Prior to submittal of a discretionary development application in areas underlain by high or undetermined sensitivity geologic units (i.e., Quaternary older alluvium, Monterey Formation, Lower Monterey Formation, Sandstone of Lindero Canyon, Conglomerate of Lindero Canyon, Upper Topanga Formation, sandstone, Upper Topanga Formation, clay shale and siltstone, Upper Topanga Formation, sandstone, Upper Topanga Formation, clay shale and siltstone, Conejo Volcanics, basaltic sandstone and siltstone, Lower Topanga Formation, sandstone, Lower Topanga Formation, clay shale, Sespe Formation, Llajas Formation, sandstone, Llajas Formation, claystone and siltstone, Santa Susana Formation, sandstone, Santa Susana Formation, claystone and siltstone, Santa Susana Formation, Simi Conglomerate Member, Chatsworth Formation, sandstone, Chatsworth Formation, clay shale), the City shall require a Qualified Professional Paleontologist [as defined by the SVP (2010)] to be retained by the project applicant to determine the project's potential to significantly impact paleontological resources according to SVP (2010) standards. If necessary, the Qualified Professional Paleontologist shall recommend mitigation measures to reduce potential impacts to paleontological resources to a less-than-significant level. These measures may include, but not be limited to, implementation of a Worker Environmental Awareness Program, on-site paleontological monitoring, and fossil salvage, if applicable. The City shall review and approve the Qualified Professional Paleontologist's findings and recommendation. All recommendations shall be incorporated into the project plans prior to issuance of a grading permit.

METHODS

Literature Review

SWCA reviewed geologic maps, relevant geological and paleontological literature, and geotechnical data to determine the geologic units present within the Project Site and whether fossils have been recovered from those units elsewhere in the region. The geologic mapping used in this analysis is from Dibblee and Ehrenspeck (1990) at a scale of 1:24,000. Because geologic units may extend beyond the Project Site and contain similar lithologies and fossils over broad geographic areas, the literature review encompassed surrounding areas in addition to the Project Site. The results of this review include an evaluation of the geology and paleontological potential of the geologic units within the Project Site.

Museum Records Search

The purpose of a museum records search is to identify previously recorded paleontological resources within and adjacent to a project's study area. Because information regarding fossil collections is not always fully documented or published, museum records provide an additional line of evidence for evaluating the paleontological potential of geologic units. Such searches are typically conducted through the nearest regional institution that maintains collections and information relevant to the project area. The museum records search request was submitted to the NHMLA on June 19, 2026. Results were received on June 28, 2026, and were incorporated into the Results section of this report (Attachment B). SWCA supplemented the NHMLA data with fossil locality records obtained from the online collections database maintained by the University of California Museum of Paleontology (UCMP) at the University of California, Berkeley, as well as the Paleobiology Database (PBDB).

RESULTS

Literature Review

Regional Geology

The Project Site is within the Transverse Ranges Geomorphic Province, an approximately 250-mile-long east-west-trending structural block that extends from the Pacific Ocean to the eastern San Bernardino

Mountains (Campbell et al. 2016). The province is characterized by east-west-trending mountains and valleys, in contrast to the north-south orientation of ranges to the north and south, resulting from regional deformation associated with the San Andreas Fault system (Campbell et al. 2016). It contains pre-Cenozoic (more than 66 million years ago [Ma]) igneous and metamorphic rocks covered by Cenozoic (less than 66 Ma) sedimentary deposits, most notably very thick accumulations of marine sediments from the Miocene and Pliocene, and volcanic deposits (Campbell et al. 2016).

Specifically, the Project Site is in the Conejo Valley, north of the Santa Monica Mountains, which are surrounded by exposures of the Conejo Volcanics, an igneous rock sequence from the Miocene (Taliaferro 1924). Alluvial sedimentary deposits composed of clasts derived from the igneous deposits of the surrounding Conejo Hills accumulated in the local valleys (Yerkes and Campbell 1995).

Local Geology and Paleontology

Geologic mapping by Dibblee and Ehrenspeck (1990) indicates that most of the Project Site is mapped as late Pleistocene (11,700–129,000 years ago) older dissected surficial deposits, whereas a small area designated for off-site improvements extends into Holocene (present–11,700 years ago) alluvium (Figure A-4 in Attachment A). Although Dibblee and Ehrenspeck (1990) did not map artificial fill within the Project Site, the geotechnical report prepared for the Project, which references an earlier geotechnical report prepared for the existing Building 14, indicates that artificial fill is present both at the surface and in the subsurface (Gorian and Associates, Inc. [GAI] 2026). These geologic units and their paleontological sensitivities are described in more detail below. Dates for the geologic time intervals used in this memo are derived from the *International Chronostratigraphic Chart* prepared by the International Commission on Stratigraphy (Cohen et al. 2024).

ARTIFICIAL FILL

Artificial fill consists of sediments that have been removed from one location and transported to another location by human activity rather than by natural geologic processes. The transportation distance may range from a few feet to many miles, and composition depends on the source and purpose. According to the geotechnical report prepared for the Project, artificial fill was present from the ground surface to a depth of approximately 7 to 15 feet below ground surface (bgs) prior to excavation of the existing Building 14 basement (GAI 2026). Although artificial fill may contain fossils, such fossils are out of stratigraphic context and not important for scientific study. Therefore, artificial fill is considered to have no paleontological potential.

HOLOCENE ALLUVIUM

The Holocene alluvium (Qa) consists of gravel, sand, and clay (Dibblee and Ehrenspeck 1990). According to the SVP (2010), only remains of plants and animals from the middle to early Holocene (4,200–11,700 years ago) are considered scientifically important. The UCMP (2026) contains few records of Holocene-age fossil localities within Ventura County, all of which produced uncatalogued invertebrates. The PBDB (2026) contains a single vertebrate locality of Holocene age within Ventura County, which produced marine mammals, sea birds, and fish; however, the sediments and fossils found represent a marine environment that is unlike the terrestrial alluvium present within the Project area. Thus, it is not representative of the fossils that could be found. Because terrestrial fossils of Holocene age are uncommon in Ventura County, the alluvium has low paleontological potential.

LATE PLEISTOCENE OLDER DISSECTED SURFICIAL DEPOSITS

The late Pleistocene older dissected surficial deposits (Qoa) consist of dissected, weakly indurated alluvial gravel, sand, and clay (Dibblee and Ehrenspeck 1990). Pleistocene alluvial deposits have a rich fossil history in Southern California (Jefferson 1991a, 1991b; McDonald and Jefferson 2008; Miller 1971; Reynolds and Reynolds 1991; Springer et al. 2009). The most common Pleistocene terrestrial

mammal fossils include the bones of mammoth, bison, deer, and small mammals, but other taxa—horse, lion, cheetah, wolf, camel, antelope, peccary, mastodon, and giant ground sloth—have been reported (Graham and Lundelius 1994), as well as reptiles, snakes, frogs, and salamanders (Hudson and Brattstrom 1977). In addition to providing a basis for comparing Pleistocene and modern faunal assemblages in Southern California, this abundant fossil record has been vital in studies of extinction (e.g., Barnosky et al. 2004; Sandom et al. 2014; Scott 2010), ecology (e.g., Connin et al. 1998), and climate change (e.g., Roy et al. 1996). There is a potential to find additional fossils from this geologic unit; therefore, the older dissected surficial deposits have high paleontological potential.

MUSEUM RECORDS SEARCH

Although the NHMLA has no records of paleontological resources within the Project Site, it has records of multiple fossil localities in the surrounding area from Pleistocene-aged deposits similar to those within the Project Site. Table 1 summarizes the relevant results of the NHMLA records search, and Attachment B provides the letter from the NHMLA with the complete results of the search.

Table 1. NHMLA Fossil Localities Near the Project Site

Locality Number	Approximate Distance from the Project Site	Formation	Taxa	Approximate Depth
LACM VP 1680	<1 mile	Unknown unit (Pleistocene, silty clay member)	Mammoth (*Mammuthus*); horse family (Equidae)	14–15 feet bgs
LACM VP 7660	4.5 miles	Unknown unit (Quaternary, surface float)	Mastodon (*Mammut americanum*)	Surface (stream bed)
LACM VP 3213	5.9 miles	Unknown unit (Pleistocene, alluvial sediments)	Ground sloth (*Paramylodon*) and other vertebrates	Unknown

LACM VP = Los Angeles County Museum Vertebrate Paleontology.

IMPACT ANALYSIS

The proposed building basement is expected to extend to a maximum depth of 21.5 feet bgs; however, according to the geotechnical report and Project plans, the basement level of Building 50 will be at or near the existing Building 14 basement elevation, and utility excavations are expected to reach depths of approximately 2 to 7 feet bgs.

Regional geologic mapping indicates that the Project Site is almost entirely in a geological unit designated as late Pleistocene older dissected surficial deposits, while a small area designated for off-site improvements extends into a unit identified as Holocene alluvium. The geotechnical report prepared for the Project recorded artificial fill from the surface to depths of 7 to 15 feet bgs in exploratory borings taken across the Project Site. Although artificial fill may contain fossils, any such fossils would be out of stratigraphic context and would not be important for scientific study; accordingly, artificial fill has no paleontological potential. Based on the regional geologic mapping, subsurface data from the Project's geotechnical investigations, relevant literature, and the results of the museum records search, the older dissected surficial deposits beneath the artificial fill have high potential for Pleistocene-aged fossils. The NHMLA records search identified three fossil localities from Quaternary sediments in the vicinity of the Project Site, which included specimens identified on the surface and others recovered from as much as 15 feet bgs.

No significant grading or over-excavation for the basement is anticipated, and the excavations for utilities would reach depths of approximately 2 to 7 feet bgs, indicating that ground-disturbing work for the

Project is not expected to extend below the artificial fill and into the underlying sediments that have high potential for paleontological resources. Rather, ground-disturbing activities for the Project would be confined to geologic deposits with no or low paleontological sensitivity. Consequently, SWCA finds that it is unlikely the Project would encounter and adversely impact a unique paleontological resource. While unlikely, the possibility of an inadvertent discovery of a fossil cannot be fully ruled out, and procedures to assess and treat the discovery are necessary to ensure that any potential impacts are avoided or reduced to less than significant levels.

RECOMMENDATION AND CONCLUSION

The Project is evaluated pursuant to MM PAL-1, adopted as part of the City's General Plan 2045 Program EIR, which allows for a Qualified Paleontologist to make recommendations for measures to reduce potentially significant impacts to less than significant levels based on their review. SWCA recommends implementing the following measure to address the inadvertent discovery of a fossil:

> **Mitigation Measure Paleo-1: Inadvertent fossil discovery.** In the event of an inadvertent fossil discovery, ground-disturbing activities within 50 feet of the discovery location shall cease until a Qualified Paleontologist, who meets the Society of Vertebrate Paleontology (SVP) qualifications for Principal Investigator, has assessed the scientific significance of the find and made recommendations as to the appropriate treatment. If the find is deemed significant, it shall be salvaged following the standards of the SVP (2010) and curated at an accredited repository with research, exhibit, and/or outreach interest in the specimens.

Compliance with MM Paleo-1 would ensure that any unanticipated fossil discoveries are appropriately evaluated and treated by a Qualified Paleontologist, defined as one who meets the SVP standards. Accordingly, with implementation of MM Paleo-1, the Project would not result in a new significant impact or a substantially more severe impact related to paleontological resources than those previously analyzed in the General Plan 2045 Program EIR. Impacts would remain less than significant with implementation of the recommended mitigation measure.

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ATTACHMENT A

Figures

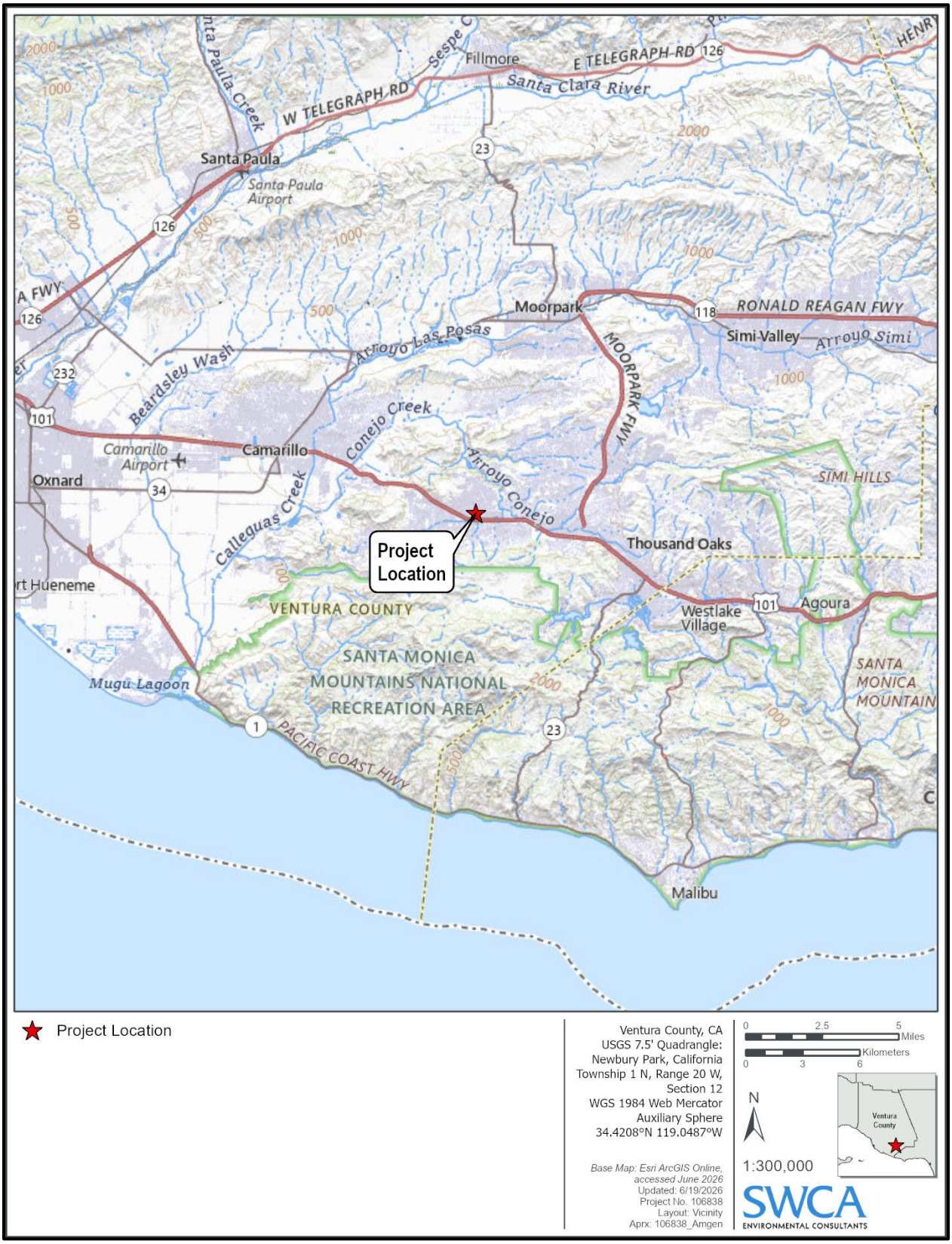

Figure A-1. Project vicinity.

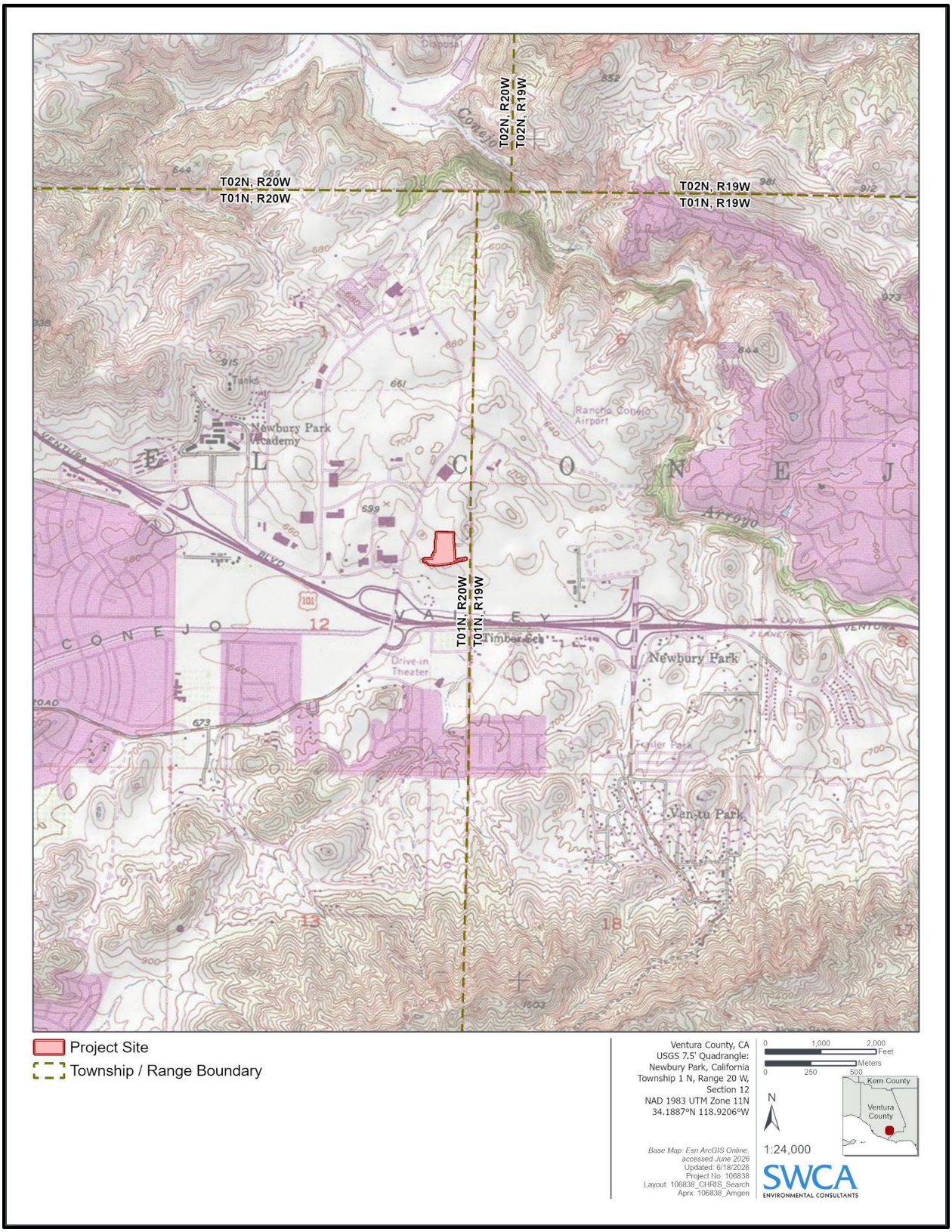

Figure A-2. Project Site plotted on the USGS Newbury Park, California, quadrangle.

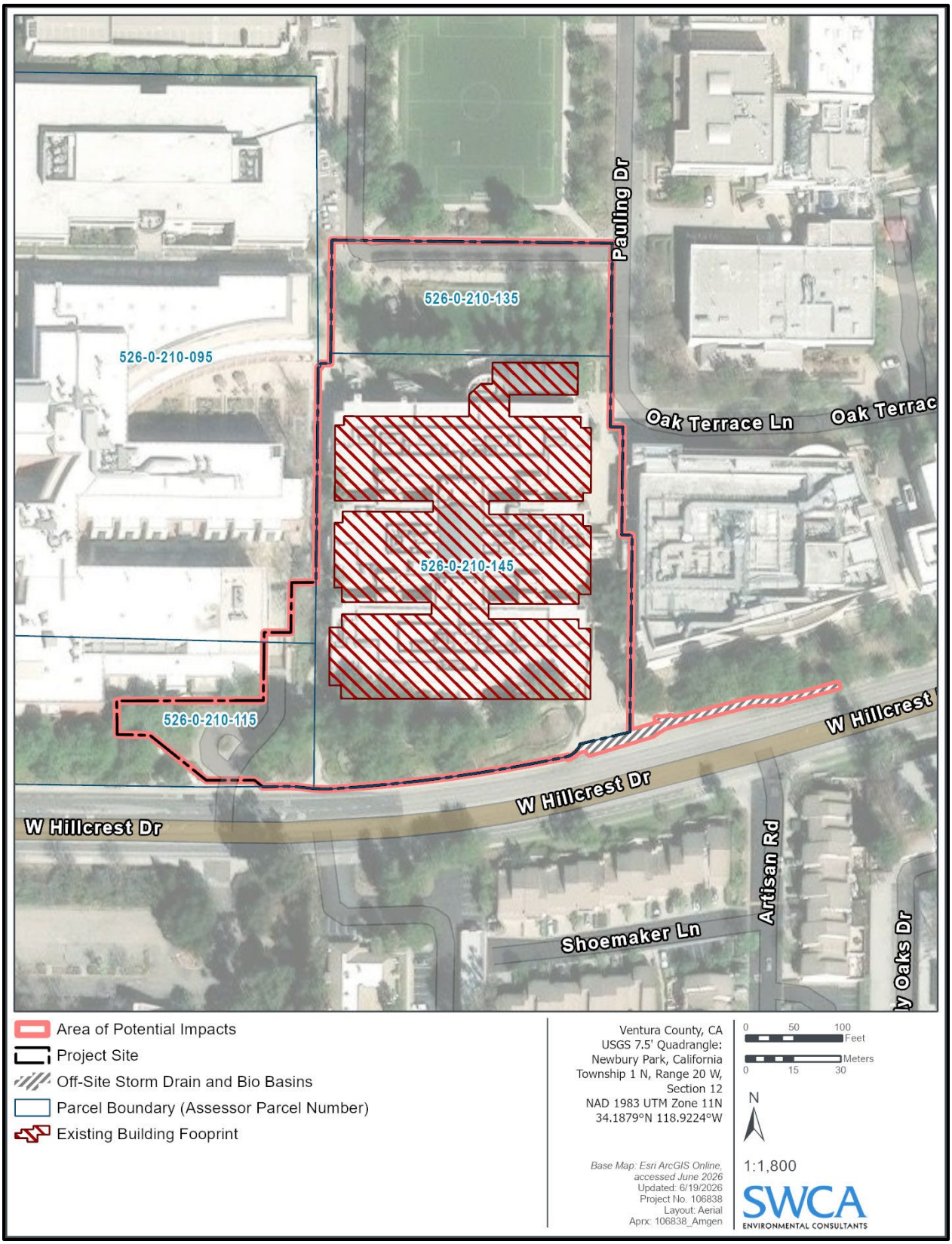

Figure A-3. Project Site plotted on an aerial image.

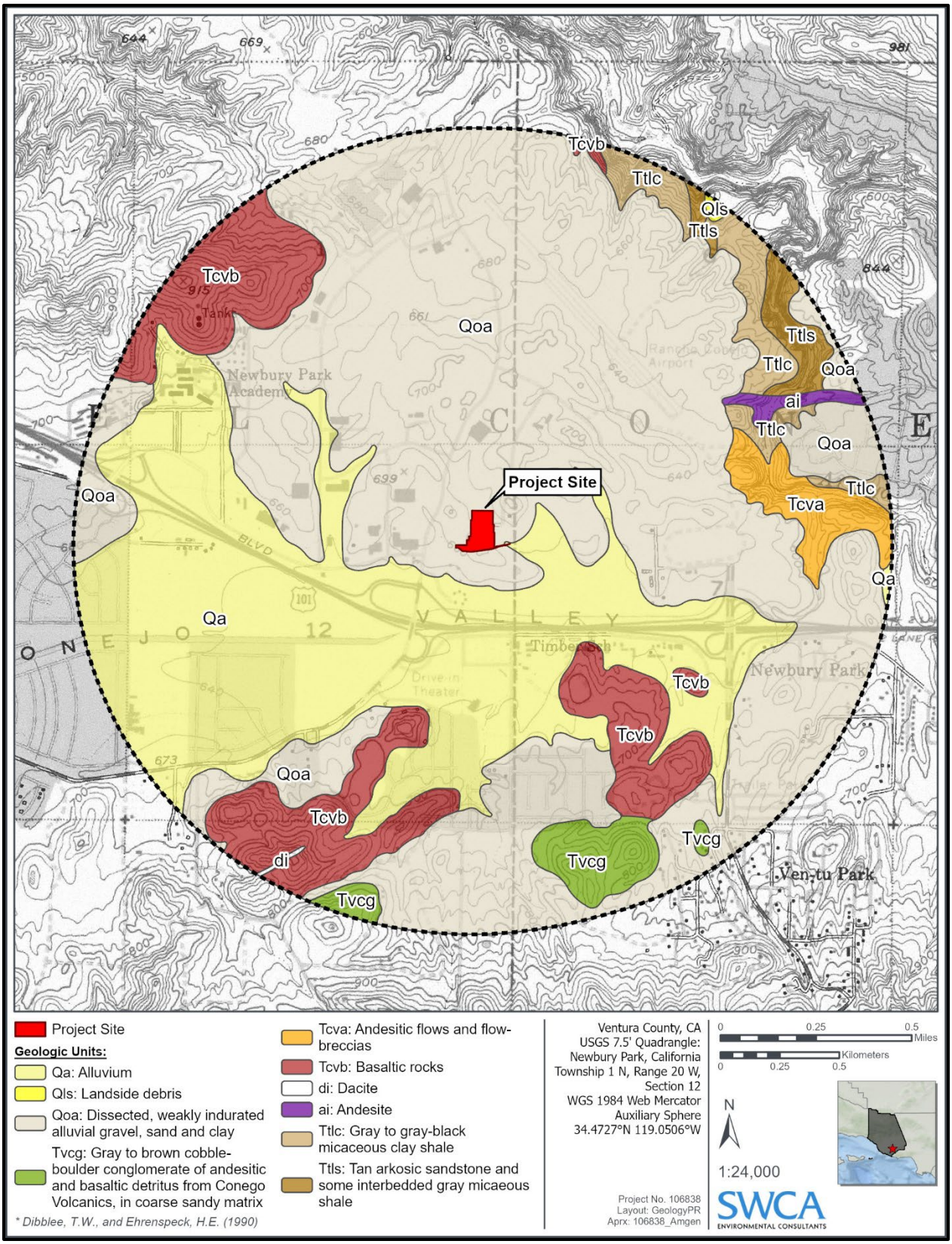

Figure A-4. Geology map of the Project Site.

Attachment B

Natural History Museum of Los Angeles County (NHMLA)
Fossil Locality Search Results Letter

Natural History Museum
of Los Angeles County
900 Exposition Boulevard
Los Angeles, CA 90007

tel 213.763.DINO
www.nhm.org

Research & Collections

e-mail: paleorecords@nhm.org

June 28, 2026

SWCA Environmental Consultants
Attn: Jake Biewer

re: Paleontological resources records search for the Amgen Thousand Oaks Project (SWCA Proj. #106838)

Dear Jake:

I have conducted a search of our paleontology collection records for the proposed development at the Amgen Thousand Oaks Project area as outlined on the portion of the Newbury Park USGS topographic quadrangle map that you sent to me via e-mail on June 19, 2026. We do not have fossil localities that have been recorded or georeferenced directly within the proposed project area, but we do have fossil localities nearby from similar sedimentary deposits that may occur in the proposed project area, either at the surface or at depth.

The following table shows the closest known localities in the collection of the Natural History Museum of Los Angeles County (NHMLA).

Locality Number	Location	Formation	Taxa	Depth
LACM VP 1680	Conejo Valley; 1 mi NW of Newbury Park	Unknown formation (Pleistocene, silty clay member)	Mammoth (*Mammuthus*); horse family (Equidae)	14-15 feet bgs
LACM VP 7660	The Lakes at Thousand Oaks; Thousand Oaks Blvd & S. Conejo School Rd.	Unknown formation (surface float)	Mastodon (*Mammut americanum*)	Surface (stream bed)
LACM VP 3213	South of Ventura Freeway along S Westlake Blvd	Unknown formation (Pleistocene alluvial sediments)	Ground sloth (*Paramylodon*) and other vertebrates	Unknown

VP, Vertebrate Paleontology; IP, Invertebrate Paleontology; bgs, below ground surface

This records search is limited to the records of the NHMLA. It is not intended as a paleontological assessment of the project for the purposes of California Environmental Quality Act (CEQA) or National Environmental Policy Act (NEPA). Potentially fossil-bearing units are present in the project area, either at the surface or in the subsurface. As such, NHMLA recommends that a paleontological assessment be conducted by a paleontologist meeting Federal (43 Code of Federal Regulations Part 49.110) or Society of Vertebrate Paleontology standards for compliance with applicable regulations, such as CEQA or NEPA.

Sincerely,

Alyssa Bell, Ph.D.
Natural History Museum of Los Angeles County

Appendix H

Soil Sampling Memorandum

Stantec Consulting Services Inc.
4572 Telephone Road, Suite 916
Ventura CA 93003-5663

July 14, 2026

Project/File: 2042726000.301

Amgen Inc.
David Mendivil
3251 Grande Vista Dr, Thousand Oaks, CA 91320

Dear David Mendivil,

Reference: Amgen B50 Soil Sampling

Stantec Consulting Services Inc. (Stantec) respectfully submits this technical letter report to Amgen Inc. (Amgen) presenting the results of soil boring and sampling activities conducted at the Building 50 redevelopment project located at the Amgen campus in Thousand Oaks, California (the "Property"; see Figure 1).

Site Background

The purpose of this investigation was for the collection and analytical testing of representative soil samples within the redevelopment area to support soil management in association with the project. To support this effort, Stantec developed a scope of work that included the advancement of up to eight soil borings at strategic locations within the Property (see Figure 2). Three borings were advanced to a depth of approximately 13 feet below ground surface (bgs), and five borings were advanced to approximately 5 feet bgs.

Utility Clearance

Utility clearance was completed by marking boring locations, contacting underground service alert (USA; inquiry number A261611044); and performing a private utility locate (GPRS work order number 926312) for the eight boring locations.

Field Sampling Activities

The soil sampling was conducted on June 15, 2026. There were no weather-related restrictions during the field investigation.

Three borings (B3, B4, and B5) were completed via limited access direct push rig (Geoprobe; MR Drilling) to the proposed terminal depth of 13 feet bgs. Five borings were completed via hand auger to depths ranging from 3.5 (B2 and B7) to 5 feet bgs (B1, B6, and B8). The soils encountered during sampling were generally dark brown and consisted primarily of poorly graded sand, poorly graded sand with gravel, clayey sand, and clayey sand with gravel. Refusal was encountered at soil borings B2 and B7 at a depth of 3.5 feet bgs due to gravel. Step-out attempts were made to achieve the target depth of 5 feet bgs. Discrete

soil samples were collected from the terminal depths of each boring location and submitted under chain-of-custody procedures to a State of California-certified analytical laboratory for testing.

Samples were collected directly from either the hand auger bucket or Geoprobe liner, depending on the sample method, placed into clean zipper lock bags for homogenization, and transferred to laboratory-certified glass jars. Volatile organic compound (VOC) samples were collected using EPA Method 5035 and Terra Core samplers. All sampling equipment was decontaminated between samples using the three-bucket system. Samples were labeled and documented with unique identification numbers, borehole location, depth, date, and time, and annotated on chain-of-custody forms for laboratory submission.

Laboratory Analytical Results

Collected soil samples underwent laboratory analysis for the following parameters:

- VOCs by EPA Test Method 8260B/5035;
- Semi-Volatile Organic Compounds (SVOCs) by EPA Test Method 8270C;
- Total Petroleum Hydrocarbons (GRO, DRO, ORO) by EPA Test Method 8015B;
- Organochlorine Pesticides by EPA Test Method 8081B;
- Title 22 Metals by EPA Test Methods 6010B and 7471A; and
- Additional analyses as needed (e.g., solubility testing for waste characterization).

A summary of the analytical results is presented in Tables 1, 2, and 3. Copies of the laboratory reports and chain-of-custody forms are attached.

Minor detections of VOCs, SVOCs, and TPH concentrations were reported in soil. None of the soil samples had detections of organochlorine pesticides at concentrations above their respective reporting limits (i.e. samples were non-detect). Three soil samples (B3-13, B5-13, and B6-5) had detections of chromium at concentrations above its California Soluble Threshold Limit Concentration (STLC) of 50 milligrams per kilogram (mg/kg). These samples were further analyzed for solubility by CalWET-Citric (EPA Method 3010A) for chromium. None of the three soil samples had detections of soluble chromium at concentrations above their respective reporting limits (i.e. samples were non-detect); nor did they exceed the STLC for chromium of 5 milligrams per liter (mg/L). All other Title 22 metals analytes (excluding chromium), VOCs, SVOCs, and TPH were reported at concentrations below California and Federal RCRA hazardous waste thresholds and below human health screening levels.

Conclusions and Recommendations

Excess soil generated in the project area does not exhibit characteristics of hazardous waste and may be managed as non-hazardous waste.

Closure

The conclusions presented in this report are professional opinions based on data described in this report. The opinions of this report have been arrived at in accordance with currently accepted hydrogeologic and engineering standards and practices applicable to this location, and are subject to the following inherent limitations. Stantec makes no other warranty, either expressed or implied, concerning the conclusions and professional advice that is contained within the body of this report.

Reference: **Amgen B50 Soil Sampling**

Inherent in most projects performed in a heterogeneous subsurface environment, continuing excavation and assessments may reveal findings that are different than those presented herein. This facet of the environmental profession should be considered when formulating professional opinions on the limited data collected on these projects.

The information presented in this report is valid as of the date our exploration was performed. Site conditions may degrade with time; consequently, the findings presented herein are subject to change.

Respectfully,

Stantec Consulting Services Inc.

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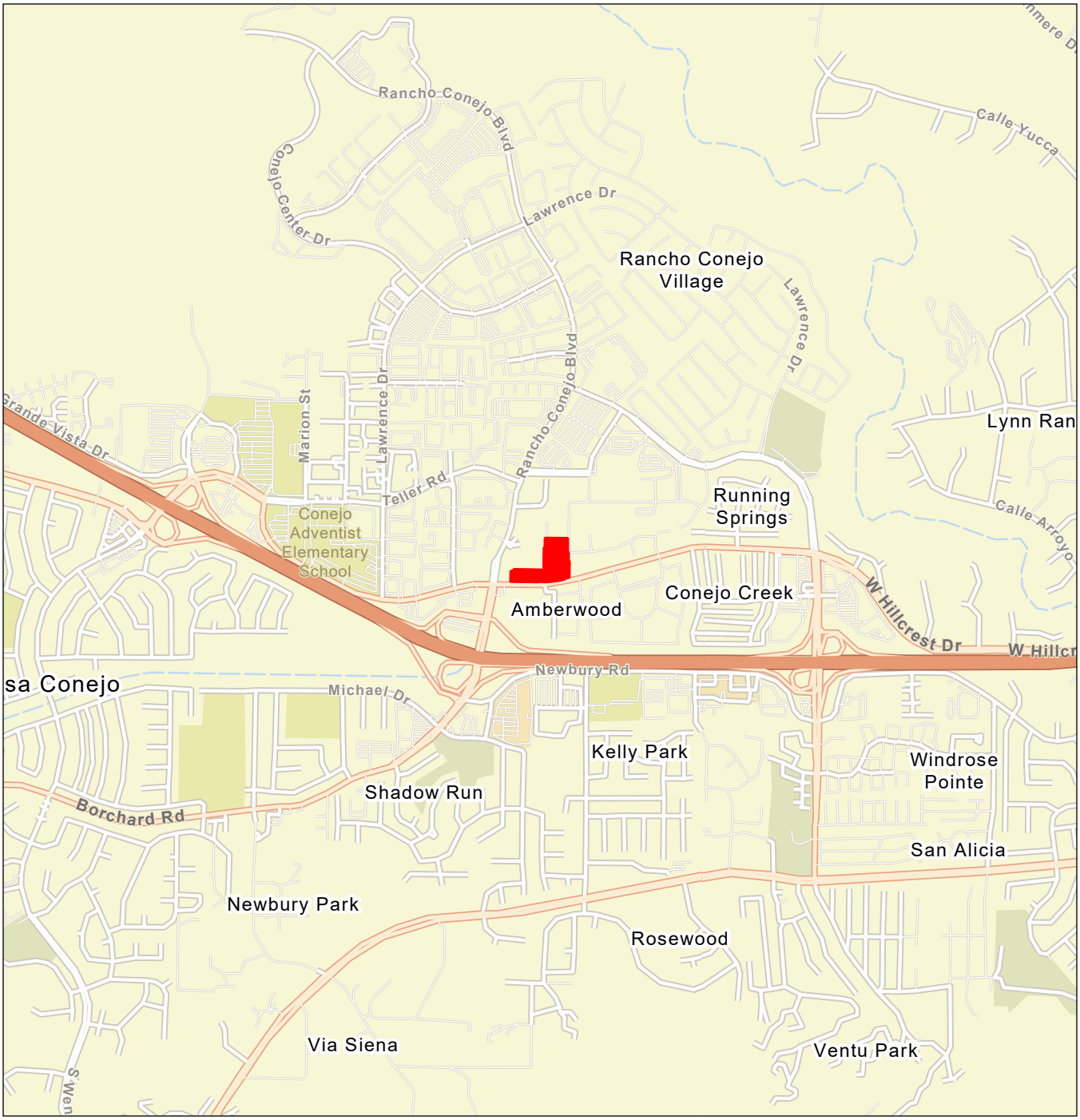
Attachments: Figure 1: Site Location Map
Figure 2: Boring Location Map

Tables: Table 1: Soil Analytical Data - VOCs and SVOCs
Table 2: Soil Analytical Data - Title 22 Metals
Table 3: Soil Analytical Data - Total Petroleum Hydrocarbons and Organochlorine Pesticides



Site Location

0 1,000 2,000 Feet

(At original document size of 8.5x11)
1:24,000

N

Stantec

Notes

1. Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet
2. Data Sources: Stantec 2026.
3. Background: Sources: Esri, TomTom, Garmin, GEBCO, National Geographic, NOAA, and the GIS User Community, Esri, GEBCO, Garmin, NaturalVue, Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

Project Location
701 Pauling Drive
Newbury Park, CA

Prepared by DL on 2026-06-24
TR by SET on 2026-06-24
IR by NY on 2026-06-24

Client/Project
Amgen
Amgen ATO B50 Project
Soil Sampling Report

2042726000

Figure No.
1

Title
Site Location Map

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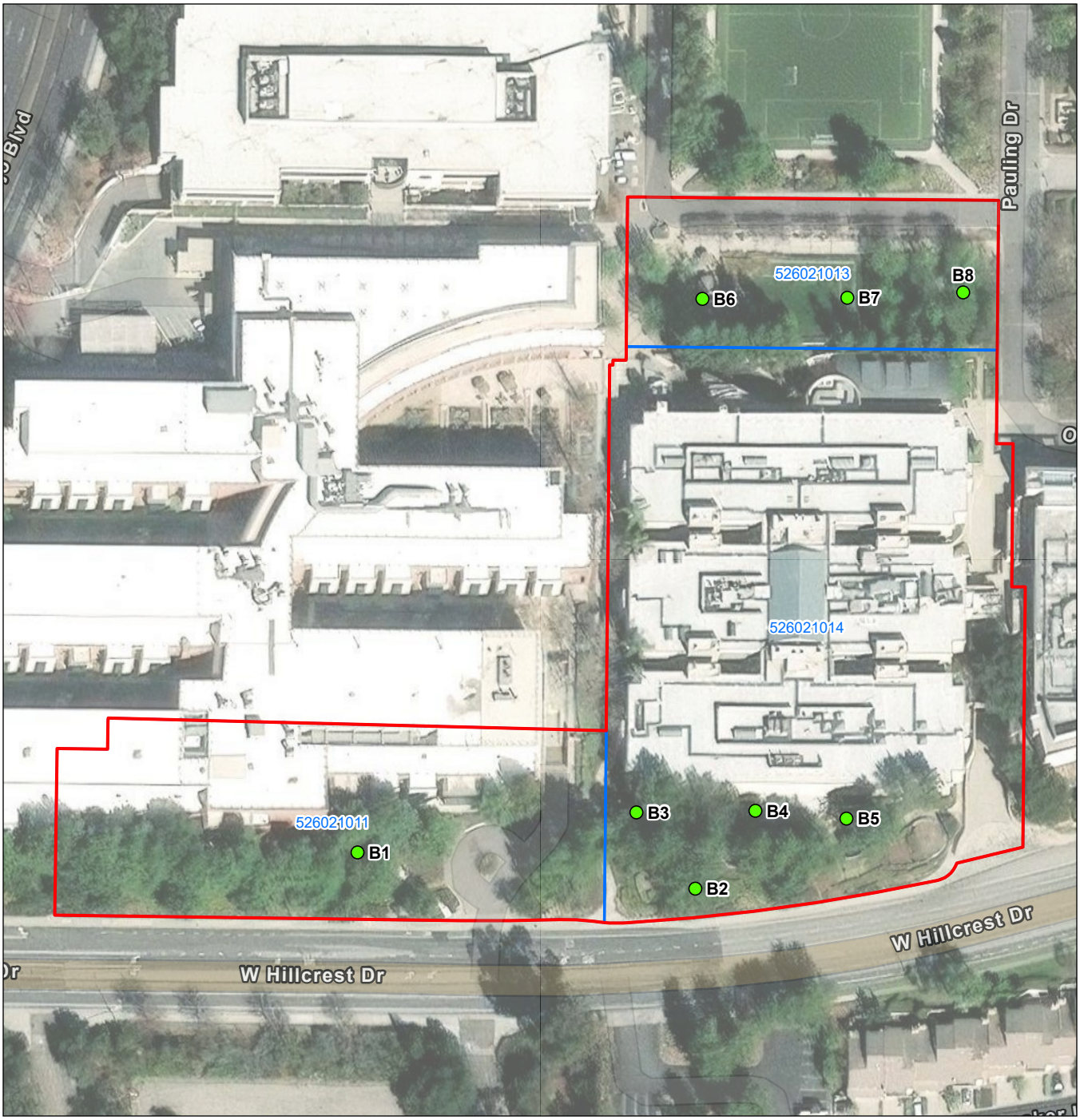

Site Area
Site Parcels
Soil Sample Locations

0 60 120 Feet
(At original document size of 8.5x11)
1:1,440

N

Stantec

Notes
1. Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet
2. Data Sources: Stantec 2026.
3. Background: Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community, Vantor

Project Location
701 Pauling Drive
Newbury Park, CA

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IR by NY on 2026-06-24

Client/Project
Amgen
Amgen ATO B50 Project
Soil Sampling Report

2042726000

Figure No.
2

Title
Sample Location Plan

U:\2042_proposal\2042726000\AmgenB50_ProMaps\AmgenB50_ProMaps.aprx Revised: 2026-06-24 By: dalaw

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Table 1
Soil Analytical Data - VOCs and SVOCs
Building 50 - Amgen
Thousand Oaks, California

Sample ID	Sample Depth (feet)	Sample Date	VOC (mg/kg)[1]							SVOC (mg/kg)[1]
			2-Butanone	Acetone	Ethanol	Xylenes, Total	p-Isopropyltoluene	tert-Butyl Alcohol	Toluene	Bis(2-ethylhexyl) phthalate
EPA Reg. 9 RSL (Residential)[2]			27,000	70,000	NE	580	170	1,400	4,900	39
DTSC SL (Residential)[3]			NE	NE	NE	NE	NE	NE	1,400	140 [4]
Soil Samples										
B1	5	6/28/2024	<0.017	<0.017	<0.21	<0.0017	<0.00083	<0.017	0.001	<2.5
B2	3.5	6/28/2024	<0.025	0.087	<0.31	0.0026	0.011	<0.025	0.01	<9.9
B3	13	6/28/2024	<0.017	<0.017	<0.22	<0.0017	<0.00086	<0.017	<0.00086	<0.50
B4	13	6/28/2024	<0.018	<0.018	<0.22	<0.0018	<0.00088	<0.018	<0.00088	<0.50
B5	13	6/28/2024	<0.02	<0.02	<0.26	<0.002	<0.001	<0.02	<0.001	1.5
B6	5	6/28/2024	<0.014	<0.014	0.18	<0.0014	<0.00069	<0.014	<0.00069	<0.50
B7	3.5	6/28/2024	0.15	0.069	0.22	<0.0015	<0.00075	0.015	0.001	<0.49
B8	5	6/28/2024	<0.019	<0.019	<0.24	<0.0019	<0.00096	<0.019	<0.00096	<2.5

Notes:
(1) - Only VOCs and SVOCs with detections reported above the laboratory reporting limit are presented in the table
(2) - US Environmental Protection Agency Region 9 Regional Screening Levels for Soil (TR=1E-06, HQ=1), November 2024
(3) - Department of Toxic Substances Control HERO Note 3, Table 1 - DTSC Recommended Screening Levels for Residental Soil, Revised April 2025; the lower of the carcinogenic and non-carcinogenic values is listed
(4) - Department of Toxic Substances Control HERO Note 3, Table 1 - DTSC Recommended Screening Levels for Industrial Soil, Revised April 2025; the lower of the carcinogenic and non-carcinogenic values is listed

Bold - Concentrations exceed laboratory reporting limit (RL).
mg/kg - milligrams per kilograms
< - Not detected; no analyte was recorded exceeding its respective reporting limit.
NE - Not established
VOC - Volatile Organic Compounds
SVOC - Semi-Volatile Organic Compounds

Table 2
Soil Analytical Data - Title 22 Metals
Building 50 - Amgen
Thousand Oaks, California

Boring ID	Sample Depth (feet)	Sample Date	Title 22 Metals (mg/kg)																STLC Metals (mg/L)
			Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc	Chromium
STLC Screening Trigger (mg/Kg)[1]			150	50	1,000	7.5	10	50	800	250	50	2	3,500	200	10	50	70	240	2,500	5
TCLP Screening Trigger (mg/Kg)[2]			NE	100	2,000	NE	20	NE	NE	NE	100	4	NE	NE	20	100	NE	NE	NE	NE
EPA Reg. 9 RSL (Residential)[3]			31	12 [5]	15,000	160	7.1	NE	23	3,100	200	11	390	NE	390	390	NE	390	23,000	NE
DTSC SL (Residential)[4]			NE	12 [5]	NE	16	7.1	NE	NE	NE	80	0.67	NE	820	NE	NE	NE	NE	NE	NE
Soil Samples																				
B1	5	6/15/2026	<10.2	<3.05	74.4	<0.508	0.508	45	10.2	15.9	<2.03	<0.0887	<2.03	35.6	<3.05	<1.52	<10.2	40.8	40.0	-
B2	3.5	6/15/2026	<9.90	3.08	48.2	<0.495	<0.495	47.2	10.1	18.6	2.59	<0.0786	<1.98	36.8	<2.97	<1.49	<9.90	50.6	41.6	-
B3	13	6/15/2026	<10.2	<3.05	61.5	<0.508	<0.508	55.9	12.0	17.8	2.07	<0.0887	<2.03	38.8	<3.05	<1.52	<10.2	53.4	36.6	<0.500
B4	13	6/15/2026	<10.1	<3.02	82.2	<0.503	1.19	47.9	29.2	17.8	4.85	0.108	<2.01	66.2	<3.02	<1.51	<10.1	43.8	37.0	-
B5	13	6/15/2026	<10.2	<3.05	27.1	<0.508	<0.508	54.5	6.43	17.8	<2.03	<0.0833	<2.03	29.2	<3.05	<1.52	<10.2	37.4	34.4	<0.500
B1	5	6/15/2026	<10.2	<3.05	74.4	<0.508	0.508	45	10.2	15.9	<2.03	<0.0887	<2.03	35.6	<3.05	<1.52	<10.2	40.8	40.0	-
B6	5	6/15/2026	<10.0	<3.00	49.5	<0.500	<0.500	57.3	13.6	16.5	2.29	<0.0786	<2.00	35.5	<3.00	<1.50	<10.0	49.1	38.5	<0.500
B7	3.5	6/15/2026	<10.0	<3.00	39.1	<0.500	<0.500	33.9	7.28	10.9	<2.00	<0.0817	<2.00	23.7	<3.00	<1.50	<10.0	32.6	24.1	-
B8	5	6/15/2026	<10.2	<3.05	45.2	<0.508	<0.508	47.4	9.62	17.7	2.84	<0.0868	<2.03	33.9	<3.05	<1.52	<10.2	40.9	37.2	-

Notes:

(1) - Soluble Threshold Limit Concentration (STLC) California Code of Regulations, Title 22, Division 4.5, Chapter 11, Article 3, Section 66261.24

(2) - Toxicity Characteristic Leaching Procedure (TCLP) SW-846, Update 3, December 1996; Code of Federal Regulations, Part 40, Title 261 (40CFR261)

(3) - US Environmental Protection Agency Region 9 Regional Screening Levels for Soil (TR=1E-06, HQ=1), November 2024

(4) - Department of Toxic Substances Control HERO Note 3, Table 1 - DTSC Recommended Screening Levels for Soil, Revised April 2025; the lower of the carcinogenic and non-carcinogenic values is listed

(5) - Listed screening level represents the upper threshold for naturally occurring arsenic concentrations in Southern California soils

Bold - Concentrations exceed laboratory reporting limit (RL).

Concentrations exceed STLC limits

mg/kg - milligrams per kilograms

mg/L - milligrams per liter

ND - Not detected; no analyte was recorded exceeding its respective reporting limit.

NE - Not Established

-- Not Analyzed

Table 3
Soil Analytical Data - Total Petroleum Hydrocarbons and Organochlorine Pesticides
Building 50 - Amgen
Thousand Oaks, California

Sample ID	Sample Depth (feet)	Sample Date	Total Petroleum Hydrocarbons (mg/kg)			Organochlorine Pesticides (mg/kg)
			GRO (C4-C12)	DRO (C13-C22)	ORO (C23-C40)	
EPA Reg. 9 RSL (Residential)[1]			100 [3]	200 [3]	1,600 [3]	NE
DTSC SL (Residential)[2]			--	--	--	NE
Soil Samples						
B1	5	6/28/2024	0.15	<4.9	51	ND
B2	3.5	6/28/2024	0.25	51	650	ND
B3	13	6/28/2024	<0.098	<5.0	<25	ND
B4	13	6/28/2024	<0.095	<4.9	<24	ND
B5	13	6/28/2024	<0.097	<5.0	<25	ND
B6	5	6/28/2024	<0.073	<4.8	<24	ND
B7	3.5	6/28/2024	0.25	<5.0	<25	ND
B8	5	6/28/2024	0.13	<5.0	<25	ND

Notes:

(1) - US Environmental Protection Agency Region 9 Regional Screening Levels for Soil (TR=1E-06, HQ=1), November 2024

(2) - Department of Toxic Substances Control HERO Note 3, Table 1 - DTSC Recommended Screening Levels for Soil, Revised April 2025; the lower of the carcinogenic and non-carcinogenic values is listed

(3) - San Francisco Bay Regional Water Quality Control Board Environmental Screening Levels, 2025 (Rev. 4); Tier 1 screening levels are listed

Bold - Concentrations exceed laboratory reporting limit (RL).

mg/kg - milligrams per kilograms

< - Not detected; no analyte was recorded exceeding its respective reporting limit.

GRO - Gasoline Range Organics

DRO - Diesel Range Organics

ORO - Oil Range Organics

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Tom Stanley
Stantec Consulting Corporation
4572 Telephone Road
Suite 916
Ventura, California 93001

Generated 7/8/2026 4:59:39 PM

JOB DESCRIPTION

Amgen BSD 2042726000

JOB NUMBER

570-284007-1

Eurofins Calscience
2841 Dow Avenue
Suite 100
Tustin CA 92780

See page two for job notes and contact information.

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Calscience Project Manager.

Authorization

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Authorized for release by
Allyson Chapman, Project Manager I
Allyson.Chapman@et.eurofinsus.com
(657)210-6366

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Definitions/Glossary

Client: Stantec Consulting Corporation
Project/Site: Amgen BSD 2042726000

Job ID: 570-284007-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
F1	MS and/or MSD recovery exceeds control limits.
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job Narrative
570-284007-1

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

Receipt
The samples were received on 6/16/2026 6:00 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.9°C.

GC/MS VOA
Method 8260B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 570-755822 and analytical batch 570-757314 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC/MS Semi VOA
Method 8270C: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 570-757832 and analytical batch 570-758610 recovered outside control limits for the following analytes: Multiple analytes.

Method 8270C: The matrix spike/matrix spike duplicate (MS/MSD) for preparation batch 570-757832 and analytical batch 570-759208 exceeded control limits for the following analyte(s): 4-Nitrophenol, Benzidine and Benzoic acid, Note that this analyte is a known poor performer when analyzed using this method.

Method 8270C: The following samples were diluted due to the nature of the sample matrix: B2-3.5 (570-284007-4), B8-5 (570-284007-7) and B1-5 (570-284007-8). Elevated reporting limits (RLs) are provided.

Method 8270C: The following sample was re-prepared outside of preparation holding time due to rework: B5-13 (570-284007-1).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Gasoline Range Organics
Method 8015B: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 570-760310. The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Diesel Range Organics
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Pesticides
Method 8081B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 570-757807 and analytical batch 570-758904 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 8081B: The matrix spike / matrix spike duplicate / sample duplicate (MS/MSD/DUP) precision for preparation batch

570-757807 and analytical batch 570-758904 was outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory control sample duplicate (LCS/LCSD) precision was within acceptance limits.

Method 8081B: The matrix spike / matrix spike duplicate / sample duplicate (MS/MSD/DUP) precision for preparation batch 570-757807 and analytical batch 570-759532 was outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory control sample duplicate (LCS/LCSD) precision was within acceptance limits.

Method 8081B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 570-757807 and analytical batch 570-759532 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected .

Method 8081B: The matrix spike / matrix spike duplicate / sample duplicate (MS/MSD/DUP) precision for preparation batch 570-757807 and analytical batch 570-760264 was outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory control sample duplicate (LCS/LCSD) precision was within acceptance limits.

Method 8081B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 570-757807 and analytical batch 570-760264 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals
Method 6010B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 570-756078 and analytical batch 570-756376 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: Stantec Consulting Corporation
Project/Site: Amgen BSD 2042726000

Job ID: 570-284007-1

Client Sample ID: B5-13 — Lab Sample ID: 570-284007-1

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Bis(2-ethylhexyl) phthalate	1.5	H	0.50		mg/Kg	1		8270C	Total/NA
Barium	27.1		3.05		mg/Kg	5		6010B	Total/NA
Chromium	54.5		1.02		mg/Kg	5		6010B	Total/NA
Cobalt	6.43		1.02		mg/Kg	5		6010B	Total/NA
Copper	17.8		2.03		mg/Kg	5		6010B	Total/NA
Nickel	29.2		2.03		mg/Kg	5		6010B	Total/NA
Vanadium	37.4		1.02		mg/Kg	5		6010B	Total/NA
Zinc	34.4		5.08		mg/Kg	5		6010B	Total/NA

Client Sample ID: B4-13 — Lab Sample ID: 570-284007-2

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Barium	82.2		3.02		mg/Kg	5		6010B	Total/NA
Cadmium	1.19		0.503		mg/Kg	5		6010B	Total/NA
Chromium	47.9		1.01		mg/Kg	5		6010B	Total/NA
Cobalt	29.2		1.01		mg/Kg	5		6010B	Total/NA
Copper	17.8		2.01		mg/Kg	5		6010B	Total/NA
Lead	4.85		2.01		mg/Kg	5		6010B	Total/NA
Nickel	66.2		2.01		mg/Kg	5		6010B	Total/NA
Vanadium	43.8		1.01		mg/Kg	5		6010B	Total/NA
Zinc	37.0		5.03		mg/Kg	5		6010B	Total/NA
Mercury	0.108		0.0887		mg/Kg	1		7471B	Total/NA

Client Sample ID: B3-13 — Lab Sample ID: 570-284007-3

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Barium	61.5		3.05		mg/Kg	5		6010B	Total/NA
Chromium	55.9		1.02		mg/Kg	5		6010B	Total/NA
Cobalt	12.0		1.02		mg/Kg	5		6010B	Total/NA
Copper	17.8		2.03		mg/Kg	5		6010B	Total/NA
Lead	2.07		2.03		mg/Kg	5		6010B	Total/NA
Nickel	38.8		2.03		mg/Kg	5		6010B	Total/NA
Vanadium	53.4		1.02		mg/Kg	5		6010B	Total/NA
Zinc	36.6		5.08		mg/Kg	5		6010B	Total/NA

Client Sample ID: B2-3.5 — Lab Sample ID: 570-284007-4

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Acetone	87		25		ug/Kg	1		8260B	Total/NA
m,p-Xylene	2.6		2.5		ug/Kg	1		8260B	Total/NA
p-Isopropyltoluene	11		1.3		ug/Kg	1		8260B	Total/NA
Toluene	10		1.3		ug/Kg	1		8260B	Total/NA
Xylenes, Total	2.6		2.5		ug/Kg	1		8260B	Total/NA
Gasoline Range Organics (C4-C12)	0.25		0.10		mg/Kg	1		8015B	Total/NA
C13-C22	51		4.8		mg/Kg	1		8015B	Total/NA
C23-C40	650		24		mg/Kg	1		8015B	Total/NA
Arsenic	3.08		2.97		mg/Kg	5		6010B	Total/NA
Barium	48.2		2.97		mg/Kg	5		6010B	Total/NA
Chromium	47.2		0.990		mg/Kg	5		6010B	Total/NA
Cobalt	10.1		0.990		mg/Kg	5		6010B	Total/NA
Copper	18.6		1.98		mg/Kg	5		6010B	Total/NA
Lead	2.59		1.98		mg/Kg	5		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

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Client Sample ID: B2-3.5 (Continued)

Lab Sample ID: 570-284007-4

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Nickel	36.8		1.98		mg/Kg	5		6010B	Total/NA
Vanadium	50.6		0.990		mg/Kg	5		6010B	Total/NA
Zinc	41.6		4.95		mg/Kg	5		6010B	Total/NA

Client Sample ID: B6-5

Lab Sample ID: 570-284007-5

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Ethanol	180		170		ug/Kg	1		8260B	Total/NA
Barium	49.5		3.00		mg/Kg	5		6010B	Total/NA
Chromium	57.3		1.00		mg/Kg	5		6010B	Total/NA
Cobalt	13.6		1.00		mg/Kg	5		6010B	Total/NA
Copper	16.5		2.00		mg/Kg	5		6010B	Total/NA
Lead	2.29		2.00		mg/Kg	5		6010B	Total/NA
Nickel	35.5		2.00		mg/Kg	5		6010B	Total/NA
Vanadium	49.1		1.00		mg/Kg	5		6010B	Total/NA
Zinc	38.5		5.00		mg/Kg	5		6010B	Total/NA

Client Sample ID: B7-3.5

Lab Sample ID: 570-284007-6

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	150		15		ug/Kg	1		8260B	Total/NA
Acetone	69		15		ug/Kg	1		8260B	Total/NA
Ethanol	220		190		ug/Kg	1		8260B	Total/NA
tert-Butyl alcohol (TBA)	15		15		ug/Kg	1		8260B	Total/NA
Toluene	1.0		0.75		ug/Kg	1		8260B	Total/NA
Gasoline Range Organics (C4-C12)	0.25		0.065		mg/Kg	1		8015B	Total/NA
Barium	39.1		3.00		mg/Kg	5		6010B	Total/NA
Chromium	33.9		1.00		mg/Kg	5		6010B	Total/NA
Cobalt	7.28		1.00		mg/Kg	5		6010B	Total/NA
Copper	10.9		2.00		mg/Kg	5		6010B	Total/NA
Nickel	23.7		2.00		mg/Kg	5		6010B	Total/NA
Vanadium	32.6		1.00		mg/Kg	5		6010B	Total/NA
Zinc	24.1		5.00		mg/Kg	5		6010B	Total/NA

Client Sample ID: B8-5

Lab Sample ID: 570-284007-7

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Gasoline Range Organics (C4-C12)	0.13		0.096		mg/Kg	1		8015B	Total/NA
Barium	45.2		3.05		mg/Kg	5		6010B	Total/NA
Chromium	47.4		1.02		mg/Kg	5		6010B	Total/NA
Cobalt	9.62		1.02		mg/Kg	5		6010B	Total/NA
Copper	17.7		2.03		mg/Kg	5		6010B	Total/NA
Lead	2.84		2.03		mg/Kg	5		6010B	Total/NA
Nickel	33.9		2.03		mg/Kg	5		6010B	Total/NA
Vanadium	40.9		1.02		mg/Kg	5		6010B	Total/NA
Zinc	37.2		5.08		mg/Kg	5		6010B	Total/NA

Client Sample ID: B1-5

Lab Sample ID: 570-284007-8

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Toluene	1.0		0.83		ug/Kg	1		8260B	Total/NA
Gasoline Range Organics (C4-C12)	0.15		0.095		mg/Kg	1		8015B	Total/NA
C23-C40	51		25		mg/Kg	1		8015B	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Stantec Consulting Corporation
Project/Site: Amgen BSD 2042726000

Job ID: 570-284007-1

Client Sample ID: B1-5 (Continued)

Lab Sample ID: 570-284007-8

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Barium	74.4		3.05		mg/Kg	5		6010B	Total/NA
Cadmium	0.508		0.508		mg/Kg	5		6010B	Total/NA
Chromium	45.0		1.02		mg/Kg	5		6010B	Total/NA
Cobalt	10.2		1.02		mg/Kg	5		6010B	Total/NA
Copper	15.9		2.03		mg/Kg	5		6010B	Total/NA
Nickel	35.6		2.03		mg/Kg	5		6010B	Total/NA
Vanadium	40.8		1.02		mg/Kg	5		6010B	Total/NA
Zinc	40.0		5.08		mg/Kg	5		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: B5-13
Date Collected: 06/15/26 08:00
Date Received: 06/16/26 18:00

Lab Sample ID: 570-284007-1
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/Kg		06/18/26 10:25	06/20/26 12:49	1
1,1,1-Trichloroethane	ND		1.0		ug/Kg		06/18/26 10:25	06/20/26 12:49	1
1,1,2,2-Tetrachloroethane	ND		2.0		ug/Kg		06/18/26 10:25	06/20/26 12:49	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		10		ug/Kg		06/18/26 10:25	06/20/26 12:49	1
1,1,2-Trichloroethane	ND		1.0		ug/Kg		06/18/26 10:25	06/20/26 12:49	1
1,1-Dichloroethane	ND		1.0		ug/Kg		06/18/26 10:25	06/20/26 12:49	1
1,1-Dichloroethene	ND		1.0		ug/Kg		06/18/26 10:25	06/20/26 12:49	1
1,1-Dichloropropene	ND		2.0		ug/Kg		06/18/26 10:25	06/20/26 12:49	1
1,2,3-Trichlorobenzene	ND		2.0		ug/Kg		06/18/26 10:25	06/20/26 12:49	1
1,2,3-Trichloropropane	ND		2.0		ug/Kg		06/18/26 10:25	06/20/26 12:49	1
1,2,4-Trichlorobenzene	ND		2.0		ug/Kg		06/18/26 10:25	06/20/26 12:49	1
1,2,4-Trimethylbenzene	ND		2.0		ug/Kg		06/18/26 10:25	06/20/26 12:49	1
1,2-Dibromo-3-Chloropropane	ND		10		ug/Kg		06/18/26 10:25	06/20/26 12:49	1
1,2-Dibromoethane	ND		1.0		ug/Kg		06/18/26 10:25	06/20/26 12:49	1
1,2-Dichlorobenzene	ND		1.0		ug/Kg		06/18/26 10:25	06/20/26 12:49	1
1,2-Dichloroethane	ND		1.0		ug/Kg		06/18/26 10:25	06/20/26 12:49	1
1,2-Dichloropropane	ND		1.0		ug/Kg		06/18/26 10:25	06/20/26 12:49	1
1,3,5-Trimethylbenzene	ND		2.0		ug/Kg		06/18/26 10:25	06/20/26 12:49	1
1,3-Dichlorobenzene	ND		1.0		ug/Kg		06/18/26 10:25	06/20/26 12:49	1
1,3-Dichloropropane	ND		1.0		ug/Kg		06/18/26 10:25	06/20/26 12:49	1
1,4-Dichlorobenzene	ND		1.0		ug/Kg		06/18/26 10:25	06/20/26 12:49	1
2,2-Dichloropropane	ND		5.1		ug/Kg		06/18/26 10:25	06/20/26 12:49	1
2-Butanone (MEK)	ND		20		ug/Kg		06/18/26 10:25	06/20/26 12:49	1
2-Chlorotoluene	ND		1.0		ug/Kg		06/18/26 10:25	06/20/26 12:49	1
2-Hexanone	ND		20		ug/Kg		06/18/26 10:25	06/20/26 12:49	1
4-Chlorotoluene	ND		1.0		ug/Kg		06/18/26 10:25	06/20/26 12:49	1
4-Methyl-2-pentanone (MIBK)	ND		20		ug/Kg		06/18/26 10:25	06/20/26 12:49	1
Acetone	ND		20		ug/Kg		06/18/26 10:25	06/20/26 12:49	1
Benzene	ND		1.0		ug/Kg		06/18/26 10:25	06/20/26 12:49	1
Bromobenzene	ND		1.0		ug/Kg		06/18/26 10:25	06/20/26 12:49	1
Bromochloromethane	ND		2.0		ug/Kg		06/18/26 10:25	06/20/26 12:49	1
Bromodichloromethane	ND		1.0		ug/Kg		06/18/26 10:25	06/20/26 12:49	1
Bromoform	ND		5.1		ug/Kg		06/18/26 10:25	06/20/26 12:49	1
Bromomethane	ND		20		ug/Kg		06/18/26 10:25	06/20/26 12:49	1
cis-1,2-Dichloroethene	ND		1.0		ug/Kg		06/18/26 10:25	06/20/26 12:49	1
cis-1,3-Dichloropropene	ND		1.0		ug/Kg		06/18/26 10:25	06/20/26 12:49	1
Carbon disulfide	ND		10		ug/Kg		06/18/26 10:25	06/20/26 12:49	1
Carbon tetrachloride	ND		1.0		ug/Kg		06/18/26 10:25	06/20/26 12:49	1
Chlorobenzene	ND		1.0		ug/Kg		06/18/26 10:25	06/20/26 12:49	1
Chloroethane	ND		2.0		ug/Kg		06/18/26 10:25	06/20/26 12:49	1
Chloroform	ND		1.0		ug/Kg		06/18/26 10:25	06/20/26 12:49	1
Chloromethane	ND		20		ug/Kg		06/18/26 10:25	06/20/26 12:49	1
Dibromochloromethane	ND		2.0		ug/Kg		06/18/26 10:25	06/20/26 12:49	1
Dibromomethane	ND		1.0		ug/Kg		06/18/26 10:25	06/20/26 12:49	1
Dichlorodifluoromethane	ND		2.0		ug/Kg		06/18/26 10:25	06/20/26 12:49	1
Di-isopropyl ether (DIPE)	ND		1.0		ug/Kg		06/18/26 10:25	06/20/26 12:49	1
Ethanol	ND		260		ug/Kg		06/18/26 10:25	06/20/26 12:49	1
Ethylbenzene	ND		1.0		ug/Kg		06/18/26 10:25	06/20/26 12:49	1
Ethyl-t-butyl ether (ETBE)	ND		1.0		ug/Kg		06/18/26 10:25	06/20/26 12:49	1

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B5-13
Date Collected: 06/15/26 08:00
Date Received: 06/16/26 18:00

Lab Sample ID: 570-284007-1
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		1.0		ug/Kg		06/18/26 10:25	06/20/26 12:49	1
Methylene Chloride	ND		10		ug/Kg		06/18/26 10:25	06/20/26 12:49	1
Methyl-t-Butyl Ether (MTBE)	ND		2.0		ug/Kg		06/18/26 10:25	06/20/26 12:49	1
Naphthalene	ND		10		ug/Kg		06/18/26 10:25	06/20/26 12:49	1
n-Butylbenzene	ND		1.0		ug/Kg		06/18/26 10:25	06/20/26 12:49	1
N-Propylbenzene	ND		2.0		ug/Kg		06/18/26 10:25	06/20/26 12:49	1
o-Xylene	ND		1.0		ug/Kg		06/18/26 10:25	06/20/26 12:49	1
m,p-Xylene	ND		2.0		ug/Kg		06/18/26 10:25	06/20/26 12:49	1
p-Isopropyltoluene	ND		1.0		ug/Kg		06/18/26 10:25	06/20/26 12:49	1
sec-Butylbenzene	ND		1.0		ug/Kg		06/18/26 10:25	06/20/26 12:49	1
Styrene	ND		1.0		ug/Kg		06/18/26 10:25	06/20/26 12:49	1
trans-1,2-Dichloroethene	ND		1.0		ug/Kg		06/18/26 10:25	06/20/26 12:49	1
trans-1,3-Dichloropropene	ND		2.0		ug/Kg		06/18/26 10:25	06/20/26 12:49	1
Tert-amyl-methyl ether (TAME)	ND		1.0		ug/Kg		06/18/26 10:25	06/20/26 12:49	1
tert-Butyl alcohol (TBA)	ND		20		ug/Kg		06/18/26 10:25	06/20/26 12:49	1
tert-Butylbenzene	ND		1.0		ug/Kg		06/18/26 10:25	06/20/26 12:49	1
Tetrachloroethene	ND		1.0		ug/Kg		06/18/26 10:25	06/20/26 12:49	1
Toluene	ND		1.0		ug/Kg		06/18/26 10:25	06/20/26 12:49	1
Trichloroethene	ND		2.0		ug/Kg		06/18/26 10:25	06/20/26 12:49	1
Trichlorofluoromethane	ND		10		ug/Kg		06/18/26 10:25	06/20/26 12:49	1
Vinyl acetate	ND		10		ug/Kg		06/18/26 10:25	06/20/26 12:49	1
Vinyl chloride	ND		1.0		ug/Kg		06/18/26 10:25	06/20/26 12:49	1
Xylenes, Total	ND		2.0		ug/Kg		06/18/26 10:25	06/20/26 12:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*116*		*32 - 179*	*06/18/26 10:25*	*06/20/26 12:49*	*1*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*	*06/18/26 10:25*	*06/20/26 12:49*	*1*
Dibromofluoromethane (Surr)	*106*		*58 - 147*	*06/18/26 10:25*	*06/20/26 12:49*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*	*06/18/26 10:25*	*06/20/26 12:49*	*1*

Client Sample ID: B4-13
Date Collected: 06/15/26 08:45
Date Received: 06/16/26 18:00

Lab Sample ID: 570-284007-2
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.88		ug/Kg		06/18/26 10:25	06/20/26 13:10	1
1,1,1-Trichloroethane	ND		0.88		ug/Kg		06/18/26 10:25	06/20/26 13:10	1
1,1,2,2-Tetrachloroethane	ND		1.8		ug/Kg		06/18/26 10:25	06/20/26 13:10	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		8.8		ug/Kg		06/18/26 10:25	06/20/26 13:10	1
1,1,2-Trichloroethane	ND		0.88		ug/Kg		06/18/26 10:25	06/20/26 13:10	1
1,1-Dichloroethane	ND		0.88		ug/Kg		06/18/26 10:25	06/20/26 13:10	1
1,1-Dichloroethene	ND		0.88		ug/Kg		06/18/26 10:25	06/20/26 13:10	1
1,1-Dichloropropene	ND		1.8		ug/Kg		06/18/26 10:25	06/20/26 13:10	1
1,2,3-Trichlorobenzene	ND		1.8		ug/Kg		06/18/26 10:25	06/20/26 13:10	1
1,2,3-Trichloropropane	ND		1.8		ug/Kg		06/18/26 10:25	06/20/26 13:10	1
1,2,4-Trichlorobenzene	ND		1.8		ug/Kg		06/18/26 10:25	06/20/26 13:10	1
1,2,4-Trimethylbenzene	ND		1.8		ug/Kg		06/18/26 10:25	06/20/26 13:10	1
1,2-Dibromo-3-Chloropropane	ND		8.8		ug/Kg		06/18/26 10:25	06/20/26 13:10	1
1,2-Dibromoethane	ND		0.88		ug/Kg		06/18/26 10:25	06/20/26 13:10	1
1,2-Dichlorobenzene	ND		0.88		ug/Kg		06/18/26 10:25	06/20/26 13:10	1
1,2-Dichloroethane	ND		0.88		ug/Kg		06/18/26 10:25	06/20/26 13:10	1

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B4-13
Date Collected: 06/15/26 08:45
Date Received: 06/16/26 18:00

Lab Sample ID: 570-284007-2
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloropropane	ND		0.88		ug/Kg		06/18/26 10:25	06/20/26 13:10	1
1,3,5-Trimethylbenzene	ND		1.8		ug/Kg		06/18/26 10:25	06/20/26 13:10	1
1,3-Dichlorobenzene	ND		0.88		ug/Kg		06/18/26 10:25	06/20/26 13:10	1
1,3-Dichloropropane	ND		0.88		ug/Kg		06/18/26 10:25	06/20/26 13:10	1
1,4-Dichlorobenzene	ND		0.88		ug/Kg		06/18/26 10:25	06/20/26 13:10	1
2,2-Dichloropropane	ND		4.4		ug/Kg		06/18/26 10:25	06/20/26 13:10	1
2-Butanone (MEK)	ND		18		ug/Kg		06/18/26 10:25	06/20/26 13:10	1
2-Chlorotoluene	ND		0.88		ug/Kg		06/18/26 10:25	06/20/26 13:10	1
2-Hexanone	ND		18		ug/Kg		06/18/26 10:25	06/20/26 13:10	1
4-Chlorotoluene	ND		0.88		ug/Kg		06/18/26 10:25	06/20/26 13:10	1
4-Methyl-2-pentanone (MIBK)	ND		18		ug/Kg		06/18/26 10:25	06/20/26 13:10	1
Acetone	ND		18		ug/Kg		06/18/26 10:25	06/20/26 13:10	1
Benzene	ND		0.88		ug/Kg		06/18/26 10:25	06/20/26 13:10	1
Bromobenzene	ND		0.88		ug/Kg		06/18/26 10:25	06/20/26 13:10	1
Bromochloromethane	ND		1.8		ug/Kg		06/18/26 10:25	06/20/26 13:10	1
Bromodichloromethane	ND		0.88		ug/Kg		06/18/26 10:25	06/20/26 13:10	1
Bromoform	ND		4.4		ug/Kg		06/18/26 10:25	06/20/26 13:10	1
Bromomethane	ND		18		ug/Kg		06/18/26 10:25	06/20/26 13:10	1
cis-1,2-Dichloroethene	ND		0.88		ug/Kg		06/18/26 10:25	06/20/26 13:10	1
cis-1,3-Dichloropropene	ND		0.88		ug/Kg		06/18/26 10:25	06/20/26 13:10	1
Carbon disulfide	ND		8.8		ug/Kg		06/18/26 10:25	06/20/26 13:10	1
Carbon tetrachloride	ND		0.88		ug/Kg		06/18/26 10:25	06/20/26 13:10	1
Chlorobenzene	ND		0.88		ug/Kg		06/18/26 10:25	06/20/26 13:10	1
Chloroethane	ND		1.8		ug/Kg		06/18/26 10:25	06/20/26 13:10	1
Chloroform	ND		0.88		ug/Kg		06/18/26 10:25	06/20/26 13:10	1
Chloromethane	ND		18		ug/Kg		06/18/26 10:25	06/20/26 13:10	1
Dibromochloromethane	ND		1.8		ug/Kg		06/18/26 10:25	06/20/26 13:10	1
Dibromomethane	ND		0.88		ug/Kg		06/18/26 10:25	06/20/26 13:10	1
Dichlorodifluoromethane	ND		1.8		ug/Kg		06/18/26 10:25	06/20/26 13:10	1
Di-isopropyl ether (DIPE)	ND		0.88		ug/Kg		06/18/26 10:25	06/20/26 13:10	1
Ethanol	ND		220		ug/Kg		06/18/26 10:25	06/20/26 13:10	1
Ethylbenzene	ND		0.88		ug/Kg		06/18/26 10:25	06/20/26 13:10	1
Ethyl-t-butyl ether (ETBE)	ND		0.88		ug/Kg		06/18/26 10:25	06/20/26 13:10	1
Isopropylbenzene	ND		0.88		ug/Kg		06/18/26 10:25	06/20/26 13:10	1
Methylene Chloride	ND		8.8		ug/Kg		06/18/26 10:25	06/20/26 13:10	1
Methyl-t-Butyl Ether (MTBE)	ND		1.8		ug/Kg		06/18/26 10:25	06/20/26 13:10	1
Naphthalene	ND		8.8		ug/Kg		06/18/26 10:25	06/20/26 13:10	1
n-Butylbenzene	ND		0.88		ug/Kg		06/18/26 10:25	06/20/26 13:10	1
N-Propylbenzene	ND		1.8		ug/Kg		06/18/26 10:25	06/20/26 13:10	1
o-Xylene	ND		0.88		ug/Kg		06/18/26 10:25	06/20/26 13:10	1
m,p-Xylene	ND		1.8		ug/Kg		06/18/26 10:25	06/20/26 13:10	1
p-Isopropyltoluene	ND		0.88		ug/Kg		06/18/26 10:25	06/20/26 13:10	1
sec-Butylbenzene	ND		0.88		ug/Kg		06/18/26 10:25	06/20/26 13:10	1
Styrene	ND		0.88		ug/Kg		06/18/26 10:25	06/20/26 13:10	1
trans-1,2-Dichloroethene	ND		0.88		ug/Kg		06/18/26 10:25	06/20/26 13:10	1
trans-1,3-Dichloropropene	ND		1.8		ug/Kg		06/18/26 10:25	06/20/26 13:10	1
Tert-amyl-methyl ether (TAME)	ND		0.88		ug/Kg		06/18/26 10:25	06/20/26 13:10	1
tert-Butyl alcohol (TBA)	ND		18		ug/Kg		06/18/26 10:25	06/20/26 13:10	1
tert-Butylbenzene	ND		0.88		ug/Kg		06/18/26 10:25	06/20/26 13:10	1

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B4-13
Date Collected: 06/15/26 08:45
Date Received: 06/16/26 18:00

Lab Sample ID: 570-284007-2
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	ND		0.88		ug/Kg		06/18/26 10:25	06/20/26 13:10	1
Toluene	ND		0.88		ug/Kg		06/18/26 10:25	06/20/26 13:10	1
Trichloroethene	ND		1.8		ug/Kg		06/18/26 10:25	06/20/26 13:10	1
Trichlorofluoromethane	ND		8.8		ug/Kg		06/18/26 10:25	06/20/26 13:10	1
Vinyl acetate	ND		8.8		ug/Kg		06/18/26 10:25	06/20/26 13:10	1
Vinyl chloride	ND		0.88		ug/Kg		06/18/26 10:25	06/20/26 13:10	1
Xylenes, Total	ND		1.8		ug/Kg		06/18/26 10:25	06/20/26 13:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*114*		*32 - 179*	*06/18/26 10:25*	*06/20/26 13:10*	*1*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*	*06/18/26 10:25*	*06/20/26 13:10*	*1*
Dibromofluoromethane (Surr)	*105*		*58 - 147*	*06/18/26 10:25*	*06/20/26 13:10*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*	*06/18/26 10:25*	*06/20/26 13:10*	*1*

Client Sample ID: B3-13
Date Collected: 06/15/26 09:25
Date Received: 06/16/26 18:00

Lab Sample ID: 570-284007-3
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.86		ug/Kg		06/18/26 10:25	06/20/26 13:31	1
1,1,1-Trichloroethane	ND		0.86		ug/Kg		06/18/26 10:25	06/20/26 13:31	1
1,1,2,2-Tetrachloroethane	ND		1.7		ug/Kg		06/18/26 10:25	06/20/26 13:31	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		8.6		ug/Kg		06/18/26 10:25	06/20/26 13:31	1
1,1,2-Trichloroethane	ND		0.86		ug/Kg		06/18/26 10:25	06/20/26 13:31	1
1,1-Dichloroethane	ND		0.86		ug/Kg		06/18/26 10:25	06/20/26 13:31	1
1,1-Dichloroethene	ND		0.86		ug/Kg		06/18/26 10:25	06/20/26 13:31	1
1,1-Dichloropropene	ND		1.7		ug/Kg		06/18/26 10:25	06/20/26 13:31	1
1,2,3-Trichlorobenzene	ND		1.7		ug/Kg		06/18/26 10:25	06/20/26 13:31	1
1,2,3-Trichloropropane	ND		1.7		ug/Kg		06/18/26 10:25	06/20/26 13:31	1
1,2,4-Trichlorobenzene	ND		1.7		ug/Kg		06/18/26 10:25	06/20/26 13:31	1
1,2,4-Trimethylbenzene	ND		1.7		ug/Kg		06/18/26 10:25	06/20/26 13:31	1
1,2-Dibromo-3-Chloropropane	ND		8.6		ug/Kg		06/18/26 10:25	06/20/26 13:31	1
1,2-Dibromoethane	ND		0.86		ug/Kg		06/18/26 10:25	06/20/26 13:31	1
1,2-Dichlorobenzene	ND		0.86		ug/Kg		06/18/26 10:25	06/20/26 13:31	1
1,2-Dichloroethane	ND		0.86		ug/Kg		06/18/26 10:25	06/20/26 13:31	1
1,2-Dichloropropane	ND		0.86		ug/Kg		06/18/26 10:25	06/20/26 13:31	1
1,3,5-Trimethylbenzene	ND		1.7		ug/Kg		06/18/26 10:25	06/20/26 13:31	1
1,3-Dichlorobenzene	ND		0.86		ug/Kg		06/18/26 10:25	06/20/26 13:31	1
1,3-Dichloropropane	ND		0.86		ug/Kg		06/18/26 10:25	06/20/26 13:31	1
1,4-Dichlorobenzene	ND		0.86		ug/Kg		06/18/26 10:25	06/20/26 13:31	1
2,2-Dichloropropane	ND		4.3		ug/Kg		06/18/26 10:25	06/20/26 13:31	1
2-Butanone (MEK)	ND		17		ug/Kg		06/18/26 10:25	06/20/26 13:31	1
2-Chlorotoluene	ND		0.86		ug/Kg		06/18/26 10:25	06/20/26 13:31	1
2-Hexanone	ND		17		ug/Kg		06/18/26 10:25	06/20/26 13:31	1
4-Chlorotoluene	ND		0.86		ug/Kg		06/18/26 10:25	06/20/26 13:31	1
4-Methyl-2-pentanone (MIBK)	ND		17		ug/Kg		06/18/26 10:25	06/20/26 13:31	1
Acetone	ND		17		ug/Kg		06/18/26 10:25	06/20/26 13:31	1
Benzene	ND		0.86		ug/Kg		06/18/26 10:25	06/20/26 13:31	1
Bromobenzene	ND		0.86		ug/Kg		06/18/26 10:25	06/20/26 13:31	1
Bromochloromethane	ND		1.7		ug/Kg		06/18/26 10:25	06/20/26 13:31	1
Bromodichloromethane	ND		0.86		ug/Kg		06/18/26 10:25	06/20/26 13:31	1

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B3-13
Date Collected: 06/15/26 09:25
Date Received: 06/16/26 18:00

Lab Sample ID: 570-284007-3
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Bromoform	ND		4.3		ug/Kg		06/18/26 10:25	06/20/26 13:31	1
Bromomethane	ND		17		ug/Kg		06/18/26 10:25	06/20/26 13:31	1
cis-1,2-Dichloroethene	ND		0.86		ug/Kg		06/18/26 10:25	06/20/26 13:31	1
cis-1,3-Dichloropropene	ND		0.86		ug/Kg		06/18/26 10:25	06/20/26 13:31	1
Carbon disulfide	ND		8.6		ug/Kg		06/18/26 10:25	06/20/26 13:31	1
Carbon tetrachloride	ND		0.86		ug/Kg		06/18/26 10:25	06/20/26 13:31	1
Chlorobenzene	ND		0.86		ug/Kg		06/18/26 10:25	06/20/26 13:31	1
Chloroethane	ND		1.7		ug/Kg		06/18/26 10:25	06/20/26 13:31	1
Chloroform	ND		0.86		ug/Kg		06/18/26 10:25	06/20/26 13:31	1
Chloromethane	ND		17		ug/Kg		06/18/26 10:25	06/20/26 13:31	1
Dibromochloromethane	ND		1.7		ug/Kg		06/18/26 10:25	06/20/26 13:31	1
Dibromomethane	ND		0.86		ug/Kg		06/18/26 10:25	06/20/26 13:31	1
Dichlorodifluoromethane	ND		1.7		ug/Kg		06/18/26 10:25	06/20/26 13:31	1
Di-isopropyl ether (DIPE)	ND		0.86		ug/Kg		06/18/26 10:25	06/20/26 13:31	1
Ethanol	ND		220		ug/Kg		06/18/26 10:25	06/20/26 13:31	1
Ethylbenzene	ND		0.86		ug/Kg		06/18/26 10:25	06/20/26 13:31	1
Ethyl-t-butyl ether (ETBE)	ND		0.86		ug/Kg		06/18/26 10:25	06/20/26 13:31	1
Isopropylbenzene	ND		0.86		ug/Kg		06/18/26 10:25	06/20/26 13:31	1
Methylene Chloride	ND		8.6		ug/Kg		06/18/26 10:25	06/20/26 13:31	1
Methyl-t-Butyl Ether (MTBE)	ND		1.7		ug/Kg		06/18/26 10:25	06/20/26 13:31	1
Naphthalene	ND		8.6		ug/Kg		06/18/26 10:25	06/20/26 13:31	1
n-Butylbenzene	ND		0.86		ug/Kg		06/18/26 10:25	06/20/26 13:31	1
N-Propylbenzene	ND		1.7		ug/Kg		06/18/26 10:25	06/20/26 13:31	1
o-Xylene	ND		0.86		ug/Kg		06/18/26 10:25	06/20/26 13:31	1
m,p-Xylene	ND		1.7		ug/Kg		06/18/26 10:25	06/20/26 13:31	1
p-Isopropyltoluene	ND		0.86		ug/Kg		06/18/26 10:25	06/20/26 13:31	1
sec-Butylbenzene	ND		0.86		ug/Kg		06/18/26 10:25	06/20/26 13:31	1
Styrene	ND		0.86		ug/Kg		06/18/26 10:25	06/20/26 13:31	1
trans-1,2-Dichloroethene	ND		0.86		ug/Kg		06/18/26 10:25	06/20/26 13:31	1
trans-1,3-Dichloropropene	ND		1.7		ug/Kg		06/18/26 10:25	06/20/26 13:31	1
Tert-amyl-methyl ether (TAME)	ND		0.86		ug/Kg		06/18/26 10:25	06/20/26 13:31	1
tert-Butyl alcohol (TBA)	ND		17		ug/Kg		06/18/26 10:25	06/20/26 13:31	1
tert-Butylbenzene	ND		0.86		ug/Kg		06/18/26 10:25	06/20/26 13:31	1
Tetrachloroethene	ND		0.86		ug/Kg		06/18/26 10:25	06/20/26 13:31	1
Toluene	ND		0.86		ug/Kg		06/18/26 10:25	06/20/26 13:31	1
Trichloroethene	ND		1.7		ug/Kg		06/18/26 10:25	06/20/26 13:31	1
Trichlorofluoromethane	ND		8.6		ug/Kg		06/18/26 10:25	06/20/26 13:31	1
Vinyl acetate	ND		8.6		ug/Kg		06/18/26 10:25	06/20/26 13:31	1
Vinyl chloride	ND		0.86		ug/Kg		06/18/26 10:25	06/20/26 13:31	1
Xylenes, Total	ND		1.7		ug/Kg		06/18/26 10:25	06/20/26 13:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*113*		*32 - 179*	*06/18/26 10:25*	*06/20/26 13:31*	*1*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*	*06/18/26 10:25*	*06/20/26 13:31*	*1*
Dibromofluoromethane (Surr)	*104*		*58 - 147*	*06/18/26 10:25*	*06/20/26 13:31*	*1*
Toluene-d8 (Surr)	*98*		*80 - 120*	*06/18/26 10:25*	*06/20/26 13:31*	*1*

Client: Stantec Consulting Corporation
Project/Site: Amgen BSD 2042726000

Job ID: 570-284007-1

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: B2-3.5
Date Collected: 06/15/26 10:15
Date Received: 06/16/26 18:00

Lab Sample ID: 570-284007-4
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.3		ug/Kg		06/18/26 10:25	06/20/26 19:25	1
1,1,1-Trichloroethane	ND		1.3		ug/Kg		06/18/26 10:25	06/20/26 19:25	1
1,1,2,2-Tetrachloroethane	ND		2.5		ug/Kg		06/18/26 10:25	06/20/26 19:25	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		13		ug/Kg		06/18/26 10:25	06/20/26 19:25	1
1,1,2-Trichloroethane	ND		1.3		ug/Kg		06/18/26 10:25	06/20/26 19:25	1
1,1-Dichloroethane	ND		1.3		ug/Kg		06/18/26 10:25	06/20/26 19:25	1
1,1-Dichloroethene	ND		1.3		ug/Kg		06/18/26 10:25	06/20/26 19:25	1
1,1-Dichloropropene	ND		2.5		ug/Kg		06/18/26 10:25	06/20/26 19:25	1
1,2,3-Trichlorobenzene	ND		2.5		ug/Kg		06/18/26 10:25	06/20/26 19:25	1
1,2,3-Trichloropropane	ND		2.5		ug/Kg		06/18/26 10:25	06/20/26 19:25	1
1,2,4-Trichlorobenzene	ND		2.5		ug/Kg		06/18/26 10:25	06/20/26 19:25	1
1,2,4-Trimethylbenzene	ND		2.5		ug/Kg		06/18/26 10:25	06/20/26 19:25	1
1,2-Dibromo-3-Chloropropane	ND		13		ug/Kg		06/18/26 10:25	06/20/26 19:25	1
1,2-Dibromoethane	ND		1.3		ug/Kg		06/18/26 10:25	06/20/26 19:25	1
1,2-Dichlorobenzene	ND		1.3		ug/Kg		06/18/26 10:25	06/20/26 19:25	1
1,2-Dichloroethane	ND		1.3		ug/Kg		06/18/26 10:25	06/20/26 19:25	1
1,2-Dichloropropane	ND		1.3		ug/Kg		06/18/26 10:25	06/20/26 19:25	1
1,3,5-Trimethylbenzene	ND		2.5		ug/Kg		06/18/26 10:25	06/20/26 19:25	1
1,3-Dichlorobenzene	ND		1.3		ug/Kg		06/18/26 10:25	06/20/26 19:25	1
1,3-Dichloropropane	ND		1.3		ug/Kg		06/18/26 10:25	06/20/26 19:25	1
1,4-Dichlorobenzene	ND		1.3		ug/Kg		06/18/26 10:25	06/20/26 19:25	1
2,2-Dichloropropane	ND		6.3		ug/Kg		06/18/26 10:25	06/20/26 19:25	1
2-Butanone (MEK)	ND		25		ug/Kg		06/18/26 10:25	06/20/26 19:25	1
2-Chlorotoluene	ND		1.3		ug/Kg		06/18/26 10:25	06/20/26 19:25	1
2-Hexanone	ND		25		ug/Kg		06/18/26 10:25	06/20/26 19:25	1
4-Chlorotoluene	ND		1.3		ug/Kg		06/18/26 10:25	06/20/26 19:25	1
4-Methyl-2-pentanone (MIBK)	ND		25		ug/Kg		06/18/26 10:25	06/20/26 19:25	1
Acetone	**87**		25		ug/Kg		06/18/26 10:25	06/20/26 19:25	1
Benzene	ND		1.3		ug/Kg		06/18/26 10:25	06/20/26 19:25	1
Bromobenzene	ND		1.3		ug/Kg		06/18/26 10:25	06/20/26 19:25	1
Bromochloromethane	ND		2.5		ug/Kg		06/18/26 10:25	06/20/26 19:25	1
Bromodichloromethane	ND		1.3		ug/Kg		06/18/26 10:25	06/20/26 19:25	1
Bromoform	ND		6.3		ug/Kg		06/18/26 10:25	06/20/26 19:25	1
Bromomethane	ND		25		ug/Kg		06/18/26 10:25	06/20/26 19:25	1
cis-1,2-Dichloroethene	ND		1.3		ug/Kg		06/18/26 10:25	06/20/26 19:25	1
cis-1,3-Dichloropropene	ND		1.3		ug/Kg		06/18/26 10:25	06/20/26 19:25	1
Carbon disulfide	ND		13		ug/Kg		06/18/26 10:25	06/20/26 19:25	1
Carbon tetrachloride	ND		1.3		ug/Kg		06/18/26 10:25	06/20/26 19:25	1
Chlorobenzene	ND		1.3		ug/Kg		06/18/26 10:25	06/20/26 19:25	1
Chloroethane	ND		2.5		ug/Kg		06/18/26 10:25	06/20/26 19:25	1
Chloroform	ND		1.3		ug/Kg		06/18/26 10:25	06/20/26 19:25	1
Chloromethane	ND		25		ug/Kg		06/18/26 10:25	06/20/26 19:25	1
Dibromochloromethane	ND		2.5		ug/Kg		06/18/26 10:25	06/20/26 19:25	1
Dibromomethane	ND		1.3		ug/Kg		06/18/26 10:25	06/20/26 19:25	1
Dichlorodifluoromethane	ND		2.5		ug/Kg		06/18/26 10:25	06/20/26 19:25	1
Di-isopropyl ether (DIPE)	ND		1.3		ug/Kg		06/18/26 10:25	06/20/26 19:25	1
Ethanol	ND		310		ug/Kg		06/18/26 10:25	06/20/26 19:25	1
Ethylbenzene	ND		1.3		ug/Kg		06/18/26 10:25	06/20/26 19:25	1
Ethyl-t-butyl ether (ETBE)	ND		1.3		ug/Kg		06/18/26 10:25	06/20/26 19:25	1

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B2-3.5
Date Collected: 06/15/26 10:15
Date Received: 06/16/26 18:00

Lab Sample ID: 570-284007-4
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		1.3		ug/Kg		06/18/26 10:25	06/20/26 19:25	1
Methylene Chloride	ND		13		ug/Kg		06/18/26 10:25	06/20/26 19:25	1
Methyl-t-Butyl Ether (MTBE)	ND		2.5		ug/Kg		06/18/26 10:25	06/20/26 19:25	1
Naphthalene	ND		13		ug/Kg		06/18/26 10:25	06/20/26 19:25	1
n-Butylbenzene	ND		1.3		ug/Kg		06/18/26 10:25	06/20/26 19:25	1
N-Propylbenzene	ND		2.5		ug/Kg		06/18/26 10:25	06/20/26 19:25	1
o-Xylene	ND		1.3		ug/Kg		06/18/26 10:25	06/20/26 19:25	1
m,p-Xylene	**2.6**		2.5		ug/Kg		06/18/26 10:25	06/20/26 19:25	1
p-Isopropyltoluene	**11**		1.3		ug/Kg		06/18/26 10:25	06/20/26 19:25	1
sec-Butylbenzene	ND		1.3		ug/Kg		06/18/26 10:25	06/20/26 19:25	1
Styrene	ND		1.3		ug/Kg		06/18/26 10:25	06/20/26 19:25	1
trans-1,2-Dichloroethene	ND		1.3		ug/Kg		06/18/26 10:25	06/20/26 19:25	1
trans-1,3-Dichloropropene	ND		2.5		ug/Kg		06/18/26 10:25	06/20/26 19:25	1
Tert-amyl-methyl ether (TAME)	ND		1.3		ug/Kg		06/18/26 10:25	06/20/26 19:25	1
tert-Butyl alcohol (TBA)	ND		25		ug/Kg		06/18/26 10:25	06/20/26 19:25	1
tert-Butylbenzene	ND		1.3		ug/Kg		06/18/26 10:25	06/20/26 19:25	1
Tetrachloroethene	ND		1.3		ug/Kg		06/18/26 10:25	06/20/26 19:25	1
Toluene	**10**		1.3		ug/Kg		06/18/26 10:25	06/20/26 19:25	1
Trichloroethene	ND		2.5		ug/Kg		06/18/26 10:25	06/20/26 19:25	1
Trichlorofluoromethane	ND		13		ug/Kg		06/18/26 10:25	06/20/26 19:25	1
Vinyl acetate	ND		13		ug/Kg		06/18/26 10:25	06/20/26 19:25	1
Vinyl chloride	ND		1.3		ug/Kg		06/18/26 10:25	06/20/26 19:25	1
Xylenes, Total	**2.6**		2.5		ug/Kg		06/18/26 10:25	06/20/26 19:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*110*		*32 - 179*	*06/18/26 10:25*	*06/20/26 19:25*	*1*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*	*06/18/26 10:25*	*06/20/26 19:25*	*1*
Dibromofluoromethane (Surr)	*100*		*58 - 147*	*06/18/26 10:25*	*06/20/26 19:25*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*	*06/18/26 10:25*	*06/20/26 19:25*	*1*

Client Sample ID: B6-5
Date Collected: 06/15/26 11:50
Date Received: 06/16/26 18:00

Lab Sample ID: 570-284007-5
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.69		ug/Kg		06/18/26 10:25	06/20/26 13:52	1
1,1,1-Trichloroethane	ND		0.69		ug/Kg		06/18/26 10:25	06/20/26 13:52	1
1,1,2,2-Tetrachloroethane	ND		1.4		ug/Kg		06/18/26 10:25	06/20/26 13:52	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		6.9		ug/Kg		06/18/26 10:25	06/20/26 13:52	1
1,1,2-Trichloroethane	ND		0.69		ug/Kg		06/18/26 10:25	06/20/26 13:52	1
1,1-Dichloroethane	ND		0.69		ug/Kg		06/18/26 10:25	06/20/26 13:52	1
1,1-Dichloroethene	ND		0.69		ug/Kg		06/18/26 10:25	06/20/26 13:52	1
1,1-Dichloropropene	ND		1.4		ug/Kg		06/18/26 10:25	06/20/26 13:52	1
1,2,3-Trichlorobenzene	ND		1.4		ug/Kg		06/18/26 10:25	06/20/26 13:52	1
1,2,3-Trichloropropane	ND		1.4		ug/Kg		06/18/26 10:25	06/20/26 13:52	1
1,2,4-Trichlorobenzene	ND		1.4		ug/Kg		06/18/26 10:25	06/20/26 13:52	1
1,2,4-Trimethylbenzene	ND		1.4		ug/Kg		06/18/26 10:25	06/20/26 13:52	1
1,2-Dibromo-3-Chloropropane	ND		6.9		ug/Kg		06/18/26 10:25	06/20/26 13:52	1
1,2-Dibromoethane	ND		0.69		ug/Kg		06/18/26 10:25	06/20/26 13:52	1
1,2-Dichlorobenzene	ND		0.69		ug/Kg		06/18/26 10:25	06/20/26 13:52	1
1,2-Dichloroethane	ND		0.69		ug/Kg		06/18/26 10:25	06/20/26 13:52	1

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B6-5
Date Collected: 06/15/26 11:50
Date Received: 06/16/26 18:00

Lab Sample ID: 570-284007-5
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloropropane	ND		0.69		ug/Kg		06/18/26 10:25	06/20/26 13:52	1
1,3,5-Trimethylbenzene	ND		1.4		ug/Kg		06/18/26 10:25	06/20/26 13:52	1
1,3-Dichlorobenzene	ND		0.69		ug/Kg		06/18/26 10:25	06/20/26 13:52	1
1,3-Dichloropropane	ND		0.69		ug/Kg		06/18/26 10:25	06/20/26 13:52	1
1,4-Dichlorobenzene	ND		0.69		ug/Kg		06/18/26 10:25	06/20/26 13:52	1
2,2-Dichloropropane	ND		3.5		ug/Kg		06/18/26 10:25	06/20/26 13:52	1
2-Butanone (MEK)	ND		14		ug/Kg		06/18/26 10:25	06/20/26 13:52	1
2-Chlorotoluene	ND		0.69		ug/Kg		06/18/26 10:25	06/20/26 13:52	1
2-Hexanone	ND		14		ug/Kg		06/18/26 10:25	06/20/26 13:52	1
4-Chlorotoluene	ND		0.69		ug/Kg		06/18/26 10:25	06/20/26 13:52	1
4-Methyl-2-pentanone (MIBK)	ND		14		ug/Kg		06/18/26 10:25	06/20/26 13:52	1
Acetone	ND		14		ug/Kg		06/18/26 10:25	06/20/26 13:52	1
Benzene	ND		0.69		ug/Kg		06/18/26 10:25	06/20/26 13:52	1
Bromobenzene	ND		0.69		ug/Kg		06/18/26 10:25	06/20/26 13:52	1
Bromochloromethane	ND		1.4		ug/Kg		06/18/26 10:25	06/20/26 13:52	1
Bromodichloromethane	ND		0.69		ug/Kg		06/18/26 10:25	06/20/26 13:52	1
Bromoform	ND		3.5		ug/Kg		06/18/26 10:25	06/20/26 13:52	1
Bromomethane	ND		14		ug/Kg		06/18/26 10:25	06/20/26 13:52	1
cis-1,2-Dichloroethene	ND		0.69		ug/Kg		06/18/26 10:25	06/20/26 13:52	1
cis-1,3-Dichloropropene	ND		0.69		ug/Kg		06/18/26 10:25	06/20/26 13:52	1
Carbon disulfide	ND		6.9		ug/Kg		06/18/26 10:25	06/20/26 13:52	1
Carbon tetrachloride	ND		0.69		ug/Kg		06/18/26 10:25	06/20/26 13:52	1
Chlorobenzene	ND		0.69		ug/Kg		06/18/26 10:25	06/20/26 13:52	1
Chloroethane	ND		1.4		ug/Kg		06/18/26 10:25	06/20/26 13:52	1
Chloroform	ND		0.69		ug/Kg		06/18/26 10:25	06/20/26 13:52	1
Chloromethane	ND		14		ug/Kg		06/18/26 10:25	06/20/26 13:52	1
Dibromochloromethane	ND		1.4		ug/Kg		06/18/26 10:25	06/20/26 13:52	1
Dibromomethane	ND		0.69		ug/Kg		06/18/26 10:25	06/20/26 13:52	1
Dichlorodifluoromethane	ND		1.4		ug/Kg		06/18/26 10:25	06/20/26 13:52	1
Di-isopropyl ether (DIPE)	ND		0.69		ug/Kg		06/18/26 10:25	06/20/26 13:52	1
Ethanol	**180**		170		ug/Kg		06/18/26 10:25	06/20/26 13:52	1
Ethylbenzene	ND		0.69		ug/Kg		06/18/26 10:25	06/20/26 13:52	1
Ethyl-t-butyl ether (ETBE)	ND		0.69		ug/Kg		06/18/26 10:25	06/20/26 13:52	1
Isopropylbenzene	ND		0.69		ug/Kg		06/18/26 10:25	06/20/26 13:52	1
Methylene Chloride	ND		6.9		ug/Kg		06/18/26 10:25	06/20/26 13:52	1
Methyl-t-Butyl Ether (MTBE)	ND		1.4		ug/Kg		06/18/26 10:25	06/20/26 13:52	1
Naphthalene	ND		6.9		ug/Kg		06/18/26 10:25	06/20/26 13:52	1
n-Butylbenzene	ND		0.69		ug/Kg		06/18/26 10:25	06/20/26 13:52	1
N-Propylbenzene	ND		1.4		ug/Kg		06/18/26 10:25	06/20/26 13:52	1
o-Xylene	ND		0.69		ug/Kg		06/18/26 10:25	06/20/26 13:52	1
m,p-Xylene	ND		1.4		ug/Kg		06/18/26 10:25	06/20/26 13:52	1
p-Isopropyltoluene	ND		0.69		ug/Kg		06/18/26 10:25	06/20/26 13:52	1
sec-Butylbenzene	ND		0.69		ug/Kg		06/18/26 10:25	06/20/26 13:52	1
Styrene	ND		0.69		ug/Kg		06/18/26 10:25	06/20/26 13:52	1
trans-1,2-Dichloroethene	ND		0.69		ug/Kg		06/18/26 10:25	06/20/26 13:52	1
trans-1,3-Dichloropropene	ND		1.4		ug/Kg		06/18/26 10:25	06/20/26 13:52	1
Tert-amyl-methyl ether (TAME)	ND		0.69		ug/Kg		06/18/26 10:25	06/20/26 13:52	1
tert-Butyl alcohol (TBA)	ND		14		ug/Kg		06/18/26 10:25	06/20/26 13:52	1
tert-Butylbenzene	ND		0.69		ug/Kg		06/18/26 10:25	06/20/26 13:52	1

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B6-5
Date Collected: 06/15/26 11:50
Date Received: 06/16/26 18:00

Lab Sample ID: 570-284007-5
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	ND		0.69		ug/Kg		06/18/26 10:25	06/20/26 13:52	1
Toluene	ND		0.69		ug/Kg		06/18/26 10:25	06/20/26 13:52	1
Trichloroethene	ND		1.4		ug/Kg		06/18/26 10:25	06/20/26 13:52	1
Trichlorofluoromethane	ND		6.9		ug/Kg		06/18/26 10:25	06/20/26 13:52	1
Vinyl acetate	ND		6.9		ug/Kg		06/18/26 10:25	06/20/26 13:52	1
Vinyl chloride	ND		0.69		ug/Kg		06/18/26 10:25	06/20/26 13:52	1
Xylenes, Total	ND		1.4		ug/Kg		06/18/26 10:25	06/20/26 13:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*116*		*32 - 179*	*06/18/26 10:25*	*06/20/26 13:52*	*1*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*	*06/18/26 10:25*	*06/20/26 13:52*	*1*
Dibromofluoromethane (Surr)	*106*		*58 - 147*	*06/18/26 10:25*	*06/20/26 13:52*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*	*06/18/26 10:25*	*06/20/26 13:52*	*1*

Client Sample ID: B7-3.5
Date Collected: 06/15/26 12:00
Date Received: 06/16/26 18:00

Lab Sample ID: 570-284007-6
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.75		ug/Kg		06/18/26 10:25	06/20/26 14:13	1
1,1,1-Trichloroethane	ND		0.75		ug/Kg		06/18/26 10:25	06/20/26 14:13	1
1,1,2,2-Tetrachloroethane	ND		1.5		ug/Kg		06/18/26 10:25	06/20/26 14:13	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		7.5		ug/Kg		06/18/26 10:25	06/20/26 14:13	1
1,1,2-Trichloroethane	ND		0.75		ug/Kg		06/18/26 10:25	06/20/26 14:13	1
1,1-Dichloroethane	ND		0.75		ug/Kg		06/18/26 10:25	06/20/26 14:13	1
1,1-Dichloroethene	ND		0.75		ug/Kg		06/18/26 10:25	06/20/26 14:13	1
1,1-Dichloropropene	ND		1.5		ug/Kg		06/18/26 10:25	06/20/26 14:13	1
1,2,3-Trichlorobenzene	ND		1.5		ug/Kg		06/18/26 10:25	06/20/26 14:13	1
1,2,3-Trichloropropane	ND		1.5		ug/Kg		06/18/26 10:25	06/20/26 14:13	1
1,2,4-Trichlorobenzene	ND		1.5		ug/Kg		06/18/26 10:25	06/20/26 14:13	1
1,2,4-Trimethylbenzene	ND		1.5		ug/Kg		06/18/26 10:25	06/20/26 14:13	1
1,2-Dibromo-3-Chloropropane	ND		7.5		ug/Kg		06/18/26 10:25	06/20/26 14:13	1
1,2-Dibromoethane	ND		0.75		ug/Kg		06/18/26 10:25	06/20/26 14:13	1
1,2-Dichlorobenzene	ND		0.75		ug/Kg		06/18/26 10:25	06/20/26 14:13	1
1,2-Dichloroethane	ND		0.75		ug/Kg		06/18/26 10:25	06/20/26 14:13	1
1,2-Dichloropropane	ND		0.75		ug/Kg		06/18/26 10:25	06/20/26 14:13	1
1,3,5-Trimethylbenzene	ND		1.5		ug/Kg		06/18/26 10:25	06/20/26 14:13	1
1,3-Dichlorobenzene	ND		0.75		ug/Kg		06/18/26 10:25	06/20/26 14:13	1
1,3-Dichloropropane	ND		0.75		ug/Kg		06/18/26 10:25	06/20/26 14:13	1
1,4-Dichlorobenzene	ND		0.75		ug/Kg		06/18/26 10:25	06/20/26 14:13	1
2,2-Dichloropropane	ND		3.7		ug/Kg		06/18/26 10:25	06/20/26 14:13	1
2-Butanone (MEK)	**150**		15		ug/Kg		06/18/26 10:25	06/20/26 14:13	1
2-Chlorotoluene	ND		0.75		ug/Kg		06/18/26 10:25	06/20/26 14:13	1
2-Hexanone	ND		15		ug/Kg		06/18/26 10:25	06/20/26 14:13	1
4-Chlorotoluene	ND		0.75		ug/Kg		06/18/26 10:25	06/20/26 14:13	1
4-Methyl-2-pentanone (MIBK)	ND		15		ug/Kg		06/18/26 10:25	06/20/26 14:13	1
Acetone	**69**		15		ug/Kg		06/18/26 10:25	06/20/26 14:13	1
Benzene	ND		0.75		ug/Kg		06/18/26 10:25	06/20/26 14:13	1
Bromobenzene	ND		0.75		ug/Kg		06/18/26 10:25	06/20/26 14:13	1
Bromochloromethane	ND		1.5		ug/Kg		06/18/26 10:25	06/20/26 14:13	1
Bromodichloromethane	ND		0.75		ug/Kg		06/18/26 10:25	06/20/26 14:13	1

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B7-3.5
Date Collected: 06/15/26 12:00
Date Received: 06/16/26 18:00

Lab Sample ID: 570-284007-6
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Bromoform	ND		3.7		ug/Kg		06/18/26 10:25	06/20/26 14:13	1
Bromomethane	ND		15		ug/Kg		06/18/26 10:25	06/20/26 14:13	1
cis-1,2-Dichloroethene	ND		0.75		ug/Kg		06/18/26 10:25	06/20/26 14:13	1
cis-1,3-Dichloropropene	ND		0.75		ug/Kg		06/18/26 10:25	06/20/26 14:13	1
Carbon disulfide	ND		7.5		ug/Kg		06/18/26 10:25	06/20/26 14:13	1
Carbon tetrachloride	ND		0.75		ug/Kg		06/18/26 10:25	06/20/26 14:13	1
Chlorobenzene	ND		0.75		ug/Kg		06/18/26 10:25	06/20/26 14:13	1
Chloroethane	ND		1.5		ug/Kg		06/18/26 10:25	06/20/26 14:13	1
Chloroform	ND		0.75		ug/Kg		06/18/26 10:25	06/20/26 14:13	1
Chloromethane	ND		15		ug/Kg		06/18/26 10:25	06/20/26 14:13	1
Dibromochloromethane	ND		1.5		ug/Kg		06/18/26 10:25	06/20/26 14:13	1
Dibromomethane	ND		0.75		ug/Kg		06/18/26 10:25	06/20/26 14:13	1
Dichlorodifluoromethane	ND		1.5		ug/Kg		06/18/26 10:25	06/20/26 14:13	1
Di-isopropyl ether (DIPE)	ND		0.75		ug/Kg		06/18/26 10:25	06/20/26 14:13	1
Ethanol	**220**		190		ug/Kg		06/18/26 10:25	06/20/26 14:13	1
Ethylbenzene	ND		0.75		ug/Kg		06/18/26 10:25	06/20/26 14:13	1
Ethyl-t-butyl ether (ETBE)	ND		0.75		ug/Kg		06/18/26 10:25	06/20/26 14:13	1
Isopropylbenzene	ND		0.75		ug/Kg		06/18/26 10:25	06/20/26 14:13	1
Methylene Chloride	ND		7.5		ug/Kg		06/18/26 10:25	06/20/26 14:13	1
Methyl-t-Butyl Ether (MTBE)	ND		1.5		ug/Kg		06/18/26 10:25	06/20/26 14:13	1
Naphthalene	ND		7.5		ug/Kg		06/18/26 10:25	06/20/26 14:13	1
n-Butylbenzene	ND		0.75		ug/Kg		06/18/26 10:25	06/20/26 14:13	1
N-Propylbenzene	ND		1.5		ug/Kg		06/18/26 10:25	06/20/26 14:13	1
o-Xylene	ND		0.75		ug/Kg		06/18/26 10:25	06/20/26 14:13	1
m,p-Xylene	ND		1.5		ug/Kg		06/18/26 10:25	06/20/26 14:13	1
p-Isopropyltoluene	ND		0.75		ug/Kg		06/18/26 10:25	06/20/26 14:13	1
sec-Butylbenzene	ND		0.75		ug/Kg		06/18/26 10:25	06/20/26 14:13	1
Styrene	ND		0.75		ug/Kg		06/18/26 10:25	06/20/26 14:13	1
trans-1,2-Dichloroethene	ND		0.75		ug/Kg		06/18/26 10:25	06/20/26 14:13	1
trans-1,3-Dichloropropene	ND		1.5		ug/Kg		06/18/26 10:25	06/20/26 14:13	1
Tert-amyl-methyl ether (TAME)	ND		0.75		ug/Kg		06/18/26 10:25	06/20/26 14:13	1
tert-Butyl alcohol (TBA)	**15**		15		ug/Kg		06/18/26 10:25	06/20/26 14:13	1
tert-Butylbenzene	ND		0.75		ug/Kg		06/18/26 10:25	06/20/26 14:13	1
Tetrachloroethene	ND		0.75		ug/Kg		06/18/26 10:25	06/20/26 14:13	1
Toluene	**1.0**		0.75		ug/Kg		06/18/26 10:25	06/20/26 14:13	1
Trichloroethene	ND		1.5		ug/Kg		06/18/26 10:25	06/20/26 14:13	1
Trichlorofluoromethane	ND		7.5		ug/Kg		06/18/26 10:25	06/20/26 14:13	1
Vinyl acetate	ND		7.5		ug/Kg		06/18/26 10:25	06/20/26 14:13	1
Vinyl chloride	ND		0.75		ug/Kg		06/18/26 10:25	06/20/26 14:13	1
Xylenes, Total	ND		1.5		ug/Kg		06/18/26 10:25	06/20/26 14:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*117*		*32 - 179*	*06/18/26 10:25*	*06/20/26 14:13*	*1*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*	*06/18/26 10:25*	*06/20/26 14:13*	*1*
Dibromofluoromethane (Surr)	*108*		*58 - 147*	*06/18/26 10:25*	*06/20/26 14:13*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*	*06/18/26 10:25*	*06/20/26 14:13*	*1*

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: B8-5
Date Collected: 06/15/26 12:20
Date Received: 06/16/26 18:00

Lab Sample ID: 570-284007-7
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.96		ug/Kg		06/18/26 10:25	06/20/26 14:34	1
1,1,1-Trichloroethane	ND		0.96		ug/Kg		06/18/26 10:25	06/20/26 14:34	1
1,1,2,2-Tetrachloroethane	ND		1.9		ug/Kg		06/18/26 10:25	06/20/26 14:34	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		9.6		ug/Kg		06/18/26 10:25	06/20/26 14:34	1
1,1,2-Trichloroethane	ND		0.96		ug/Kg		06/18/26 10:25	06/20/26 14:34	1
1,1-Dichloroethane	ND		0.96		ug/Kg		06/18/26 10:25	06/20/26 14:34	1
1,1-Dichloroethene	ND		0.96		ug/Kg		06/18/26 10:25	06/20/26 14:34	1
1,1-Dichloropropene	ND		1.9		ug/Kg		06/18/26 10:25	06/20/26 14:34	1
1,2,3-Trichlorobenzene	ND		1.9		ug/Kg		06/18/26 10:25	06/20/26 14:34	1
1,2,3-Trichloropropane	ND		1.9		ug/Kg		06/18/26 10:25	06/20/26 14:34	1
1,2,4-Trichlorobenzene	ND		1.9		ug/Kg		06/18/26 10:25	06/20/26 14:34	1
1,2,4-Trimethylbenzene	ND		1.9		ug/Kg		06/18/26 10:25	06/20/26 14:34	1
1,2-Dibromo-3-Chloropropane	ND		9.6		ug/Kg		06/18/26 10:25	06/20/26 14:34	1
1,2-Dibromoethane	ND		0.96		ug/Kg		06/18/26 10:25	06/20/26 14:34	1
1,2-Dichlorobenzene	ND		0.96		ug/Kg		06/18/26 10:25	06/20/26 14:34	1
1,2-Dichloroethane	ND		0.96		ug/Kg		06/18/26 10:25	06/20/26 14:34	1
1,2-Dichloropropane	ND		0.96		ug/Kg		06/18/26 10:25	06/20/26 14:34	1
1,3,5-Trimethylbenzene	ND		1.9		ug/Kg		06/18/26 10:25	06/20/26 14:34	1
1,3-Dichlorobenzene	ND		0.96		ug/Kg		06/18/26 10:25	06/20/26 14:34	1
1,3-Dichloropropane	ND		0.96		ug/Kg		06/18/26 10:25	06/20/26 14:34	1
1,4-Dichlorobenzene	ND		0.96		ug/Kg		06/18/26 10:25	06/20/26 14:34	1
2,2-Dichloropropane	ND		4.8		ug/Kg		06/18/26 10:25	06/20/26 14:34	1
2-Butanone (MEK)	ND		19		ug/Kg		06/18/26 10:25	06/20/26 14:34	1
2-Chlorotoluene	ND		0.96		ug/Kg		06/18/26 10:25	06/20/26 14:34	1
2-Hexanone	ND		19		ug/Kg		06/18/26 10:25	06/20/26 14:34	1
4-Chlorotoluene	ND		0.96		ug/Kg		06/18/26 10:25	06/20/26 14:34	1
4-Methyl-2-pentanone (MIBK)	ND		19		ug/Kg		06/18/26 10:25	06/20/26 14:34	1
Acetone	ND		19		ug/Kg		06/18/26 10:25	06/20/26 14:34	1
Benzene	ND		0.96		ug/Kg		06/18/26 10:25	06/20/26 14:34	1
Bromobenzene	ND		0.96		ug/Kg		06/18/26 10:25	06/20/26 14:34	1
Bromochloromethane	ND		1.9		ug/Kg		06/18/26 10:25	06/20/26 14:34	1
Bromodichloromethane	ND		0.96		ug/Kg		06/18/26 10:25	06/20/26 14:34	1
Bromoform	ND		4.8		ug/Kg		06/18/26 10:25	06/20/26 14:34	1
Bromomethane	ND		19		ug/Kg		06/18/26 10:25	06/20/26 14:34	1
cis-1,2-Dichloroethene	ND		0.96		ug/Kg		06/18/26 10:25	06/20/26 14:34	1
cis-1,3-Dichloropropene	ND		0.96		ug/Kg		06/18/26 10:25	06/20/26 14:34	1
Carbon disulfide	ND		9.6		ug/Kg		06/18/26 10:25	06/20/26 14:34	1
Carbon tetrachloride	ND		0.96		ug/Kg		06/18/26 10:25	06/20/26 14:34	1
Chlorobenzene	ND		0.96		ug/Kg		06/18/26 10:25	06/20/26 14:34	1
Chloroethane	ND		1.9		ug/Kg		06/18/26 10:25	06/20/26 14:34	1
Chloroform	ND		0.96		ug/Kg		06/18/26 10:25	06/20/26 14:34	1
Chloromethane	ND		19		ug/Kg		06/18/26 10:25	06/20/26 14:34	1
Dibromochloromethane	ND		1.9		ug/Kg		06/18/26 10:25	06/20/26 14:34	1
Dibromomethane	ND		0.96		ug/Kg		06/18/26 10:25	06/20/26 14:34	1
Dichlorodifluoromethane	ND		1.9		ug/Kg		06/18/26 10:25	06/20/26 14:34	1
Di-isopropyl ether (DIPE)	ND		0.96		ug/Kg		06/18/26 10:25	06/20/26 14:34	1
Ethanol	ND		240		ug/Kg		06/18/26 10:25	06/20/26 14:34	1
Ethylbenzene	ND		0.96		ug/Kg		06/18/26 10:25	06/20/26 14:34	1
Ethyl-t-butyl ether (ETBE)	ND		0.96		ug/Kg		06/18/26 10:25	06/20/26 14:34	1

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B8-5
Date Collected: 06/15/26 12:20
Date Received: 06/16/26 18:00

Lab Sample ID: 570-284007-7
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		0.96		ug/Kg		06/18/26 10:25	06/20/26 14:34	1
Methylene Chloride	ND		9.6		ug/Kg		06/18/26 10:25	06/20/26 14:34	1
Methyl-t-Butyl Ether (MTBE)	ND		1.9		ug/Kg		06/18/26 10:25	06/20/26 14:34	1
Naphthalene	ND		9.6		ug/Kg		06/18/26 10:25	06/20/26 14:34	1
n-Butylbenzene	ND		0.96		ug/Kg		06/18/26 10:25	06/20/26 14:34	1
N-Propylbenzene	ND		1.9		ug/Kg		06/18/26 10:25	06/20/26 14:34	1
o-Xylene	ND		0.96		ug/Kg		06/18/26 10:25	06/20/26 14:34	1
m,p-Xylene	ND		1.9		ug/Kg		06/18/26 10:25	06/20/26 14:34	1
p-Isopropyltoluene	ND		0.96		ug/Kg		06/18/26 10:25	06/20/26 14:34	1
sec-Butylbenzene	ND		0.96		ug/Kg		06/18/26 10:25	06/20/26 14:34	1
Styrene	ND		0.96		ug/Kg		06/18/26 10:25	06/20/26 14:34	1
trans-1,2-Dichloroethene	ND		0.96		ug/Kg		06/18/26 10:25	06/20/26 14:34	1
trans-1,3-Dichloropropene	ND		1.9		ug/Kg		06/18/26 10:25	06/20/26 14:34	1
Tert-amyl-methyl ether (TAME)	ND		0.96		ug/Kg		06/18/26 10:25	06/20/26 14:34	1
tert-Butyl alcohol (TBA)	ND		19		ug/Kg		06/18/26 10:25	06/20/26 14:34	1
tert-Butylbenzene	ND		0.96		ug/Kg		06/18/26 10:25	06/20/26 14:34	1
Tetrachloroethene	ND		0.96		ug/Kg		06/18/26 10:25	06/20/26 14:34	1
Toluene	ND		0.96		ug/Kg		06/18/26 10:25	06/20/26 14:34	1
Trichloroethene	ND		1.9		ug/Kg		06/18/26 10:25	06/20/26 14:34	1
Trichlorofluoromethane	ND		9.6		ug/Kg		06/18/26 10:25	06/20/26 14:34	1
Vinyl acetate	ND		9.6		ug/Kg		06/18/26 10:25	06/20/26 14:34	1
Vinyl chloride	ND		0.96		ug/Kg		06/18/26 10:25	06/20/26 14:34	1
Xylenes, Total	ND		1.9		ug/Kg		06/18/26 10:25	06/20/26 14:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*119*		*32 - 179*	*06/18/26 10:25*	*06/20/26 14:34*	*1*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*	*06/18/26 10:25*	*06/20/26 14:34*	*1*
Dibromofluoromethane (Surr)	*108*		*58 - 147*	*06/18/26 10:25*	*06/20/26 14:34*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*	*06/18/26 10:25*	*06/20/26 14:34*	*1*

Client Sample ID: B1-5
Date Collected: 06/15/26 11:00
Date Received: 06/16/26 18:00

Lab Sample ID: 570-284007-8
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.83		ug/Kg		06/18/26 10:25	06/20/26 14:55	1
1,1,1-Trichloroethane	ND		0.83		ug/Kg		06/18/26 10:25	06/20/26 14:55	1
1,1,2,2-Tetrachloroethane	ND		1.7		ug/Kg		06/18/26 10:25	06/20/26 14:55	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		8.3		ug/Kg		06/18/26 10:25	06/20/26 14:55	1
1,1,2-Trichloroethane	ND		0.83		ug/Kg		06/18/26 10:25	06/20/26 14:55	1
1,1-Dichloroethane	ND		0.83		ug/Kg		06/18/26 10:25	06/20/26 14:55	1
1,1-Dichloroethene	ND		0.83		ug/Kg		06/18/26 10:25	06/20/26 14:55	1
1,1-Dichloropropene	ND		1.7		ug/Kg		06/18/26 10:25	06/20/26 14:55	1
1,2,3-Trichlorobenzene	ND		1.7		ug/Kg		06/18/26 10:25	06/20/26 14:55	1
1,2,3-Trichloropropane	ND		1.7		ug/Kg		06/18/26 10:25	06/20/26 14:55	1
1,2,4-Trichlorobenzene	ND		1.7		ug/Kg		06/18/26 10:25	06/20/26 14:55	1
1,2,4-Trimethylbenzene	ND		1.7		ug/Kg		06/18/26 10:25	06/20/26 14:55	1
1,2-Dibromo-3-Chloropropane	ND		8.3		ug/Kg		06/18/26 10:25	06/20/26 14:55	1
1,2-Dibromoethane	ND		0.83		ug/Kg		06/18/26 10:25	06/20/26 14:55	1
1,2-Dichlorobenzene	ND		0.83		ug/Kg		06/18/26 10:25	06/20/26 14:55	1
1,2-Dichloroethane	ND		0.83		ug/Kg		06/18/26 10:25	06/20/26 14:55	1

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B1-5
Date Collected: 06/15/26 11:00
Date Received: 06/16/26 18:00

Lab Sample ID: 570-284007-8
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloropropane	ND		0.83		ug/Kg		06/18/26 10:25	06/20/26 14:55	1
1,3,5-Trimethylbenzene	ND		1.7		ug/Kg		06/18/26 10:25	06/20/26 14:55	1
1,3-Dichlorobenzene	ND		0.83		ug/Kg		06/18/26 10:25	06/20/26 14:55	1
1,3-Dichloropropane	ND		0.83		ug/Kg		06/18/26 10:25	06/20/26 14:55	1
1,4-Dichlorobenzene	ND		0.83		ug/Kg		06/18/26 10:25	06/20/26 14:55	1
2,2-Dichloropropane	ND		4.1		ug/Kg		06/18/26 10:25	06/20/26 14:55	1
2-Butanone (MEK)	ND		17		ug/Kg		06/18/26 10:25	06/20/26 14:55	1
2-Chlorotoluene	ND		0.83		ug/Kg		06/18/26 10:25	06/20/26 14:55	1
2-Hexanone	ND		17		ug/Kg		06/18/26 10:25	06/20/26 14:55	1
4-Chlorotoluene	ND		0.83		ug/Kg		06/18/26 10:25	06/20/26 14:55	1
4-Methyl-2-pentanone (MIBK)	ND		17		ug/Kg		06/18/26 10:25	06/20/26 14:55	1
Acetone	ND		17		ug/Kg		06/18/26 10:25	06/20/26 14:55	1
Benzene	ND		0.83		ug/Kg		06/18/26 10:25	06/20/26 14:55	1
Bromobenzene	ND		0.83		ug/Kg		06/18/26 10:25	06/20/26 14:55	1
Bromochloromethane	ND		1.7		ug/Kg		06/18/26 10:25	06/20/26 14:55	1
Bromodichloromethane	ND		0.83		ug/Kg		06/18/26 10:25	06/20/26 14:55	1
Bromoform	ND		4.1		ug/Kg		06/18/26 10:25	06/20/26 14:55	1
Bromomethane	ND		17		ug/Kg		06/18/26 10:25	06/20/26 14:55	1
cis-1,2-Dichloroethene	ND		0.83		ug/Kg		06/18/26 10:25	06/20/26 14:55	1
cis-1,3-Dichloropropene	ND		0.83		ug/Kg		06/18/26 10:25	06/20/26 14:55	1
Carbon disulfide	ND		8.3		ug/Kg		06/18/26 10:25	06/20/26 14:55	1
Carbon tetrachloride	ND		0.83		ug/Kg		06/18/26 10:25	06/20/26 14:55	1
Chlorobenzene	ND		0.83		ug/Kg		06/18/26 10:25	06/20/26 14:55	1
Chloroethane	ND		1.7		ug/Kg		06/18/26 10:25	06/20/26 14:55	1
Chloroform	ND		0.83		ug/Kg		06/18/26 10:25	06/20/26 14:55	1
Chloromethane	ND		17		ug/Kg		06/18/26 10:25	06/20/26 14:55	1
Dibromochloromethane	ND		1.7		ug/Kg		06/18/26 10:25	06/20/26 14:55	1
Dibromomethane	ND		0.83		ug/Kg		06/18/26 10:25	06/20/26 14:55	1
Dichlorodifluoromethane	ND		1.7		ug/Kg		06/18/26 10:25	06/20/26 14:55	1
Di-isopropyl ether (DIPE)	ND		0.83		ug/Kg		06/18/26 10:25	06/20/26 14:55	1
Ethanol	ND		210		ug/Kg		06/18/26 10:25	06/20/26 14:55	1
Ethylbenzene	ND		0.83		ug/Kg		06/18/26 10:25	06/20/26 14:55	1
Ethyl-t-butyl ether (ETBE)	ND		0.83		ug/Kg		06/18/26 10:25	06/20/26 14:55	1
Isopropylbenzene	ND		0.83		ug/Kg		06/18/26 10:25	06/20/26 14:55	1
Methylene Chloride	ND		8.3		ug/Kg		06/18/26 10:25	06/20/26 14:55	1
Methyl-t-Butyl Ether (MTBE)	ND		1.7		ug/Kg		06/18/26 10:25	06/20/26 14:55	1
Naphthalene	ND		8.3		ug/Kg		06/18/26 10:25	06/20/26 14:55	1
n-Butylbenzene	ND		0.83		ug/Kg		06/18/26 10:25	06/20/26 14:55	1
N-Propylbenzene	ND		1.7		ug/Kg		06/18/26 10:25	06/20/26 14:55	1
o-Xylene	ND		0.83		ug/Kg		06/18/26 10:25	06/20/26 14:55	1
m,p-Xylene	ND		1.7		ug/Kg		06/18/26 10:25	06/20/26 14:55	1
p-Isopropyltoluene	ND		0.83		ug/Kg		06/18/26 10:25	06/20/26 14:55	1
sec-Butylbenzene	ND		0.83		ug/Kg		06/18/26 10:25	06/20/26 14:55	1
Styrene	ND		0.83		ug/Kg		06/18/26 10:25	06/20/26 14:55	1
trans-1,2-Dichloroethene	ND		0.83		ug/Kg		06/18/26 10:25	06/20/26 14:55	1
trans-1,3-Dichloropropene	ND		1.7		ug/Kg		06/18/26 10:25	06/20/26 14:55	1
Tert-amyl-methyl ether (TAME)	ND		0.83		ug/Kg		06/18/26 10:25	06/20/26 14:55	1
tert-Butyl alcohol (TBA)	ND		17		ug/Kg		06/18/26 10:25	06/20/26 14:55	1
tert-Butylbenzene	ND		0.83		ug/Kg		06/18/26 10:25	06/20/26 14:55	1

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B1-5
Date Collected: 06/15/26 11:00
Date Received: 06/16/26 18:00

Lab Sample ID: 570-284007-8
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	ND		0.83		ug/Kg		06/18/26 10:25	06/20/26 14:55	1
Toluene	**1.0**		0.83		ug/Kg		06/18/26 10:25	06/20/26 14:55	1
Trichloroethene	ND		1.7		ug/Kg		06/18/26 10:25	06/20/26 14:55	1
Trichlorofluoromethane	ND		8.3		ug/Kg		06/18/26 10:25	06/20/26 14:55	1
Vinyl acetate	ND		8.3		ug/Kg		06/18/26 10:25	06/20/26 14:55	1
Vinyl chloride	ND		0.83		ug/Kg		06/18/26 10:25	06/20/26 14:55	1
Xylenes, Total	ND		1.7		ug/Kg		06/18/26 10:25	06/20/26 14:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*115*		*32 - 179*	*06/18/26 10:25*	*06/20/26 14:55*	*1*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*	*06/18/26 10:25*	*06/20/26 14:55*	*1*
Dibromofluoromethane (Surr)	*106*		*58 - 147*	*06/18/26 10:25*	*06/20/26 14:55*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*	*06/18/26 10:25*	*06/20/26 14:55*	*1*

Method: SW846 8270C - Semivolatile Organic Compounds (GC/MS)

Client Sample ID: B5-13
Date Collected: 06/15/26 08:00
Date Received: 06/16/26 18:00

Lab Sample ID: 570-284007-1
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND	H	0.50		mg/Kg		07/01/26 17:45	07/08/26 06:32	1
1,2-Dichlorobenzene	ND	H	0.50		mg/Kg		07/01/26 17:45	07/08/26 06:32	1
1,3-Dichlorobenzene	ND	H	0.50		mg/Kg		07/01/26 17:45	07/08/26 06:32	1
1,4-Dichlorobenzene	ND	H	0.50		mg/Kg		07/01/26 17:45	07/08/26 06:32	1
1-Methylnaphthalene	ND	H	0.50		mg/Kg		07/01/26 17:45	07/08/26 06:32	1
2,4,5-Trichlorophenol	ND	H	0.50		mg/Kg		07/01/26 17:45	07/08/26 06:32	1
2,4,6-Trichlorophenol	ND	H	0.50		mg/Kg		07/01/26 17:45	07/08/26 06:32	1
2,4-Dichlorophenol	ND	H	0.50		mg/Kg		07/01/26 17:45	07/08/26 06:32	1
2,4-Dimethylphenol	ND	H	0.50		mg/Kg		07/01/26 17:45	07/08/26 06:32	1
2,4-Dinitrophenol	ND	H	2.0		mg/Kg		07/01/26 17:45	07/08/26 06:32	1
2,4-Dinitrotoluene	ND	H	0.50		mg/Kg		07/01/26 17:45	07/08/26 06:32	1
2,6-Dichlorophenol	ND	H	0.50		mg/Kg		07/01/26 17:45	07/08/26 06:32	1
2,6-Dinitrotoluene	ND	H	0.50		mg/Kg		07/01/26 17:45	07/08/26 06:32	1
2-Chloronaphthalene	ND	H	0.50		mg/Kg		07/01/26 17:45	07/08/26 06:32	1
2-Chlorophenol	ND	H	0.50		mg/Kg		07/01/26 17:45	07/08/26 06:32	1
2-Methylnaphthalene	ND	H	0.50		mg/Kg		07/01/26 17:45	07/08/26 06:32	1
2-Methylphenol	ND	H	0.50		mg/Kg		07/01/26 17:45	07/08/26 06:32	1
2-Nitroaniline	ND	H	0.50		mg/Kg		07/01/26 17:45	07/08/26 06:32	1
2-Nitrophenol	ND	H	0.50		mg/Kg		07/01/26 17:45	07/08/26 06:32	1
3,3'-Dichlorobenzidine	ND	H	2.5		mg/Kg		07/01/26 17:45	07/08/26 06:32	1
3/4-Methylphenol	ND	H	0.99		mg/Kg		07/01/26 17:45	07/08/26 06:32	1
3-Nitroaniline	ND	H	0.50		mg/Kg		07/01/26 17:45	07/08/26 06:32	1
4,6-Dinitro-2-methylphenol	ND	H	2.5		mg/Kg		07/01/26 17:45	07/08/26 06:32	1
4-Bromophenyl phenyl ether	ND	H	0.50		mg/Kg		07/01/26 17:45	07/08/26 06:32	1
4-Chloro-3-methylphenol	ND	H	0.50		mg/Kg		07/01/26 17:45	07/08/26 06:32	1
4-Chloroaniline	ND	H	0.50		mg/Kg		07/01/26 17:45	07/08/26 06:32	1
4-Chlorophenyl phenyl ether	ND	H	0.50		mg/Kg		07/01/26 17:45	07/08/26 06:32	1
4-Nitroaniline	ND	H	0.50		mg/Kg		07/01/26 17:45	07/08/26 06:32	1
4-Nitrophenol	ND	H	0.50		mg/Kg		07/01/26 17:45	07/08/26 06:32	1
Acenaphthene	ND	H	0.50		mg/Kg		07/01/26 17:45	07/08/26 06:32	1
Acenaphthylene	ND	H	0.50		mg/Kg		07/01/26 17:45	07/08/26 06:32	1
Aniline	ND	H	0.50		mg/Kg		07/01/26 17:45	07/08/26 06:32	1
Anthracene	ND	H	0.50		mg/Kg		07/01/26 17:45	07/08/26 06:32	1
Azobenzene	ND	H	0.50		mg/Kg		07/01/26 17:45	07/08/26 06:32	1
Benzidine	ND	H	5.0		mg/Kg		07/01/26 17:45	07/08/26 06:32	1
Benzo[a]anthracene	ND	H	0.50		mg/Kg		07/01/26 17:45	07/08/26 06:32	1
Benzo[a]pyrene	ND	H	0.50		mg/Kg		07/01/26 17:45	07/08/26 06:32	1
Benzo[b]fluoranthene	ND	H	0.50		mg/Kg		07/01/26 17:45	07/08/26 06:32	1
Benzo[g,h,i]perylene	ND	H	0.50		mg/Kg		07/01/26 17:45	07/08/26 06:32	1
Benzo[k]fluoranthene	ND	H	0.50		mg/Kg		07/01/26 17:45	07/08/26 06:32	1
Benzoic acid	ND	H	2.5		mg/Kg		07/01/26 17:45	07/08/26 06:32	1
Benzyl alcohol	ND	H	0.50		mg/Kg		07/01/26 17:45	07/08/26 06:32	1
Bis(2-chloroethoxy)methane	ND	H	0.50		mg/Kg		07/01/26 17:45	07/08/26 06:32	1
Bis(2-chloroethyl)ether	ND	H	2.5		mg/Kg		07/01/26 17:45	07/08/26 06:32	1
2,2'-oxybis[1-chloropropane]	ND	H	0.50		mg/Kg		07/01/26 17:45	07/08/26 06:32	1
Bis(2-ethylhexyl) phthalate	**1.5**	**H**	0.50		mg/Kg		07/01/26 17:45	07/08/26 06:32	1
Butyl benzyl phthalate	ND	H	0.50		mg/Kg		07/01/26 17:45	07/08/26 06:32	1
Chrysene	ND	H	0.50		mg/Kg		07/01/26 17:45	07/08/26 06:32	1
Dibenz(a,h)anthracene	ND	H	0.50		mg/Kg		07/01/26 17:45	07/08/26 06:32	1

Method: SW846 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B5-13
Date Collected: 06/15/26 08:00
Date Received: 06/16/26 18:00

Lab Sample ID: 570-284007-1
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dibenzofuran	ND	H	0.50		mg/Kg		07/01/26 17:45	07/08/26 06:32	1
Diethyl phthalate	ND	H	0.50		mg/Kg		07/01/26 17:45	07/08/26 06:32	1
Dimethyl phthalate	ND	H	0.50		mg/Kg		07/01/26 17:45	07/08/26 06:32	1
Di-n-butyl phthalate	ND	H	0.50		mg/Kg		07/01/26 17:45	07/08/26 06:32	1
Di-n-octyl phthalate	ND	H	0.50		mg/Kg		07/01/26 17:45	07/08/26 06:32	1
Fluoranthene	ND	H	0.50		mg/Kg		07/01/26 17:45	07/08/26 06:32	1
Fluorene	ND	H	0.50		mg/Kg		07/01/26 17:45	07/08/26 06:32	1
Hexachloro-1,3-butadiene	ND	H	0.50		mg/Kg		07/01/26 17:45	07/08/26 06:32	1
Hexachlorobenzene	ND	H	0.50		mg/Kg		07/01/26 17:45	07/08/26 06:32	1
Hexachlorocyclopentadiene	ND	H	1.5		mg/Kg		07/01/26 17:45	07/08/26 06:32	1
Hexachloroethane	ND	H	0.50		mg/Kg		07/01/26 17:45	07/08/26 06:32	1
Indeno[1,2,3-cd]pyrene	ND	H	0.50		mg/Kg		07/01/26 17:45	07/08/26 06:32	1
Isophorone	ND	H	0.50		mg/Kg		07/01/26 17:45	07/08/26 06:32	1
Naphthalene	ND	H	0.50		mg/Kg		07/01/26 17:45	07/08/26 06:32	1
Nitrobenzene	ND	H	2.0		mg/Kg		07/01/26 17:45	07/08/26 06:32	1
N-Nitrosodimethylamine	ND	H	0.50		mg/Kg		07/01/26 17:45	07/08/26 06:32	1
N-Nitrosodi-n-propylamine	ND	H	0.50		mg/Kg		07/01/26 17:45	07/08/26 06:32	1
n-Nitrosodiphenylamine(as diphenylamine)	ND	H	0.50		mg/Kg		07/01/26 17:45	07/08/26 06:32	1
Pentachlorophenol	ND	H	2.5		mg/Kg		07/01/26 17:45	07/08/26 06:32	1
Phenanthrene	ND	H	0.50		mg/Kg		07/01/26 17:45	07/08/26 06:32	1
Phenol	ND	H	0.50		mg/Kg		07/01/26 17:45	07/08/26 06:32	1
Pyrene	ND	H	0.50		mg/Kg		07/01/26 17:45	07/08/26 06:32	1
Pyridine	ND	H	0.50		mg/Kg		07/01/26 17:45	07/08/26 06:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*49*		*20 - 135*	*07/01/26 17:45*	*07/08/26 06:32*	*1*
2-Fluorobiphenyl (Surr)	*54*		*28 - 110*	*07/01/26 17:45*	*07/08/26 06:32*	*1*
2-Fluorophenol (Surr)	*52*		*20 - 135*	*07/01/26 17:45*	*07/08/26 06:32*	*1*
Nitrobenzene-d5 (Surr)	*48*		*22 - 116*	*07/01/26 17:45*	*07/08/26 06:32*	*1*
p-Terphenyl-d14 (Surr)	*60*		*27 - 118*	*07/01/26 17:45*	*07/08/26 06:32*	*1*
Phenol-d6 (Surr)	*51*		*20 - 127*	*07/01/26 17:45*	*07/08/26 06:32*	*1*

Client Sample ID: B4-13
Date Collected: 06/15/26 08:45
Date Received: 06/16/26 18:00

Lab Sample ID: 570-284007-2
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		0.50		mg/Kg		06/23/26 14:15	06/24/26 21:46	1
1,2-Dichlorobenzene	ND		0.50		mg/Kg		06/23/26 14:15	06/24/26 21:46	1
1,3-Dichlorobenzene	ND		0.50		mg/Kg		06/23/26 14:15	06/24/26 21:46	1
1,4-Dichlorobenzene	ND		0.50		mg/Kg		06/23/26 14:15	06/24/26 21:46	1
1-Methylnaphthalene	ND		0.50		mg/Kg		06/23/26 14:15	06/24/26 21:46	1
2,4,5-Trichlorophenol	ND		0.50		mg/Kg		06/23/26 14:15	06/24/26 21:46	1
2,4,6-Trichlorophenol	ND		0.50		mg/Kg		06/23/26 14:15	06/24/26 21:46	1
2,4-Dichlorophenol	ND		0.50		mg/Kg		06/23/26 14:15	06/24/26 21:46	1
2,4-Dimethylphenol	ND		0.50		mg/Kg		06/23/26 14:15	06/24/26 21:46	1
2,4-Dinitrophenol	ND		2.0		mg/Kg		06/23/26 14:15	06/24/26 21:46	1
2,4-Dinitrotoluene	ND		0.50		mg/Kg		06/23/26 14:15	06/24/26 21:46	1
2,6-Dichlorophenol	ND		0.50		mg/Kg		06/23/26 14:15	06/24/26 21:46	1
2,6-Dinitrotoluene	ND		0.50		mg/Kg		06/23/26 14:15	06/24/26 21:46	1

Method: SW846 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B4-13
Date Collected: 06/15/26 08:45
Date Received: 06/16/26 18:00

Lab Sample ID: 570-284007-2
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
2-Chloronaphthalene	ND		0.50		mg/Kg		06/23/26 14:15	06/24/26 21:46	1
2-Chlorophenol	ND		0.50		mg/Kg		06/23/26 14:15	06/24/26 21:46	1
2-Methylnaphthalene	ND		0.50		mg/Kg		06/23/26 14:15	06/24/26 21:46	1
2-Methylphenol	ND		0.50		mg/Kg		06/23/26 14:15	06/24/26 21:46	1
2-Nitroaniline	ND		0.50		mg/Kg		06/23/26 14:15	06/24/26 21:46	1
2-Nitrophenol	ND		0.50		mg/Kg		06/23/26 14:15	06/24/26 21:46	1
3,3'-Dichlorobenzidine	ND		2.5		mg/Kg		06/23/26 14:15	06/24/26 21:46	1
3/4-Methylphenol	ND		1.0		mg/Kg		06/23/26 14:15	06/24/26 21:46	1
3-Nitroaniline	ND		0.50		mg/Kg		06/23/26 14:15	06/24/26 21:46	1
4,6-Dinitro-2-methylphenol	ND		2.5		mg/Kg		06/23/26 14:15	06/24/26 21:46	1
4-Bromophenyl phenyl ether	ND		0.50		mg/Kg		06/23/26 14:15	06/24/26 21:46	1
4-Chloro-3-methylphenol	ND		0.50		mg/Kg		06/23/26 14:15	06/24/26 21:46	1
4-Chloroaniline	ND		0.50		mg/Kg		06/23/26 14:15	06/24/26 21:46	1
4-Chlorophenyl phenyl ether	ND		0.50		mg/Kg		06/23/26 14:15	06/24/26 21:46	1
4-Nitroaniline	ND		0.50		mg/Kg		06/23/26 14:15	06/24/26 21:46	1
4-Nitrophenol	ND		0.50		mg/Kg		06/23/26 14:15	06/24/26 21:46	1
Acenaphthene	ND		0.50		mg/Kg		06/23/26 14:15	06/24/26 21:46	1
Acenaphthylene	ND		0.50		mg/Kg		06/23/26 14:15	06/24/26 21:46	1
Aniline	ND		0.50		mg/Kg		06/23/26 14:15	06/24/26 21:46	1
Anthracene	ND		0.50		mg/Kg		06/23/26 14:15	06/24/26 21:46	1
Azobenzene	ND		0.50		mg/Kg		06/23/26 14:15	06/24/26 21:46	1
Benzidine	ND		5.0		mg/Kg		06/23/26 14:15	06/24/26 21:46	1
Benzo[a]anthracene	ND		0.50		mg/Kg		06/23/26 14:15	06/24/26 21:46	1
Benzo[a]pyrene	ND		0.50		mg/Kg		06/23/26 14:15	06/24/26 21:46	1
Benzo[b]fluoranthene	ND		0.50		mg/Kg		06/23/26 14:15	06/24/26 21:46	1
Benzo[g,h,i]perylene	ND		0.50		mg/Kg		06/23/26 14:15	06/24/26 21:46	1
Benzo[k]fluoranthene	ND		0.50		mg/Kg		06/23/26 14:15	06/24/26 21:46	1
Benzoic acid	ND		2.5		mg/Kg		06/23/26 14:15	06/24/26 21:46	1
Benzyl alcohol	ND		0.50		mg/Kg		06/23/26 14:15	06/24/26 21:46	1
Bis(2-chloroethoxy)methane	ND		0.50		mg/Kg		06/23/26 14:15	06/24/26 21:46	1
Bis(2-chloroethyl)ether	ND		2.5		mg/Kg		06/23/26 14:15	06/24/26 21:46	1
2,2'-oxybis[1-chloropropane]	ND		0.50		mg/Kg		06/23/26 14:15	06/24/26 21:46	1
Bis(2-ethylhexyl) phthalate	ND		0.50		mg/Kg		06/23/26 14:15	06/24/26 21:46	1
Butyl benzyl phthalate	ND		0.50		mg/Kg		06/23/26 14:15	06/24/26 21:46	1
Chrysene	ND		0.50		mg/Kg		06/23/26 14:15	06/24/26 21:46	1
Dibenz(a,h)anthracene	ND		0.50		mg/Kg		06/23/26 14:15	06/24/26 21:46	1
Dibenzofuran	ND		0.50		mg/Kg		06/23/26 14:15	06/24/26 21:46	1
Diethyl phthalate	ND		0.50		mg/Kg		06/23/26 14:15	06/24/26 21:46	1
Dimethyl phthalate	ND		0.50		mg/Kg		06/23/26 14:15	06/24/26 21:46	1
Di-n-butyl phthalate	ND		0.50		mg/Kg		06/23/26 14:15	06/24/26 21:46	1
Di-n-octyl phthalate	ND		0.50		mg/Kg		06/23/26 14:15	06/24/26 21:46	1
Fluoranthene	ND		0.50		mg/Kg		06/23/26 14:15	06/24/26 21:46	1
Fluorene	ND		0.50		mg/Kg		06/23/26 14:15	06/24/26 21:46	1
Hexachloro-1,3-butadiene	ND		0.50		mg/Kg		06/23/26 14:15	06/24/26 21:46	1
Hexachlorobenzene	ND		0.50		mg/Kg		06/23/26 14:15	06/24/26 21:46	1
Hexachlorocyclopentadiene	ND		1.5		mg/Kg		06/23/26 14:15	06/24/26 21:46	1
Hexachloroethane	ND		0.50		mg/Kg		06/23/26 14:15	06/24/26 21:46	1
Indeno[1,2,3-cd]pyrene	ND		0.50		mg/Kg		06/23/26 14:15	06/24/26 21:46	1
Isophorone	ND		0.50		mg/Kg		06/23/26 14:15	06/24/26 21:46	1

Method: SW846 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B4-13
Date Collected: 06/15/26 08:45
Date Received: 06/16/26 18:00

Lab Sample ID: 570-284007-2
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.50		mg/Kg		06/23/26 14:15	06/24/26 21:46	1
Nitrobenzene	ND		2.0		mg/Kg		06/23/26 14:15	06/24/26 21:46	1
N-Nitrosodimethylamine	ND		0.50		mg/Kg		06/23/26 14:15	06/24/26 21:46	1
N-Nitrosodi-n-propylamine	ND		0.50		mg/Kg		06/23/26 14:15	06/24/26 21:46	1
n-Nitrosodiphenylamine(as diphenylamine)	ND		0.50		mg/Kg		06/23/26 14:15	06/24/26 21:46	1
Pentachlorophenol	ND		2.5		mg/Kg		06/23/26 14:15	06/24/26 21:46	1
Phenanthrene	ND		0.50		mg/Kg		06/23/26 14:15	06/24/26 21:46	1
Phenol	ND		0.50		mg/Kg		06/23/26 14:15	06/24/26 21:46	1
Pyrene	ND		0.50		mg/Kg		06/23/26 14:15	06/24/26 21:46	1
Pyridine	ND		0.50		mg/Kg		06/23/26 14:15	06/24/26 21:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*78*		*20 - 135*	*06/23/26 14:15*	*06/24/26 21:46*	*1*
2-Fluorobiphenyl (Surr)	*79*		*28 - 110*	*06/23/26 14:15*	*06/24/26 21:46*	*1*
2-Fluorophenol (Surr)	*83*		*20 - 135*	*06/23/26 14:15*	*06/24/26 21:46*	*1*
Nitrobenzene-d5 (Surr)	*90*		*22 - 116*	*06/23/26 14:15*	*06/24/26 21:46*	*1*
p-Terphenyl-d14 (Surr)	*81*		*27 - 118*	*06/23/26 14:15*	*06/24/26 21:46*	*1*
Phenol-d6 (Surr)	*78*		*20 - 127*	*06/23/26 14:15*	*06/24/26 21:46*	*1*

Client Sample ID: B3-13
Date Collected: 06/15/26 09:25
Date Received: 06/16/26 18:00

Lab Sample ID: 570-284007-3
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND	*1	0.50		mg/Kg		06/22/26 10:21	06/24/26 19:29	1
1,2-Dichlorobenzene	ND	*1	0.50		mg/Kg		06/22/26 10:21	06/24/26 19:29	1
1,3-Dichlorobenzene	ND		0.50		mg/Kg		06/22/26 10:21	06/24/26 19:29	1
1,4-Dichlorobenzene	ND		0.50		mg/Kg		06/22/26 10:21	06/24/26 19:29	1
1-Methylnaphthalene	ND		0.50		mg/Kg		06/22/26 10:21	06/24/26 19:29	1
2,4,5-Trichlorophenol	ND	*1	0.50		mg/Kg		06/22/26 10:21	06/24/26 19:29	1
2,4,6-Trichlorophenol	ND	*1	0.50		mg/Kg		06/22/26 10:21	06/24/26 19:29	1
2,4-Dichlorophenol	ND	*1	0.50		mg/Kg		06/22/26 10:21	06/24/26 19:29	1
2,4-Dimethylphenol	ND	*1	0.50		mg/Kg		06/22/26 10:21	06/24/26 19:29	1
2,4-Dinitrophenol	ND	*1	2.0		mg/Kg		06/22/26 10:21	06/24/26 19:29	1
2,4-Dinitrotoluene	ND		0.50		mg/Kg		06/22/26 10:21	06/24/26 19:29	1
2,6-Dichlorophenol	ND	*1	0.50		mg/Kg		06/22/26 10:21	06/24/26 19:29	1
2,6-Dinitrotoluene	ND		0.50		mg/Kg		06/22/26 10:21	06/24/26 19:29	1
2-Chloronaphthalene	ND	*1	0.50		mg/Kg		06/22/26 10:21	06/24/26 19:29	1
2-Chlorophenol	ND	*1	0.50		mg/Kg		06/22/26 10:21	06/24/26 19:29	1
2-Methylnaphthalene	ND	*1	0.50		mg/Kg		06/22/26 10:21	06/24/26 19:29	1
2-Methylphenol	ND	*1	0.50		mg/Kg		06/22/26 10:21	06/24/26 19:29	1
2-Nitroaniline	ND		0.50		mg/Kg		06/22/26 10:21	06/24/26 19:29	1
2-Nitrophenol	ND	*1	0.50		mg/Kg		06/22/26 10:21	06/24/26 19:29	1
3,3'-Dichlorobenzidine	ND	*1	2.5		mg/Kg		06/22/26 10:21	06/24/26 19:29	1
3/4-Methylphenol	ND	*1	1.0		mg/Kg		06/22/26 10:21	06/24/26 19:29	1
3-Nitroaniline	ND		0.50		mg/Kg		06/22/26 10:21	06/24/26 19:29	1
4,6-Dinitro-2-methylphenol	ND		2.5		mg/Kg		06/22/26 10:21	06/24/26 19:29	1
4-Bromophenyl phenyl ether	ND		0.50		mg/Kg		06/22/26 10:21	06/24/26 19:29	1
4-Chloro-3-methylphenol	ND		0.50		mg/Kg		06/22/26 10:21	06/24/26 19:29	1
4-Chloroaniline	ND		0.50		mg/Kg		06/22/26 10:21	06/24/26 19:29	1

Method: SW846 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B3-13
Date Collected: 06/15/26 09:25
Date Received: 06/16/26 18:00

Lab Sample ID: 570-284007-3
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorophenyl phenyl ether	ND	*1	0.50		mg/Kg		06/22/26 10:21	06/24/26 19:29	1
4-Nitroaniline	ND	*1	0.50		mg/Kg		06/22/26 10:21	06/24/26 19:29	1
4-Nitrophenol	ND	F1	0.50		mg/Kg		06/22/26 10:21	06/24/26 19:29	1
Acenaphthene	ND	*1	0.50		mg/Kg		06/22/26 10:21	06/24/26 19:29	1
Acenaphthylene	ND	*1	0.50		mg/Kg		06/22/26 10:21	06/24/26 19:29	1
Aniline	ND	*1	0.50		mg/Kg		06/22/26 10:21	06/24/26 19:29	1
Anthracene	ND	*1	0.50		mg/Kg		06/22/26 10:21	06/24/26 19:29	1
Azobenzene	ND		0.50		mg/Kg		06/22/26 10:21	06/24/26 19:29	1
Benzidine	ND	*1 F1	5.0		mg/Kg		06/22/26 10:21	06/24/26 19:29	1
Benzo[a]anthracene	ND	*1	0.50		mg/Kg		06/22/26 10:21	06/24/26 19:29	1
Benzo[a]pyrene	ND	*1	0.50		mg/Kg		06/22/26 10:21	06/24/26 19:29	1
Benzo[b]fluoranthene	ND	*1	0.50		mg/Kg		06/22/26 10:21	06/24/26 19:29	1
Benzo[g,h,i]perylene	ND	*1	0.50		mg/Kg		06/22/26 10:21	06/24/26 19:29	1
Benzo[k]fluoranthene	ND	*1	0.50		mg/Kg		06/22/26 10:21	06/24/26 19:29	1
Benzoic acid	ND	F1	2.5		mg/Kg		06/22/26 10:21	06/24/26 19:29	1
Benzyl alcohol	ND	*1	0.50		mg/Kg		06/22/26 10:21	06/24/26 19:29	1
Bis(2-chloroethoxy)methane	ND	*1	0.50		mg/Kg		06/22/26 10:21	06/24/26 19:29	1
Bis(2-chloroethyl)ether	ND		2.5		mg/Kg		06/22/26 10:21	06/24/26 19:29	1
2,2'-oxybis[1-chloropropane]	ND	*1	0.50		mg/Kg		06/22/26 10:21	06/24/26 19:29	1
Bis(2-ethylhexyl) phthalate	ND	*1	0.50		mg/Kg		06/22/26 10:21	06/24/26 19:29	1
Butyl benzyl phthalate	ND	*1	0.50		mg/Kg		06/22/26 10:21	06/24/26 19:29	1
Chrysene	ND	*1	0.50		mg/Kg		06/22/26 10:21	06/24/26 19:29	1
Dibenz(a,h)anthracene	ND	*1	0.50		mg/Kg		06/22/26 10:21	06/24/26 19:29	1
Dibenzofuran	ND		0.50		mg/Kg		06/22/26 10:21	06/24/26 19:29	1
Diethyl phthalate	ND	*1	0.50		mg/Kg		06/22/26 10:21	06/24/26 19:29	1
Dimethyl phthalate	ND	*1	0.50		mg/Kg		06/22/26 10:21	06/24/26 19:29	1
Di-n-butyl phthalate	ND	*1	0.50		mg/Kg		06/22/26 10:21	06/24/26 19:29	1
Di-n-octyl phthalate	ND	*1	0.50		mg/Kg		06/22/26 10:21	06/24/26 19:29	1
Fluoranthene	ND	*1	0.50		mg/Kg		06/22/26 10:21	06/24/26 19:29	1
Fluorene	ND		0.50		mg/Kg		06/22/26 10:21	06/24/26 19:29	1
Hexachloro-1,3-butadiene	ND	*1	0.50		mg/Kg		06/22/26 10:21	06/24/26 19:29	1
Hexachlorobenzene	ND		0.50		mg/Kg		06/22/26 10:21	06/24/26 19:29	1
Hexachlorocyclopentadiene	ND	*1	1.5		mg/Kg		06/22/26 10:21	06/24/26 19:29	1
Hexachloroethane	ND	*1	0.50		mg/Kg		06/22/26 10:21	06/24/26 19:29	1
Indeno[1,2,3-cd]pyrene	ND	*1	0.50		mg/Kg		06/22/26 10:21	06/24/26 19:29	1
Isophorone	ND	*1	0.50		mg/Kg		06/22/26 10:21	06/24/26 19:29	1
Naphthalene	ND		0.50		mg/Kg		06/22/26 10:21	06/24/26 19:29	1
Nitrobenzene	ND		2.0		mg/Kg		06/22/26 10:21	06/24/26 19:29	1
N-Nitrosodimethylamine	ND		0.50		mg/Kg		06/22/26 10:21	06/24/26 19:29	1
N-Nitrosodi-n-propylamine	ND	*1	0.50		mg/Kg		06/22/26 10:21	06/24/26 19:29	1
n-Nitrosodiphenylamine(as diphenylamine)	ND	*1	0.50		mg/Kg		06/22/26 10:21	06/24/26 19:29	1
Pentachlorophenol	ND	*1	2.5		mg/Kg		06/22/26 10:21	06/24/26 19:29	1
Phenanthrene	ND	*1	0.50		mg/Kg		06/22/26 10:21	06/24/26 19:29	1
Phenol	ND	*1	0.50		mg/Kg		06/22/26 10:21	06/24/26 19:29	1
Pyrene	ND	*1	0.50		mg/Kg		06/22/26 10:21	06/24/26 19:29	1
Pyridine	ND		0.50		mg/Kg		06/22/26 10:21	06/24/26 19:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*70*		*20 - 135*	*06/22/26 10:21*	*06/24/26 19:29*	*1*

Method: SW846 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B3-13
Date Collected: 06/15/26 09:25
Date Received: 06/16/26 18:00

Lab Sample ID: 570-284007-3
Matrix: Solid

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*76*		*28 - 110*	*06/22/26 10:21*	*06/24/26 19:29*	*1*
2-Fluorophenol (Surr)	*71*		*20 - 135*	*06/22/26 10:21*	*06/24/26 19:29*	*1*
Nitrobenzene-d5 (Surr)	*74*		*22 - 116*	*06/22/26 10:21*	*06/24/26 19:29*	*1*
p-Terphenyl-d14 (Surr)	*75*		*27 - 118*	*06/22/26 10:21*	*06/24/26 19:29*	*1*
Phenol-d6 (Surr)	*75*		*20 - 127*	*06/22/26 10:21*	*06/24/26 19:29*	*1*

Client Sample ID: B2-3.5
Date Collected: 06/15/26 10:15
Date Received: 06/16/26 18:00

Lab Sample ID: 570-284007-4
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND	*1	9.9		mg/Kg		06/22/26 10:21	06/24/26 20:17	20
1,2-Dichlorobenzene	ND	*1	9.9		mg/Kg		06/22/26 10:21	06/24/26 20:17	20
1,3-Dichlorobenzene	ND		9.9		mg/Kg		06/22/26 10:21	06/24/26 20:17	20
1,4-Dichlorobenzene	ND		9.9		mg/Kg		06/22/26 10:21	06/24/26 20:17	20
1-Methylnaphthalene	ND		9.9		mg/Kg		06/22/26 10:21	06/24/26 20:17	20
2,4,5-Trichlorophenol	ND	*1	9.9		mg/Kg		06/22/26 10:21	06/24/26 20:17	20
2,4,6-Trichlorophenol	ND	*1	9.9		mg/Kg		06/22/26 10:21	06/24/26 20:17	20
2,4-Dichlorophenol	ND	*1	9.9		mg/Kg		06/22/26 10:21	06/24/26 20:17	20
2,4-Dimethylphenol	ND	*1	9.9		mg/Kg		06/22/26 10:21	06/24/26 20:17	20
2,4-Dinitrophenol	ND	*1	39		mg/Kg		06/22/26 10:21	06/24/26 20:17	20
2,4-Dinitrotoluene	ND		9.9		mg/Kg		06/22/26 10:21	06/24/26 20:17	20
2,6-Dichlorophenol	ND	*1	9.9		mg/Kg		06/22/26 10:21	06/24/26 20:17	20
2,6-Dinitrotoluene	ND		9.9		mg/Kg		06/22/26 10:21	06/24/26 20:17	20
2-Chloronaphthalene	ND	*1	9.9		mg/Kg		06/22/26 10:21	06/24/26 20:17	20
2-Chlorophenol	ND	*1	9.9		mg/Kg		06/22/26 10:21	06/24/26 20:17	20
2-Methylnaphthalene	ND	*1	9.9		mg/Kg		06/22/26 10:21	06/24/26 20:17	20
2-Methylphenol	ND	*1	9.9		mg/Kg		06/22/26 10:21	06/24/26 20:17	20
2-Nitroaniline	ND		9.9		mg/Kg		06/22/26 10:21	06/24/26 20:17	20
2-Nitrophenol	ND	*1	9.9		mg/Kg		06/22/26 10:21	06/24/26 20:17	20
3,3'-Dichlorobenzidine	ND	*1	49		mg/Kg		06/22/26 10:21	06/24/26 20:17	20
3/4-Methylphenol	ND	*1	20		mg/Kg		06/22/26 10:21	06/24/26 20:17	20
3-Nitroaniline	ND		9.9		mg/Kg		06/22/26 10:21	06/24/26 20:17	20
4,6-Dinitro-2-methylphenol	ND		49		mg/Kg		06/22/26 10:21	06/24/26 20:17	20
4-Bromophenyl phenyl ether	ND		9.9		mg/Kg		06/22/26 10:21	06/24/26 20:17	20
4-Chloro-3-methylphenol	ND		9.9		mg/Kg		06/22/26 10:21	06/24/26 20:17	20
4-Chloroaniline	ND		9.9		mg/Kg		06/22/26 10:21	06/24/26 20:17	20
4-Chlorophenyl phenyl ether	ND	*1	9.9		mg/Kg		06/22/26 10:21	06/24/26 20:17	20
4-Nitroaniline	ND	*1	9.9		mg/Kg		06/22/26 10:21	06/24/26 20:17	20
4-Nitrophenol	ND		9.9		mg/Kg		06/22/26 10:21	06/24/26 20:17	20
Acenaphthene	ND	*1	9.9		mg/Kg		06/22/26 10:21	06/24/26 20:17	20
Acenaphthylene	ND	*1	9.9		mg/Kg		06/22/26 10:21	06/24/26 20:17	20
Aniline	ND	*1	9.9		mg/Kg		06/22/26 10:21	06/24/26 20:17	20
Anthracene	ND	*1	9.9		mg/Kg		06/22/26 10:21	06/24/26 20:17	20
Azobenzene	ND		9.9		mg/Kg		06/22/26 10:21	06/24/26 20:17	20
Benzidine	ND	*1	99		mg/Kg		06/22/26 10:21	06/24/26 20:17	20
Benzo[a]anthracene	ND	*1	9.9		mg/Kg		06/22/26 10:21	06/24/26 20:17	20
Benzo[a]pyrene	ND	*1	9.9		mg/Kg		06/22/26 10:21	06/24/26 20:17	20
Benzo[b]fluoranthene	ND	*1	9.9		mg/Kg		06/22/26 10:21	06/24/26 20:17	20
Benzo[g,h,i]perylene	ND	*1	9.9		mg/Kg		06/22/26 10:21	06/24/26 20:17	20

Method: SW846 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B2-3.5
Date Collected: 06/15/26 10:15
Date Received: 06/16/26 18:00

Lab Sample ID: 570-284007-4
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzo[k]fluoranthene	ND	*1	9.9		mg/Kg		06/22/26 10:21	06/24/26 20:17	20
Benzoic acid	ND		49		mg/Kg		06/22/26 10:21	06/24/26 20:17	20
Benzyl alcohol	ND	*1	9.9		mg/Kg		06/22/26 10:21	06/24/26 20:17	20
Bis(2-chloroethoxy)methane	ND	*1	9.9		mg/Kg		06/22/26 10:21	06/24/26 20:17	20
Bis(2-chloroethyl)ether	ND		49		mg/Kg		06/22/26 10:21	06/24/26 20:17	20
2,2'-oxybis[1-chloropropane]	ND	*1	9.9		mg/Kg		06/22/26 10:21	06/24/26 20:17	20
Bis(2-ethylhexyl) phthalate	ND	*1	9.9		mg/Kg		06/22/26 10:21	06/24/26 20:17	20
Butyl benzyl phthalate	ND	*1	9.9		mg/Kg		06/22/26 10:21	06/24/26 20:17	20
Chrysene	ND	*1	9.9		mg/Kg		06/22/26 10:21	06/24/26 20:17	20
Dibenz(a,h)anthracene	ND	*1	9.9		mg/Kg		06/22/26 10:21	06/24/26 20:17	20
Dibenzofuran	ND		9.9		mg/Kg		06/22/26 10:21	06/24/26 20:17	20
Diethyl phthalate	ND	*1	9.9		mg/Kg		06/22/26 10:21	06/24/26 20:17	20
Dimethyl phthalate	ND	*1	9.9		mg/Kg		06/22/26 10:21	06/24/26 20:17	20
Di-n-butyl phthalate	ND	*1	9.9		mg/Kg		06/22/26 10:21	06/24/26 20:17	20
Di-n-octyl phthalate	ND	*1	9.9		mg/Kg		06/22/26 10:21	06/24/26 20:17	20
Fluoranthene	ND	*1	9.9		mg/Kg		06/22/26 10:21	06/24/26 20:17	20
Fluorene	ND		9.9		mg/Kg		06/22/26 10:21	06/24/26 20:17	20
Hexachloro-1,3-butadiene	ND	*1	9.9		mg/Kg		06/22/26 10:21	06/24/26 20:17	20
Hexachlorobenzene	ND		9.9		mg/Kg		06/22/26 10:21	06/24/26 20:17	20
Hexachlorocyclopentadiene	ND	*1	30		mg/Kg		06/22/26 10:21	06/24/26 20:17	20
Hexachloroethane	ND	*1	9.9		mg/Kg		06/22/26 10:21	06/24/26 20:17	20
Indeno[1,2,3-cd]pyrene	ND	*1	9.9		mg/Kg		06/22/26 10:21	06/24/26 20:17	20
Isophorone	ND	*1	9.9		mg/Kg		06/22/26 10:21	06/24/26 20:17	20
Naphthalene	ND		9.9		mg/Kg		06/22/26 10:21	06/24/26 20:17	20
Nitrobenzene	ND		39		mg/Kg		06/22/26 10:21	06/24/26 20:17	20
N-Nitrosodimethylamine	ND		9.9		mg/Kg		06/22/26 10:21	06/24/26 20:17	20
N-Nitrosodi-n-propylamine	ND	*1	9.9		mg/Kg		06/22/26 10:21	06/24/26 20:17	20
n-Nitrosodiphenylamine(as diphenylamine)	ND	*1	9.9		mg/Kg		06/22/26 10:21	06/24/26 20:17	20
Pentachlorophenol	ND	*1	49		mg/Kg		06/22/26 10:21	06/24/26 20:17	20
Phenanthrene	ND	*1	9.9		mg/Kg		06/22/26 10:21	06/24/26 20:17	20
Phenol	ND	*1	9.9		mg/Kg		06/22/26 10:21	06/24/26 20:17	20
Pyrene	ND	*1	9.9		mg/Kg		06/22/26 10:21	06/24/26 20:17	20
Pyridine	ND		9.9		mg/Kg		06/22/26 10:21	06/24/26 20:17	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*109*		*20 - 135*	*06/22/26 10:21*	*06/24/26 20:17*	*20*
2-Fluorobiphenyl (Surr)	*102*		*28 - 110*	*06/22/26 10:21*	*06/24/26 20:17*	*20*
2-Fluorophenol (Surr)	*79*		*20 - 135*	*06/22/26 10:21*	*06/24/26 20:17*	*20*
Nitrobenzene-d5 (Surr)	*88*		*22 - 116*	*06/22/26 10:21*	*06/24/26 20:17*	*20*
p-Terphenyl-d14 (Surr)	*104*		*27 - 118*	*06/22/26 10:21*	*06/24/26 20:17*	*20*
Phenol-d6 (Surr)	*88*		*20 - 127*	*06/22/26 10:21*	*06/24/26 20:17*	*20*

Client Sample ID: B6-5
Date Collected: 06/15/26 11:50
Date Received: 06/16/26 18:00

Lab Sample ID: 570-284007-5
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND	*1	0.50		mg/Kg		06/22/26 10:21	06/24/26 20:42	1
1,2-Dichlorobenzene	ND	*1	0.50		mg/Kg		06/22/26 10:21	06/24/26 20:42	1
1,3-Dichlorobenzene	ND		0.50		mg/Kg		06/22/26 10:21	06/24/26 20:42	1

Method: SW846 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B6-5
Date Collected: 06/15/26 11:50
Date Received: 06/16/26 18:00

Lab Sample ID: 570-284007-5
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		0.50		mg/Kg		06/22/26 10:21	06/24/26 20:42	1
1-Methylnaphthalene	ND		0.50		mg/Kg		06/22/26 10:21	06/24/26 20:42	1
2,4,5-Trichlorophenol	ND	*1	0.50		mg/Kg		06/22/26 10:21	06/24/26 20:42	1
2,4,6-Trichlorophenol	ND	*1	0.50		mg/Kg		06/22/26 10:21	06/24/26 20:42	1
2,4-Dichlorophenol	ND	*1	0.50		mg/Kg		06/22/26 10:21	06/24/26 20:42	1
2,4-Dimethylphenol	ND	*1	0.50		mg/Kg		06/22/26 10:21	06/24/26 20:42	1
2,4-Dinitrophenol	ND	*1	2.0		mg/Kg		06/22/26 10:21	06/24/26 20:42	1
2,4-Dinitrotoluene	ND		0.50		mg/Kg		06/22/26 10:21	06/24/26 20:42	1
2,6-Dichlorophenol	ND	*1	0.50		mg/Kg		06/22/26 10:21	06/24/26 20:42	1
2,6-Dinitrotoluene	ND		0.50		mg/Kg		06/22/26 10:21	06/24/26 20:42	1
2-Chloronaphthalene	ND	*1	0.50		mg/Kg		06/22/26 10:21	06/24/26 20:42	1
2-Chlorophenol	ND	*1	0.50		mg/Kg		06/22/26 10:21	06/24/26 20:42	1
2-Methylnaphthalene	ND	*1	0.50		mg/Kg		06/22/26 10:21	06/24/26 20:42	1
2-Methylphenol	ND	*1	0.50		mg/Kg		06/22/26 10:21	06/24/26 20:42	1
2-Nitroaniline	ND		0.50		mg/Kg		06/22/26 10:21	06/24/26 20:42	1
2-Nitrophenol	ND	*1	0.50		mg/Kg		06/22/26 10:21	06/24/26 20:42	1
3,3'-Dichlorobenzidine	ND	*1	2.5		mg/Kg		06/22/26 10:21	06/24/26 20:42	1
3/4-Methylphenol	ND	*1	0.99		mg/Kg		06/22/26 10:21	06/24/26 20:42	1
3-Nitroaniline	ND		0.50		mg/Kg		06/22/26 10:21	06/24/26 20:42	1
4,6-Dinitro-2-methylphenol	ND		2.5		mg/Kg		06/22/26 10:21	06/24/26 20:42	1
4-Bromophenyl phenyl ether	ND		0.50		mg/Kg		06/22/26 10:21	06/24/26 20:42	1
4-Chloro-3-methylphenol	ND		0.50		mg/Kg		06/22/26 10:21	06/24/26 20:42	1
4-Chloroaniline	ND		0.50		mg/Kg		06/22/26 10:21	06/24/26 20:42	1
4-Chlorophenyl phenyl ether	ND	*1	0.50		mg/Kg		06/22/26 10:21	06/24/26 20:42	1
4-Nitroaniline	ND	*1	0.50		mg/Kg		06/22/26 10:21	06/24/26 20:42	1
4-Nitrophenol	ND		0.50		mg/Kg		06/22/26 10:21	06/24/26 20:42	1
Acenaphthene	ND	*1	0.50		mg/Kg		06/22/26 10:21	06/24/26 20:42	1
Acenaphthylene	ND	*1	0.50		mg/Kg		06/22/26 10:21	06/24/26 20:42	1
Aniline	ND	*1	0.50		mg/Kg		06/22/26 10:21	06/24/26 20:42	1
Anthracene	ND	*1	0.50		mg/Kg		06/22/26 10:21	06/24/26 20:42	1
Azobenzene	ND		0.50		mg/Kg		06/22/26 10:21	06/24/26 20:42	1
Benzidine	ND	*1	5.0		mg/Kg		06/22/26 10:21	06/24/26 20:42	1
Benzo[a]anthracene	ND	*1	0.50		mg/Kg		06/22/26 10:21	06/24/26 20:42	1
Benzo[a]pyrene	ND	*1	0.50		mg/Kg		06/22/26 10:21	06/24/26 20:42	1
Benzo[b]fluoranthene	ND	*1	0.50		mg/Kg		06/22/26 10:21	06/24/26 20:42	1
Benzo[g,h,i]perylene	ND	*1	0.50		mg/Kg		06/22/26 10:21	06/24/26 20:42	1
Benzo[k]fluoranthene	ND	*1	0.50		mg/Kg		06/22/26 10:21	06/24/26 20:42	1
Benzoic acid	ND		2.5		mg/Kg		06/22/26 10:21	06/24/26 20:42	1
Benzyl alcohol	ND	*1	0.50		mg/Kg		06/22/26 10:21	06/24/26 20:42	1
Bis(2-chloroethoxy)methane	ND	*1	0.50		mg/Kg		06/22/26 10:21	06/24/26 20:42	1
Bis(2-chloroethyl)ether	ND		2.5		mg/Kg		06/22/26 10:21	06/24/26 20:42	1
2,2'-oxybis[1-chloropropane]	ND	*1	0.50		mg/Kg		06/22/26 10:21	06/24/26 20:42	1
Bis(2-ethylhexyl) phthalate	ND	*1	0.50		mg/Kg		06/22/26 10:21	06/24/26 20:42	1
Butyl benzyl phthalate	ND	*1	0.50		mg/Kg		06/22/26 10:21	06/24/26 20:42	1
Chrysene	ND	*1	0.50		mg/Kg		06/22/26 10:21	06/24/26 20:42	1
Dibenz(a,h)anthracene	ND	*1	0.50		mg/Kg		06/22/26 10:21	06/24/26 20:42	1
Dibenzofuran	ND		0.50		mg/Kg		06/22/26 10:21	06/24/26 20:42	1
Diethyl phthalate	ND	*1	0.50		mg/Kg		06/22/26 10:21	06/24/26 20:42	1
Dimethyl phthalate	ND	*1	0.50		mg/Kg		06/22/26 10:21	06/24/26 20:42	1

Method: SW846 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B6-5
Date Collected: 06/15/26 11:50
Date Received: 06/16/26 18:00

Lab Sample ID: 570-284007-5
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Di-n-butyl phthalate	ND	*1	0.50		mg/Kg		06/22/26 10:21	06/24/26 20:42	1
Di-n-octyl phthalate	ND	*1	0.50		mg/Kg		06/22/26 10:21	06/24/26 20:42	1
Fluoranthene	ND	*1	0.50		mg/Kg		06/22/26 10:21	06/24/26 20:42	1
Fluorene	ND		0.50		mg/Kg		06/22/26 10:21	06/24/26 20:42	1
Hexachloro-1,3-butadiene	ND	*1	0.50		mg/Kg		06/22/26 10:21	06/24/26 20:42	1
Hexachlorobenzene	ND		0.50		mg/Kg		06/22/26 10:21	06/24/26 20:42	1
Hexachlorocyclopentadiene	ND	*1	1.5		mg/Kg		06/22/26 10:21	06/24/26 20:42	1
Hexachloroethane	ND	*1	0.50		mg/Kg		06/22/26 10:21	06/24/26 20:42	1
Indeno[1,2,3-cd]pyrene	ND	*1	0.50		mg/Kg		06/22/26 10:21	06/24/26 20:42	1
Isophorone	ND	*1	0.50		mg/Kg		06/22/26 10:21	06/24/26 20:42	1
Naphthalene	ND		0.50		mg/Kg		06/22/26 10:21	06/24/26 20:42	1
Nitrobenzene	ND		2.0		mg/Kg		06/22/26 10:21	06/24/26 20:42	1
N-Nitrosodimethylamine	ND		0.50		mg/Kg		06/22/26 10:21	06/24/26 20:42	1
N-Nitrosodi-n-propylamine	ND	*1	0.50		mg/Kg		06/22/26 10:21	06/24/26 20:42	1
n-Nitrosodiphenylamine(as diphenylamine)	ND	*1	0.50		mg/Kg		06/22/26 10:21	06/24/26 20:42	1
Pentachlorophenol	ND	*1	2.5		mg/Kg		06/22/26 10:21	06/24/26 20:42	1
Phenanthrene	ND	*1	0.50		mg/Kg		06/22/26 10:21	06/24/26 20:42	1
Phenol	ND	*1	0.50		mg/Kg		06/22/26 10:21	06/24/26 20:42	1
Pyrene	ND	*1	0.50		mg/Kg		06/22/26 10:21	06/24/26 20:42	1
Pyridine	ND		0.50		mg/Kg		06/22/26 10:21	06/24/26 20:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*62*		*20 - 135*	*06/22/26 10:21*	*06/24/26 20:42*	*1*
2-Fluorobiphenyl (Surr)	*65*		*28 - 110*	*06/22/26 10:21*	*06/24/26 20:42*	*1*
2-Fluorophenol (Surr)	*60*		*20 - 135*	*06/22/26 10:21*	*06/24/26 20:42*	*1*
Nitrobenzene-d5 (Surr)	*64*		*22 - 116*	*06/22/26 10:21*	*06/24/26 20:42*	*1*
p-Terphenyl-d14 (Surr)	*67*		*27 - 118*	*06/22/26 10:21*	*06/24/26 20:42*	*1*
Phenol-d6 (Surr)	*63*		*20 - 127*	*06/22/26 10:21*	*06/24/26 20:42*	*1*

Client Sample ID: B7-3.5
Date Collected: 06/15/26 12:00
Date Received: 06/16/26 18:00

Lab Sample ID: 570-284007-6
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND	*1	0.49		mg/Kg		06/22/26 10:21	06/24/26 21:06	1
1,2-Dichlorobenzene	ND	*1	0.49		mg/Kg		06/22/26 10:21	06/24/26 21:06	1
1,3-Dichlorobenzene	ND		0.49		mg/Kg		06/22/26 10:21	06/24/26 21:06	1
1,4-Dichlorobenzene	ND		0.49		mg/Kg		06/22/26 10:21	06/24/26 21:06	1
1-Methylnaphthalene	ND		0.49		mg/Kg		06/22/26 10:21	06/24/26 21:06	1
2,4,5-Trichlorophenol	ND	*1	0.49		mg/Kg		06/22/26 10:21	06/24/26 21:06	1
2,4,6-Trichlorophenol	ND	*1	0.49		mg/Kg		06/22/26 10:21	06/24/26 21:06	1
2,4-Dichlorophenol	ND	*1	0.49		mg/Kg		06/22/26 10:21	06/24/26 21:06	1
2,4-Dimethylphenol	ND	*1	0.49		mg/Kg		06/22/26 10:21	06/24/26 21:06	1
2,4-Dinitrophenol	ND	*1	2.0		mg/Kg		06/22/26 10:21	06/24/26 21:06	1
2,4-Dinitrotoluene	ND		0.49		mg/Kg		06/22/26 10:21	06/24/26 21:06	1
2,6-Dichlorophenol	ND	*1	0.49		mg/Kg		06/22/26 10:21	06/24/26 21:06	1
2,6-Dinitrotoluene	ND		0.49		mg/Kg		06/22/26 10:21	06/24/26 21:06	1
2-Chloronaphthalene	ND	*1	0.49		mg/Kg		06/22/26 10:21	06/24/26 21:06	1
2-Chlorophenol	ND	*1	0.49		mg/Kg		06/22/26 10:21	06/24/26 21:06	1
2-Methylnaphthalene	ND	*1	0.49		mg/Kg		06/22/26 10:21	06/24/26 21:06	1

Method: SW846 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B7-3.5
Date Collected: 06/15/26 12:00
Date Received: 06/16/26 18:00

Lab Sample ID: 570-284007-6
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	ND	*1	0.49		mg/Kg		06/22/26 10:21	06/24/26 21:06	1
2-Nitroaniline	ND		0.49		mg/Kg		06/22/26 10:21	06/24/26 21:06	1
2-Nitrophenol	ND	*1	0.49		mg/Kg		06/22/26 10:21	06/24/26 21:06	1
3,3'-Dichlorobenzidine	ND	*1	2.5		mg/Kg		06/22/26 10:21	06/24/26 21:06	1
3/4-Methylphenol	ND	*1	0.99		mg/Kg		06/22/26 10:21	06/24/26 21:06	1
3-Nitroaniline	ND		0.49		mg/Kg		06/22/26 10:21	06/24/26 21:06	1
4,6-Dinitro-2-methylphenol	ND		2.5		mg/Kg		06/22/26 10:21	06/24/26 21:06	1
4-Bromophenyl phenyl ether	ND		0.49		mg/Kg		06/22/26 10:21	06/24/26 21:06	1
4-Chloro-3-methylphenol	ND		0.49		mg/Kg		06/22/26 10:21	06/24/26 21:06	1
4-Chloroaniline	ND		0.49		mg/Kg		06/22/26 10:21	06/24/26 21:06	1
4-Chlorophenyl phenyl ether	ND	*1	0.49		mg/Kg		06/22/26 10:21	06/24/26 21:06	1
4-Nitroaniline	ND	*1	0.49		mg/Kg		06/22/26 10:21	06/24/26 21:06	1
4-Nitrophenol	ND		0.49		mg/Kg		06/22/26 10:21	06/24/26 21:06	1
Acenaphthene	ND	*1	0.49		mg/Kg		06/22/26 10:21	06/24/26 21:06	1
Acenaphthylene	ND	*1	0.49		mg/Kg		06/22/26 10:21	06/24/26 21:06	1
Aniline	ND	*1	0.49		mg/Kg		06/22/26 10:21	06/24/26 21:06	1
Anthracene	ND	*1	0.49		mg/Kg		06/22/26 10:21	06/24/26 21:06	1
Azobenzene	ND		0.49		mg/Kg		06/22/26 10:21	06/24/26 21:06	1
Benzidine	ND	*1	4.9		mg/Kg		06/22/26 10:21	06/24/26 21:06	1
Benzo[a]anthracene	ND	*1	0.49		mg/Kg		06/22/26 10:21	06/24/26 21:06	1
Benzo[a]pyrene	ND	*1	0.49		mg/Kg		06/22/26 10:21	06/24/26 21:06	1
Benzo[b]fluoranthene	ND	*1	0.49		mg/Kg		06/22/26 10:21	06/24/26 21:06	1
Benzo[g,h,i]perylene	ND	*1	0.49		mg/Kg		06/22/26 10:21	06/24/26 21:06	1
Benzo[k]fluoranthene	ND	*1	0.49		mg/Kg		06/22/26 10:21	06/24/26 21:06	1
Benzoic acid	ND		2.5		mg/Kg		06/22/26 10:21	06/24/26 21:06	1
Benzyl alcohol	ND	*1	0.49		mg/Kg		06/22/26 10:21	06/24/26 21:06	1
Bis(2-chloroethoxy)methane	ND	*1	0.49		mg/Kg		06/22/26 10:21	06/24/26 21:06	1
Bis(2-chloroethyl)ether	ND		2.5		mg/Kg		06/22/26 10:21	06/24/26 21:06	1
2,2'-oxybis[1-chloropropane]	ND	*1	0.49		mg/Kg		06/22/26 10:21	06/24/26 21:06	1
Bis(2-ethylhexyl) phthalate	ND	*1	0.49		mg/Kg		06/22/26 10:21	06/24/26 21:06	1
Butyl benzyl phthalate	ND	*1	0.49		mg/Kg		06/22/26 10:21	06/24/26 21:06	1
Chrysene	ND	*1	0.49		mg/Kg		06/22/26 10:21	06/24/26 21:06	1
Dibenz(a,h)anthracene	ND	*1	0.49		mg/Kg		06/22/26 10:21	06/24/26 21:06	1
Dibenzofuran	ND		0.49		mg/Kg		06/22/26 10:21	06/24/26 21:06	1
Diethyl phthalate	ND	*1	0.49		mg/Kg		06/22/26 10:21	06/24/26 21:06	1
Dimethyl phthalate	ND	*1	0.49		mg/Kg		06/22/26 10:21	06/24/26 21:06	1
Di-n-butyl phthalate	ND	*1	0.49		mg/Kg		06/22/26 10:21	06/24/26 21:06	1
Di-n-octyl phthalate	ND	*1	0.49		mg/Kg		06/22/26 10:21	06/24/26 21:06	1
Fluoranthene	ND	*1	0.49		mg/Kg		06/22/26 10:21	06/24/26 21:06	1
Fluorene	ND		0.49		mg/Kg		06/22/26 10:21	06/24/26 21:06	1
Hexachloro-1,3-butadiene	ND	*1	0.49		mg/Kg		06/22/26 10:21	06/24/26 21:06	1
Hexachlorobenzene	ND		0.49		mg/Kg		06/22/26 10:21	06/24/26 21:06	1
Hexachlorocyclopentadiene	ND	*1	1.5		mg/Kg		06/22/26 10:21	06/24/26 21:06	1
Hexachloroethane	ND	*1	0.49		mg/Kg		06/22/26 10:21	06/24/26 21:06	1
Indeno[1,2,3-cd]pyrene	ND	*1	0.49		mg/Kg		06/22/26 10:21	06/24/26 21:06	1
Isophorone	ND	*1	0.49		mg/Kg		06/22/26 10:21	06/24/26 21:06	1
Naphthalene	ND		0.49		mg/Kg		06/22/26 10:21	06/24/26 21:06	1
Nitrobenzene	ND		2.0		mg/Kg		06/22/26 10:21	06/24/26 21:06	1
N-Nitrosodimethylamine	ND		0.49		mg/Kg		06/22/26 10:21	06/24/26 21:06	1

Method: SW846 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B7-3.5
Date Collected: 06/15/26 12:00
Date Received: 06/16/26 18:00

Lab Sample ID: 570-284007-6
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND	*1	0.49		mg/Kg		06/22/26 10:21	06/24/26 21:06	1
n-Nitrosodiphenylamine(as diphenylamine)	ND	*1	0.49		mg/Kg		06/22/26 10:21	06/24/26 21:06	1
Pentachlorophenol	ND	*1	2.5		mg/Kg		06/22/26 10:21	06/24/26 21:06	1
Phenanthrene	ND	*1	0.49		mg/Kg		06/22/26 10:21	06/24/26 21:06	1
Phenol	ND	*1	0.49		mg/Kg		06/22/26 10:21	06/24/26 21:06	1
Pyrene	ND	*1	0.49		mg/Kg		06/22/26 10:21	06/24/26 21:06	1
Pyridine	ND		0.49		mg/Kg		06/22/26 10:21	06/24/26 21:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*68*		*20 - 135*	*06/22/26 10:21*	*06/24/26 21:06*	*1*
2-Fluorobiphenyl (Surr)	*69*		*28 - 110*	*06/22/26 10:21*	*06/24/26 21:06*	*1*
2-Fluorophenol (Surr)	*66*		*20 - 135*	*06/22/26 10:21*	*06/24/26 21:06*	*1*
Nitrobenzene-d5 (Surr)	*67*		*22 - 116*	*06/22/26 10:21*	*06/24/26 21:06*	*1*
p-Terphenyl-d14 (Surr)	*69*		*27 - 118*	*06/22/26 10:21*	*06/24/26 21:06*	*1*
Phenol-d6 (Surr)	*68*		*20 - 127*	*06/22/26 10:21*	*06/24/26 21:06*	*1*

Client Sample ID: B8-5
Date Collected: 06/15/26 12:20
Date Received: 06/16/26 18:00

Lab Sample ID: 570-284007-7
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND	*1	2.5		mg/Kg		06/22/26 10:22	06/24/26 21:30	5
1,2-Dichlorobenzene	ND	*1	2.5		mg/Kg		06/22/26 10:22	06/24/26 21:30	5
1,3-Dichlorobenzene	ND		2.5		mg/Kg		06/22/26 10:22	06/24/26 21:30	5
1,4-Dichlorobenzene	ND		2.5		mg/Kg		06/22/26 10:22	06/24/26 21:30	5
1-Methylnaphthalene	ND		2.5		mg/Kg		06/22/26 10:22	06/24/26 21:30	5
2,4,5-Trichlorophenol	ND	*1	2.5		mg/Kg		06/22/26 10:22	06/24/26 21:30	5
2,4,6-Trichlorophenol	ND	*1	2.5		mg/Kg		06/22/26 10:22	06/24/26 21:30	5
2,4-Dichlorophenol	ND	*1	2.5		mg/Kg		06/22/26 10:22	06/24/26 21:30	5
2,4-Dimethylphenol	ND	*1	2.5		mg/Kg		06/22/26 10:22	06/24/26 21:30	5
2,4-Dinitrophenol	ND	*1	9.9		mg/Kg		06/22/26 10:22	06/24/26 21:30	5
2,4-Dinitrotoluene	ND		2.5		mg/Kg		06/22/26 10:22	06/24/26 21:30	5
2,6-Dichlorophenol	ND	*1	2.5		mg/Kg		06/22/26 10:22	06/24/26 21:30	5
2,6-Dinitrotoluene	ND		2.5		mg/Kg		06/22/26 10:22	06/24/26 21:30	5
2-Chloronaphthalene	ND	*1	2.5		mg/Kg		06/22/26 10:22	06/24/26 21:30	5
2-Chlorophenol	ND	*1	2.5		mg/Kg		06/22/26 10:22	06/24/26 21:30	5
2-Methylnaphthalene	ND	*1	2.5		mg/Kg		06/22/26 10:22	06/24/26 21:30	5
2-Methylphenol	ND	*1	2.5		mg/Kg		06/22/26 10:22	06/24/26 21:30	5
2-Nitroaniline	ND		2.5		mg/Kg		06/22/26 10:22	06/24/26 21:30	5
2-Nitrophenol	ND	*1	2.5		mg/Kg		06/22/26 10:22	06/24/26 21:30	5
3,3'-Dichlorobenzidine	ND	*1	12		mg/Kg		06/22/26 10:22	06/24/26 21:30	5
3/4-Methylphenol	ND	*1	4.9		mg/Kg		06/22/26 10:22	06/24/26 21:30	5
3-Nitroaniline	ND		2.5		mg/Kg		06/22/26 10:22	06/24/26 21:30	5
4,6-Dinitro-2-methylphenol	ND		12		mg/Kg		06/22/26 10:22	06/24/26 21:30	5
4-Bromophenyl phenyl ether	ND		2.5		mg/Kg		06/22/26 10:22	06/24/26 21:30	5
4-Chloro-3-methylphenol	ND		2.5		mg/Kg		06/22/26 10:22	06/24/26 21:30	5
4-Chloroaniline	ND		2.5		mg/Kg		06/22/26 10:22	06/24/26 21:30	5
4-Chlorophenyl phenyl ether	ND	*1	2.5		mg/Kg		06/22/26 10:22	06/24/26 21:30	5
4-Nitroaniline	ND	*1	2.5		mg/Kg		06/22/26 10:22	06/24/26 21:30	5
4-Nitrophenol	ND		2.5		mg/Kg		06/22/26 10:22	06/24/26 21:30	5

Method: SW846 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B8-5
Date Collected: 06/15/26 12:20
Date Received: 06/16/26 18:00

Lab Sample ID: 570-284007-7
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND	*1	2.5		mg/Kg		06/22/26 10:22	06/24/26 21:30	5
Acenaphthylene	ND	*1	2.5		mg/Kg		06/22/26 10:22	06/24/26 21:30	5
Aniline	ND	*1	2.5		mg/Kg		06/22/26 10:22	06/24/26 21:30	5
Anthracene	ND	*1	2.5		mg/Kg		06/22/26 10:22	06/24/26 21:30	5
Azobenzene	ND		2.5		mg/Kg		06/22/26 10:22	06/24/26 21:30	5
Benzidine	ND	*1	25		mg/Kg		06/22/26 10:22	06/24/26 21:30	5
Benzo[a]anthracene	ND	*1	2.5		mg/Kg		06/22/26 10:22	06/24/26 21:30	5
Benzo[a]pyrene	ND	*1	2.5		mg/Kg		06/22/26 10:22	06/24/26 21:30	5
Benzo[b]fluoranthene	ND	*1	2.5		mg/Kg		06/22/26 10:22	06/24/26 21:30	5
Benzo[g,h,i]perylene	ND	*1	2.5		mg/Kg		06/22/26 10:22	06/24/26 21:30	5
Benzo[k]fluoranthene	ND	*1	2.5		mg/Kg		06/22/26 10:22	06/24/26 21:30	5
Benzoic acid	ND		12		mg/Kg		06/22/26 10:22	06/24/26 21:30	5
Benzyl alcohol	ND	*1	2.5		mg/Kg		06/22/26 10:22	06/24/26 21:30	5
Bis(2-chloroethoxy)methane	ND	*1	2.5		mg/Kg		06/22/26 10:22	06/24/26 21:30	5
Bis(2-chloroethyl)ether	ND		12		mg/Kg		06/22/26 10:22	06/24/26 21:30	5
2,2'-oxybis[1-chloropropane]	ND	*1	2.5		mg/Kg		06/22/26 10:22	06/24/26 21:30	5
Bis(2-ethylhexyl) phthalate	ND	*1	2.5		mg/Kg		06/22/26 10:22	06/24/26 21:30	5
Butyl benzyl phthalate	ND	*1	2.5		mg/Kg		06/22/26 10:22	06/24/26 21:30	5
Chrysene	ND	*1	2.5		mg/Kg		06/22/26 10:22	06/24/26 21:30	5
Dibenz(a,h)anthracene	ND	*1	2.5		mg/Kg		06/22/26 10:22	06/24/26 21:30	5
Dibenzofuran	ND		2.5		mg/Kg		06/22/26 10:22	06/24/26 21:30	5
Diethyl phthalate	ND	*1	2.5		mg/Kg		06/22/26 10:22	06/24/26 21:30	5
Dimethyl phthalate	ND	*1	2.5		mg/Kg		06/22/26 10:22	06/24/26 21:30	5
Di-n-butyl phthalate	ND	*1	2.5		mg/Kg		06/22/26 10:22	06/24/26 21:30	5
Di-n-octyl phthalate	ND	*1	2.5		mg/Kg		06/22/26 10:22	06/24/26 21:30	5
Fluoranthene	ND	*1	2.5		mg/Kg		06/22/26 10:22	06/24/26 21:30	5
Fluorene	ND		2.5		mg/Kg		06/22/26 10:22	06/24/26 21:30	5
Hexachloro-1,3-butadiene	ND	*1	2.5		mg/Kg		06/22/26 10:22	06/24/26 21:30	5
Hexachlorobenzene	ND		2.5		mg/Kg		06/22/26 10:22	06/24/26 21:30	5
Hexachlorocyclopentadiene	ND	*1	7.4		mg/Kg		06/22/26 10:22	06/24/26 21:30	5
Hexachloroethane	ND	*1	2.5		mg/Kg		06/22/26 10:22	06/24/26 21:30	5
Indeno[1,2,3-cd]pyrene	ND	*1	2.5		mg/Kg		06/22/26 10:22	06/24/26 21:30	5
Isophorone	ND	*1	2.5		mg/Kg		06/22/26 10:22	06/24/26 21:30	5
Naphthalene	ND		2.5		mg/Kg		06/22/26 10:22	06/24/26 21:30	5
Nitrobenzene	ND		9.9		mg/Kg		06/22/26 10:22	06/24/26 21:30	5
N-Nitrosodimethylamine	ND		2.5		mg/Kg		06/22/26 10:22	06/24/26 21:30	5
N-Nitrosodi-n-propylamine	ND	*1	2.5		mg/Kg		06/22/26 10:22	06/24/26 21:30	5
n-Nitrosodiphenylamine(as diphenylamine)	ND	*1	2.5		mg/Kg		06/22/26 10:22	06/24/26 21:30	5
Pentachlorophenol	ND	*1	12		mg/Kg		06/22/26 10:22	06/24/26 21:30	5
Phenanthrene	ND	*1	2.5		mg/Kg		06/22/26 10:22	06/24/26 21:30	5
Phenol	ND	*1	2.5		mg/Kg		06/22/26 10:22	06/24/26 21:30	5
Pyrene	ND	*1	2.5		mg/Kg		06/22/26 10:22	06/24/26 21:30	5
Pyridine	ND		2.5		mg/Kg		06/22/26 10:22	06/24/26 21:30	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*74*		*20 - 135*	*06/22/26 10:22*	*06/24/26 21:30*	*5*
2-Fluorobiphenyl (Surr)	*75*		*28 - 110*	*06/22/26 10:22*	*06/24/26 21:30*	*5*
2-Fluorophenol (Surr)	*63*		*20 - 135*	*06/22/26 10:22*	*06/24/26 21:30*	*5*
Nitrobenzene-d5 (Surr)	*66*		*22 - 116*	*06/22/26 10:22*	*06/24/26 21:30*	*5*

Method: SW846 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B8-5
Date Collected: 06/15/26 12:20
Date Received: 06/16/26 18:00

Lab Sample ID: 570-284007-7
Matrix: Solid

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl-d14 (Surr)	*79*		*27 - 118*	*06/22/26 10:22*	*06/24/26 21:30*	*5*
Phenol-d6 (Surr)	*67*		*20 - 127*	*06/22/26 10:22*	*06/24/26 21:30*	*5*

Client Sample ID: B1-5
Date Collected: 06/15/26 11:00
Date Received: 06/16/26 18:00

Lab Sample ID: 570-284007-8
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND	*1	2.5		mg/Kg		06/22/26 10:22	06/24/26 21:54	5
1,2-Dichlorobenzene	ND	*1	2.5		mg/Kg		06/22/26 10:22	06/24/26 21:54	5
1,3-Dichlorobenzene	ND		2.5		mg/Kg		06/22/26 10:22	06/24/26 21:54	5
1,4-Dichlorobenzene	ND		2.5		mg/Kg		06/22/26 10:22	06/24/26 21:54	5
1-Methylnaphthalene	ND		2.5		mg/Kg		06/22/26 10:22	06/24/26 21:54	5
2,4,5-Trichlorophenol	ND	*1	2.5		mg/Kg		06/22/26 10:22	06/24/26 21:54	5
2,4,6-Trichlorophenol	ND	*1	2.5		mg/Kg		06/22/26 10:22	06/24/26 21:54	5
2,4-Dichlorophenol	ND	*1	2.5		mg/Kg		06/22/26 10:22	06/24/26 21:54	5
2,4-Dimethylphenol	ND	*1	2.5		mg/Kg		06/22/26 10:22	06/24/26 21:54	5
2,4-Dinitrophenol	ND	*1	10		mg/Kg		06/22/26 10:22	06/24/26 21:54	5
2,4-Dinitrotoluene	ND		2.5		mg/Kg		06/22/26 10:22	06/24/26 21:54	5
2,6-Dichlorophenol	ND	*1	2.5		mg/Kg		06/22/26 10:22	06/24/26 21:54	5
2,6-Dinitrotoluene	ND		2.5		mg/Kg		06/22/26 10:22	06/24/26 21:54	5
2-Chloronaphthalene	ND	*1	2.5		mg/Kg		06/22/26 10:22	06/24/26 21:54	5
2-Chlorophenol	ND	*1	2.5		mg/Kg		06/22/26 10:22	06/24/26 21:54	5
2-Methylnaphthalene	ND	*1	2.5		mg/Kg		06/22/26 10:22	06/24/26 21:54	5
2-Methylphenol	ND	*1	2.5		mg/Kg		06/22/26 10:22	06/24/26 21:54	5
2-Nitroaniline	ND		2.5		mg/Kg		06/22/26 10:22	06/24/26 21:54	5
2-Nitrophenol	ND	*1	2.5		mg/Kg		06/22/26 10:22	06/24/26 21:54	5
3,3'-Dichlorobenzidine	ND	*1	13		mg/Kg		06/22/26 10:22	06/24/26 21:54	5
3/4-Methylphenol	ND	*1	5.0		mg/Kg		06/22/26 10:22	06/24/26 21:54	5
3-Nitroaniline	ND		2.5		mg/Kg		06/22/26 10:22	06/24/26 21:54	5
4,6-Dinitro-2-methylphenol	ND		13		mg/Kg		06/22/26 10:22	06/24/26 21:54	5
4-Bromophenyl phenyl ether	ND		2.5		mg/Kg		06/22/26 10:22	06/24/26 21:54	5
4-Chloro-3-methylphenol	ND		2.5		mg/Kg		06/22/26 10:22	06/24/26 21:54	5
4-Chloroaniline	ND		2.5		mg/Kg		06/22/26 10:22	06/24/26 21:54	5
4-Chlorophenyl phenyl ether	ND	*1	2.5		mg/Kg		06/22/26 10:22	06/24/26 21:54	5
4-Nitroaniline	ND	*1	2.5		mg/Kg		06/22/26 10:22	06/24/26 21:54	5
4-Nitrophenol	ND		2.5		mg/Kg		06/22/26 10:22	06/24/26 21:54	5
Acenaphthene	ND	*1	2.5		mg/Kg		06/22/26 10:22	06/24/26 21:54	5
Acenaphthylene	ND	*1	2.5		mg/Kg		06/22/26 10:22	06/24/26 21:54	5
Aniline	ND	*1	2.5		mg/Kg		06/22/26 10:22	06/24/26 21:54	5
Anthracene	ND	*1	2.5		mg/Kg		06/22/26 10:22	06/24/26 21:54	5
Azobenzene	ND		2.5		mg/Kg		06/22/26 10:22	06/24/26 21:54	5
Benzidine	ND	*1	25		mg/Kg		06/22/26 10:22	06/24/26 21:54	5
Benzo[a]anthracene	ND	*1	2.5		mg/Kg		06/22/26 10:22	06/24/26 21:54	5
Benzo[a]pyrene	ND	*1	2.5		mg/Kg		06/22/26 10:22	06/24/26 21:54	5
Benzo[b]fluoranthene	ND	*1	2.5		mg/Kg		06/22/26 10:22	06/24/26 21:54	5
Benzo[g,h,i]perylene	ND	*1	2.5		mg/Kg		06/22/26 10:22	06/24/26 21:54	5
Benzo[k]fluoranthene	ND	*1	2.5		mg/Kg		06/22/26 10:22	06/24/26 21:54	5
Benzoic acid	ND		13		mg/Kg		06/22/26 10:22	06/24/26 21:54	5
Benzyl alcohol	ND	*1	2.5		mg/Kg		06/22/26 10:22	06/24/26 21:54	5

Method: SW846 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B1-5
Date Collected: 06/15/26 11:00
Date Received: 06/16/26 18:00

Lab Sample ID: 570-284007-8
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-chloroethoxy)methane	ND	*1	2.5		mg/Kg		06/22/26 10:22	06/24/26 21:54	5
Bis(2-chloroethyl)ether	ND		13		mg/Kg		06/22/26 10:22	06/24/26 21:54	5
2,2'-oxybis[1-chloropropane]	ND	*1	2.5		mg/Kg		06/22/26 10:22	06/24/26 21:54	5
Bis(2-ethylhexyl) phthalate	ND	*1	2.5		mg/Kg		06/22/26 10:22	06/24/26 21:54	5
Butyl benzyl phthalate	ND	*1	2.5		mg/Kg		06/22/26 10:22	06/24/26 21:54	5
Chrysene	ND	*1	2.5		mg/Kg		06/22/26 10:22	06/24/26 21:54	5
Dibenz(a,h)anthracene	ND	*1	2.5		mg/Kg		06/22/26 10:22	06/24/26 21:54	5
Dibenzofuran	ND		2.5		mg/Kg		06/22/26 10:22	06/24/26 21:54	5
Diethyl phthalate	ND	*1	2.5		mg/Kg		06/22/26 10:22	06/24/26 21:54	5
Dimethyl phthalate	ND	*1	2.5		mg/Kg		06/22/26 10:22	06/24/26 21:54	5
Di-n-butyl phthalate	ND	*1	2.5		mg/Kg		06/22/26 10:22	06/24/26 21:54	5
Di-n-octyl phthalate	ND	*1	2.5		mg/Kg		06/22/26 10:22	06/24/26 21:54	5
Fluoranthene	ND	*1	2.5		mg/Kg		06/22/26 10:22	06/24/26 21:54	5
Fluorene	ND		2.5		mg/Kg		06/22/26 10:22	06/24/26 21:54	5
Hexachloro-1,3-butadiene	ND	*1	2.5		mg/Kg		06/22/26 10:22	06/24/26 21:54	5
Hexachlorobenzene	ND		2.5		mg/Kg		06/22/26 10:22	06/24/26 21:54	5
Hexachlorocyclopentadiene	ND	*1	7.5		mg/Kg		06/22/26 10:22	06/24/26 21:54	5
Hexachloroethane	ND	*1	2.5		mg/Kg		06/22/26 10:22	06/24/26 21:54	5
Indeno[1,2,3-cd]pyrene	ND	*1	2.5		mg/Kg		06/22/26 10:22	06/24/26 21:54	5
Isophorone	ND	*1	2.5		mg/Kg		06/22/26 10:22	06/24/26 21:54	5
Naphthalene	ND		2.5		mg/Kg		06/22/26 10:22	06/24/26 21:54	5
Nitrobenzene	ND		10		mg/Kg		06/22/26 10:22	06/24/26 21:54	5
N-Nitrosodimethylamine	ND		2.5		mg/Kg		06/22/26 10:22	06/24/26 21:54	5
N-Nitrosodi-n-propylamine	ND	*1	2.5		mg/Kg		06/22/26 10:22	06/24/26 21:54	5
n-Nitrosodiphenylamine(as diphenylamine)	ND	*1	2.5		mg/Kg		06/22/26 10:22	06/24/26 21:54	5
Pentachlorophenol	ND	*1	13		mg/Kg		06/22/26 10:22	06/24/26 21:54	5
Phenanthrene	ND	*1	2.5		mg/Kg		06/22/26 10:22	06/24/26 21:54	5
Phenol	ND	*1	2.5		mg/Kg		06/22/26 10:22	06/24/26 21:54	5
Pyrene	ND	*1	2.5		mg/Kg		06/22/26 10:22	06/24/26 21:54	5
Pyridine	ND		2.5		mg/Kg		06/22/26 10:22	06/24/26 21:54	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*66*		*20 - 135*	*06/22/26 10:22*	*06/24/26 21:54*	*5*
2-Fluorobiphenyl (Surr)	*73*		*28 - 110*	*06/22/26 10:22*	*06/24/26 21:54*	*5*
2-Fluorophenol (Surr)	*65*		*20 - 135*	*06/22/26 10:22*	*06/24/26 21:54*	*5*
Nitrobenzene-d5 (Surr)	*70*		*22 - 116*	*06/22/26 10:22*	*06/24/26 21:54*	*5*
p-Terphenyl-d14 (Surr)	*73*		*27 - 118*	*06/22/26 10:22*	*06/24/26 21:54*	*5*
Phenol-d6 (Surr)	*66*		*20 - 127*	*06/22/26 10:22*	*06/24/26 21:54*	*5*

Method: SW846 8015B - Gasoline Range Organics - (GC)

Client Sample ID: B5-13
Date Collected: 06/15/26 08:00
Date Received: 06/16/26 18:00

Lab Sample ID: 570-284007-1
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.097		mg/Kg		06/18/26 10:25	06/26/26 05:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*42 - 126*	*06/18/26 10:25*	*06/26/26 05:42*	*1*

Client Sample ID: B4-13
Date Collected: 06/15/26 08:45
Date Received: 06/16/26 18:00

Lab Sample ID: 570-284007-2
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.095		mg/Kg		06/18/26 10:25	06/26/26 06:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*42 - 126*	*06/18/26 10:25*	*06/26/26 06:05*	*1*

Client Sample ID: B3-13
Date Collected: 06/15/26 09:25
Date Received: 06/16/26 18:00

Lab Sample ID: 570-284007-3
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.098		mg/Kg		06/18/26 10:25	06/26/26 06:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*42 - 126*	*06/18/26 10:25*	*06/26/26 06:29*	*1*

Client Sample ID: B2-3.5
Date Collected: 06/15/26 10:15
Date Received: 06/16/26 18:00

Lab Sample ID: 570-284007-4
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	**0.25**		0.10		mg/Kg		06/18/26 10:25	06/26/26 07:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*42 - 126*	*06/18/26 10:25*	*06/26/26 07:15*	*1*

Client Sample ID: B6-5
Date Collected: 06/15/26 11:50
Date Received: 06/16/26 18:00

Lab Sample ID: 570-284007-5
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.073		mg/Kg		06/18/26 10:25	06/26/26 07:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*42 - 126*	*06/18/26 10:25*	*06/26/26 07:39*	*1*

Client Sample ID: B7-3.5
Date Collected: 06/15/26 12:00
Date Received: 06/16/26 18:00

Lab Sample ID: 570-284007-6
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	**0.25**		0.065		mg/Kg		06/18/26 10:25	06/26/26 08:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*42 - 126*	*06/18/26 10:25*	*06/26/26 08:02*	*1*

Client: Stantec Consulting Corporation
Project/Site: Amgen BSD 2042726000

Job ID: 570-284007-1

Method: SW846 8015B - Gasoline Range Organics - (GC)

Client Sample ID: B8-5
Date Collected: 06/15/26 12:20
Date Received: 06/16/26 18:00

Lab Sample ID: 570-284007-7
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	0.13		0.096		mg/Kg		06/18/26 10:25	06/26/26 08:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*42 - 126*	*06/18/26 10:25*	*06/26/26 08:26*	*1*

Client Sample ID: B1-5
Date Collected: 06/15/26 11:00
Date Received: 06/16/26 18:00

Lab Sample ID: 570-284007-8
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	0.15		0.095		mg/Kg		06/18/26 10:25	06/26/26 08:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*42 - 126*	*06/18/26 10:25*	*06/26/26 08:49*	*1*

Method: SW846 8015B - Diesel Range Organics (DRO) (GC)

Client Sample ID: B5-13
Date Collected: 06/15/26 08:00
Date Received: 06/16/26 18:00

Lab Sample ID: 570-284007-1
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0		mg/Kg		06/19/26 13:42	06/24/26 19:31	1
C23-C40	ND		25		mg/Kg		06/19/26 13:42	06/24/26 19:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane (Surr)	*89*		*29 - 160*	*06/19/26 13:42*	*06/24/26 19:31*	*1*

Client Sample ID: B4-13
Date Collected: 06/15/26 08:45
Date Received: 06/16/26 18:00

Lab Sample ID: 570-284007-2
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		4.9		mg/Kg		06/23/26 13:33	06/25/26 01:56	1
C23-C40	ND		24		mg/Kg		06/23/26 13:33	06/25/26 01:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane (Surr)	*98*		*29 - 160*	*06/23/26 13:33*	*06/25/26 01:56*	*1*

Client Sample ID: B3-13
Date Collected: 06/15/26 09:25
Date Received: 06/16/26 18:00

Lab Sample ID: 570-284007-3
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0		mg/Kg		06/19/26 13:42	06/24/26 19:53	1
C23-C40	ND		25		mg/Kg		06/19/26 13:42	06/24/26 19:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane (Surr)	*86*		*29 - 160*	*06/19/26 13:42*	*06/24/26 19:53*	*1*

Client Sample ID: B2-3.5
Date Collected: 06/15/26 10:15
Date Received: 06/16/26 18:00

Lab Sample ID: 570-284007-4
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	**51**		4.8		mg/Kg		06/19/26 13:42	06/24/26 20:14	1
C23-C40	**650**		24		mg/Kg		06/19/26 13:42	06/24/26 20:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane (Surr)	*89*		*29 - 160*	*06/19/26 13:42*	*06/24/26 20:14*	*1*

Client Sample ID: B6-5
Date Collected: 06/15/26 11:50
Date Received: 06/16/26 18:00

Lab Sample ID: 570-284007-5
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		4.8		mg/Kg		06/19/26 13:42	06/24/26 20:36	1
C23-C40	ND		24		mg/Kg		06/19/26 13:42	06/24/26 20:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane (Surr)	*91*		*29 - 160*	*06/19/26 13:42*	*06/24/26 20:36*	*1*

Client Sample ID: B7-3.5
Date Collected: 06/15/26 12:00
Date Received: 06/16/26 18:00

Lab Sample ID: 570-284007-6
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0		mg/Kg		06/19/26 13:42	06/24/26 20:57	1
C23-C40	ND		25		mg/Kg		06/19/26 13:42	06/24/26 20:57	1

Method: SW846 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	*89*		*29 - 160*	*06/19/26 13:42*	*06/24/26 20:57*	*1*

Client Sample ID: B8-5
Date Collected: 06/15/26 12:20
Date Received: 06/16/26 18:00

Lab Sample ID: 570-284007-7
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0		mg/Kg		06/19/26 13:42	06/24/26 21:19	1
C23-C40	ND		25		mg/Kg		06/19/26 13:42	06/24/26 21:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	*90*		*29 - 160*	*06/19/26 13:42*	*06/24/26 21:19*	*1*

Client Sample ID: B1-5
Date Collected: 06/15/26 11:00
Date Received: 06/16/26 18:00

Lab Sample ID: 570-284007-8
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		4.9		mg/Kg		06/19/26 13:42	06/21/26 04:36	1
C23-C40	**51**		25		mg/Kg		06/19/26 13:42	06/21/26 04:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	*67*		*29 - 160*	*06/19/26 13:42*	*06/21/26 04:36*	*1*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Client Sample ID: B5-13
Date Collected: 06/15/26 08:00
Date Received: 06/16/26 18:00

Lab Sample ID: 570-284007-1
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		4.9		ug/Kg		06/25/26 15:02	06/26/26 22:55	1
4,4'-DDE	ND		4.9		ug/Kg		06/25/26 15:02	06/26/26 22:55	1
4,4'-DDT	ND		4.9		ug/Kg		06/25/26 15:02	06/26/26 22:55	1
Aldrin	ND		4.9		ug/Kg		06/25/26 15:02	06/26/26 22:55	1
alpha-BHC	ND		4.9		ug/Kg		06/25/26 15:02	06/26/26 22:55	1
alpha-Chlordane	ND		4.9		ug/Kg		06/25/26 15:02	06/26/26 22:55	1
beta-BHC	ND		4.9		ug/Kg		06/25/26 15:02	06/26/26 22:55	1
Chlordane	ND		25		ug/Kg		06/25/26 15:02	06/26/26 22:55	1
delta-BHC	ND		4.9		ug/Kg		06/25/26 15:02	06/26/26 22:55	1
Dieldrin	ND		4.9		ug/Kg		06/25/26 15:02	06/26/26 22:55	1
Endosulfan I	ND		4.9		ug/Kg		06/25/26 15:02	06/26/26 22:55	1
Endosulfan II	ND		4.9		ug/Kg		06/25/26 15:02	06/26/26 22:55	1
Endosulfan sulfate	ND		4.9		ug/Kg		06/25/26 15:02	06/26/26 22:55	1
Endrin	ND		4.9		ug/Kg		06/25/26 15:02	06/26/26 22:55	1
Endrin aldehyde	ND		4.9		ug/Kg		06/25/26 15:02	06/26/26 22:55	1
Endrin ketone	ND		4.9		ug/Kg		06/25/26 15:02	06/26/26 22:55	1
gamma-Chlordane	ND		4.9		ug/Kg		06/25/26 15:02	06/26/26 22:55	1
gamma-BHC (Lindane)	ND		4.9		ug/Kg		06/25/26 15:02	06/26/26 22:55	1
Heptachlor	ND		4.9		ug/Kg		06/25/26 15:02	06/26/26 22:55	1
Heptachlor epoxide	ND		4.9		ug/Kg		06/25/26 15:02	06/26/26 22:55	1
Methoxychlor	ND		4.9		ug/Kg		06/25/26 15:02	06/26/26 22:55	1
Toxaphene	ND		25		ug/Kg		06/25/26 15:02	06/26/26 22:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene (Surr)	*84*		*38 - 148*	*06/25/26 15:02*	*06/26/26 22:55*	*1*
DCB Decachlorobiphenyl (Surr)	*62*		*37 - 151*	*06/25/26 15:02*	*06/26/26 22:55*	*1*

Client Sample ID: B4-13
Date Collected: 06/15/26 08:45
Date Received: 06/16/26 18:00

Lab Sample ID: 570-284007-2
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		5.0		ug/Kg		06/23/26 13:59	06/25/26 04:10	1
4,4'-DDE	ND		5.0		ug/Kg		06/23/26 13:59	06/25/26 04:10	1
4,4'-DDT	ND		5.0		ug/Kg		06/23/26 13:59	06/25/26 04:10	1
Aldrin	ND		5.0		ug/Kg		06/23/26 13:59	06/25/26 04:10	1
alpha-BHC	ND		5.0		ug/Kg		06/23/26 13:59	06/25/26 04:10	1
alpha-Chlordane	ND		5.0		ug/Kg		06/23/26 13:59	06/25/26 04:10	1
beta-BHC	ND		5.0		ug/Kg		06/23/26 13:59	06/25/26 04:10	1
Chlordane	ND		25		ug/Kg		06/23/26 13:59	06/25/26 04:10	1
delta-BHC	ND		5.0		ug/Kg		06/23/26 13:59	06/25/26 04:10	1
Dieldrin	ND		5.0		ug/Kg		06/23/26 13:59	06/25/26 04:10	1
Endosulfan I	ND		5.0		ug/Kg		06/23/26 13:59	06/25/26 04:10	1
Endosulfan II	ND		5.0		ug/Kg		06/23/26 13:59	06/25/26 04:10	1
Endosulfan sulfate	ND		5.0		ug/Kg		06/23/26 13:59	06/25/26 04:10	1
Endrin	ND		5.0		ug/Kg		06/23/26 13:59	06/25/26 04:10	1
Endrin aldehyde	ND		5.0		ug/Kg		06/23/26 13:59	06/25/26 04:10	1
Endrin ketone	ND		5.0		ug/Kg		06/23/26 13:59	06/25/26 04:10	1
gamma-Chlordane	ND		5.0		ug/Kg		06/23/26 13:59	06/25/26 04:10	1
gamma-BHC (Lindane)	ND		5.0		ug/Kg		06/23/26 13:59	06/25/26 04:10	1
Heptachlor	ND		5.0		ug/Kg		06/23/26 13:59	06/25/26 04:10	1

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Client Sample ID: B4-13
Date Collected: 06/15/26 08:45
Date Received: 06/16/26 18:00

Lab Sample ID: 570-284007-2
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Heptachlor epoxide	ND		5.0		ug/Kg		06/23/26 13:59	06/25/26 04:10	1
Methoxychlor	ND		5.0		ug/Kg		06/23/26 13:59	06/25/26 04:10	1
Toxaphene	ND		25		ug/Kg		06/23/26 13:59	06/25/26 04:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene (Surr)	*86*		*38 - 148*	*06/23/26 13:59*	*06/25/26 04:10*	*1*
DCB Decachlorobiphenyl (Surr)	*59*		*37 - 151*	*06/23/26 13:59*	*06/25/26 04:10*	*1*

Client Sample ID: B3-13
Date Collected: 06/15/26 09:25
Date Received: 06/16/26 18:00

Lab Sample ID: 570-284007-3
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		5.0		ug/Kg		06/22/26 09:49	06/25/26 02:19	1
4,4'-DDE	ND		5.0		ug/Kg		06/22/26 09:49	06/25/26 02:19	1
4,4'-DDT	ND		5.0		ug/Kg		06/22/26 09:49	06/25/26 02:19	1
Aldrin	ND		5.0		ug/Kg		06/22/26 09:49	06/25/26 02:19	1
alpha-BHC	ND		5.0		ug/Kg		06/22/26 09:49	06/25/26 02:19	1
alpha-Chlordane	ND		5.0		ug/Kg		06/22/26 09:49	06/25/26 02:19	1
beta-BHC	ND		5.0		ug/Kg		06/22/26 09:49	06/25/26 02:19	1
Chlordane	ND		25		ug/Kg		06/22/26 09:49	06/25/26 02:19	1
delta-BHC	ND		5.0		ug/Kg		06/22/26 09:49	06/25/26 02:19	1
Dieldrin	ND		5.0		ug/Kg		06/22/26 09:49	06/25/26 02:19	1
Endosulfan I	ND		5.0		ug/Kg		06/22/26 09:49	06/25/26 02:19	1
Endosulfan II	ND		5.0		ug/Kg		06/22/26 09:49	06/25/26 02:19	1
Endosulfan sulfate	ND		5.0		ug/Kg		06/22/26 09:49	06/25/26 02:19	1
Endrin	ND		5.0		ug/Kg		06/22/26 09:49	06/25/26 02:19	1
Endrin aldehyde	ND		5.0		ug/Kg		06/22/26 09:49	06/25/26 02:19	1
Endrin ketone	ND		5.0		ug/Kg		06/22/26 09:49	06/25/26 02:19	1
gamma-Chlordane	ND		5.0		ug/Kg		06/22/26 09:49	06/25/26 02:19	1
gamma-BHC (Lindane)	ND		5.0		ug/Kg		06/22/26 09:49	06/25/26 02:19	1
Heptachlor	ND		5.0		ug/Kg		06/22/26 09:49	06/25/26 02:19	1
Heptachlor epoxide	ND		5.0		ug/Kg		06/22/26 09:49	06/25/26 02:19	1
Methoxychlor	ND		5.0		ug/Kg		06/22/26 09:49	06/25/26 02:19	1
Toxaphene	ND		25		ug/Kg		06/22/26 09:49	06/25/26 02:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene (Surr)	*85*		*38 - 148*	*06/22/26 09:49*	*06/25/26 02:19*	*1*
DCB Decachlorobiphenyl (Surr)	*50*		*37 - 151*	*06/22/26 09:49*	*06/25/26 02:19*	*1*

Client Sample ID: B2-3.5
Date Collected: 06/15/26 10:15
Date Received: 06/16/26 18:00

Lab Sample ID: 570-284007-4
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		5.0		ug/Kg		06/22/26 09:49	06/25/26 02:33	1
4,4'-DDE	ND		5.0		ug/Kg		06/22/26 09:49	06/25/26 02:33	1
4,4'-DDT	ND		5.0		ug/Kg		06/22/26 09:49	06/25/26 02:33	1
Aldrin	ND		5.0		ug/Kg		06/22/26 09:49	06/25/26 02:33	1
alpha-BHC	ND		5.0		ug/Kg		06/22/26 09:49	06/25/26 02:33	1
alpha-Chlordane	ND		5.0		ug/Kg		06/22/26 09:49	06/25/26 02:33	1
beta-BHC	ND		5.0		ug/Kg		06/22/26 09:49	06/25/26 02:33	1

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Client Sample ID: B2-3.5
Date Collected: 06/15/26 10:15
Date Received: 06/16/26 18:00

Lab Sample ID: 570-284007-4
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chlordane	ND		25		ug/Kg		06/22/26 09:49	06/25/26 02:33	1
delta-BHC	ND		5.0		ug/Kg		06/22/26 09:49	06/25/26 02:33	1
Dieldrin	ND		5.0		ug/Kg		06/22/26 09:49	06/25/26 02:33	1
Endosulfan I	ND		5.0		ug/Kg		06/22/26 09:49	06/25/26 02:33	1
Endosulfan II	ND		5.0		ug/Kg		06/22/26 09:49	06/25/26 02:33	1
Endosulfan sulfate	ND		5.0		ug/Kg		06/22/26 09:49	06/25/26 02:33	1
Endrin	ND		5.0		ug/Kg		06/22/26 09:49	06/25/26 02:33	1
Endrin aldehyde	ND		5.0		ug/Kg		06/22/26 09:49	06/25/26 02:33	1
Endrin ketone	ND		5.0		ug/Kg		06/22/26 09:49	06/25/26 02:33	1
gamma-Chlordane	ND		5.0		ug/Kg		06/22/26 09:49	06/25/26 02:33	1
gamma-BHC (Lindane)	ND		5.0		ug/Kg		06/22/26 09:49	06/25/26 02:33	1
Heptachlor	ND		5.0		ug/Kg		06/22/26 09:49	06/25/26 02:33	1
Heptachlor epoxide	ND		5.0		ug/Kg		06/22/26 09:49	06/25/26 02:33	1
Methoxychlor	ND		5.0		ug/Kg		06/22/26 09:49	06/25/26 02:33	1
Toxaphene	ND		25		ug/Kg		06/22/26 09:49	06/25/26 02:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene (Surr)	*66*		*38 - 148*	*06/22/26 09:49*	*06/25/26 02:33*	*1*
DCB Decachlorobiphenyl (Surr)	*45*		*37 - 151*	*06/22/26 09:49*	*06/25/26 02:33*	*1*

Client Sample ID: B6-5
Date Collected: 06/15/26 11:50
Date Received: 06/16/26 18:00

Lab Sample ID: 570-284007-5
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		4.9		ug/Kg		06/22/26 09:49	06/26/26 18:38	1
4,4'-DDE	ND		4.9		ug/Kg		06/22/26 09:49	06/26/26 18:38	1
4,4'-DDT	ND		4.9		ug/Kg		06/22/26 09:49	06/26/26 18:38	1
Aldrin	ND		4.9		ug/Kg		06/22/26 09:49	06/26/26 18:38	1
alpha-BHC	ND		4.9		ug/Kg		06/22/26 09:49	06/26/26 18:38	1
alpha-Chlordane	ND		4.9		ug/Kg		06/22/26 09:49	06/26/26 18:38	1
beta-BHC	ND		4.9		ug/Kg		06/22/26 09:49	06/26/26 18:38	1
Chlordane	ND		25		ug/Kg		06/22/26 09:49	06/26/26 18:38	1
delta-BHC	ND		4.9		ug/Kg		06/22/26 09:49	06/26/26 18:38	1
Dieldrin	ND		4.9		ug/Kg		06/22/26 09:49	06/26/26 18:38	1
Endosulfan I	ND		4.9		ug/Kg		06/22/26 09:49	06/26/26 18:38	1
Endosulfan II	ND		4.9		ug/Kg		06/22/26 09:49	06/26/26 18:38	1
Endosulfan sulfate	ND		4.9		ug/Kg		06/22/26 09:49	06/26/26 18:38	1
Endrin	ND		4.9		ug/Kg		06/22/26 09:49	06/26/26 18:38	1
Endrin aldehyde	ND		4.9		ug/Kg		06/22/26 09:49	06/26/26 18:38	1
Endrin ketone	ND		4.9		ug/Kg		06/22/26 09:49	06/26/26 18:38	1
gamma-Chlordane	ND		4.9		ug/Kg		06/22/26 09:49	06/26/26 18:38	1
gamma-BHC (Lindane)	ND		4.9		ug/Kg		06/22/26 09:49	06/26/26 18:38	1
Heptachlor	ND		4.9		ug/Kg		06/22/26 09:49	06/26/26 18:38	1
Heptachlor epoxide	ND		4.9		ug/Kg		06/22/26 09:49	06/26/26 18:38	1
Methoxychlor	ND		4.9		ug/Kg		06/22/26 09:49	06/26/26 18:38	1
Toxaphene	ND		25		ug/Kg		06/22/26 09:49	06/26/26 18:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene (Surr)	*84*		*38 - 148*	*06/22/26 09:49*	*06/26/26 18:38*	*1*
DCB Decachlorobiphenyl (Surr)	*54*		*37 - 151*	*06/22/26 09:49*	*06/26/26 18:38*	*1*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Client Sample ID: B7-3.5
Date Collected: 06/15/26 12:00
Date Received: 06/16/26 18:00

Lab Sample ID: 570-284007-6
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		5.0		ug/Kg		06/22/26 09:49	06/25/26 03:01	1
4,4'-DDE	ND		5.0		ug/Kg		06/22/26 09:49	06/25/26 03:01	1
4,4'-DDT	ND		5.0		ug/Kg		06/22/26 09:49	06/25/26 03:01	1
Aldrin	ND		5.0		ug/Kg		06/22/26 09:49	06/25/26 03:01	1
alpha-BHC	ND		5.0		ug/Kg		06/22/26 09:49	06/25/26 03:01	1
alpha-Chlordane	ND		5.0		ug/Kg		06/22/26 09:49	06/25/26 03:01	1
beta-BHC	ND		5.0		ug/Kg		06/22/26 09:49	06/25/26 03:01	1
Chlordane	ND		25		ug/Kg		06/22/26 09:49	06/25/26 03:01	1
delta-BHC	ND		5.0		ug/Kg		06/22/26 09:49	06/25/26 03:01	1
Dieldrin	ND		5.0		ug/Kg		06/22/26 09:49	06/25/26 03:01	1
Endosulfan I	ND		5.0		ug/Kg		06/22/26 09:49	06/25/26 03:01	1
Endosulfan II	ND		5.0		ug/Kg		06/22/26 09:49	06/25/26 03:01	1
Endosulfan sulfate	ND		5.0		ug/Kg		06/22/26 09:49	06/25/26 03:01	1
Endrin	ND		5.0		ug/Kg		06/22/26 09:49	06/25/26 03:01	1
Endrin aldehyde	ND		5.0		ug/Kg		06/22/26 09:49	06/25/26 03:01	1
Endrin ketone	ND		5.0		ug/Kg		06/22/26 09:49	06/25/26 03:01	1
gamma-Chlordane	ND		5.0		ug/Kg		06/22/26 09:49	06/25/26 03:01	1
gamma-BHC (Lindane)	ND		5.0		ug/Kg		06/22/26 09:49	06/25/26 03:01	1
Heptachlor	ND		5.0		ug/Kg		06/22/26 09:49	06/25/26 03:01	1
Heptachlor epoxide	ND		5.0		ug/Kg		06/22/26 09:49	06/25/26 03:01	1
Methoxychlor	ND		5.0		ug/Kg		06/22/26 09:49	06/25/26 03:01	1
Toxaphene	ND		25		ug/Kg		06/22/26 09:49	06/25/26 03:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene (Surr)	*95*		*38 - 148*	*06/22/26 09:49*	*06/25/26 03:01*	*1*
DCB Decachlorobiphenyl (Surr)	*63*		*37 - 151*	*06/22/26 09:49*	*06/25/26 03:01*	*1*

Client Sample ID: B8-5
Date Collected: 06/15/26 12:20
Date Received: 06/16/26 18:00

Lab Sample ID: 570-284007-7
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		4.9		ug/Kg		06/22/26 09:55	06/25/26 03:15	1
4,4'-DDE	ND		4.9		ug/Kg		06/22/26 09:55	06/25/26 03:15	1
4,4'-DDT	ND		4.9		ug/Kg		06/22/26 09:55	06/25/26 03:15	1
Aldrin	ND		4.9		ug/Kg		06/22/26 09:55	06/25/26 03:15	1
alpha-BHC	ND		4.9		ug/Kg		06/22/26 09:55	06/25/26 03:15	1
alpha-Chlordane	ND		4.9		ug/Kg		06/22/26 09:55	06/25/26 03:15	1
beta-BHC	ND		4.9		ug/Kg		06/22/26 09:55	06/25/26 03:15	1
Chlordane	ND		25		ug/Kg		06/22/26 09:55	06/25/26 03:15	1
delta-BHC	ND		4.9		ug/Kg		06/22/26 09:55	06/25/26 03:15	1
Dieldrin	ND		4.9		ug/Kg		06/22/26 09:55	06/25/26 03:15	1
Endosulfan I	ND		4.9		ug/Kg		06/22/26 09:55	06/25/26 03:15	1
Endosulfan II	ND		4.9		ug/Kg		06/22/26 09:55	06/25/26 03:15	1
Endosulfan sulfate	ND		4.9		ug/Kg		06/22/26 09:55	06/25/26 03:15	1
Endrin	ND		4.9		ug/Kg		06/22/26 09:55	06/25/26 03:15	1
Endrin aldehyde	ND		4.9		ug/Kg		06/22/26 09:55	06/25/26 03:15	1
Endrin ketone	ND		4.9		ug/Kg		06/22/26 09:55	06/25/26 03:15	1
gamma-Chlordane	ND		4.9		ug/Kg		06/22/26 09:55	06/25/26 03:15	1
gamma-BHC (Lindane)	ND		4.9		ug/Kg		06/22/26 09:55	06/25/26 03:15	1
Heptachlor	ND		4.9		ug/Kg		06/22/26 09:55	06/25/26 03:15	1

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Client Sample ID: B8-5
Date Collected: 06/15/26 12:20
Date Received: 06/16/26 18:00

Lab Sample ID: 570-284007-7
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Heptachlor epoxide	ND		4.9		ug/Kg		06/22/26 09:55	06/25/26 03:15	1
Methoxychlor	ND		4.9		ug/Kg		06/22/26 09:55	06/25/26 03:15	1
Toxaphene	ND		25		ug/Kg		06/22/26 09:55	06/25/26 03:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene (Surr)	*115*		*38 - 148*	*06/22/26 09:55*	*06/25/26 03:15*	*1*
DCB Decachlorobiphenyl (Surr)	*55*		*37 - 151*	*06/22/26 09:55*	*06/25/26 03:15*	*1*

Client Sample ID: B1-5
Date Collected: 06/15/26 11:00
Date Received: 06/16/26 18:00

Lab Sample ID: 570-284007-8
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		5.0		ug/Kg		06/22/26 09:55	06/26/26 18:52	1
4,4'-DDE	ND		5.0		ug/Kg		06/22/26 09:55	06/26/26 18:52	1
4,4'-DDT	ND		5.0		ug/Kg		06/22/26 09:55	06/26/26 18:52	1
Aldrin	ND		5.0		ug/Kg		06/22/26 09:55	06/26/26 18:52	1
alpha-BHC	ND		5.0		ug/Kg		06/22/26 09:55	06/26/26 18:52	1
alpha-Chlordane	ND		5.0		ug/Kg		06/22/26 09:55	06/26/26 18:52	1
beta-BHC	ND		5.0		ug/Kg		06/22/26 09:55	06/26/26 18:52	1
Chlordane	ND		25		ug/Kg		06/22/26 09:55	06/26/26 18:52	1
delta-BHC	ND		5.0		ug/Kg		06/22/26 09:55	06/26/26 18:52	1
Dieldrin	ND		5.0		ug/Kg		06/22/26 09:55	06/26/26 18:52	1
Endosulfan I	ND		5.0		ug/Kg		06/22/26 09:55	06/26/26 18:52	1
Endosulfan II	ND		5.0		ug/Kg		06/22/26 09:55	06/26/26 18:52	1
Endosulfan sulfate	ND		5.0		ug/Kg		06/22/26 09:55	06/26/26 18:52	1
Endrin	ND		5.0		ug/Kg		06/22/26 09:55	06/26/26 18:52	1
Endrin aldehyde	ND		5.0		ug/Kg		06/22/26 09:55	06/26/26 18:52	1
Endrin ketone	ND		5.0		ug/Kg		06/22/26 09:55	06/26/26 18:52	1
gamma-Chlordane	ND		5.0		ug/Kg		06/22/26 09:55	06/26/26 18:52	1
gamma-BHC (Lindane)	ND		5.0		ug/Kg		06/22/26 09:55	06/26/26 18:52	1
Heptachlor	ND		5.0		ug/Kg		06/22/26 09:55	06/26/26 18:52	1
Heptachlor epoxide	ND		5.0		ug/Kg		06/22/26 09:55	06/26/26 18:52	1
Methoxychlor	ND		5.0		ug/Kg		06/22/26 09:55	06/26/26 18:52	1
Toxaphene	ND		25		ug/Kg		06/22/26 09:55	06/26/26 18:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene (Surr)	*69*		*38 - 148*	*06/22/26 09:55*	*06/26/26 18:52*	*1*
DCB Decachlorobiphenyl (Surr)	*49*		*37 - 151*	*06/22/26 09:55*	*06/26/26 18:52*	*1*

Method: SW846 6010B - Metals (ICP)

Client Sample ID: B5-13
Date Collected: 06/15/26 08:00
Date Received: 06/16/26 18:00

Lab Sample ID: 570-284007-1
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		10.2		mg/Kg		06/18/26 06:40	06/18/26 13:19	5
Arsenic	ND		3.05		mg/Kg		06/18/26 06:40	06/18/26 13:19	5
Barium	**27.1**		3.05		mg/Kg		06/18/26 06:40	06/18/26 13:19	5
Beryllium	ND		0.508		mg/Kg		06/18/26 06:40	06/18/26 13:19	5
Cadmium	ND		0.508		mg/Kg		06/18/26 06:40	06/18/26 13:19	5
Chromium	**54.5**		1.02		mg/Kg		06/18/26 06:40	06/18/26 13:19	5
Cobalt	**6.43**		1.02		mg/Kg		06/18/26 06:40	06/18/26 13:19	5
Copper	**17.8**		2.03		mg/Kg		06/18/26 06:40	06/18/26 13:19	5
Lead	ND		2.03		mg/Kg		06/18/26 06:40	06/18/26 13:19	5
Molybdenum	ND		2.03		mg/Kg		06/18/26 06:40	06/18/26 13:19	5
Nickel	**29.2**		2.03		mg/Kg		06/18/26 06:40	06/18/26 13:19	5
Selenium	ND		3.05		mg/Kg		06/18/26 06:40	06/18/26 13:19	5
Silver	ND		1.52		mg/Kg		06/18/26 06:40	06/18/26 13:19	5
Thallium	ND		10.2		mg/Kg		06/18/26 06:40	06/18/26 13:19	5
Vanadium	**37.4**		1.02		mg/Kg		06/18/26 06:40	06/18/26 13:19	5
Zinc	**34.4**		5.08		mg/Kg		06/18/26 06:40	06/18/26 13:19	5

Client Sample ID: B4-13
Date Collected: 06/15/26 08:45
Date Received: 06/16/26 18:00

Lab Sample ID: 570-284007-2
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		10.1		mg/Kg		06/18/26 06:40	06/18/26 13:22	5
Arsenic	ND		3.02		mg/Kg		06/18/26 06:40	06/18/26 13:22	5
Barium	**82.2**		3.02		mg/Kg		06/18/26 06:40	06/18/26 13:22	5
Beryllium	ND		0.503		mg/Kg		06/18/26 06:40	06/18/26 13:22	5
Cadmium	**1.19**		0.503		mg/Kg		06/18/26 06:40	06/18/26 13:22	5
Chromium	**47.9**		1.01		mg/Kg		06/18/26 06:40	06/18/26 13:22	5
Cobalt	**29.2**		1.01		mg/Kg		06/18/26 06:40	06/18/26 13:22	5
Copper	**17.8**		2.01		mg/Kg		06/18/26 06:40	06/18/26 13:22	5
Lead	**4.85**		2.01		mg/Kg		06/18/26 06:40	06/18/26 13:22	5
Molybdenum	ND		2.01		mg/Kg		06/18/26 06:40	06/18/26 13:22	5
Nickel	**66.2**		2.01		mg/Kg		06/18/26 06:40	06/18/26 13:22	5
Selenium	ND		3.02		mg/Kg		06/18/26 06:40	06/18/26 13:22	5
Silver	ND		1.51		mg/Kg		06/18/26 06:40	06/18/26 13:22	5
Thallium	ND		10.1		mg/Kg		06/18/26 06:40	06/18/26 13:22	5
Vanadium	**43.8**		1.01		mg/Kg		06/18/26 06:40	06/18/26 13:22	5
Zinc	**37.0**		5.03		mg/Kg		06/18/26 06:40	06/18/26 13:22	5

Client Sample ID: B3-13
Date Collected: 06/15/26 09:25
Date Received: 06/16/26 18:00

Lab Sample ID: 570-284007-3
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		10.2		mg/Kg		06/18/26 06:40	06/18/26 13:24	5
Arsenic	ND		3.05		mg/Kg		06/18/26 06:40	06/18/26 13:24	5
Barium	**61.5**		3.05		mg/Kg		06/18/26 06:40	06/18/26 13:24	5
Beryllium	ND		0.508		mg/Kg		06/18/26 06:40	06/18/26 13:24	5
Cadmium	ND		0.508		mg/Kg		06/18/26 06:40	06/18/26 13:24	5
Chromium	**55.9**		1.02		mg/Kg		06/18/26 06:40	06/18/26 13:24	5
Cobalt	**12.0**		1.02		mg/Kg		06/18/26 06:40	06/18/26 13:24	5
Copper	**17.8**		2.03		mg/Kg		06/18/26 06:40	06/18/26 13:24	5

Method: SW846 6010B - Metals (ICP) (Continued)

Client Sample ID: B3-13
Date Collected: 06/15/26 09:25
Date Received: 06/16/26 18:00

Lab Sample ID: 570-284007-3
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lead	**2.07**		2.03		mg/Kg		06/18/26 06:40	06/18/26 13:24	5
Molybdenum	ND		2.03		mg/Kg		06/18/26 06:40	06/18/26 13:24	5
Nickel	**38.8**		2.03		mg/Kg		06/18/26 06:40	06/18/26 13:24	5
Selenium	ND		3.05		mg/Kg		06/18/26 06:40	06/18/26 13:24	5
Silver	ND		1.52		mg/Kg		06/18/26 06:40	06/18/26 13:24	5
Thallium	ND		10.2		mg/Kg		06/18/26 06:40	06/18/26 13:24	5
Vanadium	**53.4**		1.02		mg/Kg		06/18/26 06:40	06/18/26 13:24	5
Zinc	**36.6**		5.08		mg/Kg		06/18/26 06:40	06/18/26 13:24	5

Client Sample ID: B2-3.5
Date Collected: 06/15/26 10:15
Date Received: 06/16/26 18:00

Lab Sample ID: 570-284007-4
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		9.90		mg/Kg		06/18/26 06:40	06/18/26 13:26	5
Arsenic	**3.08**		2.97		mg/Kg		06/18/26 06:40	06/18/26 13:26	5
Barium	**48.2**		2.97		mg/Kg		06/18/26 06:40	06/18/26 13:26	5
Beryllium	ND		0.495		mg/Kg		06/18/26 06:40	06/18/26 13:26	5
Cadmium	ND		0.495		mg/Kg		06/18/26 06:40	06/18/26 13:26	5
Chromium	**47.2**		0.990		mg/Kg		06/18/26 06:40	06/18/26 13:26	5
Cobalt	**10.1**		0.990		mg/Kg		06/18/26 06:40	06/18/26 13:26	5
Copper	**18.6**		1.98		mg/Kg		06/18/26 06:40	06/18/26 13:26	5
Lead	**2.59**		1.98		mg/Kg		06/18/26 06:40	06/18/26 13:26	5
Molybdenum	ND		1.98		mg/Kg		06/18/26 06:40	06/18/26 13:26	5
Nickel	**36.8**		1.98		mg/Kg		06/18/26 06:40	06/18/26 13:26	5
Selenium	ND		2.97		mg/Kg		06/18/26 06:40	06/18/26 13:26	5
Silver	ND		1.49		mg/Kg		06/18/26 06:40	06/18/26 13:26	5
Thallium	ND		9.90		mg/Kg		06/18/26 06:40	06/18/26 13:26	5
Vanadium	**50.6**		0.990		mg/Kg		06/18/26 06:40	06/18/26 13:26	5
Zinc	**41.6**		4.95		mg/Kg		06/18/26 06:40	06/18/26 13:26	5

Client Sample ID: B6-5
Date Collected: 06/15/26 11:50
Date Received: 06/16/26 18:00

Lab Sample ID: 570-284007-5
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		10.0		mg/Kg		06/18/26 06:40	06/18/26 13:29	5
Arsenic	ND		3.00		mg/Kg		06/18/26 06:40	06/18/26 13:29	5
Barium	**49.5**		3.00		mg/Kg		06/18/26 06:40	06/18/26 13:29	5
Beryllium	ND		0.500		mg/Kg		06/18/26 06:40	06/18/26 13:29	5
Cadmium	ND		0.500		mg/Kg		06/18/26 06:40	06/18/26 13:29	5
Chromium	**57.3**		1.00		mg/Kg		06/18/26 06:40	06/18/26 13:29	5
Cobalt	**13.6**		1.00		mg/Kg		06/18/26 06:40	06/18/26 13:29	5
Copper	**16.5**		2.00		mg/Kg		06/18/26 06:40	06/18/26 13:29	5
Lead	**2.29**		2.00		mg/Kg		06/18/26 06:40	06/18/26 13:29	5
Molybdenum	ND		2.00		mg/Kg		06/18/26 06:40	06/18/26 13:29	5
Nickel	**35.5**		2.00		mg/Kg		06/18/26 06:40	06/18/26 13:29	5
Selenium	ND		3.00		mg/Kg		06/18/26 06:40	06/18/26 13:29	5
Silver	ND		1.50		mg/Kg		06/18/26 06:40	06/18/26 13:29	5
Thallium	ND		10.0		mg/Kg		06/18/26 06:40	06/18/26 13:29	5
Vanadium	**49.1**		1.00		mg/Kg		06/18/26 06:40	06/18/26 13:29	5
Zinc	**38.5**		5.00		mg/Kg		06/18/26 06:40	06/18/26 13:29	5

Method: SW846 6010B - Metals (ICP)

Client Sample ID: B7-3.5
Date Collected: 06/15/26 12:00
Date Received: 06/16/26 18:00

Lab Sample ID: 570-284007-6
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		10.0		mg/Kg		06/18/26 06:40	06/18/26 13:31	5
Arsenic	ND		3.00		mg/Kg		06/18/26 06:40	06/18/26 13:31	5
Barium	**39.1**		3.00		mg/Kg		06/18/26 06:40	06/18/26 13:31	5
Beryllium	ND		0.500		mg/Kg		06/18/26 06:40	06/18/26 13:31	5
Cadmium	ND		0.500		mg/Kg		06/18/26 06:40	06/18/26 13:31	5
Chromium	**33.9**		1.00		mg/Kg		06/18/26 06:40	06/18/26 13:31	5
Cobalt	**7.28**		1.00		mg/Kg		06/18/26 06:40	06/18/26 13:31	5
Copper	**10.9**		2.00		mg/Kg		06/18/26 06:40	06/18/26 13:31	5
Lead	ND		2.00		mg/Kg		06/18/26 06:40	06/18/26 13:31	5
Molybdenum	ND		2.00		mg/Kg		06/18/26 06:40	06/18/26 13:31	5
Nickel	**23.7**		2.00		mg/Kg		06/18/26 06:40	06/18/26 13:31	5
Selenium	ND		3.00		mg/Kg		06/18/26 06:40	06/18/26 13:31	5
Silver	ND		1.50		mg/Kg		06/18/26 06:40	06/18/26 13:31	5
Thallium	ND		10.0		mg/Kg		06/18/26 06:40	06/18/26 13:31	5
Vanadium	**32.6**		1.00		mg/Kg		06/18/26 06:40	06/18/26 13:31	5
Zinc	**24.1**		5.00		mg/Kg		06/18/26 06:40	06/18/26 13:31	5

Client Sample ID: B8-5
Date Collected: 06/15/26 12:20
Date Received: 06/16/26 18:00

Lab Sample ID: 570-284007-7
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		10.2		mg/Kg		06/18/26 06:40	06/18/26 13:33	5
Arsenic	ND		3.05		mg/Kg		06/18/26 06:40	06/18/26 13:33	5
Barium	**45.2**		3.05		mg/Kg		06/18/26 06:40	06/18/26 13:33	5
Beryllium	ND		0.508		mg/Kg		06/18/26 06:40	06/18/26 13:33	5
Cadmium	ND		0.508		mg/Kg		06/18/26 06:40	06/18/26 13:33	5
Chromium	**47.4**		1.02		mg/Kg		06/18/26 06:40	06/18/26 13:33	5
Cobalt	**9.62**		1.02		mg/Kg		06/18/26 06:40	06/18/26 13:33	5
Copper	**17.7**		2.03		mg/Kg		06/18/26 06:40	06/18/26 13:33	5
Lead	**2.84**		2.03		mg/Kg		06/18/26 06:40	06/18/26 13:33	5
Molybdenum	ND		2.03		mg/Kg		06/18/26 06:40	06/18/26 13:33	5
Nickel	**33.9**		2.03		mg/Kg		06/18/26 06:40	06/18/26 13:33	5
Selenium	ND		3.05		mg/Kg		06/18/26 06:40	06/18/26 13:33	5
Silver	ND		1.52		mg/Kg		06/18/26 06:40	06/18/26 13:33	5
Thallium	ND		10.2		mg/Kg		06/18/26 06:40	06/18/26 13:33	5
Vanadium	**40.9**		1.02		mg/Kg		06/18/26 06:40	06/18/26 13:33	5
Zinc	**37.2**		5.08		mg/Kg		06/18/26 06:40	06/18/26 13:33	5

Client Sample ID: B1-5
Date Collected: 06/15/26 11:00
Date Received: 06/16/26 18:00

Lab Sample ID: 570-284007-8
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		10.2		mg/Kg		06/18/26 06:40	06/18/26 13:36	5
Arsenic	ND		3.05		mg/Kg		06/18/26 06:40	06/18/26 13:36	5
Barium	**74.4**		3.05		mg/Kg		06/18/26 06:40	06/18/26 13:36	5
Beryllium	ND		0.508		mg/Kg		06/18/26 06:40	06/18/26 13:36	5
Cadmium	**0.508**		0.508		mg/Kg		06/18/26 06:40	06/18/26 13:36	5
Chromium	**45.0**		1.02		mg/Kg		06/18/26 06:40	06/18/26 13:36	5
Cobalt	**10.2**		1.02		mg/Kg		06/18/26 06:40	06/18/26 13:36	5
Copper	**15.9**		2.03		mg/Kg		06/18/26 06:40	06/18/26 13:36	5

Client: Stantec Consulting Corporation
Project/Site: Amgen BSD 2042726000

Job ID: 570-284007-1

Method: SW846 6010B - Metals (ICP) (Continued)

Client Sample ID: B1-5
Date Collected: 06/15/26 11:00
Date Received: 06/16/26 18:00

Lab Sample ID: 570-284007-8
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		2.03		mg/Kg		06/18/26 06:40	06/18/26 13:36	5
Molybdenum	ND		2.03		mg/Kg		06/18/26 06:40	06/18/26 13:36	5
Nickel	**35.6**		2.03		mg/Kg		06/18/26 06:40	06/18/26 13:36	5
Selenium	ND		3.05		mg/Kg		06/18/26 06:40	06/18/26 13:36	5
Silver	ND		1.52		mg/Kg		06/18/26 06:40	06/18/26 13:36	5
Thallium	ND		10.2		mg/Kg		06/18/26 06:40	06/18/26 13:36	5
Vanadium	**40.8**		1.02		mg/Kg		06/18/26 06:40	06/18/26 13:36	5
Zinc	**40.0**		5.08		mg/Kg		06/18/26 06:40	06/18/26 13:36	5

Method: SW846 7471B - Mercury (CVAA)

Client Sample ID: B5-13
Date Collected: 06/15/26 08:00
Date Received: 06/16/26 18:00

Lab Sample ID: 570-284007-1
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0833		mg/Kg		06/19/26 03:32	06/19/26 09:04	1

Client Sample ID: B4-13
Date Collected: 06/15/26 08:45
Date Received: 06/16/26 18:00

Lab Sample ID: 570-284007-2
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.108**		0.0887		mg/Kg		06/19/26 03:32	06/19/26 09:06	1

Client Sample ID: B3-13
Date Collected: 06/15/26 09:25
Date Received: 06/16/26 18:00

Lab Sample ID: 570-284007-3
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0887		mg/Kg		06/19/26 03:32	06/19/26 09:12	1

Client Sample ID: B2-3.5
Date Collected: 06/15/26 10:15
Date Received: 06/16/26 18:00

Lab Sample ID: 570-284007-4
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0786		mg/Kg		06/19/26 03:32	06/19/26 09:14	1

Client Sample ID: B6-5
Date Collected: 06/15/26 11:50
Date Received: 06/16/26 18:00

Lab Sample ID: 570-284007-5
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0786		mg/Kg		06/19/26 03:32	06/19/26 09:16	1

Client Sample ID: B7-3.5
Date Collected: 06/15/26 12:00
Date Received: 06/16/26 18:00

Lab Sample ID: 570-284007-6
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0817		mg/Kg		06/19/26 03:32	06/19/26 09:17	1

Client Sample ID: B8-5
Date Collected: 06/15/26 12:20
Date Received: 06/16/26 18:00

Lab Sample ID: 570-284007-7
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0868		mg/Kg		06/19/26 03:32	06/19/26 10:23	1

Client Sample ID: B1-5
Date Collected: 06/15/26 11:00
Date Received: 06/16/26 18:00

Lab Sample ID: 570-284007-8
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0887		mg/Kg		06/19/26 03:32	06/19/26 09:21	1

Surrogate Summary

Client: Stantec Consulting Corporation
Project/Site: Amgen BSD 2042726000

Job ID: 570-284007-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid | **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(32-179)	(80-120)	(58-147)	(80-120)
570-284007-1	B5-13	116	99	106	99
570-284007-2	B4-13	114	100	105	99
570-284007-3	B3-13	113	100	104	98
570-284007-4	B2-3.5	110	96	100	100
570-284007-5	B6-5	116	101	106	99
570-284007-6	B7-3.5	117	102	108	99
570-284007-7	B8-5	119	101	108	100
570-284007-8	B1-5	115	100	106	99
LCS 570-757314/4	Lab Control Sample	101	100	99	99
LCSD 570-757314/5	Lab Control Sample Dup	100	101	99	101
MB 570-757314/7	Method Blank	103	99	102	100

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid | **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	TPHd14	PHL6
Lab Sample ID	Client Sample ID	(20-135)	(28-110)	(20-135)	(22-116)	(27-118)	(20-127)
570-284007-1	B5-13	49	54	52	48	60	51
570-284007-2	B4-13	78	79	83	90	81	78
570-284007-3	B3-13	70	76	71	74	75	75
570-284007-3 MS	B3-13	62	61	62	57	66	65
570-284007-3 MSD	B3-13	67	69	69	62	74	72
570-284007-4	B2-3.5	109	102	79	88	104	88
570-284007-5	B6-5	62	65	60	64	67	63
570-284007-6	B7-3.5	68	69	66	67	69	68
570-284007-7	B8-5	74	75	63	66	79	67
570-284007-8	B1-5	66	73	65	70	73	66
LCS 570-757832/2-A	Lab Control Sample	83	79	89	91	89	86
LCS 570-758124/2-A	Lab Control Sample	85	80	84	79	83	83
LCS 570-763022/2-A	Lab Control Sample	81	80	87	84	82	86
LCSD 570-757832/3-A	Lab Control Sample Dup	65	65	72	69	67	68
LCSD 570-758124/3-A	Lab Control Sample Dup	83	80	88	83	83	86
LCSD 570-763022/3-A	Lab Control Sample Dup	88	84	95	89	85	94
MB 570-757832/1-A	Method Blank	70	71	72	83	74	68
MB 570-758124/1-A	Method Blank	87	88	89	100	90	86
MB 570-763022/1-A	Method Blank	65	74	76	85	70	77

Surrogate Legend

TBP = 2,4,6-Tribromophenol (Surr)
FBP = 2-Fluorobiphenyl (Surr)
2FP = 2-Fluorophenol (Surr)
NBZ = Nitrobenzene-d5 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)
PHL6 = Phenol-d6 (Surr)

Surrogate Summary

Client: Stantec Consulting Corporation
Project/Site: Amgen BSD 2042726000

Job ID: 570-284007-1

Method: 8015B - Gasoline Range Organics - (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
		BFB1
Lab Sample ID	Client Sample ID	(42-126)
570-284007-1	B5-13	103
570-284007-2	B4-13	100
570-284007-3	B3-13	109
570-284007-4	B2-3.5	104
570-284007-5	B6-5	107
570-284007-6	B7-3.5	107
570-284007-7	B8-5	106
570-284007-8	B1-5	104
LCS 570-760310/30	Lab Control Sample	108
LCSD 570-760310/31	Lab Control Sample Dup	94
MB 570-760310/33	Method Blank	107

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

Method: 8015B - Diesel Range Organics (DRO) (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
		OTCSN1
Lab Sample ID	Client Sample ID	(29-160)
570-284007-1	B5-13	89
570-284007-2	B4-13	98
570-284007-3	B3-13	86
570-284007-4	B2-3.5	89
570-284007-5	B6-5	91
570-284007-6	B7-3.5	89
570-284007-7	B8-5	90
570-284007-8	B1-5	67
570-284007-8 MS	B1-5	60
570-284007-8 MSD	B1-5	75
LCS 570-756964/2-A	Lab Control Sample	85
LCS 570-758513/2-A	Lab Control Sample	96
LCSD 570-756964/3-A	Lab Control Sample Dup	84
LCSD 570-758513/3-A	Lab Control Sample Dup	94
MB 570-756964/1-A	Method Blank	92
MB 570-758513/1-A	Method Blank	99

Surrogate Legend

OTCSN = n-Octacosane (Surr)

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		TCX2	DCB2
Lab Sample ID	Client Sample ID	(38-148)	(37-151)
570-284007-1	B5-13	84	62
570-284007-5	B6-5	84	54
570-284007-7	B8-5	115	55
MB 570-759423/1-A	Method Blank	98	70

Surrogate Summary

Client: Stantec Consulting Corporation
Project/Site: Amgen BSD 2042726000

Job ID: 570-284007-1

Surrogate Legend

TCX = Tetrachloro-m-xylene (Surr)
DCB = DCB Decachlorobiphenyl (Surr)

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)											
		TCX1	DCB1										
Lab Sample ID	Client Sample ID	(38-148)	(37-151)										
570-284007-2	B4-13	86	59										
570-284007-4	B2-3.5	66	45										
570-284007-8	B1-5	69	49										
LCS 570-757807/2-A	Lab Control Sample	96	57										
LCS 570-758113/2-A	Lab Control Sample	86	63										
LCSD 570-757807/3-A	Lab Control Sample Dup	93	57										
LCSD 570-758113/3-A	Lab Control Sample Dup	82	61										
MB 570-757807/1-A	Method Blank	88	52										
MB 570-758113/1-A	Method Blank	95	73										

Surrogate Legend

TCX = Tetrachloro-m-xylene (Surr)
DCB = DCB Decachlorobiphenyl (Surr)

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)											
		TCX1	DCB2										
Lab Sample ID	Client Sample ID	(38-148)	(37-151)										
570-284007-3	B3-13	85	50										
570-284007-6	B7-3.5	95	63										

Surrogate Legend

TCX = Tetrachloro-m-xylene (Surr)
DCB = DCB Decachlorobiphenyl (Surr)

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)											
		TCX2	DCB1										
Lab Sample ID	Client Sample ID	(38-148)	(37-151)										
LCS 570-759423/2-A	Lab Control Sample	108	77										
LCSD 570-759423/3-A	Lab Control Sample Dup	91	66										

Surrogate Legend

TCX = Tetrachloro-m-xylene (Surr)
DCB = DCB Decachlorobiphenyl (Surr)

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 570-757314/7
Matrix: Solid
Analysis Batch: 757314

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/Kg			06/20/26 11:55	1
1,1,1-Trichloroethane	ND		1.0		ug/Kg			06/20/26 11:55	1
1,1,2,2-Tetrachloroethane	ND		2.0		ug/Kg			06/20/26 11:55	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		10		ug/Kg			06/20/26 11:55	1
1,1,2-Trichloroethane	ND		1.0		ug/Kg			06/20/26 11:55	1
1,1-Dichloroethane	ND		1.0		ug/Kg			06/20/26 11:55	1
1,1-Dichloroethene	ND		1.0		ug/Kg			06/20/26 11:55	1
1,1-Dichloropropene	ND		2.0		ug/Kg			06/20/26 11:55	1
1,2,3-Trichlorobenzene	ND		2.0		ug/Kg			06/20/26 11:55	1
1,2,3-Trichloropropane	ND		2.0		ug/Kg			06/20/26 11:55	1
1,2,4-Trichlorobenzene	ND		2.0		ug/Kg			06/20/26 11:55	1
1,2,4-Trimethylbenzene	ND		2.0		ug/Kg			06/20/26 11:55	1
1,2-Dibromo-3-Chloropropane	ND		10		ug/Kg			06/20/26 11:55	1
1,2-Dibromoethane	ND		1.0		ug/Kg			06/20/26 11:55	1
1,2-Dichlorobenzene	ND		1.0		ug/Kg			06/20/26 11:55	1
1,2-Dichloroethane	ND		1.0		ug/Kg			06/20/26 11:55	1
1,2-Dichloropropane	ND		1.0		ug/Kg			06/20/26 11:55	1
1,3,5-Trimethylbenzene	ND		2.0		ug/Kg			06/20/26 11:55	1
1,3-Dichlorobenzene	ND		1.0		ug/Kg			06/20/26 11:55	1
1,3-Dichloropropane	ND		1.0		ug/Kg			06/20/26 11:55	1
1,4-Dichlorobenzene	ND		1.0		ug/Kg			06/20/26 11:55	1
2,2-Dichloropropane	ND		5.0		ug/Kg			06/20/26 11:55	1
2-Butanone (MEK)	ND		20		ug/Kg			06/20/26 11:55	1
2-Chlorotoluene	ND		1.0		ug/Kg			06/20/26 11:55	1
2-Hexanone	ND		20		ug/Kg			06/20/26 11:55	1
4-Chlorotoluene	ND		1.0		ug/Kg			06/20/26 11:55	1
4-Methyl-2-pentanone (MIBK)	ND		20		ug/Kg			06/20/26 11:55	1
Acetone	ND		20		ug/Kg			06/20/26 11:55	1
Benzene	ND		1.0		ug/Kg			06/20/26 11:55	1
Bromobenzene	ND		1.0		ug/Kg			06/20/26 11:55	1
Bromochloromethane	ND		2.0		ug/Kg			06/20/26 11:55	1
Bromodichloromethane	ND		1.0		ug/Kg			06/20/26 11:55	1
Bromoform	ND		5.0		ug/Kg			06/20/26 11:55	1
Bromomethane	ND		20		ug/Kg			06/20/26 11:55	1
cis-1,2-Dichloroethene	ND		1.0		ug/Kg			06/20/26 11:55	1
cis-1,3-Dichloropropene	ND		1.0		ug/Kg			06/20/26 11:55	1
Carbon disulfide	ND		10		ug/Kg			06/20/26 11:55	1
Carbon tetrachloride	ND		1.0		ug/Kg			06/20/26 11:55	1
Chlorobenzene	ND		1.0		ug/Kg			06/20/26 11:55	1
Chloroethane	ND		2.0		ug/Kg			06/20/26 11:55	1
Chloroform	ND		1.0		ug/Kg			06/20/26 11:55	1
Chloromethane	ND		20		ug/Kg			06/20/26 11:55	1
Dibromochloromethane	ND		2.0		ug/Kg			06/20/26 11:55	1
Dibromomethane	ND		1.0		ug/Kg			06/20/26 11:55	1
Dichlorodifluoromethane	ND		2.0		ug/Kg			06/20/26 11:55	1
Di-isopropyl ether (DIPE)	ND		1.0		ug/Kg			06/20/26 11:55	1
Ethanol	ND		250		ug/Kg			06/20/26 11:55	1
Ethylbenzene	ND		1.0		ug/Kg			06/20/26 11:55	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-757314/7
Matrix: Solid
Analysis Batch: 757314

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ethyl-t-butyl ether (ETBE)	ND		1.0		ug/Kg			06/20/26 11:55	1
Isopropylbenzene	ND		1.0		ug/Kg			06/20/26 11:55	1
Methylene Chloride	ND		10		ug/Kg			06/20/26 11:55	1
Methyl-t-Butyl Ether (MTBE)	ND		2.0		ug/Kg			06/20/26 11:55	1
Naphthalene	ND		10		ug/Kg			06/20/26 11:55	1
n-Butylbenzene	ND		1.0		ug/Kg			06/20/26 11:55	1
N-Propylbenzene	ND		2.0		ug/Kg			06/20/26 11:55	1
o-Xylene	ND		1.0		ug/Kg			06/20/26 11:55	1
m,p-Xylene	ND		2.0		ug/Kg			06/20/26 11:55	1
p-Isopropyltoluene	ND		1.0		ug/Kg			06/20/26 11:55	1
sec-Butylbenzene	ND		1.0		ug/Kg			06/20/26 11:55	1
Styrene	ND		1.0		ug/Kg			06/20/26 11:55	1
trans-1,2-Dichloroethene	ND		1.0		ug/Kg			06/20/26 11:55	1
trans-1,3-Dichloropropene	ND		2.0		ug/Kg			06/20/26 11:55	1
Tert-amyl-methyl ether (TAME)	ND		1.0		ug/Kg			06/20/26 11:55	1
tert-Butyl alcohol (TBA)	ND		20		ug/Kg			06/20/26 11:55	1
tert-Butylbenzene	ND		1.0		ug/Kg			06/20/26 11:55	1
Tetrachloroethene	ND		1.0		ug/Kg			06/20/26 11:55	1
Toluene	ND		1.0		ug/Kg			06/20/26 11:55	1
Trichloroethene	ND		2.0		ug/Kg			06/20/26 11:55	1
Trichlorofluoromethane	ND		10		ug/Kg			06/20/26 11:55	1
Vinyl acetate	ND		10		ug/Kg			06/20/26 11:55	1
Vinyl chloride	ND		1.0		ug/Kg			06/20/26 11:55	1
Xylenes, Total	ND		2.0		ug/Kg			06/20/26 11:55	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*32 - 179*		*06/20/26 11:55*	*1*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*		*06/20/26 11:55*	*1*
Dibromofluoromethane (Surr)	*102*		*58 - 147*		*06/20/26 11:55*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*06/20/26 11:55*	*1*

Lab Sample ID: LCS 570-757314/4
Matrix: Solid
Analysis Batch: 757314

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,1,1,2-Tetrachloroethane			20.0	20.85		ug/Kg		104	80 - 125		
1,1,1-Trichloroethane			20.0	19.88		ug/Kg		99	78 - 130		
1,1,2,2-Tetrachloroethane			20.0	21.35		ug/Kg		107	80 - 124		
1,1,2-Trichloro-1,2,2-trifluoroethane			20.0	21.13		ug/Kg		106	73 - 130		
1,1,2-Trichloroethane			20.0	21.28		ug/Kg		106	80 - 123		
1,1-Dichloroethane			20.0	20.38		ug/Kg		102	79 - 124		
1,1-Dichloroethene			20.0	19.59		ug/Kg		98	74 - 132		
1,1-Dichloropropene			20.0	20.35		ug/Kg		102	78 - 130		
1,2,3-Trichlorobenzene			20.0	22.06		ug/Kg		110	80 - 123		
1,2,3-Trichloropropane			20.0	20.84		ug/Kg		104	79 - 120		
1,2,4-Trichlorobenzene			20.0	21.91		ug/Kg		110	80 - 125		
1,2,4-Trimethylbenzene			20.0	20.18		ug/Kg		101	80 - 124		

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-757314/4
Matrix: Solid
Analysis Batch: 757314

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Dibromo-3-Chloropropane	20.0	22.07		ug/Kg		110	67 - 120
1,2-Dibromoethane	20.0	20.44		ug/Kg		102	80 - 120
1,2-Dichlorobenzene	20.0	22.00		ug/Kg		110	80 - 120
1,2-Dichloroethane	20.0	20.70		ug/Kg		103	77 - 120
1,2-Dichloropropane	20.0	20.34		ug/Kg		102	80 - 126
1,3,5-Trimethylbenzene	20.0	20.83		ug/Kg		104	80 - 121
1,3-Dichlorobenzene	20.0	20.16		ug/Kg		101	80 - 120
1,3-Dichloropropane	20.0	21.46		ug/Kg		107	80 - 120
1,4-Dichlorobenzene	20.0	19.84		ug/Kg		99	80 - 120
2,2-Dichloropropane	20.0	22.87		ug/Kg		114	73 - 135
2-Butanone (MEK)	20.0	18.47	J	ug/Kg		92	67 - 136
2-Chlorotoluene	20.0	20.30		ug/Kg		102	80 - 120
2-Hexanone	20.0	16.61	J	ug/Kg		83	70 - 137
4-Chlorotoluene	20.0	20.05		ug/Kg		100	80 - 121
4-Methyl-2-pentanone (MIBK)	20.0	19.11	J	ug/Kg		96	74 - 124
Acetone	20.0	17.13	J	ug/Kg		86	61 - 142
Benzene	20.0	20.59		ug/Kg		103	80 - 120
Bromobenzene	20.0	21.04		ug/Kg		105	80 - 120
Bromochloromethane	20.0	21.12		ug/Kg		106	80 - 120
Bromodichloromethane	20.0	20.38		ug/Kg		102	80 - 125
Bromoform	20.0	22.16		ug/Kg		111	74 - 138
Bromomethane	20.0	18.93	J	ug/Kg		95	58 - 136
cis-1,2-Dichloroethene	20.0	20.00		ug/Kg		100	80 - 124
cis-1,3-Dichloropropene	20.0	21.56		ug/Kg		108	80 - 123
Carbon disulfide	20.0	19.81		ug/Kg		99	68 - 128
Carbon tetrachloride	20.0	22.38		ug/Kg		112	75 - 140
Chlorobenzene	20.0	20.30		ug/Kg		102	80 - 120
Chloroethane	20.0	18.51		ug/Kg		93	76 - 137
Chloroform	20.0	19.77		ug/Kg		99	80 - 121
Chloromethane	20.0	16.03	J	ug/Kg		80	74 - 133
Dibromochloromethane	20.0	21.59		ug/Kg		108	80 - 132
Dibromomethane	20.0	21.19		ug/Kg		106	80 - 120
Dichlorodifluoromethane	20.0	19.04		ug/Kg		95	63 - 146
Di-isopropyl ether (DIPE)	20.0	21.45		ug/Kg		107	73 - 132
Ethanol	200	187.2	J	ug/Kg		94	46 - 159
Ethylbenzene	20.0	19.83		ug/Kg		99	80 - 120
Ethyl-t-butyl ether (ETBE)	20.0	20.66		ug/Kg		103	77 - 129
Isopropylbenzene	20.0	20.25		ug/Kg		101	80 - 122
Methylene Chloride	20.0	19.09		ug/Kg		95	74 - 120
Methyl-t-Butyl Ether (MTBE)	20.0	19.84		ug/Kg		99	79 - 123
Naphthalene	20.0	19.74		ug/Kg		99	79 - 121
n-Butylbenzene	20.0	21.03		ug/Kg		105	79 - 131
N-Propylbenzene	20.0	20.44		ug/Kg		102	80 - 122
o-Xylene	20.0	20.55		ug/Kg		103	80 - 120
m,p-Xylene	40.0	41.46		ug/Kg		104	80 - 120
p-Isopropyltoluene	20.0	20.05		ug/Kg		100	80 - 126
sec-Butylbenzene	20.0	19.91		ug/Kg		100	80 - 125
Styrene	20.0	20.37		ug/Kg		102	80 - 120
trans-1,2-Dichloroethene	20.0	20.40		ug/Kg		102	75 - 123

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-757314/4
Matrix: Solid
Analysis Batch: 757314

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
trans-1,3-Dichloropropene	20.0	23.27		ug/Kg		116	80 - 124
Tert-amyl-methyl ether (TAME)	20.0	18.60		ug/Kg		93	80 - 120
tert-Butyl alcohol (TBA)	100	100.3		ug/Kg		100	74 - 123
tert-Butylbenzene	20.0	20.32		ug/Kg		102	80 - 124
Tetrachloroethene	20.0	20.57		ug/Kg		103	80 - 122
Toluene	20.0	20.11		ug/Kg		101	80 - 120
Trichloroethene	20.0	19.53		ug/Kg		98	80 - 127
Trichlorofluoromethane	20.0	19.31		ug/Kg		97	70 - 144
Vinyl acetate	20.0	21.17		ug/Kg		106	71 - 125
Vinyl chloride	20.0	17.00		ug/Kg		85	79 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*101*		*32 - 179*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*
Dibromofluoromethane (Surr)	*99*		*58 - 147*
Toluene-d8 (Surr)	*99*		*80 - 120*

Lab Sample ID: LCSD 570-757314/5
Matrix: Solid
Analysis Batch: 757314

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	20.0	20.55		ug/Kg		103	80 - 125	1	20
1,1,1-Trichloroethane	20.0	20.02		ug/Kg		100	78 - 130	1	20
1,1,2,2-Tetrachloroethane	20.0	21.24		ug/Kg		106	80 - 124	1	20
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	20.83		ug/Kg		104	73 - 130	1	20
1,1,2-Trichloroethane	20.0	21.45		ug/Kg		107	80 - 123	1	20
1,1-Dichloroethane	20.0	20.48		ug/Kg		102	79 - 124	1	20
1,1-Dichloroethene	20.0	19.45		ug/Kg		97	74 - 132	1	20
1,1-Dichloropropene	20.0	20.32		ug/Kg		102	78 - 130	0	20
1,2,3-Trichlorobenzene	20.0	21.88		ug/Kg		109	80 - 123	1	20
1,2,3-Trichloropropane	20.0	20.90		ug/Kg		105	79 - 120	0	20
1,2,4-Trichlorobenzene	20.0	21.79		ug/Kg		109	80 - 125	1	20
1,2,4-Trimethylbenzene	20.0	20.33		ug/Kg		102	80 - 124	1	20
1,2-Dibromo-3-Chloropropane	20.0	21.88		ug/Kg		109	67 - 120	1	20
1,2-Dibromoethane	20.0	20.86		ug/Kg		104	80 - 120	2	20
1,2-Dichlorobenzene	20.0	21.71		ug/Kg		109	80 - 120	1	20
1,2-Dichloroethane	20.0	20.68		ug/Kg		103	77 - 120	0	20
1,2-Dichloropropane	20.0	20.59		ug/Kg		103	80 - 126	1	20
1,3,5-Trimethylbenzene	20.0	20.94		ug/Kg		105	80 - 121	1	20
1,3-Dichlorobenzene	20.0	20.00		ug/Kg		100	80 - 120	1	20
1,3-Dichloropropane	20.0	21.61		ug/Kg		108	80 - 120	1	20
1,4-Dichlorobenzene	20.0	19.60		ug/Kg		98	80 - 120	1	20
2,2-Dichloropropane	20.0	22.80		ug/Kg		114	73 - 135	0	20
2-Butanone (MEK)	20.0	17.90	J	ug/Kg		89	67 - 136	3	20
2-Chlorotoluene	20.0	20.48		ug/Kg		102	80 - 120	1	20
2-Hexanone	20.0	16.71	J	ug/Kg		84	70 - 137	1	20
4-Chlorotoluene	20.0	20.32		ug/Kg		102	80 - 121	1	20

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-757314/5
Matrix: Solid
Analysis Batch: 757314

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
4-Methyl-2-pentanone (MIBK)	20.0	19.78	J	ug/Kg		99	74 - 124	3	20
Acetone	20.0	16.73	J	ug/Kg		84	61 - 142	2	23
Benzene	20.0	21.08		ug/Kg		105	80 - 120	2	20
Bromobenzene	20.0	20.96		ug/Kg		105	80 - 120	0	20
Bromochloromethane	20.0	21.18		ug/Kg		106	80 - 120	0	20
Bromodichloromethane	20.0	20.48		ug/Kg		102	80 - 125	0	20
Bromoform	20.0	21.83		ug/Kg		109	74 - 138	2	20
Bromomethane	20.0	19.37	J	ug/Kg		97	58 - 136	2	20
cis-1,2-Dichloroethene	20.0	20.20		ug/Kg		101	80 - 124	1	20
cis-1,3-Dichloropropene	20.0	21.77		ug/Kg		109	80 - 123	1	20
Carbon disulfide	20.0	19.80		ug/Kg		99	68 - 128	0	20
Carbon tetrachloride	20.0	22.35		ug/Kg		112	75 - 140	0	20
Chlorobenzene	20.0	20.51		ug/Kg		103	80 - 120	1	20
Chloroethane	20.0	18.20		ug/Kg		91	76 - 137	2	20
Chloroform	20.0	19.65		ug/Kg		98	80 - 121	1	20
Chloromethane	20.0	15.87	J	ug/Kg		79	74 - 133	1	20
Dibromochloromethane	20.0	21.56		ug/Kg		108	80 - 132	0	20
Dibromomethane	20.0	21.81		ug/Kg		109	80 - 120	3	20
Dichlorodifluoromethane	20.0	18.67		ug/Kg		93	63 - 146	2	20
Di-isopropyl ether (DIPE)	20.0	21.62		ug/Kg		108	73 - 132	1	20
Ethanol	200	190.7	J	ug/Kg		95	46 - 159	2	30
Ethylbenzene	20.0	19.82		ug/Kg		99	80 - 120	0	20
Ethyl-t-butyl ether (ETBE)	20.0	20.90		ug/Kg		105	77 - 129	1	20
Isopropylbenzene	20.0	20.48		ug/Kg		102	80 - 122	1	20
Methylene Chloride	20.0	18.55		ug/Kg		93	74 - 120	3	20
Methyl-t-Butyl Ether (MTBE)	20.0	19.71		ug/Kg		99	79 - 123	1	20
Naphthalene	20.0	20.04		ug/Kg		100	79 - 121	2	20
n-Butylbenzene	20.0	21.22		ug/Kg		106	79 - 131	1	20
N-Propylbenzene	20.0	20.29		ug/Kg		101	80 - 122	1	20
o-Xylene	20.0	20.87		ug/Kg		104	80 - 120	2	20
m,p-Xylene	40.0	41.52		ug/Kg		104	80 - 120	0	20
p-Isopropyltoluene	20.0	20.21		ug/Kg		101	80 - 126	1	20
sec-Butylbenzene	20.0	19.98		ug/Kg		100	80 - 125	0	20
Styrene	20.0	20.47		ug/Kg		102	80 - 120	1	20
trans-1,2-Dichloroethene	20.0	20.60		ug/Kg		103	75 - 123	1	20
trans-1,3-Dichloropropene	20.0	23.28		ug/Kg		116	80 - 124	0	20
Tert-amyl-methyl ether (TAME)	20.0	18.74		ug/Kg		94	80 - 120	1	20
tert-Butyl alcohol (TBA)	100	98.43		ug/Kg		98	74 - 123	2	20
tert-Butylbenzene	20.0	20.21		ug/Kg		101	80 - 124	1	20
Tetrachloroethene	20.0	20.78		ug/Kg		104	80 - 122	1	20
Toluene	20.0	20.38		ug/Kg		102	80 - 120	1	20
Trichloroethene	20.0	19.81		ug/Kg		99	80 - 127	1	20
Trichlorofluoromethane	20.0	19.08		ug/Kg		95	70 - 144	1	20
Vinyl acetate	20.0	20.92		ug/Kg		105	71 - 125	1	20
Vinyl chloride	20.0	16.73		ug/Kg		84	79 - 133	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*100*		*32 - 179*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-757314/5
Matrix: Solid
Analysis Batch: 757314

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*
Dibromofluoromethane (Surr)	*99*		*58 - 147*
Toluene-d8 (Surr)	*101*		*80 - 120*

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 570-757832/1-A
Matrix: Solid
Analysis Batch: 758610

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 757832

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		0.50		mg/Kg		06/22/26 10:20	06/23/26 18:02	1
1,2-Dichlorobenzene	ND		0.50		mg/Kg		06/22/26 10:20	06/23/26 18:02	1
1,3-Dichlorobenzene	ND		0.50		mg/Kg		06/22/26 10:20	06/23/26 18:02	1
1,4-Dichlorobenzene	ND		0.50		mg/Kg		06/22/26 10:20	06/23/26 18:02	1
1-Methylnaphthalene	ND		0.50		mg/Kg		06/22/26 10:20	06/23/26 18:02	1
2,4,5-Trichlorophenol	ND		0.50		mg/Kg		06/22/26 10:20	06/23/26 18:02	1
2,4,6-Trichlorophenol	ND		0.50		mg/Kg		06/22/26 10:20	06/23/26 18:02	1
2,4-Dichlorophenol	ND		0.50		mg/Kg		06/22/26 10:20	06/23/26 18:02	1
2,4-Dimethylphenol	ND		0.50		mg/Kg		06/22/26 10:20	06/23/26 18:02	1
2,4-Dinitrophenol	ND		2.0		mg/Kg		06/22/26 10:20	06/23/26 18:02	1
2,4-Dinitrotoluene	ND		0.50		mg/Kg		06/22/26 10:20	06/23/26 18:02	1
2,6-Dichlorophenol	ND		0.50		mg/Kg		06/22/26 10:20	06/23/26 18:02	1
2,6-Dinitrotoluene	ND		0.50		mg/Kg		06/22/26 10:20	06/23/26 18:02	1
2-Chloronaphthalene	ND		0.50		mg/Kg		06/22/26 10:20	06/23/26 18:02	1
2-Chlorophenol	ND		0.50		mg/Kg		06/22/26 10:20	06/23/26 18:02	1
2-Methylnaphthalene	ND		0.50		mg/Kg		06/22/26 10:20	06/23/26 18:02	1
2-Methylphenol	ND		0.50		mg/Kg		06/22/26 10:20	06/23/26 18:02	1
2-Nitroaniline	ND		0.50		mg/Kg		06/22/26 10:20	06/23/26 18:02	1
2-Nitrophenol	ND		0.50		mg/Kg		06/22/26 10:20	06/23/26 18:02	1
3,3'-Dichlorobenzidine	ND		2.5		mg/Kg		06/22/26 10:20	06/23/26 18:02	1
3/4-Methylphenol	ND		1.0		mg/Kg		06/22/26 10:20	06/23/26 18:02	1
3-Nitroaniline	ND		0.50		mg/Kg		06/22/26 10:20	06/23/26 18:02	1
4,6-Dinitro-2-methylphenol	ND		2.5		mg/Kg		06/22/26 10:20	06/23/26 18:02	1
4-Bromophenyl phenyl ether	ND		0.50		mg/Kg		06/22/26 10:20	06/23/26 18:02	1
4-Chloro-3-methylphenol	ND		0.50		mg/Kg		06/22/26 10:20	06/23/26 18:02	1
4-Chloroaniline	ND		0.50		mg/Kg		06/22/26 10:20	06/23/26 18:02	1
4-Chlorophenyl phenyl ether	ND		0.50		mg/Kg		06/22/26 10:20	06/23/26 18:02	1
4-Nitroaniline	ND		0.50		mg/Kg		06/22/26 10:20	06/23/26 18:02	1
4-Nitrophenol	ND		0.50		mg/Kg		06/22/26 10:20	06/23/26 18:02	1
Acenaphthene	ND		0.50		mg/Kg		06/22/26 10:20	06/23/26 18:02	1
Acenaphthylene	ND		0.50		mg/Kg		06/22/26 10:20	06/23/26 18:02	1
Aniline	ND		0.50		mg/Kg		06/22/26 10:20	06/23/26 18:02	1
Anthracene	ND		0.50		mg/Kg		06/22/26 10:20	06/23/26 18:02	1
Azobenzene	ND		0.50		mg/Kg		06/22/26 10:20	06/23/26 18:02	1
Benzidine	ND		5.0		mg/Kg		06/22/26 10:20	06/23/26 18:02	1
Benzo[a]anthracene	ND		0.50		mg/Kg		06/22/26 10:20	06/23/26 18:02	1
Benzo[a]pyrene	ND		0.50		mg/Kg		06/22/26 10:20	06/23/26 18:02	1
Benzo[b]fluoranthene	ND		0.50		mg/Kg		06/22/26 10:20	06/23/26 18:02	1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-757832/1-A
Matrix: Solid
Analysis Batch: 758610

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 757832

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzo[g,h,i]perylene	ND		0.50		mg/Kg		06/22/26 10:20	06/23/26 18:02	1
Benzo[k]fluoranthene	ND		0.50		mg/Kg		06/22/26 10:20	06/23/26 18:02	1
Benzoic acid	ND		2.5		mg/Kg		06/22/26 10:20	06/23/26 18:02	1
Benzyl alcohol	ND		0.50		mg/Kg		06/22/26 10:20	06/23/26 18:02	1
Bis(2-chloroethoxy)methane	ND		0.50		mg/Kg		06/22/26 10:20	06/23/26 18:02	1
Bis(2-chloroethyl)ether	ND		2.5		mg/Kg		06/22/26 10:20	06/23/26 18:02	1
2,2'-oxybis[1-chloropropane]	ND		0.50		mg/Kg		06/22/26 10:20	06/23/26 18:02	1
Bis(2-ethylhexyl) phthalate	ND		0.50		mg/Kg		06/22/26 10:20	06/23/26 18:02	1
Butyl benzyl phthalate	ND		0.50		mg/Kg		06/22/26 10:20	06/23/26 18:02	1
Chrysene	ND		0.50		mg/Kg		06/22/26 10:20	06/23/26 18:02	1
Dibenz(a,h)anthracene	ND		0.50		mg/Kg		06/22/26 10:20	06/23/26 18:02	1
Dibenzofuran	ND		0.50		mg/Kg		06/22/26 10:20	06/23/26 18:02	1
Diethyl phthalate	ND		0.50		mg/Kg		06/22/26 10:20	06/23/26 18:02	1
Dimethyl phthalate	ND		0.50		mg/Kg		06/22/26 10:20	06/23/26 18:02	1
Di-n-butyl phthalate	ND		0.50		mg/Kg		06/22/26 10:20	06/23/26 18:02	1
Di-n-octyl phthalate	ND		0.50		mg/Kg		06/22/26 10:20	06/23/26 18:02	1
Fluoranthene	ND		0.50		mg/Kg		06/22/26 10:20	06/23/26 18:02	1
Fluorene	ND		0.50		mg/Kg		06/22/26 10:20	06/23/26 18:02	1
Hexachloro-1,3-butadiene	ND		0.50		mg/Kg		06/22/26 10:20	06/23/26 18:02	1
Hexachlorobenzene	ND		0.50		mg/Kg		06/22/26 10:20	06/23/26 18:02	1
Hexachlorocyclopentadiene	ND		1.5		mg/Kg		06/22/26 10:20	06/23/26 18:02	1
Hexachloroethane	ND		0.50		mg/Kg		06/22/26 10:20	06/23/26 18:02	1
Indeno[1,2,3-cd]pyrene	ND		0.50		mg/Kg		06/22/26 10:20	06/23/26 18:02	1
Isophorone	ND		0.50		mg/Kg		06/22/26 10:20	06/23/26 18:02	1
Naphthalene	ND		0.50		mg/Kg		06/22/26 10:20	06/23/26 18:02	1
Nitrobenzene	ND		2.0		mg/Kg		06/22/26 10:20	06/23/26 18:02	1
N-Nitrosodimethylamine	ND		0.50		mg/Kg		06/22/26 10:20	06/23/26 18:02	1
N-Nitrosodi-n-propylamine	ND		0.50		mg/Kg		06/22/26 10:20	06/23/26 18:02	1
n-Nitrosodiphenylamine(as diphenylamine)	ND		0.50		mg/Kg		06/22/26 10:20	06/23/26 18:02	1
Pentachlorophenol	ND		2.5		mg/Kg		06/22/26 10:20	06/23/26 18:02	1
Phenanthrene	ND		0.50		mg/Kg		06/22/26 10:20	06/23/26 18:02	1
Phenol	ND		0.50		mg/Kg		06/22/26 10:20	06/23/26 18:02	1
Pyrene	ND		0.50		mg/Kg		06/22/26 10:20	06/23/26 18:02	1
Pyridine	ND		0.50		mg/Kg		06/22/26 10:20	06/23/26 18:02	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*70*		*20 - 135*	*06/22/26 10:20*	*06/23/26 18:02*	*1*
2-Fluorobiphenyl (Surr)	*71*		*28 - 110*	*06/22/26 10:20*	*06/23/26 18:02*	*1*
2-Fluorophenol (Surr)	*72*		*20 - 135*	*06/22/26 10:20*	*06/23/26 18:02*	*1*
Nitrobenzene-d5 (Surr)	*83*		*22 - 116*	*06/22/26 10:20*	*06/23/26 18:02*	*1*
p-Terphenyl-d14 (Surr)	*74*		*27 - 118*	*06/22/26 10:20*	*06/23/26 18:02*	*1*
Phenol-d6 (Surr)	*68*		*20 - 127*	*06/22/26 10:20*	*06/23/26 18:02*	*1*

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-757832/2-A
Matrix: Solid
Analysis Batch: 758753

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 757832

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,4-Trichlorobenzene	5.00	4.347		mg/Kg		87	62 - 120
1,2-Dichlorobenzene	5.00	4.237		mg/Kg		85	60 - 120
1,3-Dichlorobenzene	5.00	4.090		mg/Kg		82	56 - 120
1,4-Dichlorobenzene	5.00	4.081		mg/Kg		82	56 - 120
1-Methylnaphthalene	5.00	4.266		mg/Kg		85	58 - 120
2,4,5-Trichlorophenol	5.00	4.311		mg/Kg		86	54 - 121
2,4,6-Trichlorophenol	5.00	4.263		mg/Kg		85	58 - 120
2,4-Dichlorophenol	5.00	4.480		mg/Kg		90	61 - 122
2,4-Dimethylphenol	5.00	4.216		mg/Kg		84	45 - 145
2,4-Dinitrophenol	5.00	2.964		mg/Kg		59	10 - 165
2,4-Dinitrotoluene	5.00	4.401		mg/Kg		88	55 - 122
2,6-Dichlorophenol	5.00	4.308		mg/Kg		86	58 - 120
2,6-Dinitrotoluene	5.00	4.367		mg/Kg		87	59 - 120
2-Chloronaphthalene	5.00	4.093		mg/Kg		82	60 - 120
2-Chlorophenol	5.00	4.673		mg/Kg		93	59 - 130
2-Methylnaphthalene	5.00	4.033		mg/Kg		81	59 - 126
2-Methylphenol	5.00	4.359		mg/Kg		87	58 - 134
2-Nitroaniline	5.00	4.361		mg/Kg		87	54 - 120
2-Nitrophenol	5.00	4.769		mg/Kg		95	51 - 125
3,3'-Dichlorobenzidine	5.00	4.644		mg/Kg		93	40 - 120
3/4-Methylphenol	10.0	8.945		mg/Kg		89	58 - 129
3-Nitroaniline	5.00	4.273		mg/Kg		85	50 - 120
4,6-Dinitro-2-methylphenol	5.00	3.585		mg/Kg		72	27 - 148
4-Bromophenyl phenyl ether	5.00	3.914		mg/Kg		78	59 - 120
4-Chloro-3-methylphenol	5.00	4.697		mg/Kg		94	54 - 132
4-Chloroaniline	5.00	4.064		mg/Kg		81	38 - 120
4-Chlorophenyl phenyl ether	5.00	4.035		mg/Kg		81	61 - 120
4-Nitroaniline	5.00	4.540		mg/Kg		91	52 - 124
4-Nitrophenol	5.00	4.249		mg/Kg		85	29 - 130
Acenaphthene	5.00	4.028		mg/Kg		81	58 - 120
Acenaphthylene	5.00	4.186		mg/Kg		84	56 - 120
Aniline	5.00	4.232		mg/Kg		85	26 - 120
Anthracene	5.00	4.185		mg/Kg		84	61 - 120
Azobenzene	5.00	3.929		mg/Kg		79	55 - 120
Benzidine	5.00	3.030	J	mg/Kg		61	10 - 120
Benzo[a]anthracene	5.00	4.384		mg/Kg		88	62 - 120
Benzo[a]pyrene	5.00	4.603		mg/Kg		92	55 - 130
Benzo[b]fluoranthene	5.00	4.352		mg/Kg		87	56 - 123
Benzo[g,h,i]perylene	5.00	4.239		mg/Kg		85	53 - 120
Benzo[k]fluoranthene	5.00	4.568		mg/Kg		91	56 - 122
Benzoic acid	5.00	3.485		mg/Kg		70	10 - 133
Benzyl alcohol	5.00	4.703		mg/Kg		94	35 - 139
Bis(2-chloroethoxy)methane	5.00	4.020		mg/Kg		80	55 - 120
Bis(2-chloroethyl)ether	5.00	3.919		mg/Kg		78	48 - 120
2,2'-oxybis[1-chloropropane]	5.00	4.436		mg/Kg		89	45 - 122
Bis(2-ethylhexyl) phthalate	5.00	4.926		mg/Kg		99	58 - 121
Butyl benzyl phthalate	5.00	5.299		mg/Kg		106	57 - 122
Chrysene	5.00	4.325		mg/Kg		86	59 - 120

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-757832/2-A
Matrix: Solid
Analysis Batch: 758753

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 757832

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Dibenz(a,h)anthracene	5.00	4.531		mg/Kg		91	56 - 124
Dibenzofuran	5.00	4.105		mg/Kg		82	61 - 120
Diethyl phthalate	5.00	4.590		mg/Kg		92	60 - 120
Dimethyl phthalate	5.00	4.256		mg/Kg		85	59 - 120
Di-n-butyl phthalate	5.00	4.818		mg/Kg		96	60 - 120
Di-n-octyl phthalate	5.00	5.161		mg/Kg		103	58 - 127
Fluoranthene	5.00	4.336		mg/Kg		87	58 - 120
Fluorene	5.00	4.150		mg/Kg		83	60 - 120
Hexachloro-1,3-butadiene	5.00	4.168		mg/Kg		83	56 - 120
Hexachlorobenzene	5.00	3.959		mg/Kg		79	58 - 120
Hexachlorocyclopentadiene	5.00	3.958		mg/Kg		79	10 - 183
Hexachloroethane	5.00	4.095		mg/Kg		82	51 - 120
Indeno[1,2,3-cd]pyrene	5.00	4.600		mg/Kg		92	55 - 126
Isophorone	5.00	4.263		mg/Kg		85	54 - 120
Naphthalene	5.00	4.027		mg/Kg		81	58 - 120
Nitrobenzene	5.00	4.248		mg/Kg		85	53 - 120
N-Nitrosodimethylamine	5.00	3.997		mg/Kg		80	44 - 120
N-Nitrosodi-n-propylamine	5.00	4.547		mg/Kg		91	54 - 120
n-Nitrosodiphenylamine(as diphenylamine)	5.00	5.066		mg/Kg		101	72 - 128
Pentachlorophenol	5.00	4.354		mg/Kg		87	26 - 134
Phenanthrene	5.00	4.176		mg/Kg		84	61 - 120
Phenol	5.00	4.445		mg/Kg		89	56 - 129
Pyrene	5.00	4.498		mg/Kg		90	57 - 120
Pyridine	5.00	3.023		mg/Kg		60	27 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*83*		*20 - 135*
2-Fluorobiphenyl (Surr)	*79*		*28 - 110*
2-Fluorophenol (Surr)	*89*		*20 - 135*
Nitrobenzene-d5 (Surr)	*91*		*22 - 116*
p-Terphenyl-d14 (Surr)	*89*		*27 - 118*
Phenol-d6 (Surr)	*86*		*20 - 127*

Lab Sample ID: LCSD 570-757832/3-A
Matrix: Solid
Analysis Batch: 758610

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 757832

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene	5.00	3.437	*1	mg/Kg		69	62 - 120	23	20
1,2-Dichlorobenzene	5.00	3.386	*1	mg/Kg		68	60 - 120	22	20
1,3-Dichlorobenzene	5.00	3.370		mg/Kg		67	56 - 120	19	20
1,4-Dichlorobenzene	5.00	3.453		mg/Kg		69	56 - 120	17	20
1-Methylnaphthalene	5.00	3.544		mg/Kg		71	58 - 120	18	20
2,4,5-Trichlorophenol	5.00	3.188	*1	mg/Kg		64	54 - 121	30	20
2,4,6-Trichlorophenol	5.00	3.108	*1	mg/Kg		62	58 - 120	31	20
2,4-Dichlorophenol	5.00	3.368	*1	mg/Kg		67	61 - 122	28	20
2,4-Dimethylphenol	5.00	3.221	*1	mg/Kg		64	45 - 145	27	20
2,4-Dinitrophenol	5.00	1.861	J *1	mg/Kg		37	10 - 165	46	35

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-757832/3-A
Matrix: Solid
Analysis Batch: 758610

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 757832

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2,4-Dinitrotoluene	5.00	3.710		mg/Kg		74	55 - 122	17	20
2,6-Dichlorophenol	5.00	3.420	*1	mg/Kg		68	58 - 120	23	20
2,6-Dinitrotoluene	5.00	3.591		mg/Kg		72	59 - 120	20	21
2-Chloronaphthalene	5.00	3.187	*1	mg/Kg		64	60 - 120	25	20
2-Chlorophenol	5.00	3.498	*1	mg/Kg		70	59 - 130	29	20
2-Methylnaphthalene	5.00	3.264	*1	mg/Kg		65	59 - 126	21	20
2-Methylphenol	5.00	3.313	*1	mg/Kg		66	58 - 134	27	20
2-Nitroaniline	5.00	3.739		mg/Kg		75	54 - 120	15	20
2-Nitrophenol	5.00	3.515	*1	mg/Kg		70	51 - 125	30	20
3,3'-Dichlorobenzidine	5.00	3.540	*1	mg/Kg		71	40 - 120	27	22
3/4-Methylphenol	10.0	6.715	*1	mg/Kg		67	58 - 129	28	20
3-Nitroaniline	5.00	3.486		mg/Kg		70	50 - 120	20	21
4,6-Dinitro-2-methylphenol	5.00	3.058		mg/Kg		61	27 - 148	16	23
4-Bromophenyl phenyl ether	5.00	3.231		mg/Kg		65	59 - 120	19	20
4-Chloro-3-methylphenol	5.00	3.348		mg/Kg		67	54 - 132	34	47
4-Chloroaniline	5.00	3.217		mg/Kg		64	38 - 120	23	26
4-Chlorophenyl phenyl ether	5.00	3.260	*1	mg/Kg		65	61 - 120	21	20
4-Nitroaniline	5.00	3.568	*1	mg/Kg		71	52 - 124	24	22
4-Nitrophenol	5.00	2.626		mg/Kg		53	29 - 130	47	51
Acenaphthene	5.00	3.248	*1	mg/Kg		65	58 - 120	21	20
Acenaphthylene	5.00	3.347	*1	mg/Kg		67	56 - 120	22	20
Aniline	5.00	3.094	*1	mg/Kg		62	26 - 120	31	28
Anthracene	5.00	3.359	*1	mg/Kg		67	61 - 120	22	20
Azobenzene	5.00	3.233		mg/Kg		65	55 - 120	19	20
Benzidine	5.00	1.604	J *1	mg/Kg		32	10 - 120	62	60
Benzo[a]anthracene	5.00	3.531	*1	mg/Kg		71	62 - 120	22	20
Benzo[a]pyrene	5.00	3.496	*1	mg/Kg		70	55 - 130	27	20
Benzo[b]fluoranthene	5.00	3.436	*1	mg/Kg		69	56 - 123	24	20
Benzo[g,h,i]perylene	5.00	3.337	*1	mg/Kg		67	53 - 120	24	20
Benzo[k]fluoranthene	5.00	3.609	*1	mg/Kg		72	56 - 122	23	21
Benzoic acid	5.00	2.264	J	mg/Kg		45	10 - 133	42	50
Benzyl alcohol	5.00	3.287	*1	mg/Kg		66	35 - 139	35	25
Bis(2-chloroethoxy)methane	5.00	3.240	*1	mg/Kg		65	55 - 120	21	20
Bis(2-chloroethyl)ether	5.00	3.398		mg/Kg		68	48 - 120	14	20
2,2'-oxybis[1-chloropropane]	5.00	3.035	*1	mg/Kg		61	45 - 122	37	20
Bis(2-ethylhexyl) phthalate	5.00	3.565	*1	mg/Kg		71	58 - 121	32	20
Butyl benzyl phthalate	5.00	3.629	*1	mg/Kg		73	57 - 122	37	21
Chrysene	5.00	3.493	*1	mg/Kg		70	59 - 120	21	20
Dibenz(a,h)anthracene	5.00	3.425	*1	mg/Kg		68	56 - 124	28	20
Dibenzofuran	5.00	3.397		mg/Kg		68	61 - 120	19	20
Diethyl phthalate	5.00	3.399	*1	mg/Kg		68	60 - 120	30	20
Dimethyl phthalate	5.00	3.295	*1	mg/Kg		66	59 - 120	25	20
Di-n-butyl phthalate	5.00	3.526	*1	mg/Kg		71	60 - 120	31	20
Di-n-octyl phthalate	5.00	3.618	*1	mg/Kg		72	58 - 127	35	20
Fluoranthene	5.00	3.477	*1	mg/Kg		70	58 - 120	22	20
Fluorene	5.00	3.406		mg/Kg		68	60 - 120	20	20
Hexachloro-1,3-butadiene	5.00	3.314	*1	mg/Kg		66	56 - 120	23	20
Hexachlorobenzene	5.00	3.351		mg/Kg		67	58 - 120	17	24
Hexachlorocyclopentadiene	5.00	2.561	*1	mg/Kg		51	10 - 183	43	23

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-757832/3-A
Matrix: Solid
Analysis Batch: 758610

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 757832

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Hexachloroethane			5.00	3.265	*1	mg/Kg		65	51 - 120	23	20
Indeno[1,2,3-cd]pyrene			5.00	3.357	*1	mg/Kg		67	55 - 126	31	20
Isophorone			5.00	3.336	*1	mg/Kg		67	54 - 120	24	20
Naphthalene			5.00	3.468		mg/Kg		69	58 - 120	15	20
Nitrobenzene			5.00	3.503		mg/Kg		70	53 - 120	19	20
N-Nitrosodimethylamine			5.00	4.032		mg/Kg		81	44 - 120	1	21
N-Nitrosodi-n-propylamine			5.00	3.212	*1	mg/Kg		64	54 - 120	34	20
n-Nitrosodiphenylamine(as diphenylamine)			5.00	3.952	*1	mg/Kg		79	72 - 128	25	20
Pentachlorophenol			5.00	2.239	J *1	mg/Kg		45	26 - 134	64	20
Phenanthrene			5.00	3.331	*1	mg/Kg		67	61 - 120	23	20
Phenol			5.00	3.398	*1	mg/Kg		68	56 - 129	27	20
Pyrene			5.00	3.547	*1	mg/Kg		71	57 - 120	24	21
Pyridine			5.00	2.819		mg/Kg		56	27 - 120	7	23

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*65*		*20 - 135*
2-Fluorobiphenyl (Surr)	*65*		*28 - 110*
2-Fluorophenol (Surr)	*72*		*20 - 135*
Nitrobenzene-d5 (Surr)	*69*		*22 - 116*
p-Terphenyl-d14 (Surr)	*67*		*27 - 118*
Phenol-d6 (Surr)	*68*		*20 - 127*

Lab Sample ID: 570-284007-3 MS
Matrix: Solid
Analysis Batch: 759208

Client Sample ID: B3-13
Prep Type: Total/NA
Prep Batch: 757832

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,4-Trichlorobenzene	ND	*1	4.98	3.280		mg/Kg		66	42 - 108
1,2-Dichlorobenzene	ND	*1	4.98	3.314		mg/Kg		67	44 - 104
1,3-Dichlorobenzene	ND		4.98	3.273		mg/Kg		66	42 - 103
1,4-Dichlorobenzene	ND		4.98	3.230		mg/Kg		65	42 - 98
1-Methylnaphthalene	ND		4.98	3.448		mg/Kg		69	36 - 112
2,4,5-Trichlorophenol	ND	*1	4.98	3.158		mg/Kg		63	20 - 144
2,4,6-Trichlorophenol	ND	*1	4.98	3.141		mg/Kg		63	20 - 140
2,4-Dichlorophenol	ND	*1	4.98	3.425		mg/Kg		69	20 - 139
2,4-Dimethylphenol	ND	*1	4.98	2.980		mg/Kg		60	36 - 116
2,4-Dinitrophenol	ND	*1	4.98	ND		mg/Kg		35	10 - 153
2,4-Dinitrotoluene	ND		4.98	2.945		mg/Kg		59	29 - 120
2,6-Dichlorophenol	ND	*1	4.98	3.378		mg/Kg		68	20 - 135
2,6-Dinitrotoluene	ND		4.98	3.089		mg/Kg		62	38 - 115
2-Chloronaphthalene	ND	*1	4.98	3.188		mg/Kg		64	31 - 119
2-Chlorophenol	ND	*1	4.98	3.560		mg/Kg		72	28 - 135
2-Methylnaphthalene	ND	*1	4.98	3.040		mg/Kg		61	40 - 128
2-Methylphenol	ND	*1	4.98	3.361		mg/Kg		68	42 - 127
2-Nitroaniline	ND		4.98	2.934		mg/Kg		59	24 - 122
2-Nitrophenol	ND	*1	4.98	3.413		mg/Kg		69	20 - 131
3,3'-Dichlorobenzidine	ND	*1	4.98	ND		mg/Kg		48	10 - 115
3/4-Methylphenol	ND	*1	9.95	7.025		mg/Kg		71	38 - 126

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 570-284007-3 MS
Matrix: Solid
Analysis Batch: 759208

Client Sample ID: B3-13
Prep Type: Total/NA
Prep Batch: 757832

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
3-Nitroaniline	ND		4.98	3.029		mg/Kg		61	20 - 119
4,6-Dinitro-2-methylphenol	ND		4.98	2.564		mg/Kg		52	10 - 138
4-Bromophenyl phenyl ether	ND		4.98	3.064		mg/Kg		62	39 - 114
4-Chloro-3-methylphenol	ND		4.98	3.101		mg/Kg		62	33 - 131
4-Chloroaniline	ND		4.98	2.938		mg/Kg		59	20 - 106
4-Chlorophenyl phenyl ether	ND	*1	4.98	3.065		mg/Kg		62	42 - 111
4-Nitroaniline	ND	*1	4.98	3.039		mg/Kg		61	20 - 124
4-Nitrophenol	ND	F1	4.98	ND	F1	mg/Kg		8	10 - 147
Acenaphthene	ND	*1	4.98	3.137		mg/Kg		63	34 - 114
Acenaphthylene	ND	*1	4.98	3.220		mg/Kg		65	29 - 111
Aniline	ND	*1	4.98	2.542		mg/Kg		51	20 - 99
Anthracene	ND	*1	4.98	3.241		mg/Kg		65	28 - 129
Azobenzene	ND		4.98	2.865		mg/Kg		58	24 - 126
Benzidine	ND	*1 F1	4.98	ND	F1	mg/Kg		0	10 - 66
Benzo[a]anthracene	ND	*1	4.98	3.257		mg/Kg		65	23 - 129
Benzo[a]pyrene	ND	*1	4.98	3.283		mg/Kg		66	20 - 136
Benzo[b]fluoranthene	ND	*1	4.98	3.250		mg/Kg		65	20 - 136
Benzo[g,h,i]perylene	ND	*1	4.98	3.085		mg/Kg		62	20 - 127
Benzo[k]fluoranthene	ND	*1	4.98	3.278		mg/Kg		66	20 - 144
Benzoic acid	ND	F1	4.98	ND	F1	mg/Kg		0	10 - 130
Benzyl alcohol	ND	*1	4.98	3.244		mg/Kg		65	10 - 137
Bis(2-chloroethoxy)methane	ND	*1	4.98	3.162		mg/Kg		64	40 - 106
Bis(2-chloroethyl)ether	ND		4.98	3.541		mg/Kg		71	31 - 121
2,2'-oxybis[1-chloropropane]	ND	*1	4.98	3.258		mg/Kg		65	35 - 110
Bis(2-ethylhexyl) phthalate	ND	*1	4.98	3.245		mg/Kg		65	36 - 123
Butyl benzyl phthalate	ND	*1	4.98	3.227		mg/Kg		65	34 - 121
Chrysene	ND	*1	4.98	3.323		mg/Kg		67	20 - 128
Dibenz(a,h)anthracene	ND	*1	4.98	3.150		mg/Kg		63	22 - 131
Dibenzofuran	ND		4.98	3.151		mg/Kg		63	29 - 122
Diethyl phthalate	ND	*1	4.98	3.131		mg/Kg		63	33 - 118
Dimethyl phthalate	ND	*1	4.98	3.066		mg/Kg		62	33 - 115
Di-n-butyl phthalate	ND	*1	4.98	3.090		mg/Kg		62	43 - 119
Di-n-octyl phthalate	ND	*1	4.98	3.251		mg/Kg		65	36 - 126
Fluoranthene	ND	*1	4.98	3.041		mg/Kg		61	20 - 136
Fluorene	ND		4.98	3.137		mg/Kg		63	31 - 122
Hexachloro-1,3-butadiene	ND	*1	4.98	3.087		mg/Kg		62	46 - 110
Hexachlorobenzene	ND		4.98	2.768		mg/Kg		56	28 - 124
Hexachlorocyclopentadiene	ND	*1	4.98	2.281		mg/Kg		46	10 - 126
Hexachloroethane	ND	*1	4.98	3.252		mg/Kg		65	31 - 103
Indeno[1,2,3-cd]pyrene	ND	*1	4.98	3.131		mg/Kg		63	20 - 137
Isophorone	ND	*1	4.98	3.010		mg/Kg		60	40 - 102
Naphthalene	ND		4.98	3.517		mg/Kg		71	32 - 115
Nitrobenzene	ND		4.98	2.939		mg/Kg		59	41 - 103
N-Nitrosodimethylamine	ND		4.98	2.031		mg/Kg		41	20 - 109
N-Nitrosodi-n-propylamine	ND	*1	4.98	3.381		mg/Kg		68	21 - 121
n-Nitrosodiphenylamine(as diphenylamine)	ND	*1	4.98	3.965		mg/Kg		80	35 - 147
Pentachlorophenol	ND	*1	4.98	3.383		mg/Kg		68	10 - 140
Phenanthrene	ND	*1	4.98	3.194		mg/Kg		64	27 - 128

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 570-284007-3 MS
Matrix: Solid
Analysis Batch: 759208

Client Sample ID: B3-13
Prep Type: Total/NA
Prep Batch: 757832

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Phenol	ND	*1	4.98	3.362		mg/Kg		68	35 - 127
Pyrene	ND	*1	4.98	3.430		mg/Kg		69	20 - 136
Pyridine	ND		4.98	1.618		mg/Kg		33	20 - 113

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*62*		*20 - 135*
2-Fluorobiphenyl (Surr)	*61*		*28 - 110*
2-Fluorophenol (Surr)	*62*		*20 - 135*
Nitrobenzene-d5 (Surr)	*57*		*22 - 116*
p-Terphenyl-d14 (Surr)	*66*		*27 - 118*
Phenol-d6 (Surr)	*65*		*20 - 127*

Lab Sample ID: 570-284007-3 MSD
Matrix: Solid
Analysis Batch: 759208

Client Sample ID: B3-13
Prep Type: Total/NA
Prep Batch: 757832

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene	ND	*1	5.00	3.643		mg/Kg		73	42 - 108	10	30
1,2-Dichlorobenzene	ND	*1	5.00	3.685		mg/Kg		74	44 - 104	11	30
1,3-Dichlorobenzene	ND		5.00	3.479		mg/Kg		70	42 - 103	6	30
1,4-Dichlorobenzene	ND		5.00	3.503		mg/Kg		70	42 - 98	8	30
1-Methylnaphthalene	ND		5.00	3.717		mg/Kg		74	36 - 112	8	30
2,4,5-Trichlorophenol	ND	*1	5.00	3.311		mg/Kg		66	20 - 144	5	30
2,4,6-Trichlorophenol	ND	*1	5.00	3.420		mg/Kg		68	20 - 140	9	30
2,4-Dichlorophenol	ND	*1	5.00	3.703		mg/Kg		74	20 - 139	8	30
2,4-Dimethylphenol	ND	*1	5.00	3.346		mg/Kg		67	36 - 116	12	30
2,4-Dinitrophenol	ND	*1	5.00	ND		mg/Kg		35	10 - 153	2	30
2,4-Dinitrotoluene	ND		5.00	3.203		mg/Kg		64	29 - 120	8	30
2,6-Dichlorophenol	ND	*1	5.00	3.678		mg/Kg		74	20 - 135	9	30
2,6-Dinitrotoluene	ND		5.00	3.294		mg/Kg		66	38 - 115	6	30
2-Chloronaphthalene	ND	*1	5.00	3.460		mg/Kg		69	31 - 119	8	30
2-Chlorophenol	ND	*1	5.00	3.879		mg/Kg		78	28 - 135	9	30
2-Methylnaphthalene	ND	*1	5.00	3.335		mg/Kg		67	40 - 128	9	30
2-Methylphenol	ND	*1	5.00	3.715		mg/Kg		74	42 - 127	10	30
2-Nitroaniline	ND		5.00	3.168		mg/Kg		63	24 - 122	8	30
2-Nitrophenol	ND	*1	5.00	3.706		mg/Kg		74	20 - 131	8	30
3,3'-Dichlorobenzidine	ND	*1	5.00	2.964		mg/Kg		59	10 - 115	22	30
3/4-Methylphenol	ND	*1	10.0	7.682		mg/Kg		77	38 - 126	9	30
3-Nitroaniline	ND		5.00	3.403		mg/Kg		68	20 - 119	12	30
4,6-Dinitro-2-methylphenol	ND		5.00	2.762		mg/Kg		55	10 - 138	7	30
4-Bromophenyl phenyl ether	ND		5.00	3.437		mg/Kg		69	39 - 114	11	30
4-Chloro-3-methylphenol	ND		5.00	3.466		mg/Kg		69	33 - 131	11	30
4-Chloroaniline	ND		5.00	3.273		mg/Kg		65	20 - 106	11	30
4-Chlorophenyl phenyl ether	ND	*1	5.00	3.385		mg/Kg		68	42 - 111	10	30
4-Nitroaniline	ND	*1	5.00	3.457		mg/Kg		69	20 - 124	13	30
4-Nitrophenol	ND	F1	5.00	ND	F1	mg/Kg		8	10 - 147	4	30
Acenaphthene	ND	*1	5.00	3.496		mg/Kg		70	34 - 114	11	30
Acenaphthylene	ND	*1	5.00	3.509		mg/Kg		70	29 - 111	9	30

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 570-284007-3 MSD
Matrix: Solid
Analysis Batch: 759208

Client Sample ID: B3-13
Prep Type: Total/NA
Prep Batch: 757832

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aniline	ND	*1	5.00	2.550		mg/Kg		51	20 - 99	0	30
Anthracene	ND	*1	5.00	3.559		mg/Kg		71	28 - 129	9	30
Azobenzene	ND		5.00	3.149		mg/Kg		63	24 - 126	9	30
Benzidine	ND	*1 F1	5.00	ND	F1	mg/Kg		0	10 - 66	NC	30
Benzo[a]anthracene	ND	*1	5.00	3.587		mg/Kg		72	23 - 129	10	30
Benzo[a]pyrene	ND	*1	5.00	3.609		mg/Kg		72	20 - 136	9	30
Benzo[b]fluoranthene	ND	*1	5.00	3.516		mg/Kg		70	20 - 136	8	30
Benzo[g,h,i]perylene	ND	*1	5.00	3.412		mg/Kg		68	20 - 127	10	30
Benzo[k]fluoranthene	ND	*1	5.00	3.637		mg/Kg		73	20 - 144	10	30
Benzoic acid	ND	F1	5.00	ND	F1	mg/Kg		0	10 - 130	NC	30
Benzyl alcohol	ND	*1	5.00	3.599		mg/Kg		72	10 - 137	10	30
Bis(2-chloroethoxy)methane	ND	*1	5.00	3.521		mg/Kg		70	40 - 106	11	30
Bis(2-chloroethyl)ether	ND		5.00	4.041		mg/Kg		81	31 - 121	13	30
2,2'-oxybis[1-chloropropane]	ND	*1	5.00	3.557		mg/Kg		71	35 - 110	9	30
Bis(2-ethylhexyl) phthalate	ND	*1	5.00	3.606		mg/Kg		72	36 - 123	11	30
Butyl benzyl phthalate	ND	*1	5.00	3.560		mg/Kg		71	34 - 121	10	30
Chrysene	ND	*1	5.00	3.645		mg/Kg		73	20 - 128	9	30
Dibenz(a,h)anthracene	ND	*1	5.00	3.411		mg/Kg		68	22 - 131	8	30
Dibenzofuran	ND		5.00	3.484		mg/Kg		70	29 - 122	10	30
Diethyl phthalate	ND	*1	5.00	3.473		mg/Kg		69	33 - 118	10	30
Dimethyl phthalate	ND	*1	5.00	3.353		mg/Kg		67	33 - 115	9	30
Di-n-butyl phthalate	ND	*1	5.00	3.398		mg/Kg		68	43 - 119	9	30
Di-n-octyl phthalate	ND	*1	5.00	3.545		mg/Kg		71	36 - 126	9	30
Fluoranthene	ND	*1	5.00	3.260		mg/Kg		65	20 - 136	7	30
Fluorene	ND		5.00	3.542		mg/Kg		71	31 - 122	12	30
Hexachloro-1,3-butadiene	ND	*1	5.00	3.303		mg/Kg		66	46 - 110	7	30
Hexachlorobenzene	ND		5.00	3.017		mg/Kg		60	28 - 124	9	30
Hexachlorocyclopentadiene	ND	*1	5.00	2.522		mg/Kg		50	10 - 126	10	30
Hexachloroethane	ND	*1	5.00	3.519		mg/Kg		70	31 - 103	8	30
Indeno[1,2,3-cd]pyrene	ND	*1	5.00	3.525		mg/Kg		70	20 - 137	12	30
Isophorone	ND	*1	5.00	3.287		mg/Kg		66	40 - 102	9	30
Naphthalene	ND		5.00	3.821		mg/Kg		76	32 - 115	8	30
Nitrobenzene	ND		5.00	3.244		mg/Kg		65	41 - 103	10	30
N-Nitrosodimethylamine	ND		5.00	2.174		mg/Kg		43	20 - 109	7	30
N-Nitrosodi-n-propylamine	ND	*1	5.00	3.598		mg/Kg		72	21 - 121	6	30
n-Nitrosodiphenylamine(as diphenylamine)	ND	*1	5.00	4.389		mg/Kg		88	35 - 147	10	30
Pentachlorophenol	ND	*1	5.00	3.727		mg/Kg		75	10 - 140	10	30
Phenanthrene	ND	*1	5.00	3.502		mg/Kg		70	27 - 128	9	30
Phenol	ND	*1	5.00	3.677		mg/Kg		74	35 - 127	9	30
Pyrene	ND	*1	5.00	3.894		mg/Kg		78	20 - 136	13	30
Pyridine	ND		5.00	1.765		mg/Kg		35	20 - 113	9	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*67*		*20 - 135*
2-Fluorobiphenyl (Surr)	*69*		*28 - 110*
2-Fluorophenol (Surr)	*69*		*20 - 135*
Nitrobenzene-d5 (Surr)	*62*		*22 - 116*

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 570-284007-3 MSD
Matrix: Solid
Analysis Batch: 759208

Client Sample ID: B3-13
Prep Type: Total/NA
Prep Batch: 757832

Surrogate	MSD %Recovery	MSD Qualifier	Limits
p-Terphenyl-d14 (Surr)	*74*		*27 - 118*
Phenol-d6 (Surr)	*72*		*20 - 127*

Lab Sample ID: MB 570-758124/1-A
Matrix: Solid
Analysis Batch: 759205

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 758124

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		0.50		mg/Kg		06/22/26 17:17	06/24/26 10:58	1
1,2-Dichlorobenzene	ND		0.50		mg/Kg		06/22/26 17:17	06/24/26 10:58	1
1,3-Dichlorobenzene	ND		0.50		mg/Kg		06/22/26 17:17	06/24/26 10:58	1
1,4-Dichlorobenzene	ND		0.50		mg/Kg		06/22/26 17:17	06/24/26 10:58	1
1-Methylnaphthalene	ND		0.50		mg/Kg		06/22/26 17:17	06/24/26 10:58	1
2,4,5-Trichlorophenol	ND		0.50		mg/Kg		06/22/26 17:17	06/24/26 10:58	1
2,4,6-Trichlorophenol	ND		0.50		mg/Kg		06/22/26 17:17	06/24/26 10:58	1
2,4-Dichlorophenol	ND		0.50		mg/Kg		06/22/26 17:17	06/24/26 10:58	1
2,4-Dimethylphenol	ND		0.50		mg/Kg		06/22/26 17:17	06/24/26 10:58	1
2,4-Dinitrophenol	ND		2.0		mg/Kg		06/22/26 17:17	06/24/26 10:58	1
2,4-Dinitrotoluene	ND		0.50		mg/Kg		06/22/26 17:17	06/24/26 10:58	1
2,6-Dichlorophenol	ND		0.50		mg/Kg		06/22/26 17:17	06/24/26 10:58	1
2,6-Dinitrotoluene	ND		0.50		mg/Kg		06/22/26 17:17	06/24/26 10:58	1
2-Chloronaphthalene	ND		0.50		mg/Kg		06/22/26 17:17	06/24/26 10:58	1
2-Chlorophenol	ND		0.50		mg/Kg		06/22/26 17:17	06/24/26 10:58	1
2-Methylnaphthalene	ND		0.50		mg/Kg		06/22/26 17:17	06/24/26 10:58	1
2-Methylphenol	ND		0.50		mg/Kg		06/22/26 17:17	06/24/26 10:58	1
2-Nitroaniline	ND		0.50		mg/Kg		06/22/26 17:17	06/24/26 10:58	1
2-Nitrophenol	ND		0.50		mg/Kg		06/22/26 17:17	06/24/26 10:58	1
3,3'-Dichlorobenzidine	ND		2.5		mg/Kg		06/22/26 17:17	06/24/26 10:58	1
3/4-Methylphenol	ND		1.0		mg/Kg		06/22/26 17:17	06/24/26 10:58	1
3-Nitroaniline	ND		0.50		mg/Kg		06/22/26 17:17	06/24/26 10:58	1
4,6-Dinitro-2-methylphenol	ND		2.5		mg/Kg		06/22/26 17:17	06/24/26 10:58	1
4-Bromophenyl phenyl ether	ND		0.50		mg/Kg		06/22/26 17:17	06/24/26 10:58	1
4-Chloro-3-methylphenol	ND		0.50		mg/Kg		06/22/26 17:17	06/24/26 10:58	1
4-Chloroaniline	ND		0.50		mg/Kg		06/22/26 17:17	06/24/26 10:58	1
4-Chlorophenyl phenyl ether	ND		0.50		mg/Kg		06/22/26 17:17	06/24/26 10:58	1
4-Nitroaniline	ND		0.50		mg/Kg		06/22/26 17:17	06/24/26 10:58	1
4-Nitrophenol	ND		0.50		mg/Kg		06/22/26 17:17	06/24/26 10:58	1
Acenaphthene	ND		0.50		mg/Kg		06/22/26 17:17	06/24/26 10:58	1
Acenaphthylene	ND		0.50		mg/Kg		06/22/26 17:17	06/24/26 10:58	1
Aniline	ND		0.50		mg/Kg		06/22/26 17:17	06/24/26 10:58	1
Anthracene	ND		0.50		mg/Kg		06/22/26 17:17	06/24/26 10:58	1
Azobenzene	ND		0.50		mg/Kg		06/22/26 17:17	06/24/26 10:58	1
Benzidine	ND		5.0		mg/Kg		06/22/26 17:17	06/24/26 10:58	1
Benzo[a]anthracene	ND		0.50		mg/Kg		06/22/26 17:17	06/24/26 10:58	1
Benzo[a]pyrene	ND		0.50		mg/Kg		06/22/26 17:17	06/24/26 10:58	1
Benzo[b]fluoranthene	ND		0.50		mg/Kg		06/22/26 17:17	06/24/26 10:58	1
Benzo[g,h,i]perylene	ND		0.50		mg/Kg		06/22/26 17:17	06/24/26 10:58	1
Benzo[k]fluoranthene	ND		0.50		mg/Kg		06/22/26 17:17	06/24/26 10:58	1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-758124/1-A
Matrix: Solid
Analysis Batch: 759205

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 758124

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzoic acid	ND		2.5		mg/Kg		06/22/26 17:17	06/24/26 10:58	1
Benzyl alcohol	ND		0.50		mg/Kg		06/22/26 17:17	06/24/26 10:58	1
Bis(2-chloroethoxy)methane	ND		0.50		mg/Kg		06/22/26 17:17	06/24/26 10:58	1
Bis(2-chloroethyl)ether	ND		2.5		mg/Kg		06/22/26 17:17	06/24/26 10:58	1
2,2'-oxybis[1-chloropropane]	ND		0.50		mg/Kg		06/22/26 17:17	06/24/26 10:58	1
Bis(2-ethylhexyl) phthalate	ND		0.50		mg/Kg		06/22/26 17:17	06/24/26 10:58	1
Butyl benzyl phthalate	ND		0.50		mg/Kg		06/22/26 17:17	06/24/26 10:58	1
Chrysene	ND		0.50		mg/Kg		06/22/26 17:17	06/24/26 10:58	1
Dibenz(a,h)anthracene	ND		0.50		mg/Kg		06/22/26 17:17	06/24/26 10:58	1
Dibenzofuran	ND		0.50		mg/Kg		06/22/26 17:17	06/24/26 10:58	1
Diethyl phthalate	ND		0.50		mg/Kg		06/22/26 17:17	06/24/26 10:58	1
Dimethyl phthalate	ND		0.50		mg/Kg		06/22/26 17:17	06/24/26 10:58	1
Di-n-butyl phthalate	ND		0.50		mg/Kg		06/22/26 17:17	06/24/26 10:58	1
Di-n-octyl phthalate	ND		0.50		mg/Kg		06/22/26 17:17	06/24/26 10:58	1
Fluoranthene	ND		0.50		mg/Kg		06/22/26 17:17	06/24/26 10:58	1
Fluorene	ND		0.50		mg/Kg		06/22/26 17:17	06/24/26 10:58	1
Hexachloro-1,3-butadiene	ND		0.50		mg/Kg		06/22/26 17:17	06/24/26 10:58	1
Hexachlorobenzene	ND		0.50		mg/Kg		06/22/26 17:17	06/24/26 10:58	1
Hexachlorocyclopentadiene	ND		1.5		mg/Kg		06/22/26 17:17	06/24/26 10:58	1
Hexachloroethane	ND		0.50		mg/Kg		06/22/26 17:17	06/24/26 10:58	1
Indeno[1,2,3-cd]pyrene	ND		0.50		mg/Kg		06/22/26 17:17	06/24/26 10:58	1
Isophorone	ND		0.50		mg/Kg		06/22/26 17:17	06/24/26 10:58	1
Naphthalene	ND		0.50		mg/Kg		06/22/26 17:17	06/24/26 10:58	1
Nitrobenzene	ND		2.0		mg/Kg		06/22/26 17:17	06/24/26 10:58	1
N-Nitrosodimethylamine	ND		0.50		mg/Kg		06/22/26 17:17	06/24/26 10:58	1
N-Nitrosodi-n-propylamine	ND		0.50		mg/Kg		06/22/26 17:17	06/24/26 10:58	1
n-Nitrosodiphenylamine(as diphenylamine)	ND		0.50		mg/Kg		06/22/26 17:17	06/24/26 10:58	1
Pentachlorophenol	ND		2.5		mg/Kg		06/22/26 17:17	06/24/26 10:58	1
Phenanthrene	ND		0.50		mg/Kg		06/22/26 17:17	06/24/26 10:58	1
Phenol	ND		0.50		mg/Kg		06/22/26 17:17	06/24/26 10:58	1
Pyrene	ND		0.50		mg/Kg		06/22/26 17:17	06/24/26 10:58	1
Pyridine	ND		0.50		mg/Kg		06/22/26 17:17	06/24/26 10:58	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*87*		*20 - 135*	*06/22/26 17:17*	*06/24/26 10:58*	*1*
2-Fluorobiphenyl (Surr)	*88*		*28 - 110*	*06/22/26 17:17*	*06/24/26 10:58*	*1*
2-Fluorophenol (Surr)	*89*		*20 - 135*	*06/22/26 17:17*	*06/24/26 10:58*	*1*
Nitrobenzene-d5 (Surr)	*100*		*22 - 116*	*06/22/26 17:17*	*06/24/26 10:58*	*1*
p-Terphenyl-d14 (Surr)	*90*		*27 - 118*	*06/22/26 17:17*	*06/24/26 10:58*	*1*
Phenol-d6 (Surr)	*86*		*20 - 127*	*06/22/26 17:17*	*06/24/26 10:58*	*1*

Lab Sample ID: LCS 570-758124/2-A
Matrix: Solid
Analysis Batch: 759205

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 758124

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,2,4-Trichlorobenzene			5.00	3.844		mg/Kg		77	62 - 120		
1,2-Dichlorobenzene			5.00	3.862		mg/Kg		77	60 - 120		

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-758124/2-A
Matrix: Solid
Analysis Batch: 759205

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 758124

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,3-Dichlorobenzene	5.00	3.817		mg/Kg		76	56 - 120
1,4-Dichlorobenzene	5.00	3.922		mg/Kg		78	56 - 120
1-Methylnaphthalene	5.00	4.183		mg/Kg		84	58 - 120
2,4,5-Trichlorophenol	5.00	3.957		mg/Kg		79	54 - 121
2,4,6-Trichlorophenol	5.00	3.831		mg/Kg		77	58 - 120
2,4-Dichlorophenol	5.00	4.113		mg/Kg		82	61 - 122
2,4-Dimethylphenol	5.00	3.963		mg/Kg		79	45 - 145
2,4-Dinitrophenol	5.00	2.744		mg/Kg		55	10 - 165
2,4-Dinitrotoluene	5.00	4.732		mg/Kg		95	55 - 122
2,6-Dichlorophenol	5.00	4.165		mg/Kg		83	58 - 120
2,6-Dinitrotoluene	5.00	4.479		mg/Kg		90	59 - 120
2-Chloronaphthalene	5.00	3.883		mg/Kg		78	60 - 120
2-Chlorophenol	5.00	4.136		mg/Kg		83	59 - 130
2-Methylnaphthalene	5.00	3.812		mg/Kg		76	59 - 126
2-Methylphenol	5.00	4.051		mg/Kg		81	58 - 134
2-Nitroaniline	5.00	4.657		mg/Kg		93	54 - 120
2-Nitrophenol	5.00	4.017		mg/Kg		80	51 - 125
3,3'-Dichlorobenzidine	5.00	4.294		mg/Kg		86	40 - 120
3/4-Methylphenol	10.0	8.268		mg/Kg		83	58 - 129
3-Nitroaniline	5.00	4.397		mg/Kg		88	50 - 120
4,6-Dinitro-2-methylphenol	5.00	3.924		mg/Kg		78	27 - 148
4-Bromophenyl phenyl ether	5.00	4.013		mg/Kg		80	59 - 120
4-Chloro-3-methylphenol	5.00	4.045		mg/Kg		81	54 - 132
4-Chloroaniline	5.00	3.865		mg/Kg		77	38 - 120
4-Chlorophenyl phenyl ether	5.00	4.131		mg/Kg		83	61 - 120
4-Nitroaniline	5.00	4.625		mg/Kg		92	52 - 124
4-Nitrophenol	5.00	3.201		mg/Kg		64	29 - 130
Acenaphthene	5.00	4.049		mg/Kg		81	58 - 120
Acenaphthylene	5.00	4.121		mg/Kg		82	56 - 120
Aniline	5.00	3.699		mg/Kg		74	26 - 120
Anthracene	5.00	4.222		mg/Kg		84	61 - 120
Azobenzene	5.00	3.982		mg/Kg		80	55 - 120
Benzidine	5.00	2.213	J	mg/Kg		44	10 - 120
Benzo[a]anthracene	5.00	4.231		mg/Kg		85	62 - 120
Benzo[a]pyrene	5.00	4.247		mg/Kg		85	55 - 130
Benzo[b]fluoranthene	5.00	4.148		mg/Kg		83	56 - 123
Benzo[g,h,i]perylene	5.00	4.005		mg/Kg		80	53 - 120
Benzo[k]fluoranthene	5.00	4.437		mg/Kg		89	56 - 122
Benzoic acid	5.00	3.222		mg/Kg		64	10 - 133
Benzyl alcohol	5.00	3.987		mg/Kg		80	35 - 139
Bis(2-chloroethoxy)methane	5.00	3.794		mg/Kg		76	55 - 120
Bis(2-chloroethyl)ether	5.00	3.769		mg/Kg		75	48 - 120
2,2'-oxybis[1-chloropropane]	5.00	3.523		mg/Kg		70	45 - 122
Bis(2-ethylhexyl) phthalate	5.00	4.230		mg/Kg		85	58 - 121
Butyl benzyl phthalate	5.00	4.319		mg/Kg		86	57 - 122
Chrysene	5.00	4.126		mg/Kg		83	59 - 120
Dibenz(a,h)anthracene	5.00	4.027		mg/Kg		81	56 - 124
Dibenzofuran	5.00	4.170		mg/Kg		83	61 - 120
Diethyl phthalate	5.00	4.303		mg/Kg		86	60 - 120

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-758124/2-A
Matrix: Solid
Analysis Batch: 759205

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 758124

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Dimethyl phthalate			5.00	4.178		mg/Kg		84	59 - 120		
Di-n-butyl phthalate			5.00	4.417		mg/Kg		88	60 - 120		
Di-n-octyl phthalate			5.00	4.326		mg/Kg		87	58 - 127		
Fluoranthene			5.00	4.289		mg/Kg		86	58 - 120		
Fluorene			5.00	4.296		mg/Kg		86	60 - 120		
Hexachloro-1,3-butadiene			5.00	3.722		mg/Kg		74	56 - 120		
Hexachlorobenzene			5.00	4.210		mg/Kg		84	58 - 120		
Hexachlorocyclopentadiene			5.00	3.130		mg/Kg		63	10 - 183		
Hexachloroethane			5.00	3.682		mg/Kg		74	51 - 120		
Indeno[1,2,3-cd]pyrene			5.00	4.042		mg/Kg		81	55 - 126		
Isophorone			5.00	3.916		mg/Kg		78	54 - 120		
Naphthalene			5.00	3.963		mg/Kg		79	58 - 120		
Nitrobenzene			5.00	3.953		mg/Kg		79	53 - 120		
N-Nitrosodimethylamine			5.00	4.597		mg/Kg		92	44 - 120		
N-Nitrosodi-n-propylamine			5.00	4.007		mg/Kg		80	54 - 120		
n-Nitrosodiphenylamine(as diphenylamine)			5.00	4.971		mg/Kg		99	72 - 128		
Pentachlorophenol			5.00	2.787		mg/Kg		56	26 - 134		
Phenanthrene			5.00	4.232		mg/Kg		85	61 - 120		
Phenol			5.00	4.068		mg/Kg		81	56 - 129		
Pyrene			5.00	4.205		mg/Kg		84	57 - 120		
Pyridine			5.00	3.342		mg/Kg		67	27 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*85*		*20 - 135*
2-Fluorobiphenyl (Surr)	*80*		*28 - 110*
2-Fluorophenol (Surr)	*84*		*20 - 135*
Nitrobenzene-d5 (Surr)	*79*		*22 - 116*
p-Terphenyl-d14 (Surr)	*83*		*27 - 118*
Phenol-d6 (Surr)	*83*		*20 - 127*

Lab Sample ID: LCSD 570-758124/3-A
Matrix: Solid
Analysis Batch: 759205

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 758124

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene			5.00	4.084		mg/Kg		82	62 - 120	6	20
1,2-Dichlorobenzene			5.00	4.178		mg/Kg		84	60 - 120	8	20
1,3-Dichlorobenzene			5.00	4.107		mg/Kg		82	56 - 120	7	20
1,4-Dichlorobenzene			5.00	4.247		mg/Kg		85	56 - 120	8	20
1-Methylnaphthalene			5.00	4.256		mg/Kg		85	58 - 120	2	20
2,4,5-Trichlorophenol			5.00	4.036		mg/Kg		81	54 - 121	2	20
2,4,6-Trichlorophenol			5.00	3.939		mg/Kg		79	58 - 120	3	20
2,4-Dichlorophenol			5.00	4.207		mg/Kg		84	61 - 122	2	20
2,4-Dimethylphenol			5.00	4.103		mg/Kg		82	45 - 145	3	20
2,4-Dinitrophenol			5.00	3.013		mg/Kg		60	10 - 165	9	35
2,4-Dinitrotoluene			5.00	4.864		mg/Kg		97	55 - 122	3	20
2,6-Dichlorophenol			5.00	4.252		mg/Kg		85	58 - 120	2	20
2,6-Dinitrotoluene			5.00	4.641		mg/Kg		93	59 - 120	4	21

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-758124/3-A
Matrix: Solid
Analysis Batch: 759205

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 758124

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2-Chloronaphthalene	5.00	3.956		mg/Kg		79	60 - 120	2	20
2-Chlorophenol	5.00	4.387		mg/Kg		88	59 - 130	6	20
2-Methylnaphthalene	5.00	3.963		mg/Kg		79	59 - 126	4	20
2-Methylphenol	5.00	4.212		mg/Kg		84	58 - 134	4	20
2-Nitroaniline	5.00	4.799		mg/Kg		96	54 - 120	3	20
2-Nitrophenol	5.00	4.236		mg/Kg		85	51 - 125	5	20
3,3'-Dichlorobenzidine	5.00	4.459		mg/Kg		89	40 - 120	4	22
3/4-Methylphenol	10.0	8.638		mg/Kg		86	58 - 129	4	20
3-Nitroaniline	5.00	4.573		mg/Kg		91	50 - 120	4	21
4,6-Dinitro-2-methylphenol	5.00	4.095		mg/Kg		82	27 - 148	4	23
4-Bromophenyl phenyl ether	5.00	4.135		mg/Kg		83	59 - 120	3	20
4-Chloro-3-methylphenol	5.00	4.288		mg/Kg		86	54 - 132	6	47
4-Chloroaniline	5.00	4.004		mg/Kg		80	38 - 120	4	26
4-Chlorophenyl phenyl ether	5.00	4.230		mg/Kg		85	61 - 120	2	20
4-Nitroaniline	5.00	4.822		mg/Kg		96	52 - 124	4	22
4-Nitrophenol	5.00	3.279		mg/Kg		66	29 - 130	2	51
Acenaphthene	5.00	4.150		mg/Kg		83	58 - 120	2	20
Acenaphthylene	5.00	4.180		mg/Kg		84	56 - 120	1	20
Aniline	5.00	3.987		mg/Kg		80	26 - 120	7	28
Anthracene	5.00	4.254		mg/Kg		85	61 - 120	1	20
Azobenzene	5.00	4.019		mg/Kg		80	55 - 120	1	20
Benzidine	5.00	2.196	J	mg/Kg		44	10 - 120	1	60
Benzo[a]anthracene	5.00	4.376		mg/Kg		88	62 - 120	3	20
Benzo[a]pyrene	5.00	4.341		mg/Kg		87	55 - 130	2	20
Benzo[b]fluoranthene	5.00	4.238		mg/Kg		85	56 - 123	2	20
Benzo[g,h,i]perylene	5.00	4.167		mg/Kg		83	53 - 120	4	20
Benzo[k]fluoranthene	5.00	4.547		mg/Kg		91	56 - 122	2	21
Benzoic acid	5.00	3.240		mg/Kg		65	10 - 133	1	50
Benzyl alcohol	5.00	4.166		mg/Kg		83	35 - 139	4	25
Bis(2-chloroethoxy)methane	5.00	3.976		mg/Kg		80	55 - 120	5	20
Bis(2-chloroethyl)ether	5.00	4.199		mg/Kg		84	48 - 120	11	20
2,2'-oxybis[1-chloropropane]	5.00	3.744		mg/Kg		75	45 - 122	6	20
Bis(2-ethylhexyl) phthalate	5.00	4.313		mg/Kg		86	58 - 121	2	20
Butyl benzyl phthalate	5.00	4.435		mg/Kg		89	57 - 122	3	21
Chrysene	5.00	4.252		mg/Kg		85	59 - 120	3	20
Dibenz(a,h)anthracene	5.00	4.292		mg/Kg		86	56 - 124	6	20
Dibenzofuran	5.00	4.263		mg/Kg		85	61 - 120	2	20
Diethyl phthalate	5.00	4.430		mg/Kg		89	60 - 120	3	20
Dimethyl phthalate	5.00	4.234		mg/Kg		85	59 - 120	1	20
Di-n-butyl phthalate	5.00	4.441		mg/Kg		89	60 - 120	1	20
Di-n-octyl phthalate	5.00	4.453		mg/Kg		89	58 - 127	3	20
Fluoranthene	5.00	4.381		mg/Kg		88	58 - 120	2	20
Fluorene	5.00	4.435		mg/Kg		89	60 - 120	3	20
Hexachloro-1,3-butadiene	5.00	3.960		mg/Kg		79	56 - 120	6	20
Hexachlorobenzene	5.00	4.237		mg/Kg		85	58 - 120	1	24
Hexachlorocyclopentadiene	5.00	3.222		mg/Kg		64	10 - 183	3	23
Hexachloroethane	5.00	3.978		mg/Kg		80	51 - 120	8	20
Indeno[1,2,3-cd]pyrene	5.00	4.172		mg/Kg		83	55 - 126	3	20
Isophorone	5.00	4.104		mg/Kg		82	54 - 120	5	20

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-758124/3-A
Matrix: Solid
Analysis Batch: 759205

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 758124

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Naphthalene			5.00	4.199		mg/Kg		84	58 - 120	6	20
Nitrobenzene			5.00	4.194		mg/Kg		84	53 - 120	6	20
N-Nitrosodimethylamine			5.00	5.013		mg/Kg		100	44 - 120	9	21
N-Nitrosodi-n-propylamine			5.00	4.225		mg/Kg		84	54 - 120	5	20
n-Nitrosodiphenylamine(as diphenylamine)			5.00	5.048		mg/Kg		101	72 - 128	2	20
Pentachlorophenol			5.00	2.830		mg/Kg		57	26 - 134	2	20
Phenanthrene			5.00	4.285		mg/Kg		86	61 - 120	1	20
Phenol			5.00	4.281		mg/Kg		86	56 - 129	5	20
Pyrene			5.00	4.289		mg/Kg		86	57 - 120	2	21
Pyridine			5.00	3.628		mg/Kg		73	27 - 120	8	23

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*83*		*20 - 135*
2-Fluorobiphenyl (Surr)	*80*		*28 - 110*
2-Fluorophenol (Surr)	*88*		*20 - 135*
Nitrobenzene-d5 (Surr)	*83*		*22 - 116*
p-Terphenyl-d14 (Surr)	*83*		*27 - 118*
Phenol-d6 (Surr)	*86*		*20 - 127*

Lab Sample ID: MB 570-763022/1-A
Matrix: Solid
Analysis Batch: 765626

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 763022

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		0.50		mg/Kg		07/01/26 10:12	07/08/26 06:30	1
1,2-Dichlorobenzene	ND		0.50		mg/Kg		07/01/26 10:12	07/08/26 06:30	1
1,3-Dichlorobenzene	ND		0.50		mg/Kg		07/01/26 10:12	07/08/26 06:30	1
1,4-Dichlorobenzene	ND		0.50		mg/Kg		07/01/26 10:12	07/08/26 06:30	1
1-Methylnaphthalene	ND		0.50		mg/Kg		07/01/26 10:12	07/08/26 06:30	1
2,4,5-Trichlorophenol	ND		0.50		mg/Kg		07/01/26 10:12	07/08/26 06:30	1
2,4,6-Trichlorophenol	ND		0.50		mg/Kg		07/01/26 10:12	07/08/26 06:30	1
2,4-Dichlorophenol	ND		0.50		mg/Kg		07/01/26 10:12	07/08/26 06:30	1
2,4-Dimethylphenol	ND		0.50		mg/Kg		07/01/26 10:12	07/08/26 06:30	1
2,4-Dinitrophenol	ND		2.0		mg/Kg		07/01/26 10:12	07/08/26 06:30	1
2,4-Dinitrotoluene	ND		0.50		mg/Kg		07/01/26 10:12	07/08/26 06:30	1
2,6-Dichlorophenol	ND		0.50		mg/Kg		07/01/26 10:12	07/08/26 06:30	1
2,6-Dinitrotoluene	ND		0.50		mg/Kg		07/01/26 10:12	07/08/26 06:30	1
2-Chloronaphthalene	ND		0.50		mg/Kg		07/01/26 10:12	07/08/26 06:30	1
2-Chlorophenol	ND		0.50		mg/Kg		07/01/26 10:12	07/08/26 06:30	1
2-Methylnaphthalene	ND		0.50		mg/Kg		07/01/26 10:12	07/08/26 06:30	1
2-Methylphenol	ND		0.50		mg/Kg		07/01/26 10:12	07/08/26 06:30	1
2-Nitroaniline	ND		0.50		mg/Kg		07/01/26 10:12	07/08/26 06:30	1
2-Nitrophenol	ND		0.50		mg/Kg		07/01/26 10:12	07/08/26 06:30	1
3,3'-Dichlorobenzidine	ND		2.5		mg/Kg		07/01/26 10:12	07/08/26 06:30	1
3/4-Methylphenol	ND		1.0		mg/Kg		07/01/26 10:12	07/08/26 06:30	1
3-Nitroaniline	ND		0.50		mg/Kg		07/01/26 10:12	07/08/26 06:30	1
4,6-Dinitro-2-methylphenol	ND		2.5		mg/Kg		07/01/26 10:12	07/08/26 06:30	1
4-Bromophenyl phenyl ether	ND		0.50		mg/Kg		07/01/26 10:12	07/08/26 06:30	1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-763022/1-A
Matrix: Solid
Analysis Batch: 765626

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 763022

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
4-Chloro-3-methylphenol	ND		0.50		mg/Kg		07/01/26 10:12	07/08/26 06:30	1
4-Chloroaniline	ND		0.50		mg/Kg		07/01/26 10:12	07/08/26 06:30	1
4-Chlorophenyl phenyl ether	ND		0.50		mg/Kg		07/01/26 10:12	07/08/26 06:30	1
4-Nitroaniline	ND		0.50		mg/Kg		07/01/26 10:12	07/08/26 06:30	1
4-Nitrophenol	ND		0.50		mg/Kg		07/01/26 10:12	07/08/26 06:30	1
Acenaphthene	ND		0.50		mg/Kg		07/01/26 10:12	07/08/26 06:30	1
Acenaphthylene	ND		0.50		mg/Kg		07/01/26 10:12	07/08/26 06:30	1
Aniline	ND		0.50		mg/Kg		07/01/26 10:12	07/08/26 06:30	1
Anthracene	ND		0.50		mg/Kg		07/01/26 10:12	07/08/26 06:30	1
Azobenzene	ND		0.50		mg/Kg		07/01/26 10:12	07/08/26 06:30	1
Benzidine	ND		5.0		mg/Kg		07/01/26 10:12	07/08/26 06:30	1
Benzo[a]anthracene	ND		0.50		mg/Kg		07/01/26 10:12	07/08/26 06:30	1
Benzo[a]pyrene	ND		0.50		mg/Kg		07/01/26 10:12	07/08/26 06:30	1
Benzo[b]fluoranthene	ND		0.50		mg/Kg		07/01/26 10:12	07/08/26 06:30	1
Benzo[g,h,i]perylene	ND		0.50		mg/Kg		07/01/26 10:12	07/08/26 06:30	1
Benzo[k]fluoranthene	ND		0.50		mg/Kg		07/01/26 10:12	07/08/26 06:30	1
Benzoic acid	ND		2.5		mg/Kg		07/01/26 10:12	07/08/26 06:30	1
Benzyl alcohol	ND		0.50		mg/Kg		07/01/26 10:12	07/08/26 06:30	1
Bis(2-chloroethoxy)methane	ND		0.50		mg/Kg		07/01/26 10:12	07/08/26 06:30	1
Bis(2-chloroethyl)ether	ND		2.5		mg/Kg		07/01/26 10:12	07/08/26 06:30	1
2,2'-oxybis[1-chloropropane]	ND		0.50		mg/Kg		07/01/26 10:12	07/08/26 06:30	1
Bis(2-ethylhexyl) phthalate	ND		0.50		mg/Kg		07/01/26 10:12	07/08/26 06:30	1
Butyl benzyl phthalate	ND		0.50		mg/Kg		07/01/26 10:12	07/08/26 06:30	1
Chrysene	ND		0.50		mg/Kg		07/01/26 10:12	07/08/26 06:30	1
Dibenz(a,h)anthracene	ND		0.50		mg/Kg		07/01/26 10:12	07/08/26 06:30	1
Dibenzofuran	ND		0.50		mg/Kg		07/01/26 10:12	07/08/26 06:30	1
Diethyl phthalate	ND		0.50		mg/Kg		07/01/26 10:12	07/08/26 06:30	1
Dimethyl phthalate	ND		0.50		mg/Kg		07/01/26 10:12	07/08/26 06:30	1
Di-n-butyl phthalate	ND		0.50		mg/Kg		07/01/26 10:12	07/08/26 06:30	1
Di-n-octyl phthalate	ND		0.50		mg/Kg		07/01/26 10:12	07/08/26 06:30	1
Fluoranthene	ND		0.50		mg/Kg		07/01/26 10:12	07/08/26 06:30	1
Fluorene	ND		0.50		mg/Kg		07/01/26 10:12	07/08/26 06:30	1
Hexachloro-1,3-butadiene	ND		0.50		mg/Kg		07/01/26 10:12	07/08/26 06:30	1
Hexachlorobenzene	ND		0.50		mg/Kg		07/01/26 10:12	07/08/26 06:30	1
Hexachlorocyclopentadiene	ND		1.5		mg/Kg		07/01/26 10:12	07/08/26 06:30	1
Hexachloroethane	ND		0.50		mg/Kg		07/01/26 10:12	07/08/26 06:30	1
Indeno[1,2,3-cd]pyrene	ND		0.50		mg/Kg		07/01/26 10:12	07/08/26 06:30	1
Isophorone	ND		0.50		mg/Kg		07/01/26 10:12	07/08/26 06:30	1
Naphthalene	ND		0.50		mg/Kg		07/01/26 10:12	07/08/26 06:30	1
Nitrobenzene	ND		2.0		mg/Kg		07/01/26 10:12	07/08/26 06:30	1
N-Nitrosodimethylamine	ND		0.50		mg/Kg		07/01/26 10:12	07/08/26 06:30	1
N-Nitrosodi-n-propylamine	ND		0.50		mg/Kg		07/01/26 10:12	07/08/26 06:30	1
n-Nitrosodiphenylamine(as diphenylamine)	ND		0.50		mg/Kg		07/01/26 10:12	07/08/26 06:30	1
Pentachlorophenol	ND		2.5		mg/Kg		07/01/26 10:12	07/08/26 06:30	1
Phenanthrene	ND		0.50		mg/Kg		07/01/26 10:12	07/08/26 06:30	1
Phenol	ND		0.50		mg/Kg		07/01/26 10:12	07/08/26 06:30	1
Pyrene	ND		0.50		mg/Kg		07/01/26 10:12	07/08/26 06:30	1
Pyridine	ND		0.50		mg/Kg		07/01/26 10:12	07/08/26 06:30	1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	65		20 - 135	07/01/26 10:12	07/08/26 06:30	1
2-Fluorobiphenyl (Surr)	74		28 - 110	07/01/26 10:12	07/08/26 06:30	1
2-Fluorophenol (Surr)	76		20 - 135	07/01/26 10:12	07/08/26 06:30	1
Nitrobenzene-d5 (Surr)	85		22 - 116	07/01/26 10:12	07/08/26 06:30	1
p-Terphenyl-d14 (Surr)	70		27 - 118	07/01/26 10:12	07/08/26 06:30	1
Phenol-d6 (Surr)	77		20 - 127	07/01/26 10:12	07/08/26 06:30	1

Lab Sample ID: LCS 570-763022/2-A
Matrix: Solid
Analysis Batch: 765626

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 763022

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,4-Trichlorobenzene	5.00	3.894		mg/Kg		78	62 - 120
1,2-Dichlorobenzene	5.00	3.882		mg/Kg		78	60 - 120
1,3-Dichlorobenzene	5.00	3.881		mg/Kg		78	56 - 120
1,4-Dichlorobenzene	5.00	3.933		mg/Kg		79	56 - 120
1-Methylnaphthalene	5.00	3.963		mg/Kg		79	58 - 120
2,4,5-Trichlorophenol	5.00	4.132		mg/Kg		83	54 - 121
2,4,6-Trichlorophenol	5.00	4.230		mg/Kg		85	58 - 120
2,4-Dichlorophenol	5.00	4.087		mg/Kg		82	61 - 122
2,4-Dimethylphenol	5.00	4.070		mg/Kg		81	45 - 145
2,4-Dinitrophenol	5.00	3.289		mg/Kg		66	10 - 165
2,4-Dinitrotoluene	5.00	4.052		mg/Kg		81	55 - 122
2,6-Dichlorophenol	5.00	4.020		mg/Kg		80	58 - 120
2,6-Dinitrotoluene	5.00	4.071		mg/Kg		81	59 - 120
2-Chloronaphthalene	5.00	3.998		mg/Kg		80	60 - 120
2-Chlorophenol	5.00	4.350		mg/Kg		87	59 - 130
2-Methylnaphthalene	5.00	3.733		mg/Kg		75	59 - 126
2-Methylphenol	5.00	4.341		mg/Kg		87	58 - 134
2-Nitroaniline	5.00	4.695		mg/Kg		94	54 - 120
2-Nitrophenol	5.00	4.276		mg/Kg		86	51 - 125
3,3'-Dichlorobenzidine	5.00	4.259		mg/Kg		85	40 - 120
3/4-Methylphenol	10.0	8.594		mg/Kg		86	58 - 129
3-Nitroaniline	5.00	4.172		mg/Kg		83	50 - 120
4,6-Dinitro-2-methylphenol	5.00	3.891		mg/Kg		78	27 - 148
4-Bromophenyl phenyl ether	5.00	3.931		mg/Kg		79	59 - 120
4-Chloro-3-methylphenol	5.00	4.197		mg/Kg		84	54 - 132
4-Chloroaniline	5.00	3.551		mg/Kg		71	38 - 120
4-Chlorophenyl phenyl ether	5.00	4.060		mg/Kg		81	61 - 120
4-Nitroaniline	5.00	4.447		mg/Kg		89	52 - 124
4-Nitrophenol	5.00	4.255		mg/Kg		85	29 - 130
Acenaphthene	5.00	4.022		mg/Kg		80	58 - 120
Acenaphthylene	5.00	4.108		mg/Kg		82	56 - 120
Aniline	5.00	3.502		mg/Kg		70	26 - 120
Anthracene	5.00	4.144		mg/Kg		83	61 - 120
Azobenzene	5.00	4.058		mg/Kg		81	55 - 120
Benzidine	5.00	1.657	J	mg/Kg		33	10 - 120
Benzo[a]anthracene	5.00	4.258		mg/Kg		85	62 - 120
Benzo[a]pyrene	5.00	4.301		mg/Kg		86	55 - 130
Benzo[b]fluoranthene	5.00	4.423		mg/Kg		88	56 - 123
Benzo[g,h,i]perylene	5.00	4.164		mg/Kg		83	53 - 120

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-763022/2-A
Matrix: Solid
Analysis Batch: 765626

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 763022

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzo[k]fluoranthene	5.00	4.158		mg/Kg		83	56 - 122
Benzoic acid	5.00	2.884		mg/Kg		58	10 - 133
Benzyl alcohol	5.00	4.281		mg/Kg		86	35 - 139
Bis(2-chloroethoxy)methane	5.00	3.944		mg/Kg		79	55 - 120
Bis(2-chloroethyl)ether	5.00	4.042		mg/Kg		81	48 - 120
2,2'-oxybis[1-chloropropane]	5.00	4.454		mg/Kg		89	45 - 122
Bis(2-ethylhexyl) phthalate	5.00	4.714		mg/Kg		94	58 - 121
Butyl benzyl phthalate	5.00	4.685		mg/Kg		94	57 - 122
Chrysene	5.00	4.179		mg/Kg		84	59 - 120
Dibenz(a,h)anthracene	5.00	4.241		mg/Kg		85	56 - 124
Dibenzofuran	5.00	4.091		mg/Kg		82	61 - 120
Diethyl phthalate	5.00	4.422		mg/Kg		88	60 - 120
Dimethyl phthalate	5.00	4.211		mg/Kg		84	59 - 120
Di-n-butyl phthalate	5.00	4.417		mg/Kg		88	60 - 120
Di-n-octyl phthalate	5.00	4.590		mg/Kg		92	58 - 127
Fluoranthene	5.00	4.171		mg/Kg		83	58 - 120
Fluorene	5.00	4.211		mg/Kg		84	60 - 120
Hexachloro-1,3-butadiene	5.00	3.728		mg/Kg		75	56 - 120
Hexachlorobenzene	5.00	4.198		mg/Kg		84	58 - 120
Hexachlorocyclopentadiene	5.00	4.041		mg/Kg		81	10 - 183
Hexachloroethane	5.00	4.019		mg/Kg		80	51 - 120
Indeno[1,2,3-cd]pyrene	5.00	4.379		mg/Kg		88	55 - 126
Isophorone	5.00	4.005		mg/Kg		80	54 - 120
Naphthalene	5.00	3.858		mg/Kg		77	58 - 120
Nitrobenzene	5.00	4.174		mg/Kg		83	53 - 120
N-Nitrosodimethylamine	5.00	3.840		mg/Kg		77	44 - 120
N-Nitrosodi-n-propylamine	5.00	4.591		mg/Kg		92	54 - 120
n-Nitrosodiphenylamine(as diphenylamine)	5.00	5.015		mg/Kg		100	72 - 128
Pentachlorophenol	5.00	3.985		mg/Kg		80	26 - 134
Phenanthrene	5.00	4.103		mg/Kg		82	61 - 120
Phenol	5.00	4.332		mg/Kg		87	56 - 129
Pyrene	5.00	4.259		mg/Kg		85	57 - 120
Pyridine	5.00	2.892		mg/Kg		58	27 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*81*		*20 - 135*
2-Fluorobiphenyl (Surr)	*80*		*28 - 110*
2-Fluorophenol (Surr)	*87*		*20 - 135*
Nitrobenzene-d5 (Surr)	*84*		*22 - 116*
p-Terphenyl-d14 (Surr)	*82*		*27 - 118*
Phenol-d6 (Surr)	*86*		*20 - 127*

Lab Sample ID: LCSD 570-763022/3-A
Matrix: Solid
Analysis Batch: 765626

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 763022

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene	5.00	4.094		mg/Kg		82	62 - 120	5	20

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-763022/3-A
Matrix: Solid
Analysis Batch: 765626

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 763022

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dichlorobenzene	5.00	4.182		mg/Kg		84	60 - 120	7	20
1,3-Dichlorobenzene	5.00	4.165		mg/Kg		83	56 - 120	7	20
1,4-Dichlorobenzene	5.00	4.205		mg/Kg		84	56 - 120	7	20
1-Methylnaphthalene	5.00	4.161		mg/Kg		83	58 - 120	5	20
2,4,5-Trichlorophenol	5.00	4.558		mg/Kg		91	54 - 121	10	20
2,4,6-Trichlorophenol	5.00	4.543		mg/Kg		91	58 - 120	7	20
2,4-Dichlorophenol	5.00	4.346		mg/Kg		87	61 - 122	6	20
2,4-Dimethylphenol	5.00	4.282		mg/Kg		86	45 - 145	5	20
2,4-Dinitrophenol	5.00	3.855		mg/Kg		77	10 - 165	16	35
2,4-Dinitrotoluene	5.00	4.445		mg/Kg		89	55 - 122	9	20
2,6-Dichlorophenol	5.00	4.276		mg/Kg		86	58 - 120	6	20
2,6-Dinitrotoluene	5.00	4.474		mg/Kg		89	59 - 120	9	21
2-Chloronaphthalene	5.00	4.252		mg/Kg		85	60 - 120	6	20
2-Chlorophenol	5.00	4.748		mg/Kg		95	59 - 130	9	20
2-Methylnaphthalene	5.00	3.876		mg/Kg		78	59 - 126	4	20
2-Methylphenol	5.00	4.655		mg/Kg		93	58 - 134	7	20
2-Nitroaniline	5.00	5.114		mg/Kg		102	54 - 120	9	20
2-Nitrophenol	5.00	4.422		mg/Kg		88	51 - 125	3	20
3,3'-Dichlorobenzidine	5.00	4.434		mg/Kg		89	40 - 120	4	22
3/4-Methylphenol	10.0	9.354		mg/Kg		94	58 - 129	8	20
3-Nitroaniline	5.00	4.273		mg/Kg		85	50 - 120	2	21
4,6-Dinitro-2-methylphenol	5.00	4.284		mg/Kg		86	27 - 148	10	23
4-Bromophenyl phenyl ether	5.00	4.278		mg/Kg		86	59 - 120	8	20
4-Chloro-3-methylphenol	5.00	4.460		mg/Kg		89	54 - 132	6	47
4-Chloroaniline	5.00	3.693		mg/Kg		74	38 - 120	4	26
4-Chlorophenyl phenyl ether	5.00	4.570		mg/Kg		91	61 - 120	12	20
4-Nitroaniline	5.00	4.872		mg/Kg		97	52 - 124	9	22
4-Nitrophenol	5.00	4.777		mg/Kg		96	29 - 130	12	51
Acenaphthene	5.00	4.303		mg/Kg		86	58 - 120	7	20
Acenaphthylene	5.00	4.364		mg/Kg		87	56 - 120	6	20
Aniline	5.00	3.675		mg/Kg		73	26 - 120	5	28
Anthracene	5.00	4.330		mg/Kg		87	61 - 120	4	20
Azobenzene	5.00	4.222		mg/Kg		84	55 - 120	4	20
Benzidine	5.00	1.542	J	mg/Kg		31	10 - 120	7	60
Benzo[a]anthracene	5.00	4.502		mg/Kg		90	62 - 120	6	20
Benzo[a]pyrene	5.00	4.550		mg/Kg		91	55 - 130	6	20
Benzo[b]fluoranthene	5.00	4.650		mg/Kg		93	56 - 123	5	20
Benzo[g,h,i]perylene	5.00	4.459		mg/Kg		89	53 - 120	7	20
Benzo[k]fluoranthene	5.00	4.413		mg/Kg		88	56 - 122	6	21
Benzoic acid	5.00	3.356		mg/Kg		67	10 - 133	15	50
Benzyl alcohol	5.00	4.673		mg/Kg		93	35 - 139	9	25
Bis(2-chloroethoxy)methane	5.00	4.094		mg/Kg		82	55 - 120	4	20
Bis(2-chloroethyl)ether	5.00	4.289		mg/Kg		86	48 - 120	6	20
2,2'-oxybis[1-chloropropane]	5.00	4.487		mg/Kg		90	45 - 122	1	20
Bis(2-ethylhexyl) phthalate	5.00	4.930		mg/Kg		99	58 - 121	4	20
Butyl benzyl phthalate	5.00	4.978		mg/Kg		100	57 - 122	6	21
Chrysene	5.00	4.435		mg/Kg		89	59 - 120	6	20
Dibenz(a,h)anthracene	5.00	4.759		mg/Kg		95	56 - 124	11	20
Dibenzofuran	5.00	4.412		mg/Kg		88	61 - 120	8	20

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-763022/3-A
Matrix: Solid
Analysis Batch: 765626

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 763022

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Diethyl phthalate			5.00	4.832		mg/Kg		97	60 - 120	9	20
Dimethyl phthalate			5.00	4.533		mg/Kg		91	59 - 120	7	20
Di-n-butyl phthalate			5.00	4.716		mg/Kg		94	60 - 120	7	20
Di-n-octyl phthalate			5.00	4.798		mg/Kg		96	58 - 127	4	20
Fluoranthene			5.00	4.501		mg/Kg		90	58 - 120	8	20
Fluorene			5.00	4.472		mg/Kg		89	60 - 120	6	20
Hexachloro-1,3-butadiene			5.00	4.035		mg/Kg		81	56 - 120	8	20
Hexachlorobenzene			5.00	4.317		mg/Kg		86	58 - 120	3	24
Hexachlorocyclopentadiene			5.00	4.418		mg/Kg		88	10 - 183	9	23
Hexachloroethane			5.00	4.320		mg/Kg		86	51 - 120	7	20
Indeno[1,2,3-cd]pyrene			5.00	4.671		mg/Kg		93	55 - 126	6	20
Isophorone			5.00	4.153		mg/Kg		83	54 - 120	4	20
Naphthalene			5.00	4.058		mg/Kg		81	58 - 120	5	20
Nitrobenzene			5.00	4.361		mg/Kg		87	53 - 120	4	20
N-Nitrosodimethylamine			5.00	4.279		mg/Kg		86	44 - 120	11	21
N-Nitrosodi-n-propylamine			5.00	4.781		mg/Kg		96	54 - 120	4	20
n-Nitrosodiphenylamine(as diphenylamine)			5.00	5.216		mg/Kg		104	72 - 128	4	20
Pentachlorophenol			5.00	4.394		mg/Kg		88	26 - 134	10	20
Phenanthrene			5.00	4.368		mg/Kg		87	61 - 120	6	20
Phenol			5.00	4.696		mg/Kg		94	56 - 129	8	20
Pyrene			5.00	4.477		mg/Kg		90	57 - 120	5	21
Pyridine			5.00	3.166		mg/Kg		63	27 - 120	9	23

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*88*		*20 - 135*
2-Fluorobiphenyl (Surr)	*84*		*28 - 110*
2-Fluorophenol (Surr)	*95*		*20 - 135*
Nitrobenzene-d5 (Surr)	*89*		*22 - 116*
p-Terphenyl-d14 (Surr)	*85*		*27 - 118*
Phenol-d6 (Surr)	*94*		*20 - 127*

Method: 8015B - Gasoline Range Organics - (GC)

Lab Sample ID: MB 570-760310/33
Matrix: Solid
Analysis Batch: 760310

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C4-C12)	ND		0.10		mg/Kg			06/26/26 02:34	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*42 - 126*		*06/26/26 02:34*	*1*

Method: 8015B - Gasoline Range Organics - (GC) (Continued)

Lab Sample ID: LCS 570-760310/30
Matrix: Solid
Analysis Batch: 760310

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (C4-C13)			2.00	1.644		mg/Kg		82	70 - 124		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*108*		*42 - 126*

Lab Sample ID: LCSD 570-760310/31
Matrix: Solid
Analysis Batch: 760310

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (C4-C13)			2.00	1.679		mg/Kg		84	70 - 124	2	18

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*94*		*42 - 126*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 570-756964/1-A
Matrix: Solid
Analysis Batch: 757463

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 756964

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0		mg/Kg		06/19/26 13:42	06/21/26 02:49	1
C23-C40	ND		25		mg/Kg		06/19/26 13:42	06/21/26 02:49	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane (Surr)	*92*		*29 - 160*	*06/19/26 13:42*	*06/21/26 02:49*	*1*

Lab Sample ID: LCS 570-756964/2-A
Matrix: Solid
Analysis Batch: 757463

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 756964

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]			400	432.2		mg/Kg		108	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
n-Octacosane (Surr)	*85*		*29 - 160*

Lab Sample ID: LCSD 570-756964/3-A
Matrix: Solid
Analysis Batch: 757463

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 756964

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]			400	434.6		mg/Kg		109	70 - 130	1	20

Method: 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCSD 570-756964/3-A
Matrix: Solid
Analysis Batch: 757463

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 756964

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
n-Octacosane (Surr)	84		29 - 160

Lab Sample ID: 570-284007-8 MS
Matrix: Solid
Analysis Batch: 757463

Client Sample ID: B1-5
Prep Type: Total/NA
Prep Batch: 756964

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]	15		400	423.9		mg/Kg		102	43 - 165		

Surrogate	MS %Recovery	MS Qualifier	Limits
n-Octacosane (Surr)	60		29 - 160

Lab Sample ID: 570-284007-8 MSD
Matrix: Solid
Analysis Batch: 757463

Client Sample ID: B1-5
Prep Type: Total/NA
Prep Batch: 756964

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	15		391	416.1		mg/Kg		103	43 - 165	2	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
n-Octacosane (Surr)	75		29 - 160

Lab Sample ID: MB 570-758513/1-A
Matrix: Solid
Analysis Batch: 759585

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 758513

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0		mg/Kg		06/23/26 10:45	06/24/26 23:48	1
C23-C40	ND		25		mg/Kg		06/23/26 10:45	06/24/26 23:48	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	99		29 - 160	06/23/26 10:45	06/24/26 23:48	1

Lab Sample ID: LCS 570-758513/2-A
Matrix: Solid
Analysis Batch: 759585

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 758513

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]			400	403.8		mg/Kg		101	70 - 130		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
n-Octacosane (Surr)	96		29 - 160

Method: 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCSD 570-758513/3-A
Matrix: Solid
Analysis Batch: 759585

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 758513

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]			400	399.7		mg/Kg		100	70 - 130	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
n-Octacosane (Surr)	*94*		*29 - 160*

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 570-757807/1-A
Matrix: Solid
Analysis Batch: 758904

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 757807

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		5.0		ug/Kg		06/22/26 09:48	06/23/26 23:56	1
4,4'-DDE	ND		5.0		ug/Kg		06/22/26 09:48	06/23/26 23:56	1
4,4'-DDT	ND		5.0		ug/Kg		06/22/26 09:48	06/23/26 23:56	1
Aldrin	ND		5.0		ug/Kg		06/22/26 09:48	06/23/26 23:56	1
alpha-BHC	ND		5.0		ug/Kg		06/22/26 09:48	06/23/26 23:56	1
alpha-Chlordane	ND		5.0		ug/Kg		06/22/26 09:48	06/23/26 23:56	1
beta-BHC	ND		5.0		ug/Kg		06/22/26 09:48	06/23/26 23:56	1
Chlordane	ND		25		ug/Kg		06/22/26 09:48	06/23/26 23:56	1
delta-BHC	ND		5.0		ug/Kg		06/22/26 09:48	06/23/26 23:56	1
Dieldrin	ND		5.0		ug/Kg		06/22/26 09:48	06/23/26 23:56	1
Endosulfan I	ND		5.0		ug/Kg		06/22/26 09:48	06/23/26 23:56	1
Endosulfan II	ND		5.0		ug/Kg		06/22/26 09:48	06/23/26 23:56	1
Endosulfan sulfate	ND		5.0		ug/Kg		06/22/26 09:48	06/23/26 23:56	1
Endrin	ND		5.0		ug/Kg		06/22/26 09:48	06/23/26 23:56	1
Endrin aldehyde	ND		5.0		ug/Kg		06/22/26 09:48	06/23/26 23:56	1
Endrin ketone	ND		5.0		ug/Kg		06/22/26 09:48	06/23/26 23:56	1
gamma-Chlordane	ND		5.0		ug/Kg		06/22/26 09:48	06/23/26 23:56	1
gamma-BHC (Lindane)	ND		5.0		ug/Kg		06/22/26 09:48	06/23/26 23:56	1
Heptachlor	ND		5.0		ug/Kg		06/22/26 09:48	06/23/26 23:56	1
Heptachlor epoxide	ND		5.0		ug/Kg		06/22/26 09:48	06/23/26 23:56	1
Methoxychlor	ND		5.0		ug/Kg		06/22/26 09:48	06/23/26 23:56	1
Toxaphene	ND		25		ug/Kg		06/22/26 09:48	06/23/26 23:56	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene (Surr)	*88*		*38 - 148*	*06/22/26 09:48*	*06/23/26 23:56*	*1*
DCB Decachlorobiphenyl (Surr)	*52*		*37 - 151*	*06/22/26 09:48*	*06/23/26 23:56*	*1*

Lab Sample ID: LCS 570-757807/2-A
Matrix: Solid
Analysis Batch: 758904

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 757807

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
4,4'-DDD			25.0	17.47		ug/Kg		70	54 - 154		
4,4'-DDE			25.0	20.25		ug/Kg		81	51 - 149		
4,4'-DDT			25.0	21.32		ug/Kg		85	39 - 152		

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 570-757807/2-A
Matrix: Solid
Analysis Batch: 758904

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 757807

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Aldrin			25.0	20.22		ug/Kg		81	52 - 138		
alpha-BHC			25.0	20.75		ug/Kg		83	51 - 140		
alpha-Chlordane			25.0	19.87		ug/Kg		79	53 - 141		
beta-BHC			25.0	20.37		ug/Kg		81	53 - 141		
delta-BHC			25.0	17.68		ug/Kg		71	20 - 132		
Dieldrin			25.0	20.29		ug/Kg		81	52 - 144		
Endosulfan I			25.0	19.67		ug/Kg		79	49 - 139		
Endosulfan II			25.0	18.38		ug/Kg		74	51 - 150		
Endosulfan sulfate			25.0	17.75		ug/Kg		71	45 - 139		
Endrin			25.0	19.54		ug/Kg		78	53 - 151		
Endrin aldehyde			25.0	16.60		ug/Kg		66	31 - 146		
Endrin ketone			25.0	16.70		ug/Kg		67	51 - 150		
gamma-Chlordane			25.0	19.31		ug/Kg		77	46 - 156		
gamma-BHC (Lindane)			25.0	20.99		ug/Kg		84	53 - 141		
Heptachlor			25.0	20.43		ug/Kg		82	52 - 144		
Heptachlor epoxide			25.0	20.45		ug/Kg		82	54 - 141		
Methoxychlor			25.0	18.87		ug/Kg		75	47 - 148		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene (Surr)	*96*		*38 - 148*
DCB Decachlorobiphenyl (Surr)	*57*		*37 - 151*

Lab Sample ID: LCSD 570-757807/3-A
Matrix: Solid
Analysis Batch: 758904

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 757807

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
4,4'-DDD			25.0	17.28		ug/Kg		69	54 - 154	1	30
4,4'-DDE			25.0	19.82		ug/Kg		79	51 - 149	2	28
4,4'-DDT			25.0	21.26		ug/Kg		85	39 - 152	0	31
Aldrin			25.0	19.76		ug/Kg		79	52 - 138	2	30
alpha-BHC			25.0	20.01		ug/Kg		80	51 - 140	4	29
alpha-Chlordane			25.0	19.45		ug/Kg		78	53 - 141	2	28
beta-BHC			25.0	19.73		ug/Kg		79	53 - 141	3	29
delta-BHC			25.0	17.38		ug/Kg		70	20 - 132	2	40
Dieldrin			25.0	19.89		ug/Kg		80	52 - 144	2	28
Endosulfan I			25.0	19.31		ug/Kg		77	49 - 139	2	28
Endosulfan II			25.0	18.37		ug/Kg		73	51 - 150	0	29
Endosulfan sulfate			25.0	17.95		ug/Kg		72	45 - 139	1	30
Endrin			25.0	19.27		ug/Kg		77	53 - 151	1	29
Endrin aldehyde			25.0	16.57		ug/Kg		66	31 - 146	0	40
Endrin ketone			25.0	16.99		ug/Kg		68	51 - 150	2	30
gamma-Chlordane			25.0	18.83		ug/Kg		75	46 - 156	3	39
gamma-BHC (Lindane)			25.0	20.37		ug/Kg		81	53 - 141	3	29
Heptachlor			25.0	19.96		ug/Kg		80	52 - 144	2	29
Heptachlor epoxide			25.0	19.83		ug/Kg		79	54 - 141	3	29
Methoxychlor			25.0	19.07		ug/Kg		76	47 - 148	1	29

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCSD 570-757807/3-A
Matrix: Solid
Analysis Batch: 758904

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 757807

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Tetrachloro-m-xylene (Surr)	93		38 - 148
DCB Decachlorobiphenyl (Surr)	57		37 - 151

Lab Sample ID: MB 570-758113/1-A
Matrix: Solid
Analysis Batch: 759525

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 758113

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		5.0		ug/Kg		06/22/26 16:43	06/25/26 01:13	1
4,4'-DDE	ND		5.0		ug/Kg		06/22/26 16:43	06/25/26 01:13	1
4,4'-DDT	ND		5.0		ug/Kg		06/22/26 16:43	06/25/26 01:13	1
Aldrin	ND		5.0		ug/Kg		06/22/26 16:43	06/25/26 01:13	1
alpha-BHC	ND		5.0		ug/Kg		06/22/26 16:43	06/25/26 01:13	1
alpha-Chlordane	ND		5.0		ug/Kg		06/22/26 16:43	06/25/26 01:13	1
beta-BHC	ND		5.0		ug/Kg		06/22/26 16:43	06/25/26 01:13	1
Chlordane	ND		25		ug/Kg		06/22/26 16:43	06/25/26 01:13	1
delta-BHC	ND		5.0		ug/Kg		06/22/26 16:43	06/25/26 01:13	1
Dieldrin	ND		5.0		ug/Kg		06/22/26 16:43	06/25/26 01:13	1
Endosulfan I	ND		5.0		ug/Kg		06/22/26 16:43	06/25/26 01:13	1
Endosulfan II	ND		5.0		ug/Kg		06/22/26 16:43	06/25/26 01:13	1
Endosulfan sulfate	ND		5.0		ug/Kg		06/22/26 16:43	06/25/26 01:13	1
Endrin	ND		5.0		ug/Kg		06/22/26 16:43	06/25/26 01:13	1
Endrin aldehyde	ND		5.0		ug/Kg		06/22/26 16:43	06/25/26 01:13	1
Endrin ketone	ND		5.0		ug/Kg		06/22/26 16:43	06/25/26 01:13	1
gamma-Chlordane	ND		5.0		ug/Kg		06/22/26 16:43	06/25/26 01:13	1
gamma-BHC (Lindane)	ND		5.0		ug/Kg		06/22/26 16:43	06/25/26 01:13	1
Heptachlor	ND		5.0		ug/Kg		06/22/26 16:43	06/25/26 01:13	1
Heptachlor epoxide	ND		5.0		ug/Kg		06/22/26 16:43	06/25/26 01:13	1
Methoxychlor	ND		5.0		ug/Kg		06/22/26 16:43	06/25/26 01:13	1
Toxaphene	ND		25		ug/Kg		06/22/26 16:43	06/25/26 01:13	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene (Surr)	95		38 - 148	06/22/26 16:43	06/25/26 01:13	1
DCB Decachlorobiphenyl (Surr)	73		37 - 151	06/22/26 16:43	06/25/26 01:13	1

Lab Sample ID: LCS 570-758113/2-A
Matrix: Solid
Analysis Batch: 759525

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 758113

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
4,4'-DDD			25.0	18.95		ug/Kg		76	54 - 154		
4,4'-DDE			25.0	19.20		ug/Kg		77	51 - 149		
4,4'-DDT			25.0	19.60		ug/Kg		78	39 - 152		
Aldrin			25.0	17.63		ug/Kg		71	52 - 138		
alpha-BHC			25.0	17.05		ug/Kg		68	51 - 140		
alpha-Chlordane			25.0	17.94		ug/Kg		72	53 - 141		
beta-BHC			25.0	17.70		ug/Kg		71	53 - 141		
delta-BHC			25.0	12.99		ug/Kg		52	20 - 132		

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 570-758113/2-A
Matrix: Solid
Analysis Batch: 759525

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 758113

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Dieldrin			25.0	18.67		ug/Kg		75	52 - 144		
Endosulfan I			25.0	18.02		ug/Kg		72	49 - 139		
Endosulfan II			25.0	18.11		ug/Kg		72	51 - 150		
Endosulfan sulfate			25.0	16.55		ug/Kg		66	45 - 139		
Endrin			25.0	18.99		ug/Kg		76	53 - 151		
Endrin aldehyde			25.0	17.73		ug/Kg		71	31 - 146		
Endrin ketone			25.0	15.82		ug/Kg		63	51 - 150		
gamma-Chlordane			25.0	17.41		ug/Kg		70	46 - 156		
gamma-BHC (Lindane)			25.0	18.38		ug/Kg		74	53 - 141		
Heptachlor			25.0	17.79		ug/Kg		71	52 - 144		
Heptachlor epoxide			25.0	17.72		ug/Kg		71	54 - 141		
Methoxychlor			25.0	20.36		ug/Kg		81	47 - 148		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene (Surr)	*86*		*38 - 148*
DCB Decachlorobiphenyl (Surr)	*63*		*37 - 151*

Lab Sample ID: LCSD 570-758113/3-A
Matrix: Solid
Analysis Batch: 759525

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 758113

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
4,4'-DDD			25.0	18.81		ug/Kg		75	54 - 154	1	30
4,4'-DDE			25.0	18.74		ug/Kg		75	51 - 149	2	28
4,4'-DDT			25.0	19.65		ug/Kg		79	39 - 152	0	31
Aldrin			25.0	17.23		ug/Kg		69	52 - 138	2	30
alpha-BHC			25.0	16.65		ug/Kg		67	51 - 140	2	29
alpha-Chlordane			25.0	17.59		ug/Kg		70	53 - 141	2	28
beta-BHC			25.0	16.84		ug/Kg		67	53 - 141	5	29
delta-BHC			25.0	12.82		ug/Kg		51	20 - 132	1	40
Dieldrin			25.0	18.34		ug/Kg		73	52 - 144	2	28
Endosulfan I			25.0	17.51		ug/Kg		70	49 - 139	3	28
Endosulfan II			25.0	17.99		ug/Kg		72	51 - 150	1	29
Endosulfan sulfate			25.0	16.59		ug/Kg		66	45 - 139	0	30
Endrin			25.0	18.83		ug/Kg		75	53 - 151	1	29
Endrin aldehyde			25.0	17.38		ug/Kg		70	31 - 146	2	40
Endrin ketone			25.0	15.99		ug/Kg		64	51 - 150	1	30
gamma-Chlordane			25.0	16.96		ug/Kg		68	46 - 156	3	39
gamma-BHC (Lindane)			25.0	17.97		ug/Kg		72	53 - 141	2	29
Heptachlor			25.0	17.41		ug/Kg		70	52 - 144	2	29
Heptachlor epoxide			25.0	17.24		ug/Kg		69	54 - 141	3	29
Methoxychlor			25.0	20.38		ug/Kg		82	47 - 148	0	29

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Tetrachloro-m-xylene (Surr)	*82*		*38 - 148*
DCB Decachlorobiphenyl (Surr)	*61*		*37 - 151*

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: MB 570-759423/1-A
Matrix: Solid
Analysis Batch: 760748

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 759423

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		5.0		ug/Kg		06/24/26 15:16	06/26/26 22:08	1
4,4'-DDE	ND		5.0		ug/Kg		06/24/26 15:16	06/26/26 22:08	1
4,4'-DDT	ND		5.0		ug/Kg		06/24/26 15:16	06/26/26 22:08	1
Aldrin	ND		5.0		ug/Kg		06/24/26 15:16	06/26/26 22:08	1
alpha-BHC	ND		5.0		ug/Kg		06/24/26 15:16	06/26/26 22:08	1
alpha-Chlordane	ND		5.0		ug/Kg		06/24/26 15:16	06/26/26 22:08	1
beta-BHC	ND		5.0		ug/Kg		06/24/26 15:16	06/26/26 22:08	1
Chlordane	ND		25		ug/Kg		06/24/26 15:16	06/26/26 22:08	1
delta-BHC	ND		5.0		ug/Kg		06/24/26 15:16	06/26/26 22:08	1
Dieldrin	ND		5.0		ug/Kg		06/24/26 15:16	06/26/26 22:08	1
Endosulfan I	ND		5.0		ug/Kg		06/24/26 15:16	06/26/26 22:08	1
Endosulfan II	ND		5.0		ug/Kg		06/24/26 15:16	06/26/26 22:08	1
Endosulfan sulfate	ND		5.0		ug/Kg		06/24/26 15:16	06/26/26 22:08	1
Endrin	ND		5.0		ug/Kg		06/24/26 15:16	06/26/26 22:08	1
Endrin aldehyde	ND		5.0		ug/Kg		06/24/26 15:16	06/26/26 22:08	1
Endrin ketone	ND		5.0		ug/Kg		06/24/26 15:16	06/26/26 22:08	1
gamma-Chlordane	ND		5.0		ug/Kg		06/24/26 15:16	06/26/26 22:08	1
gamma-BHC (Lindane)	ND		5.0		ug/Kg		06/24/26 15:16	06/26/26 22:08	1
Heptachlor	ND		5.0		ug/Kg		06/24/26 15:16	06/26/26 22:08	1
Heptachlor epoxide	ND		5.0		ug/Kg		06/24/26 15:16	06/26/26 22:08	1
Methoxychlor	ND		5.0		ug/Kg		06/24/26 15:16	06/26/26 22:08	1
Toxaphene	ND		25		ug/Kg		06/24/26 15:16	06/26/26 22:08	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene (Surr)	*98*		*38 - 148*	*06/24/26 15:16*	*06/26/26 22:08*	*1*
DCB Decachlorobiphenyl (Surr)	*70*		*37 - 151*	*06/24/26 15:16*	*06/26/26 22:08*	*1*

Lab Sample ID: LCS 570-759423/2-A
Matrix: Solid
Analysis Batch: 760748

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 759423

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
4,4'-DDD			25.0	22.96		ug/Kg		92	54 - 154		
4,4'-DDE			25.0	22.60		ug/Kg		90	51 - 149		
4,4'-DDT			25.0	24.01		ug/Kg		96	39 - 152		
Aldrin			25.0	21.45		ug/Kg		86	52 - 138		
alpha-BHC			25.0	22.38		ug/Kg		90	51 - 140		
alpha-Chlordane			25.0	22.16		ug/Kg		89	53 - 141		
beta-BHC			25.0	21.93		ug/Kg		88	53 - 141		
delta-BHC			25.0	20.07		ug/Kg		80	20 - 132		
Dieldrin			25.0	22.81		ug/Kg		91	52 - 144		
Endosulfan I			25.0	21.62		ug/Kg		86	49 - 139		
Endosulfan II			25.0	22.09		ug/Kg		88	51 - 150		
Endosulfan sulfate			25.0	21.83		ug/Kg		87	45 - 139		
Endrin			25.0	22.36		ug/Kg		89	53 - 151		
Endrin aldehyde			25.0	21.07		ug/Kg		84	31 - 146		
Endrin ketone			25.0	22.71		ug/Kg		91	51 - 150		
gamma-Chlordane			25.0	21.73		ug/Kg		87	46 - 156		

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 570-759423/2-A
Matrix: Solid
Analysis Batch: 760748

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 759423

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
gamma-BHC (Lindane)	25.0	22.87		ug/Kg		91	53 - 141
Heptachlor	25.0	22.36		ug/Kg		89	52 - 144
Heptachlor epoxide	25.0	21.71		ug/Kg		87	54 - 141
Methoxychlor	25.0	22.96		ug/Kg		92	47 - 148

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene (Surr)	*108*		*38 - 148*
DCB Decachlorobiphenyl (Surr)	*77*		*37 - 151*

Lab Sample ID: LCSD 570-759423/3-A
Matrix: Solid
Analysis Batch: 760748

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 759423

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
4,4'-DDD	25.0	19.60		ug/Kg		78	54 - 154	16	30
4,4'-DDE	25.0	19.39		ug/Kg		78	51 - 149	15	28
4,4'-DDT	25.0	20.62		ug/Kg		82	39 - 152	15	31
Aldrin	25.0	18.21		ug/Kg		73	52 - 138	16	30
alpha-BHC	25.0	19.08		ug/Kg		76	51 - 140	16	29
alpha-Chlordane	25.0	18.87		ug/Kg		75	53 - 141	16	28
beta-BHC	25.0	18.97		ug/Kg		76	53 - 141	14	29
delta-BHC	25.0	17.26		ug/Kg		69	20 - 132	15	40
Dieldrin	25.0	19.39		ug/Kg		78	52 - 144	16	28
Endosulfan I	25.0	18.97		ug/Kg		76	49 - 139	13	28
Endosulfan II	25.0	18.85		ug/Kg		75	51 - 150	16	29
Endosulfan sulfate	25.0	18.63		ug/Kg		75	45 - 139	16	30
Endrin	25.0	18.97		ug/Kg		76	53 - 151	16	29
Endrin aldehyde	25.0	18.28		ug/Kg		73	31 - 146	14	40
Endrin ketone	25.0	19.69		ug/Kg		79	51 - 150	14	30
gamma-Chlordane	25.0	18.91		ug/Kg		76	46 - 156	14	39
gamma-BHC (Lindane)	25.0	19.54		ug/Kg		78	53 - 141	16	29
Heptachlor	25.0	19.25		ug/Kg		77	52 - 144	15	29
Heptachlor epoxide	25.0	18.59		ug/Kg		74	54 - 141	15	29
Methoxychlor	25.0	20.00		ug/Kg		80	47 - 148	14	29

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Tetrachloro-m-xylene (Surr)	*91*		*38 - 148*
DCB Decachlorobiphenyl (Surr)	*66*		*37 - 151*

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 570-756078/23-A
Matrix: Solid
Analysis Batch: 756376

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 756078

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		10.1	mg/Kg		06/18/26 06:40	06/18/26 12:09	5
Arsenic	ND		3.02	mg/Kg		06/18/26 06:40	06/18/26 12:09	5

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: MB 570-756078/23-A
Matrix: Solid
Analysis Batch: 756376

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 756078

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Barium	ND		3.02		mg/Kg		06/18/26 06:40	06/18/26 12:09	5
Beryllium	ND		0.503		mg/Kg		06/18/26 06:40	06/18/26 12:09	5
Cadmium	ND		0.503		mg/Kg		06/18/26 06:40	06/18/26 12:09	5
Chromium	ND		1.01		mg/Kg		06/18/26 06:40	06/18/26 12:09	5
Cobalt	ND		1.01		mg/Kg		06/18/26 06:40	06/18/26 12:09	5
Copper	ND		2.01		mg/Kg		06/18/26 06:40	06/18/26 12:09	5
Lead	ND		2.01		mg/Kg		06/18/26 06:40	06/18/26 12:09	5
Molybdenum	ND		2.01		mg/Kg		06/18/26 06:40	06/18/26 12:09	5
Nickel	ND		2.01		mg/Kg		06/18/26 06:40	06/18/26 12:09	5
Selenium	ND		3.02		mg/Kg		06/18/26 06:40	06/18/26 12:09	5
Silver	ND		1.51		mg/Kg		06/18/26 06:40	06/18/26 12:09	5
Thallium	ND		10.1		mg/Kg		06/18/26 06:40	06/18/26 12:09	5
Vanadium	ND		1.01		mg/Kg		06/18/26 06:40	06/18/26 12:09	5
Zinc	ND		5.03		mg/Kg		06/18/26 06:40	06/18/26 12:09	5

Lab Sample ID: LCSD 570-756078/25-A
Matrix: Solid
Analysis Batch: 756376

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 756078

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony			50.3	53.99		mg/Kg		107	80 - 120	7	20
Arsenic			50.3	51.42		mg/Kg		102	80 - 120	5	20
Barium			50.3	50.38		mg/Kg		100	80 - 120	5	20
Beryllium			50.3	49.50		mg/Kg		99	80 - 120	4	20
Cadmium			50.3	50.39		mg/Kg		100	80 - 120	4	20
Chromium			50.3	50.43		mg/Kg		100	80 - 120	4	20
Cobalt			50.3	50.24		mg/Kg		100	80 - 120	4	20
Copper			50.3	50.36		mg/Kg		100	80 - 120	5	20
Lead			50.3	50.46		mg/Kg		100	80 - 120	5	20
Molybdenum			50.3	54.87		mg/Kg		109	80 - 120	5	20
Nickel			50.3	50.85		mg/Kg		101	80 - 120	5	20
Selenium			50.3	46.78		mg/Kg		93	80 - 120	5	20
Silver			25.1	25.09		mg/Kg		100	80 - 120	5	20
Thallium			50.3	45.14		mg/Kg		90	80 - 120	4	20
Vanadium			50.3	50.16		mg/Kg		100	80 - 120	5	20
Zinc			50.3	50.10		mg/Kg		100	80 - 120	4	20

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 570-756653/1-A
Matrix: Solid
Analysis Batch: 756823

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 756653

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0801		mg/Kg		06/19/26 03:32	06/19/26 08:38	1

Method: 7471B - Mercury (CVAA) (Continued)

Lab Sample ID: LCS 570-756653/2-A
Matrix: Solid
Analysis Batch: 756823

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 756653

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.385	0.3210		mg/Kg		83	80 - 120

Lab Sample ID: LCSD 570-756653/3-A
Matrix: Solid
Analysis Batch: 756823

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 756653

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	0.377	0.3117		mg/Kg		83	80 - 120	3	20

GC/MS VOA

Prep Batch: 756233

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-284007-1	B5-13	Total/NA	Solid	5035	
570-284007-2	B4-13	Total/NA	Solid	5035	
570-284007-3	B3-13	Total/NA	Solid	5035	
570-284007-4	B2-3.5	Total/NA	Solid	5035	
570-284007-5	B6-5	Total/NA	Solid	5035	
570-284007-6	B7-3.5	Total/NA	Solid	5035	
570-284007-7	B8-5	Total/NA	Solid	5035	
570-284007-8	B1-5	Total/NA	Solid	5035	

Analysis Batch: 757314

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-284007-1	B5-13	Total/NA	Solid	8260B	756233
570-284007-2	B4-13	Total/NA	Solid	8260B	756233
570-284007-3	B3-13	Total/NA	Solid	8260B	756233
570-284007-4	B2-3.5	Total/NA	Solid	8260B	756233
570-284007-5	B6-5	Total/NA	Solid	8260B	756233
570-284007-6	B7-3.5	Total/NA	Solid	8260B	756233
570-284007-7	B8-5	Total/NA	Solid	8260B	756233
570-284007-8	B1-5	Total/NA	Solid	8260B	756233
MB 570-757314/7	Method Blank	Total/NA	Solid	8260B	
LCS 570-757314/4	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 570-757314/5	Lab Control Sample Dup	Total/NA	Solid	8260B	

GC/MS Semi VOA

Prep Batch: 757832

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-284007-3	B3-13	Total/NA	Solid	3546	
570-284007-4	B2-3.5	Total/NA	Solid	3546	
570-284007-5	B6-5	Total/NA	Solid	3546	
570-284007-6	B7-3.5	Total/NA	Solid	3546	
570-284007-7	B8-5	Total/NA	Solid	3546	
570-284007-8	B1-5	Total/NA	Solid	3546	
MB 570-757832/1-A	Method Blank	Total/NA	Solid	3546	
LCS 570-757832/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 570-757832/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	
570-284007-3 MS	B3-13	Total/NA	Solid	3546	
570-284007-3 MSD	B3-13	Total/NA	Solid	3546	

Prep Batch: 758124

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-284007-2	B4-13	Total/NA	Solid	3546	
MB 570-758124/1-A	Method Blank	Total/NA	Solid	3546	
LCS 570-758124/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 570-758124/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	

Analysis Batch: 758610

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 570-757832/1-A	Method Blank	Total/NA	Solid	8270C	757832
LCSD 570-757832/3-A	Lab Control Sample Dup	Total/NA	Solid	8270C	757832

GC/MS Semi VOA

Analysis Batch: 758753

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 570-757832/2-A	Lab Control Sample	Total/NA	Solid	8270C	757832

Analysis Batch: 759205

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-284007-2	B4-13	Total/NA	Solid	8270C	758124
MB 570-758124/1-A	Method Blank	Total/NA	Solid	8270C	758124
LCS 570-758124/2-A	Lab Control Sample	Total/NA	Solid	8270C	758124
LCSD 570-758124/3-A	Lab Control Sample Dup	Total/NA	Solid	8270C	758124

Analysis Batch: 759208

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-284007-3	B3-13	Total/NA	Solid	8270C	757832
570-284007-4	B2-3.5	Total/NA	Solid	8270C	757832
570-284007-5	B6-5	Total/NA	Solid	8270C	757832
570-284007-6	B7-3.5	Total/NA	Solid	8270C	757832
570-284007-7	B8-5	Total/NA	Solid	8270C	757832
570-284007-8	B1-5	Total/NA	Solid	8270C	757832
570-284007-3 MS	B3-13	Total/NA	Solid	8270C	757832
570-284007-3 MSD	B3-13	Total/NA	Solid	8270C	757832

Prep Batch: 763022

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-284007-1	B5-13	Total/NA	Solid	3546	
MB 570-763022/1-A	Method Blank	Total/NA	Solid	3546	
LCS 570-763022/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 570-763022/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	

Analysis Batch: 765542

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-284007-1	B5-13	Total/NA	Solid	8270C	763022

Analysis Batch: 765626

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 570-763022/1-A	Method Blank	Total/NA	Solid	8270C	763022
LCS 570-763022/2-A	Lab Control Sample	Total/NA	Solid	8270C	763022
LCSD 570-763022/3-A	Lab Control Sample Dup	Total/NA	Solid	8270C	763022

GC VOA

Prep Batch: 756233

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-284007-1	B5-13	Total/NA	Solid	5035	
570-284007-2	B4-13	Total/NA	Solid	5035	
570-284007-3	B3-13	Total/NA	Solid	5035	
570-284007-4	B2-3.5	Total/NA	Solid	5035	
570-284007-5	B6-5	Total/NA	Solid	5035	
570-284007-6	B7-3.5	Total/NA	Solid	5035	
570-284007-7	B8-5	Total/NA	Solid	5035	
570-284007-8	B1-5	Total/NA	Solid	5035	

Client: Stantec Consulting Corporation
Project/Site: Amgen BSD 2042726000

Job ID: 570-284007-1

GC VOA

Analysis Batch: 760310

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-284007-1	B5-13	Total/NA	Solid	8015B	756233
570-284007-2	B4-13	Total/NA	Solid	8015B	756233
570-284007-3	B3-13	Total/NA	Solid	8015B	756233
570-284007-4	B2-3.5	Total/NA	Solid	8015B	756233
570-284007-5	B6-5	Total/NA	Solid	8015B	756233
570-284007-6	B7-3.5	Total/NA	Solid	8015B	756233
570-284007-7	B8-5	Total/NA	Solid	8015B	756233
570-284007-8	B1-5	Total/NA	Solid	8015B	756233
MB 570-760310/33	Method Blank	Total/NA	Solid	8015B	
LCS 570-760310/30	Lab Control Sample	Total/NA	Solid	8015B	
LCSD 570-760310/31	Lab Control Sample Dup	Total/NA	Solid	8015B	

GC Semi VOA

Prep Batch: 756964

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-284007-1	B5-13	Total/NA	Solid	Rotary Shaker	
570-284007-3	B3-13	Total/NA	Solid	Rotary Shaker	
570-284007-4	B2-3.5	Total/NA	Solid	Rotary Shaker	
570-284007-5	B6-5	Total/NA	Solid	Rotary Shaker	
570-284007-6	B7-3.5	Total/NA	Solid	Rotary Shaker	
570-284007-7	B8-5	Total/NA	Solid	Rotary Shaker	
570-284007-8	B1-5	Total/NA	Solid	Rotary Shaker	
MB 570-756964/1-A	Method Blank	Total/NA	Solid	Rotary Shaker	
LCS 570-756964/2-A	Lab Control Sample	Total/NA	Solid	Rotary Shaker	
LCSD 570-756964/3-A	Lab Control Sample Dup	Total/NA	Solid	Rotary Shaker	
570-284007-8 MS	B1-5	Total/NA	Solid	Rotary Shaker	
570-284007-8 MSD	B1-5	Total/NA	Solid	Rotary Shaker	

Analysis Batch: 757463

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-284007-8	B1-5	Total/NA	Solid	8015B	756964
MB 570-756964/1-A	Method Blank	Total/NA	Solid	8015B	756964
LCS 570-756964/2-A	Lab Control Sample	Total/NA	Solid	8015B	756964
LCSD 570-756964/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B	756964
570-284007-8 MS	B1-5	Total/NA	Solid	8015B	756964
570-284007-8 MSD	B1-5	Total/NA	Solid	8015B	756964

Prep Batch: 757807

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-284007-3	B3-13	Total/NA	Solid	3546	
570-284007-4	B2-3.5	Total/NA	Solid	3546	
570-284007-5	B6-5	Total/NA	Solid	3546	
570-284007-6	B7-3.5	Total/NA	Solid	3546	
570-284007-7	B8-5	Total/NA	Solid	3546	
570-284007-8	B1-5	Total/NA	Solid	3546	
MB 570-757807/1-A	Method Blank	Total/NA	Solid	3546	
LCS 570-757807/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 570-757807/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	

GC Semi VOA

Prep Batch: 758113

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-284007-2	B4-13	Total/NA	Solid	3546	
MB 570-758113/1-A	Method Blank	Total/NA	Solid	3546	
LCS 570-758113/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 570-758113/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	

Prep Batch: 758513

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-284007-2	B4-13	Total/NA	Solid	Rotary Shaker	
MB 570-758513/1-A	Method Blank	Total/NA	Solid	Rotary Shaker	
LCS 570-758513/2-A	Lab Control Sample	Total/NA	Solid	Rotary Shaker	
LCSD 570-758513/3-A	Lab Control Sample Dup	Total/NA	Solid	Rotary Shaker	

Analysis Batch: 758904

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 570-757807/1-A	Method Blank	Total/NA	Solid	8081B	757807
LCS 570-757807/2-A	Lab Control Sample	Total/NA	Solid	8081B	757807
LCSD 570-757807/3-A	Lab Control Sample Dup	Total/NA	Solid	8081B	757807

Analysis Batch: 759195

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-284007-1	B5-13	Total/NA	Solid	8015B	756964
570-284007-3	B3-13	Total/NA	Solid	8015B	756964
570-284007-4	B2-3.5	Total/NA	Solid	8015B	756964
570-284007-5	B6-5	Total/NA	Solid	8015B	756964
570-284007-6	B7-3.5	Total/NA	Solid	8015B	756964
570-284007-7	B8-5	Total/NA	Solid	8015B	756964

Prep Batch: 759423

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-284007-1	B5-13	Total/NA	Solid	3546	
MB 570-759423/1-A	Method Blank	Total/NA	Solid	3546	
LCS 570-759423/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 570-759423/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	

Analysis Batch: 759525

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-284007-2	B4-13	Total/NA	Solid	8081B	758113
MB 570-758113/1-A	Method Blank	Total/NA	Solid	8081B	758113
LCS 570-758113/2-A	Lab Control Sample	Total/NA	Solid	8081B	758113
LCSD 570-758113/3-A	Lab Control Sample Dup	Total/NA	Solid	8081B	758113

Analysis Batch: 759532

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-284007-3	B3-13	Total/NA	Solid	8081B	757807
570-284007-4	B2-3.5	Total/NA	Solid	8081B	757807
570-284007-6	B7-3.5	Total/NA	Solid	8081B	757807
570-284007-7	B8-5	Total/NA	Solid	8081B	757807

Analysis Batch: 759585

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-284007-2	B4-13	Total/NA	Solid	8015B	758513

GC Semi VOA (Continued)

Analysis Batch: 759585 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 570-758513/1-A	Method Blank	Total/NA	Solid	8015B	758513
LCS 570-758513/2-A	Lab Control Sample	Total/NA	Solid	8015B	758513
LCSD 570-758513/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B	758513

Analysis Batch: 760264

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-284007-5	B6-5	Total/NA	Solid	8081B	757807
570-284007-8	B1-5	Total/NA	Solid	8081B	757807

Analysis Batch: 760748

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-284007-1	B5-13	Total/NA	Solid	8081B	759423
MB 570-759423/1-A	Method Blank	Total/NA	Solid	8081B	759423
LCS 570-759423/2-A	Lab Control Sample	Total/NA	Solid	8081B	759423
LCSD 570-759423/3-A	Lab Control Sample Dup	Total/NA	Solid	8081B	759423

Metals

Prep Batch: 756078

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-284007-1	B5-13	Total/NA	Solid	3050B	
570-284007-2	B4-13	Total/NA	Solid	3050B	
570-284007-3	B3-13	Total/NA	Solid	3050B	
570-284007-4	B2-3.5	Total/NA	Solid	3050B	
570-284007-5	B6-5	Total/NA	Solid	3050B	
570-284007-6	B7-3.5	Total/NA	Solid	3050B	
570-284007-7	B8-5	Total/NA	Solid	3050B	
570-284007-8	B1-5	Total/NA	Solid	3050B	
MB 570-756078/23-A	Method Blank	Total/NA	Solid	3050B	
LCSD 570-756078/25-A	Lab Control Sample Dup	Total/NA	Solid	3050B	

Analysis Batch: 756376

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-284007-1	B5-13	Total/NA	Solid	6010B	756078
570-284007-2	B4-13	Total/NA	Solid	6010B	756078
570-284007-3	B3-13	Total/NA	Solid	6010B	756078
570-284007-4	B2-3.5	Total/NA	Solid	6010B	756078
570-284007-5	B6-5	Total/NA	Solid	6010B	756078
570-284007-6	B7-3.5	Total/NA	Solid	6010B	756078
570-284007-7	B8-5	Total/NA	Solid	6010B	756078
570-284007-8	B1-5	Total/NA	Solid	6010B	756078
MB 570-756078/23-A	Method Blank	Total/NA	Solid	6010B	756078
LCSD 570-756078/25-A	Lab Control Sample Dup	Total/NA	Solid	6010B	756078

Prep Batch: 756653

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-284007-1	B5-13	Total/NA	Solid	7471B	
570-284007-2	B4-13	Total/NA	Solid	7471B	
570-284007-3	B3-13	Total/NA	Solid	7471B	
570-284007-4	B2-3.5	Total/NA	Solid	7471B	
570-284007-5	B6-5	Total/NA	Solid	7471B	

Metals (Continued)

Prep Batch: 756653 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-284007-6	B7-3.5	Total/NA	Solid	7471B	
570-284007-7	B8-5	Total/NA	Solid	7471B	
570-284007-8	B1-5	Total/NA	Solid	7471B	
MB 570-756653/1-A	Method Blank	Total/NA	Solid	7471B	
LCS 570-756653/2-A	Lab Control Sample	Total/NA	Solid	7471B	
LCSD 570-756653/3-A	Lab Control Sample Dup	Total/NA	Solid	7471B	

Analysis Batch: 756823

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-284007-1	B5-13	Total/NA	Solid	7471B	756653
570-284007-2	B4-13	Total/NA	Solid	7471B	756653
570-284007-3	B3-13	Total/NA	Solid	7471B	756653
570-284007-4	B2-3.5	Total/NA	Solid	7471B	756653
570-284007-5	B6-5	Total/NA	Solid	7471B	756653
570-284007-6	B7-3.5	Total/NA	Solid	7471B	756653
570-284007-7	B8-5	Total/NA	Solid	7471B	756653
570-284007-8	B1-5	Total/NA	Solid	7471B	756653
MB 570-756653/1-A	Method Blank	Total/NA	Solid	7471B	756653
LCS 570-756653/2-A	Lab Control Sample	Total/NA	Solid	7471B	756653
LCSD 570-756653/3-A	Lab Control Sample Dup	Total/NA	Solid	7471B	756653

Lab Chronicle

Client: Stantec Consulting Corporation
Project/Site: Amgen BSD 2042726000

Job ID: 570-284007-1

Client Sample ID: B5-13

Date Collected: 06/15/26 08:00
Date Received: 06/16/26 18:00

Lab Sample ID: 570-284007-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.894 g	5 mL	756233	06/18/26 10:25	X7LQ	EET CAL 4
Total/NA	Analysis	8260B		1	5 g	5 mL	757314	06/20/26 12:49	W4LC	EET CAL 4
	Instrument ID: GCMSQQ									
Total/NA	Prep	3546			20.18 g	2 mL	763022	07/01/26 17:45	C5G3	EET CAL 4
Total/NA	Analysis	8270C		1	1 mL	1 mL	765542	07/08/26 06:32	PQS1	EET CAL 4
	Instrument ID: GCMSCCC									
Total/NA	Prep	5035			5.168 g	5 mL	756233	06/18/26 10:25	X7LQ	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	760310	06/26/26 05:42	YD9V	EET CAL 4
	Instrument ID: GC74									
Total/NA	Prep	Rotary Shaker			10.00 g	10 mL	756964	06/19/26 13:42	4UXL	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	759195	06/24/26 19:31	H6FE	EET CAL 4
	Instrument ID: GC50A									
Total/NA	Prep	3546			20.32 g	10 mL	759423	06/25/26 15:02	XG8M	EET CAL 4
Total/NA	Analysis	8081B		1	1 mL	1 mL	760748	06/26/26 22:55	N5Y3	EET CAL 4
	Instrument ID: GC54A									
Total/NA	Prep	3050B			1.97 g	50 mL	756078	06/18/26 06:40	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			756376	06/18/26 13:19	VZ0K	EET CAL 4
	Instrument ID: ICP10									
Total/NA	Prep	7471B			0.50 g	50 mL	756653	06/19/26 03:32	VCN7	EET CAL 4
Total/NA	Analysis	7471B		1			756823	06/19/26 09:04	JP8N	EET CAL 4
	Instrument ID: HG7									

Client Sample ID: B4-13

Date Collected: 06/15/26 08:45
Date Received: 06/16/26 18:00

Lab Sample ID: 570-284007-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.704 g	5 mL	756233	06/18/26 10:25	X7LQ	EET CAL 4
Total/NA	Analysis	8260B		1	5 g	5 mL	757314	06/20/26 13:10	W4LC	EET CAL 4
	Instrument ID: GCMSQQ									
Total/NA	Prep	3546			20.00 g	2 mL	758124	06/23/26 14:15	C5G3	EET CAL 4
Total/NA	Analysis	8270C		1	1 mL	1 mL	759205	06/24/26 21:46	PQS1	EET CAL 4
	Instrument ID: GCMSCCC									
Total/NA	Prep	5035			5.254 g	5 mL	756233	06/18/26 10:25	X7LQ	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	760310	06/26/26 06:05	YD9V	EET CAL 4
	Instrument ID: GC74									
Total/NA	Prep	Rotary Shaker			10.25 g	10 mL	758513	06/23/26 13:33	4UXL	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	759585	06/25/26 01:56	H6FE	EET CAL 4
	Instrument ID: GC50B									
Total/NA	Prep	3546			20.1 g	10 mL	758113	06/23/26 13:59	C5G3	EET CAL 4
Total/NA	Analysis	8081B		1	1 mL	1 mL	759525	06/25/26 04:10	N5Y3	EET CAL 4
	Instrument ID: GC52A									
Total/NA	Prep	3050B			1.99 g	50 mL	756078	06/18/26 06:40	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			756376	06/18/26 13:22	VZ0K	EET CAL 4
	Instrument ID: ICP10									

Lab Chronicle

Client: Stantec Consulting Corporation
Project/Site: Amgen BSD 2042726000

Job ID: 570-284007-1

Client Sample ID: B4-13

Date Collected: 06/15/26 08:45
Date Received: 06/16/26 18:00

Lab Sample ID: 570-284007-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7471B			0.47 g	50 mL	756653	06/19/26 03:32	VCN7	EET CAL 4
Total/NA	Analysis	7471B		1			756823	06/19/26 09:06	JP8N	EET CAL 4
	Instrument ID: HG7									

Client Sample ID: B3-13

Date Collected: 06/15/26 09:25
Date Received: 06/16/26 18:00

Lab Sample ID: 570-284007-3

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.803 g	5 mL	756233	06/18/26 10:25	X7LQ	EET CAL 4
Total/NA	Analysis	8260B		1	5 g	5 mL	757314	06/20/26 13:31	W4LC	EET CAL 4
	Instrument ID: GCMSQQ									
Total/NA	Prep	3546			20.1 g	2 mL	757832	06/22/26 10:21	C5G3	EET CAL 4
Total/NA	Analysis	8270C		1	1 mL	1 mL	759208	06/24/26 19:29	PQS1	EET CAL 4
	Instrument ID: GCMSSS									
Total/NA	Prep	5035			5.082 g	5 mL	756233	06/18/26 10:25	X7LQ	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	760310	06/26/26 06:29	YD9V	EET CAL 4
	Instrument ID: GC74									
Total/NA	Prep	Rotary Shaker			10.00 g	10 mL	756964	06/19/26 13:42	4UXL	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	759195	06/24/26 19:53	H6FE	EET CAL 4
	Instrument ID: GC50A									
Total/NA	Prep	3546			20.14 g	10 mL	757807	06/22/26 09:49	C5G3	EET CAL 4
Total/NA	Analysis	8081B		1	1 mL	1 mL	759532	06/25/26 02:19	N5Y3	EET CAL 4
	Instrument ID: GC51									
Total/NA	Prep	3050B			1.97 g	50 mL	756078	06/18/26 06:40	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			756376	06/18/26 13:24	VZ0K	EET CAL 4
	Instrument ID: ICP10									
Total/NA	Prep	7471B			0.47 g	50 mL	756653	06/19/26 03:32	VCN7	EET CAL 4
Total/NA	Analysis	7471B		1			756823	06/19/26 09:12	JP8N	EET CAL 4
	Instrument ID: HG7									

Client Sample ID: B2-3.5

Date Collected: 06/15/26 10:15
Date Received: 06/16/26 18:00

Lab Sample ID: 570-284007-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3.998 g	5 mL	756233	06/18/26 10:25	X7LQ	EET CAL 4
Total/NA	Analysis	8260B		1	5 g	5 mL	757314	06/20/26 19:25	W4LC	EET CAL 4
	Instrument ID: GCMSQQ									
Total/NA	Prep	3546			20.3 g	2 mL	757832	06/22/26 10:21	C5G3	EET CAL 4
Total/NA	Analysis	8270C		20	1 mL	1 mL	759208	06/24/26 20:17	PQS1	EET CAL 4
	Instrument ID: GCMSSS									
Total/NA	Prep	5035			4.99 g	5 mL	756233	06/18/26 10:25	X7LQ	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	760310	06/26/26 07:15	YD9V	EET CAL 4
	Instrument ID: GC74									

Lab Chronicle

Client: Stantec Consulting Corporation
Project/Site: Amgen BSD 2042726000

Job ID: 570-284007-1

Client Sample ID: B2-3.5

Lab Sample ID: 570-284007-4

Date Collected: 06/15/26 10:15

Matrix: Solid

Date Received: 06/16/26 18:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Rotary Shaker			10.41 g	10 mL	756964	06/19/26 13:42	4UXL	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	759195	06/24/26 20:14	H6FE	EET CAL 4
	Instrument ID: GC50A									
Total/NA	Prep	3546			20.07 g	10 mL	757807	06/22/26 09:49	C5G3	EET CAL 4
Total/NA	Analysis	8081B		1	1 mL	1 mL	759532	06/25/26 02:33	N5Y3	EET CAL 4
	Instrument ID: GC51									
Total/NA	Prep	3050B			2.02 g	50 mL	756078	06/18/26 06:40	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			756376	06/18/26 13:26	VZ0K	EET CAL 4
	Instrument ID: ICP10									
Total/NA	Prep	7471B			0.53 g	50 mL	756653	06/19/26 03:32	VCN7	EET CAL 4
Total/NA	Analysis	7471B		1			756823	06/19/26 09:14	JP8N	EET CAL 4
	Instrument ID: HG7									

Client Sample ID: B6-5

Lab Sample ID: 570-284007-5

Date Collected: 06/15/26 11:50

Matrix: Solid

Date Received: 06/16/26 18:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			7.202 g	5 mL	756233	06/18/26 10:25	X7LQ	EET CAL 4
Total/NA	Analysis	8260B		1	5 g	5 mL	757314	06/20/26 13:52	W4LC	EET CAL 4
	Instrument ID: GCMSQQ									
Total/NA	Prep	3546			20.2 g	2 mL	757832	06/22/26 10:21	C5G3	EET CAL 4
Total/NA	Analysis	8270C		1	1 mL	1 mL	759208	06/24/26 20:42	PQS1	EET CAL 4
	Instrument ID: GCMSSS									
Total/NA	Prep	5035			6.828 g	5 mL	756233	06/18/26 10:25	X7LQ	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	760310	06/26/26 07:39	YD9V	EET CAL 4
	Instrument ID: GC74									
Total/NA	Prep	Rotary Shaker			10.33 g	10 mL	756964	06/19/26 13:42	4UXL	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	759195	06/24/26 20:36	H6FE	EET CAL 4
	Instrument ID: GC50A									
Total/NA	Prep	3546			20.37 g	10 mL	757807	06/22/26 09:49	C5G3	EET CAL 4
Total/NA	Analysis	8081B		1	1 mL	1 mL	760264	06/26/26 18:38	N5Y3	EET CAL 4
	Instrument ID: GC51									
Total/NA	Prep	3050B			2.00 g	50 mL	756078	06/18/26 06:40	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			756376	06/18/26 13:29	VZ0K	EET CAL 4
	Instrument ID: ICP10									
Total/NA	Prep	7471B			0.53 g	50 mL	756653	06/19/26 03:32	VCN7	EET CAL 4
Total/NA	Analysis	7471B		1			756823	06/19/26 09:16	JP8N	EET CAL 4
	Instrument ID: HG7									

Client Sample ID: B7-3.5

Lab Sample ID: 570-284007-6

Date Collected: 06/15/26 12:00

Matrix: Solid

Date Received: 06/16/26 18:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			6.672 g	5 mL	756233	06/18/26 10:25	X7LQ	EET CAL 4
Total/NA	Analysis	8260B		1	5 g	5 mL	757314	06/20/26 14:13	W4LC	EET CAL 4
	Instrument ID: GCMSQQ									
Total/NA	Prep	3546			20.3 g	2 mL	757832	06/22/26 10:21	C5G3	EET CAL 4
Total/NA	Analysis	8270C		1	1 mL	1 mL	759208	06/24/26 21:06	PQS1	EET CAL 4
	Instrument ID: GCMSSS									
Total/NA	Prep	5035			7.665 g	5 mL	756233	06/18/26 10:25	X7LQ	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	760310	06/26/26 08:02	YD9V	EET CAL 4
	Instrument ID: GC74									
Total/NA	Prep	Rotary Shaker			10.01 g	10 mL	756964	06/19/26 13:42	4UXL	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	759195	06/24/26 20:57	H6FE	EET CAL 4
	Instrument ID: GC50A									
Total/NA	Prep	3546			20.10 g	10 mL	757807	06/22/26 09:49	C5G3	EET CAL 4
Total/NA	Analysis	8081B		1	1 mL	1 mL	759532	06/25/26 03:01	N5Y3	EET CAL 4
	Instrument ID: GC51									
Total/NA	Prep	3050B			2.00 g	50 mL	756078	06/18/26 06:40	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			756376	06/18/26 13:31	VZ0K	EET CAL 4
	Instrument ID: ICP10									
Total/NA	Prep	7471B			0.51 g	50 mL	756653	06/19/26 03:32	VCN7	EET CAL 4
Total/NA	Analysis	7471B		1			756823	06/19/26 09:17	JP8N	EET CAL 4
	Instrument ID: HG7									

Client Sample ID: B8-5

Lab Sample ID: 570-284007-7

Date Collected: 06/15/26 12:20

Matrix: Solid

Date Received: 06/16/26 18:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.224 g	5 mL	756233	06/18/26 10:25	X7LQ	EET CAL 4
Total/NA	Analysis	8260B		1	5 g	5 mL	757314	06/20/26 14:34	W4LC	EET CAL 4
	Instrument ID: GCMSQQ									
Total/NA	Prep	3546			20.3 g	2 mL	757832	06/22/26 10:22	C5G3	EET CAL 4
Total/NA	Analysis	8270C		5	1 mL	1 mL	759208	06/24/26 21:30	PQS1	EET CAL 4
	Instrument ID: GCMSSS									
Total/NA	Prep	5035			5.203 g	5 mL	756233	06/18/26 10:25	X7LQ	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	760310	06/26/26 08:26	YD9V	EET CAL 4
	Instrument ID: GC74									
Total/NA	Prep	Rotary Shaker			10.00 g	10 mL	756964	06/19/26 13:42	4UXL	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	759195	06/24/26 21:19	H6FE	EET CAL 4
	Instrument ID: GC50A									
Total/NA	Prep	3546			20.30 g	10 mL	757807	06/22/26 09:55	C5G3	EET CAL 4
Total/NA	Analysis	8081B		1	1 mL	1 mL	759532	06/25/26 03:15	N5Y3	EET CAL 4
	Instrument ID: GC51									
Total/NA	Prep	3050B			1.97 g	50 mL	756078	06/18/26 06:40	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			756376	06/18/26 13:33	VZ0K	EET CAL 4
	Instrument ID: ICP10									

Lab Chronicle

Client: Stantec Consulting Corporation
Project/Site: Amgen BSD 2042726000

Job ID: 570-284007-1

Client Sample ID: B8-5

Lab Sample ID: 570-284007-7

Date Collected: 06/15/26 12:20

Matrix: Solid

Date Received: 06/16/26 18:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7471B			0.48 g	50 mL	756653	06/19/26 03:32	VCN7	EET CAL 4
Total/NA	Analysis	7471B		1			756823	06/19/26 10:23	JP8N	EET CAL 4
	Instrument ID: HG7									

Client Sample ID: B1-5

Lab Sample ID: 570-284007-8

Date Collected: 06/15/26 11:00

Matrix: Solid

Date Received: 06/16/26 18:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			6.033 g	5 mL	756233	06/18/26 10:25	X7LQ	EET CAL 4
Total/NA	Analysis	8260B		1	5 g	5 mL	757314	06/20/26 14:55	W4LC	EET CAL 4
	Instrument ID: GCMSQQ									
Total/NA	Prep	3546			20.0 g	2 mL	757832	06/22/26 10:22	C5G3	EET CAL 4
Total/NA	Analysis	8270C		5	1 mL	1 mL	759208	06/24/26 21:54	PQS1	EET CAL 4
	Instrument ID: GCMSSS									
Total/NA	Prep	5035			5.274 g	5 mL	756233	06/18/26 10:25	X7LQ	EET CAL 4
Total/NA	Analysis	8015B		1	5 g	5 mL	760310	06/26/26 08:49	YD9V	EET CAL 4
	Instrument ID: GC74									
Total/NA	Prep	Rotary Shaker			10.20 g	10 mL	756964	06/19/26 13:42	4UXL	EET CAL 4
Total/NA	Analysis	8015B		1	10 mL	10 mL	757463	06/21/26 04:36	H6FE	EET CAL 4
	Instrument ID: GC50A									
Total/NA	Prep	3546			20.09 g	10 mL	757807	06/22/26 09:55	C5G3	EET CAL 4
Total/NA	Analysis	8081B		1	1 mL	1 mL	760264	06/26/26 18:52	N5Y3	EET CAL 4
	Instrument ID: GC51									
Total/NA	Prep	3050B			1.97 g	50 mL	756078	06/18/26 06:40	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			756376	06/18/26 13:36	VZ0K	EET CAL 4
	Instrument ID: ICP10									
Total/NA	Prep	7471B			0.47 g	50 mL	756653	06/19/26 03:32	VCN7	EET CAL 4
Total/NA	Analysis	7471B		1			756823	06/19/26 09:21	JP8N	EET CAL 4
	Instrument ID: HG7									

Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

Accreditation/Certification Summary

Client: Stantec Consulting Corporation
Project/Site: Amgen BSD 2042726000

Job ID: 570-284007-1

Laboratory: Eurofins Calscience

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
California	State	3082	07-31-26

The following analytes are included in this report, but the laboratory is not certified by California State 3082. This list may include analytes for which the agency does not offer certification:

Analysis Method	Prep Method	Matrix	Analyte
8081B	3546	Solid	alpha-Chlordane
8081B	3546	Solid	gamma-Chlordane
8260B	5035	Solid	1,1,2-Trichloro-1,2,2-trifluoroethane
8260B	5035	Solid	1,1-Dichloropropene
8260B	5035	Solid	1,2,3-Trichlorobenzene
8260B	5035	Solid	1,2,4-Trimethylbenzene
8260B	5035	Solid	1,3,5-Trimethylbenzene
8260B	5035	Solid	1,3-Dichloropropane
8260B	5035	Solid	2,2-Dichloropropane
8260B	5035	Solid	2-Butanone (MEK)
8260B	5035	Solid	2-Chlorotoluene
8260B	5035	Solid	2-Hexanone
8260B	5035	Solid	Acetone
8260B	5035	Solid	Ethanol
8260B	5035	Solid	Isopropylbenzene
8260B	5035	Solid	p-Isopropyltoluene
8260B	5035	Solid	Vinyl acetate
8270C	3546	Solid	1,2,4-Trichlorobenzene
8270C	3546	Solid	1-Methylnaphthalene
8270C	3546	Solid	2,2'-oxybis[1-chloropropane]
8270C	3546	Solid	2,4,5-Trichlorophenol
8270C	3546	Solid	2,4,6-Trichlorophenol
8270C	3546	Solid	2-Methylphenol
8270C	3546	Solid	3/4-Methylphenol
8270C	3546	Solid	4,6-Dinitro-2-methylphenol
8270C	3546	Solid	Azobenzene
8270C	3546	Solid	Hexachloro-1,3-butadiene
8270C	3546	Solid	Hexachlorobenzene
8270C	3546	Solid	Hexachlorocyclopentadiene
8270C	3546	Solid	Hexachloroethane
8270C	3546	Solid	Phenol
8270C	3546	Solid	Pyrene
8270C	3546	Solid	Pyridine

Oregon	NELAP	4175	02-02-27

Method Summary

Client: Stantec Consulting Corporation
Project/Site: Amgen BSD 2042726000

Job ID: 570-284007-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	EET CAL 4
8270C	Semivolatile Organic Compounds (GC/MS)	SW846	EET CAL 4
8015B	Gasoline Range Organics - (GC)	SW846	EET CAL 4
8015B	Diesel Range Organics (DRO) (GC)	SW846	EET CAL 4
8081B	Organochlorine Pesticides (GC)	SW846	EET CAL 4
6010B	Metals (ICP)	SW846	EET CAL 4
7471B	Mercury (CVAA)	SW846	EET CAL 4
3050B	Preparation, Metals	SW846	EET CAL 4
3546	Microwave Extraction	SW846	EET CAL 4
5035	Closed System Purge and Trap	SW846	EET CAL 4
7471B	Preparation, Mercury	SW846	EET CAL 4
Rotary Shaker	Rotary Shaker Extraction	None	EET CAL 4

Protocol References:

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

Sample Summary

Client: Stantec Consulting Corporation
Project/Site: Amgen BSD 2042726000

Job ID: 570-284007-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
570-284007-1	B5-13	Solid	06/15/26 08:00	06/16/26 18:00	California
570-284007-2	B4-13	Solid	06/15/26 08:45	06/16/26 18:00	California
570-284007-3	B3-13	Solid	06/15/26 09:25	06/16/26 18:00	California
570-284007-4	B2-3.5	Solid	06/15/26 10:15	06/16/26 18:00	California
570-284007-5	B6-5	Solid	06/15/26 11:50	06/16/26 18:00	California
570-284007-6	B7-3.5	Solid	06/15/26 12:00	06/16/26 18:00	California
570-284007-7	B8-5	Solid	06/15/26 12:20	06/16/26 18:00	California
570-284007-8	B1-5	Solid	06/15/26 11:00	06/16/26 18:00	California

Loc: 570
284007

Eurofins-VENTURA

Stantec STANTEC CHAIN-OF-CUSTODY RECORD

COC # _____
Page 1 of 1

FIELD OFFICE INFORMATION
OFFICE: Stantec - Ventura
Send Report to:
Stantec
4572 Telephone Road, Suite 916
Ventura, California 93003
Telephone: 805-754-0863
E-Mail: kristy-edblad@stantec.com

PROJECT INFORMATION
Project No.: 2042726000 Task:
Project Name: Amgen B50
Project Manager: L. Edblad
Laboratory: Eurofins

ANALYSES / METHOD REQUEST

	Sample No./ Identification	SAMPLE Date	SAMPLE Time	SAMPLE Matrix*	Container & Size**	Preservative	Number of Containers	VOCs (8260B/5035)	TPH (8015M)	Title 22 Metals	SVOCs (8270)	OCPs (8081B)				
1	B5-13	6/15/26	0800	soil	5 VOA 1S		6	X	X	X	X	X				
2	B4-13	6/15/26	0845	Soil	5 VOA 1J		6	X	X	X	X	X				
3	B3-13	6/15/26	0925	↓	↓		6	X	X	X	X	X				
4	B2-3.5	6/15/26	1015	↓	↓		6	X	X	X	X	X				
5	B6-5	6/15/26	1150	↓	↓		6	X	X	X	X	X				
6	B7-3.5	6/15/26	1200	↓	↓		6	X	X	X	X	X				
7	B8-5	6/15/26	1220	↓	↓		6	X	X	X	X	X				
8	B1-5	6/15/26	11:00	↓	↓		6	X	X	X	X	X				

REMARKS/ PRECAUTIONS

TAT: ☒ Normal ☐ Rush ☐ Other:

REPORTING REQUIREMENTS: ☐ MB & SURGS ☐ Dup/MS/MSD ☐ Raw Data ☐ EDD ☐ CLP Rpt ☐ Other

Title 22 metals by 6010B + 7471A test methods

Please also report results to Tom Stanley: Tom.Stanley@stantec.com

570-284007 Chain of Custody

Possible Hazard Identification: ☒ Non-Haz ☐ Flammable ☐ Skin ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return to Client ☒ Disposal by Lab ☐ Archive for ___ months

Aqueous Samples for Metals Analysis: ☐ Filtered ☐ Lab to filter & preserve

Sampled by: T. Stanley + N Yehle Shipment Method: Airbill Number:

	Signature	Print Name	Company	Date	Time
1(a) Relinquished by:	T Stanley	Tom Stanley	Stantec	6/15/26	13:20
1(b) Received by:	[signature]	Daniel Begalla	Eurofins	06/15/26	13:20
2(a) Relinquished by:	[signature]	Daniel Begalla	Eurofins	06/16/26	
2(b) Received by:	[signature]	Victor Murillo	EC	06/16/26	1300
3(a) Relinquished by:	[signature]	Victor Murillo	EC	06/16/26	1800
3(b) Received by:	[signature]	Bruno F.	EC	6-16-26	1800

1.9/1.9 IR8

*Matrix Key: AQ = Aqueous AR = Air SO = Soil WA = Waste OT = Other **Container: A = Amber C = Clear Glass V = VOA S = Soil Jar O = Orbo T = Tedlar B = Brass P = Plastic OT = Other

UJ6P

Login Sample Receipt Checklist

Client: Stantec Consulting Corporation

Job Number: 570-284007-1

Login Number: 284007

List Source: Eurofins Calscience

List Number: 1

Creator: Chapman, Allyson

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

This receipt checklist is generated for all samples received in this Login. It may not be applicable to all Jobs associated with this Login.

Appendix I

Hydrology and Drainage

Appendix I.1

Preliminary Drainage Report and Stormwater Quality Analysis

BUILDING 50
701 PAULING DRIVE.
CITY OF THOUSAND OAKS,
COUNTY OF VENTURA, CA

DP 2026-70002

PRELIMINARY DRAINAGE REPORT AND STORMWATER QUALITY ANALYSIS

Prepared For:
Amgen Inc.
1 Amgen Center Drive
Thousand Oaks, County of Ventura
California, USA 91320

Prepared By:
Sarah Lund, EIT
Reviewed By:
Lusine Nidelian, Shawn Blanton, PE

Stantec Consulting Services, Inc.
300 North Lake Avenue, Suite 1080
Pasadena, CA 91101-4169

July 20, 2026

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Proposed Conditions Hydrology/LID Map

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Appendix IV
Detention System Sizing Details

Appendix V
Soils Infiltration Letter

INTRODUCTION

The purpose of the following report is to provide hydrology analysis and storm water quality analysis for the planned construction of the new Building 50 on Amgen's Thousand Oaks Campus. The project is located at 701 Pauling Dr, Thousand Oaks, CA 91320.

This report will outline the runoff calculations using the City of Thousand Oaks Master Hydrology Study (October 2006) prepared by Kasraie Consulting for the City of Thousand Oaks.

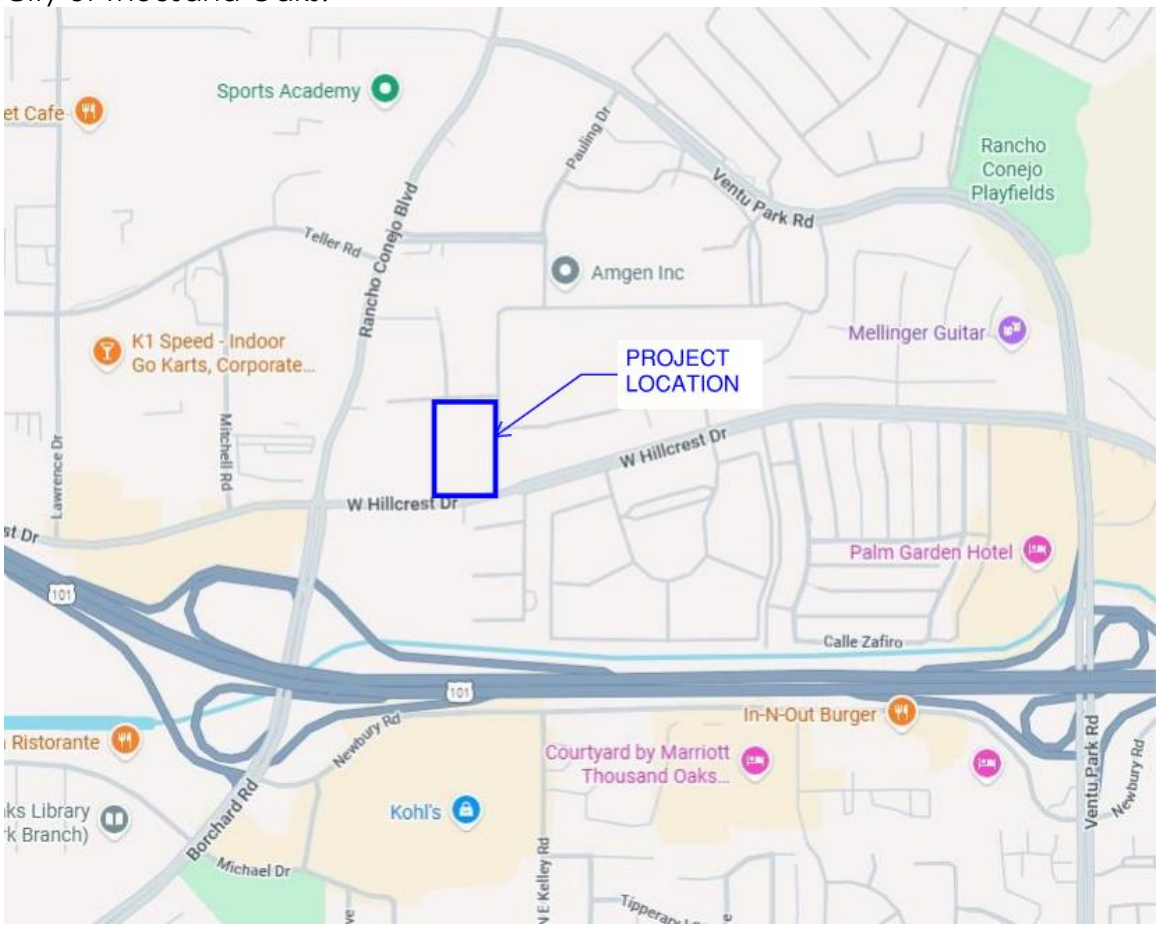


Figure 1.1 – *Project Location*

DRAINAGE DESIGN CONCEPT

The existing and proposed conditions project site are represented by four watersheds, Catchment areas 1A, 1B, 1C, and 1D. The drainage maps showing the pre and post conditions can be found in Appendix II.

The total project site is approximately 4.58 acres. In the existing condition, the north easterly side of the site, watershed 1A, drains north to the existing

underground detention system per Project No. DP 98-748 located north of the existing building. The southern side of the site, Watershed 1B, a portion drains south to the south of the site via private storm drain system per SUP 90-773 plan, and outlets through a curb drain to Hillcrest Drive. The west portion, 1C, including the existing Building 29 driveway access, connects to the existing Building 29 storm drain system. The existing easterly driveway drains towards north of the ramp where the existing trench drain and gets captured by the building's plumbing, where the storm water gets pumped out and drained via private storm drain system per SUP 90-773 plan, with connects to the existing storm drain system of tract 3976 per construction drawings 84-038A.

In the proposed condition, the stormwater runoff flow will follow the site's existing drainage pattern with the same number of watershed areas as the existing. The proposed drainage system concept will provide biofiltration planters to meet the low impact development (LID) requirements before discharging offsite. Stormwater detention will be provided on-site through the ponding depths of the multiple biofiltration planters. The project will remain connected to an existing detention system on the northerly side that addresses the larger footprint of the campus which includes the northerly portion of existing Building 14.

Proposed water quality mitigations will be per the Ventura County Technical Guidance Manual for Stormwater Quality Control Measures (July, 2025).

METHODOLOGY

HYDROLOGIC METHODOLGY

The post development flow rates were calculated using the City of Thousand Oaks Master Hydrology Study, October 2006, prepared by Kasraie Consulting for the City of Thousand Oaks. The project site is in the 648B watershed boundary, the flow rates were calculated using the factors provided in the Hydrology Plate #5. The flow rate factors used in the analysis are: Q_{10} is 2.32 cfs/acre and Q_{100} is 3.72 cfs/acre. See Figure 1.2 and Appendix I for further details.

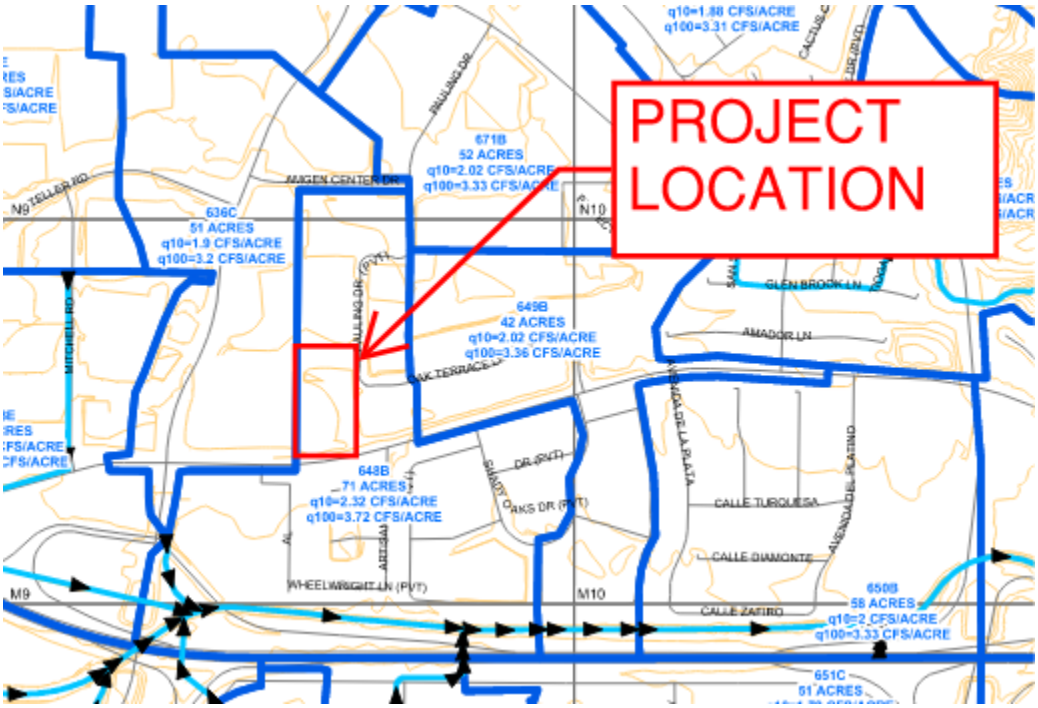


Figure 2.1 – *Project Location, Segment of Hydrology Plate #5*

The following guidelines/assumptions were applied in use of the LID calculations:

The project area is located in Flood Zone 3 and in K Rainfall Intensity Zone which was obtained from the Design Hydrology Manual. The soil type was determined using the shapefile to be soils type 2. Refer to Figures 2.1-2.3 below.

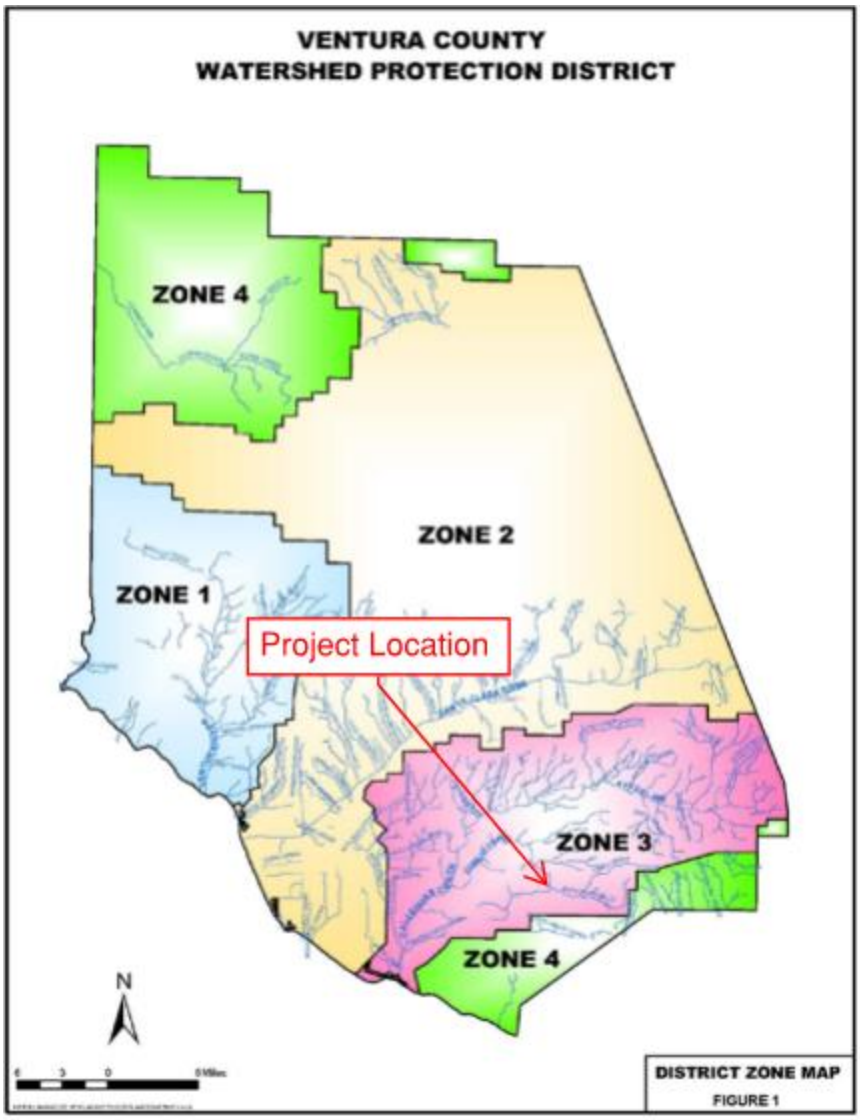


Figure 2.2 – *VCWPD Watershed Zones*

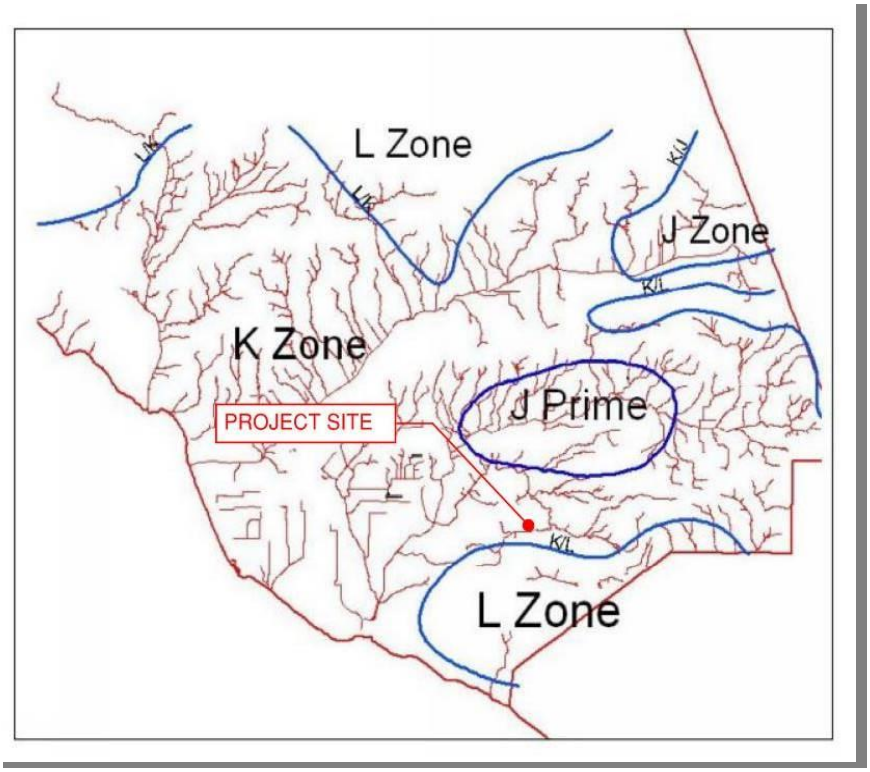


Figure 2.3 – *Rainfall Intensity Zones*

Figure 2.4 – *Soil Types*

LID CONCEPT

Compliance with MS4 water quality requirements for the proposed project is provided by means of onsite biofiltration planters. The treatment facilities will be designed to treat the Stormwater Quality Design Volume (SQDV) based on the methodology in the Ventura County Technical Guidance Manual (TGM). The soils engineer performed percolation tests on the site and the infiltration rate is not adequate to treat the site stormwater via infiltration. See soils letter dated March 31, 2026 in Appendix V. Additionally, the average daily demand for site irrigation is less than the required daily demand to achieve 80% capture of runoff, also rendering capture and reuse not feasible for site stormwater treatment. The site is designed to treat the LID stormwater with biofiltration planters. Calculation methodology used to determine the site SQDV is outlined below. See Appendix III for an LID Exhibit Map and detailed calculations for each BMP used.

Calculate Impervious Area to be Retained (A_{retain})

The impervious area from which runoff must be retained onsite.

$A_{retain} = (imp * A_{project})$

Where: A_{retain} = Drainage area from which runoff must be retained, acres
imp = Impervious fraction of the site
$A_{project}$ = Total Project area, acres

Calculate Stormwater Quality Design Volume (SQDV)

$SQDV = C*(0.75/12)*A_{retain}*1.5$

Where: SQDV = Stormwater Quality Design Volume that must be retained onsite, ac-ft, *1.5 time was applied to the mitigation volumes.*
0.75 = the design rainfall depth, in, based on sizing method 3
A_{retain} = Drainage area, acres
$C = 0.95*imp+C_p*(1-imp)$

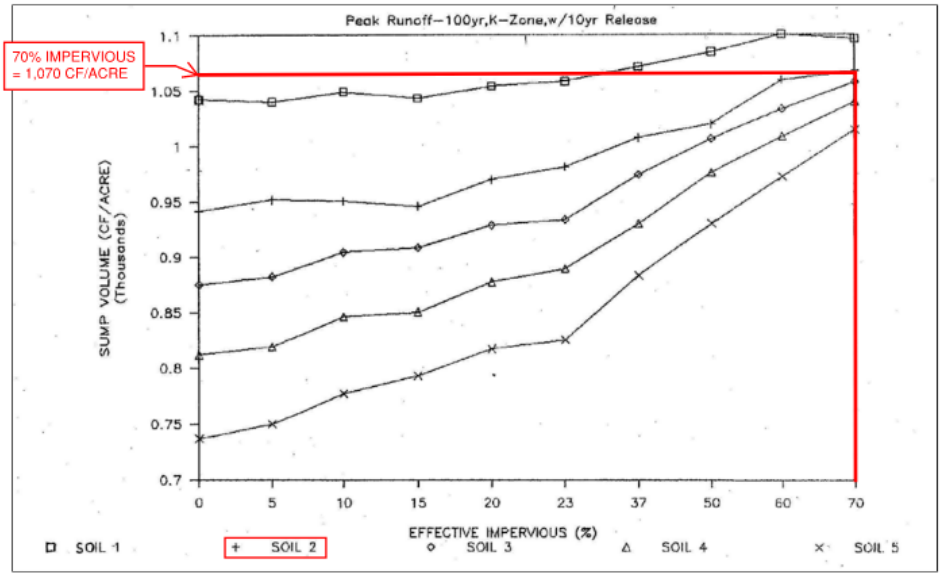
Where: imp = Impervious fraction of the site
C_p = Pervious runoff coefficient per Table E-1 (below) for soil 2 = 0.10

TGM Table E-1: Pervious Runoff Coefficient Based on Ventura Soil Type

Ventura Soil Type (Soil Number)	Cp value
1	0.15
2	0.10
3	0.10
4	0.05
5	0.05
6	0
7	0

DETENTION DESIGN

Detention facilities are sized to attenuate the developed 100-yr peak back to the 10-yr developed peak runoff per City of Thousand Oaks Standards and the Truncated Sump Volume Figure in Section 6.13 of the Ventura County Watershed Protection District Design Hydrology Manual. The volume factor was determined to be 1,070 cubic-feet-per-acre.



Truncated Sump Volume Figure, 1988

Figure 2.5 – *Truncated Sump Volume Figure from Section 6.13 of the Ventura County Watershed Protection District Design Hydrology Manual*

RESULTS SUMMARY

HYDROLOGY

Existing Condition:

The existing drainage study consists of four drainage watershed areas (Catchment 1A, 1B, 1C, and 1D). Drainage area 1A consists of the north of the site and a portion of the existing building. This watershed is routed to an existing underground detention system which connects to the onsite storm drain lines in Pauling Drive. Area 1B consists of the south portion of the building and surrounding hardscape, where it drains through a parkway drain to W Hillcrest Drive. Area 1C includes the southwest of the site and the existing driveway entrance for Building 29. Area 1D includes the southeast portion of the site including the current Building 14 driveway that sheet flows onto W Hillcrest Drive. Runoff quantities were calculated using the City of Thousand Oaks Master Hydrology Study. Existing flow rates were produced by multiplying the given flow rates/acres by the areas of the existing watershed.

Table 2.1 illustrates the results from the existing conditions hydrology study. Please refer to Appendix II for Existing Condition Hydrology Map.

Table 2.1 *–Existing Condition Hydrology Results*

CATCHMENT AREA	AREA (AC)	Q10 (cfs/acre)	Q10 (cfs)	Q100 (cfs/acre)	Q100 (cfs)
1A	1.97	2.32	4.57	3.72	7.33
1B	2.27	2.32	5.27	3.72	8.45
1C	0.23	2.32	0.54	3.72	0.87
1D	0.10	2.32	0.23	3.72	0.37
TOTAL	**4.58**	**-**	**10.63**	**-**	**17.04**

Proposed Condition:

The grading and storm drain system in the proposed condition will keep the overall pre-project drainage patterns. (See proposed Hydrology Map on Appendix II). The proposed site drainage watersheds will have some minor adjustments from existing conditions due to the revised grades around the proposed Building 50. Area 1A will utilize the existing detention system per Project No. DP 98-748 to the north of the building. Collected runoff will be routed to proposed biofiltration planters and then connected to the existing detention system to match pre-project conditions. Area 1B will route roof stormwater to

additional biofiltration planters on the west and south sides of the building. From there the stormwater will outlet to the existing parkway drain in W Hillcrest Drive. Area 1C includes the southwesterly side of the project which includes the drive and turnaround area for loading dock Building 29 and Building 50. The stormwater will be routed to the existing Building 29 underground stormwater system. Before reconnecting to the existing system, the stormwater will be directed to a biofiltration planter. Area 1D picks up the stormwater from the proposed transformer pad and easterly driveway will be intercepted with a proposed trench drain and routed to a biofiltration planter before discharging to an existing downstream manhole in W Hillcrest Drive per City of Thousand Oaks drawing 84-038A. The proposed project increases the site imperviousness from 74% to 84%. The proposed biofiltration planters and detention systems will be implemented to ensure the site is not increasing its overall peak runoff from the existing conditions. Table 2.2 illustrates the results from the proposed conditions hydrology study. Please refer to Appendix II for Proposed Hydrology Map.

Table 2.2 – *Proposed Condition Hydrology Results*

CATCHMENT AREA	AREA (AC)	Q10 (cfs/acre)	Q10 (cfs)	Q100 (cfs/acre)	Q100 (cfs)
1A	2.40	2.32	5.56	3.72	8.91
1B	1.45	2.32	3.36	3.72	5.39
1C	0.45	2.32	1.66	3.72	1.66
1D	0.29	2.32	0.68	3.72	1.09
TOTAL	**4.57**	**-**	**10.63**	**-**	**17.04**

LOW IMPACT DEVELOPMENT (LID)

Each watershed will treat stormwater runoff using biofiltration planters systems sized per the Ventura County Technical Guidance Manual for Stormwater Quality Measures. All areas will be treated with biofiltration planters, with a maximum ponding depth of 12". A summary of calculation results is presented in Table 2.3 below. Refer to Appendix III for detailed LID calculations.

Table 2.3 – *Proposed LID Results*

Area Name	Area (AC)	Biofiltration Area Required (sf)	Biofiltration Area Provided (sf)	Ponding Depth (in)	Proposed BMPs
1A	2.40	4,198	4,260	12	Biofiltration Planters
1B	1.60	2,578	2,520	12	Biofiltration Planters
1C	0.45	1,063	1,200	12	Biofiltration Planters
1D	0.29	489	520	12	Biofiltration Planters

DETENTION DESIGN

Detention facilities are sized to attenuate the developed 100-yr peak back to the 10-yr developed peak runoff per City of Thousand Oaks Standards and the Truncated Sump Volume Figure in Section 6.13 of the Ventura County Watershed Protection District Design Hydrology Manual. Table 2.5 summarizes the calculated detention volume required in each watershed to attenuate the peak runoff. Area 1A will connect to the existing detention system and private storm drain system. Area 1B will store the needed detention, 1,550 CF, in the biofiltration area ponding for the roof water routed to the proposed planter. Area 1C will detain the required volume in the ponding volume of a biofiltration planter before connecting to the existing underground storm drain system for Building 29. Area 1D will detain the required volume in the ponding volume of multiple biofiltration planters before connecting to the existing storm drain manhole downstream on W Hillcrest Drive. See Appendix IV for detailed detention design.

Table 2.5 – *Proposed Condition Estimated Detention Volumes*

SYSTEM	**AREA (Acre)**	**Truncated Sump Vol. Factor (CF/Acre)**	**Detention Vol. Required (CF)**	**Detention Vol. Provided (CF)**	**Detention Type**
1A	**2.28**	1,070	2,439	***EXISTING DETENTION**	Underground Pipe Array
SYSTEM	**AREA (Acre)**	**Truncated Sump Vol. Factor (CF/Acre)**	**Detention Vol. Required (CF)**	**Detention Vol. Provided (CF)**	**Detention Type**
1B	**1.45**	1,070	1,550	4,055	Biofiltration Planter
1C	**0.45**	1,070	476	1,186	Biofiltration Planter
1D	**0.29**	1,070	312	580	Biofiltration Planter
TOTAL	**4.56**		**2,445**	**5,821**	

CONCLUSION

This report confirms the new construction of Building 50 on the Amgen campus will not have an adverse impact on the overall quality or volume of the downstream drainage system by utilizing and biofiltration planters. Overall more pervious area has been added to the project site. The proposed project will implement the Water Quality mitigation measures to meet the current MS4 requirements.

APPENDIX I

CITY OF THOUSAND OAKS
HYDROLOGY MAP PLATE #5

See Plate #1

See Plate #4

See Plate #6

PROJECT LOCATION

Hidden Valley Wash (Lake Sherwood) Watershed

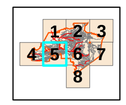
City of Thousand Oaks
Storm Drain System Master Plan

Hydrology Plate #5

0 1,000 2,000 3,000 Feet

Legend

- Hydrology Links
- Subarea Boundaries
- Street Centerline
- City of Thousand Oaks Map Grid
- Thousand Oaks City Boundary
- 2001 - LIDAR 10 ft. Contours



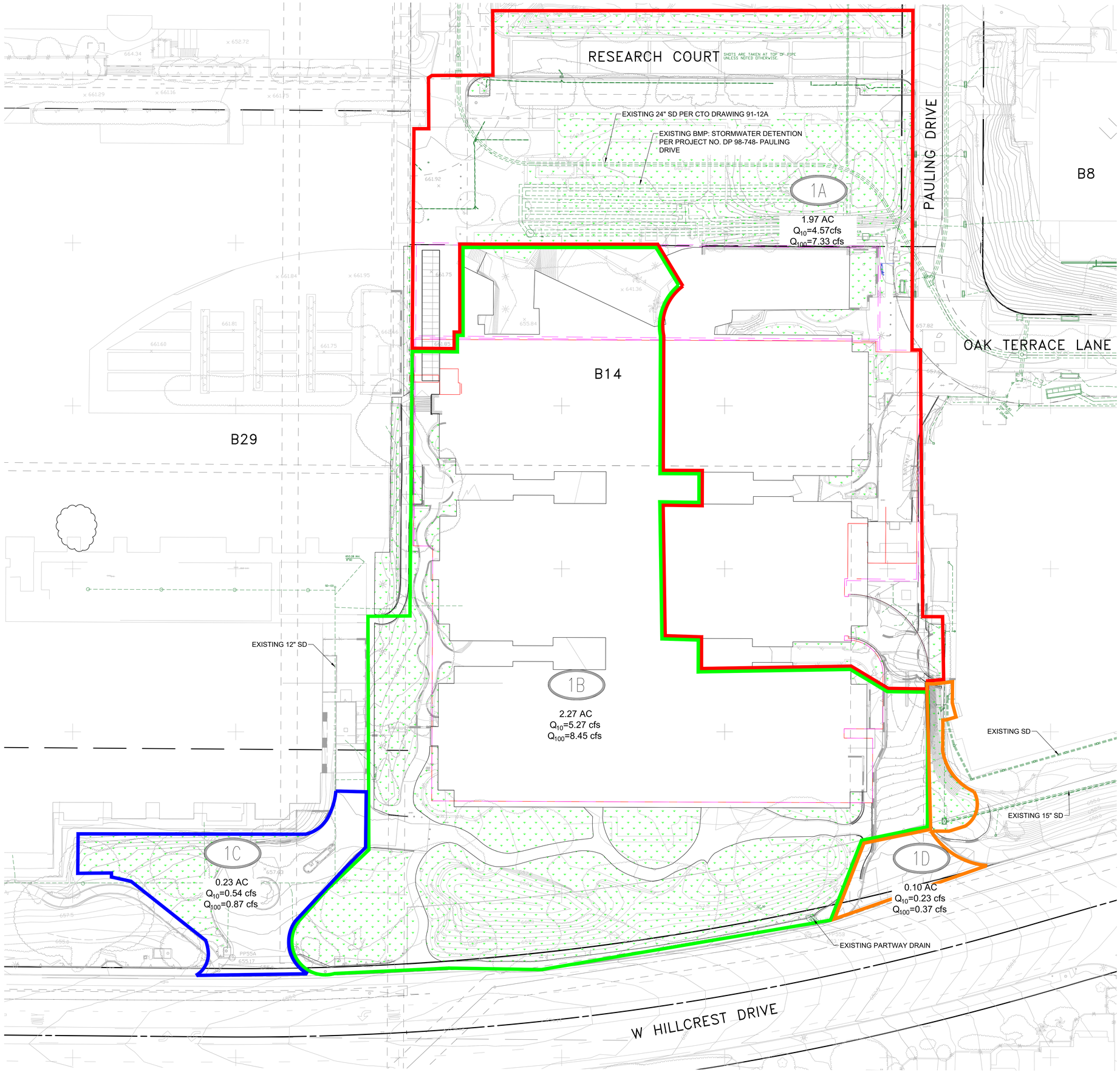
October 2006

KASRAIE CONSULTING
201 BURNETT AVENUE
VENTURA CA 93003
(805) 340-4744

APPENDIX II

EXISTING CONDITIONS HYDROLOGY MAP
PROPOSED CONDITIONS HYDROLOGY/LID MAP

HYDROLOGY MAP
EXISTING CONDITION



LEGEND:

- SUBAREA BOUNDARY (COLOR VARIES)
- EXISTING SD
- PLANTING AREA/PERVIOUS
- DRAINAGE AREA
- A
- 8.42 Ac. — AREA (AC.)
- Q_{10}= 1.17 cfs — CALCULATED 10 YEAR FLOW RATE
- Q_{100}= 1.17 cfs — CALCULATED 100 YEAR FLOW RATE

GRAPHIC SCALE
20 0 10 20 40 80
(IN FEET)
1 inch = 20 ft.

Stantec
300 N LAKE AVENUE SUITE 1080
PASADENA, CA 91101
626.796.9141

CLIENT
AMGEN INC.
1 AMGEN CENTER DRIVE
THOUSAND OAKS, CA 91320

PROJECT
AMGEN - BUILDING 50
CITY OF THOUSAND OAKS

AMGEN – BUILDING 50
THOUSAND OAKS
HYDROLOGY MAP
EXISTING CONDITIONS

SHEET 1 OF 1 SHEETS
JOB NUMBER

HYDROLOGY/LID MAP
PROPOSED CONDITION

RESEARCH COURT

PAULING DRIVE

W HILLCREST DRIVE

B6

B8

B29

EXISTING 24" SD PER CTO DRAWING 91-12A

BIOFILTRATION PLANTER
3,200 SF–12" PONDING

EXISTING STORMWATER DETENTION PER
PROJECT NO. DP 98-748- PAULING DRIVE

BIOFILTRATION PLANTER
1,060 SF–12" PONDING

1A
2.40 AC
Q_{10}= 5.56 cfs
Q_{100}= 8.91 cfs

FF = 661.5

FF = 661.5

1B
1.46 AC
Q_{10}=3.43 cfs
Q_{100}=5.43 cfs

EXISTING 12" SD

BIOFILTRATION PLANTER
2,275 SF–12" PONDING

FIRST FF = 661.50
BASEMENT FF 641.00

FIRST FF = 661.50
BASEMENT FF 641.00

BIOFILTRATION PLANTER
300 SF–6" PONDING

1C
0.45 AC
Q_{10}=1.03 cfs
Q_{100}=1.66 cfs

(652.31 TOP)
651.31 INV
JOIN EX

651.33
INV

BIOFILTRATION PLANTER
160 SF–12" PONDING

652.50 TG
652.00 INV

652.50 TG
651.25 INV

1D
0.29 AC
Q_{10}=0.68 cfs
Q_{100}=1.09 cfs

651.00 TG
650.50 INV

650.00 TG
649.50 INV

(652.77) INV
(652.73) FL

EXISTING PARKWAY DRAIN

BIOFILTRATION PLANTER
1,200 SF–12" PONDING

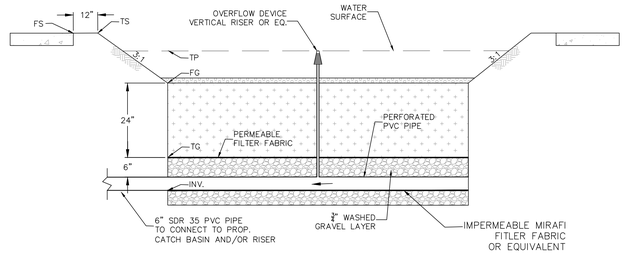
EXISTING SD

EXISTING STORMWATER SYSTEM
PER CITY OF THOUSAND OAKS PLAN
84-038A

BIOFILTRATION PLANTER
200 SF–12" PONDING

EXISTING 15" SD

BIOFILTRATION PLANTER
160 SF–12" PONDING



BIOFILTRATION PLANTER

LEGEND:

- LID SUBAREA BOUNDARY (COLOR VARIES)
- EXISTING SD
- PROPOSED SD SCHEMATIC
- PLANTING AREA/PERVIOUS
- BIOFILTRATION PLANTER
- DRAINAGE AREA
- A — AREA (AC.)
- 8.42 Ac.
- Q_{10}= 1.17 cfs — CALCULATED 10 YEAR FLOW RATE
- Q_{100}= 1.17 cfs — CALCULATED 100 YEAR FLOW RATE

N

GRAPHIC SCALE
20 0 10 20 40 80
(IN FEET)
1 inch = 20 ft.

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CLIENT
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1 AMGEN CENTER DRIVE
THOUSAND OAKS, CA 91320

PROJECT
AMGEN - BUILDING 50
CITY OF THOUSAND OAKS

AMGEN – BUILDING 50
THOUSAND OAKS
HYDROLOGY/LID MAP
PROPOSED CONDITIONS

SHEET 1 OF 1 SHEETS

JOB NUMBER

APPENDIX III

LOW IMPACT DEVELOPMENT CALCULATIONS

Biofiltration Planters						
Area Name	**Area (AC)**	**SQDV (CF)**	**SQDV x 1.5 (CF)**	**Ponding Depth (in)**	**Biofiltration Area Required (sf)**	**Biofiltration Area Provided (sf)**
1A	2.28	4547	6821	12	4198	4,260
1B	1.60	2793	4189	12	2578	2,520
1C	0.45	1151	1727	12	1063	1,200
1D	0.29	530	794	12	489	520

Sizing Worksheet - BIO-1 Biofiltration/BIO-2 Planter Box with Underdrain

Designer: r r A r Project Proponent: Date: 1- -0. 0 Project: 3. Location: U r		
Type of Vegetation:		
Pretreatment Feature:		
Outflow Collection:		
Step 1: Determine water quality design volume		
1-1. Enter Project area (acres), $A_{project}$ If this BMP captures runoff from a portion of the project area, enter the tributary area	$A_{project}$ = 0 0	acres
1-2. Enter Project impervious fraction, *Imp* (e.g. 60% = 0.60)	Imp= . 2	
1-3. Determine pervious runoff coefficient using Table C-1, C_p	C_p = . .	
1-4. Calculate runoff coefficient, $C = 0.95*imp + C_p (1-imp)$	C = .	
1-5. Enter design rainfall depth of the storm (in), P_i	P_i = . 3	in
1-6. Calculate rainfall depth (ft), $P = P_i/12$	P = . . 03	ft
1-7. Calculate water quality design volume (ft^3) $SQDV=43560 \bullet C*P*A_{project)}$ 3 O T d d r r 3 d 1	SQDV= 1 d 1	ft^3
Step 2: Determine the design percolation rate		
2-1. Enter the design saturated hydraulic conductivity of the amended filter media (2.5 in/hr recommended rate), K_{design}	K_{design} = 0 3	in/hr
Step 3: Calculate Bioretention/Planter Box surface area		
3-1. Enter water quality design volume (ft^3), *SQDV*	SQDV = 1	ft^3
3-2. Enter design saturated hydraulic conductivity (in/hr), K_{design}	K_{design} = 0 3	in/hr
3-3. Enter ponding depth (max 1.5 ft for Bioretention, 1 ft for Planter Box) above area, d_p	d_p =	ft
3-4. Calculate the drawdown time for the ponded water to filter through media (hours), $t_{ponding}^* = (d_p/K_{design}) \times 12$ **If tponding exceeds 48 hours, reduce surface ponding depth or increase media Kdesign.*	$t_{ponding}$= 0	hrs

3-5. Calculate the depth of water (ft) filtered, $d_{filtered} = Minimum\left[\frac{K_{design} \times T_{routing}}{12\ in/ft}, d_p\right]$ where $T_{routing}$= storm duration that may be assumed for routing calculations; this should be assumed to be 3 hours unless rationale for an alternative assumption is provided	$d_{filtered}$ = . 03	ft
3-6. Calculate the infiltrating surface area as follows (ft^2); account for infiltrating 1.5 times SQDV value. $A_{req} = 1.5 \times SQDV/(d_p + d_{filtered})$	A_{req} = 2	ft^2
Step 4: Calculate Bioretention Area Total Footprint		
4-1. Calculate total footprint required by including a buffer for side slopes and freeboard (ft^2) [A_{req} is measured at the as the filter bottom area (toe of side slopes)], A_{tot}	A_{tot} =	ft^2
Step 5: Calculate Underdrain System Capacity		
To calculate the underdrain system capacity, continue through steps 5-1 to 5-7.		
5-1. Calculated filtered flow rate to be conveyed by the longitudinal drainpipe, $Q_f = K_{design} \times A_{req}/43{,}200$	Q_f =	cfs
5-2. Enter minimum slope for energy gradient, S_e	S_e =	
5-3. Enter Hazen-Williams coefficient for plastic, C_{HW}	C_{HW} =	
5-4. Enter pipe diameter (min 4 inches), D	D =	in
5-5. Calculate pipe hydraulic radius (ft), $R_h = D/48$	R_h =	ft
5-6. Calculate velocity at the outlet of the pipe (ft/s), $V_p = 1.318 C_{HW} R_h^{0.63} S_e^{0.54}$	V_p =	ft/s
5-7. Calculate pipe capacity (cfs), $Q_{cap} = 0.25\pi(D/12)^2 V_p$	Q_{cap} =	cfs

Sizing Worksheet - BIO-1 Biofiltration/BIO-2 Planter Box with Underdrain

Designer: r r A r Project Proponent: Date: 1- -0. 0 Project: 3. Location: U r PMMD		
Type of Vegetation:		
Pretreatment Feature:		
Outflow Collection:		
Step 1: Determine water quality design volume		
1-1. Enter Project area (acres), $A_{project}$ If this BMP captures runoff from a portion of the project area, enter the tributary area	$A_{project}$ = . 3	acres
1-2. Enter Project impervious fraction, *Imp* (e.g. 60% = 0.60)	Imp= .	
1-3. Determine pervious runoff coefficient using Table C-1, C_p	C_p = . .	
1-4. Calculate runoff coefficient, $C = 0.95*imp + C_p (1-imp)$	C = . 3	
1-5. Enter design rainfall depth of the storm (in), P_i	P_i = . 3	in
1-6. Calculate rainfall depth (ft), $P = P_i/12$	P = . . 03	ft
1-7. Calculate water quality design volume (ft^3) $SQDV=43560 \bullet C*P*A_{project)}$ 3 O T d d r r 2 . 33d 1	SQDV= 0 . 1	ft^3
Step 2: Determine the design percolation rate		
2-1. Enter the design saturated hydraulic conductivity of the amended filter media (2.5 in/hr recommended rate), K_{design}	K_{design} = 0 3	in/hr
Step 3: Calculate Bioretention/Planter Box surface area		
3-1. Enter water quality design volume (ft^3), *SQDV*	SQDV = 0 . 1	ft^3
3-2. Enter design saturated hydraulic conductivity (in/hr), K_{design}	K_{design} = 0 3	in/hr
3-3. Enter ponding depth (max 1.5 ft for Bioretention, 1 ft for Planter Box) above area, d_p	d_p =	ft
3-4. Calculate the drawdown time for the ponded water to filter through media (hours), $t_{ponding}^* = (d_p/K_{design}) \times 12$ **If tponding exceeds 48 hours, reduce surface ponding depth or increase media Kdesign.*	$t_{ponding}$= 0	hrs

3-5. Calculate the depth of water (ft) filtered, $d_{filtered} = Minimum\left[\frac{K_{design} \times T_{routing}}{12\ in/ft}, d_p\right]$ where $T_{routing}$= storm duration that may be assumed for routing calculations; this should be assumed to be 3 hours unless rationale for an alternative assumption is provided	$d_{filtered}$ = . 03	ft
3-6. Calculate the infiltrating surface area as follows (ft^2); account for infiltrating 1.5 times SQDV value. $A_{req} = 1.5 \times SQDV/(d_p + d_{filtered})$	A_{req} = 0 2 3	ft^2
Step 4: Calculate Bioretention Area Total Footprint		
4-1. Calculate total footprint required by including a buffer for side slopes and freeboard (ft^2) [A_{req} is measured at the as the filter bottom area (toe of side slopes)], A_{tot}	A_{tot} =	ft^2
Step 5: Calculate Underdrain System Capacity		
To calculate the underdrain system capacity, continue through steps 5-1 to 5-7.		
5-1. Calculated filtered flow rate to be conveyed by the longitudinal drainpipe, $Q_f = K_{design} \times A_{req}/43{,}200$	Q_f =	cfs
5-2. Enter minimum slope for energy gradient, S_e	S_e =	
5-3. Enter Hazen-Williams coefficient for plastic, C_{HW}	C_{HW} =	
5-4. Enter pipe diameter (min 4 inches), D	D =	in
5-5. Calculate pipe hydraulic radius (ft), $R_h = D/48$	R_h =	ft
5-6. Calculate velocity at the outlet of the pipe (ft/s), $V_p = 1.318 C_{HW} R_h^{0.63} S_e^{0.54}$	V_p =	ft/s
5-7. Calculate pipe capacity (cfs), $Q_{cap} = 0.25\pi(D/12)^2 V_p$	Q_{cap} =	cfs

Sizing Worksheet - BIO-1 Biofiltration/BIO-2 Planter Box with Underdrain

Designer: r r A r Project Proponent: Date: 1- -0. 0 Project: 3. Location: U r d		
Type of Vegetation:		
Pretreatment Feature:		
Outflow Collection:		
Step 1: Determine water quality design volume		
1-1. Enter Project area (acres), $A_{project}$ If this BMP captures runoff from a portion of the project area, enter the tributary area	$A_{project}$ = . 2	acres
1-2. Enter Project impervious fraction, *Imp* (e.g. 60% = 0.60)	Imp= . 0	
1-3. Determine pervious runoff coefficient using Table C-1, C_p	C_p = . .	
1-4. Calculate runoff coefficient, $C = 0.95*imp + C_p (1-imp)$	C = . 10	
1-5. Enter design rainfall depth of the storm (in), P_i	P_i = . 3	in
1-6. Calculate rainfall depth (ft), $P = P_i/12$	P = . . 03	ft
1-7. Calculate water quality design volume (ft^3) $SQDV=43560 \bullet C*P*A_{project)}$ 3 O T d d r r 13 d 1	SQDV= .	ft^3
Step 2: Determine the design percolation rate		
2-1. Enter the design saturated hydraulic conductivity of the amended filter media (2.5 in/hr recommended rate), K_{design}	K_{design} = 0 3	in/hr
Step 3: Calculate Bioretention/Planter Box surface area		
3-1. Enter water quality design volume (ft^3), *SQDV*	SQDV = .	ft^3
3-2. Enter design saturated hydraulic conductivity (in/hr), K_{design}	K_{design} = 0 3	in/hr
3-3. Enter ponding depth (max 1.5 ft for Bioretention, 1 ft for Planter Box) above area, d_p	d_p = . 3	ft
3-4. Calculate the drawdown time for the ponded water to filter through media (hours), $t_{ponding}^* = (d_p/K_{design}) \times 12$ **If tponding exceeds 48 hours, reduce surface ponding depth or increase media Kdesign.*	$t_{ponding}$= 0	hrs

3-5. Calculate the depth of water (ft) filtered, $d_{filtered} = Minimum\left[\frac{K_{design} \times T_{routing}}{12\ in/ft}, d_p\right]$ where $T_{routing}$= storm duration that may be assumed for routing calculations; this should be assumed to be 3 hours unless rationale for an alternative assumption is provided	$d_{filtered}$ = . 03 . 3	ft
3-6. Calculate the infiltrating surface area as follows (ft^2); account for infiltrating 1.5 times SQDV value. $A_{req} = 1.5 \times SQDV/(d_p + d_{filtered})$	A_{req} = 1	ft^2
Step 4: Calculate Bioretention Area Total Footprint		
4-1. Calculate total footprint required by including a buffer for side slopes and freeboard (ft^2) [A_{req} is measured at the as the filter bottom area (toe of side slopes)], A_{tot}	A_{tot} =	ft^2
Step 5: Calculate Underdrain System Capacity		
To calculate the underdrain system capacity, continue through steps 5-1 to 5-7.		
5-1. Calculated filtered flow rate to be conveyed by the longitudinal drainpipe, $Q_f = K_{design} \times A_{req}/43{,}200$	Q_f =	cfs
5-2. Enter minimum slope for energy gradient, S_e	S_e =	
5-3. Enter Hazen-Williams coefficient for plastic, C_{HW}	C_{HW} =	
5-4. Enter pipe diameter (min 4 inches), D	D =	in
5-5. Calculate pipe hydraulic radius (ft), $R_h = D/48$	R_h =	ft
5-6. Calculate velocity at the outlet of the pipe (ft/s), $V_p = 1.318 C_{HW} R_h^{0.63} S_e^{0.54}$	V_p =	ft/s
5-7. Calculate pipe capacity (cfs), $Q_{cap} = 0.25\pi(D/12)^2 V_p$	Q_{cap} =	cfs

Sizing Worksheet - BIO-1 Biofiltration/BIO-2 Planter Box with Underdrain

Designer: r r A r Project Proponent: Date: 1- -0. 0 Project: 3. Location: U r A	
Type of Vegetation:	
Pretreatment Feature:	
Outflow Collection:	
Step 1: Determine water quality design volume	
1-1. Enter Project area (acres), $A_{project}$ If this BMP captures runoff from a portion of the project area, enter the tributary area	$A_{project}$ = . 23 acres
1-2. Enter Project impervious fraction, *Imp* (e.g. 60% = 0.60)	Imp=
1-3. Determine pervious runoff coefficient using Table C-1, C_p	C_p = . .
1-4. Calculate runoff coefficient, $C = 0.95*imp + C_p (1-imp)$	C = . 3
1-5. Enter design rainfall depth of the storm (in), P_i	P_i = . 3 in
1-6. Calculate rainfall depth (ft), $P = P_i/12$	P = . . 03 ft
1-7. Calculate water quality design volume (ft^3) $SQDV=43560 \bullet C*P*A_{project)}$ 3 O T d dr r 0 d 1	SQDV= 3 ft^3
Step 2: Determine the design percolation rate	
2-1. Enter the design saturated hydraulic conductivity of the amended filter media (2.5 in/hr recommended rate), K_{design}	K_{design} = 0 3 in/hr
Step 3: Calculate Bioretention/Planter Box surface area	
3-1. Enter water quality design volume (ft^3), *SQDV*	SQDV = 3 ft^3
3-2. Enter design saturated hydraulic conductivity (in/hr), K_{design}	K_{design} = 0 3 in/hr
3-3. Enter ponding depth (max 1.5 ft for Bioretention, 1 ft for Planter Box) above area, d_p	d_p = ft
3-4. Calculate the drawdown time for the ponded water to filter through media (hours), $t_{ponding}^{*} = (d_p/K_{design}) \times 12$ **If tponding exceeds 48 hours, reduce surface ponding depth or increase media Kdesign.*	$t_{ponding}$= 0 hrs

3-5. Calculate the depth of water (ft) filtered, $d_{filtered} = Minimum\left[\frac{K_{design} \times T_{routing}}{12\ in/ft}, d_p\right]$ where $T_{routing}$= storm duration that may be assumed for routing calculations; this should be assumed to be 3 hours unless rationale for an alternative assumption is provided	$d_{filtered}$ = . 03 . 3	ft
3-6. Calculate the infiltrating surface area as follows (ft^2); account for infiltrating 1.5 times SQDV value. $A_{req} = 1.5 \times SQDV/(d_p + d_{filtered})$	A_{req} = . 1	ft^2
Step 4: Calculate Bioretention Area Total Footprint		
4-1. Calculate total footprint required by including a buffer for side slopes and freeboard (ft^2) [A_{req} is measured at the as the filter bottom area (toe of side slopes)], A_{tot}	A_{tot} =	ft^2
Step 5: Calculate Underdrain System Capacity		
To calculate the underdrain system capacity, continue through steps 5-1 to 5-7.		
5-1. Calculated filtered flow rate to be conveyed by the longitudinal drainpipe, $Q_f = K_{design} \times A_{req}/43{,}200$	Q_f =	cfs
5-2. Enter minimum slope for energy gradient, S_e	S_e =	
5-3. Enter Hazen-Williams coefficient for plastic, C_{HW}	C_{HW} =	
5-4. Enter pipe diameter (min 4 inches), D	D =	in
5-5. Calculate pipe hydraulic radius (ft), $R_h = D/48$	R_h =	ft
5-6. Calculate velocity at the outlet of the pipe (ft/s), $V_p = 1.318 C_{HW} R_h^{0.63} S_e^{0.54}$	V_p =	ft/s
5-7. Calculate pipe capacity (cfs), $Q_{cap} = 0.25\pi(D/12)^2 V_p$	Q_{cap} =	cfs

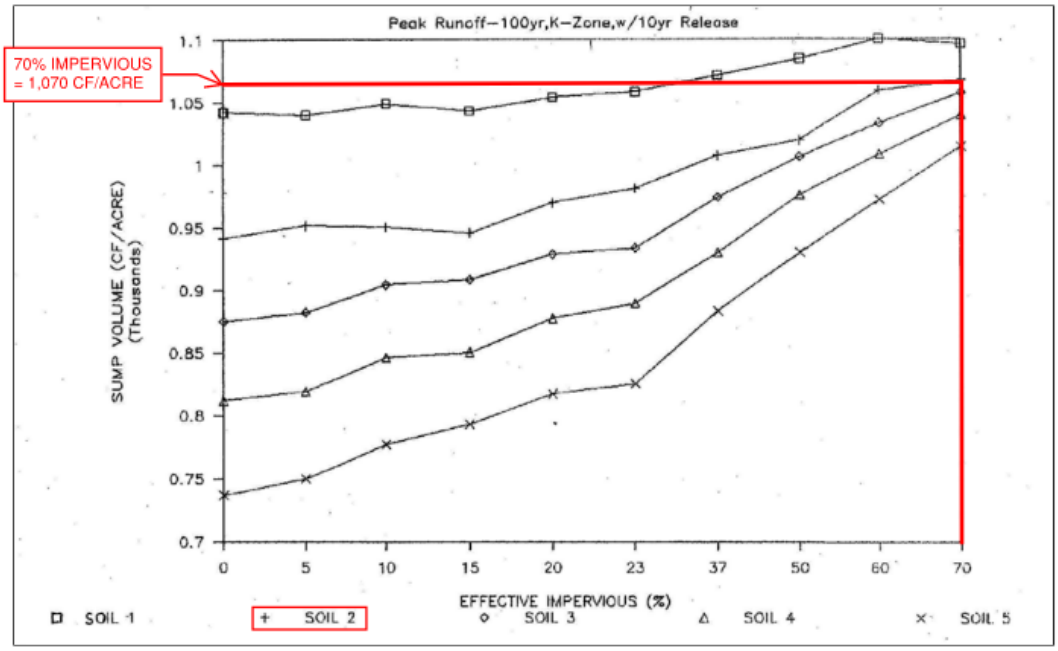
Sizing Worksheet - BIO-1 Biofiltration/BIO-2 Planter Box with Underdrain

Designer: r r A r Project Proponent: Date: 1- -0. 0 Project: 3. Location: U r		
Type of Vegetation:		
Pretreatment Feature:		
Outflow Collection:		
Step 1: Determine water quality design volume		
1-1. Enter Project area (acres), $A_{project}$ If this BMP captures runoff from a portion of the project area, enter the tributary area	$A_{project}$ = . 0	acres
1-2. Enter Project impervious fraction, *Imp* (e.g. 60% = 0.60)	Imp= . 1	
1-3. Determine pervious runoff coefficient using Table C-1, C_p	C_p = . .	
1-4. Calculate runoff coefficient, $C = 0.95*imp + C_p (1-imp)$	C = . .	
1-5. Enter design rainfall depth of the storm (in), P_i	P_i = . 3	in
1-6. Calculate rainfall depth (ft), $P = P_i/12$	P = . . 03	ft
1-7. Calculate water quality design volume (ft^3) $SQDV=43560 \bullet C*P*A_{project)}$ 3 O T d d r r 2 d 1	SQDV= 31.	ft^3
Step 2: Determine the design percolation rate		
2-1. Enter the design saturated hydraulic conductivity of the amended filter media (2.5 in/hr recommended rate), K_{design}	K_{design} = 0 3	in/hr
Step 3: Calculate Bioretention/Planter Box surface area		
3-1. Enter water quality design volume (ft^3), *SQDV*	SQDV = 31.	ft^3
3-2. Enter design saturated hydraulic conductivity (in/hr), K_{design}	K_{design} = 0 3	in/hr
3-3. Enter ponding depth (max 1.5 ft for Bioretention, 1 ft for Planter Box) above area, d_p	d_p = . 3	ft
3-4. Calculate the drawdown time for the ponded water to filter through media (hours), $t_{ponding}^* = (d_p/K_{design}) \times 12$ **If tponding exceeds 48 hours, reduce surface ponding depth or increase media Kdesign.*	$t_{ponding}$= 0	hrs

3-5. Calculate the depth of water (ft) filtered, $d_{filtered} = Minimum\left[\frac{K_{design} \times T_{routing}}{12\ in/ft}, d_p\right]$ where $T_{routing}$= storm duration that may be assumed for routing calculations; this should be assumed to be 3 hours unless rationale for an alternative assumption is provided	$d_{filtered}$ = . 03 . 3	ft
3-6. Calculate the infiltrating surface area as follows (ft^2); account for infiltrating 1.5 times SQDV value. $A_{req} = 1.5 \times SQDV/(d_p + d_{filtered})$	A_{req} = 2	ft^2
Step 4: Calculate Bioretention Area Total Footprint		
4-1. Calculate total footprint required by including a buffer for side slopes and freeboard (ft^2) [A_{req} is measured at the as the filter bottom area (toe of side slopes)], A_{tot}	A_{tot} =	ft^2
Step 5: Calculate Underdrain System Capacity		
To calculate the underdrain system capacity, continue through steps 5-1 to 5-7.		
5-1. Calculated filtered flow rate to be conveyed by the longitudinal drainpipe, $Q_f = K_{design} \times A_{req}/43{,}200$	Q_f =	cfs
5-2. Enter minimum slope for energy gradient, S_e	S_e =	
5-3. Enter Hazen-Williams coefficient for plastic, C_{HW}	C_{HW} =	
5-4. Enter pipe diameter (min 4 inches), D	D =	in
5-5. Calculate pipe hydraulic radius (ft), $R_h = D/48$	R_h =	ft
5-6. Calculate velocity at the outlet of the pipe (ft/s), $V_p = 1.318 C_{HW} R_h^{0.63} S_e^{0.54}$	V_p =	ft/s
5-7. Calculate pipe capacity (cfs), $Q_{cap} = 0.25\pi(D/12)^2 V_p$	Q_{cap} =	cfs

APPENDIX IV

DETENTION SYSTEM SIZING DETAILS



Truncated Sump Volume Figure, 1988

SYSTEM	AREA (Acre)	Truncated Sump Vol. Factor (CF/Acre)	Detention Vol. Required (CF)	Detention Vol. Provided (CF)	Detention Type
1A	**2.40**	1,070	2,564	***EXISTING DETENTION**	Underground Pipe Array
SYSTEM	**AREA (Acre)**	**Truncated Sump Vol. Factor (CF/Acre)**	**Detention Vol. Required (CF)**	**Detention Vol. Provided (CF)**	**Detention Type**
1B	**1.45**	1,070	1,550	4,055	Biofiltration Planter
1C	**0.45**	1,070	476	1,186	Biofiltration Planter
1D	**0.29**	1,070	312	580	Biofiltration Planter
TOTAL	**4.58**		**2339**	**5821**	

APPENDIX V

SOILS INFILTRATION LETTER

Applied Earth Sciences
Geotechnical Engineers
Engineering Geologists
DSA Accepted Testing Laboratory
Special Inspection and Materials Testing

3595 Old Conejo Road
Thousand Oaks
California 91320-2122
805 375-9262

March 31, 2026

Amgen Inc.
One Amgen Center Drive
Thousand Oaks, CA 91320-1799

Work Order: 1583-B50-0-101

Subject: **Stormwater Infiltration Testing, Amgen Thousand Oaks (ATO) Building B50 (Previously B14), 701 Pauling Drive, Thousand Oaks, California**

Reference: Gorian and Associates, Inc. February 2, 2026 Geotechnical Site Evaluation Update, Amgen Thousand Oaks (ATO) Building B50 (Previously B14), 701 Pauling Drive, Thousand Oaks, California. Work Order: 1583-B50-0-100R

INTRODUCTION

Presented herein is Gorian and Associates, Inc.'s (GAI) geotechnical evaluation of the potential for onsite stormwater infiltration at research building B50 at 701 Pauling Drive (site) within Amgen Thousand Oaks (ATO) in the Newbury Park area of Thousand Oaks, California. The testing was performed in the southeast and northeast corners of the building at the approximate locations shown on the attached plan provided by Stantec (attached as Plate 1).

Testing for stormwater infiltration was performed at depths below the basement level of B50 to minimize the potential for water intrusion into the basement. The borings were drilled to a depth of 31 feet to evaluated the potential for groundwater then the lower 5 feet of the boring was backfilled with bentonite pellets. The borings were developed as infiltration borings using slotted pipe in the test zone and the test wells were filled with water on the day the borings were drilled. The following day the water level was measured above the test zone indicating the test zone failed the stormwater infiltration test. Therefore, stormwater infiltration is not feasible adjacent B50.

SUBSURFACE EXPLORATION

Two geotechnical borings (8 inch diameter) were drilled to a depth of 31 feet below the existing ground surface (bgs) utilizing a subcontractor supplied and operated truck-mounted hollow-stem auger drill rig. The borings were converted to stormwater infiltration test wells at the approximate locations shown on the attached map. The field exploration activities were observed by an engineer from this office, who logged the borings and assisted development of the test wells.

STORMWATER INFILTRATION TESTING

The two hollow-stem auger borings were converted to test wells at the depths shown on the attached Plate 1. However, the borings were drilled 5 foot deeper to evaluate the presence of groundwater. The additional 5 feet of boring was backfilled with bentonite prior to developing the borings as test wells. The borings were converted to infiltration rate test wells by placing a 2-inch diameter pipe in each boring with the test

section slotted. The annular space between the slotted pipe and the wall of the excavation was backfilled with screened silica sand. The upper portion annular space was sealed off with bentonite pellets and soil.

Water was added to the wells the day the wells were developed to a height above the infiltration zone. On the following day, water remained in the wells above the test zone. This indicates the test zones are not suitable for stormwater infiltration.

Following the testing, the piping was cut off several inches below the ground surface and the remaining excavation backfilled with soil. The backfill may settle over time and the site representative should fill any depression that may occur, as necessary.

GROUNDWATER
The borings were drilled to a depth of 31 feet and free water was not encountered in the borings.

CONCLUSION
The area adjacent Amgen B50 was tested and found to not be suitable for onsite stormwater infiltration.

CLOSURE
This report was prepared under the direction of a State Registered Geotechnical Engineer. No warranty, express or implied, is made as to conclusions and professional advice included in this report.

oOo

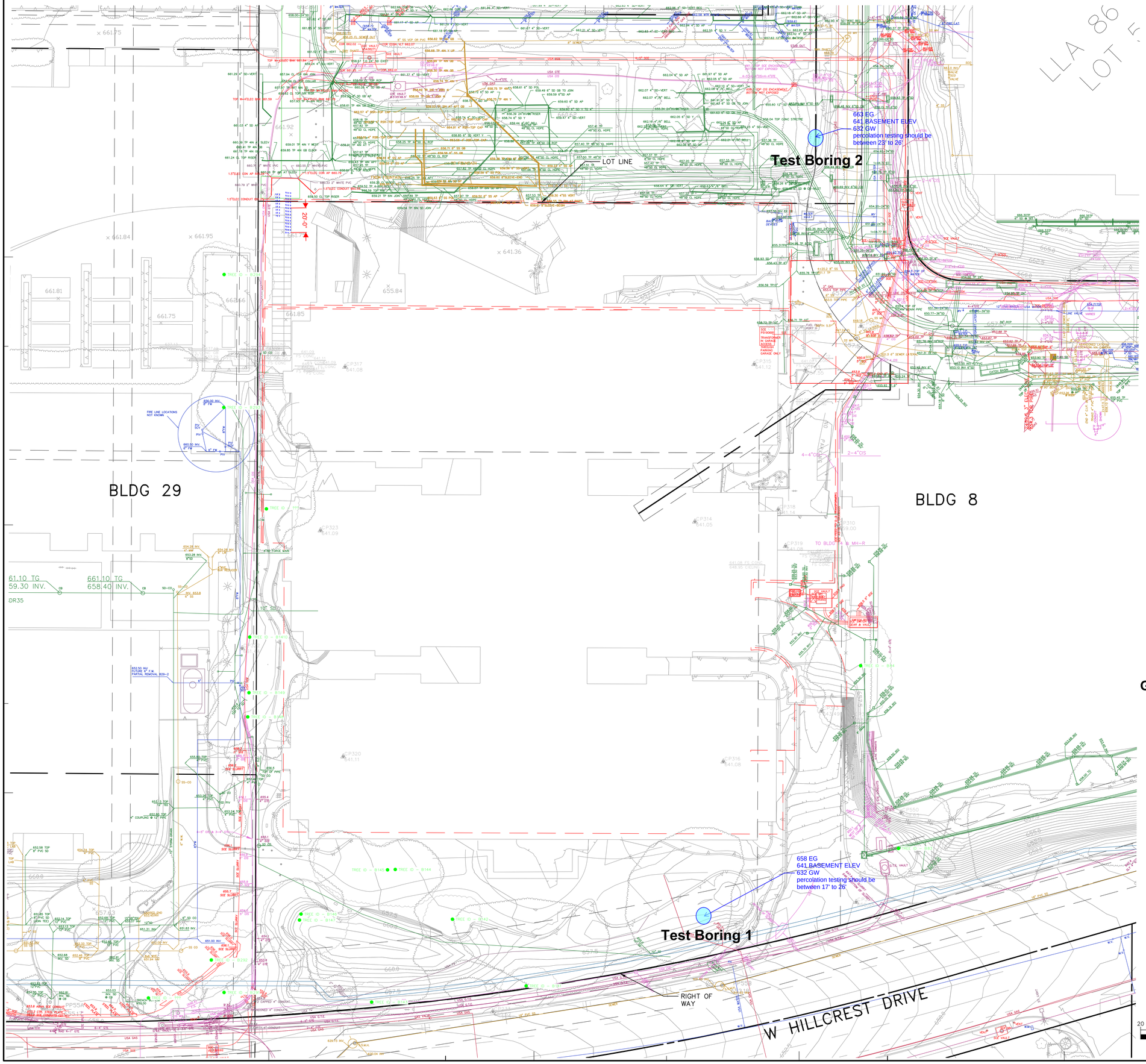
Please contact our office if you have questions regarding the information contained in this report or require additional consultation.

Respectfully submitted,

Gorian and Associates, Inc.

By: Jerome J. Blunck, GE 151
Principal Geotechnical Engineer

Attachment: Stantec Site Map



JOHNSON FAIN

ARCHITECTURE + PLANNING + INTERIORS DESIGN
120 North Broadway, Los Angeles, CA 90012
www.johnsonfain.com
[323] 224 6000
[323] 224 6030 fax

Stantec

Stantec Consulting Inc.
300 North Lake Ave, Suite 400
Pasadena, CA 91101
Tel: (626) 796-9141
www.stantec.com

REGISTERED PROFESSIONAL ENGINEER
JOSEPH SHAWN BEARDEN
C65823
EXP. 9-30-25
CIVIL
STATE OF CALIFORNIA

REV	DESCRIPTION	DATE

Gorian and Associates, Inc.

Plate 1

LEGEND

- PROPERTY LINE
- BASEMENT LINE
- EXISTING WATER LINE
- EXISTING SEWER LINE
- EXISTING GAS LINE
- EXISTING SCE LINE
- EXISTING CIS LINE
- EXISTING STORM DRAIN LINE
- EXISTING GTE LINE

GRAPHIC SCALE
20 0 10 20 40 80
(IN FEET)
1 inch = 20 ft.

AMGEN

PROJECT ELEVATE B14 DEMO

701 PAULING DR B14
THOUSAND OAKS
CA 91320

SHEET TITLE
EXISTING UTILITY

ARCHITECT
JOHNSON FAIN

PLOT STAMP
8/15/2025

PROJECT NUMBER
2042720613

SHEET NUMBER
C0.3.00

Appendix I.2

Stormwater Infiltration Testing

Applied Earth Sciences
Geotechnical Engineers
Engineering Geologists
DSA Accepted Testing Laboratory
Special Inspection and Materials Testing

3595 Old Conejo Road
Thousand Oaks
California 91320-2122
805 375-9262

August 25, 2026

Amgen Inc.
One Amgen Center Drive
Thousand Oaks, CA 91320-1799

Work Order: 1583-B50-0-101R

Subject: **Stormwater Infiltration Testing, Amgen Thousand Oaks (ATO) Building B50 (Previously B14), 701 Pauling Drive, Thousand Oaks, California**

Reference: Gorian and Associates, Inc. February 2, 2026 Geotechnical Site Evaluation Update, Amgen Thousand Oaks (ATO) Building B50 (Previously B14), 701 Pauling Drive, Thousand Oaks, California. Work Order: 1583-B50-0-100R

INTRODUCTION

Presented herein is Gorian and Associates, Inc.'s (GAI) geotechnical evaluation of the potential for onsite stormwater infiltration at research building B50 at 701 Pauling Drive (site) within Amgen Thousand Oaks (ATO) in the Newbury Park area of Thousand Oaks, California. The testing was performed in the southeast and northeast corners of the building at the approximate locations shown on the attached plan provided by Stantec (attached as Plate 1).

Testing for stormwater infiltration was performed at depths below the basement level of B50 to minimize the potential for water intrusion into the basement. The borings were drilled to a depth of 31 feet to evaluated the potential for groundwater then the lower 5 feet of the boring was backfilled with bentonite pellets. The borings were developed as infiltration borings using slotted pipe in the test zone and the test wells were filled with water on the day the borings were drilled. The following day the water level was measured above the test zone indicating the test zone failed the stormwater infiltration test. Therefore, stormwater infiltration is not feasible adjacent B50.

SUBSURFACE EXPLORATION

Two geotechnical borings (8 inch diameter) were drilled to a depth of 31 feet below the existing ground surface (bgs) utilizing a subcontractor supplied and operated truck-mounted hollow-stem auger drill rig. The borings were converted to stormwater infiltration test wells at the approximate locations shown on the attached map. The field exploration activities were observed by an engineer from this office, who logged the borings and assisted development of the test wells.

STORMWATER INFILTRATION TESTING

The two hollow-stem auger borings were converted to test wells at the depths shown on the attached Plate 1. However, the borings were drilled 5 foot deeper to evaluate the presence of groundwater. The additional 5 feet of boring was backfilled with bentonite prior to developing the borings as test wells. The borings were converted to infiltration rate test wells by placing a 2-inch diameter pipe in each boring with the test

section slotted. The annular space between the slotted pipe and the wall of the excavation was backfilled with screened silica sand. The upper portion annular space was sealed off with bentonite pellets and soil.

Water was added to the wells the day the wells were developed to a height of approximately 5 feet above the infiltration zone at the depth elevations shown on the attached map. On the following day, there was not a substantial change in the water height in the wells and water remained in the wells above the test zone. This indicates the test zones are not suitable for stormwater infiltration.

Following the testing, the piping was cut off several inches below the ground surface and the remaining excavation backfilled with soil. The backfill may settle over time and the site representative should fill any depression that may occur, as necessary.

GROUNDWATER
The borings were drilled to a depth of 31 feet, and free water was not encountered in the borings.

CONCLUSION
The area adjacent Amgen B50 was tested and found to be not suitable for onsite stormwater infiltration. The infiltration rate is substantially below 0.3 inches per hour.

CLOSURE
This report was prepared under the direction of a State Registered Geotechnical Engineer. No warranty, express or implied, is made as to conclusions and professional advice included in this report.

oOo

Please contact our office if you have questions regarding the information contained in this report or require additional consultation.

Respectfully submitted,

Gorian and Associates, Inc.

By: Jerome J. Blunck, GE 151
Principal Geotechnical Engineer

Attachment: Stantec Site Map

Appendix J

Noise

Amgen Thousand Oaks Building 50 Project

Noise and Vibration Calculations Worksheets

Provided by Acoustical Engineering Services

Ambient Noise Measurements

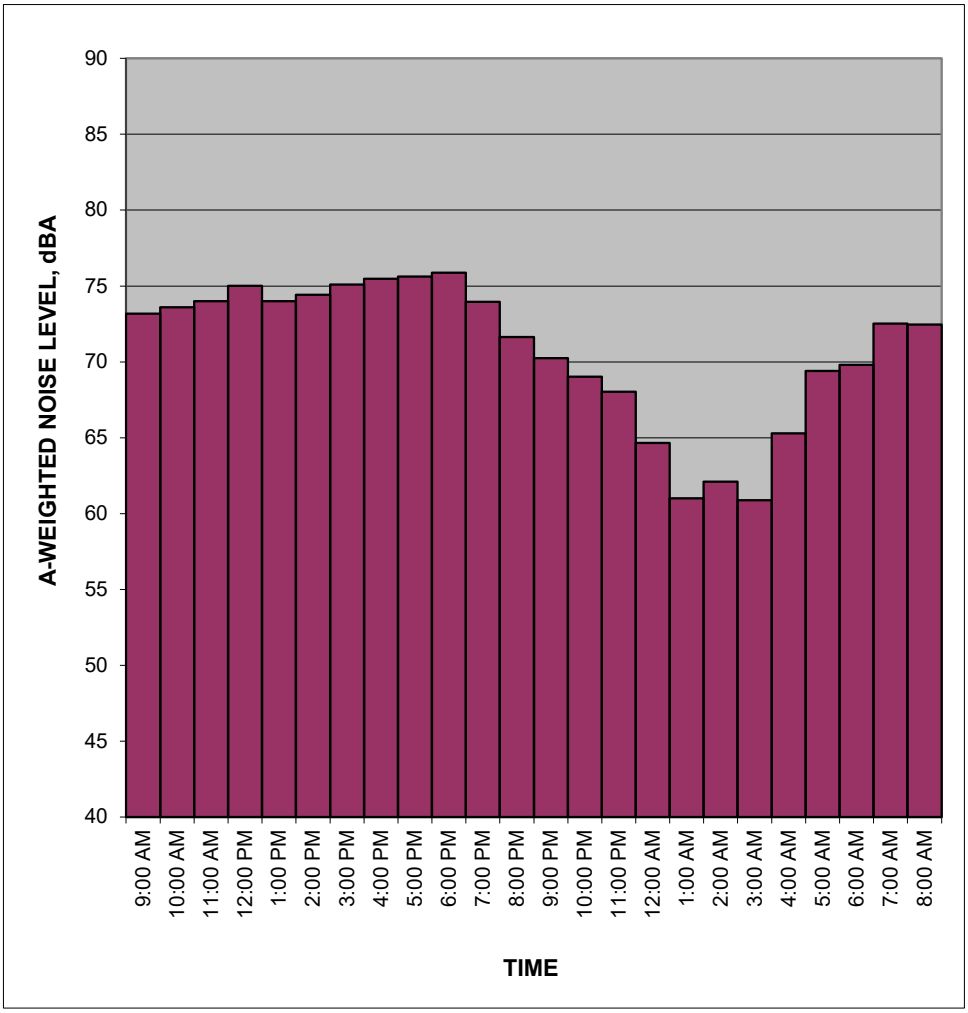
Measured Ambient Noise Levels

AES
Acoustical Engineering Services

Project: Amgen
Location: R1
Sources: Ambient

Date: 8/17 - 8/18/2026

TIME	HNL, dB(A)
9:00 AM	73.2
10:00 AM	73.6
11:00 AM	74.0
12:00 PM	75.0
1:00 PM	74.0
2:00 PM	74.4
3:00 PM	75.1
4:00 PM	75.5
5:00 PM	75.6
6:00 PM	75.9
7:00 PM	73.9
8:00 PM	71.6
9:00 PM	70.3
10:00 PM	69.0
11:00 PM	68.0
12:00 AM	64.7
1:00 AM	61.0
2:00 AM	62.1
3:00 AM	60.9
4:00 AM	65.3
5:00 AM	69.4
6:00 AM	69.8
7:00 AM	72.5
8:00 AM	72.5
CNEL, dB(A):	**75.8**



NOTES:

Daytime average	74.1	dBA Leq
Nighttime average	66.8	dBA Leq

AES
Acoustical Engineering Services

Location: R2
Date: 8/17/2026

Time	Leq	Lmax
10:04:43 AM	56.0	
10:04:53 AM	48.5	
10:05:03 AM	38.6	
10:05:13 AM	36.9	
10:05:23 AM	47.7	
10:05:33 AM	46.0	
10:05:43 AM	44.1	
10:05:53 AM	39.2	
10:06:03 AM	39.8	
10:06:13 AM	40.0	
10:06:23 AM	40.8	
10:06:33 AM	41.4	
10:06:43 AM	38.9	
10:06:53 AM	38.4	
10:07:03 AM	37.5	
10:07:13 AM	41.4	
10:07:23 AM	41.1	
10:07:33 AM	38.3	
10:07:43 AM	37.1	
10:07:53 AM	37.3	
10:08:03 AM	38.5	
10:08:13 AM	38.0	
10:08:23 AM	38.5	
10:08:33 AM	37.7	
10:08:43 AM	37.7	
10:08:53 AM	37.3	
10:09:03 AM	37.0	
10:09:13 AM	37.3	
10:09:23 AM	39.0	
10:09:33 AM	38.4	
10:09:43 AM	39.0	
10:09:53 AM	40.4	
10:10:03 AM	41.3	
10:10:13 AM	43.8	
10:10:23 AM	45.7	
10:10:33 AM	41.9	
10:10:43 AM	39.5	
10:10:53 AM	37.5	
10:11:03 AM	37.0	
10:11:13 AM	36.5	
10:11:23 AM	35.5	
10:11:33 AM	35.9	
10:11:43 AM	38.0	
10:11:53 AM	36.8	

10:12:03 AM	37.9
10:12:13 AM	40.2
10:12:23 AM	40.7
10:12:33 AM	38.3
10:12:43 AM	38.0
10:12:53 AM	37.7
10:13:03 AM	38.3
10:13:13 AM	38.2
10:13:23 AM	38.6
10:13:33 AM	37.7
10:13:43 AM	38.8
10:13:53 AM	38.3
10:14:03 AM	37.1
10:14:13 AM	38.2
10:14:23 AM	37.7
10:14:33 AM	37.6
10:14:43 AM	38.6
10:14:53 AM	37.7
10:15:03 AM	37.8
10:15:13 AM	38.3
10:15:23 AM	38.5
10:15:33 AM	40.2
10:15:43 AM	40.1
10:15:53 AM	41.8
10:16:03 AM	40.4
10:16:13 AM	41.5
10:16:23 AM	40.4
10:16:33 AM	37.7
10:16:43 AM	37.7
10:16:53 AM	39.8
10:17:03 AM	37.5
10:17:13 AM	37.2
10:17:23 AM	37.2
10:17:33 AM	37.1
10:17:43 AM	37.1
10:17:53 AM	37.8
10:18:03 AM	38.3
10:18:13 AM	38.1
10:18:23 AM	38.0
10:18:33 AM	38.8
10:18:43 AM	38.3
10:18:53 AM	37.8
10:19:03 AM	37.5
10:19:13 AM	39.0
10:19:23 AM	40.3
10:19:33 AM	40.8
	41.6

AES
ACOUSTICAL ENGINEERING SERVICES

Time	Leq
10:05:05 PM	*45.3*
10:05:15 PM	*47.4*
10:05:25 PM	*52.6*
10:05:35 PM	*47.9*
10:05:45 PM	*45.3*
10:05:55 PM	*45.6*
10:06:05 PM	*46.2*
10:06:15 PM	*44.1*
10:06:25 PM	*51.7*
10:06:35 PM	*43.7*
10:06:45 PM	*41.6*
10:06:55 PM	*50.2*
10:07:05 PM	*56.2*
10:07:15 PM	*55.0*
10:07:25 PM	*55.2*
10:07:35 PM	*54.6*
10:07:45 PM	*55.2*
10:07:55 PM	*55.5*
10:08:05 PM	*53.4*
10:08:15 PM	*55.3*
10:08:25 PM	*55.1*
10:08:35 PM	*57.0*
10:08:45 PM	*56.8*
10:08:55 PM	*55.1*
10:09:05 PM	*56.2*
10:09:15 PM	*54.6*
10:09:25 PM	*56.8*
10:09:35 PM	*56.8*
10:09:45 PM	*48.0*
10:09:55 PM	41.8
10:10:05 PM	42.8
10:10:15 PM	41.3
10:10:25 PM	41.0
10:10:35 PM	41.3
10:10:45 PM	42.4
10:10:55 PM	41.3
10:11:05 PM	40.1
10:11:15 PM	41.4
10:11:25 PM	41.6
10:11:35 PM	42.5
10:11:45 PM	41.7
10:11:55 PM	41.3
10:12:05 PM	40.8
10:12:15 PM	40.3
10:12:25 PM	39.8
10:12:35 PM	42.6
10:12:45 PM	43.2

10:12:55 PM	43.4
10:13:05 PM	43.0
10:13:15 PM	43.8
10:13:25 PM	42.4
10:13:35 PM	40.8
10:13:45 PM	42.5
10:13:55 PM	42.3
10:14:05 PM	44.5
10:14:15 PM	43.4
10:14:25 PM	43.5
10:14:35 PM	41.4
10:14:45 PM	41.8
10:14:55 PM	42.3
10:15:05 PM	42.6
10:15:15 PM	41.7
10:15:25 PM	43.3
10:15:35 PM	42.4
10:15:45 PM	41.4
10:15:55 PM	42.9
10:16:05 PM	43.0
10:16:15 PM	44.1
10:16:25 PM	40.8
10:16:35 PM	42.1
10:16:45 PM	43.8
10:16:55 PM	44.6
10:17:05 PM	43.8
10:17:15 PM	43.9
10:17:25 PM	44.3
10:17:35 PM	44.3
10:17:45 PM	45.4
10:17:55 PM	44.3
10:18:05 PM	44.3
10:18:15 PM	44.3
10:18:25 PM	42.0
10:18:35 PM	43.4
10:18:45 PM	*48.9*
10:18:55 PM	*45.7*
10:19:05 PM	44.1
10:19:15 PM	42.4
10:19:25 PM	43.6
10:19:35 PM	*47.3*
10:19:45 PM	42.4
10:19:55 PM	41.8
	42.8

AES
Acoustical Engineering Services

Project: Amgen
Location: R3
Date: 8/17/2026

Time	Leq
10:26:47 AM	52.2
10:26:57 AM	55.3
10:27:07 AM	51.3
10:27:17 AM	47.9
10:27:27 AM	54.1
10:27:37 AM	51.9
10:27:47 AM	47.1
10:27:57 AM	48.9
10:28:07 AM	50.0
10:28:17 AM	44.1
10:28:27 AM	43.7
10:28:37 AM	52.7
10:28:47 AM	48.2
10:28:57 AM	42.7
10:29:07 AM	48.4
10:29:17 AM	53.6
10:29:27 AM	54.0
10:29:37 AM	48.3
10:29:47 AM	46.4
10:29:57 AM	48.8
10:30:07 AM	49.5
10:30:17 AM	44.4
10:30:27 AM	47.9
10:30:37 AM	49.3
10:30:47 AM	51.0
10:30:57 AM	50.9
10:31:07 AM	44.0
10:31:17 AM	41.4
10:31:27 AM	49.5
10:31:37 AM	50.3
10:31:47 AM	47.2
10:31:57 AM	51.8
10:32:07 AM	52.6
10:32:17 AM	51.2
10:32:27 AM	48.5
10:32:37 AM	45.8
10:32:47 AM	45.3
10:32:57 AM	47.7
10:33:07 AM	51.2
10:33:17 AM	48.3
10:33:27 AM	52.9
10:33:37 AM	52.8
10:33:47 AM	50.7

10:33:57 AM	44.7
10:34:07 AM	41.6
10:34:17 AM	44.6
10:34:27 AM	47.3
10:34:37 AM	52.5
10:34:47 AM	49.1
10:34:57 AM	49.3
10:35:07 AM	50.6
10:35:17 AM	46.3
10:35:27 AM	49.3
10:35:37 AM	48.2
10:35:47 AM	46.8
10:35:57 AM	46.8
10:36:07 AM	53.4
10:36:17 AM	49.7
10:36:27 AM	47.6
10:36:37 AM	49.5
10:36:47 AM	42.0
10:36:57 AM	43.6
10:37:07 AM	47.1
10:37:17 AM	51.2
10:37:27 AM	50.5
10:37:37 AM	47.3
10:37:47 AM	51.3
10:37:57 AM	51.6
10:38:07 AM	48.5
10:38:17 AM	46.1
10:38:27 AM	49.7
10:38:37 AM	49.0
10:38:47 AM	50.3
10:38:57 AM	50.4
10:39:07 AM	44.7
10:39:17 AM	48.0
10:39:27 AM	48.0
10:39:37 AM	43.4
10:39:47 AM	43.8
10:39:57 AM	48.0
10:40:07 AM	55.3
10:40:17 AM	47.0
10:40:27 AM	49.0
10:40:37 AM	46.7
10:40:47 AM	46.1
10:40:57 AM	46.0
10:41:07 AM	49.0
10:41:17 AM	50.6
10:41:27 AM	49.1
10:41:37 AM	45.6
	49.6

Time	Leq
10:25:32 PM	*51.0*
10:25:42 PM	48.2
10:25:52 PM	48.2
10:26:02 PM	48.0
10:26:12 PM	46.3
10:26:22 PM	48.8
10:26:32 PM	48.1
10:26:42 PM	48.3
10:26:52 PM	47.7
10:27:02 PM	47.2
10:27:12 PM	*53.2*
10:27:22 PM	*54.4*
10:27:32 PM	*50.2*
10:27:42 PM	*50.2*
10:27:52 PM	*50.9*
10:28:02 PM	*50.9*
10:28:12 PM	*53.7*
10:28:22 PM	*55.4*
10:28:32 PM	48.1
10:28:42 PM	46.5
10:28:52 PM	46.3
10:29:02 PM	46.2
10:29:12 PM	46.1
10:29:22 PM	46.7
10:29:32 PM	50.8
10:29:42 PM	49.8
10:29:52 PM	48.4
10:30:02 PM	50.0
10:30:12 PM	46.6
10:30:22 PM	46.3
10:30:32 PM	48.1
10:30:42 PM	47.3
10:30:52 PM	48.0
10:31:02 PM	51.1
10:31:12 PM	56.0
10:31:22 PM	51.4
10:31:32 PM	48.0
10:31:42 PM	47.2
10:31:52 PM	49.8
10:32:02 PM	47.5
10:32:12 PM	47.7
10:32:22 PM	46.9
10:32:32 PM	*51.3*
10:32:42 PM	*57.0*
10:32:52 PM	*50.0*
10:33:02 PM	48.9

10:33:12 PM	*53.2*
10:33:22 PM	*54.2*
10:33:32 PM	*53.2*
10:33:42 PM	48.3
10:33:52 PM	48.6
10:34:02 PM	49.5
10:34:12 PM	46.9
10:34:22 PM	48.5
10:34:32 PM	46.9
10:34:42 PM	*50.4*
10:34:52 PM	47.2
10:35:02 PM	49.9
10:35:12 PM	50.3
10:35:22 PM	47.2
10:35:32 PM	47.5
10:35:42 PM	48.4
10:35:52 PM	*50.2*
10:36:02 PM	*50.1*
10:36:12 PM	47.8
10:36:22 PM	49.5
10:36:32 PM	46.4
10:36:42 PM	45.7
10:36:52 PM	47.6
10:37:02 PM	45.4
10:37:12 PM	46.2
10:37:22 PM	46.7
10:37:32 PM	47.7
10:37:42 PM	46.6
10:37:52 PM	47.1
10:38:02 PM	47.3
10:38:12 PM	48.0
10:38:22 PM	48.5
10:38:32 PM	48.5
10:38:42 PM	47.9
10:38:52 PM	48.2
10:39:02 PM	48.2
10:39:12 PM	*51.0*
10:39:22 PM	48.4
10:39:32 PM	47.1
10:39:42 PM	47.3
10:39:52 PM	*50.6*
10:40:02 PM	48.4
10:40:12 PM	47.3
10:40:22 PM	49.8
	48.0

AES
Acoustical Engineering Services

Project: Amgen
Location: R4
Date: 8/17/2026

Time	Leq
10:46:49 AM	52.9
10:46:59 AM	57.7
10:47:09 AM	48.3
10:47:19 AM	47.1
10:47:29 AM	47.7
10:47:39 AM	55.1
10:47:49 AM	55.0
10:47:59 AM	46.0
10:48:09 AM	44.4
10:48:19 AM	43.7
10:48:29 AM	43.5
10:48:39 AM	55.2
10:48:49 AM	51.9
10:48:59 AM	43.8
10:49:09 AM	46.8
10:49:19 AM	51.8
10:49:29 AM	53.8
10:49:39 AM	52.0
10:49:49 AM	55.0
10:49:59 AM	45.8
10:50:09 AM	52.4
10:50:19 AM	60.1
10:50:29 AM	50.8
10:50:39 AM	42.8
10:50:49 AM	44.5
10:50:59 AM	42.1
10:51:09 AM	43.4
10:51:19 AM	55.4
10:51:29 AM	49.7
10:51:39 AM	48.9
10:51:49 AM	50.3
10:51:59 AM	57.7
10:52:09 AM	57.2
10:52:19 AM	53.4
10:52:29 AM	47.9
10:52:39 AM	44.8
10:52:49 AM	46.7
10:52:59 AM	50.9
10:53:09 AM	54.6
10:53:19 AM	55.5
10:53:29 AM	56.3
10:53:39 AM	54.8
10:53:49 AM	52.5

10:53:59 AM	53.3
10:54:09 AM	49.8
10:54:19 AM	46.5
10:54:29 AM	45.9
10:54:39 AM	53.5
10:54:49 AM	48.5
10:54:59 AM	52.8
10:55:09 AM	56.8
10:55:19 AM	52.3
10:55:29 AM	45.2
10:55:39 AM	43.0
10:55:49 AM	42.7
10:55:59 AM	42.4
10:56:09 AM	54.7
10:56:19 AM	55.0
10:56:29 AM	47.0
10:56:39 AM	42.8
10:56:49 AM	42.6
10:56:59 AM	43.5
10:57:09 AM	44.1
10:57:19 AM	51.5
10:57:29 AM	53.4
10:57:39 AM	57.7
10:57:49 AM	52.1
10:57:59 AM	49.5
10:58:09 AM	52.5
10:58:19 AM	51.9
10:58:29 AM	48.5
10:58:39 AM	54.8
10:58:49 AM	53.1
10:58:59 AM	46.1
10:59:09 AM	43.4
10:59:19 AM	44.6
10:59:29 AM	47.8
10:59:39 AM	53.8
10:59:49 AM	52.5
10:59:59 AM	44.5
11:00:09 AM	43.6
11:00:19 AM	44.6
11:00:29 AM	55.5
11:00:39 AM	55.5
11:00:49 AM	57.1
11:00:59 AM	49.0
11:01:09 AM	54.6
11:01:19 AM	46.0
11:01:29 AM	43.0
11:01:39 AM	44.2
	52.3

Time	Leq
11:27:36 PM	42.0
11:27:46 PM	41.8
11:27:56 PM	42.2
11:28:06 PM	41.6
11:28:16 PM	41.8
11:28:26 PM	49.0
11:28:36 PM	49.0
11:28:46 PM	42.5
11:28:56 PM	42.0
11:29:06 PM	41.7
11:29:16 PM	41.8
11:29:26 PM	41.9
11:29:36 PM	42.0
11:29:46 PM	42.2
11:29:56 PM	54.0
11:30:06 PM	53.3
11:30:16 PM	46.7
11:30:26 PM	41.7
11:30:36 PM	41.2
11:30:46 PM	41.2
11:30:56 PM	41.2
11:31:06 PM	41.3
11:31:16 PM	41.2
11:31:26 PM	41.1
11:31:36 PM	41.2
11:31:46 PM	41.4
11:31:56 PM	41.2
11:32:06 PM	41.2
11:32:16 PM	41.2
11:32:26 PM	41.1
11:32:36 PM	41.0
11:32:46 PM	40.8
11:32:56 PM	40.8
11:33:06 PM	41.0
11:33:16 PM	40.6
11:33:26 PM	40.8
11:33:36 PM	41.0
11:33:46 PM	41.0
11:33:56 PM	41.2
11:34:06 PM	41.1
11:34:16 PM	41.2
11:34:26 PM	41.5
11:34:36 PM	47.4
11:34:46 PM	49.6
11:34:56 PM	41.0
11:35:06 PM	40.9

11:35:16 PM	44.5
11:35:26 PM	54.7
11:35:36 PM	42.7
11:35:46 PM	41.5
11:35:56 PM	41.4
11:36:06 PM	41.3
11:36:16 PM	41.3
11:36:26 PM	48.2
11:36:36 PM	50.1
11:36:46 PM	42.2
11:36:56 PM	51.0
11:37:06 PM	51.3
11:37:16 PM	41.9
11:37:26 PM	41.7
11:37:36 PM	41.3
11:37:46 PM	41.3
11:37:56 PM	41.1
11:38:06 PM	41.1
11:38:16 PM	42.6
11:38:26 PM	48.2
11:38:36 PM	42.1
11:38:46 PM	41.5
11:38:56 PM	41.2
11:39:06 PM	41.2
11:39:16 PM	41.0
11:39:26 PM	41.0
11:39:36 PM	41.2
11:39:46 PM	41.4
11:39:56 PM	41.5
11:40:06 PM	41.6
11:40:16 PM	41.8
11:40:26 PM	42.2
11:40:36 PM	42.2
11:40:46 PM	41.6
11:40:56 PM	41.5
11:41:06 PM	41.5
11:41:16 PM	41.5
11:41:26 PM	41.4
11:41:36 PM	41.6
11:41:46 PM	41.5
11:41:56 PM	41.5
11:42:06 PM	41.8
11:42:16 PM	41.8
11:42:26 PM	41.7
	44.8

AES
Acoustical Engineering Services

Project: Amgen
Location: R5
Date: 8/17/2026

Time	Leq
11:11:14 AM	53.8
11:11:24 AM	57.9
11:11:34 AM	52.9
11:11:44 AM	50.0
11:11:54 AM	51.9
11:12:04 AM	57.9
11:12:14 AM	52.5
11:12:24 AM	51.4
11:12:34 AM	50.8
11:12:44 AM	48.0
11:12:54 AM	49.7
11:13:04 AM	53.5
11:13:14 AM	52.4
11:13:24 AM	48.6
11:13:34 AM	50.4
11:13:44 AM	51.8
11:13:54 AM	55.7
11:14:04 AM	50.7
11:14:14 AM	51.5
11:14:24 AM	53.3
11:14:34 AM	57.0
11:14:44 AM	50.8
11:14:54 AM	52.6
11:15:04 AM	55.1
11:15:14 AM	49.3
11:15:24 AM	52.2
11:15:34 AM	50.3
11:15:44 AM	48.9
11:15:54 AM	66.0
11:16:04 AM	72.0
11:16:14 AM	52.3
11:16:24 AM	56.4
11:16:34 AM	51.6
11:16:44 AM	52.1
11:16:54 AM	50.0
11:17:04 AM	47.1
11:17:14 AM	48.3
11:17:24 AM	45.6
11:17:34 AM	46.6
11:17:44 AM	45.3
11:17:54 AM	48.4
11:18:04 AM	47.2
11:18:14 AM	50.3

11:18:24 AM	48.9
11:18:34 AM	50.1
11:18:44 AM	49.6
11:18:54 AM	48.8
11:19:04 AM	51.8
11:19:14 AM	50.9
11:19:24 AM	50.1
11:19:34 AM	52.3
11:19:44 AM	51.1
11:19:54 AM	50.0
11:20:04 AM	54.1
11:20:14 AM	54.1
11:20:24 AM	56.5
11:20:34 AM	52.4
11:20:44 AM	49.0
11:20:54 AM	51.9
11:21:04 AM	50.2
11:21:14 AM	51.0
11:21:24 AM	50.2
11:21:34 AM	51.8
11:21:44 AM	51.6
11:21:54 AM	50.8
11:22:04 AM	49.2
11:22:14 AM	52.7
11:22:24 AM	56.4
11:22:34 AM	50.9
11:22:44 AM	50.9
11:22:54 AM	50.4
11:23:04 AM	49.5
11:23:14 AM	55.0
11:23:24 AM	54.4
11:23:34 AM	48.9
11:23:44 AM	50.2
11:23:54 AM	51.4
11:24:04 AM	48.1
11:24:14 AM	47.4
11:24:24 AM	49.6
11:24:34 AM	47.9
11:24:44 AM	48.8
11:24:54 AM	48.3
11:25:04 AM	50.8
11:25:14 AM	49.1
11:25:24 AM	50.1
11:25:34 AM	47.4
11:25:44 AM	49.4
11:25:54 AM	48.8
11:26:04 AM	48.4
	55.7

AES
ACOUSTICAL ENGINEERING SERVICES

Time	Leq
10:46:42 PM	48.2
10:46:52 PM	48.3
10:47:02 PM	50.2
10:47:12 PM	49.9
10:47:22 PM	52.6
10:47:32 PM	48.9
10:47:42 PM	48.3
10:47:52 PM	49.7
10:48:02 PM	49.2
10:48:12 PM	49.0
10:48:22 PM	49.1
10:48:32 PM	49.0
10:48:42 PM	50.9
10:48:52 PM	54.4
10:49:02 PM	57.8
10:49:12 PM	50.9
10:49:22 PM	50.7
10:49:32 PM	50.5
10:49:42 PM	49.0
10:49:52 PM	51.3
10:50:02 PM	48.8
10:50:12 PM	48.6
10:50:22 PM	48.5
10:50:32 PM	48.5
10:50:42 PM	52.8
10:50:52 PM	55.4
10:51:02 PM	49.6
10:51:12 PM	48.8
10:51:22 PM	48.8
10:51:32 PM	49.2
10:51:42 PM	49.2
10:51:52 PM	49.9
10:52:02 PM	50.1
10:52:12 PM	48.8
10:52:22 PM	48.5
10:52:32 PM	48.4
10:52:42 PM	48.4
10:52:52 PM	48.9
10:53:02 PM	49.1
10:53:12 PM	49.1
10:53:22 PM	49.1
10:53:32 PM	50.5
10:53:42 PM	50.1
10:53:52 PM	48.8
10:54:02 PM	52.7
10:54:12 PM	52.4

10:54:22 PM	51.1
10:54:32 PM	50.7
10:54:42 PM	49.0
10:54:52 PM	49.3
10:55:02 PM	48.7
10:55:12 PM	48.7
10:55:22 PM	49.3
10:55:32 PM	49.1
10:55:42 PM	49.0
10:55:52 PM	48.8
10:56:02 PM	48.9
10:56:12 PM	49.2
10:56:22 PM	49.1
10:56:32 PM	49.5
10:56:42 PM	49.6
10:56:52 PM	49.9
10:57:02 PM	50.3
10:57:12 PM	51.3
10:57:22 PM	50.8
10:57:32 PM	49.8
10:57:42 PM	49.8
10:57:52 PM	49.8
10:58:02 PM	50.1
10:58:12 PM	50.9
10:58:22 PM	52.3
10:58:32 PM	49.6
10:58:42 PM	54.4
10:58:52 PM	58.9
10:59:02 PM	51.9
10:59:12 PM	50.0
10:59:22 PM	50.0
10:59:32 PM	49.6
10:59:42 PM	49.7
10:59:52 PM	49.5
11:00:02 PM	50.4
11:00:12 PM	49.9
11:00:22 PM	49.7
11:00:32 PM	50.0
11:00:42 PM	52.2
11:00:52 PM	50.7
11:01:02 PM	49.9
11:01:12 PM	50.3
11:01:22 PM	51.5
11:01:32 PM	50.3
	50.7

AES
Acoustical Engineering Services

Project: Amgen
Location: R6
Date: 8/17/2026

Time	Leq
11:32:15 AM	54.6
11:32:25 AM	54.7
11:32:35 AM	53.7
11:32:45 AM	54.2
11:32:55 AM	54.9
11:33:05 AM	53.4
11:33:15 AM	53.2
11:33:25 AM	53.6
11:33:35 AM	54.6
11:33:45 AM	53.5
11:33:55 AM	53.1
11:34:05 AM	53.1
11:34:15 AM	53.9
11:34:25 AM	56.3
11:34:35 AM	57.8
11:34:45 AM	56.8
11:34:55 AM	55.0
11:35:05 AM	54.2
11:35:15 AM	54.3
11:35:25 AM	56.4
11:35:35 AM	53.8
11:35:45 AM	53.4
11:35:55 AM	54.3
11:36:05 AM	53.7
11:36:15 AM	60.5
11:36:25 AM	59.9
11:36:35 AM	56.0
11:36:45 AM	55.2
11:36:55 AM	54.1
11:37:05 AM	55.8
11:37:15 AM	54.8
11:37:25 AM	54.8
11:37:35 AM	55.9
11:37:45 AM	53.3
11:37:55 AM	51.9
11:38:05 AM	53.4
11:38:15 AM	55.0
11:38:25 AM	55.5
11:38:35 AM	56.1
11:38:45 AM	53.9
11:38:55 AM	53.9
11:39:05 AM	53.7
11:39:15 AM	57.2

11:39:25 AM	58.3
11:39:35 AM	53.8
11:39:45 AM	53.9
11:39:55 AM	53.2
11:40:05 AM	53.2
11:40:15 AM	54.9
11:40:25 AM	56.9
11:40:35 AM	57.7
11:40:45 AM	54.1
11:40:55 AM	52.9
11:41:05 AM	52.9
11:41:15 AM	54.6
11:41:25 AM	54.7
11:41:35 AM	52.9
11:41:45 AM	52.8
11:41:55 AM	52.5
11:42:05 AM	56.3
11:42:15 AM	57.6
11:42:25 AM	54.8
11:42:35 AM	59.3
11:42:45 AM	60.5
11:42:55 AM	55.5
11:43:05 AM	56.0
11:43:15 AM	52.5
11:43:25 AM	53.4
11:43:35 AM	55.1
11:43:45 AM	52.2
11:43:55 AM	51.9
11:44:05 AM	51.6
11:44:15 AM	53.5
11:44:25 AM	58.4
11:44:35 AM	58.4
11:44:45 AM	59.2
11:44:55 AM	58.1
11:45:05 AM	54.6
11:45:15 AM	53.3
11:45:25 AM	61.2
11:45:35 AM	53.8
11:45:45 AM	52.8
11:45:55 AM	53.4
11:46:05 AM	55.5
11:46:15 AM	54.3
11:46:25 AM	53.0
11:46:35 AM	53.3
11:46:45 AM	58.6
11:46:55 AM	59.8
11:47:05 AM	58.3
	55.7

Time	Leq
11:07:51 PM	53.6
11:08:01 PM	53.1
11:08:11 PM	53.1
11:08:21 PM	54.2
11:08:31 PM	53.5
11:08:41 PM	53.7
11:08:51 PM	53.6
11:09:01 PM	53.4
11:09:11 PM	53.2
11:09:21 PM	53.2
11:09:31 PM	53.2
11:09:41 PM	53.3
11:09:51 PM	53.2
11:10:01 PM	53.3
11:10:11 PM	54.9
11:10:21 PM	53.4
11:10:31 PM	54.9
11:10:41 PM	53.8
11:10:51 PM	52.9
11:11:01 PM	52.9
11:11:11 PM	52.8
11:11:21 PM	53.2
11:11:31 PM	53.2
11:11:41 PM	52.9
11:11:51 PM	53.1
11:12:01 PM	53.0
11:12:11 PM	52.8
11:12:21 PM	54.1
11:12:31 PM	52.8
11:12:41 PM	52.5
11:12:51 PM	52.9
11:13:01 PM	53.2
11:13:11 PM	53.0
11:13:21 PM	52.6
11:13:31 PM	53.0
11:13:41 PM	53.0
11:13:51 PM	52.9
11:14:01 PM	53.0
11:14:11 PM	52.9
11:14:21 PM	53.1
11:14:31 PM	52.9
11:14:41 PM	53.1
11:14:51 PM	53.2
11:15:01 PM	52.8
11:15:11 PM	52.9
11:15:21 PM	53.0

11:15:31 PM	52.9
11:15:41 PM	52.9
11:15:51 PM	53.0
11:16:01 PM	53.6
11:16:11 PM	52.6
11:16:21 PM	52.7
11:16:31 PM	52.7
11:16:41 PM	52.6
11:16:51 PM	52.8
11:17:01 PM	52.8
11:17:11 PM	52.8
11:17:21 PM	52.6
11:17:31 PM	52.5
11:17:41 PM	52.3
11:17:51 PM	52.5
11:18:01 PM	52.6
11:18:11 PM	52.8
11:18:21 PM	52.7
11:18:31 PM	52.9
11:18:41 PM	53.1
11:18:51 PM	53.0
11:19:01 PM	52.6
11:19:11 PM	52.3
11:19:21 PM	51.9
11:19:31 PM	52.0
11:19:41 PM	52.2
11:19:51 PM	52.6
11:20:01 PM	52.5
11:20:11 PM	52.3
11:20:21 PM	52.8
11:20:31 PM	53.5
11:20:41 PM	56.4
11:20:51 PM	53.5
11:21:01 PM	53.2
11:21:11 PM	55.0
11:21:21 PM	53.8
11:21:31 PM	53.3
11:21:41 PM	52.9
11:21:51 PM	52.6
11:22:01 PM	53.0
11:22:11 PM	53.1
11:22:21 PM	53.2
11:22:31 PM	53.9
11:22:41 PM	53.0
	53.2

Construction Noise & Vibration Calculations

AES
ACOUSTICAL ENGINEERING SERVICES

Project: Amgen

On-Site Construction Noise Analysis

DAYTIME CONSTRUCTION ACTIVITIES

	Estimated Construction Noise Levels, dBA Leq (from SoundPLAN Model)				
Receptor	Grading (A)	Foundation (B)	Building Connstruction (C)	Paving/ Landscape (D)	Trucks (E)
R1	67.5	73.4	73.0	72.9	50.8
R2	37.1	43.0	42.6	42.5	34.2
R3	35.2	41.1	40.7	40.7	31.7
R4	38.2	44.1	43.7	43.7	27.7
R5	48.0	54.0	53.5	53.5	24.8
R6	41.5	47.5	47.0	47.0	22.2

Project: Amgen

Construction Equipment Noise Levels

Construction Equipment by Project Phase

Description	Sound Power Levels (Lw), Leq	Grading/Excavation		Foundation		Building Construction		Paving/Landscape	
		# of Equipment	Sound Power Level	# of Equipment	Sound Power Level	# of Equipment	Sound Power Level	# of Equipment	Sound Power Level
Air Compressor	105.7			1	105.7	4			
Aerial Lift	99.7					3			
Bore Drill Rig	108.7	1	108.7						
Cement and Mortar Mixers	108.6					1	108.6		
Concrete/Industrial Saw	114.7			1	114.7	1		1	114.7
Crane (Tower)	104.7								
Crane (Mobile)	104.7			1	104.7	3			
Crawler Tractor	111.7			2	114.7	1		1	111.7
Crushing/Proc. Equipment	113.6								
Dump Truck	103.7								
Excavator	108.7	1	108.7	2	111.7	1		1	108.7
Forklifts	99.7	1	99.7	1	99.7	1		1	99.7
Generator Sets	109.6					1			
Grader	112.7								
Placing Booms	110.7								
Off-Highway Tractors	111.7								
Water Truck	103.7								
Paver	105.6							1	105.6
Paving Equipment	105.6							1	105.6
Plate Compactor	107.7								
Pump	109.6			2	112.6	2	112.6	2	112.6
Plate Compactor	107.7			1	107.7			1	107.7
Roller	104.7	1	104.7					1	104.7
Rough Terrain Forklifts	110.7	1	110.7	1	110.7	1		1	110.7
Rubber Tired Dozer	109.7								
Rubber Tired Loader	106.7	1	106.7						
Scraper	111.7								
Signal Boards	101.6			1	101.6	1		1	101.6
Skid Steer Loader	106.7	1	106.7	2	109.7			2	109.7
Surfacing Equipment	114.7							1	114.7
Sweeper	103.7							2	106.7
Tractors/Loaders/Backhoes	111.7			2	114.7				
Trencher	108.6								
Welders	101.7					10		2	104.7
Other Equipment	113.6								
		7		17		30		19	

Source for Ref. Noise Levels: FHWA RCNM, 2006

Amgen
Source Levels in dB(A) - 01 Grading

Name	Source type	Lw dB(A)	
Bore Drill Rig 1	Area	108.7	
Excavator 1	Area	108.7	
Forklift 1	Area	99.7	
Roller 1	Area	104.7	
Rough Terrain Forklift 1	Area	110.7	
Rubber Tired Loader 1	Area	106.7	
Skid Steer Loader 1	Area	106.7	

Amgen
Contribution level - 01 Grading

Source	Source type	Leq,d dB(A)	
Receiver R1 Leq,d 67.5 dB(A)			
Bore Drill Rig 1	Area	60.3	
Excavator 1	Area	60.2	
Forklift 1	Area	51.2	
Roller 1	Area	56.2	
Rough Terrain Forklift 1	Area	62.2	
Rubber Tired Loader 1	Area	58.2	
Skid Steer Loader 1	Area	58.2	
Receiver R2 Leq,d 37.1 dB(A)			
Bore Drill Rig 1	Area	29.7	
Excavator 1	Area	29.8	
Forklift 1	Area	20.8	
Roller 1	Area	25.8	
Rough Terrain Forklift 1	Area	31.8	
Rubber Tired Loader 1	Area	27.8	
Skid Steer Loader 1	Area	27.8	
Receiver R3 Leq,d 35.2 dB(A)			
Bore Drill Rig 1	Area	27.9	
Excavator 1	Area	27.9	
Forklift 1	Area	18.9	
Roller 1	Area	23.9	
Rough Terrain Forklift 1	Area	29.9	
Rubber Tired Loader 1	Area	25.9	
Skid Steer Loader 1	Area	25.9	
Receiver R4 Leq,d 38.2 dB(A)			
Bore Drill Rig 1	Area	30.9	
Excavator 1	Area	30.9	
Forklift 1	Area	21.9	
Roller 1	Area	26.9	
Rough Terrain Forklift 1	Area	32.9	
Rubber Tired Loader 1	Area	28.9	
Skid Steer Loader 1	Area	28.9	
Receiver R5 Leq,d 48.0 dB(A)			
Bore Drill Rig 1	Area	40.6	
Excavator 1	Area	40.7	
Forklift 1	Area	31.7	
Roller 1	Area	36.7	
Rough Terrain Forklift 1	Area	42.7	
Rubber Tired Loader 1	Area	38.7	
Skid Steer Loader 1	Area	38.7	
Receiver R6 Leq,d 41.5 dB(A)			
Bore Drill Rig 1	Area	34.1	

Amgen
Contribution level - 01 Grading

Source	Source type	Leq,d dB(A)	
Excavator 1	Area	34.2	
Forklift 1	Area	25.2	
Roller 1	Area	30.2	
Rough Terrain Forklift 1	Area	36.2	
Rubber Tired Loader 1	Area	32.2	
Skid Steer Loader 1	Area	32.2	

Amgen
Source Levels in dB(A) - 02 Foundation

Name	Source type	Lw dB(A)	
Air Compressor 1	Area	105.7	
Concrete Saw 1	Area	114.7	
Crane 1	Area	104.7	
Crawler Tractor 1	Area	111.7	
Crawler Tractor 2	Area	111.7	
Excavator 1	Area	108.7	
Excavator 2	Area	108.7	
Forklift 1	Area	99.7	
Plate Compactor 1	Area	107.7	
Pump 1	Area	109.6	
Pump 2	Area	109.6	
Rough Terrain Forklift 1	Area	110.7	
Signal Board 1	Area	101.6	
Skid Steer Loader 1	Area	106.7	
Skid Steer Loader 2	Area	106.7	
Tractor Loader Backhoe 1	Area	111.7	
Tractor Loader Backhoe 2	Area	111.7	

Amgen
Contribution level - 02 Foundation

Source	Source type	Leq,d dB(A)	
Receiver R1 Leq,d 73.4 dB(A)			
Air Compressor 1	Area	57.2	
Concrete Saw 1	Area	66.2	
Crane 1	Area	56.2	
Crawler Tractor 1	Area	63.2	
Crawler Tractor 2	Area	63.2	
Excavator 1	Area	60.2	
Excavator 2	Area	60.2	
Forklift 1	Area	51.2	
Plate Compactor 1	Area	59.2	
Pump 1	Area	61.1	
Pump 2	Area	61.1	
Rough Terrain Forklift 1	Area	62.2	
Signal Board 1	Area	53.1	
Skid Steer Loader 1	Area	58.2	
Skid Steer Loader 2	Area	58.2	
Tractor Loader Backhoe 1	Area	63.2	
Tractor Loader Backhoe 2	Area	63.2	
Receiver R2 Leq,d 43.0 dB(A)			
Air Compressor 1	Area	26.8	
Concrete Saw 1	Area	35.8	
Crane 1	Area	25.8	
Crawler Tractor 1	Area	32.8	
Crawler Tractor 2	Area	32.8	
Excavator 1	Area	29.8	
Excavator 2	Area	29.8	
Forklift 1	Area	20.8	
Plate Compactor 1	Area	28.8	
Pump 1	Area	30.7	
Pump 2	Area	30.7	
Rough Terrain Forklift 1	Area	31.8	
Signal Board 1	Area	22.7	
Skid Steer Loader 1	Area	27.8	
Skid Steer Loader 2	Area	27.8	
Tractor Loader Backhoe 1	Area	32.8	
Tractor Loader Backhoe 2	Area	32.8	
Receiver R3 Leq,d 41.1 dB(A)			
Air Compressor 1	Area	24.9	
Concrete Saw 1	Area	33.9	
Crane 1	Area	23.9	
Crawler Tractor 1	Area	30.9	
Crawler Tractor 2	Area	30.9	
Excavator 1	Area	27.9	

Amgen
Contribution level - 02 Foundation

Source	Source type	Leq,d dB(A)	
Excavator 2	Area	27.9	
Forklift 1	Area	18.9	
Plate Compactor 1	Area	26.9	
Pump 1	Area	28.8	
Pump 2	Area	28.8	
Rough Terrain Forklift 1	Area	29.9	
Signal Board 1	Area	20.8	
Skid Steer Loader 1	Area	25.9	
Skid Steer Loader 2	Area	25.9	
Tractor Loader Backhoe 1	Area	30.9	
Tractor Loader Backhoe 2	Area	30.9	
Receiver R4 Leq,d 44.1 dB(A)			
Air Compressor 1	Area	27.9	
Concrete Saw 1	Area	36.9	
Crane 1	Area	26.9	
Crawler Tractor 1	Area	33.9	
Crawler Tractor 2	Area	33.9	
Excavator 1	Area	30.9	
Excavator 2	Area	30.9	
Forklift 1	Area	21.9	
Plate Compactor 1	Area	29.9	
Pump 1	Area	31.8	
Pump 2	Area	31.8	
Rough Terrain Forklift 1	Area	32.9	
Signal Board 1	Area	23.8	
Skid Steer Loader 1	Area	28.9	
Skid Steer Loader 2	Area	28.9	
Tractor Loader Backhoe 1	Area	33.9	
Tractor Loader Backhoe 2	Area	33.9	
Receiver R5 Leq,d 54.0 dB(A)			
Air Compressor 1	Area	37.7	
Concrete Saw 1	Area	46.7	
Crane 1	Area	36.7	
Crawler Tractor 1	Area	43.7	
Crawler Tractor 2	Area	43.7	
Excavator 1	Area	40.7	
Excavator 2	Area	40.7	
Forklift 1	Area	31.7	
Plate Compactor 1	Area	39.7	
Pump 1	Area	41.6	
Pump 2	Area	41.6	
Rough Terrain Forklift 1	Area	42.7	
Signal Board 1	Area	33.6	

Amgen
Contribution level - 02 Foundation

Source	Source type	Leq,d dB(A)	
Skid Steer Loader 1	Area	38.7	
Skid Steer Loader 2	Area	38.7	
Tractor Loader Backhoe 1	Area	43.7	
Tractor Loader Backhoe 2	Area	43.7	
Receiver R6 Leq,d 47.5 dB(A)			
Air Compressor 1	Area	31.2	
Concrete Saw 1	Area	40.2	
Crane 1	Area	30.2	
Crawler Tractor 1	Area	37.2	
Crawler Tractor 2	Area	37.2	
Excavator 1	Area	34.2	
Excavator 2	Area	34.2	
Forklift 1	Area	25.2	
Plate Compactor 1	Area	33.2	
Pump 1	Area	35.1	
Pump 2	Area	35.1	
Rough Terrain Forklift 1	Area	36.2	
Signal Board 1	Area	27.1	
Skid Steer Loader 1	Area	32.2	
Skid Steer Loader 2	Area	32.2	
Tractor Loader Backhoe 1	Area	37.2	
Tractor Loader Backhoe 2	Area	37.2	

Amgen
Source Levels in dB(A) - 03 Building Construction

Name	Source type	Lw dB(A)	
Aerial Lift 1	Area	99.7	
Aerial Lift 2	Area	99.7	
Aerial Lift 3	Area	99.7	
Air Compressor 1	Area	105.7	
Air Compressor 2	Area	105.7	
Air Compressor 3	Area	105.7	
Air Compressor 4	Area	105.7	
Cement & Mortar Mixer 1	Area	108.6	
Concrete Saw 1	Area	114.7	
Crane 1	Area	104.7	
Crane 2	Area	104.7	
Crane 3	Area	104.7	
Crawler Tractor 1	Area	111.7	
Excavator 1	Area	108.7	
Forklift 1	Area	99.7	
Generator Set 1	Area	109.6	
Pump 1	Area	109.6	
Pump 2	Area	109.6	
Rough Terrain Forklift 1	Area	110.7	
Signal Board 1	Area	101.6	
Welder 1	Area	101.7	
Welder 2	Area	101.7	
Welder 3	Area	101.7	
Welder 4	Area	101.7	
Welder 5	Area	101.7	
Welder 6	Area	101.7	
Welder 7	Area	101.7	
Welder 8	Area	101.7	
Welder 9	Area	101.7	
Welder 10	Area	101.7	

Amgen
Contribution level - 03 Building Construction

Source	Source type	Leq,d dB(A)	
Receiver R1 Leq,d 73.0 dB(A)			
Aerial Lift 1	Area	51.2	
Aerial Lift 2	Area	51.2	
Aerial Lift 3	Area	51.2	
Air Compressor 1	Area	57.2	
Air Compressor 2	Area	57.2	
Air Compressor 3	Area	57.2	
Air Compressor 4	Area	57.2	
Cement & Mortar Mixer 1	Area	60.1	
Concrete Saw 1	Area	66.2	
Crane 1	Area	56.2	
Crane 2	Area	56.2	
Crane 3	Area	56.2	
Crawler Tractor 1	Area	63.2	
Excavator 1	Area	60.2	
Forklift 1	Area	51.2	
Generator Set 1	Area	61.1	
Pump 1	Area	61.1	
Pump 2	Area	61.1	
Rough Terrain Forklift 1	Area	62.2	
Signal Board 1	Area	53.1	
Welder 1	Area	53.2	
Welder 2	Area	53.2	
Welder 3	Area	53.2	
Welder 4	Area	53.2	
Welder 5	Area	53.2	
Welder 6	Area	53.2	
Welder 7	Area	53.2	
Welder 8	Area	53.2	
Welder 9	Area	53.2	
Welder 10	Area	53.2	
Receiver R2 Leq,d 42.6 dB(A)			
Aerial Lift 1	Area	20.8	
Aerial Lift 2	Area	20.8	
Aerial Lift 3	Area	20.8	
Air Compressor 1	Area	26.8	
Air Compressor 2	Area	26.8	
Air Compressor 3	Area	26.8	
Air Compressor 4	Area	26.8	
Cement & Mortar Mixer 1	Area	29.7	
Concrete Saw 1	Area	35.8	
Crane 1	Area	25.8	
Crane 2	Area	25.8	

Amgen
Contribution level - 03 Building Construction

Source	Source type	Leq,d dB(A)	
Crane 3	Area	25.8	
Crawler Tractor 1	Area	32.8	
Excavator 1	Area	29.8	
Forklift 1	Area	20.8	
Generator Set 1	Area	30.7	
Pump 1	Area	30.7	
Pump 2	Area	30.7	
Rough Terrain Forklift 1	Area	31.8	
Signal Board 1	Area	22.7	
Welder 1	Area	22.8	
Welder 2	Area	22.8	
Welder 3	Area	22.8	
Welder 4	Area	22.8	
Welder 5	Area	22.8	
Welder 6	Area	22.8	
Welder 7	Area	22.8	
Welder 8	Area	22.8	
Welder 9	Area	22.8	
Welder 10	Area	22.8	
Receiver R3 Leq,d 40.7 dB(A)			
Aerial Lift 1	Area	18.9	
Aerial Lift 2	Area	18.9	
Aerial Lift 3	Area	18.9	
Air Compressor 1	Area	24.9	
Air Compressor 2	Area	24.9	
Air Compressor 3	Area	24.9	
Air Compressor 4	Area	24.9	
Cement & Mortar Mixer 1	Area	27.8	
Concrete Saw 1	Area	33.9	
Crane 1	Area	23.9	
Crane 2	Area	23.9	
Crane 3	Area	23.9	
Crawler Tractor 1	Area	30.9	
Excavator 1	Area	27.9	
Forklift 1	Area	18.9	
Generator Set 1	Area	28.8	
Pump 1	Area	28.8	
Pump 2	Area	28.8	
Rough Terrain Forklift 1	Area	29.9	
Signal Board 1	Area	20.8	
Welder 1	Area	20.9	
Welder 2	Area	20.9	
Welder 3	Area	20.9	

Amgen
Contribution level - 03 Building Construction

Source	Source type	Leq,d dB(A)	
Welder 4	Area	20.9	
Welder 5	Area	20.9	
Welder 6	Area	20.9	
Welder 7	Area	20.9	
Welder 8	Area	20.9	
Welder 9	Area	20.9	
Welder 10	Area	20.9	
Receiver R4 Leq,d 43.7 dB(A)			
Aerial Lift 1	Area	21.9	
Aerial Lift 2	Area	21.9	
Aerial Lift 3	Area	21.9	
Air Compressor 1	Area	27.9	
Air Compressor 2	Area	27.9	
Air Compressor 3	Area	27.9	
Air Compressor 4	Area	27.9	
Cement & Mortar Mixer 1	Area	30.8	
Concrete Saw 1	Area	36.9	
Crane 1	Area	26.9	
Crane 2	Area	26.9	
Crane 3	Area	26.9	
Crawler Tractor 1	Area	33.9	
Excavator 1	Area	30.9	
Forklift 1	Area	21.9	
Generator Set 1	Area	31.8	
Pump 1	Area	31.8	
Pump 2	Area	31.8	
Rough Terrain Forklift 1	Area	32.9	
Signal Board 1	Area	23.8	
Welder 1	Area	23.9	
Welder 2	Area	23.9	
Welder 3	Area	23.9	
Welder 4	Area	23.9	
Welder 5	Area	23.9	
Welder 6	Area	23.9	
Welder 7	Area	23.9	
Welder 8	Area	23.9	
Welder 9	Area	23.9	
Welder 10	Area	23.9	
Receiver R5 Leq,d 53.5 dB(A)			
Aerial Lift 1	Area	31.7	
Aerial Lift 2	Area	31.7	
Aerial Lift 3	Area	31.7	
Air Compressor 1	Area	37.7	

Amgen
Contribution level - 03 Building Construction

Source	Source type	Leq,d dB(A)	
Air Compressor 2	Area	37.7	
Air Compressor 3	Area	37.7	
Air Compressor 4	Area	37.7	
Cement & Mortar Mixer 1	Area	40.6	
Concrete Saw 1	Area	46.7	
Crane 1	Area	36.7	
Crane 2	Area	36.7	
Crane 3	Area	36.7	
Crawler Tractor 1	Area	43.7	
Excavator 1	Area	40.7	
Forklift 1	Area	31.7	
Generator Set 1	Area	41.6	
Pump 1	Area	41.6	
Pump 2	Area	41.6	
Rough Terrain Forklift 1	Area	42.7	
Signal Board 1	Area	33.6	
Welder 1	Area	33.7	
Welder 2	Area	33.7	
Welder 3	Area	33.7	
Welder 4	Area	33.7	
Welder 5	Area	33.7	
Welder 6	Area	33.7	
Welder 7	Area	33.7	
Welder 8	Area	33.7	
Welder 9	Area	33.7	
Welder 10	Area	33.7	
Receiver R6 Leq,d 47.0 dB(A)			
Aerial Lift 1	Area	25.2	
Aerial Lift 2	Area	25.2	
Aerial Lift 3	Area	25.2	
Air Compressor 1	Area	31.2	
Air Compressor 2	Area	31.2	
Air Compressor 3	Area	31.2	
Air Compressor 4	Area	31.2	
Cement & Mortar Mixer 1	Area	34.1	
Concrete Saw 1	Area	40.2	
Crane 1	Area	30.2	
Crane 2	Area	30.2	
Crane 3	Area	30.2	
Crawler Tractor 1	Area	37.2	
Excavator 1	Area	34.2	
Forklift 1	Area	25.2	
Generator Set 1	Area	35.1	

Amgen
Contribution level - 03 Building Construction

Source	Source type	Leq,d dB(A)	
Pump 1	Area	35.1	
Pump 2	Area	35.1	
Rough Terrain Forklift 1	Area	36.2	
Signal Board 1	Area	27.1	
Welder 1	Area	27.2	
Welder 2	Area	27.2	
Welder 3	Area	27.2	
Welder 4	Area	27.2	
Welder 5	Area	27.2	
Welder 6	Area	27.2	
Welder 7	Area	27.2	
Welder 8	Area	27.2	
Welder 9	Area	27.2	
Welder 10	Area	27.2	

Amgen
Source Levels in dB(A) - 04 Paving

Name	Source type	Lw dB(A)	
Concrete Saw 1	Area	114.7	
Crawler Tractor 1	Area	111.7	
Excavator 1	Area	108.7	
Forklift 1	Area	99.7	
Paver 1	Area	105.6	
Paving Equipment 1	Area	105.6	
Pump 1	Area	109.6	
Pump 2	Area	109.6	
Roller 1	Area	104.7	
Rough Terrain Forklift 1	Area	110.7	
Signal Board 1	Area	101.6	
Skid Steer Loader 1	Area	106.7	
Skid Steer Loader 2	Area	106.7	
Surfacing Equipment 1	Area	114.7	
Sweeper 1	Area	103.7	
Sweeper 2	Area	103.7	
Welder 1	Area	101.7	
Welder 2	Area	101.7	

Amgen
Contribution level - 04 Paving

Source	Source type	Leq,d dB(A)	
Receiver R1 Leq,d 72.9 dB(A)			
Concrete Saw 1	Area	66.2	
Crawler Tractor 1	Area	63.2	
Excavator 1	Area	60.2	
Forklift 1	Area	51.2	
Paver 1	Area	57.1	
Paving Equipment 1	Area	57.1	
Pump 1	Area	61.1	
Pump 2	Area	61.1	
Roller 1	Area	56.2	
Rough Terrain Forklift 1	Area	62.2	
Signal Board 1	Area	53.1	
Skid Steer Loader 1	Area	58.2	
Skid Steer Loader 2	Area	58.2	
Surfacing Equipment 1	Area	66.2	
Sweeper 1	Area	55.2	
Sweeper 2	Area	55.2	
Welder 1	Area	53.2	
Welder 2	Area	53.2	
Receiver R2 Leq,d 42.5 dB(A)			
Concrete Saw 1	Area	35.8	
Crawler Tractor 1	Area	32.8	
Excavator 1	Area	29.8	
Forklift 1	Area	20.8	
Paver 1	Area	26.7	
Paving Equipment 1	Area	26.7	
Pump 1	Area	30.7	
Pump 2	Area	30.7	
Roller 1	Area	25.8	
Rough Terrain Forklift 1	Area	31.8	
Signal Board 1	Area	22.7	
Skid Steer Loader 1	Area	27.8	
Skid Steer Loader 2	Area	27.8	
Surfacing Equipment 1	Area	35.8	
Sweeper 1	Area	24.8	
Sweeper 2	Area	24.8	
Welder 1	Area	22.8	
Welder 2	Area	22.8	
Receiver R3 Leq,d 40.7 dB(A)			
Concrete Saw 1	Area	33.9	
Crawler Tractor 1	Area	30.9	
Excavator 1	Area	27.9	
Forklift 1	Area	18.9	

Amgen
Contribution level - 04 Paving

Source	Source type	Leq,d dB(A)	
Paver 1	Area	24.8	
Paving Equipment 1	Area	24.8	
Pump 1	Area	28.8	
Pump 2	Area	28.8	
Roller 1	Area	23.9	
Rough Terrain Forklift 1	Area	29.9	
Signal Board 1	Area	20.8	
Skid Steer Loader 1	Area	25.9	
Skid Steer Loader 2	Area	25.9	
Surfacing Equipment 1	Area	33.9	
Sweeper 1	Area	22.9	
Sweeper 2	Area	22.9	
Welder 1	Area	20.9	
Welder 2	Area	20.9	
Receiver R4 Leq,d 43.7 dB(A)			
Concrete Saw 1	Area	36.9	
Crawler Tractor 1	Area	33.9	
Excavator 1	Area	30.9	
Forklift 1	Area	21.9	
Paver 1	Area	27.8	
Paving Equipment 1	Area	27.8	
Pump 1	Area	31.8	
Pump 2	Area	31.8	
Roller 1	Area	26.9	
Rough Terrain Forklift 1	Area	32.9	
Signal Board 1	Area	23.8	
Skid Steer Loader 1	Area	28.9	
Skid Steer Loader 2	Area	28.9	
Surfacing Equipment 1	Area	36.9	
Sweeper 1	Area	25.9	
Sweeper 2	Area	25.9	
Welder 1	Area	23.9	
Welder 2	Area	23.9	
Receiver R5 Leq,d 53.5 dB(A)			
Concrete Saw 1	Area	46.7	
Crawler Tractor 1	Area	43.7	
Excavator 1	Area	40.7	
Forklift 1	Area	31.7	
Paver 1	Area	37.6	
Paving Equipment 1	Area	37.6	
Pump 1	Area	41.6	
Pump 2	Area	41.6	
Roller 1	Area	36.7	

Amgen
Contribution level - 04 Paving

Source	Source type	Leq,d dB(A)	
Rough Terrain Forklift 1	Area	42.7	
Signal Board 1	Area	33.6	
Skid Steer Loader 1	Area	38.7	
Skid Steer Loader 2	Area	38.7	
Surfacing Equipment 1	Area	46.7	
Sweeper 1	Area	35.7	
Sweeper 2	Area	35.7	
Welder 1	Area	33.7	
Welder 2	Area	33.7	
Receiver R6 Leq,d 47.0 dB(A)			
Concrete Saw 1	Area	40.2	
Crawler Tractor 1	Area	37.2	
Excavator 1	Area	34.2	
Forklift 1	Area	25.2	
Paver 1	Area	31.1	
Paving Equipment 1	Area	31.1	
Pump 1	Area	35.1	
Pump 2	Area	35.1	
Roller 1	Area	30.2	
Rough Terrain Forklift 1	Area	36.2	
Signal Board 1	Area	27.1	
Skid Steer Loader 1	Area	32.2	
Skid Steer Loader 2	Area	32.2	
Surfacing Equipment 1	Area	40.2	
Sweeper 1	Area	29.2	
Sweeper 2	Area	29.2	
Welder 1	Area	27.2	
Welder 2	Area	27.2	

Amgen
Emission calculation road - 05 Construction Trucks (Building)

Road	Vehicle Volumes Day Veh/h	
Construction Trucks - Arriving	3.00	
Construction Trucks - Leaving	3.00	

Amgen
Contribution level - 05 Construction Trucks (Building)

Source	Source type	Leq,d dB(A)	
Receiver R1 Leq,d 50.8 dB(A)			
Construction Trucks - Arriving	Road	48.5	
Construction Trucks - Leaving	Road	46.9	
Receiver R2 Leq,d 34.2 dB(A)			
Construction Trucks - Arriving	Road	34.2	
Construction Trucks - Leaving	Road	14.7	
Receiver R3 Leq,d 31.7 dB(A)			
Construction Trucks - Arriving	Road	31.7	
Construction Trucks - Leaving	Road	3.4	
Receiver R4 Leq,d 27.7 dB(A)			
Construction Trucks - Arriving	Road	27.7	
Construction Trucks - Leaving	Road	7.1	
Receiver R5 Leq,d 22.1 dB(A)			
Construction Trucks - Arriving	Road	20.1	
Construction Trucks - Leaving	Road	17.8	
Receiver R6 Leq,d 25.2 dB(A)			
Construction Trucks - Arriving	Road	23.2	
Construction Trucks - Leaving	Road	20.8	

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Project: Amgen

Construction Vibration Impacts

Reference Levels at 25 feet are based on FTA, 2006 (Transit Noise and Vibration Impact Assessment)
Calculations using Caltrans procedure with n= **1.1** (for receptors 25 feet or greater)
n= **1.1** (for receptors less than 25 feet, per Caltrans procedure)

ON-SITE CONSTRUCTION ACTIVITIES

Table 1: Construction Equipment Vibration Levels (PPV) - Building Damage

Equipment	Reference Vibration Levels at 25 ft., PPV	Estimated Vibration Levels at nearest off-site building structures, distance in feet, PPV							
		Commercial Building to the Northwest		Residential Building to the South		Residential Building to the Southeast		Commercial Building to the West	
		Distance	Level	Distance	Level	Distance	Level	Distance	Level
Vibratory Roller	0.210	545	0.007	118	0.038	233	0.018	666	0.006
Large Bulldozer	0.089	545	0.003	118	0.016	233	0.008	666	0.002
Caisson Drilling	0.089	545	0.003	118	0.016	233	0.008	666	0.002
Loaded Trucks	0.076	545	0.003	118	0.014	233	0.007	666	0.002
Jackhammer	0.035	545	0.001	118	0.006	233	0.003	666	0.001
Small bulldozer	0.003	545	0.000	118	0.001	233	0.000	666	0.000

OFF-SITE CONSTRUCTION HAUL TRUCKS

Table 2: Off-Site Haul Trucks - Building Damage

Equipment	Reference Vibration Levels at 50 ft., PPV	Estimated Vibration Levels at noted distance in feet, PPV							
		20	25						
Typical road surface	0.00565	0.016	0.012						

Ref. Levels based on FTA Figure 7-3 (converted from VdB to PPV)

Operation Noise Calculations

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Project Composite Noise Calculations (CNEL)

Project: Amgen

Receptor	Ambient	Mechanical	Loading	Generator			Project Composite	Ambient + Project	Increase
R1	75.8	61.0	57.4	37.6			62.6	76.0	0.2
R2	47.3	41.1	17.6	28.4			41.3	48.3	1.0
R3	53.0	34.8	9.0	20.2			34.9	53.1	0.1
R4	52.2	39.5	16.4	24.8			39.6	52.4	0.2
R5	56.9	43.6	17.9	26.9			43.7	57.1	0.2
R6	58.5	48.9	27.7	32.3			49.0	59.0	0.5

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Outdoor Mechanical Equipment Noise Calculations

Project: Amgen

	Estimated Noise Levels, Leq from SOUNDPLAN		Hours of Operations Ld (7am to 7pm)	Le (7pm to 10pm)	Ln (10pm to 7am)
Receptor	Leq	CNEL	12	3	9
R1	54.3	61.0	54.3	54.3	54.3
R2	34.4	41.1	34.4	34.4	34.4
R3	28.1	34.8	28.1	28.1	28.1
R4	32.8	39.5	32.8	32.8	32.8
R5	36.9	43.6	36.9	36.9	36.9
R6	42.2	48.9	42.2	42.2	42.2

For Report

Receptor	Ambient (CNEL)	Project (CNEL)	Ambient + Project (CNEL)	Threshold	Noise Exceedance
R1	75.8	61.0	75.9	76.8	0.0
R2	47.3	41.1	48.2	52.3	0.0
R3	53.0	34.8	53.1	58.0	0.0
R4	52.2	39.5	52.4	57.2	0.0
R5	56.9	43.6	57.1	59.9	0.0
R6	58.5	48.9	58.9	61.5	0.0

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Loading Dock Noise Calculations

Project: Amgen

			Hours of Operations		
	Estimated Noise Levels, Leq from SOUNDPLAN		Ld (7am to 7pm)	Le (7pm to 10pm)	Ln (10pm to 7am)
Receptor	Leq	CNEL	3	3	2
R1	56.1	57.4	50.1	56.1	49.6
R2	16.3	17.6	10.3	16.3	9.8
R3	7.7	9.0	1.7	7.7	1.2
R4	15.1	16.4	9.1	15.1	8.6
R5	16.6	17.9	10.6	16.6	10.1
R6	26.4	27.7	20.4	26.4	19.9

For Report

Receptor	Ambient (CNEL)	Project (CNEL)	Ambient + Project (CNEL)	Threshold	Noise Exceedance
R1	75.8	57.4	75.9	76.8	0.0
R2	47.3	17.6	47.3	52.3	0.0
R3	53.0	9.0	53.0	58.0	0.0
R4	52.2	16.4	52.2	57.2	0.0
R5	56.9	17.9	56.9	59.9	0.0
R6	58.5	27.7	58.5	61.5	0.0

AES
ACOUSTICAL ENGINEERING SERVICES

Emergency Generator Noise Calculations

Project: Amgen

	Estimated Noise Levels, Leq from SOUNDPLAN		Hours of Operations Ld (7am to 7pm)	Le (7pm to 10pm)	Ln (10pm to 7am)
Receptor	Leq	CNEL	1	0	0
R1	51.4	37.6	40.6	0.0	0.0
R2	42.2	28.4	31.4	0.0	0.0
R3	33.8	20.2	23.0	0.0	0.0
R4	38.5	24.8	27.7	0.0	0.0
R5	40.7	26.9	29.9	0.0	0.0
R6	46.1	32.3	35.3	0.0	0.0

For Report

Receptor	Ambient (CNEL)	Project (CNEL)	Ambient + Project (CNEL)	Threshold	Noise Exceedance
R1	75.8	37.6	75.8	76.8	0.0
R2	47.3	28.4	47.4	52.3	0.0
R3	53.0	20.2	53.0	58.0	0.0
R4	52.2	24.8	52.2	57.2	0.0
R5	56.9	26.9	56.9	59.9	0.0
R6	58.5	32.3	58.5	61.5	0.0

Amgen
Source Levels in dB(A) - 06 Mechanical

Name	Source type	Lw dB(A)	
Mechanical	Point	90.0	
Mechanical	Point	90.0	
Mechanical	Point	90.0	
Mechanical	Point	90.0	
Mechanical	Point	90.0	
Mechanical	Point	90.0	
Mechanical	Point	90.0	
Mechanical	Point	90.0	
Mechanical	Point	90.0	
Mechanical	Point	90.0	
Mechanical	Point	90.0	
Mechanical	Point	90.0	
Mechanical	Point	90.0	
Mechanical	Point	90.0	
Mechanical	Point	90.0	
Mechanical	Point	90.0	
Mechanical	Point	90.0	
Mechanical	Point	90.0	
Mechanical	Point	90.0	
Mechanical	Point	90.0	
Mechanical	Point	90.0	
Mechanical	Point	90.0	
Mechanical	Point	90.0	
Mechanical	Point	90.0	
Mechanical	Point	90.0	
Mechanical	Point	90.0	
Mechanical	Point	90.0	
Mechanical	Point	90.0	
Mechanical	Point	90.0	
Mechanical	Point	90.0	
Mechanical	Point	90.0	
Mechanical	Point	90.0	
Mechanical	Point	90.0	
Mechanical	Point	90.0	
Mechanical	Point	90.0	
Mechanical (Transformer Yard)	Point	90.0	
Mechanical (Transformer Yard)	Point	90.0	
Mechanical (Transformer Yard)	Point	90.0	
Mechanical (Transformer Yard)	Point	90.0	
Mechanical (Transformer Yard)	Point	90.0	
Mechanical (Transformer Yard)	Point	90.0	
Transformer	Point	66.0	

Amgen
Source Levels in dB(A) - 06 Mechanical

Name	Source type	Lw dB(A)	
Transformer	Point	66.0	
Transformer	Point	66.0	

Amgen
Contribution level - 06 Mechanical

Source	Source type	Leq,d dB(A)	
Receiver R1 Leq,d 54.3 dB(A)			
Mechanical	Point	39.1	
Mechanical	Point	37.7	
Mechanical	Point	35.0	
Mechanical	Point	35.0	
Mechanical	Point	34.7	
Mechanical	Point	35.9	
Mechanical	Point	34.8	
Mechanical	Point	34.9	
Mechanical	Point	35.0	
Mechanical	Point	32.0	
Mechanical	Point	28.7	
Mechanical	Point	30.6	
Mechanical	Point	28.9	
Mechanical	Point	29.5	
Mechanical	Point	29.5	
Mechanical	Point	29.4	
Mechanical	Point	29.3	
Mechanical	Point	28.3	
Mechanical	Point	28.6	
Mechanical	Point	28.6	
Mechanical	Point	27.4	
Mechanical	Point	27.1	
Mechanical	Point	26.5	
Mechanical	Point	26.7	
Mechanical	Point	23.3	
Mechanical	Point	23.3	
Mechanical	Point	24.5	
Mechanical	Point	25.1	
Mechanical	Point	24.0	
Mechanical	Point	24.8	
Mechanical	Point	24.5	
Mechanical	Point	25.2	
Transformer	Point	23.5	
Transformer	Point	23.4	
Transformer	Point	23.1	
Mechanical (Transformer Yard)	Point	45.6	
Mechanical (Transformer Yard)	Point	45.7	
Mechanical (Transformer Yard)	Point	45.7	
Mechanical (Transformer Yard)	Point	45.3	
Mechanical (Transformer Yard)	Point	45.5	
Mechanical (Transformer Yard)	Point	45.6	
Receiver R2 Leq,d 34.4 dB(A)			

Amgen
Contribution level - 06 Mechanical

Source	Source type	Leq,d dB(A)	
Mechanical	Point	22.1	
Mechanical	Point	22.1	
Mechanical	Point	21.8	
Mechanical	Point	21.8	
Mechanical	Point	21.8	
Mechanical	Point	21.8	
Mechanical	Point	15.5	
Mechanical	Point	15.5	
Mechanical	Point	15.5	
Mechanical	Point	15.0	
Mechanical	Point	15.0	
Mechanical	Point	21.8	
Mechanical	Point	21.2	
Mechanical	Point	21.2	
Mechanical	Point	21.2	
Mechanical	Point	21.2	
Mechanical	Point	21.2	
Mechanical	Point	15.0	
Mechanical	Point	15.0	
Mechanical	Point	15.0	
Mechanical	Point	14.6	
Mechanical	Point	14.6	
Mechanical	Point	14.6	
Mechanical	Point	14.6	
Mechanical	Point	14.1	
Mechanical	Point	21.1	
Mechanical	Point	20.6	
Mechanical	Point	20.8	
Mechanical	Point	20.8	
Mechanical	Point	14.2	
Mechanical	Point	14.1	
Mechanical	Point	14.6	
Transformer	Point	-17.8	
Transformer	Point	-16.9	
Transformer	Point	-16.0	
Mechanical (Transformer Yard)	Point	2.0	
Mechanical (Transformer Yard)	Point	2.1	
Mechanical (Transformer Yard)	Point	2.2	
Mechanical (Transformer Yard)	Point	4.5	
Mechanical (Transformer Yard)	Point	4.9	
Mechanical (Transformer Yard)	Point	5.3	
Receiver R3 Leq,d 28.1 dB(A)			
Mechanical	Point	13.5	

Amgen
Contribution level - 06 Mechanical

Source	Source type	Leq,d dB(A)	
Mechanical	Point	13.5	
Mechanical	Point	13.4	
Mechanical	Point	13.5	
Mechanical	Point	13.4	
Mechanical	Point	13.4	
Mechanical	Point	12.4	
Mechanical	Point	12.4	
Mechanical	Point	12.3	
Mechanical	Point	12.5	
Mechanical	Point	12.5	
Mechanical	Point	13.4	
Mechanical	Point	13.5	
Mechanical	Point	13.5	
Mechanical	Point	13.5	
Mechanical	Point	13.6	
Mechanical	Point	13.6	
Mechanical	Point	12.5	
Mechanical	Point	12.5	
Mechanical	Point	12.5	
Mechanical	Point	12.2	
Mechanical	Point	12.2	
Mechanical	Point	12.2	
Mechanical	Point	12.2	
Mechanical	Point	13.5	
Mechanical	Point	13.6	
Mechanical	Point	13.5	
Mechanical	Point	13.6	
Mechanical	Point	13.7	
Mechanical	Point	12.2	
Mechanical	Point	12.3	
Mechanical	Point	12.3	
Transformer	Point	-22.9	
Transformer	Point	-20.9	
Transformer	Point	-24.8	
Mechanical (Transformer Yard)	Point	-7.0	
Mechanical (Transformer Yard)	Point	-7.0	
Mechanical (Transformer Yard)	Point	-1.2	
Mechanical (Transformer Yard)	Point	-1.9	
Mechanical (Transformer Yard)	Point	-2.2	
Mechanical (Transformer Yard)	Point	-1.7	
Receiver R4 Leq,d 32.8 dB(A)			
Mechanical	Point	17.9	
Mechanical	Point	17.9	

Amgen
Contribution level - 06 Mechanical

Source	Source type	Leq,d dB(A)	
Mechanical	Point	17.9	
Mechanical	Point	17.9	
Mechanical	Point	17.9	
Mechanical	Point	17.9	
Mechanical	Point	16.9	
Mechanical	Point	16.9	
Mechanical	Point	16.9	
Mechanical	Point	17.1	
Mechanical	Point	17.2	
Mechanical	Point	18.0	
Mechanical	Point	18.1	
Mechanical	Point	18.2	
Mechanical	Point	18.2	
Mechanical	Point	18.2	
Mechanical	Point	18.2	
Mechanical	Point	17.3	
Mechanical	Point	17.3	
Mechanical	Point	17.3	
Mechanical	Point	17.4	
Mechanical	Point	17.5	
Mechanical	Point	17.5	
Mechanical	Point	17.5	
Mechanical	Point	18.4	
Mechanical	Point	18.4	
Mechanical	Point	18.3	
Mechanical	Point	18.4	
Mechanical	Point	18.5	
Mechanical	Point	17.6	
Mechanical	Point	17.5	
Mechanical	Point	17.5	
Transformer	Point	-26.7	
Transformer	Point	-21.7	
Transformer	Point	-22.6	
Mechanical (Transformer Yard)	Point	-2.7	
Mechanical (Transformer Yard)	Point	-2.6	
Mechanical (Transformer Yard)	Point	-2.6	
Mechanical (Transformer Yard)	Point	0.9	
Mechanical (Transformer Yard)	Point	-2.5	
Mechanical (Transformer Yard)	Point	-2.5	
Receiver R5 Leq,d 36.9 dB(A)			
Mechanical	Point	19.7	
Mechanical	Point	19.7	
Mechanical	Point	19.8	

Amgen
Contribution level - 06 Mechanical

Source	Source type	Leq,d dB(A)	
Mechanical	Point	19.8	
Mechanical	Point	19.8	
Mechanical	Point	19.8	
Mechanical	Point	22.4	
Mechanical	Point	22.3	
Mechanical	Point	22.3	
Mechanical	Point	22.6	
Mechanical	Point	22.6	
Mechanical	Point	20.3	
Mechanical	Point	20.3	
Mechanical	Point	20.5	
Mechanical	Point	20.5	
Mechanical	Point	20.4	
Mechanical	Point	20.3	
Mechanical	Point	22.7	
Mechanical	Point	22.7	
Mechanical	Point	22.7	
Mechanical	Point	22.9	
Mechanical	Point	23.0	
Mechanical	Point	23.1	
Mechanical	Point	23.0	
Mechanical	Point	21.9	
Mechanical	Point	21.9	
Mechanical	Point	21.0	
Mechanical	Point	20.8	
Mechanical	Point	21.2	
Mechanical	Point	24.0	
Mechanical	Point	24.1	
Mechanical	Point	23.3	
Transformer	Point	-22.5	
Transformer	Point	-24.9	
Transformer	Point	-24.9	
Mechanical (Transformer Yard)	Point	1.6	
Mechanical (Transformer Yard)	Point	1.6	
Mechanical (Transformer Yard)	Point	1.6	
Mechanical (Transformer Yard)	Point	-0.8	
Mechanical (Transformer Yard)	Point	-0.7	
Mechanical (Transformer Yard)	Point	-0.7	
Receiver R6 Leq,d 42.2 dB(A)			
Mechanical	Point	25.3	
Mechanical	Point	25.3	
Mechanical	Point	25.5	
Mechanical	Point	25.5	

Amgen
Contribution level - 06 Mechanical

Source	Source type	Leq,d dB(A)
Mechanical	Point	25.6
Mechanical	Point	25.5
Mechanical	Point	26.8
Mechanical	Point	26.6
Mechanical	Point	26.4
Mechanical	Point	26.9
Mechanical	Point	27.2
Mechanical	Point	25.9
Mechanical	Point	26.1
Mechanical	Point	26.3
Mechanical	Point	26.3
Mechanical	Point	26.2
Mechanical	Point	26.3
Mechanical	Point	27.1
Mechanical	Point	27.1
Mechanical	Point	27.0
Mechanical	Point	27.3
Mechanical	Point	27.3
Mechanical	Point	27.4
Mechanical	Point	27.4
Mechanical	Point	28.2
Mechanical	Point	27.6
Mechanical	Point	27.2
Mechanical	Point	26.7
Mechanical	Point	27.0
Mechanical	Point	30.7
Mechanical	Point	29.5
Mechanical	Point	30.1
Transformer	Point	-18.9
Transformer	Point	-19.1
Transformer	Point	-19.2
Mechanical (Transformer Yard)	Point	5.3
Mechanical (Transformer Yard)	Point	5.2
Mechanical (Transformer Yard)	Point	5.2
Mechanical (Transformer Yard)	Point	5.0
Mechanical (Transformer Yard)	Point	5.0
Mechanical (Transformer Yard)	Point	5.1

Amgen
Source Levels in dB(A) - 07 Loading

Name	Source type	Lw dB(A)	
Loading	Point	101.9	
Loading	Point	101.9	

Amgen
Contribution level - 07 Loading

Source	Source type	Leq,d dB(A)	
Receiver R1 Leq,d 56.1 dB(A)			
Loading	Point	52.9	
Loading	Point	53.2	
Receiver R2 Leq,d 16.3 dB(A)			
Loading	Point	13.3	
Loading	Point	13.3	
Receiver R3 Leq,d 7.7 dB(A)			
Loading	Point	4.9	
Loading	Point	4.5	
Receiver R4 Leq,d 15.1 dB(A)			
Loading	Point	12.1	
Loading	Point	12.0	
Receiver R5 Leq,d 16.6 dB(A)			
Loading	Point	13.6	
Loading	Point	13.6	
Receiver R6 Leq,d 26.4 dB(A)			
Loading	Point	23.5	
Loading	Point	23.3	

Amgen
Source Levels in dB(A) - 08 Generator

Name	Source type	Lw dB(A)	
Emergency Generator	Point	110.0	
Emergency Generator	Point	110.0	

Amgen
Contribution level - 08 Generator

Source	Source type	Leq,d dB(A)	
Receiver R1 Leq,d 51.4 dB(A)			
Emergency Generator	Point	44.8	
Emergency Generator	Point	50.3	
Receiver R2 Leq,d 42.2 dB(A)			
Emergency Generator	Point	26.8	
Emergency Generator	Point	42.1	
Receiver R3 Leq,d 33.8 dB(A)			
Emergency Generator	Point	17.8	
Emergency Generator	Point	33.7	
Receiver R4 Leq,d 38.5 dB(A)			
Emergency Generator	Point	22.3	
Emergency Generator	Point	38.4	
Receiver R5 Leq,d 40.7 dB(A)			
Emergency Generator	Point	19.5	
Emergency Generator	Point	40.6	
Receiver R6 Leq,d 46.1 dB(A)			
Emergency Generator	Point	28.6	
Emergency Generator	Point	46.0	

AES
ACOUSTICAL ENGINEERING SERVICES

Off-Site Traffic Noise Calculations
Project: Amgen

EXISTING CONDITIONS									Traffic Volume								
									Daytime (hourly)			Evening (hourly)			Nighttime (hourly)		
Roadway Segment	Roadway Width*, ft	Distance to Edge of Roadway, ft	Distance to Centerline, feet	Speed mph	Barrier Atten.	Site Adjust., dBA	24-Hour CNEL	ADT	Auto	MT	HT	Auto	MT	HT	Auto	MT	HT
Ranch Conejo Boulevard																	
- Ventu Park Rd to Amgen Center Dr	50	10	35	40	0	0	68.0	10456	672	8	19	258	3	7	135	2	4
- Amgen Center Dr to Hillcrest Dr	50	10	35	40	0	0	68.0	10456	671	8	20	258	3	8	135	2	4
Ventu Park Road																	
- Rancho Conjeo Blvd to Hillcrest Dr	70	10	45	40	0	0	68.7	19630	1,291	16	34	693	9	18	147	2	4
Hillcrest Drive																	
- Rancho Conejo Blvd to Ventu Park Rd	60	10	40	40	0	0	69.1	20560	1,427	10	8	697	5	4	122	1	1

* Estimated based on Google Earth map.

** Calculated using FHWA's TNM Version 2.5 Computer Noise Model.

Date Printed: 8/20/2026

AES
ACOUSTICAL ENGINEERING SERVICES

Off-Site Traffic Noise Calculations
Project: Amgen

EXISTING PLUS PROJECT CONDITIONS

Roadway Segment	Roadway Width*, ft	Distance to Edge of Roadway, ft	Distance to Centerline, feet	Speed mph	Barrier Atten.	Site Adjust., dBA	24-Hour CNEL	ADT	Traffic Volume								
									Daytime (hourly)			Evening (hourly)			Nighttime (hourly)		
									Auto	MT	HT	Auto	MT	HT	Auto	MT	HT
Ranch Conejo Boulevard																	
- Ventu Park Rd to Amgen Center Dr	50	10	35	40	0	0	68.7	12329	793	9	22	304	4	8	159	2	4
- Amgen Center Dr to Hillcrest Dr	50	10	35	40	0	0	68.7	12329	791	9	24	304	3	9	159	2	5
Ventu Park Road																	
- Rancho Conjeo Blvd to Hillcrest Dr	70	10	45	40	0	0	69.1	21503	1,415	18	37	759	9	20	161	2	4
Hillcrest Drive																	
- Rancho Conejo Blvd to Ventu Park Rd	60	10	40	40	0	0	69.4	22433	1,557	11	8	761	5	4	133	1	1

* Estimated based on Google Earth map.

** Calculated using FHWA's TNM Version 2.5 Computer Noise Model.

Date Printed: 8/20/2026

AES
ACOUSTICAL ENGINEERING SERVICES

Off-Site Traffic Noise Calculations
Project: Amgen

FUTURE CUMULATIVE WITH CONDITIONS

Roadway Segment	Roadway Width*, ft	Distance to Edge of Roadway, ft	Distance to Centerline, feet	Speed mph	Barrier Atten.	Site Adjust., dBA	24-Hour CNEL	ADT	Traffic Volume								
									Daytime (hourly)			Evening (hourly)			Nighttime (hourly)		
									Auto	MT	HT	Auto	MT	HT	Auto	MT	HT
Ranch Conejo Boulevard																	
- Ventu Park Rd to Amgen Center Dr	50	10	35	40	0	0	69.2	13800	887	10	25	341	4	9	179	2	5
- Amgen Center Dr to Hillcrest Dr	50	10	35	40	0	0	68.9	12800	822	9	25	315	4	9	165	2	5
Ventu Park Road																	
- Rancho Conjeo Blvd to Hillcrest Dr	70	10	45	40	0	0	69.0	20900	1,375	17	36	738	9	19	156	2	4
Hillcrest Drive																	
- Rancho Conejo Blvd to Ventu Park Rd	60	10	40	40	0	0	69.8	24300	1,686	12	9	824	6	4	144	1	1

* Estimated based on Google Earth map.

** Calculated using FHWA's TNM Version 2.5 Computer Noise Model.

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Appendix K

Transportation Data

Project Trip Generation[1]
701 Pauling Drive

ITE Code	ITE Land Use	Size	Daily Trips	AM Peak Hour Trips			PM Peak Hour Trips		
				In	Out	Total	In	Out	Total
	Proposed Project								
760	Research and Development Center	378,862 GSF	3,588	142	40	182	43	127	170
	Existing Use to be Removed								
760	Research and Development Center	(181,058) GSF	(1,715)	(68)	(19)	(87)	(20)	(61)	(81)
Net Project Trip Generation			**1,873**	**74**	**21**	**95**	**23**	**66**	**89**

[1] Rates and Numbers based on the 12th Edition of the ITE Trip Generation Manual

Thousand Oaks GPU - Daily Roadway Segment Volumes, Speeds, Lanes, Vehicle Mix, and Day Mix

								Vehicle Mix %			Day Mix %		
No	Roadway	Location	Existing ADT (from counts)	Preliminary Post-processed Future Year with GPU Daily Volume	Posted Speed Limit	Number of Lanes	Autos	Medium Trucks	Heavy Trucks	Daytime (7am-7pm)	Evening (7pm-10pm)	Nightime (10pm-7am)
1	Moorpark Rd	Santa Rosa Rd to Olsen Rd	13,490	15,100	45	2	100.00%	0.00%	0.00%	80.6%	12.9%	6.5%
2		Olsen Rd to Avenida de Los Arboles	14,970	17,000	45	4	99.52%	0.11%	0.14%	80.6%	12.9%	6.5%
3		Avenida de Los Arboles to Avenida de Las Flores	17,470	19,900	45	4	99.52%	0.11%	0.12%	80.6%	12.9%	6.5%
4		Avenida de Las Flores to Janss Rd	23,530	27,000	45	4	99.15%	0.19%	0.33%	80.6%	12.9%	6.5%
5		Janss Rd to Wilbur Rd	25,865	30,800	45	4	98.92%	0.32%	0.39%	80.6%	12.9%	6.5%
6		Wilbur Rd to Hillcrest Dr	17,220	19,700	35	5	97.88%	0.54%	0.97%	80.6%	12.9%	6.5%
7		Hillcrest Dr to Thousand Oaks Blvd	27,190	35,200	35	5	97.56%	0.54%	1.26%	80.6%	12.9%	6.5%
8		Thousand Oaks Blvd to US-101	30,900	35,800	35	5	97.35%	0.57%	1.43%	80.6%	12.9%	6.5%
9		South of US-101	17,990	20,500	40	4	99.32%	0.23%	0.15%	80.6%	12.9%	6.5%
10	Olsen Rd	North City Boundary to SR-23	24,690	26,600	50	4	99.05%	0.25%	0.33%	82.0%	11.0%	7.0%
11		SR-23 to Erbes Rd	23,980	29,100	50	4	99.42%	0.14%	0.13%	82.0%	11.0%	7.0%
12		Erbes Rd to Sunset Hills Blvd	17,770	21,600	50	4	99.48%	0.13%	0.10%	82.0%	11.0%	7.0%
13		Sunset Hills Blvd to Moorpark Rd	24,170	28,200	50	4	99.16%	0.20%	0.25%	82.0%	11.0%	7.0%
14		Moorpark Rd to Avenida De Los Arboles	16,800	18,900	50	4	99.45%	0.13%	0.15%	82.0%	11.0%	7.0%
15	Lynn Rd	Janss Rd to Camino Dos Rios	26,030	27,800	45	4	99.08%	0.24%	0.30%	82.0%	11.0%	7.0%
16		Camino Dos Rios to Hillcrest Dr	34,380	37,000	45	4	98.82%	0.32%	0.40%	82.0%	11.0%	7.0%
17		Hillcrest Dr to US-101	28,990	31,500	45	4	97.65%	0.54%	1.15%	82.0%	11.0%	7.0%
18		US-101 to Ventu Park Rd	15,750	17,400	50	4	98.04%	0.37%	1.04%	82.0%	11.0%	7.0%
19		Ventu Park Rd to Wendy Dr	17,693	19,300	50	4	97.70%	0.41%	1.29%	82.0%	11.0%	7.0%
20		Wendy Dr to Reino Rd	12,950	13,500	50	4	97.38%	0.47%	1.52%	82.0%	11.0%	7.0%
21		Reino Rd to Via Las Brisas	12,860	13,900	50	4	97.98%	0.38%	1.10%	82.0%	11.0%	7.0%
22		Via Las Brisas to Rancho Dos Vientos	–	–	50	4	98.20%	0.34%	1.06%	82.0%	11.0%	7.0%
23	Erbes Rd	Sunset Hills Blvd to Pederson Rd	13,020	15,800	45	4	99.54%	0.11%	0.13%	84.9%	10.3%	4.8%
24		Pederson Rd to Avenida De Los Arboles	20,680	24,900	45	4	99.50%	0.11%	0.14%	84.9%	10.3%	4.8%
25		Avenida de Los Arboles to Avenida de Las Flores	16,380	18,900	45	4	99.38%	0.15%	0.10%	84.9%	10.3%	4.8%
26		Avenida de Las Flores to Janss Rd	17,410	22,100	45	4	99.61%	0.11%	0.05%	84.9%	10.3%	4.8%
27		Janss Rd to Hillcrest	15,420	19,800	45	2	98.80%	0.39%	0.23%	84.9%	10.3%	4.8%
28		Hillcrest Dr to Thousand Oaks Blvd	8,720	10,600	40	2	99.11%	0.24%	0.27%	84.9%	10.3%	4.8%
29	Westlake Blvd	Avenida De Los Arboles to Kanan Rd	22,310	25,200	50	4	98.70%	0.31%	0.42%	82.0%	11.0%	7.0%
30		Kanan Rd to Hillcrest Dr	16,670	17,700	50	4	98.25%	0.37%	0.81%	82.0%	11.0%	7.0%
31		Hillcrest Dr to Thousand Oaks Blvd	23,030	23,200	50	6	95.94%	0.89%	2.12%	82.0%	11.0%	7.0%
32		Thousand Oaks Blvd to US-101	32,860	34,700	50	6	96.86%	0.77%	1.51%	82.0%	11.0%	7.0%
33		US-101 to Agoura Rd	20,070	21,500	40	6	92.46%	1.04%	2.84%	82.0%	11.0%	7.0%
34		Agoura Rd to Triunfo Cyn Rd	21,360	22,900	40	6	93.68%	0.91%	2.34%	82.0%	11.0%	7.0%
35		Triunfo Cyn Rd to Potrero Rd	14,930	16,000	40	4	93.51%	0.91%	2.38%	82.0%	11.0%	7.0%
36		Potrero Rd to South City Boundary	–	–	35	2	92.74%	0.99%	2.65%	82.0%	11.0%	7.0%

No	Roadway	Location	Existing ADT (from counts)	Preliminary Post-processed Future Year with GPU Daily Volume	Posted Speed Limit	Number of Lanes	Vehicle Mix %			Day Mix %		
							Autos	Medium Trucks	Heavy Trucks	Daytime (7am-7pm)	Evening (7pm-10pm)	Nightime (10pm-7am)
37	Kanan Rd	Westlake Blvd to East City Boundary	10,986	13,700	45	4	98.99%	0.26%	0.23%	83.3%	10.8%	5.9%
38	Hampshire Rd	Thousand Oaks Blvd to US-101	11,950	12,000	35	5	98.31%	0.43%	0.72%	82.0%	11.0%	7.0%
39		US-101 to Westlake Blvd	11,950	14,800	45	6	99.43%	0.19%	0.08%	82.0%	11.0%	7.0%
40	Agoura Rd	Westlake Blvd to East City Boundary	18,280	21,600	45	4	98.55%	0.33%	0.43%	82.0%	11.0%	7.0%
41	Triunfo Cyn Rd	Westlake Blvd to East City Boundary	8,320	9,200	45	4	98.77%	0.26%	0.32%	82.0%	11.0%	7.0%
42	Ventu Park Rd	Rancho Conejo Blvd to Hillcrest Dr	19,630	20,900	40	4	94.94%	1.20%	2.53%	82.0%	11.0%	7.0%
43		Hillcrest Dr to US-101	22,260	24,300	40	5	92.98%	1.26%	4.28%	82.0%	11.0%	7.0%
44		US-101 to Lynn Rd	5,480	7,100	40	4	98.58%	0.40%	0.42%	82.0%	11.0%	7.0%
4501	Rancho Conejo Blvd	Ventu Park Rd to Amgen Center Dr	10,456	13,800	40	4	95.20%	1.11%	2.68%	80.2%	7.7%	12.1%
4502		Amgen Center Dr to Hillcrest Dr	10,456	12,800	40	6	95.02%	1.10%	2.87%	80.2%	7.7%	12.1%
46		Hillcrest Dr to US-101	26,010	27,800	40	6	96.74%	0.69%	1.78%	80.2%	7.7%	12.1%
47	Borchard Rd	US-101 to Wendy Dr	22,552	27,600	45	4	98.01%	0.44%	0.94%	78.6%	12.6%	8.7%
48		Wendy Dr to Reino Rd	15,970	18,200	45	4	96.75%	0.78%	1.48%	78.6%	12.6%	8.7%
4901		Reino Rd to Via Las Brisas (eastern half)	12,480	14,100	45	4	96.20%	0.94%	1.70%	78.6%	12.6%	8.7%
4902		Reino Rd to Via Las Brisas (western half)	12,480	12,800	45	4	41.73%	15.28%	26.81%	78.6%	12.6%	8.7%
50	Reino Rd	Old Conejo Rd to Borchard Rd	12,480	14,200	40	4	99.35%	0.19%	0.10%	82.0%	11.0%	7.0%
5101		Borchard Rd to Maurice Dr	10,690	11,800	45	2	99.26%	0.16%	0.20%	82.0%	11.0%	7.0%
5102		Maurice Dr to Lynn Rd	10,690	11,500	45	2	99.40%	0.14%	0.15%	82.0%	11.0%	7.0%
53	Janss Rd	Lynn Rd to Moorpark Rd	7,460	8,100	35	4	98.55%	0.28%	0.69%	82.0%	11.0%	7.0%
54		Moorpark Rd to SR-23	19,180	21,300	40	4	98.33%	0.37%	0.78%	82.0%	11.0%	7.0%
55		SR-23 to Erbes Rd	15,630	17,200	40	4	99.33%	0.21%	0.15%	82.0%	11.0%	7.0%
56	Hillcrest Dr	Camino Dos Rios to Rancho Conejo Blvd	13,480	16,000	45	2	98.16%	0.71%	0.34%	84.3%	10.3%	5.4%
57		Rancho Conejo Blvd to Ventu Park Rd	20,560	24,300	45	4	97.97%	0.71%	0.52%	84.3%	10.3%	5.4%
58		Ventu Park Rd to Lynn Rd	22,880	27,100	45	4	97.08%	0.91%	0.99%	84.3%	10.3%	5.4%
59		Lynn Rd to Moorpark Rd	23,180	28,900	45	6	97.81%	0.63%	0.86%	84.3%	10.3%	5.4%
60		Moorpark Rd to SR-23	13,090	14,900	45	4	98.06%	0.55%	0.74%	84.3%	10.3%	5.4%
61		SR-23 to Rancho Rd	–	–	40	4	98.14%	0.54%	0.66%	84.3%	10.3%	5.4%
62		Rancho Rd to Erbes Rd	12,430	15,500	40	4	98.05%	0.68%	0.49%	84.3%	10.3%	5.4%
63		Erbes Rd to Conejo School Rd	17,530	20,200	45	4	98.29%	0.58%	0.43%	84.3%	10.3%	5.4%
64		Conejo School Rd to Westlake Blvd	–	–	45	4	98.06%	0.67%	0.51%	84.3%	10.3%	5.4%

No	Roadway	Location	Existing ADT (from counts)	Preliminary Post-processed Future Year with GPU Daily Volume	Posted Speed Limit	Number of Lanes	Vehicle Mix %			Day Mix %		
							Autos	Medium Trucks	Heavy Trucks	Daytime (7am-7pm)	Evening (7pm-10pm)	Nightime (10pm-7am)
65	Thousand Oaks Blvd	Moorpark Rd to Hodencamp Rd	14,810	17,800	35	4	98.85%	0.40%	0.26%	83.0%	9.9%	7.0%
66		Hodencamp Rd to SR-23	18,640	22,300	35	4	98.95%	0.37%	0.24%	83.0%	9.9%	7.0%
67		SR-23 to Rancho Rd	22,990	27,500	35	4	98.28%	0.45%	0.72%	83.0%	9.9%	7.0%
68		Rancho Rd to Erbes Rd	26,580	31,600	35	4	98.96%	0.33%	0.25%	83.0%	9.9%	7.0%
69		Erbes Rd to Conejo School Rd	21,090	26,800	35	4	98.88%	0.33%	0.33%	83.0%	9.9%	7.0%
70		Conejo School Rd to Hampshire Rd	19,710	22,100	35	4	98.81%	0.33%	0.38%	83.0%	9.9%	7.0%
71		Hampshire Rd to Westlake Blvd	23,742	28,600	35	4	99.01%	0.34%	0.27%	83.0%	9.9%	7.0%
72	Erbes Rd	Olsen Rd to SR-23	7,290	8,900	45	2	99.36%	0.14%	0.13%	84.9%	10.3%	4.8%
73		SR-23 to Sunset Hills Blvd	6,390	7,200	45	2	98.46%	0.33%	0.54%	84.9%	10.3%	4.8%
74	Sunset Hills Blvd	Olsen Rd to SR-23	6,060	6,400	50	4	97.61%	0.49%	1.04%	82.0%	11.0%	7.0%
75		SR-23 to Erbes Rd	9,610	11,500	50	4	99.37%	0.13%	0.23%	82.0%	11.0%	7.0%
76		East of Erbes Rd	2,890	–	40	2	99.37%	0.13%	0.23%	82.0%	11.0%	7.0%
77	Avenida de los Arboles	Olsen Rd to Moorpark Rd	12,740	14,300	35	2	98.72%	0.32%	0.46%	82.0%	11.0%	7.0%
78		Moorpark Rd to SR-23	12,270	14,800	35	2	98.20%	0.41%	0.73%	82.0%	11.0%	7.0%
79		SR-23 to Erbes Rd	20,370	21,200	45	6	98.28%	0.41%	0.58%	82.0%	11.0%	7.0%
80		Erbes Rd to Westlake Blvd	23,240	26,100	45	6	98.78%	0.31%	0.34%	82.0%	11.0%	7.0%
81	Avenida de las Flores	Lynn Rd to Moorpark Rd	6,100	6,700	35	2	99.50%	0.12%	0.05%	82.0%	11.0%	7.0%
82		Moorpark Rd to SR-23	7,650	9,200	35	2	99.47%	0.15%	0.07%	82.0%	11.0%	7.0%
83		SR-23 to Erbes Rd	8,630	10,700	40	2	99.52%	0.13%	0.06%	82.0%	11.0%	7.0%
84	La Granada	East of Erbes Rd	3,950	4,600	35	2	100.00%	0.00%	0.00%	82.0%	11.0%	7.0%
85	Gainsborough Rd	Lynn Rd to Moorpark Rd	4,990	6,000	35	2	98.49%	0.42%	0.41%	82.0%	11.0%	7.0%
86		East of Moorpark Rd	3,930	4,800	35	2	98.47%	0.50%	0.34%	82.0%	11.0%	7.0%
87	Wilbur Rd	Hillcrest Dr to Moorpark Rd	9,700	12,300	35	4	99.22%	0.27%	0.20%	82.0%	11.0%	7.0%
88		Moorpark Rd to Hodencamp Rd	8,370	10,400	35	2	98.74%	0.48%	0.23%	82.0%	11.0%	7.0%
89	Triunfo Cyn Rd	North of Westlake Blvd	3,260	3,400	35	2	99.61%	0.10%	0.08%	82.0%	11.0%	7.0%
90	Wendy Dr	Borchard Rd to Lynn Rd	3,330	3,900	40	2	98.89%	0.31%	0.28%	82.0%	11.0%	7.0%
91		Lynn Rd to Portrero Rd	3,460	4,100	40	2	98.03%	0.58%	0.52%	82.0%	11.0%	7.0%
52		US-101 to Borchard Rd	12,190	12,200	35	2	97.91%	0.59%	0.78%	82.0%	11.0%	7.0%
92	Lynn Rd	Avenida de Los Arboles to Avenida de Las Flores	23,210	25,400	45	4	99.16%	0.21%	0.27%	82.0%	11.0%	7.0%
93		Avenida de Las Flores to Janss Rd	22,990	25,900	45	4	99.13%	0.21%	0.29%	82.0%	11.0%	7.0%
94	Thousand Oaks Blvd	Westlake Blvd to East City Boundary	20,830	20,900	40	4	98.10%	0.62%	0.61%	83.0%	9.9%	7.0%
95	SR-23	North of US-101	80,000	81,800	65	6	95.47%	0.88%	2.32%	82.0%	11.0%	7.0%
96	US-101	West of SR-23	170,000	179,200	65	8	88.90%	1.51%	7.40%	82.0%	11.0%	7.0%
97		East of SR-23	171,000	180,100	65	10	89.32%	1.37%	7.16%	82.0%	11.0%	7.0%

Appendix L

Tribal Cultural Resources Assessment

SWCA®
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TECHNICAL MEMORANDUM

To: Eyestone Environmental
101 Continental Boulevard, Suite 240
El Segundo, CA 90245

From: Tiffany Clark, Principal Archaeologist
Chris Millington, Principal Archaeologist

Date: September 9, 2026

Re: **Tribal Cultural Resources Assessment for the Amgen Specific Plan Amendment Project, Thousand Oaks, Ventura County, California**

INTRODUCTION

Eyestone Environmental (Eyestone) retained SWCA Environmental Consultants (SWCA) to analyze tribal cultural resources for a proposed Specific Plan Amendment (SPA) to the Amgen Specific Plan (SP-16) in Thousand Oaks, Ventura County, California. The SPA would facilitate a Development Permit for a new research facility (the "Project"). The proposed Project consists of the construction of a multi-story building (Building 50) with installation of hardscape and landscape elements, as well as an off-site storm drain and bio basins. The Project is subject to the California Environmental Quality Act (CEQA) with the City of Thousand Oaks (the City) acting as the lead CEQA agency.

This technical memorandum provides a review of available evidence for known tribal cultural resources within or immediately adjacent to the Project Site and analyzes the likelihood (i.e., sensitivity) for as-yet unknown tribal cultural resources that could be present in or immediately adjacent to the Project Site as buried deposits. Although not all tribal cultural resources are archaeological in nature, the developmental history of the Project Site suggests that any preserved tribal cultural resources encountered during Project implementation would likely be buried. The study includes a summary of resources identified in the California Historical Resources Information System (CHRIS) by the South Central Coastal Information Center (SCCIC), the results of a Sacred Lands File (SLF) search by the Native American Heritage Commission (NAHC), and background research conducted by SWCA.

The information presented herein focuses exclusively on sources of evidence viewed from a scientific and scholarly perspective, consistent with standard industry practices and applicable regulations. SWCA's scientific perspective does not necessarily represent tribal values, and our findings are not intended as a substitute for tribal expertise, generally, but also specifically regarding the analysis of tribal cultural resources. The City's General Plan 2045 Program EIR included tribal consultation conducted pursuant to Senat Bill 18 (SB 18) and Assembly Bill 52 (AB 52). In addition, the City subsequently conducted Project-specific AB 52 and SB 18 notification and consultation. This assessment tiers from that certified program-level environmental analysis and evaluates whether the proposed Project would affect any identified tribal cultural resources or otherwise alter the conclusions of the General Plan 2045 Program EIR with respect to tribal cultural resources. The results of this study are intended to be used to determine the Project's potential for impacting tribal cultural resources in accordance with the checklist items in Appendix G of the CEQA Guidelines.

This report was prepared by Tiffany Clark, Ph.D., Registered Professional Archaeologist (RPA). Dr. Clark meets the Secretary of the Interior Professional Qualification Standards in archeology and the Society for California Archaeology's standards for a principal investigator. Chris Millington, M.A., RPA, provided quality control and reviewed the report for accuracy and consistency. Copies of this report are on file with Eyestone, the City's Planning Division, and the SCCIC at California State University, Fullerton. All background materials are on file with SWCA's office in Pasadena, California, and referenced as project number 106838.

PROJECT LOCATION AND DESCRIPTION

The proposed Project is located at 701 Pauling Drive in the city of Thousand Oaks, Ventura County, California (Figure 1). The Project Site is developed with an existing 181,000 square foot building (Building 14) that is currently under demolition. It lies within Section 12, Township 1 North, Range 20 West (San Bernardino Base and Meridian) of the U.S. Geological Survey (USGS) Newbury Park, California, 7.5-minute quadrangle (Figure 2). The property is bounded on the south by West Hillcrest Drive and on the east by Pauling Drive (Figure 3).

The proposed Project involves the construction of a four-story 375,000 square foot lab research facility (Building 50), which is on Assessor's Parcel Number (APN) 526-0-210-145. The building is proposed at 75 feet (22.9 meters) in height with an additional 12.5 feet (3.81 meters) of roof top equipment screening. The total proposed development occurs on approximately 4.27 acres that includes hardscape and landscape improvements extending onto portions of APNs 526-0-210-135, 526-0-210-115 and 526-0-210-095; off-site improvements include the installation of a storm drain and bio basins extending eastward along the northern edge of West Hillcrest Drive (see Figure 3). Based on the current design plans (Gorian and Associates, Inc. [GAI] 2026), the maximum depth of excavation required for the foundational elements of the proposed building is 21.5 feet (6.6 meters), which is at or near the existing Building 14 basement elevation. As such, no significant grading or over-excavation for the construction of the basement for Building 50 is anticipated. The installation of hardscape and landscape elements, as well as utility excavations, in the Project Site is expected to extend up to 7 feet (2.1 meters) below grade. In the off-site improvement area, the new storm drain will be placed 3 to 5 feet (0.9 to 1.5 meters) below the current grade.

The Project is located within the SP-16 area, which encompasses approximately 91 acres. The Project requires an SPA to extend the maximum building height of 75 feet (22.9 meters) currently allowed in Height District 3 to Height District 2. The proposed height increase within the SP-16 area is consistent with base height allowance for the Industrial Flex land use designation of the Thousand Oaks 2045 General Plan Program (City of Thousand Oaks 2023a). Other components of the SPA include exceptions to the height limits for specified mechanical equipment above rooftop screening, parking locational criteria and architectural massing step backs where there is an over height first floor.

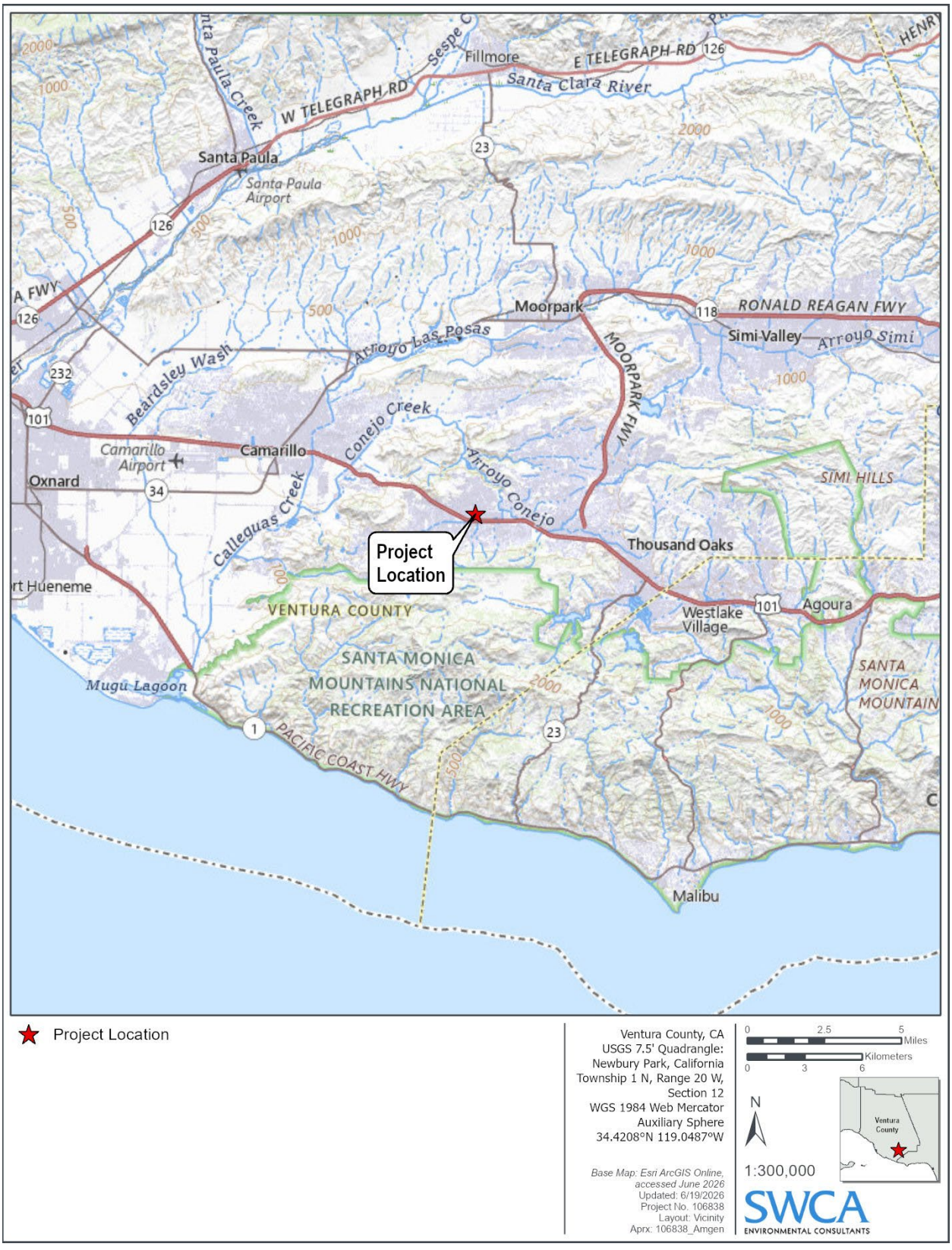

Figure 1. Project vicinity map.

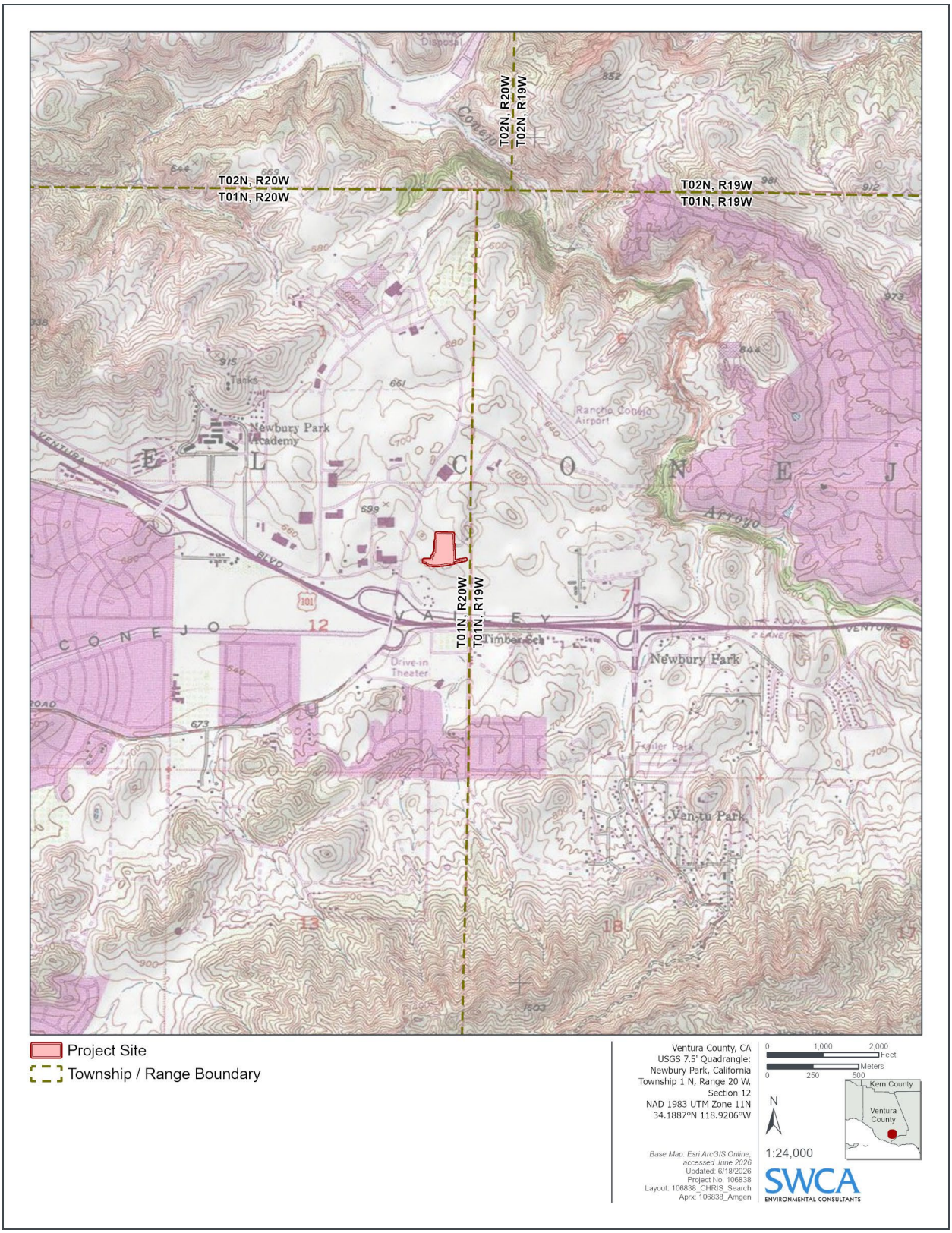

Figure 2. Project Site plotted on the USGS Newbury Park, California, 7.5-minute topographic quadrangle.

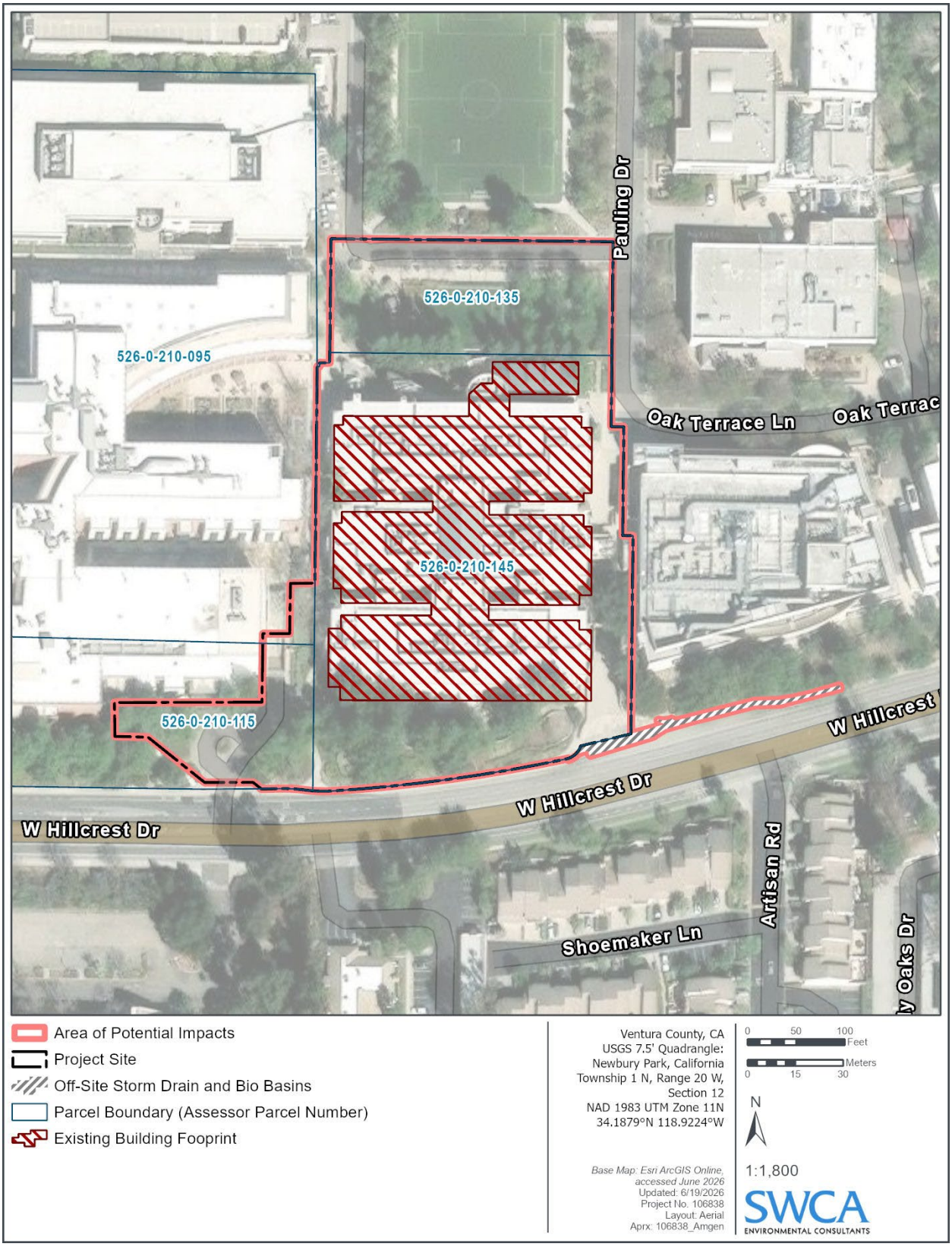

Figure 3. Aerial photograph of the Project Site and surrounding streets.

REGULATORY SETTING

State Regulations

California Environmental Quality Act

The California Office of Historic Preservation, a division of the California Department of Parks and Recreation, performs certain duties described in the California Public Resources Code (PRC) and maintains the California Historic Resources Inventory and California Register of Historical Resources (CRHR). The state-level regulatory framework includes CEQA, which requires the identification and, if necessary, mitigation of substantial adverse impacts that may affect the significance of archaeological and tribal cultural resources.

Under PRC Section 21084.2, a "project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment." PRC Section 21080.3.2 states that parties may propose mitigation measures "capable of avoiding or substantially lessening potential significant impacts to a tribal cultural resource or alternatives that would avoid significant impacts to a tribal cultural resource."

Answering these questions is a two-part process: first, determining whether the proposed project involves a resource; and second, if a resource is present, analyzing whether the proposed project has the potential to cause a substantial adverse change in the significance of the resource. CEQA Guidelines define a "substantial adverse change in the significance of an historical resource" as "physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired" (CEQA Guidelines Section 15064.5). Material impairment occurs when project activities adversely affect the physical characteristics of an historical resource that convey its historical significance and justify its inclusion in, or eligibility for, the National Register of Historic Places (NRHP), California Register of Historical Resources (CRHR), or a local register. In addition, pursuant to CEQA Guidelines Section 15126.2, the "direct and indirect significant effects of the project on the environment shall be clearly identified and described, giving due consideration to both the short-term and long-term effects."

CEQA Guidelines do not define what constitutes a significant adverse change specific to tribal cultural resources, but the criteria for historical resources in CEQA Guidelines Section 15064.5(b) provide an appropriate analog for assessing potential impacts to tribal cultural resources, especially where a tribal cultural resource is designated based on its eligibility for, or listing in, the CRHR. Applying the definitions in CEQA Guidelines Section 15064.5(b) for historical resources to tribal cultural resources, a substantial adverse change would occur if the project results in the physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of the tribal cultural resource would be materially impaired. Material impairment could occur if a project demolishes or materially alters, in an adverse manner, those physical characteristics of a tribal cultural resource that justify its inclusion in, or eligibility for inclusion in, the CRHR or in a local register of historical resources as defined in PRC Section 5020.1(k). Material impairment could also occur if a project demolishes or materially alters, in an adverse manner, those characteristics of a tribal cultural resource that justify its eligibility for inclusion in the CRHR as determined by a lead agency.

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 Section 5024.1 and CEQA Guidelines Section 15064.5). Certain properties, including

those listed in or formally determined eligible for listing in the 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 historical resource surveys, or designated by local landmark programs may be nominated for inclusion in the CRHR. According to PRC Section 5024.1(c), a resource 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:

- **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, or 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 convey the reasons for their significance. Resources whose historic integrity does not meet NRHP criteria may still be eligible for listing in the CRHR. Although all sites are evaluated according to all four of the CRHR criteria, for a tribal cultural resource that is archaeological in nature, eligibility would typically be considered under Criterion 4. Most precontact sites lack identifiable or important association with specific persons or events of regional or national history (Criteria 1 and 2), and/or lack the formal and structural attributes necessary to qualify as eligible under Criterion 3. CRHR eligibility may provide a basis for identifying a resource that could qualify as a tribal cultural resource, but it does not, by itself, complete the designation of a resource as a tribal cultural resource under CEQA.

Senate Bill 18 and Assembly Bill 52

Enacted on March 1, 2005, Senate Bill 18 (California Government Code Sections 65352.3 and 65352.4) requires cities and counties to notify and consult with California Native American tribal groups and individuals regarding proposed local land use planning decisions for the purpose of protecting traditional tribal cultural places (sacred sites), prior to adopting or amending a General Plan or Specific Plan or designating land as open space. Tribal groups or individuals have 90 days to request consultation following the initial contact.

California State Assembly Bill 52 (AB 52) of 2014 amended PRC 5097.94 and added PRC 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2, and 21084.3. AB 52 establishes a process requiring lead agencies to consult with California Native American tribes that have requested notification of projects subject to CEQA and that may have substantial adverse effects on tribal cultural resources.

For the City's General Plan 2045 Program EIR, the City conducted tribal consultation consistent with applicable SB 18 and AB 52 requirements. The City conducted additional tribal consultation for the Project pursuant to AB 52 and SB 18.

TRIBAL CULTURAL RESOURCES

Section 4 of AB 52 adds Sections 21074 (a) and (b) to the PRC, which address tribal cultural resources and cultural landscapes. Section 21074 (a) defines tribal cultural resources as one of the following:

(1) Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:
   (A) Included or determined to be eligible for inclusion in the California Register of Historical Resources (CRHR).
   (B) Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1.

(2) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.

Subdivision (b) of PRC Section 21074 adds that a tribal cultural resource may also be a cultural landscape provided it meets the criteria of subdivision (a), so long as the landscape is geographically defined in size and scope. Subdivision (c) of PRC Section 21074 clarifies that so long as the criteria in subdivision (a) are satisfied, a historical resource (as defined under PRC Section 21084.1) may be a tribal cultural resource and that the status as a unique or non-unique archaeological resource is not factored into the determination.

Treatment of Human Remains

The discovery of human remains outside a dedicated cemetery is addressed under California Health and Safety Code (HSC) Section 7050.5, which requires that no further disturbance occur at the discovery site or in areas reasonably suspected of containing additional human remains until the County coroner has made the necessary findings as to origin and disposition. California PRC Section 5097.98 and CEQA Guidelines Section 15064.5(e) require that work stop near the discovery until the coroner determines that no investigation into the cause of death is required and whether the remains are Native American in origin. The following procedures from PRC Section 5097.98 and CEQA Guidelines Section 15064.5(e) summarize the process to be followed if human remains are discovered:

- Stop immediately and contact the County coroner.
- If the remains are determined to be of Native American descent, the coroner has 24 hours to notify the NAHC.
- The NAHC will immediately notify the person it believes to be the most likely descendant (MLD) of the deceased Native American.
- The MLD has 48 hours to make recommendations to the owner, or representative, for the treatment or disposition, with proper dignity, of the human remains and grave goods.
- If the owner does not accept the MLD's recommendations, the owner or the MLD may request mediation by the NAHC.

Local Regulations

City of Thousand Oaks General Plan 2045 Program

Goals and Policies

Chapter 7, the Conservation Element of the Thousand Oaks General Plan 2045 Program (City of Thousand Oaks 2023a), includes the following goal and policies to preserve tribal cultural resources:

Goal C-11: Protect historical and culturally significant resources, which contribute to the community's sense of identity.

> **Policy 11.1** Cultural resource identification and recognition. Identify and, as appropriate, recognize significant cultural resources by identifying significant cultural resources with landmark designation plaques, directional signage, self-guided tours, programs, and events.
>
> **Policy 11.2** Cultural resource preservation. Require that new development preserve or mitigate impacts to significant historic, archaeological, and paleontological resources.
>
> **Policy 11.3** Archeological site protection. The preferred method for protecting any previously recorded archeological site shall be by deed restriction as permanent "open space", in order to prevent any future development or use that might otherwise adversely impact these resources.
>
> **Policy 11.4** Native American consultation. Conduct Native American consultation consistent with most recent regulations when new development is proposed in culturally sensitive areas.
>
> **Policy 11.5** Historic resource management. Maintain, rehabilitate, and reuse significant historic resources, as feasible.
>
> **Policy 11.6** Archaeological site confidentiality. Maintain a list of the locations of previously recorded archaeological sites confidential unless the release of such information to the public is specifically authorized by local Native American organizations or other entities with jurisdiction over such sites.
>
> **Policy 11.7** Resource stakeholder engagement. Decisions pertaining to the disposition of archaeological, paleontological, historical, and cultural resources shall be made in concert with recognized public agencies, groups or individuals having jurisdiction, expertise, or interest in these matters, including but not limited to the State Office of Historic Preservation, Ventura County Cultural Heritage Board, and local Native American organizations, and affected property owners.
>
> **Policy 11.8** Public and private involvement. Collaborate with private and public entities whose goals are to protect and preserve historic resources and important cultural resources.

The General Plan 2045 Program EIR evaluated potential impacts to tribal cultural resources at a program level and included tribal consultation conducted in support of that environmental review. The proposed Project is evaluated here for consistency with that analysis, including whether it would affect any identified tribal cultural resources or result in new or substantially more severe impacts than those analyzed in the General Plan 2045 Program EIR.

Mitigation Measures

The following mitigation measure was adopted as part of the Mitigation Monitoring and Reporting Program (MMRP) for the City's General Plan 2045 Program EIR to reduce potential impacts to tribal cultural resources to a less-than-significant level (City of Thousand Oaks 2023b):

> **CUL-4: Suspend Work Around Tribal Cultural Resources Identified During Construction.** In the event that cultural resources of Native American origin are identified during ground disturbance during construction of a project implemented under TO2045, all earth-disturbing work in the vicinity of the find shall be temporarily suspended or redirected until an archaeologist has evaluated the nature and significance of the find as a cultural resource and an appropriate local Native American representative is consulted. If the City, in consultation with local Native Americans, determines that the resource is a tribal cultural resource and, thus, significant under CEQA, a mitigation plan shall be prepared and implemented in accordance with State guidelines and in consultation with local Native American group(s). The mitigation plan shall include

avoidance of the resource or, if avoidance of the resource is infeasible, the plan shall outline the appropriate treatment of the resource in coordination with the appropriate local Native American tribal representative and, if applicable, a qualified archaeologist. Examples of appropriate mitigation for tribal cultural resources include, but are not limited to, protecting the cultural character and integrity of the resource, protecting traditional use of the resource, protecting the confidentiality of the resource, or heritage recovery.

Amgen SP-16 (SP-16)

The Amgen Specific Plan EIR evaluated the development of SP-16 and was certified by the City on April 5, 1994 (City of Thousand Oaks 1994). The EIR analyzed a total maximum permitted development within the Specific Plan area of 3,807,294 square feet (100 acres), including minimum parking based on specific uses as set forth in the Specific Plan. In 1996, the City administratively approved an amendment (Amendment 1) to the Specific Plan, which allowed for the use of up to five exterior building colors in Height Districts 2 and 3. In 1n 2016, the City Council approved an amendment (Amendment 2) to the Specific Plan, which removed the property commonly known as 2150 West Hillcrest Drive from the Specific Plan area and reduced the maximum buildout within the SP-16 area to 3,637,294 square feet (City of Thousand Oaks 2016). This action was done through a Categorical Exemption pursuant to Section 15061 (b)(3). Through the development of Building 50, the Amgen campus will contain approximately 3,219,542 square feet (91 acres) of development, which is under the maximum buildout of 3,637,294 square feet (91 acres).

Neither the Amgen Specific Plan EIR nor Amendments 1 and 2 includes mitigation for tribal cultural resources. Instead, these resources are addressed exclusively by programmatic measures established in the MMRP for the City's General Plan 2045 Program EIR (City of Thousand Oaks 2023b) (see above).

ENVIRONMENTAL SETTING

The Project Site is located in the Conejo Valley, a raised interior valley that is bounded by the Mountclef Ridge to the north, Simi Hills to the east, Santa Monica Mountains to the south, and the Conejo Hills and Oxnard Plain to the west. It lies in the western extent of the Transverse Ranges Geomorphic Province, a 250-mile-long east-west-trending structural block that extends from the Pacific to the eastern San Bernardino Mountains (Campbell et al. 2016). This province is characterized by mountains and valleys that trend in a west-east direction, in contrast with north-south trending ranges to the north and to the south, as shaped by the San Andreas Fault (Campbell et al. 2016). Sediments in the Project vicinity consist of Quaternary alluvium that are surrounded by exposures of the Conejo Volcanics, an igneous rock sequence from the Miocene Epoch (Dibblee and Ehrenspeck 1990; Taliaferro 1924). The alluvial sedimentary deposits found within the valley represent an accumulation of clasts derived from the igneous deposits in the adjacent Conejo Hills (Yerkes and Campbell 1995). The elevation of the Project Site is approximately 650 feet (198 meters) above mean sea level. Prior to development, this portion of the Conejo Valley would have been characterized by native chaparral and coastal sage plant communities.

The surficial geology for the Project Site is composed of late Pleistocene (11,700 to 129,000 years ago) older dissected surficial deposits (Qoa) with a small area of Holocene (present to 11,700 years ago) alluvium (Qa) located in the off-site improvement area (Biewer and Adams 2026). The late Pleistocene deposits consist of dissected, weakly indurated alluvial gravel, sand, and clay with Holocene alluvium composed of gravel, sand, and clay (Dibblee and Ehrenspeck 1990). The geotechnical report prepared for the Project indicates that artificial fill is also present in the Project Site to depths of 7 to 15 feet (2.1 to 4.6 meters) below ground surface (bgs) (GAI 2026).

CULTURAL SETTING

Overview of Native American Archaeology

Numerous chronological sequences have been devised to aid in understanding cultural changes within Southern California. Table 1 provides a reference point for the primary periods and cultural traditions and is a composite of several cultural chronologies that have been advanced by researchers working in the region over the last hundred years. Geologic time periods are used as the primary temporal designations—Terminal Pleistocene and Early, Middle, and Late Holocene—and the corresponding chronologies are denoted by years before present (BP) and calendar ages (BC and AD). California prehistory is generally divided into three cultural periods referred to as the Paleoindian, Archaic, and Emergent periods. These were originally put forward by Fredrickson (1973, 1974, 1994) as a means of characterizing similar cultural characteristics observed throughout the state, which are understood to have been generally governed by climatic and environmental variables, such as the drying of pluvial lakes at the transition from the Paleoindian to the Lower Archaic.

Table 1. Precontact Cultural Chronology for the Southern California Coast

Years BP	Calendar Age	Geologic Period*	California Prehistory Periods†	Horizons/Traditions‡	King's Chronology§
13,000 BP	11,000 BC	**Terminal Pleistocene**	**Paleoindian/ Paleocoastal** ~13,000–8,000 BP ~11,000–6000 BC	**Paleoindian**	
10,000 BP	8000 BC	**Early Holocene**		**Horizon I /** San Dieguito	
			Archaic Period ~8,000–1,500 BP ~6000 BC–AD 500	**Horizon II/** Milling Stone Horizon/ Encinitas Tradition	**King's Early Period** 5500–1350 BC
7000 BP	5000 BC	**Middle Holocene**			
				Horizon III / Intermediate Horizon/ Campbell Tradition	
3500 BP	1500 BC	**Late Holocene**			**King's Middle Period** 1350 BC–AD 1200
1500 BP	AD 500		**Emergent Period** ~1,500 BP–Historic Contact ~AD 500–Historic Contact	**Horizon IV/** Late Prehistoric / Chumash Tradition	
					King's Late Period AD 1200–Historic Contact
Historic Contact					

*Erlandson and Colten (1991).
†Fredrickson (1973, 1974, 1994).
‡Wallace (1955, 1978); Warren (1968).
§King (1981, 1990).

The earliest evidence for human occupation in Southern California is found on the northern Channel Islands, where multiple Terminal Pleistocene sites have been identified and dated in the past couple decades, firmly establishing the presence of early coastal-adapted people in the region (Erlandson et al. 1996, 2011; Erlandson and Braje 2008). On Santa Rosa Island, human remains have been dated from the Arlington Springs site to approximately 13,000 years ago (Johnson et al. 2002), and recent excavations and radiometric dating of multiple archaeological assemblages on San Miguel, Santa Rosa, and Santa Cruz islands document Paleoindian technologies, subsistence strategies, and seasonality of site occupation during the Terminal Pleistocene with similarities to the Western Stemmed Tradition found across much of

western North America (Braje et al. 2013; Erlandson 2013; Erlandson et al. 2011, 2015; Erlandson and Braje 2008; Jew et al. 2013; Rick et al. 2013). It is important to recognize that the Terminal Pleistocene was a period of shifting climate and sea level rise that has now inundated many kilometers of shoreline worldwide and along Southern California shorelines specifically (i.e., Reeder-Myers et al. 2015). Accordingly, any evidence of human occupation in what now are coastal settings is likely only a small fraction of what originally existed (see Erlandson et al. 2007; Erlandson et al. 2015). It is likely that similarly early sites were present on the mainland California coast; however, the rate and degree of development have likely destroyed most early sites along the California mainland coast. Although few Clovis-like or Folsom-like fluted points have been found in Southern California (e.g., Dillon 2002; Erlandson et al. 1987), it is generally thought that small, mobile populations may have been more numerous than current data suggests.

Decades before Fredrickson, Wallace (1955, 1978) developed an archaeological chronology for Southern California based on four sequential horizons: Early Man (Horizon I); Milling Stone (Horizon II); Intermediate (Horizon III); and Late Prehistoric (Horizon IV). This regional cultural chronology is summarized in Table 2 and describes some of the basic characteristics in the respective periods. Wallace's (1955) original synthesis initially lacked chronological precision; however, the advent of radiocarbon dating in the 1950s allowed researchers to further refine and revise these periods as radiocarbon datasets grew and additional analyses were conducted, resulting in more refined chronologies and sequences, including not only those of Frederickson but also several others (e.g., Byrd and Raab 2007:217; Koerper and Drover 1983; Koerper et al. 2002; Mason and Peterson 1994; Moratto 1984). Additional primary syntheses for Southern California prehistory were developed by Warren (1968) and King (1981, 1990), which used the growing archaeological datasets of specific subregions within Southern California to define increasingly localized cultural sequences.

Table 2. Precontact Cultural Chronology based on Wallace's Periods

Period	Key Characteristics	Date Range
Early Man	• Diverse mixture of hunting and gathering • Greater emphasis on hunting	ca. 10,000–6000 BC
Milling Stone	• Subsistence strategies centered on collecting plant foods and small animals • Extended and loosely flexed burials	6000–3000 BC
Intermediate	• Shift toward a hunting and maritime subsistence strategy, along with a wider use of plant foods • Trend toward greater adaptation to regional or local resources • Fully flexed burials, placed facedown or faceup, and oriented toward the north or west	3000 BC–AD 500
Late Prehistoric	• Increase in the use of plant food resources, as well as an increase in land and sea mammal hunting • Increase in the diversity and complexity of material culture • Increased usage of the bow and arrow • Increase in population size, accompanied by the advent of larger, more permanent villages	AD 500–ca. 1769

Ethnographic Overview

The Project Site is within the southeastern portion of the Chumash territorial boundary (and the Ventureño language group) (Figure 4). The Chumash people lived between Malibu in Los Angeles County and San Marcos Creek near the Monterey County line, on all four of the northern Channel Islands, and as far east as the edge of Kern County (Milliken and Johnson 2005). The Chumash territory

was divided into seven parts, each representing various linguistic subgroups, some of which were nearly mutually unintelligible (Kroeber 1925; Milliken and Johnson 2005). Most of our information regarding Chumash traditional culture comes from the ethnographic studies conducted by J. P. Harrington, who worked among the surviving Chumash population between 1912 and 1958. The following descriptions of Chumash society are compiled from scant ethnographic and ethnohistoric sources that entail numerous biases and should be taken as general accounts of Native lifeways observed at the time of European contact and later (after indigenous lifeways had been severely disrupted by European presence in the Americas) that likely preclude primary aspects of cultural identity and practices.

The Chumash spoke at least six closely related Chumashan languages, which have been divided into two broad groups—Northern Chumash (consisting only of Obispeño) and Southern Chumash (Purisimeño, Ineseño, Barbareño, Ventureño, and Island Chumash) (Mithun 2001). While Island Chumash was the most divergent of the five southern languages, Ventureño may have had the most internal variation with at least six distinct dialects. The Project Site is situated within the territory of indigenous people who identify as or are otherwise recognized as Ventureño. The Chumashan languages are considered by some to be part of the Hokan language family, though others consider Chumashan to be an isolate stock with a long history in the Santa Barbara region, and not part of the Hokan linguistic family (Mithun 2001).

Numerous large Chumash villages extended along the Santa Barbara coastline at the time of European contact, particularly at the mouths of large drainages (Grant 1978a:Figure 1), suggesting extensive use of the greater area by indigenous peoples. Estimates of total Chumash population for the initial contact period vary from 8,000–10,000 (Kroeber 1925:551) to 18,000–22,000 (Cook and Heizer 1965:21). Coastal Ventureño and Barbareño Chumash villages were described as containing anywhere from 30 to 120 houses with several hundred to over 1,000 inhabitants and multiple canoes (Brown 2001; Grant 1978b). Early accounts by Spanish explorers note that inland villages were smaller than their coastal counterparts, with 100 to 500 occupants.

Houses in the smaller inland villages were described as rectangular in shape (Grant 1978a:518). The chief's house was often the largest dwelling, encompassing his extended household and providing for his hospitality duties. Villages often contained storehouses, one or more subterranean sweat lodges, and a semi-circular dance ground and associated sacred ceremonial enclosure, with a nearby game field surrounded by low walls (McCall and Perry 1986). Satellite gathering or processing areas included earth ovens used to roast yucca and other foods, rockshelters, quarries, and bedrock mortars for processing acorns and similar plant resources (King 1994).

Every village had a chief, or *wot*, who was usually male, but hereditary rights to this role were passed down matrilineally (Johnson 1987). The *wot* had both political and religious ceremonial duties to perform and was assisted by the *paha*. Other officials known as *ksen* were "messengers who traveled from place to place, making announcements and gathering news for the *wot*" (McCall and Perry 1986:40). A large village usually had three to four chiefs, one of whom would be the head chief (Brown 2001). Portions of Chumash territory were also organized into provinces, or groups of villages that were ruled by a single chief.

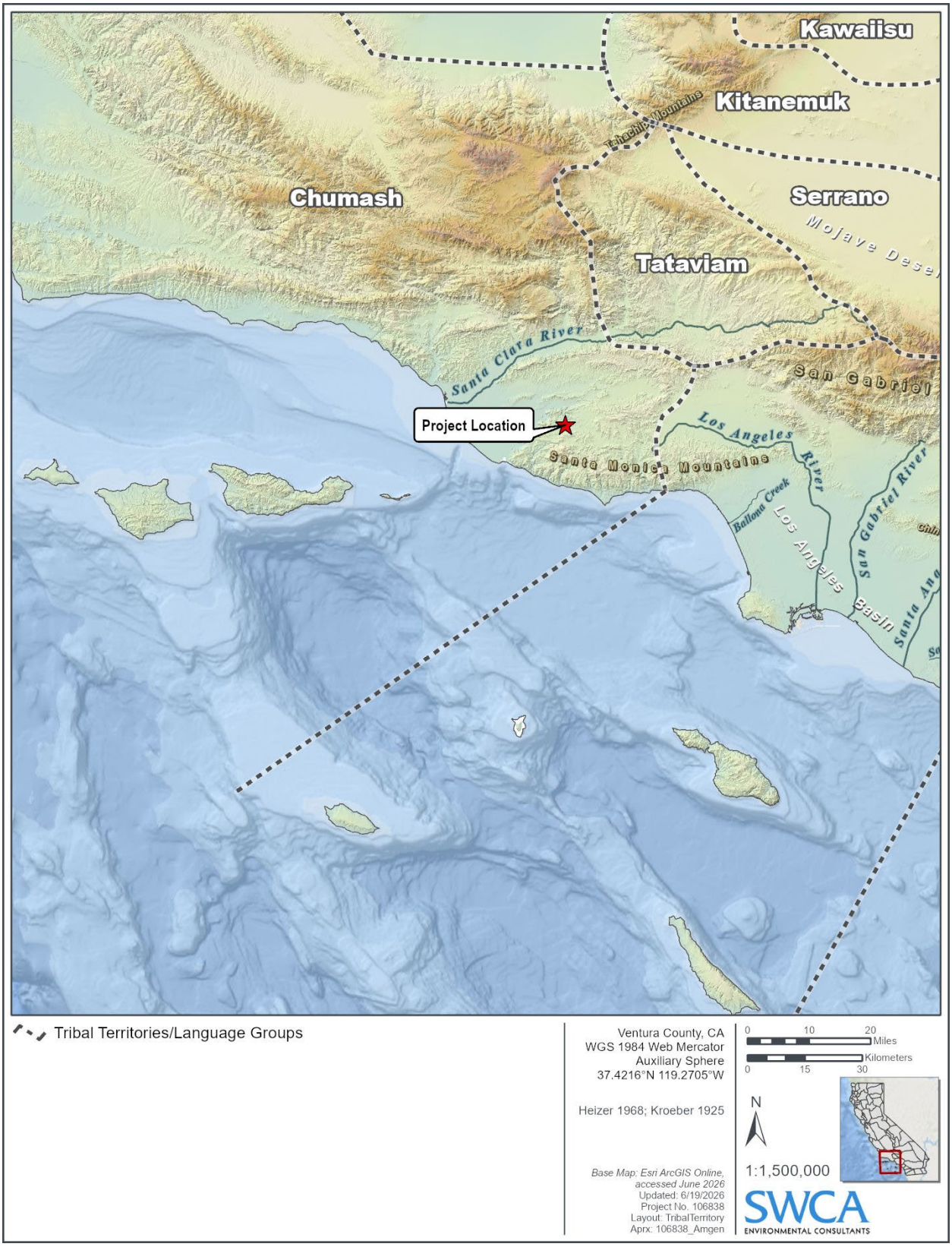

Figure 4. Overview of traditional tribal territories and/or language boundaries recorded in ethnographic sources from California.

Acorns were a dietary staple of inland Chumash groups and were gathered in the autumn and stored in villages, where they were ground to a meal, leached, and then cooked daily. In addition to acorns—mainly from the coast live oak (*Quercus agrifolia*)—other nuts, such as pine nuts and walnuts, were collected. Chumash diet also included cattail roots, fruits, and pads from *Opuntia* cactus, along with bulbs and tubers (Miller 1988; Timbrook 2007). Yucca stalks were harvested and roasted, and the buds and flowers were also gathered and consumed. Staples included small hard seeds of several annual and perennial plants such as grass, chia and other sages, and buckwheat. Seasonal resources included berries (blackberry, elderberry, grape, madrone, laurel, and wild cherry), mushrooms, and cress.

Seeds were processed using various grinding implements including wooden and stone mortars, pestles, bedrock mortars, and hand stones. Tools used to gather plant foodstuffs consisted of at least several forms of gathering and winnowing baskets, woven seed beaters, and sharpened digging sticks. A variety of basket styles were manufactured for the processing and serving of foods, including straining and leaching acorn meal, and processed meal and other foods were cooked in water-tight baskets (Miller 1988). Other baskets were made for storing grains, acorns, meal, prepared foods, and other dietary resources. Carved steatite bowls, ollas, and comals also were used for cooking, and meals were sometimes served on wooden plates and bowls.

Inland Chumash populations captured mule deer, antelope, cottontail, jackrabbit, mice, and wood rats; mountain and valley quail, dove, and resident and migratory waterfowl, among other birds; and various types of reptiles, amphibians, and insects. Larger animals, such as mule deer, coyote, and fox, were hunted with the bow and arrow; smaller game was captured with traps and snares. Hunting was accomplished by various means, with the bow and arrow, spears, slings, throwing sticks, traps, and deadfalls (Hudson and Blackburn 1979).

Trade was an integral component of Chumash subsistence, and trade relationships among inland, coastal, and island groups were well established. Inland Chumash groups traded with the coastal Chumash, as well as Yokut, Tataviam, Kitanemuk, and Gabrielino neighbors to the north, east, and south (Miller 1988). Extensive trade network increased the diversity of goods available throughout Chumash territory, encouraged craft specialization, and established the coastal villages as middlemen.

Chumash religion was well developed and integrated into everyday life. Rituals and ceremonies were observed throughout the year; the most important was performed at the Winter Solstice, when a large festival was held in honor of the Sun. Astronomers carefully marked the shortest day of the year to know when to begin the rites and dances and used the observation to recalibrate their calendar. The *Hutush* autumn harvest festival, a time of thanksgiving, celebrated the Earth Goddess as provider of all foods (McCall and Perry 1986). Ceremonies were performed in everyday life and to mark special occasions; rituals were performed to name children, cure the sick of various ailments, and initiate young men into the mysteries of religion. The *'antap* society, restricted to the upper class, was also the federation of shamans who controlled ceremonial observances.

Continuity After Colonization

The traditional lifeways of Native California peoples were dramatically altered by the Spanish mission system and later Mexican and American settlement of the area. The incursion of these new groups also introduced diseases that devastated many indigenous populations. The dissolution of their culture alienated them from their traditional subsistence patterns, social customs, and marriage networks. European diseases, against which they had no immunity, reached epidemic proportions, and Chumash populations were rapidly decimated (Johnson 1987). The increase in agriculture and the spread of grazing livestock into their collecting and hunting areas made maintaining traditional lifeways increasingly difficult. Although many Chumash were eventually subsumed by the mission system, some refused to

give up their traditional existence and escaped into the interior regions of the state, where they survived as refugees living with other tribes.

The earliest European visits to the Chumash region began with the Cabrillo, Viscaino, and other naval explorers who reached the southern California coast in the 1500s. The first land expedition through the Conejo Valley occurred in A.D. 1770 when Gaspar de Portolá arrived in the area on his return journey from Monterey to San Diego. Portolá entered the valley from the northwest traveling up and over the Conejo Grade. The first Chumash settlement the expedition encountered was kay*ɨwiš* (Cayegues) near Conejo Creek (Figure 5). Turning to the southeast, Portolá continued up the Arroyo Conejo and over a mountain pass to a settlement the Spanish named Los Reyes Village, which was located at the foot of a hills near a large spring (Brown 2001:659). McLendon and Johnson (1999:84) suggest that the village named Los Reyes may be the archaeological site of CA-VEN-261, located north of Newbury Park. The settlement of Los Reyes is not mentioned in mission records suggesting it may have been abandoned before people were recruited to Mission San Buenaventura.

The first permanent nonindigenous settlement in the general area occurred with the founding of Mission San Luis Obispo in 1771, and soon numerous troop and supply trains passed through Chumash lands on the way from San Diego to more northerly missions and outposts. Six missions were built in the region in the roughly 30 years between 1772 and 1804 including San Luis Obispo, San Buenaventura, Santa Barbara, La Purisima Concepcion, San Fernando, and Santa Ynez. Located in what is now the city of Ventura, Mission San Buenaventura was founded in 1782 and is the closest mission to the Conejo Valley. Records from the San Buenaventura mission document several interior Chumash settlements in the Conejo Valley including *lalimanuc* (Lalimanuc), kay*ɨwiš* (Cayegues), and *sapwi* (Sapue) (see Figure 5). The closest documented Chumash village to the Project Site is *sapwi* ("House of Deer"), which lies approximately 0.9 miles (1.4 kilometers [km]) to the southeast. Baptismal and marriage registers from Mission San Buenaventura indicate that the inhabitants of *sapwi* maintained kinship links with other interior villages, as well as several coastal Chumash settlements (McLendon and Johnson 1999:84). Most native inhabitants in the Conejo Valley were incorporated into the mission system by the very early 1800s, leaving many traditional villages abandoned by circa 1805.

With the secularization of mission lands after 1834, traditional Chumash territories were distributed among grants to private owners. Only in the areas of Mission Santa Barbara and Mission San Fernando de España Rey were several small ranchos granted to neophytes of these missions, providing a temporary home for a few people. Some Chumash managed to make a living in the area into the early twentieth century as cowboys, farm hands, and town laborers. The Catholic Church provided some land near Mission Santa Ynez for ex-neophytes, and this land was eventually deeded to the U.S. government in 1901 as a 127-acre reservation composing the sole Chumash reservation, with an enrollment of 158 members in 2003 (California Indian Assistance Program 2003:144).

Since the 1970s, Chumash descendants living in the region have formed social and political organizations intent on cultural revitalization; protection of sacred areas and archaeological sites; and petitioning for federal recognition. Today, the Santa Ynez Band of Chumash Indians is the only federally recognized Chumash tribe, and many people of Chumash ancestry still reside in the region and across the state. Chumash descendants are also represented by the Barbareño-Ventureño Band of Mission Indians, Coastal Band of Chumash Nation, and the Chumash Council of Bakersfield. Chumash cultural pride and social organization has experienced a resurgence in recent decades, and public performances of dances, songs, storytelling, and craftsmanship occur in an array of venues throughout southern California (Johnson 1994).

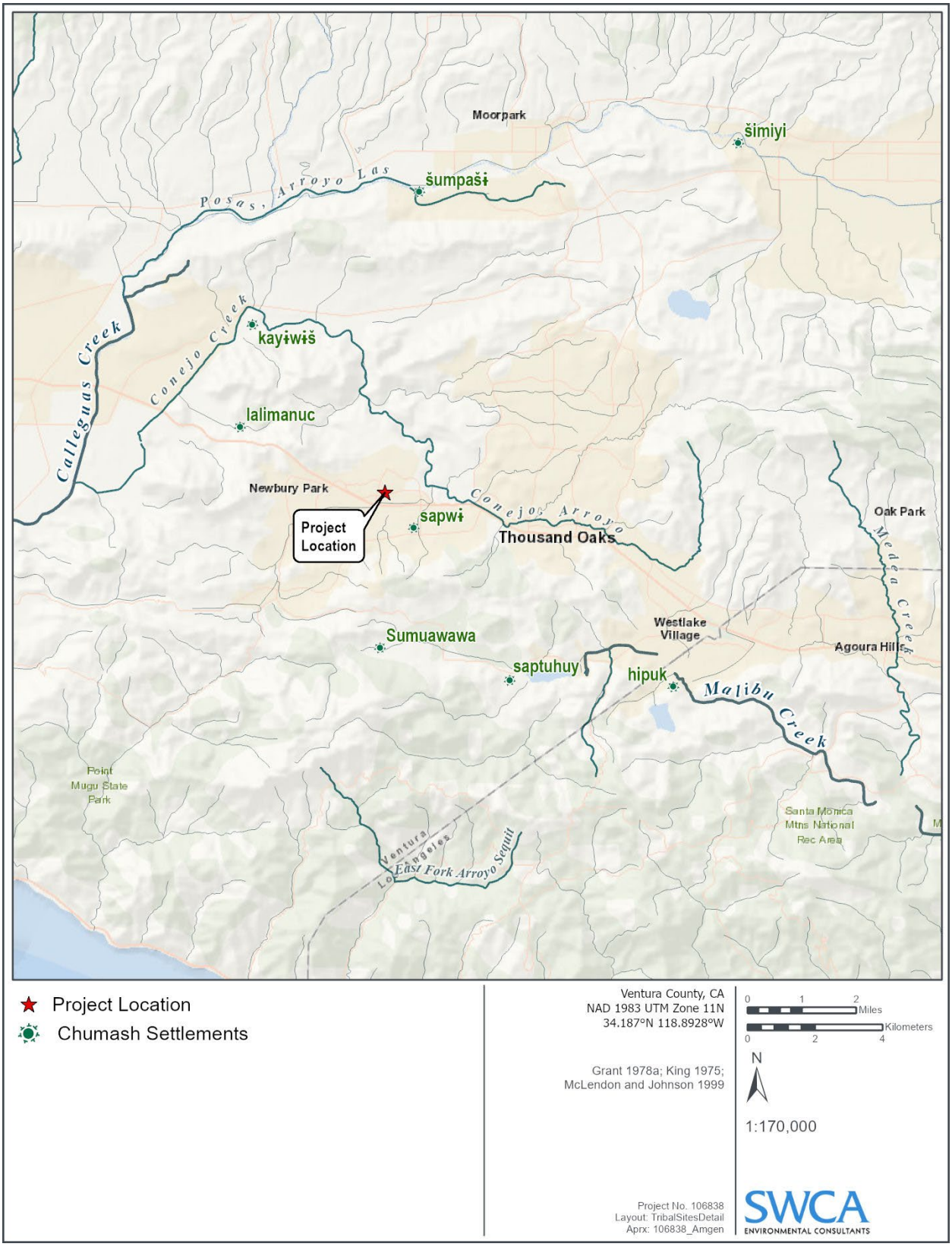

Figure 5. Overview of documented Chumash settlements in the vicinity of the Project Site.

METHODS

CHRIS Records Search

SWCA reviewed CHRIS record search data obtained from the SCCIC at California State University, Fullerton on August 6, 2026. The record search included the current Project Site and surrounding 0.5-mile (0.8- km) buffer. The purpose of the review was to obtain information on archaeological resources and studies that had been conducted in the vicinity of the Project Site. The SCCIC maintains cultural resources records for Ventura County, which were included in the review. Background research also included a review of the NRHP, CRHR, California Points of Historical Interest list, California Historical Landmarks list, and Archaeological Resources Directory.

Sacred Lands File Search

SWCA submitted an SLF request to the NAHC on June 19, 2026. The NAHC maintains a list of Sacred Lands that are of interest to Native American tribal groups within California and could potentially be impacted by development projects. The NAHC also maintains a current CEQA tribal consultation list for consultants so that they can contact tribal representatives for further input into a project.

Buried Sensitivity Assessment

SWCA assessed the potential of encountering unknown, buried Native American archaeological sites in the Project Site that may qualify as tribal cultural resources. A sensitivity assessment considers land use and development within the Project vicinity, broadly, as well as the physical setting of the Project Site, including whether the depositional context is conducive to the preservation of intact buried archaeological material. The results of such assessments are by nature qualitative, ranging along a three-tier scale of increasing probability for encountering buried archaeological artifacts and features, designated here as low, moderate, and high.

The primary sources of information used to assess the sensitivity for buried Native American sites derived from record search and geological mapping data. The prevalence and types of precontact archaeological resources that have been documented within an area can be used to broadly characterize the extent and nature of Native American settlement and land use practices. Geological mapping information can be used to identify sensitive sedimentary deposits produced by alluvial, colluvial, eolian, and other natural processes, as well as paleosols, dating from the terminal Pleistocene through the Holocene epoch. The presence of surface artifacts and/or features of Native American origin in Holocene-age depositional environments conducive to the preservation of buried archaeological materials increases the buried site sensitivity of an area. The degree of existing ground disturbance also impacts the potential for buried archaeological deposits. Areas exhibiting little to no evidence of recent, deep subsurface disturbance may have a higher sensitivity for containing intact buried Native American archaeological resources than areas that have been mass or deep graded.

RESULTS

CHRIS Records Search

Previously Conducted Studies

SWCA received the results of the CHRIS records search from the SCCIC on August 6, 2026. The record search data indicate that 19 cultural resources studies have been conducted within 0.5-mile of the Project Site (Table 3). None of these studies overlap the current Project Site. Results of the record search is provided in Confidential Appendix A of the Project's Archaeological Resources Assessment (Clark and Millington 2026).

Table 3. Cultural Resources Studies Identified in the CHRIS Search

Report Number	Title	Author (Affiliation)	Year
VN-00028	Evaluation of the Archaeological Resources and Potential Impact of Proposed Widening and Realignment of the Ventura Freeway (Federal Highway 101), Ventura County.	Rosen, Martin (Institute of Archaeology, Archaeological Survey, University of California, Los Angeles)	1975
VN-00035	Evaluation of the Archaeological Resources and Potential Impact of Industrial Tract 2461, Ventura County.	Kaufman, Susan and Martin Rosen (Institute of Archaeology, Archaeological Survey, University of California, Los Angeles)	1975
VN-00041	Evaluation of the Archaeological Resources and Potential Impact of Proposed Industrial Tract 2488, Rpd-75-141, Ventura County	Kaufman, Susan Hector Institute of Archaeology, Archaeological Survey, University of California, Los Angeles)	1976
VN-00084	An Archaeological Resource Survey and Preliminary Impact Assessment of the MGM Ranch Property Thousand Oaks, California	Clewlow, William C. Jr. (Ancient Enterprises, Inc.)	1977
VN-00172	Final Archaeological Impact Report. Ventu Park Road General Plan Amendment Study C-76-6, City of Thousand Oaks and Tract 2501/rpd-75-149	Davis, David, C. Singer, N. Leonard, III, and J. Clewlow	1976
VN-00342	An Archaeological Reconnaissance of the 14.96 Acre Tract 2693, Rancho Conejo Industrial Park, City of Thousand Oaks, Ventura County, California	Lopez, Robert	1978
VN-00487	Archaeological Survey of Oakview Gardens, Newbury Park, California	Underwood, Jackson and Dennis Gallegos (Westec Services, Inc.).	1986
VN-00942	An Archaeological Reconnaissance of the Thirty-six Acres Involved in the Borchard Villas (tract 4707), Newbury Park, City of Thousand Oaks, Ventura County, California	Lopez, Robert	1990
VN-01040	For Improvement of the Operational Characteristics of Route 101, the Ventura Freeway in Los Angeles and Ventura Counties, Between Route 405 in Los Angeles, and the Santa Clara River in Oxnard	Stelle, Kenneth and Albert Gallardo (California Department of Transportation and Federal Highway Administration)	1982
VN-01130	Environmental Impact Evaluation: an Archaeological Assessment of Vesting Tentative Tract Map 4366--rancho Conejo City of Thousand Oaks, California	Drover, Christopher E.	1988
VN-01520	Archaeological Survey Report for the 07-LA/VEN 101 Project P.m. 17.1-38.2/0.0-22.7 07351 - 076620	Romani, John F. (California Department of Transportation)	1982
VN-01527	An Historic Study of the Property Known As the MGM Ranch a Planned Community by Shapell Industries Inc.	Allen, Patricia A. (Conejo Valley Historical Society)	1978

Report Number	Title	Author (Affiliation)	Year
VN-01533	A Cultural Resources Survey and Impact Assessment of Community Development Block Gran (cdbg) Project Sites #1, 2, 3, 4 and Storm Drain City of Thousand Oaks, Ventura County	Whitley, David S. (Ancient Enterprises, Inc.)	1980
VN-01539	Phase 1 Archaeological Survey Ven 101 P.m. 4.1/23.0 Freeway Widening and Pavement Reconstruction	Huey, Gene (California Department of Transportation)	1978
VN-01580	Results of an Archaeological Records Check and Field Reconnaissance Study for the Proposed Kelley Road Storm Drain and Newbury Road Improvement Project (units a & B), Thousand Oaks, Ventura County, California	McKenna, Jeanette A. (McKenna et al.)	1998
VN-01997	Phase I Archaeological Survey of the Thousand Oaks Drive-in Study Area, Ventura County, California	Whitley, David S. (W&S Consultants)	1999
VN-02843	Conejo Fire Mitigation, Conejo Recreation and Park District, FEMA-1498-DR-CA, HMGP #1498-98-36	Amaglio, Alessandro (Federal Emergency Management Agency)	2005
VN-02872	TEA-21 Rural Roadside Inventory: Native American Consultants and Ethnographic Study for Caltrans District 7, Ventura County	Fortier, Jana (ICF Jones & Stokes)	2009
VN-03018	New Tower Submission Packet, FCC Form 620. Rancho Conejo Park & Ride. LA5658A. Ventura Freeway & Borchard Road, Thousand Oaks, Ventura County	Billat, Scott (EarthTouch, Inc.)	2011

Previously Recorded Native American Archaeological Resources

The CHRIS records search results indicate that no Native American archaeological resources have been documented in the Project Site or the search radius.

SLF Search

The NAHC responded to SWCA's request on June 25, 2026, noting that the SLF search was negative. The NAHC recommended that eight individuals, representing four Native American tribal groups who may have additional knowledge on archaeological resources in the Project Site, be contacted. The SLF search request letter, the NAHC response, and the list of contacts are included in Appendix B of the Project's Archaeological Resources Assessment (Clark and Millington 2026).

Buried Sensitivity Assessment

As previously mentioned, geologic mapping indicates that the Project Site is characterized by late Pleistocene alluvium (Qoa) which is more than 11,700 years old (Dibblee and Ehrenspeck 1990). The oldest evidence for Native Americans in Southern California comes from a site in one of the Channel Islands and is approximately 13,000 years old, during the transition from the Late Pleistocene to Holocene. Thus, based strictly on the age of the sedimentary deposit, sensitivity for Native American archaeological resources or buried tribal cultural resources is limited to the uppermost portions of the Qoa formation. Below this depth, the sediments would be too old to contain archaeological materials. Archival research indicates that the Project Site was under cultivation as early as 1945 (University of California, Santa Barbara [UCSB] Library 2026a). Agricultural activities continued until the late 1960s or early 1970s, when the Project Site was graded and West Hillcrest Drive was constructed (UCSB Library 2026). Based on these findings, it is likely that any Native American archaeological remains associated with Pleistocene alluvium would have been destroyed by historic-era agricultural and grading activities that took place on the Project Site in the mid- to late twentieth century. Therefore, the potential to encounter significant buried Native American archaeological deposits in the Project Site that qualify as tribal cultural resources in Pleistocene alluvium is low.

GAI's (2026) geotechnical study found that the Project Site contains a layer of artificial fill overlying the Pleistocene deposits and extending from the surface to depths between 7 to 15 feet (2.1 and 4.6 meters). It is not known when the layer of fill was deposited. However, archival information suggests it was sometime after West Hillcrest Drive was built and before Building 14 was constructed in 1993 (GAI 2026; UCSB Library 2026). Native American features and sites are very unlikely to be preserved in redeposited fill. Furthermore, the redeposited nature of fill substantially reduces the likelihood that intact deposits or objects retaining sufficient context and integrity to qualify as a tribal cultural resource would be present. Based on these findings, the potential to encounter tribal cultural resources in the fill stratum is low.

Geologic mapping indicates that a small area designated for off-site improvements extends into Holocene alluvium (Qa) (Dibblee and Ehrenspeck 1990). The alluvium is young enough to contain buried archaeological remains that may qualify as tribal cultural resources. However, the absence of documented Native American archaeological resources within 0.5 mile of the Project Site suggests the area may not have experienced extensive use in the precontact period. During the subsequent historic period, development appears to have been limited to mid- to late twentieth century agricultural activities. Any surficial Native American archaeological deposits that may have been present in the off-site improvement area were likely destroyed by the construction of West Hillcrest Drive. Because GAI's (2026) geotechnical study did not extend into the off-site improvement area, the depth of artificial fill in this portion of the Project is not known nor is the extent of existing ground disturbance. It is possible that intact Native American archaeological deposits may be preserved in more deeply buried contexts below the artificial fill layer. Therefore, deeper excavations in the off-site improvement areas have moderate potential to encounter intact Native American archaeological deposits that may qualify as tribal cultural resources.

Tribal Consultation

On May 20, 2026, the Nicole Katz, acting on behalf of the City as CEQA lead agency, initiated Project-specific tribal consultation pursuant to AB 52 and SB 18 for the Project. Formal notification letters describing the Project and inviting consultation were transmitted to tribal representatives identified through the City's consultation list and NAHC contacts. Notification letters were provided to representatives of the Barbareño/Ventureño Band of Mission Indians, Coastal Band of the Chumash Nation, Northern Chumash Tribal Council, and Santa Ynez Band of Chumash Indians.

The notification informed tribes that consultation requests would be accepted within the timelines established by AB 52 and SB 18 and invited comments regarding potential tribal cultural resources and Project impacts. The notification also noted that the City's General Plan 2045 Program EIR included mitigation measures applicable to the inadvertent discovery of archaeological and tribal cultural resources during construction.

On May 28, 2026, the Barbareño/Ventureño Band of Mission Indians responded and requested involvement in the event that cultural resources were identified during Project construction and also requested a copy of the archaeological study prepared for the Project. On June 18, 2026, the City acknowledged the tribe's request to be engaged and monitor further work if there is a resource discovery. A request was also made to review a copy of the archaeological report when available, which the City acknowledges in response.

No other tribes requested consultation or provided comments concerning tribal cultural resources within the Project Site. Based on the consultation with Barbareño/Ventureño Band of Mission Indians, no tribal cultural resources, sacred places, traditional cultural properties, or other specific concerns have been identified through the consultation process.

IMPACT ANALYSIS

Based on current Project plans, the basement of the proposed building is expected to extend to a maximum depth of 21.5 feet (6.6 meters) below the current grade, which is at or near the existing Building 14 basement elevation (GAI 2026:2). As such, no significant grading or over-excavation for the construction of Building 50 is anticipated. The installation of hardscape and landscape elements, as well as utility excavations, in the Project Site is expected to extend no more than 7 feet (2.1 meters) bgs. The geotechnical data indicate that ground-disturbing activities will be confined to the layer of artificial fill. In the off-site improvement area, the new storm drain will be placed 3 to 5 feet (0.9 to 1.5 meters) below the current grade. The depth of existing disturbance along West Hillcrest Drive is not known. However, given the extent of development in the area, it is likely that the upper 2-3 feet (0.6 to 0.9 meter) of sediment has been previously disturbed by the construction of West Hillcrest Drive. Based on these findings, only the deepest excavations associated with the storm drain installation have the potential to extend into undisturbed native sediments.

No tribal cultural resources were identified within the Project Site through the CHRIS records search and archival research using scientific, archaeological, and other published sources. Furthermore, the NAHC's search of the SLF returned negative results. SWCA's sensitivity analysis concluded that there is an overall low probability of a tribal cultural resource being preserved within the Project Site as a buried archaeological deposit. This tribal cultural resources evaluation tiers from the certified General Plan 2045 Program EIR, which included SB 18 and AB 52 tribal consultation, and from the Amgen Center Specific Plan EIR. That prior consultation and environmental review did not identify tribal cultural resources within the Project Site or off-site improvement area. On May 20, 2026, the City, as lead agency, provided formal AB 52 and SB 18 notification to tribal entities eligible to receive notice of projects within the City's jurisdiction and to tribes identified by the NAHC as having traditional lands or cultural places in the vicinity of the Project. The Barbareño/Ventureño Band of Mission Indians was the only tribe to respond and requested monitoring if resources are discovered during Project construction. No tribal cultural resources were identified through the consultation process.

Based on the current records search, SLF search, archival review, consultation record, and buried sensitivity assessment, SWCA concludes that the Project would not affect any identified tribal cultural resources and would not alter the conclusions of the General Plan 2045 Program EIR with respect to tribal cultural resources. While unlikely, the potential for encountering Native American archaeological resources during construction cannot be completely ruled out, particularly for deeper excavations in the off-site improvement area where Holocene-aged alluvium may be present beneath disturbed sediments or artificial fill that otherwise characterizes the subsurface.

The MMRP for the City's General Plan 2045 Program EIR includes MM CUL-4 (Suspend Work Around Tribal Cultural Resources Identified During Construction), which applies in the event that cultural resources of Native American origin are identified during construction. Although no known tribal cultural resources were identified within the Project Site or off-site improvement area, SWCA finds that MM CUL-4 remains applicable to the proposed Project as an adopted measure addressing inadvertent discoveries. MM CUL-4 requires that in the event that cultural resources of Native American origin are identified during ground disturbance for the Project, that further work be temporarily halted and an appropriate local Native American representative be consulted. To provide greater specificity as a response to AB 52 consultation with the Barbareño/Ventureño Band of Mission Indians for the Project, MM CUL-4 is recommended to incorporate minor revisions (shown as strike-through and underline) to identify the Barbareño/Ventureño Band of Mission Indians as the local Native American tribe, as follows:

> **2045 General Plan Update Mitigation Measure CUL-4 Suspend Work Around Tribal Cultural Resources Identified During Construction:** In the event that cultural resources of Native American origin are identified during ground disturbance during construction of a project

> implemented under TO2045, all earth-disturbing work in the vicinity of the find shall be temporarily suspended or redirected until an archaeologist has evaluated the nature and significance of the find as a cultural resource and ~~an appropriate local Native American~~ a Barbareño/Ventureño Band of Mission Indians representative is consulted. If the City, in consultation with ~~local Native Americans~~ the Barbareño/Ventureño Band of Mission Indians, determines that the resource is a tribal cultural resource and, thus, significant under CEQA, a mitigation plan shall be prepared and implemented in accordance with State guidelines and in consultation with the Barbareño/Ventureño Band of Mission Indians ~~local Native American group(s)~~. The mitigation plan shall include avoidance of the resource or, if avoidance of the resource is infeasible, the plan shall outline the appropriate treatment of the resource in coordination with the Barbareño/Ventureño Band of Mission Indians ~~appropriate local Native American tribal~~ representative and, if applicable, a qualified archaeologist. Examples of appropriate mitigation for tribal cultural resources include, but are not limited to, protecting the cultural character and integrity of the resource, protecting traditional use of the resource, protecting the confidentiality of the resource, or heritage recovery.

Implementation of MM CUL-4 with these minor revision would ensure that any previously unidentified cultural resource of Native American origin encountered during ground-disturbing activities is evaluated and, if determined by the City to qualify as a tribal cultural resource, treated in accordance with the adopted mitigation framework. No additional mitigation measures are required as no new significant tribal cultural resource impacts would result from implementation of the Modified Project. With application of MM CUL-4, the Project would result in less-than-significant impacts to tribal cultural resources. Such impacts would be within the scope of effects and within the impact conclusion set forth in the Certified General Plan 2045 Program EIR.

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Appendix M

Utilities

Appendix M.1

Fire Flow Summary

Memorandum

To	Amgen
Date	July 22, 2026
Copies	Mike Lepisto (Arup), Robert Accosta (Arup)
Reference number	314373-00
From	Jack DeVine
File reference	
Subject	Amgen B50 - Fire Flow Summary

Purpose

This memorandum has been prepared to outline the fire flow requirements required at the proposed Amgen Research and Development Facility located in Thousand Oaks, CA.

Code Summary

Appendix B of the California Fire Code (CFC), 2025 Edition, provides a tool for determining fire-flow requirements for the proposed building in accordance with Section 507.3 of the same code. The tool correlates the occupancy type, construction type, and size of the building, as well as whether or not the building is protected by a sprinkler system, and provides a flow rate and duration required for fire water, measured at a residual pressure of 20 psi. The building in question is in Ventura County, CA – thus, it is subject to the requirements of the CFC (2025) as well as local amendments from the Ventura County Fire Code.

The proposed building is intended to be used as a Group B/Group L occupancy and is constructed of Type IB construction. It is 4 stories above grade with a total floor area of approximately 379,000 ft^2. The building is protected throughout by an automatic sprinkler system in accordance with CFC Section 903.3.1.1. Based on this information, Table B105.1(2) and B105.2 shall be used to determine the required fire flow. Table B105.1(2) notes that for the building described above, a required fire flow of 6,000 gpm at a duration of 4 hours is required. However, Table B105.2 allows the minimum fire flow to be reduced to 25% the value listed in Table B105.1(2), because the building is fully sprinklered. Thus, the minimum fire flow rate can be reduced to 1,500 gpm. Table B105.2 also allows the flow duration to be decreased to the duration that correlates with the flow rate of 1,500 gpm in Table B105.1(2). Thus, the final determination of required fire flow rate for the building is **1,500 gpm for a duration of 2 hours.**

Available Water Supply

There are two fire hydrants around the perimeter of the proposed Amgen facility – one located at 2150 W Hillcrest Drive, and one located at 2003 Oak Terrace Lane. The table below displays the data for each of the hydrant flow tests:

Hydrant Location	Date of Test	Static Pressure (psi)	Residual Pressure (psi)	Flow Rate (gpm)	Calculated Flow @ 20 psi (gpm)
2150 W. Hillcrest Dr.	2/28/2025	117	107	2,041	9,406
2003 Oak Terrace Ln.	3/3/2026	103	82	3,933	8,631

Based on the hydrant flow tests performed above, the flow rate available at 20 psi (9,406 gpm and 8,631 gpm) far exceeds the flow rate that is required by CFC. As such, the fire flow required at the proposed Amgen facility can be fulfilled by existing city infrastructure.

VENTURA COUNTY FIRE DEPARTMENT

Fire Prevention Bureau
165 Durley Avenue, Camarillo, CA 93010-8586
Office: (805) 389-9738 Fax: (805) 388-4356

FIRE PREVENTION FOM 625
FIRE-FLOW VERIFICATION

SECTION I – PROJECT INFORMATION
(To Be Completed by Applicant)

Project Name:	Hillcrest	APN:	667-0-113-075
Project Address:	2150 W HIllcrest Dr	City:	Newbury Park

SECTION II – INFORMATION ON FIRE-FLOW AVAILABILITY
(To Be Completed by Water Purveyor)

System Information:

Water Purveyor: California American Water

Size & Location of Main: 10-inch in HIllcrest Dr Distance to Parcel: 20 ft

Size of Reservoir Serving Test Hydrants: Industrial I&II - 5.8 MG

Hydrant Information:

Location of Residual Hydrant: N/A Distance to Parcel: * N/A

Location of Flow Hydrant: 118.9231106°W 34.1869263°N Distance to Parcel: * ft

Type: Wet Size: 6-inch # of Outlets: 1 4" 2 2 ½"

* Distance to parcel shall be measured along the vehicular access

Test Result Information:

Method Used to Obtain Results: Hydraulic Model ☑ Flow Test ☐

Date of Test: 02/28/2025 Time of Test: N/A ☐ AM ☐ PM

Static PSI: 117 Residual PSI: 107 Orifice: N/A Pitot: N/A

Observed GPM: 2041 Calculated GPM @ 20 psi: 9406 Capacity Duration: N/A hrs

I have witnessed and/or reviewed this water flow information and by personal knowledge and/or on-site observation certify that the above information is correct.

Name: Candace Coleman

Signature: Candace Coleman Digitally signed by Candace Coleman Date: 2025.02.28 17:02:06 -8'0' Date: 02/28/2025

Title: Senior Planning Engineer Company: California American Water

Phone: (916) 541-9942

☐ Private on-site water system proposed. Separate plan submittal required.

☐ Water purveyor approves use of private water system. (Purveyor signature required above).

Fire District Record Number:

VENTURA COUNTY FIRE DEPARTMENT

Fire Prevention Bureau
165 Durley Avenue, Camarillo, CA 93010-8586
Office: (805) 389-9738 Fax: (805) 388-4356

FIRE PREVENTION FOM 625
FIRE-FLOW VERIFICATION

SECTION I – PROJECT INFORMATION
(To Be Completed by Applicant)

Project Name:	AMGEN B6 SYRINGE	APN:	526-0-190-025
Project Address:	2003 OAK TERRACE LANE	City:	THOUSAND OAK

SECTION II – INFORMATION ON FIRE-FLOW AVAILABILITY
(To Be Completed by Water Purveyor)

System Information:

Water Purveyor: California American Water

Size & Location of Main: 12-inch in Oak Terrace Ln Distance to Parcel: 20 ft

Size of Reservoir Serving Test Hydrants: Industrial I&II - 5.06 MG

Hydrant Information:

Location of Residual Hydrant: N/A Distance to Parcel: * N/A

Location of Flow Hydrant: 118.9210451°W 34.1882824°N Distance to Parcel: * 25 ft

Type: Wet Size: 6-inch # of Outlets: 1 4" 2 2 ½"

* Distance to parcel shall be measured along the vehicular access

Test Result Information:

Method Used to Obtain Results: Hydraulic Model ☑ Flow Test ☐

Date of Test: 03/03/2026 Time of Test: N/A ☐ AM ☐ PM

Static PSI: 103 Residual PSI: 82 Orifice: N/A Pitot: N/A

Observed GPM: 3933 Calculated GPM @ 20 psi: 8631 Capacity Duration: N/A hrs

I have witnessed and/or reviewed this water flow information and by personal knowledge and/or on-site observation certify that the above information is correct.

Name: Donya Dezfooli

Signature: Donya Dezfooli Digitally signed by Donya Dezfooli Date: 2025.12.05 12:59:05 -08'00' Date: 03/03/2026

Title: Planning Engineer Company: California American Water

Phone: (626) 673-9138

☐ Private on-site water system proposed. Separate plan submittal required.

☐ Water purveyor approves use of private water system. (Purveyor signature required above).

Fire District Record Number:

Appendix M.2

VCFD Memorandum

VENTURA COUNTY FIRE DEPARTMENT

Fire Prevention Bureau
2400 Conejo Spectrum St. Thousand Oaks, CA 91320
Office (805) 389-9738
fireprevention@ventura.org

MEMORANDUM

DATE:	06/12/2026
TO:	Nicole Katz, City of Thousand Oaks Community Dev. Dept.
FROM:	Mario Arechiga, Fire Inspector II
PROJECT NUMBER:	DP 2026-70002
FIRE DEPT. RECORD:	FPLN26-00051
APPLICANT:	Amgen
LOCATION:	701 Pauling Dr
DESCRIPTION:	New 375,000 SF commercial lab building. Existing building on this site to be demolished.

Application Complete - This project has been reviewed by the Ventura County Fire Protection District and is found to be **complete with the following Fire Department conditions**.

Fire Department Clearance - Applicant shall obtain Fire Clearance VCFD Form #610B "Requirements for Construction" prior to obtaining a building permit for any new structures or additions to existing structures.

Fire-Flow Verification (Commercial) - Applicant shall verify that the water purveyor can provide the required fire-flow requirements by having them fill out VCFD Form #625, Fire-Flow Verification. Minimum fire-flow shall be 1,500 gpm at 20 psi for 2 hour duration.

Building Plan Review - Building plans of all A, E, I, H, R-1, R-2 or R-4 occupancies shall be submitted, with payment for plan check, to the Fire District for review and approval prior to obtaining a building permit. **This review is concurrent with Building and Safety review. Plans (Architectural, Mechanical, Electrical, Plumbing, and dedicated fire service utility with design to finish above grade) shall be submitted directly to VCFD Fire Prevention.**

Private Roads/Driveways - Private roads/driveways shall comply with Public Road Standards and VCFPD Ordinance 34.

Mitigation to Aerial Fire Apparatus Access Roads- The *fire code official* is authorized to reduce the required width to not less than 24 feet when all the following are provided.

- Automatic fire sprinklers are installed throughout the structure in accordance with NFPA 13.
- Fire sprinkler standpipes are provided on all floors and through to the roof.
- Two or more roof access points are provided through 2-hour fire rated stairs separated a distance not less than half of the diagonal of the structure.

Access Point Location – The access road / driveway shall be provided such that any portion of the exterior walls, at grade level, of a building or structure, is not more than 150 feet from fire department access as measured by an approved route around the exterior of the building.
Exception: The distance shall be permitted to be extended to 250 feet when the building is protected by an automatic fire sprinkler system in accordance with NFPA and provided with an approved access walkway leading from the road to the exterior openings around the structure.

Access Road Certification - That the access road(s)/driveway(s) shall be certified by a registered civil engineer as having an all-weather surface in conformance with Public Works and / or Fire District standards. This certification shall be submitted to the Fire District for review and approval prior to occupancy.

Turning Radius - The access road shall be of sufficient width to allow for a 40 foot centerline turning radius at all turns in the road.

Vertical Clearance - All access roads / driveways shall have a minimum vertical clearance of 13 feet 6 inches (13' 6"). Clear of building to sky.

Site Access - Two (2) means of ingress/egress shall be provided to the development in accordance with Fire District access standards.

Fire Lanes - Prior to construction the applicant shall submit a site plan to the Fire District for approval of the location of fire lanes. **Prior to occupancy,** all fire lanes shall be posted "NO PARKING-FIRE LANE-TOW AWAY" in accordance with California Vehicle Code, the International Fire Code and current VCFPD Fire Lane Standards. All signs and or Fire Lane markings shall be within recorded access easements.

Access Road Gates - Any gates to control vehicle access are to be located to allow a vehicle waiting for entrance to be completely off the intersecting roadway. A minimum clear open width of 15 feet in each direction shall be provided for separate entry / exit gates and a minimum 20 for combined entry / exit gates. If gates are to be locked, a Knox system shall be installed. The method of gate control, including operation during power failure (battery back-up), shall be subject to review by the Fire Prevention Division. Gate plan details shall be submitted to the Fire District for approval prior to installation. A final acceptance inspection by the Fire District is required prior to placing any gate into service.

Walk and Pedestrian Gates - If gates are to be locked, a Knox system shall be installed. The method of gate control, including operation during power failure (battery back-up), shall be subject to review by the Fire Prevention Division. Gate plan details shall be submitted to the Fire District for approval prior to installation. A final acceptance inspection by the Fire District is required prior to placing any gate into service.

Address Numbers (Commercial, Industrial, Multi-family buildings) - Building address numbers, a minimum of ten inches (10") high, shall be installed prior to occupancy, shall be of contrasting color to the background, and shall be readily visible at night. Brass or gold plated numbers shall not be used. Where structures are set back more than 150 feet from the street, larger numbers will be required so that they are distinguishable from the street. In the event a structure(s) is not visible from the street, the address number(s) shall be posted adjacent to the driveway entrance on an elevated post. Individual unit numbers shall be a minimum of 4 inches in height and shall be posted at the front and rear entrance to each unit. Additional address directional signs may be required at common building entrances and stairways.

Knox Device - Exterior access doors leading to fire sprinkler riser rooms and alarm control panels shall be provided with a Knox Box for emergency access.

Emergency Planning and Preparedness - The owner / applicant and all occupants of buildings shall comply with the Fire Department requirements for Evacuation Plans, Drills and training as indicated under The International Fire Code, Chapter 4 “Emergency Planning and Preparedness”, and CCR Title 19 Sec 3.09. All required records and documentation shall be available for review by the Fire Department upon request.

Fire Hydrant(s) Required - Fire hydrant(s) shall be provided in accordance with current adopted edition of the International Fire Code, Appendix C and adopted amendments. On-site fire hydrants may be required as determined by the Fire District. Prior to combustible construction, a fire hydrant capable of providing the required fire flow and duration shall be installed and in service along the access road / driveway at a location approved by the Fire District, but no further than 250 feet from the building site. The owner of the combustible construction is responsible for the cost of this installation.

Fire Hydrant Plan -Prior to construction, the applicant shall submit plans to the Fire District for placement of fire hydrants. On plans, show existing hydrants within 500 feet of the development. Indicate the type of hydrant, number and size of outlets.

Hydrant Location Markers - Prior to occupancy of any structure, blue reflective hydrant location markers shall be placed on the access roads in accordance with Fire District standards. If the final asphalt cap is not in place at time of occupancy, hydrant location markers shall still be installed and shall be replaced when the final asphalt cap in completed.

Fire Water Underground Plans - Plans for water systems supplying fire hydrants and / or fire sprinkler systems and not located within a water purveyor’s easement, shall be submitted to the Fire District for review and approval prior to issuance of grading and/or building permits or signing of Mylar plans, whichever is first. Plans shall reflect only dedicated private fire service lines and associated appurtenances. Plans shall be construction drawings in accordance with the Ventura County Fire Code and applicable NFPA Standards and shall terminate above grade.

Fire Sprinklers - The structure shall be provided with an automatic fire sprinkler system in accordance with current VCFPD Ordinance and NFPA 13 at time of building permit application.

Fire Protection System Plans - Plans for all fire protection systems (sprinklers, alarm, dry chemical, hood systems, etc.) shall be submitted, with payment for plan check, to the Fire District for review and approval prior to installation.

Fire Alarm System - A fire alarm system shall be installed in all buildings in accordance with California Building & Fire Code and NFPA 72 requirements.

Fire Protection System Verification – Existing buildings equipped with fire protection systems require a final fire inspection prior to final occupancy of a tenant improvement. Any modifications to the existing system(s) or changes affecting the coverage of devices, heads, or nozzles will require a separate permit submittal and inspection by VCFD.

Fire Alarm Certification - The building fire alarm system shall be serviced and maintained in a proper working order at all times. Required maintenance inspections and service personnel shall be in

accordance with NFPA 72. Service records shall be maintained on-site and available for review by the Fire Department upon request.

Fire Extinguishers – Fire extinguishers shall be installed in accordance with the International Fire Code. The placement of extinguishers shall be subject to review by the Fire District.

Trash Dumpster Locations - Commercial trash dumpsters and containers with an individual capacity of 1.5 cubic yards or greater shall not be stored or placed within 5 feet of openings, combustible walls, or combustible roof eave lines unless protected by approved automatic fire sprinklers.

Trash Enclosure – Commercial, detached trash enclosures shall require a separate Fire Clearance Form 610B review. Fire sprinklers are required in trash enclosures per VCFD Policy 211 with the following exceptions:

1. Constructed of non-combustible materials (including the doors).
2. Less than or equal to 180 square feet of gross floor area.
3. The enclosure is a stand-alone building.
4. The enclosure is separated a minimum of 20 feet from adjacent buildings and 10 feet away from property lines.
5. The enclosure is used exclusively for waste garbage or recyclables contained within approved trash containers. No outdoor storage is permitted within the enclosure.

Battery Energy Storage System – If proposing ESS, the applicant and/or tenant shall obtain all applicable permits for proposed Battery Energy Storage Systems (BESS) in accordance with the CA Fire Code Section 105, Section 1207, and subject to the requirements of NFPA 855. Plans shall be submitted to the Fire District for review and approval prior to installation.

Photovoltaic System PV – If proposing Solar PV, the applicant and/or tenant shall obtain all applicable permits for proposed PV System (Ground Mounted and/or Roof installation) in accordance with the CA Fire Code Section 105, Section 1205, and subject to local VCFD amendments. Plans shall be submitted to the Fire District for review and approval prior to installation.

Appendix N

Mitigation Monitoring and Reporting Program

Appendix N
Mitigation Monitoring and Reporting Program

Mitigation Measure/ Project Design Feature	Project Action Required	Implementation Timing	Monitoring Frequency	Responsible Agency	Compliance Verification Initials and Date
Aesthetics					
Amgen Center Specific Plan AES-2 Good Housekeeping Plan: Prior to issuance of demolition permits, the applicant shall prepare and submit a demolition/ construction good housekeeping plan for review and approval by the City. The plan shall include such information as designation of on-site locations for the holding of demolition materials, storage of construction materials and equipment storage. Other information to be provided shall include a schedule for debris removal, proposed screening mechanisms.	The City shall review and approve a Good Housekeeping Plan	Prior to issuance of Building Permits	Once	City of Thousand Oaks Community Development Department	
Amgen Center Specific Plan SLG-1 Screening: Before issuance of Building Permits, the Applicant shall submit a plan for review and approval by the Planning Division demonstrating that, all exterior lighting for security and parking structure purposes shall either be screened and/or hooded. No unobstructed exterior beam of light shall be permitted to be directed toward	The City shall verify that proposed exterior lighting complies with this measure.	Prior to issuance of Building Permits	Once	City of Thousand Oaks Community Development Department	

Mitigation Measure/ Project Design Feature	Project Action Required	Implementation Timing	Monitoring Frequency	Responsible Agency	Compliance Verification Initials and Date
vehicular traffic on any portion of roadways that would interfere with safety.					
Amgen Center Specific Plan SLG-3 Low Reflecting Building Materials: Prior to issuance of a Building Permit, the Applicant shall submit plans for review and approval by the Community Development Department demonstrating that low reflective glass, non-reflective surface or special treated materials will be used on exterior **surfaces** of structures constructed within the Specific Plan area to reduce potential glare impacts.	The City shall verify that the building materials proposed for the development comply with this mitigation measure	Prior to issuance of Building Permits	Once	City of Thousand Oaks Community Development Department	
Amgen Center Specific Plan SLG-4 Glazing: Glazing shall be integrated into the building design and shall use colors compatible with the specific plan area. Clear/silver, blue, green, blue-green, bronze, and **smoke** colors are permitted. Tinted or reflective glass shall not exceed 35-percent reflectivity. Glazing shall complement adjacent buildings that will remain, and clear glass shall be used at primary first-floor entrances unless the Community Development Department approves an equivalent design.	The City shall verify that proposed glazing complies with this mitigation measure	Prior to issuance of Building Permits	Once	City of Thousand Oaks Community Development Department	
Air Quality					
Amgen Center Specific Plan AQ-1 Fleet Vehicles: The applicant **shall** transfer all fleet vehicles to fuel-efficient or zero-emission vehicles at the earliest practicable date.	If the applicant adds fleet vehicles associated with Building 50, documentation shall be provided to the City regarding use of fuel-	Prior to Certificate of Occupancy	Once	Community Development Department	

Mitigation Measure/ Project Design Feature	Project Action Required	Implementation Timing	Monitoring Frequency	Responsible Agency	Compliance Verification Initials and Date
	efficient or zero-emission vehicles when commercially available.				
Biological Resources					
2045 General Plan Update BIO-1 Conduct Pre-Construction Bird Surveys and Implement Avoidance and Minimization Measures: For construction activities initiated during the bird nesting season February 15 through September 15 (as early as January 1 for raptors), involving removal of vegetation, abandoned structures, man-made features, or other nesting bird habitat, a pre-construction nesting bird survey shall be conducted no more than 5 days prior to initiation of ground disturbance and vegetation removal. The nesting bird pre-construction survey shall be conducted on foot and shall include an area on and around the construction site at a distance determined by a qualified biologist, including staging and storage areas. The minimum survey radii surrounding the work area shall be 500 feet. The survey shall be conducted by a qualified biologist familiar with the identification of avian species known to occur in the Thousand Oaks region. If construction lapses for 5 days or longer, the qualified biologist shall conduct another focused survey before project activities are reinitiated. If nests are found, an avoidance buffer shall be determined by the biologist dependent upon the species,	Where construction activities would be initiated during the bird nesting season. the City shall review the pre-construction nesting bird survey and confirm that any required protection measures are listed on the applicable construction plans.	Prior to initiation of ground disturbance and vegetation removal.	Once	City of Thousand Oaks Community Development Department	

Mitigation Measure/ Project Design Feature	Project Action Required	Implementation Timing	Monitoring Frequency	Responsible Agency	Compliance Verification Initials and Date
the proposed work activity, and existing disturbances associated with land uses outside the site. The qualified biologist shall observe the active nest to establish a behavioral baseline of the adults and nestlings, if present. The qualified biologist shall monitor the active nests, while construction activities are happening to detect signs of disturbance and behavioral change as a result of construction impacts, such as noise, vibration, odors, or worker/equipment motion. If signs of disturbance and behavioral changes are observed, the qualified biologist shall stop all construction work causing those changes and until a larger avoidance buffer is established or until it is determined that the nesting period is completed. The buffer shall be demarcated by the biologist with bright orange construction fencing, flagging, construction lathe, or other means to demarcate the boundary. All construction personnel shall be notified of the buffer zone as a "Nesting Bird Area" and to avoid entering the buffer zone until a biologist determines that the nest is no longer active. No ground-disturbing activities shall occur within the buffer until the biologist has confirmed that breeding/nesting is completed and the young have fledged the nest. A report summarizing the preconstruction survey(s) shall be prepared by a qualified biologist and submitted to the Community Development Department prior to the commencement of construction					

Mitigation Measure/ Project Design Feature	Project Action Required	Implementation Timing	Monitoring Frequency	Responsible Agency	Compliance Verification Initials and Date
activities and any required protection measures shall be listed on the applicable construction plans.					
2045 General Plan Update BIO-2 Special Status Bat Species Habitat Assessment Survey and Emergence Survey(s): For future projects where trees, abandoned structures, or other habitat for roosting bats is present and construction activities may occur during seasonal periods of bat activity, construction activities **shall** occur outside the maternity season from April 1 through August 31, as feasible. Should construction timing not allow for it, a special-status bat habitat assessment survey shall be conducted by a qualified biologist no more than 5 days prior to any construction activities during the bat maternity season. The survey will document any evidence of special-status bat species that may occur in proposed work areas through direct observation (e.g., roosting bats) and/or sign (e.g., bat guano). If no observance and/or sign of special-status bats are detected during these surveys, then construction-related activities may proceed. If observance or sign of special-status bat species are detected during the survey, and construction activities occur during the bat maternity season (April 1 through August 31), special-status bat species emergence survey(s) will be conducted.	The City shall verify that special status bat species habitat assessment surveys and emergence surveys are conducted for future projects where trees, abandoned structures, or other habitat for roosting bats is present and construction activities may occur during seasonal periods of bat activity. If special-status bat species are documented within the development area, the City shall ensure that USFWS and/or CDFW have been consulted.	Prior to commencement of construction.	Once	City of Thousand Oaks Community Development Department	

Mitigation Measure/ Project Design Feature	Project Action Required	Implementation Timing	Monitoring Frequency	Responsible Agency	Compliance Verification Initials and Date
Emergence surveys will be conducted in areas of suitable bat habitat (e.g., near buildings or trees) during the bat maternity season to document any special-status bat species emerging from features identified during the habitat assessment survey. Generally, the emergence survey(s) will be conducted approximately one hour prior to sunset and last a minimum of two hours after sunset; however, the timing will be **determined** by the qualified biologist. Passive acoustic monitoring equipment will be utilized during the emergence surveys to determine identify bats to the species level. In the event multiple features were identified in the habitat assessment in which bats may occur, at the discretion of the qualified biologist, either multiple emergency surveys may be necessary or additional acoustic equipment may need to be set up in order to capture the acoustics of bats as they emerge at dusk. Roosting sites documented within or adjacent to a project site during the maternity season shall be avoided. Specifically, the qualified biologist will determine an appropriate buffer around the roost site where construction shall be avoided. The buffer typically ranges in size, between 100 to 300 feet around the roost site, depending on potential resulting project impacts and surrounding terrain. For **example**, if a project will result in high noise decibels and the roost site is exposed					

Mitigation Measure/ Project Design Feature	Project Action Required	Implementation Timing	Monitoring Frequency	Responsible Agency	Compliance Verification Initials and Date
without surrounding trees or hills, the buffer may be increased to reduce disturbances to the roosting bats during breeding activities. Buffer distances may also be at the discretion of the USFWS and/or CDFW if special-status bat species are present in the maternity roost. Should special-status bat species be documented within a project site, and the roost site cannot be avoided by the project, a bat mitigation and/or management plan shall be developed for roost relocation. Mitigation and management plans will require consultation with and approval from the USFWS and/or CDFW prior to the **commencement** of construction.					
Cultural Resources					
2045 General Plan Update CUL-3 Unanticipated Discoveries: If archaeological resources are encountered during ground-disturbing activities, work in the immediate area shall halt and an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for Archaeology shall be contacted immediately to evaluate the find. If necessary, the evaluation may require preparation of a treatment plan and archaeological testing for CRHR eligibility. If the discovery proves to be significant pursuant to the CEQA and cannot be avoided by the project, additional work, such as excavating the cultural deposit to fully	In the event of inadvertent discovery of archaeological resources, the City shall verify that a qualified cultural resource specialist is retained and the city shall review periodic reports of the findings and subsequent evaluations conducted.	During Construction	Ongoing	City of Thousand Oaks Community Development Department	

Mitigation Measure/ Project Design Feature	Project Action Required	Implementation Timing	Monitoring Frequency	Responsible Agency	Compliance Verification Initials and Date
characterize its extent and collecting and curating artifacts may be warranted to mitigate any significant impacts to cultural resources. If archaeological resources of Native American origin are identified during construction, a qualified archaeologist shall consult with the City to begin Native American consultation procedures, which are outlined in Mitigation Measure CUL-4. Periodic reports of the find and subsequent evaluations shall be submitted to the City during construction.					
Geology and Soils					
PALEO-1 Inadvertent Fossil Discovery: In the event of an inadvertent fossil discovery, ground-disturbing activities within 50 feet of the discovery location shall cease until a Qualified Paleontologist, who meets the Society of Vertebrate Paleontology (SVP) qualifications for Principal Investigator, has assessed the scientific significance of the find and made recommendations as to the appropriate treatment. If the find is deemed significant, it shall be salvaged following the standards of the SVP (2010) and curated at an accredited repository with research, exhibit, and/or outreach interest in the specimens.	In the event of inadvertent discovery of paleontological resources, the City shall verify that a qualified cultural resource specialist is retained and the City shall review the findings of the specialist.	During Construction	Ongoing	City of Thousand Oaks Community Development Department	
Amgen Center Specific Plan GEO-1 Erosion and Dust Control: The applicant shall implement pertinent erosion control measures where appropriate, including:	The City shall verify that erosion control measures are implemented into construction practices	During Construction	Ongoing	City of Thousand Oaks Community Development Department	

Mitigation Measure/ Project Design Feature	Project Action Required	Implementation Timing	Monitoring Frequency	Responsible Agency	Compliance Verification Initials and Date
• Seeding and stabilization of bare surfaces; • Use of straw bales, sand bags, cued/or curbs to control and direct water runoff; and • Soil wetting during high wind conditions.					
Greenhouse Gas Emissions					
Modified Project—Project Design Feature GHG-PDF-1: The Modified Project will prohibit the use of natural gas during Project operations within the new building envelope.	The City shall review plans that demonstrate compliance with this project design feature.	Issuance of building permit	Once	Community Development Department	
Hazards and Hazardous Materials					
Amgen Center Specific Plan GEO-4 Face Masks: The applicant shall inform all employees involved in grading operations on the project site to wear face masks during dry periods to reduce inhalation of dust which may contain the fungus which causes San Joaquin Valley Fever.	The City shall verify that the contractor has informed all workers of face mask requirements per this mitigation measure	Prior to issuance of Grading Permits	Once	City of Thousand Oaks Community Development Department	
Noise and Vibration					
2045 General Plan Update NOI-1 Conduct Construction Noise Analysis: All stationary construction equipment shall be placed so that emitted noise is directed away from the nearest sensitive receivers; Mobile construction equipment shall have smart back-up alarms that automatically	The City shall verify that the applicant and the project construction adheres to the listed construction noise measures.	construction	On-going throughout construction process.	City of Thousand Oaks Community Development Department	

Mitigation Measure/ Project Design Feature	Project Action Required	Implementation Timing	Monitoring Frequency	Responsible Agency	Compliance Verification Initials and Date
adjust the sound level of the alarm in response to ambient noise levels; and Electrical power shall be used to run air compressors and similar power tools and to power any temporary structures, such as construction trailers or caretaker facilities, where feasible;					
2045 General Plan Update NOI-3 Construction Vibration Control Plan: Prior to issuance of a building permit for a project that includes the following, the project applicant shall prepare a groundborne noise and vibration analysis to assess and mitigate potential noise and vibration impacts related to these construction activities: Pile driving within: • 135 feet of fragile structures such as historical resources • 100 feet of non-engineered timber and masonry buildings (e.g., most residential buildings) • 75 feet of engineered concrete and masonry (no plaster) • A vibratory roller within: • 40 feet of fragile historical resources • 25 feet of any other structure • A dozer or other large earthmoving equipment within: • 20 feet for a fragile historical structure	The Applicant shall submit documentation to the City indicating whether any of these conditions may occur. If such activities may occur, the City shall verify that a groundborne noise analysis is prepared	Prior to issuance of a Building Permit	Once	City of Thousand Oaks Community Development Department	

Mitigation Measure/ Project Design Feature	Project Action Required	Implementation Timing	Monitoring Frequency	Responsible Agency	Compliance Verification Initials and Date
• 15 feet of any other structure					
Amgen Center Specific Plan NOI-1 Construction Equipment: All construction equipment, fixed or mobile, shall be in proper operating condition and fitted with standard factory silencing features. In areas where construction equipment (such as generators and air compressors) is left stationary and operating for more than 1 day within 100 feet of residential land uses, temporary portable noise barrier structures shall be erected. These barriers shall be located between the piece of equipment and sensitive land uses. As the project is constructed, the use of building structures as noise barriers would be adequate. The City Building Official or a designer shall conduct spot checks to ensure compliance.	The City shall verify that construction equipment is operated in accordance with this measure throughout the duration of construction	Prior to issuance of building permits, during construction	Ongoing	City of Thousand Oaks Community Development Department	
Amgen Center Specific Plan NOI-5 Stationary Equipment: Mechanical and electrical equipment shall be located, selected, and screened to minimize noise at nearby sensitive uses. Before issuance of a building permit, the applicant shall submit equipment specifications and an acoustical analysis demonstrating compliance with applicable noise standards for Community Development Department review and approval.	The City shall verify that the location of stationary equipment is sited in accordance with this mitigation measure	Prior to issuance of Building Permits	Once	City of Thousand Oaks Community Development Department	
Amgen Center Specific Plan NOI-6 Loading Dock Design: When feasible, loading docks proposed near residential land uses shall be designed to have a depressed (i.e.,	The City shall review plans that demonstrate	Prior to issuance of Building Permits	Once	City of Thousand Oaks Community	

Mitigation Measure/ Project Design Feature	Project Action Required	Implementation Timing	Monitoring Frequency	Responsible Agency	Compliance Verification Initials and Date
below grade) loading dock area and/or internal bays that would allow for a break in the line of sight between sensitive receptors and equipment noise sources. These components shall be incorporated into the detailed plans for the building structures to be submitted by the applicant to the Community Development Department for review and approval prior to the issuance of building permits.	compliance with this mitigation measure.			Development Department	
Tribal Cultural Resources					
2045 General Plan Update CUL-4 Suspend Work Around Tribal Cultural Resources Identified During Construction: In the event that cultural resources of Native American origin are identified during ground disturbance during construction of a project implemented under TO2045, all earth-disturbing work in the vicinity of the find shall be temporarily suspended or redirected until an archaeologist has evaluated the nature and significance of the find as a cultural resource and a Barbareno/Ventureno Band of Mission Indians representative is consulted. If the City, in consultation with the Barbareno/Ventureno Band of Mission Indians, determines that the resource is a tribal cultural resource and, thus, significant under CEQA, a mitigation plan shall be prepared and implemented in accordance with State guidelines and in consultation with the Barbareno/Ventureno Band of Mission. The mitigation plan shall include	In the event that cultural resources of Nati e American origin are discovered, the City shall verify that earth disturbing work in the vicinity of any cultural resources of Native American origin finds on the project site is suspended or redirected until an archaeologist has evaluated the find. The city shall consult with the Barbareno/Ventureno Band of Mission Indian tribe representative to determine the nature of the find and shall confirm a mitigation plan is prepared and implemented if the find is a tribal cultural resource.	During construction	Periodically	City of Thousand Oaks Community Development Department	

Mitigation Measure/ Project Design Feature	Project Action Required	Implementation Timing	Monitoring Frequency	Responsible Agency	Compliance Verification Initials and Date
avoidance of the resource or, if avoidance of the resource is infeasible, the plan shall outline the appropriate treatment of the resource in coordination with the Barbareno/ Ventureno Band of Mission Indians representative and, if applicable, a qualified archaeologist. Examples of appropriate mitigation for tribal cultural resources include, but are not limited to, protecting the cultural character and integrity of the resource, protecting traditional use of the resource, protecting the confidentiality of the resource, or heritage recovery.					
Utilities and Service Systems					
Amgen Center Specific Plan U-2 Ground Water Plan: AMGEN shall cooperate with the City of Thousand Oaks in planning for the use of local ground water resources for landscaping and other uses through the City's permitting process which incorporates compliance with State requirements relative to groundwater.	The City shall verify that the project is designed to comply with regulatory requirement regarding groundwater.	Prior to issuance of a building permit	Once	City of Thousand Oaks Community Development Department	
Amgen Center Specific Plan U-4 AB 939 Compliance: AMGEN shall participate in any waste reduction, recycling, composting, or funding programs or policies implemented by the County and/or the City to achieve compliance with AB 939.	The City shall verify that the applicant is participating in the applicable programs in accordance with AB 939 requirements	Prior to Certificate of Occupancy	Once	City of Thousand Oaks Community Development Department	
Amgen Center Specific Plan U-8 Recycling Construction: The applicant shall maximize recycling efforts to reduce construction-generated solid waste. Such	The City shall verify that the applicant has initiated and completed a Construction	Prior to Building Permit issuance	Once	City of Thousand Oaks Community Development Department	

Mitigation Measure/ Project Design Feature	Project Action Required	Implementation Timing	Monitoring Frequency	Responsible Agency	Compliance Verification Initials and Date
measures shall include the recycling of wood and metals and the grinding of inert materials for reuse and/or transportation to offsite recycling facilities.	and Demolition Debris Recycling Plan				