INITIAL STUDY/ MITIGATED NEGATIVE DECLARATION

RIVERSIDE YOUTH TREATMENT AND EDUCATION CENTER PROJECT

Riverside County, California

June 2025

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SUMMARY OF MITIGATION MEASURES

Biological Resources

BIO-1 A qualified biologist shall conduct a pre-construction nesting bird survey within three days prior to vegetation- or ground-disturbing activities if such activities are proposed during the nesting season (February 1 through September 15). The survey shall include 100 percent coverage of the project site. If no active avian nests are found during survey, no further work in this regard is required. If an active avian nest is discovered during survey, vegetation- and/or ground-disturbing activities shall be redirected around the nest(s). As determined by Riverside County, the qualified biologist shall delineate the boundaries of any such buffer area. The buffer shall be established by the biologist, which can range from 50 feet (typically smaller songbirds) to 500 feet (larger raptors) to ensure that nesting behavior is not adversely affected by the vegetation- and/or ground-disturbing activity. If such activities are delayed or suspended for more than seven days after the survey, the site shall be resurveyed. Should eggs or fledglings be discovered in any native nest, these resources cannot be disturbed until the young have hatched and fledged (matured to a stage that they can leave the nest on their own).

BIO-2 A qualified biologist shall conduct a pre-construction burrowing owl/Initial Take and Avoidance Survey within 30 days prior to the beginning of project construction to determine if the project site contains suitable burrowing owl habitat and to avoid any potential impacts to the species. The survey shall be performed pursuant to the Riverside County Multiple Species Habitat Conservation Plan (MSHCP) 30-day Pre-Construction Burrowing Owl Survey Guidelines (revised August 17, 2006) and include 100 percent coverage of the project site. If the survey reveals no suitable habitat for burrowing owl is present, no further work in this regard is required. If active burrowing owl burrows are determined to be present, the burrow(s) shall be flagged, and a 160-foot buffer shall be established around the burrow(s) during the non-breeding season (September 1 to January 30) and a 250-foot buffer shall be created during the breeding season (February 1 to August 31). As determined by Riverside County (County), the buffer limits may vary depending on burrow location and burrowing owl sensitivity to human activity. The buffer(s) shall be sufficient to ensure that nesting behavior is not adversely affected by the construction activity. A monitoring report shall be prepared and submitted to the County for review and approval prior to reinitiating construction activities within the buffer area(s), and construction within the designated buffer area(s) shall not proceed until written authorization is received from California Department of Fish and Wildlife (CDFW). The monitoring report shall summarize the results of the owl monitoring, describe construction restrictions currently in place, and confirm that construction activities can proceed within the buffer area(s) without jeopardizing the survival of the owl(s). Any relocation efforts must be coordinated with the CDFW. This measure shall be implemented to the satisfaction of Riverside County and, as applicable, the CDFW.

Cultural Resources

CR-1 Prior to the issuance of a grading permit, the Developer shall retain a professional archaeologist to conduct monitoring of all grading and trenching activities which may impact native soils on the project site. The project Archaeologist shall have the authority to temporarily halt and redirect earthmoving activities within a minimum of 100 feet of the affected area in the event that suspected archaeological resources are unearthed during project construction. The project archeologist and the Consulting Tribes shall attend a pre-grading meeting with the County, the construction manager and any contractors and will conduct a mandatory Cultural Resources Worker Sensitivity Training to those in attendance. The Training will include a brief review of the cultural sensitivity of the project and the surrounding area; what resources could potentially be identified during earthmoving activities; the requirements of the monitoring program; the protocols that apply in the event inadvertent discoveries of cultural resources are identified, including who to contact and appropriate avoidance measures until the find(s) can be properly evaluated; and any other appropriate protocols. All new construction personnel that will conduct earthwork or grading activities that begin work on the project following the initial Training must take the Cultural Sensitivity Training prior to beginning work and the project archaeologist and Consulting Tribes shall make themselves available to provide the training on an as-needed basis.

CR-2 Prior to the issuance of a grading permit, the Developer shall secure agreements with the Pechanga Band of Luiseño Indians (Pechanga) and Soboba Band of Luiseño Indians (Soboba) for tribal monitoring. The County is also required to provide a minimum of 30 days advance notice to Pechanga and Soboba of all grading and trenching activities which may impact native soils. The Pechanga and Soboba Tribal Representatives shall have the authority to temporarily halt and redirect earth moving activities within a minimum of 100 feet of the affected area in the event that suspected archaeological resources are unearthed during project construction. Upon discovery of in-situ archaeological resources, the parties shall promptly meet and confer, limit the closure area to the smallest reasonable area (including the possibility of reducing the stop-work radius to 50 feet after initial evaluation), and engage in good faith collaboration to execute the protocols outlined in the Cultural Resource Monitoring Plan for handling such unearthed resources.

CR-3 Prior to the issuance of the grading permit, a Cultural Resource Monitoring Plan (CRMP) is to be developed and provided to the Consulting Tribes for review. The project Archaeologist, in consultation with the Consulting Tribe, the contractor, and the County, shall develop a CRMP to address the details, timing and responsibility of all activities on the project site that may impact archaeological and tribal cultural resources. A Consulting Tribe is defined as a Tribe that initiated the AB 52 tribal consultation process for the project, has not opted out of the AB52 consultation process, and has completed AB 52 consultation with the County as provided for in Cal Pub Res Code Section 21080.3.2(b)(1) of AB52. Details in the Plan shall include:

a. Project description and location;

b. Project grading and development scheduling;

c. Roles and responsibilities of individuals on the project;

d. The pre-grading meeting and Cultural Resources Worker Sensitivity Training details;

e. The protocols and stipulations that the contractor, County, Consulting Tribe (s) and project archaeologist will follow in the event of inadvertent cultural resources discoveries, including any newly discovered cultural resource deposits that shall be subject to a cultural resource's evaluation;

f. The type of recordation needed for inadvertent finds and the stipulations of recordation of sacred items;

g. Contact information of relevant individuals for the project.

CR-4 The County shall verify that the following note is included on the Grading Plan:

"If any suspected archaeological resources are discovered during ground–disturbing activities and the project Archaeologist or Tribal Representative are not present, the construction supervisor is obligated to halt work in a 100-foot radius around the find and call the project Archaeologist and the Tribal Representative to the site to assess the significance of the find."

CR-5 If during ground disturbance activities, unanticipated unique archaeological resources are inadvertently discovered that were not assessed by the archaeological report(s) and/or environmental assessment conducted prior to project approval, the following procedures shall be followed. This mitigation shall apply to inadvertent discoveries of resources, including those with multiple artifacts in close association with each other, but may include fewer artifacts if the area of the find is determined to be of significance due to its sacred or cultural importance as determined in consultation with the Consulting Tribe.

a. All ground disturbance activities within 100 feet of the discovered resources shall be halted until a meeting is convened between the Developer, the project Archaeologist, the Pechanga and Soboba

Tribal Representative, and the County of Riverside Facilities Management to discuss the significance of the find.

b. At the meeting, the significance of the discover(ies) shall be discussed and after consultation with the Pechanga and Soboba Tribal Representative and the project Archaeologist, a decision shall be made, with the concurrence of the County of Riverside, as to the appropriate process (documentation, recovery, avoidance, etc.) for the resources, including whether the stop-work radius from the discovered resource can be reduced to 50 feet.

c. Further ground disturbance, including but not limited to, grading and trenching, shall not resume within the determined stop-work radius area of the discovery until the protocols for handling the resources has been established by all parties pursuant to the CRMP. Work shall be allowed to continue outside of the stop-work radius area and shall be monitored by Pechanga and Soboba Tribal Monitors, if needed.

d. Treatment and avoidance protocols for the newly discovered resources shall be consistent with the Cultural Resources Management Plan and Monitoring Agreements entered into with Pechanga and Soboba. These protocols may include avoidance of the resources through project design, in-place preservation of resources located in native soils and/or re-burial on the project site with procedures so they are not subject to further disturbance in perpetuity as identified in Non-Disclosure of Reburial Condition/Mitigation Measures.

e. If the find is determined to be unique and significant and avoidance of the area cannot be feasibly achieved, a Phase III data recovery plan shall be prepared by the project Archeologist, in consultation with the Consulting Tribe, and shall be submitted to the County for their review and approval prior to implementation of the said plan.

f. Pursuant to Calif. Pub. Res. Code § 21083.2(b) avoidance is the preferred method of preservation for archaeological resources and cultural resources. If the Developer, project Archaeologist and the Consulting Tribes cannot agree on the significance of or the treatment for the archaeological or cultural resources, these issues shall be presented to the County of Riverside for decision. The County of Riverside shall make the determination based on the provisions of the California Environmental Quality Act with respect to archaeological resources, recommendations of the project Archeologist and shall consider the cultural and religious principles and practices of the Consulting Tribe. Notwithstanding any other rights available under the law, the decision of the County of Riverside shall be appealable to the County Board of Supervisors. Evidence of compliance with this mitigation measure, if a significant archaeological resource is found, shall be provided to County of Riverside upon the completion of a treatment plan and final report detailing the significance and treatment finding.

CR-6 In the event that Native American tribal cultural resources are discovered during the course of grading (inadvertent discoveries), the following procedures shall be carried out for final disposition of the discoveries: a) One or more of the following treatments, in order of preference, shall be employed with Pechanga and Soboba. Evidence that these procedures have been following shall be provided to the County of Riverside:

a. Preservation-In-Place of the tribal cultural resources, if feasible. Preservation in place means avoiding the resources, leaving them in the place where they were found with no development affecting the integrity of the resources.

b. Reburial of the resources on the project property. The measures for reburial shall include, at least, the following: Measures and provisions to protect the future reburial area from any future impacts in perpetuity. Reburial shall not occur until all legally required cataloging and basic recordation have been completed, with an exception that sacred items, burial goods, and Native American human remains are excluded. Any reburial process shall be culturally appropriate. Listing of contents and

location of the reburial shall be included in the confidential Phase IV report. The Phase IV Report shall be filed with the County under a confidential cover and not subject to Public Records Request.

c. If preservation in place or reburial is not feasible then the resources shall be curated in a culturally appropriate manner at a Riverside County curation facility that meets State Resources Department Office of Historic Preservation Guidelines for the Curation of Archaeological Resources ensuring access and use pursuant to the Guidelines. The collection and associated records shall be transferred, including title, and are to be accompanied by payment of the fees necessary for permanent curation. Evidence of curation in the form of a letter from the curation facility stating that subject archaeological materials have been received and that all fees have been paid, shall be provided by the landowner to the County of Riverside. There shall be no destructive or invasive testing on sacred items, burial goods, and Native American human remains. Results concerning finds of any inadvertent discoveries shall be included in the Phase IV monitoring report. Evidence of compliance with this mitigation measure, if a significant archaeological resource is found, shall be provided to County of Riverside upon the completion of a treatment plan and final report detailing the significance and treatment finding.

CR-7 If human remains are discovered, no further disturbance shall occur within a minimum of 100 feet of the affected area until the County Coroner has made necessary findings as to origin. If the County Coroner determines that the remains are potentially Native American, the California Native American Heritage Commission shall be notified within 24 hours of the published finding to be given a reasonable opportunity to identify the "most likely descendant". The "most likely descendant" shall then make recommendations, and engage in consultations concerning the treatment of the remains (California Public Resources Code 5097.98). (GP Objective 23.3, CEQA).

CR-8 It is understood by all parties that unless otherwise required by law, the site of any reburial of Native American human remains or associated grave goods shall not be disclosed and shall not be governed by public disclosure requirements of the California Public Records Act. The Coroner, pursuant to the specific exemption set forth in California Government Code 6254 (r), parties, and Lead Agencies, will be asked to withhold public disclosure information related to such reburial, pursuant to the specific exemption set forth in California Government Code 6254 (r).

CR-9 Upon completion of ground-disturbing activities that impact native soils, the project Archeologist shall submit two (2) copies of the Phase IV Cultural Resources Monitoring Report that complies with County of Riverside requirements for such reports. The Phase IV report shall include evidence of the required cultural/historical sensitivity training for the construction staff held during the pre-grade meeting. Portions of the Phase IV Report may be confidential. The County shall review the reports to determine adequate treatment compliance. Provided the reports are adequate, the County shall clear this condition. Once the report(s) are determined to be adequate, two (2) copies shall be submitted to the Eastern Information Center (EIC) at the University of California Riverside (UCR) and one (1) copy shall be submitted to the Pechanga and Soboba Cultural Resources Departments.

Geology and Soils

GEO-1 In the event that any paleontological resources are unintentionally discovered during project construction, construction activities in the vicinity of the resource shall immediately halt and/or be moved to other parts of the project site. A Riverside County-qualified paleontologist shall be retained by the County or their designee to determine the significance of the resource, if any. If the find is determined to be significant, avoidance or other appropriate measures including extraction and relocation, as recommended by the paleontologist, shall be implemented.

Noise and Vibration

NOI-1 A construction noise coordinator shall be established prior to construction and signage will be provided on site that will identify the designated person and contact number. The coordinator shall be responsible for receiving calls from residents regarding specific construction noise-related complaints. The coordinator would then be responsible for taking appropriate measures to reduce or eliminate noise levels as appropriate.

NOI-2 Construction activity shall be prohibited during the hours of 6:00 p.m. and 7:00 a.m. and on weekends and County-designated holidays.

NOI-3 Construction equipment shall be properly maintained and equipped with mufflers and other State-required noise-attenuation devices.

INITIAL STUDY

INTRODUCTION

Environmental Assessment Determination

In accordance with Title 14 of the California Code of Regulations, Chapter 3 Guidelines for Implementation of the California Environmental Quality Act (CEQA) (State CEQA Guidelines) Section 15060 (Authority cited: Sections 21083 and 21087, Public Resources Code; Reference: Section 65944, Government Code; Section 21080.2, Public Resources Code), the determination of the type of environmental assessment documentation for compliance with CEQA, begins with a preliminary review of whether a proposed action is a project under CEQA, and if the action is determined to be a project under CEQA, a determination of whether the project is exempt from CEQA. If the Lead Agency determines the project is not subject to or is exempt under CEQA, the agency may prepare a Notice of Exemption as the appropriate form of environmental assessment. If the preliminary review conducted by the Lead Agency determines that the project is subject to CEQA, and does not qualify under an exemption, the Agency shall prepare an Initial Study as the appropriate environmental assessment documentation. The Initial Study will determine whether a more detailed environmental assessment in the form of an Environmental Impact Report is required for the project or if a Negative Declaration or Mitigated Negative Declaration may be adopted to complete the CEQA review process under *State CEQA Guidelines* Section 15063(b), (c).

Subsequent to the preliminary review conducted by the County of Riverside (County) as the Lead Agency, the County has determined that the preparation of an Initial Study was required as the appropriate environmental assessment under CEQA for the proposed Riverside County Youth Treatment and Education (YTEC) Expansion project (project).

Purpose of the Initial Study

In accordance with *State CEQA Guidelines* Section 15063 (a) (Authority cited: Section 21083, Public Resources Code; Reference: Sections 21080(c), 21080.1, 21080.3, 21082.1, 21100 and 21151), the County has prepared an Initial Study to analyze the project to determine any potential significant impacts upon the environment that would result from construction and implementation. This Initial Study is a preliminary analysis prepared by the County as Lead Agency, in consultation with other jurisdictional agencies, to inform the County decision makers, affected agencies, and the public of potential environmental impacts associated with the implementation of the project.

Incorporation by Reference

Pertinent documents relating to this Initial Study have been cited and incorporated, in accordance with Sections 15148 and 15150 of the State CEQA Guidelines, to eliminate the need for inclusion of large planning documents within the Initial Study. Of particular relevance are those previous studies that present information regarding description of the environmental setting, future development-related growth, and cumulative impacts. The following documents are hereby identified as being incorporated by reference:

Riverside County General Plan, December 2015.

City of Riverside, General Plan, September 2021.

Van Horn YTEC Initial Study/Mitigated Negative Declaration, January 2013

Organization

The Initial Study is organized as follows:

Introduction: Provides the purpose for the Initial Study and applicable citations pursuant to CEQA and the *State CEQA Guidelines.*

County of Riverside Environmental Assessment Form/Initial Study Checklist: Provides the project description; existing environmental setting; the relationship of the project to the County General Plan; and an environmental impact assessment for each impact area within the environmental checklist. After the assessment of each impact area, the source of information, a finding of fact, applicable mitigation measures, and monitoring responsibility are provided.

References: List of references used for the environmental analyses.

Environmental Process

The Initial Study for the project is being circulated to the public, responsible agencies, and trustee agencies for a 30-day public review period that begins on June 30, 2025 with the issuance of a Notice of Intent to Adopt a Mitigated Negative Declaration (NOI) and a close of July 29, 2025. The NOI was sent via mail to property owners/residents within 500 feet of the project; a notice was posted in the Press Enterprise; and was posted at the Riverside County Clerk office. The Mitigated Negative Declaration and supporting documentation (Initial Study) were available for public review at the Riverside County Facilities Management Office and also at the Arlington Public Library. The Mitigation Monitoring and Reporting Program (MMRP) is contained herein under Appendix A. Comments received during the public review period will be considered as part of the project's environmental review and included for consideration by the Board of Supervisors. The Board of Supervisors may choose to adopt the Mitigated Negative Declaration should it be determined that the project will have no significant, unmitigatable environmental effects.

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COUNTY OF RIVERSIDE
ENVIRONMENTAL ASSESSMENT FORM/
INITIAL STUDY CHECKLIST

Environmental Assessment (EA) Number: 202402I

Project Name: Riverside Youth Treatment and Education Center Expansion

Lead Agency Name: County of Riverside

Address: 3450 14th Street, Suite 303, Riverside, CA. 92501

Contact Person: Mike Sullivan

Telephone Number: 951.955.8009

Applicant's Name: County of Riverside Facilities Management

Applicant's Address: 3450 14th Street, Riverside, CA. 92501

I. PROJECT INFORMATION

A. Project Description:

The project site is located at 10000 County Farm Road in the city of Riverside on approximately 10.9 acres of County-owned land on the northeastern portion of APN 145-120-003. The Alan M. Crogan Youth Treatment and Education Center (YTEC) opened in 2021 and is a 106 -bed secure treatment facility for youths that have been adjudicated of a 707(b) offense and committed to the program by the Court. The existing YTEC facility is approximately 60,838 square feet and comprises a 6-bed assessment unit, a 20-bed transitional housing component, and four, 20-single cell living units. The treatment and education center also includes group and individual therapy rooms, vocational classrooms and workshop space, nursing and medical facilities, school classrooms, multipurpose conference rooms, kitchen facilities, intake area with security room, visitation, maintenance and laundry facilities, administrative offices, and recreational space as required by the California Code of Regulations, Title 24. On December 9, 2014, Minute Order 3-21, the Board of Supervisors (Board) authorized the Probation Department to sign and submit a grant application; and on April 13, 2015, the County received a conditional award from the Board of State and Community Corrections (BSCC) in the amount of $15,898,455 for the expansion and construction of a youth offender rehabilitation facility. At the time of the application, the proposed project was to construct a new intake, assessment and administration areas and programming space for justice involved youth at Indio Juvenile Hall. On July 21, 2015, Item 3-32, the County accepted the funding award from BSCC for the construction of the facility. On November 21, 2016, the BSCC notified the Probation Department of the withdrawal of the County of Tulare from the Local Youthful Offender Rehabilitative Facility Construction Financing Program. Thus, the BSCC awarded the Probation Department a portion of the reverted funds to increase Riverside County's award by $1,601,545, bringing the total award to the original request of $17,500,000 for construction.

During the design process, population trends and court commitments to the desert region YTEC detention facility were in decline and the initial scope in the grant application became unsupported by the need. Due to this, the Probation Department researched the need in alternative locations. It was determined the best location would be to construct the new facility behind the existing YTEC facility in Riverside leveraging the existing infrastructure, such as the intake, kitchen, laundry, parking, and warehouse, thereby reducing the construction costs of the new facility. The revised scope includes constructing a new 14,506 square-foot educational, vocational training, and recreational program facility to replace the closed Riverside Juvenile Hall, formerly located at 3933 Harrison Street, approximately ¼ mile from the project site. The scope of work also includes a public lobby, a classroom, a dental office, an automotive vocational training shop, a welding vocational training lab, staff offices, an indoor recreational area, exterior landscape, hardscape, security, lighting, fencing, a fenced access road, and other site improvements. The improvements would enhance program services at the existing YTEC facility, would not add additional beds or increase the capacity of detained youth.

The surrounding properties are primarily institutional. **Figure 1** shows the regional location and the project site and **Figure 2** shows the overall site plan. The topography of the site gradually slopes in a southeastern direction. The project site is at an elevation of approximately 760 feet above sea level.

The additional infrastructure would enhance the level of probation services to the surrounding community. The project would also involve utility alterations, including stormwater drainage improvements, electrical and septic upgrades to provide service to the new building. Construction is anticipated to start in the first quarter of 2026 and would be completed in the fourth quarter of 2027.

B. Type of Project: Site Specific ☒ Countywide ☐ Community ☐ Policy ☐

C. Total Project Area: 1 acre

Residential Acres: N/A	Lots: N/A	Units: N/A	Projected No. of Residents: N/A
Commercial Acres: N/A	Lots: N/A	Sq. Ft. of Bldg. Area: N/A	Est. No. of Employees: N/A
Industrial Acres: N/A	Lots: N/A	Sq. Ft. of Bldg. Area: N/A	Est. No. of Employees: N/A
Other: Public Facility	Lots: N/A	Sq. Ft. of Bldg. Area: 14,506	Est. No. of New Employees: 15

D. Assessor's Parcel No(s): 145-120-003

E. Street References: The project is located at 10000 County Farm Road in the City of Riverside, west of Harrison Street.

F. Section, Township & Range Description or reference/attach a Legal Description: The project site is located within Township 3 South, Range 6 West, Section 12, San Bernardino Baseline and Meridian, and is identified on the Riverside West, California 7.5-minute series USGS Topographic Quadrangle map.

G. Brief description of the existing environmental setting of the project site and its surroundings: The project site is surrounded by commercial and residential uses. The project site is located in the western portion in the City of Riverside within the city established Arlington Redevelopment Area. The topography of the subject property consists of relatively hilly land with an elevation ranging from approximately 756 to 884 feet above mean sea level (msl), however, the portion of the site to be developed is flat. **Figure 1** illustrates the regional and local project vicinity of the project site and **Figure 2** shows the project site and the location of the proposed improvements.

H. Public Agency Approvals: The project will require the approval by the County of Riverside Board of Supervisors. There are various public agencies involved in project including the Santa Ana Regional Water Quality Control Board (RWQCB). The General Permit will require the submittal and implementation of a Stormwater Pollution Prevention Program and filing of a Notice of Intent to obtain coverage under the General Permit and associated fees. A Water Quality Management Plan will also be required as a result of the project to control for changes in stormwater runoff created during the operation of the project. A grading and building permit will also be issued by Riverside County Facilities Management. The proposed improvements will be reviewed by Riverside County prior to construction to ensure they meet all applicable standards.

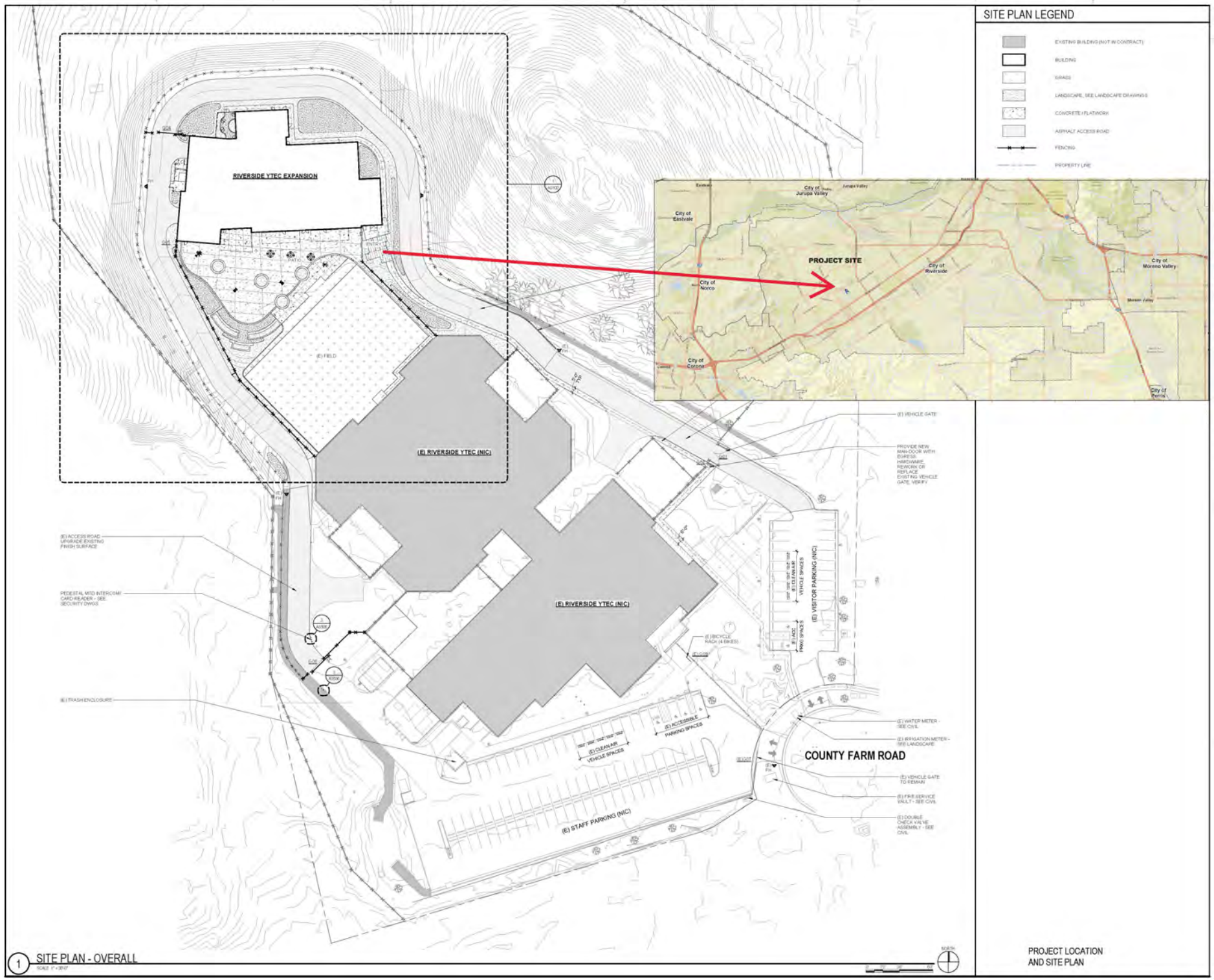


FIGURE 1: Project Location and Site Plan

FLOOR PLAN GENERAL NOTES

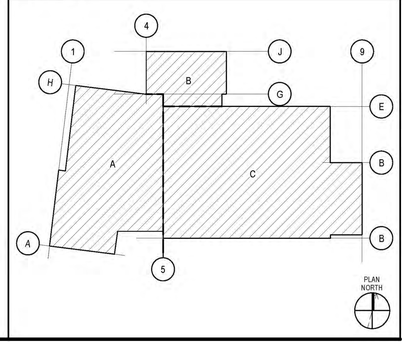
1. FOR SYMBOLS LEGEND AND ARCHITECTURAL ABBREVIATIONS, SEE SHEET G-001.
2. ALL DIMENSIONS ARE TO FACE OF STUD, FACE OF CONCRETE/MASONRY, OR CENTERLINE OF COLUMN GRIDS, UON EXCEPTION. CLEAR DIMENSIONS AT DOORS, ACCESSORIES, AND PLUMBING ARE TO FACE OF FINISH TYP.
3. GRID LINES ARE LOCATED AT FACE OF CONCRETE/MASONRY AND FACE OF STUD, UON.
4. AT METAL STUD WALLS, LOCATE DOOR JAMBS 4" AWAY FROM ADJACENT WALL, UON. ALL DOORS LOCATED IN MASONRY ARE 8 INCHES FROM ADJACENT WALL OR SHOWN FLUSH WITH ADJACENT WALL, UON.
5. SEE PARTITION TYPES AND SHEET A-531 FOR INTERIOR WALL TYPES. SEE EXTERIOR WALL SECTIONS FOR EXTERIOR WALL CONFIGURATION.
6. REFER TO STRUCTURAL DRAWINGS, DETAILS AND SCHEDULES FOR STRUCTURAL DIMENSIONS NOT SHOWN. BRING TO THE ATTENTION OF THE PROJECT ARCHITECT ANY DISCREPANCIES OR CONFLICTS.
7. SEE ENLARGED FLOOR PLANS, LARGE SCALE VIEW PLANS, FOR ADDITIONAL INFORMATION NOT SHOWN HERE.
8. FOR TOILET ACCESSORY MOUNTING HEIGHTS, SEE GA511.
9. FOR ROOM FINISH SCHEDULE SEE I-641. FOR FLOOR FINISH PLANS SEE I -SERIES DRAWINGS.
10. FOR DOOR TYPES, DOOR SCHEDULE SEE A-621.
11. FOR WINDOW TYPES AND WINDOW SCHEDULE SEE A-631.
12. FOR ACCESSORY, FURNISHING, DETENTION ACCESSORY AND DETENTION FURNISHING SCHEDULE SEE SHEET A-611.
13. FOR THE DESIGN, INSTALLATION AND CONSTRUCTION FOR ALL INTERIOR NON-STRUCTURAL STUD FRAMING, COLD-FORMED STEEL FRAMING AND FOR TYP BACKING/BLOCKING AT VARIOUS FIXTURES, ACCESSORIES, AND EQUIPMENT SEE SHEETS A-533 AND A-534.
14. ALL JOINTS OR GAPS OF 1/32" OR GREATER IN CONSTRUCTION OR BETWEEN CONSTRUCTION AND EQUIPMENT SHALL BE FILLED WITH SEALANT. PROVIDE SECURITY SEALANT IN INMATE ACCESSIBLE AREAS.
15. WITHIN INMATE CELLS PROVIDE SECURITY SEALANT AROUND PERIMETER OF ALL FLOOR AND WALL MOUNTED FURNITURE, FIXTURES AND EQUIPMENT. THIS INCLUDES RECESSED, SEMI-RECESSED AND SURFACE MOUNTED FURNITURE, FIXTURES, EQUIPMENT, AND AROUND ALL DOORS AND WINDOWS.
16. ACTIVE LEAF IN DOUBLE DOORS IS INDICATED BY THE LETTER "A" WITHIN THE DOOR SWING.
17. ROOF DRAIN RAIN WATER LEADERS TO BE CENTERED IN WALLS WHERE OCCURS. WHERE ROOF DRAIN WATER LEADERS ARE SHOWN IN CORNERS OF ROOMS, MINIMIZE FURRING BY LOCATING RAIN WATER LEADERS, ADJACENT TO STRUCTURAL COLUMNS MAINTAIN 1" CLEAR FROM BASE PLATES, REFERENCE TO STRUCTURAL FOR TYP PIPE DETAILS AT SLABS, FOOTINGS AND WALLS
18. PROVIDE AND INSTALL WALL, CORNER, AND EDGE GUARDS WHERE NOTED ON PLANS AND ELEVATIONS.
19. FOR DETENTION AND NON-DETENTION ACCESSORIES SEE THE INTERIOR ELEVATIONS AND LARGE SCALE VIEWS.
20. PROVIDE PRECISION CMU BLOCK ON INTERIOR FACE OF REC YARD WALLS UP TO SECURITY SCREEN. PROVIDE WATER REPELLENT COATING ON WALLS.
21. WATER REPELLENT COATING TO BE APPLIED TO ALL CMU SURFACES NOT LOCATED IN CONDITIONED SPACES AND NOT CONCEALED BY OTHER FINISHES OR MATERIALS.
22. AT SHOWERS WARP SLAB TO DRAIN AS SHOWN, 1/4" / 12" MAX.

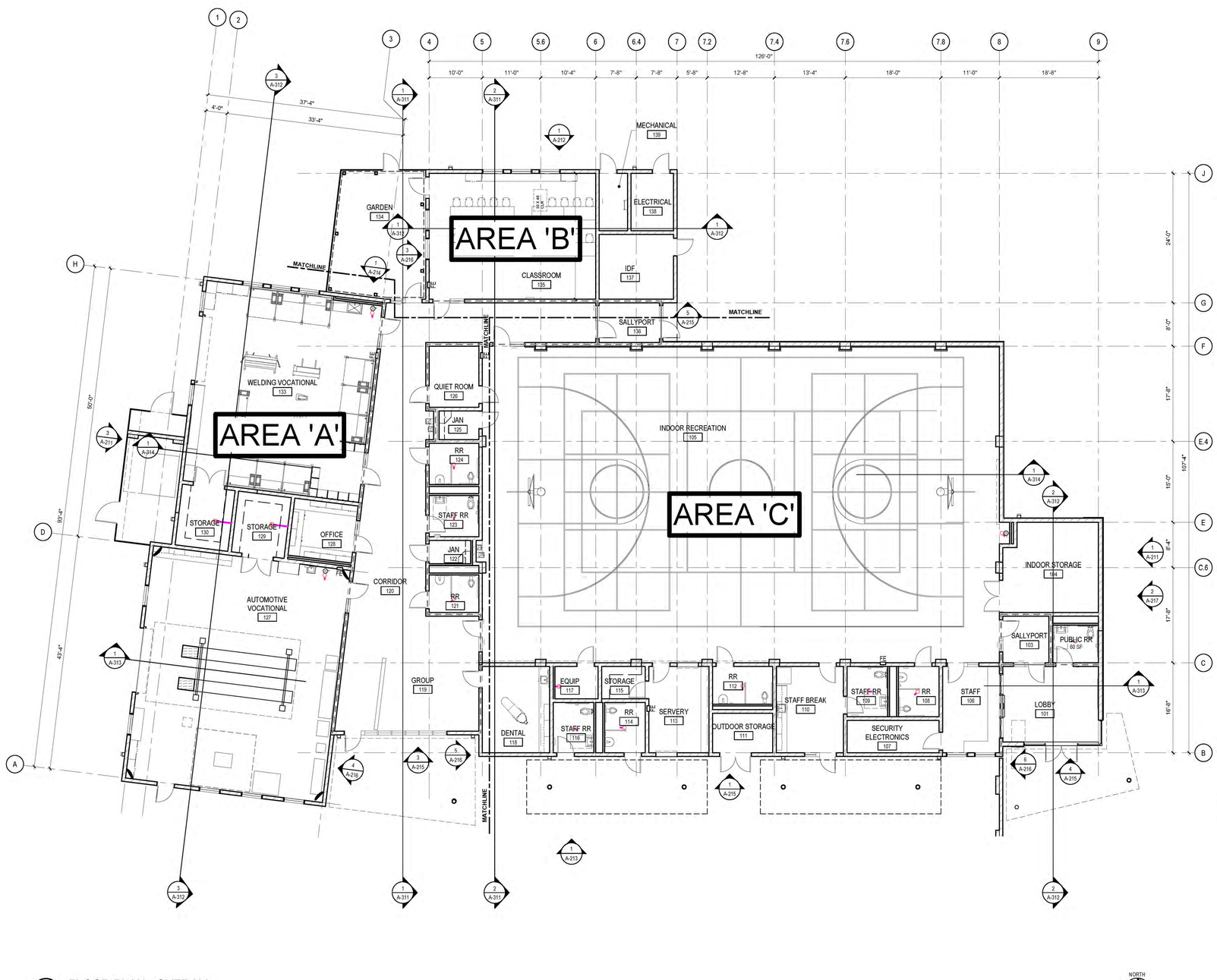
OVERALL FLOOR PLAN LEGEND

WALL TYPES

- 8" CMU WALL, FULLY GROUTED - SEE STRUCTURAL
- METAL STUD FRAMED WALL, NON RATED - SEE DETAILS ON SHEET A532 THRU A-534
- 1 HR FIRE PARTITION TO STRUCTURE - SEE LIFE SAFETY PLAN/ GL111
- SECURITY WALL TO STRUCTURE
- DOWNSPOUT - SEE DETAILS 1 THRU 7/A-513
- FE — FIRE EXTINGUISHER CABINET, SEMI-RECESSED - SEE DETAIL 1/G501
- FLOOR DRAIN, SEE PLUMBING DRAWINGS

KEY PLAN





1 FLOOR PLAN - OVERALL
SCALE 1/8" = 1'-0"

NORTH

FIGURE 2: Building Floor Plan

II. APPLICABLE GENERAL PLAN AND ZONING REGULATIONS

A. General Plan Elements/Policies:

The project site is located within the City of Riverside but is located on County of Riverside property which is subject to County of Riverside jurisdiction and land use policies. While "local agencies" are required to comply with city or county zoning codes (Government Code section 53091), cities and counties are not "local agencies" as defined by the Code (Government Code section 53090). As a result, the California Attorney General has determined that cities and counties are mutually exempt from each other's building and zoning regulations, whether they are acting in a governmental or proprietary capacity. 40 Ops.Atty.Gen.243. The Courts have also come to this same determination. County of Los Angeles v. City of Los Angeles (1963) 212 Cal.App.2d 160 (County in constructing buildings on county land inside city, was not subject to city's building and zoning ordinance in view of County's status as subdivision of state). As a result, the General Plan consistency analysis will be compared to the County of Riverside General Plan.

1) **Land Use:** The project site is designated as Public Facilities/Institutional (PF), which allows for the development of educational facilities, libraries, governmental uses, utilities and other community supportive functions. The proposed project would not result in any changes to the General Plan's land use designation of the project site or adjacent uses. The project would provide public services that would be compatible with the development of the site and would not result in any changes or incompatibility with the County General Plan's land use designation of the project site or adjacent uses.

County of Riverside General Plan

LU-4.1: Require that new developments be located and designed to visually enhance, not degrade the character of the surrounding area through consideration of the following concepts:

a. Compliance with the design standards of the appropriate area plan land use category.

b. Require that structures be constructed in accordance with the requirements of the County's zoning, building, and other pertinent codes and regulations.

c. Require that an appropriate landscape plan be submitted and implemented for development projects subject to discretionary review.

d. Require that new development utilize drought tolerant landscaping and incorporate adequate drought-conscious irrigation systems.

e. Pursue energy efficiency through street configuration, building orientation, and landscaping to capitalize on shading and facilitate solar energy, as provided for in Title 24 of the California Administrative Code.

f. Incorporate water conservation techniques, such as groundwater recharge basins, use of porous pavement, drought tolerant landscaping, and water recycling, as appropriate.

g. Encourage innovative and creative design concepts. h.

Encourage the provision of public art.

i. Include consistent and well-designed signage that is integrated with the building's architectural character.

j. Provide safe and convenient vehicular access and reciprocal access between adjacent commercial uses.

k. Locate site entries and storage bays to minimize conflicts with adjacent residential neighborhoods.

l. Mitigate noise, odor, lighting, and other impacts on surrounding properties.

m. Provide and maintain landscaping in open spaces and parking lots.

n. Include extensive landscaping.

o. Preserve natural features, such as unique natural terrain, drainage ways, and native vegetation, wherever possible, particularly where they provide continuity with more extensive regional systems.

p. Require that new development be designed to provide adequate space for pedestrian connectivity and access, recreational trails, vehicular access and parking, supporting functions, open space, and other pertinent elements.

q. Design parking lots and structures to be functionally and visually integrated and connected.

r. Site buildings access points along sidewalks, pedestrian areas, and bicycle routes, and include amenities that encourage pedestrian activity.

s. Establish safe and frequent pedestrian crossings.

t. Create a human-scale ground floor environment that includes public open areas that separate pedestrian space from auto traffic or where mixed, it does so with special regard to pedestrian safety.

LU-5.1: Ensure that development does not exceed the ability to adequately provide supporting infrastructure and services, such as libraries, recreational facilities, transportation systems, and fire/police/medical services.

LU-5.3: Review all projects for consistency with individual urban water management plans.

LU-8.2: Require that development protect environmental resources by compliance with the Multipurpose Open Space Element of the General Plan and Federal and State regulations such as CEQA, NEPA, the Clean Air Act, and the Clean Water Act.

LU 10.1 Provide sufficient commercial and industrial development opportunities in order to increase local employment levels and thereby minimize long-distance commuting.

LU 12.2 Locate employment and service uses in areas that are easily accessible to existing or planned transportation facilities.

Additional Land Use Policies Unique to the 2015 County of Riverside General Plan

LU 7.2 Notwithstanding the Public Facilities designation, public facilities shall also be allowed in any other land use designation except for the Open Space-Conservation and Open Space- Conservation Habitat land use designations. For purposes of this policy, a public facility shall include all facilities operated by the federal government, the State of California, the County of Riverside, any special district governed by or operating within the County of Riverside or any city, and all facilities operated by any combination of these agencies.

LU 11.5 Ensure that all new developments reduce Greenhouse Gas emissions as prescribed in the Air Quality Element and Climate Action Plan.

LU 18.1 ***Ensure compliance with Riverside County's water-efficient landscape policies****. Ensure that projects seeking discretionary permits and/or approvals develop and implement landscaping plans prepared in accordance with the Water-Efficient Landscape Ordinance (Ordinance No. 859), the County of Riverside Guide to California Friendly Landscaping and Riverside County's Friendly Plant List. Ensure that irrigation plans for all new development incorporate weather-based controllers and utilize state-of-the-art water-efficient irrigation components.*

LU 18.2 ***Minimize use of turf****. Minimize the use of turf in landscape medians, front-yard typical designs, parkways, other common areas, etc. and use drought tolerant planting options, mulch, or a combination thereof as a substitute. Limit the use of natural turf to those areas that serve a functional recreational element. Incorporate other aesthetic design elements, such as boulders, stamped concrete, pavers, flagstone, decomposed granite, manufactured rock products to enhance visual interest and impact.*

LU 18.3 ***Design and field check irrigation plans to reduce run-off****. Emphasize the use of subsurface irrigation techniques for landscape areas adjoining non-permeable hardscape. Utilize subsurface irrigation or other low volume irrigation technology in association with long, narrow, or irregularly shaped turf areas. Minimize use of irregularly shaped turf areas.*

2) **Circulation:** The project consists of the construction and operation of a recreational program facility. The project would not add staff or substantially increase the capacity of the County-owned site as the facility would serve local uses having the effect of reducing vehicle travel. There would be no substantial increase in vehicle trips associated with the project and no effects would occur to the transportation network. The following General Plan Circulation policies would be relevant to the project.

County of Riverside General Plan

C 1.4: *Utilize existing infrastructure and utilities to the maximum extent practicable and provide for the logical, timely, and economically efficient extension of infrastructure and services.*

C 2.1: *Maintain the following countywide target Levels of Service: LOS "C" along all County-maintained roads and conventional state highways. As an exception, LOS "D" may be allowed in Community Development areas, only at intersections of any combination of Secondary Highways, Major Highways, Arterials, Urban Arterials, Expressways, conventional state highways or freeway ramp intersections.*

C 2.3: *Traffic studies prepared for development entitlements (tracts, plot plans, public use permits, conditional use permits, etc.) shall identify project-related traffic impacts and determine the significance of such impacts in compliance with CEQA.*

C 2.4: *The direct project-related traffic impacts of new development proposals shall be mitigated via conditions of approval requiring the construction of any improvements identified as necessary to meet level of service standards.*

C 3.10: *Require private and public land developments to provide all on-site auxiliary facility improvements necessary to mitigate any development-generated circulation impacts. A review of each proposed land development project shall be undertaken to identify project impacts to the circulation system and its auxiliary facilities. The Transportation Department may require developers and/or subdividers to provide traffic impact studies prepared by qualified professionals to identify the impacts of a development.*

C 3.26: *Plan off-street parking facilities to support and enhance the concept of walkable and transit-oriented communities.*

C 4.1: *Provide facilities for the safe movement of pedestrians within developments, as specified in the County Ordinances Regulating the Division of Land of the County of Riverside.*

3) **Biological and Multipurpose Open Space:** The project includes site preparation and construction- related activities which would build an additional building and site improvements at the existing YTEC facility. The project would require a Water Quality Management Plan to address changes in operational drainage and a SWPPP to manage runoff during construction. The project site has been previously disturbed and graded, and vegetation on the project site is mostly disturbed land with non-native vegetation.

The following Multipurpose Open Space policies would be relevant to the project.

County of Riverside General Plan

OS-2.2: *Where feasible, decrease stormwater runoff by reducing pavement in development areas, and by design practices such as permeable parking bays and porous parking lots with bermed storage areas for rainwater detention.*

OS-3.3: *Minimize pollutant discharge into storm drainage systems and natural drainage and aquifers.*

OS-16.1: *Continue to implement Title 24 of the State Building Code. Establish mechanisms and incentives to encourage architects and builders to exceed the energy efficiency standards of Title 24.*

OS-2.2: *Where feasible, decrease stormwater runoff by reducing pavement in development areas, and by design practices such as permeable parking bays and porous parking lots with bermed storage areas for rainwater detention.*

OS-3.3: *Minimize pollutant discharge into storm drainage systems and natural drainage and aquifers.*

OS-16.1: *Continue to implement Title 24 of the State Building Code. Establish mechanisms and incentives to encourage architects and builders to exceed the energy efficiency standards of Title 24.*

OS-18.1: *Preserve multi-species habitat resources in the County of Riverside through the enforcement of the provisions of applicable MSHCP's, if adopted.*

OS-19.2: *Review all proposed development for the possibility of archaeological sensitivity.*

Additional Open Space Policies Unique to the 2015 County of Riverside General Plan

OS-3.4 *Review proposed projects to ensure compliance with the National Pollutant Discharge Elimination System (NPDES) Permits and require them to prepare the necessary Stormwater Pollution Prevention Program (SWPPP).*

OS-3.6 *Design the necessary stormwater detention basins, recharge basins, water quality basins, or similar water capture facilities to protect water quality. Such facilities should capture and/or treat water before it enters a watercourse. In general, these facilities should not be placed in watercourses, unless no other feasible options are available.*

OS-16.14 *Coordinate energy conservation activities with the County Climate Action Plan (CAP) as decreasing energy usage also helps reduce carbon emissions.*

4) **Safety:** The project is not located in an airport influence area, designated wildfire area, fault zone or within ½ mile of any known fault. The following General Plan Safety policies would be relevant to the project.

County of Riverside General Plan

S-2.2: *Require geological and geotechnical investigations in areas with potential for earthquake-induced liquefaction, landsliding or settlement as part of the environmental and development review process, for any structure proposed for human occupancy, and any structure whose damage would cause harm.*

5) **Noise:** Implementation of the project would generate noise during the demolition and construction phase of the project, but during operation, would not substantially increase noise beyond what currently exists at the site. The following General Plan Noise policies would be relevant to the project.

County of Riverside General Plan

N-4.1: *Prohibit facility-related noise, received by any sensitive use, from exceeding the following worst-case noise levels:*

a. 45 dBA-10-minute Leq between 10:00 p.m. and 7:00 a.m.

b. 65 dBA-10-minute Leq between 7:00 a.m. and 10:00 p.m.

N-12.2: *Ensure that construction activities are regulated to establish hours of operation in order to prevent and/or mitigate the generation of excessive or adverse noise impacts on surrounding areas.*

N-15.2: *Consider the following land uses sensitive to vibration:*

Hospitals; Residential Areas; Concert Halls; Libraries;

Sensitive Research Operations; Schools; and Offices.

6) **Air Quality:** Implementation of the project would potentially generate air emissions during the demolition and construction phase of the project, but during operation, would not increase noise beyond what currently exists at the site. The following General Plan Air Quality policy would be relevant to the project.

2015 County of Riverside General Plan

AQ-19.4 *All discretionary project proposals shall analyze their project-specific GHG reduction targets in comparison to the "business as usual" (BAU) scenario for the development's operational life and the "operational life" of a new development shall be defined as a 30-year span. Other methods for calculating BAU and showing GHG emissions reductions may be used provided such methods are both scientifically defensible and show actual emission reduction measures incorporated into project design, mitigation or alternative selection. Alternatively, a project may use the CAP Screening Tables to show the attainment of the applicable number of points needed to ensure adequate GHG reductions and CAP compliance.*

AQ-20.28 *Increase the energy efficiency of all existing and new County buildings and infrastructure operation (roads, water, waste disposal and treatment, buildings, etc.). Also, decrease energy use through incorporating renewable energy facilities (such as, solar array installations, individual wind energy generators, geothermal heat sources) on County facilities where feasible and appropriate.*

B. County General Plan Area Plan(s): n/a

C. Foundation Component(s): n/a

D. Land Use Designation(s): Public Facility

E. Overlay(s), if any: None

F. Policy Area(s), if any:

G. Adjacent and Surrounding Area Plan(s), Foundation Component(s), Land Use Designation(s), and Overlay(s) and Policy Area(s), if any: Surrounding land uses include institutional, residential, and vacant land.

H. Adopted Specific Plan Information

1) **Name and Number of Specific Plan, if any:** n/a

2) **Specific Plan Planning Area, and Policies, if any:** n/a

I. Existing Zoning: PF

J. Proposed Zoning, if any: No change.

K. Adjacent and Surrounding Zoning: Adjacent and surrounding parcels are institutional, residential, and vacant.

III. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

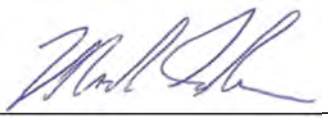
The environmental factors checked below (x) would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" or "Less than Significant with Mitigation Incorporated" as indicated by the checklist on the following pages.

☐ Aesthetics	☐ Hazards & Hazardous Materials	☐ Recreation
☐ Agriculture & Forest Resources	☐ Hydrology / Water Quality	☐ Transportation / Traffic
☐ Air Quality	☐ Land Use / Planning	☐ Utilities / Service Systems
☒ **Biological Resources**	☐ Mineral Resources	☐ Other:
☒ **Cultural Resources**	☒ **Noise**	☐ Other:
☐ Geology / Soils	☐ Population / Housing	☐ Mandatory Findings of Significance
☐ Greenhouse Gas Emissions	☐ Public Services	

IV. DETERMINATION

On the basis of this initial evaluation:

A PREVIOUS ENVIRONMENTAL IMPACT REPORT/NEGATIVE DECLARATION WAS NOT PREPARED
☒ **I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project, described in this document, have been made or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION has been prepared.**



Mike Sullivan
Senior Environmental Planner
County of Riverside

6-20-25
Date

☐ ☒ ☐

SI=Significant Impact; LTS=Less Than Significant or Less Than Significant With Mitigation Incorporated; NI=No Impact; AP=Analyzed in Prior EIR; M-DP=Substantially Mitigated by Uniformly Applicable Development Policies

	SI	LTS	NI	AP	M-DP
I AESTHETICS					
Would the project					
1. Scenic Resources	☐	☒	☐	☐	☐
a) Have a substantial adverse effect on a scenic vista?					
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings and historic buildings within a state-scenic highway?	☐	☐	☒	☐	☐
c) In non-urbanized area, substantially degrade views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☒	☐	☐	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☒	☐	☐	☐

Source: County of Riverside General Plan; County of Riverside General Plan Figure C-8; California Department of Transportation Scenic Highway Guidelines.

Findings of Fact:

a, b) Scenic vistas typically include unique visual features, such as parks, open space and topographical features, and native flora. The major scenic resources identify in the City of Riverside General Plan include the Santa Ana River, Sycamore Canyon, La Sierra/Norco Hills and Box Springs Mountain, however none of the mentioned resources are within the project vicinity. The site is currently in an area surrounded by "Urban-Built up Land". The project site does not contain any unique or landmark features, and the placement of the new building upon vacant disturbed land, devoid of trees and rock outcroppings would avoid impacts to prominent topographic features. Additionally, the new proposed building will be substantially set back from the street, behind the existing YTEC building and will not be visible as its height and mass will be similar in scale as the surrounding buildings. The project site is not visible from this State-eligible scenic highway corridors. The project elements would not create or contribute to a new visual element or substantially degrade existing views from the State- or County- eligible scenic Corridors. Therefore, the project would not have a substantial adverse effect on a scenic vista or substantially damage scenic resources, such as rock outcroppings, trees, or historic buildings. Impacts would be less than significant.

c) Although the project would introduce a new structure to the previously developed area, the new YTEC building and project elements would be compatible in scale and size with the adjacent county facilities and would not result in an aesthetically objectionable views to the public. The new building and amenities would not create any additional significant blockage or obstruction of views from surrounding roadways or viewpoints. Therefore, a less-than-significant impact to degradation of views will occur.

d) A significant impact would occur if the project caused a substantial increase in ambient illumination levels beyond the property line or caused new lighting to spill over onto light-sensitive land uses such as residential, some commercial, institutional, and natural areas. The project site is located in the Riverside. Existing light sources from the project site include interior lighting and exterior lighting associated with the surrounding buildings, parking lots and street lighting. Additional light and glare occur in the surrounding area from vehicle luminaries, residential daytime and nighttime lighting, and minimal security lighting. Operation of the project would not expose residential property to unacceptable light levels or create a new source of substantial light or glare which would adversely affect day or nighttime views in the area. Construction activities would occur during the daytime and would be temporary. Implementation of the project would not expose residences to unacceptable light levels or create a new source of substantial lighting or glare. Therefore, a less-than-significant significant impact related to light and glare will occur.

Mitigation: None

Monitoring: None

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	SI	LTS	NI	AP	M-DP
2. Mt. Palomar Observatory *a) Interfere with the nighttime use of the Mt. Palomar Observatory, as protected through Riverside County Ordinance No. 655?*	☐	☒	☐	☐	☐

Source: RCIT (GIS Database); Project Description; Ord. No. 655 (Regulating Light Pollution).

Findings of Fact:

a) Light pollution occurs when too much artificial illumination enters the night sky and reflects off of airborne water droplets and dust particles causing a condition known as "sky glow." It occurs when glare from improperly aimed and unshielded light fixtures cause uninvited illumination to cross property lines. The Mount Palomar Observatory, located in San Diego County, requires unique nighttime lighting standards so that the night sky can be viewed clearly. The project site is located approximately 50 miles northwest of the Mt. Palomar Observatory. The project is not within the 45-mile radius Zone B of the Observatory and is not subject to Ordinance No. 655. Therefore, impacts related to the Mt. Palomar Observatory are less than significant.

Mitigation: None

Monitoring: None

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II AGRICULTURE & FOREST RESOURCES	SI	LTS	NI	AP	M-DP
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?	☐	☐	☒	☐	☐
b) Conflict with existing agricultural zoning, agricultural use or with land subject to a Williamson Act contract or land within a Riverside County Agricultural Preserve?	☐	☐	☒	☐	☐
c) In non-urbanized area, substantially degrade views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐	☐
d) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?	☐	☐	☒	☐	☐
e) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Govt. Code section 51104(g))?	☐	☐	☒	☐	☐
f) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☒	☐	☐
g) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of forest land to non-forest use?	☐	☐	☒	☐	☐

Source: California Department of Conservation Farmland Mapping and Monitoring Program 2012 and Williamson Act Land Map 2012; RCIT Agricultural Preserve Contracts (GIS Database).

Findings of Fact:

a-d) The project site is in an area designated as "Urban Built Up Land" by the Farmland Mapping and Monitoring Program (FMMP) of the California Department of Conservation.[1] The project site is not classified as prime farmland, unique farmland, or farmland of statewide importance. The project site will not conflict with existing agricultural zoning or land subject to a Williamson Act contract. The expansion of the YTEC facility is not anticipated to result in rezoning that would result in the conversion of agricultural zoned land to develop with non-agricultural uses. In addition, the project is on an existing developed site, that would implement infill development, is the continuation of providing public services, and would not induce or convert farmland to non-agricultural uses. Therefore, no significant impact related to farmland or agricultural effects will occur.

e-g) The project site is not located in an area near forest land or near any timber resources. There is no forest land and timber resources in the vicinity of the project site and the construction and operation of the facility would not have an effect on forest land or result in the potential conversion of forest land to non-forest land. Therefore, no significant impact related to forest land will occur.

Mitigation: None

Monitoring: None

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	SI	LTS	NI	AP	M-DP
III AIR QUALITY					
Would the project					
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☒	☐	☐	☐
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☒	☐	☐	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☒	☐	☐	☐
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☒	☐	☐	☐

Source: SCAQMD Attainment Status, South Coast Air Quality Management District (SCAQMD) CEQA Air Quality Handbook Table 6-2; CalEEMod 2022.1.1.20; and SCAQMD Rules (Appendix B).

Findings of Fact:

The Air Quality section addresses the impacts of the project on ambient air quality and the exposure of people, especially sensitive individuals, to unhealthful pollutant concentrations. Air pollutants of concern include ozone (O_3), carbon monoxide (CO), particulate matter less than 10 microns in diameter (PM_{10}), particulate matter less than 2.5 microns in diameter ($PM_{2.5}$), oxides of nitrogen (NO_x), sulfur dioxide (SO_2), and lead (Pb). This section analyzes the type and quantity of emissions that would be generated by the construction and operation of the project. Geographic areas are classified as either in attainment or nonattainment for each criteria pollutant based on whether the Ambient Air Quality Standards (AAQS) have been achieved under the state and federal Clean Air Acts (CAA).

[1]Riverside County Important Farmland 2016. Sheet 1 of 3. State of California Department of Conservation, California Important Farmland Finder. https://maps.conservation.ca.gov/DLRP/CIFF/ (Accessed October 23,2023,

The South Coast Air Basin (Basin), which is managed by the SCAQMD, is designated as extreme nonattainment for O_3 and $PM_{2.5}$ under the National AAQS, and nonattainment for O_3 and $PM_{2.5}$ under the California AAQS. A background discussion on the air quality regulatory setting, meteorological conditions, existing ambient air quality in the vicinity of the project site, methodology, and air quality modeling data are included in Appendix B to this Initial Study.

a) Air quality in the United States is governed by the Federal CAA, administered by the United States Environmental Protection Agency (EPA). In addition to being subject to the requirements of the federal CAA, air quality in California is also governed by more stringent regulations under the California CAA, administered by the California Air Resources Board (CARB) at the state level and by the Air Quality Management Districts at the regional and local levels.

The project site is located within the jurisdiction of the South Coast Air Quality Management District (SCAQMD). The 2016 Air Quality Management Plan (AQMP) was adopted by the SCAQMD Governing Board in March of 2017 and addressed the 1997 8-hour and 2008 8-hour ozone standards, as well as PM2.5 standards. The AQMP is derived from General Plan assumptions, land use, population, and employment characteristics defined in consultation with local governments. As such, conformance with the AQMP for development projects is determined by demonstrating compliance with local land use plans and/or population projections. The 2022 AQMP s focused on attaining the 2015 8-hour ozone standard of 70 parts per billion (ppb). The 2022 AQMP builds upon measures already in place from previous AQMPs. It also includes a variety of additional strategies such as regulation, accelerated deployment of available cleaner technologies (e.g., zero emissions technologies, when cost-effective and feasible, and low NOx technologies in other applications), best management practices, co-benefits from existing programs (e.g., climate and energy efficiency), incentives, and other CAA measures to achieve the 2015 8-hour ozone standard.

The project would construct and operate a recreational program facility, and additional on-site improvements to circulation and parking. The on-site improvements would provide more efficient operation and provision of public services. The project will not require changes to the designated land use and zoning by the County General Plan and Zoning Ordinance. The General Plans of cities and counties within the Basin were used as the basis for the emissions inventory within the AQMP. Individual projects and long-term programs within the region are required to be consistent with the AQMP. To demonstrate consistency with the AQMP, the population projections used to assess the need for the project must be approved by the Southern California Association of Governments (SCAG). The project will not substantially alter the present or planned land use of this area as the services offered by the existing Fire Station would not result in new trips as no increase in staff or capacity would occur as part of the expansion. Therefore, the project would be consistent with the land use designation that was incorporated within the General Plan and consequently the AQMP. In addition, the project would not emit either short- or long-term quantities of criteria pollutants which exceed the SCAQMD's significance thresholds as discussed in 6b) below. The SCAQMD does not consider projects which result in emissions which are below the SCAQMD significance thresholds to interfere with the goals established in the AQMP. Therefore, a less-than-significant impact related to consistency with the AQMP will occur.

b-c) According the SCAQMD methodology, any project that does not exceed, or can be mitigated to less than the daily threshold values will not add significantly to the cumulative impact. Construction and operational activities would not result in emissions in excess of SCAQMD's daily threshold values. Therefore, a less-than-significant impact related to a cumulatively considerable net increase in criteria pollutants will occur. Air quality impacts can be described in potential short and long-term impacts. Short-term impacts occur during project construction. Long-term air quality impacts occur once the project is complete and operational. These long-term impacts would occur as a result of increased vehicle traffic to the project site due to periodic maintenance activity. The following analysis will address whether project generated emissions will significantly contribute toward an exceedance of the ambient air quality standards or a substantial contribution to an existing or projected air quality violation.

Short-term Air Quality Impacts

Construction activities would result in the generation of air pollutants. These emissions would primarily be 1) exhaust emissions from powered construction equipment; 2) fugitive dust generated from demolition, earthmoving, excavation and other construction activities; 3) motor vehicle emissions associated with vehicle trips; 4) emissions generated from paving activity; and (5) reactive organic gases generated from architectural coating activities. The analysis assumes compliance with SCAQMD Rule 403 (Fugitive Dust). Construction activities are estimated to begin in 2024, while build-out of the project is scheduled for the Spring of 2025. Air pollutant emissions associated with the project could occur over the short-term from site preparation to support the proposed land use. The included analysis is based on the CalEEMod computer model. To determine whether a significant regional air quality impact would occur, project emissions are evaluated against SCAQMD regional significance thresholds for construction activities. The project is required to comply with SCAQMD Rule 403, which establishes control measures for fugitive dust. Compliance with this rule will reduce short-term particulate pollutant emissions and is included as part of the air quality modeling assumptions. As shown in **Table AQ-1**, the project's construction emissions are not anticipated to result in a substantial contribution to regional emissions. project emissions are less than the SCAQMD CEQA significance threshold values. The output for the model run is included in Appendix B. Therefore, a less-than-significant impact related to violation of air quality standards will occur.

Table AQ-1: Summary of Peak Construction Emissions (Pounds per Day)

Activity	VOC	NOX	CO	SO2	PM10	PM2.5
Demolition	1	5	8	<1	<1	<1
Site Preparation	<1	5	4	<1	<1	<1
Grading	1	9	6	<1	2	1
Building Construction	1	6	7	<1	<1	<1
Paving	1	5	7	<1	<1	<1
Architectural Coating	19	1	2	<1	<1	<1
Maximum Daily Construction Emissions	**19**	**9**	**8**	**<1**	**2**	**1**
SCAQMD Threshold	75	100	550	150	150	55
Exceeds Significance Thresholds?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

Source: CalEEMod Version 2022.1.1.20.

Long-Term Air Quality Impacts

Long-term air quality impacts associated with the project would be generated from primarily area sources. Operation of the recreational program facility would not result in additional stationary source emissions from on-site equipment. Area sources of emissions are those associated with landscaping maintenance and energy use. The project is not adding staff or capacity and would not generate additional trips that would result in mobile emissions. As a conservative estimate, emissions based on the new building square footage were calculated from the CalEEMod computer model. The project's emissions were evaluated against the SCAQMD significance thresholds as shown in **Table AQ-2**. The project's emissions were found to be below the SCAQMD operational phase emissions thresholds. Therefore, a less-than-significant impact related to long term air quality impacts will occur.

Table AQ-2: Summary of Peak Regional Operational Emissions (Pounds per Day)

Operational Activity	ROG	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Area	4	<1	9	<1	1	1
Energy	<1	<1	<1	<1	<1	<1
Vehicles	<1	1	10	<1	<1	<1
Operational Emissions	**4**	**1**	**10**	**<1**	**1**	**1**
SCAQMD Significance Threshold	55	55	550	150	150	55
Exceeds Significance Thresholds?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

Source: CalEEMod 2022.1.1.20EMFAC 2014

The localized air pollution is evaluated against the localized significance thresholds (LST) which are based on the ambient concentrations of a pollutant within the project Source Receptor Area, the size of the project site and distance to the nearest sensitive receptor. The LSTs represent the maximum emissions from the project site that are not expected to cause or contribute to an exceedance of the most stringent national or state AAQS. The LSTs are based on the California AAQS, which are the most stringent AAQS established to provide a margin of safety in the protection of the public health and welfare. They are designed to protect those sensitive receptors most susceptible to respiratory distress, such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise. The SCAQMD has established guidance for the use of the results of the CalEEMod model to be applied to the LST methodology. In order to compare CalEEMod emissions against the LST thresholds, project design features or mitigation measures should be established that describe the off-road equipment list and hours of operation assumed with maximum daily emissions; the maximum number of acres disturbed on the peak day using the equipment list; emission control devices added to off-road equipment; and dust suppression techniques used.

Construction LSTs

Emissions generated by construction activities would temporarily increase pollutant concentrations from onsite equipment (primarily mobile emissions) and fugitive dust (PM_{10} and $PM_{2.5}$). **Table AQ-3** shows the localized maximum daily construction emissions. As the YTEC expansion facility is located adjacent to the existing YTEC facility, which houses youths, the most conservative receptor distance of 25 meters was used for the LST methodology. As shown in **Table AQ-3**, maximum daily emissions from construction activities would not exceed the SCAQMD LSTs; therefore, construction emissions would not exceed the CAAQS and the project would not expose sensitive receptors to substantial pollutant concentrations. Therefore, a less-than-significant impact related to construction LSTs will occur.

Operational LSTs

Operational activities would generate air pollutant emissions from mobile and area emissions. **Table AQ-4** shows localized maximum daily operational emissions. As shown in **Table AQ-4**, maximum daily operational emissions would not exceed the SCAQMD LSTs and would not expose sensitive receptors to substantial pollutant concentrations. Therefore, a less-than-significant impact related to operational LSTs will occur.

Table AQ-3: Localized Significance Threshold Summary – Construction

	Pounds per Day			
Construction	**CO**	**NO2**	**PM10**	**PM2.5**
Peak Construction Emissions	5	9	2	1
Localized Significance Thresholds	1,577	270	13	8
Significant Impact Without Mitigation?	**NO**	**NO**	**NO**	**NO**

Source: CalEEMod Version 2020.4.0: Based on SCAQMD LST methodology on a 5-acre site that uses one grader, one dozer, and two tractors for eight hours a day during grading, which is equivalent to a disturbed acreage of 2 acres and compared against the 2-acre LST lookup table within SRA 23 and adjacent sensitive receptors (25m).

Table AQ-4: Localized Significance Threshold Summary – Operation

	Pounds per Day			
Construction	**CO**	**NO2**	**PM10**	**PM2.5**
Peak Operational Emissions	10	1	1	1
Localized Significance Thresholds	1,577	270	4	2
Significant Impact?	**NO**	**NO**	**NO**	**NO**

Source: CalEEMod Version 2020.0.4.0: Based on SCAQMD LST methodology for operational emissions which does not include off-site mobile emissions. The localized emissions were compared against the most stringent LST threshold for SRA 23 with a 25-meter receptor distance.

Carbon Monoxide Hotspots

An air quality impact would be considered significant if the generated CO emission levels exceed the state or federal AAQS, which would expose receptors to substantial pollutant concentrations. Because CO is produced in greatest quantities from vehicle combustion and does not readily disperse into the atmosphere, adherence to AAQS is typically demonstrated through an analysis of localized concentrations.

Vehicle congestion has the potential to create elevated concentrations of CO called "hot spots." Localized CO concentrations hot spots are caused by vehicular emissions, primarily when idling at congested intersections. Due to the implementation of strict vehicle emissions standards over the last 20 years, the turnover of older vehicles, introduction of cleaner fuels, and implementation of increasingly sophisticated and efficient emissions control technologies, CO concentrations have steadily declined. Currently, the allowable CO emissions standard in California is a maximum of 3.4 grams per mile for passenger cars. A CO "hot spot" would occur if an exceedance of the state one-hour standard of 20 ppm or the 8-hour standard of 9 ppm were to occur.

The Bay Area Air Quality Management District has also looked at the effect of cleaner burning vehicles and concluded that under existing and future vehicle emissions rates, a given project would have to increase traffic volumes at a single intersection by 24,000 vehicles per hour where vertical and/or horizontal air does not mix (worst case condition) to generate a significant CO impact.[2] Based on these factors, there is no potential for the project to generate CO concentrations higher than the state and federal standards. As a result, sensitive receptors in the area would not be substantially affected by CO concentrations generated by operation of the project. Therefore, a less-than-significant impact related to CO hot spots will occur.

Toxic Air Contaminants

The CARB has identified diesel particulate matter (DPM) from diesel-fueled engines as a toxic air contaminant (TAC); thus, high volume freeways, stationary diesel engines, and facilities attracting heavy and constant diesel vehicle traffic are identified as having the highest associated health risks from DPM. The project site is not located within 500 feet of a freeway or major roadway, near any rail yards, stationary diesel engines, or facilities attracting heavy and constant diesel vehicle traffic such as warehouse distribution centers. The surrounding project area consists primarily of vacant land and institutional land uses, and the majority of vacant land surrounding the project site is zoned for residential, recreation, and commercial uses.

[1]South Coast Air Quality Management District, *Carbon Monoxide Redesignation Request and Maintenance Plan*, Hot Spot Analysis, February 2005.

[2]Bay Area Air Quality Management District, *CEQA Air Quality Guidelines*, Section 3.3 Carbon Monoxide Screening Criteria, May 2011.

Health risks from TACs are a function of both the concentration of emissions and the duration of exposure. Health-related risks associated with DPM in particular are primarily associated with long-term exposure and associated risk of contracting cancer. Some land uses are considered more sensitive to air pollution than others, due to the types of population groups or activities involved. Heightened sensitivity may be caused by health problems, proximity to the emissions source, and/or duration of exposure to air pollutants. Children, pregnant women, the elderly, and those with existing health problems are especially vulnerable to the effects of air pollution.

Operational-related emissions of TACs are typically associated with stationary diesel engines or land uses that involve heavy truck traffic or idling. The recreational program facility is located within institutional area, with health-related services, which is presumed to have sensitive receptors. However, the facility would not result in additional diesel equipment or other heavy truck uses, so there would not be any additional long- exposure to TACs. The CARB Air Quality and Land Use Handbook: A Community Health Perspective Handbook includes facilities with associated diesel truck trips of more than 100 trucks per day as a source of substantial TAC emissions. The project is not anticipated to receive frequent truck deliveries and would not involve a substantial source of TAC emissions. Therefore, the operation of the project would not expose any existing sensitive receptors to any new permanent or substantial TAC emissions.

During construction, diesel particulate emissions associated with heavy-duty equipment operations would occur. According to SCAQMD methodology, health effects from carcinogenic air toxics are usually described in terms of individual cancer risk. "Individual Cancer Risk" is the likelihood that a person continuously exposed to concentrations of TACs over a 70-year lifetime will contract cancer based on the use of standard risk assessment methodology. Based on the construction schedule, limited amount of imported/exported material, and equipment mix as described in Appendix B, the construction of the project is not anticipated to result in more than 20 truck trips per day and would not be a substantial source of TAC emissions. Given the short-term construction schedule of approximately 18 months, the project would not result in a long-term (i.e., 70 years) source of TACs. No significant emissions and corresponding individual cancer risk are anticipated after construction. Because of the short-term exposure period during construction and low level of truck activity during construction and operation of the recreational program facility, a less-than-significant impact related to TACs will occur.

The project involves the construction and operation of a recreational program facility, which is considered a sensitive receptor. Land uses located within a one mile of the project site are limited to vacant, institutional, and residential land. The project is not located within one mile of existing substantial point source emitters. The project will not introduce a new significant source of air pollution into the project vicinity and will not substantially reduce the existing ambient air quality. Therefore, no significant impact related to the siting of a sensitive receptor in proximity to a substantial point-source emitter will occur.

d) The project would not emit objectionable odors that would affect a substantial number of people. The threshold for odor is if a project creates an odor nuisance pursuant to SCAQMD Rule 402, Nuisance, which states:

> *A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property. The provisions of this rule shall not apply to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals.*

The type of facilities that are considered to have objectionable odors include wastewater treatments plants, compost facilities, landfills, solid waste transfer stations, fiberglass manufacturing facilities, paint/coating operations (e.g., auto body shops), dairy farms, petroleum refineries, asphalt batch plants, chemical manufacturing, and food manufacturing facilities. The project would be consistent and compatible with existing land uses surrounding the project site. Government uses, such as that of the project, are typically interior uses and do not generate substantial odors. The project will not introduce a new stationary source of air pollution into the project vicinity that may cause objectionable odors. Odorous emissions anticipated from the project are primarily from mobile sources (vehicles) coming to and from the project site, which are existing and common sources of emissions in the area. No increase in the intensity of odors from vehicle emissions would result as there would not be a substantial increase in vehicle trips. Therefore, no significant impact related to the creation of objectionable odors will occur. During construction activities, construction equipment exhaust would temporarily generate odors. Any construction-related odor emissions would be temporary, intermittent in nature, and would not constitute a public nuisance. Therefore, no significant impacts related to objectionable odors during construction will occur.

Mitigation: None

Monitoring: None

SI=Significant Impact; LTS=Less Than Significant or Less Than Significant With Mitigation Incorporated; NI=No Impact; AP=Analyzed in Prior EIR; M-DP=Substantially Mitigated by Uniformly Applicable Development Policies

	SI	LTS	NI	AP	M-DP
IV 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 Game or U. S. Wildlife Service?	☐	☒	☐	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U. S. Fish and Wildlife Service?	☐	☒	☐	☐	☐
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☒	☐	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☒	☐	☐	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☒	☐	☐
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state conservation plan?	☐	☒	☐	☐	☐

Source: RCIT (GIS Database); project description; WRCMSHCP, USFWS, URS Burrowing Owl Habitat Assessment 2012.

Findings of Fact:

a-c) The City of Riverside lies within the Western Riverside Multiple Species Habitat Conservation/Natural Communities Conservation Plan (WRMSHCP) which is a comprehensive, multijurisdictional Habitat Conservation Plan focusing on conservation of species and their associated habitats in the Western Riverside region of the County. The overall goal of the WRMSHCP is to maintain biological and ecological diversity within a rapidly urbanizing region. The WRMSHCP area is divided into 12 Habitat Management Units. The proposed Project site is located within the River Habitat Management Unit of the WRMSHCP. The Project site is located within the developed area of the City, and not within one of the criteria cell areas identified in the Plan. Despite being located outside the Criteria Cells, a consistency analysis is still required under the WRMSHCP under Other Plan Requirements. This consistency analysis establishes habitat assessment requirements for certain species of plants, birds, mammals, and amphibians identified in Section 6.1.2, 6.1.3, 6.3.2, and 6.1.4 of the Plan. The Project site is developed and graded and is routinely disked for weed abatement; no riparian/riverine areas, vernal pools, or fairy shrimp habitat is present; therefore, the Project will be consistent with the Riparian/Riverine requirements of Section 6.1.2 of the WRMSHCP. The proposed Project site is not located within habitats of Narrow Endemic Plants, Criteria Area Plant Species, mammal or amphibian survey areas as defined in Section 6.1.3 and 6.3.2; therefore, the Project will be consistent with the Section 6.1.3 and with 6.3.2 of the WRMSHCP (other than for burrowing owl, which is discussed below).

Habitat modifications are actions that result in destruction or adverse modification of critical habitat. An example of habitat modification is site grading land that would remove the natural vegetation that supports a protected species. According to the Western Riverside County Multiple Species Habitat Conservation Plan, the project site is within the survey area for burrowing owl (Athene cunicularia), thus a burrowing owl habitat assessment was conducted. While the burrowing owl is not considered an endangered species, it is however considered a Species of Special Concern in the state of California by the U.S. Fish and Wildlife Service (USFWS) due to recent population declines. An initial burrow investigation (habitat assessment) was performed on August 14, 2012 in accordance with MSHCP requirements prior to initiating focused owl surveys. The initial survey was performed to locate suitable owl habitat and potential nesting substrates. A focused burrow survey was then conducted within the project site and a 500-foot buffer area, which together comprise the Biological Study Area (BSA). Focused burrowing owl surveys were completed within the BSA between August 14 and August 17, 2012. The surveys were conducted following the Burrowing Owl Survey Instructions for the Western Riverside County Multiple Species Habitat Conservation Plan Area (County of Riverside 2006). The habitat assessment consisted of an investigation for habitat typically utilized by burrowing owls (e.g. mounds, rubbish piles, ditches, earthen berms, unpaved fields, and fallow/ruderal fields). Suitable habitat within the BSA was identified and a focused burrow survey was subsequently conducted. Field observations from the focused survey suggested that the developed and degraded nature of the BSA, the regular disturbances, and natural predators present generally preclude owls from occupying the BSA. However, the study concluded that prior to any future ground disturbing activities, additional surveys would be needed to confirm the absence of migratory birds or burrowing owls. Biological mitigation measures **BIO-1** and **BIO-2** would reduce potential impacts to less than significant.

According to the WRMSHCP, the Urban/Wildlands Interface Guidelines are intended to address indirect effects associated with locating development in proximity to the MSHCP Conservation Area. The proposed Project site is not within the vicinity of a conservation area; therefore, the Project will be consistent with the Section 6.1.4 of the WRMSHCP. The above consistency analysis of the WRMSHCP demonstrates that the proposed Project would be consistent with the provisions of the relevant habitat conservation plan. Therefore, no significant impact related to conflicts with habitat conservation plans would occur.

b) The project site is not located within a known wildlife corridor and as such, would not have an impact on native resident or migratory fish, or wildlife species, or impede the use of native wildlife nursery sites. The project would not interfere with any existing functioning wildlife corridor area or Linkage Systems or other designated habitat areas. Therefore, no significant impacts to wildlife movement or corridor linkages will occur.

c) No qualifying native trees have been identified on the project site that would be subject to regulation under the Riverside County Tree Protection Ordinance. Therefore, no significant impacts related to local policies protecting biological resources will occur.

d) The proposed project will not conflict with any local policies identified in the County General Plan. The proposed project will not conflict with local policies or ordinances that identify areas or habitats for conservation, preservation, or reservation. Therefore, no significant impact related to conflicts with habitat conservation plans would occur.

Mitigation

BIO-1 A qualified biologist shall conduct a pre-construction nesting bird survey within three days prior to vegetation- or ground-disturbing activities if such activities are proposed during the nesting season (February 1 through September 15). The survey shall include 100 percent coverage of the project site. If no active avian nests are found during survey, no further work in this regard is required. If an active avian nest is discovered during survey, vegetation- and/or ground-disturbing activities shall be redirected around the nest(s). As determined by Riverside County, the qualified biologist shall delineate the boundaries of any such buffer area. The buffer shall be established by the biologist, which can range from 50 feet (typically smaller songbirds) to 500 feet (larger raptors) to ensure that nesting behavior is not adversely affected by the vegetation- and/or ground-disturbing activity. If such activities are delayed or suspended for more than seven days after the survey, the site shall be resurveyed. Should eggs or fledglings be discovered in any native nest, these resources cannot be disturbed until the young have hatched and fledged (matured to a stage that they can leave the nest on their own).

BIO-2 A qualified biologist shall conduct a pre-construction burrowing owl/Initial Take and Avoidance Survey within 30 days prior to the beginning of project construction to determine if the project site contains suitable burrowing owl habitat and to avoid any potential impacts to the species. The survey shall be performed pursuant to the Riverside County Multiple Species Habitat Conservation Plan (MSHCP) 30-day Pre-Construction Burrowing Owl Survey Guidelines (revised August 17, 2006) and include 100 percent coverage of the project site. If the survey reveals no suitable habitat for burrowing owl is present, no further work in this regard is required. If active burrowing owl burrows are determined to be present, the burrow(s) shall be flagged, and a 160-foot buffer shall be established around the burrow(s) during the non-breeding season (September 1 to January 30) and a 250-foot buffer shall be created during the breeding season (February 1 to August 31). As determined by Riverside County (County), the buffer limits may vary depending on burrow location and burrowing owl sensitivity to human activity. The buffer(s) shall be sufficient to ensure that nesting behavior is not adversely affected by the construction activity. A monitoring report shall be prepared and submitted to the County for review and approval prior to reinitiating construction activities within the buffer area(s), and construction within the designated buffer area(s) shall not proceed until written authorization is received from California Department of Fish and Wildlife (CDFW). The monitoring report shall summarize the results of the owl monitoring, describe construction restrictions currently in place, and confirm that construction activities can proceed within the buffer area(s) without jeopardizing the survival of the owl(s). Any relocation efforts must be coordinated with the CDFW. This measure shall be implemented to the satisfaction of Riverside County and, as applicable, the CDFW.

Monitoring: Riverside County Facilities Management, project Construction Manager(s); Qualified Biologist.

SI=Significant Impact; LTS=Less Than Significant or Less Than Significant With Mitigation Incorporated; NI=No Impact; AP=Analyzed in Prior EIR; M-DP=Substantially Mitigated by Uniformly Applicable Development Policies

	SI	LTS	NI	AP	M-DP
V CULTURAL RESOURCES					
Would the project					
a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	☐	☒	☐	☐	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	☐	☒	☐	☐	☐
c) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐	☐

Source: RCIT (GIS Database); Project Description; Riverside County General Plan; Riverside County General Plan Final Environmental Impact Report; Public Resource Code §5024.1, Title 14 CCR, Section 4850 et seq. Riverside County General Plan Figure OS-7 "Historical Resources".

Findings of Fact:

a) The Final Program EIR for the Riverside County General Plan identifies 138 historical resources in Riverside County (Table 4.7.A). These historical resources are identified due to their inclusion of one of more of the following: National Register of Historic Places, California Registered Historic Landmarks Architecture, California Points of Historical Interest, and/or Riverside County Historical Landmarks. Public Resource Code section 5024.1(c) defines guidelines to being considered a historic resource within the state of California as stated below:

> *A resource may be listed as an historical resource in the California Register if it meets any of the following National Register of Historic Places criteria:*
>
> *1) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.*
>
> *2) Is associated with the lives of persons important in our past.*
>
> *3) 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.*
>
> *4) Has yielded, or may be likely to yield, information important in prehistory or history.*

Based on this definition, the project does not have historic relevance. Furthermore, the project site has not been identified in Riverside County General Plan as a site having historical significance. Therefore, implementation of the project will not alter or destroy a historic site and no further analysis is needed. The proposed project will not result in impacts to a historic site and no impacts to historic resources are expected.

b) The project site has been previously disturbed, graded, and developed with buildings and landscaping. Therefore, the potential to alter or destroy an archaeological resource is low. Additionally, according to the County's General Plan, there are no sites in the area that have been identified as having Archaeologically Sensitive sites. Ultimately, Section 5097.5(a) of the Public Resource Code protects archeological resources by mandating that, if encountered, the resource may not be disturbed without the consent of the public agency having jurisdiction over the land. In accordance with Assembly Bill 52 (AB 52), Tribes were notified about the project and invited to consult on December 23, 2024. Two tribes requested consultation and the initial consultations began January 9, 2025 until June 18th, 2025. No other Tribes requested consultation within the 30-day notification period. No known archaeological sites or resources exist at the project site which could be adversely affected and a less-than-significant impact would occur. While not required, Mitigation Measures **CR-1** through **CR-9** were developed in coordination with the Tribes to address concerns related to the accidental discovery of cultural resources. Compliance with these mitigation measures will provide a redundancy mechanism to ensure that potential impacts from inadvertent discoveries of archeological resources do not occur and remain less than significant. Therefore, a less-than-significant impact to archaeological resources will

occur.

c) The project site is not located on a known formal or informal cemetery. No discovery of human remains, including those interred outside of formal cemeteries is anticipated. Furthermore, there are several established regulations that protect against the disturbance of interred human remains, defined in California Health and Safety (HSC) Sections 7050.5 through and 7054, which mandate that in the event of an accidental discovery of human remains, the County Coroner must be contacted within 24 hours. If the County Coroner determines that the remains are Native American, the County is required to contact the Native American Heritage Commission (NAHC) and any applicable Tribes. Adherence to the regulatory requirements would result in a less-than-significant impact and, while not required, Mitigation Measure **CR-7 and CR-8** will provide a redundancy mechanism to ensure that potential impacts from inadvertent discoveries of human remains do not occur and remain less than significant. Therefore, a less-than-significant impact to human remains will occur.

d) There are no known religious or sacred uses within the project site that were identified through the cultural records search and consultation with Native American Tribes. Therefore, no significant impact related to the restriction of sacred or religious uses will occur.

Mitigation:

CR-1 Prior to the issuance of a grading permit, the Developer shall retain a professional archaeologist to conduct monitoring of all grading and trenching activities which may impact native soils on the project site. The project Archaeologist shall have the authority to temporarily halt and redirect earthmoving activities within a minimum of 100 feet of the affected area in the event that suspected archaeological resources are unearthed during project construction. The project archeologist and the Consulting Tribes shall attend a pre-grading meeting with the County, the construction manager and any contractors and will conduct a mandatory Cultural Resources Worker Sensitivity Training to those in attendance. The Training will include a brief review of the cultural sensitivity of the project and the surrounding area; what resources could potentially be identified during earthmoving activities; the requirements of the monitoring program; the protocols that apply in the event inadvertent discoveries of cultural resources are identified, including who to contact and appropriate avoidance measures until the find(s) can be properly evaluated; and any other appropriate protocols. All new construction personnel that will conduct earthwork or grading activities that begin work on the project following the initial Training must take the Cultural Sensitivity Training prior to beginning work and the project archaeologist and Consulting Tribes shall make themselves available to provide the training on an as-needed basis.

CR-2 Prior to the issuance of a grading permit, the Developer shall secure agreements with the Pechanga Band of Luiseño Indians (Pechanga) and Soboba Band of Luiseño Indians (Soboba) for tribal monitoring. The County is also required to provide a minimum of 30 days advance notice to Pechanga and Soboba of all grading and trenching activities which may impact native soils. The Pechanga and Soboba Tribal Representatives shall have the authority to temporarily halt and redirect earth moving activities within a minimum of 100 feet of the affected area in the event that suspected archaeological resources are unearthed during project construction. Upon discovery of in-situ archaeological resources, the parties shall promptly meet and confer, limit the closure area to the smallest reasonable area (including the possibility of reducing the stop-work radius to 50 feet after initial evaluation), and engage in good faith collaboration to execute the protocols outlined in the Cultural Resource Monitoring Plan for handling such unearthed resources.

CR-3 Prior to the issuance of the grading permit, a Cultural Resource Monitoring Plan (CRMP) is to be developed and provided to the Consulting Tribes for review. The project Archaeologist, in consultation with the Consulting Tribes, the contractor, and the County, shall develop a CRMP to address the details, timing and responsibility of all activities on the project site that may impact archaeological and tribal cultural resources. A Consulting Tribe is defined as a Tribe that initiated the AB 52 tribal consultation process for the project, has not opted out of the AB52 consultation process, and has completed AB 52 consultation with the County as provided for in Cal Pub Res Code Section 21080.3.2(b)(1) of AB52. Details in the Plan shall include:

a. Project description and location;

b. Project grading and development scheduling;

c. Roles and responsibilities of individuals on the project;

d. The pre-grading meeting and Cultural Resources Worker Sensitivity Training details;

e. The protocols and stipulations that the contractor, County, Consulting Tribe (s) and project archaeologist will follow in the event of inadvertent cultural resources discoveries, including any newly discovered cultural resource deposits that shall be subject to a cultural resource's evaluation;

f. The type of recordation needed for inadvertent finds and the stipulations of recordation of sacred items;

g. Contact information of relevant individuals for the project.

CR-4 The County shall verify that the following note is included on the Grading Plan:

"If any suspected archaeological resources are discovered during ground–disturbing activities and the project Archaeologist or Tribal Representative are not present, the construction supervisor is obligated to halt work in a 100-foot radius around the find and call the project Archaeologist and the Tribal Representative to the site to assess the significance of the find."

CR-5 If during ground disturbance activities, unanticipated unique archaeological resources are inadvertently discovered that were not assessed by the archaeological report(s) and/or environmental assessment conducted prior to project approval, the following procedures shall be followed. This mitigation shall apply to inadvertent discoveries of resources, including those with multiple artifacts in close association with each other, but may include fewer artifacts if the area of the find is determined to be of significance due to its sacred or cultural importance as determined in consultation with the Consulting Tribe.

a. All ground disturbance activities within 100 feet of the discovered resources shall be halted until a meeting is convened between the Developer, the project Archaeologist, the Pechanga and Soboba Tribal Representative, and the County of Riverside Facilities Management to discuss the significance of the find.

b. At the meeting, the significance of the discover(ies) shall be discussed and after consultation with the Pechanga and Soboba Tribal Representative and the project Archaeologist, a decision shall be made, with the concurrence of the County of Riverside, as to the appropriate process (documentation, recovery, avoidance, etc.) for the resources, including whether the stop-work radius from the discovered resource can be reduced to 50 feet.

c. Further ground disturbance, including but not limited to, grading and trenching, shall not resume within the determined stop-work radius area of the discovery until the protocols for handling the resources has been established by all parties pursuant to the CRMP. Work shall be allowed to continue outside of the stop-work radius area and shall be monitored by Pechanga and Soboba Tribal Monitors, if needed.

d. Treatment and avoidance protocols for the newly discovered resources shall be consistent with the Cultural Resources Management Plan and Monitoring Agreements entered into with Pechanga and Soboba. These protocols may include avoidance of the resources through project design, in-place preservation of resources located in native soils and/or re-burial on the project site with procedures so they are not subject to further disturbance in perpetuity as identified in Non-Disclosure of Reburial Condition/Mitigation Measures.

e. If the find is determined to be unique and significant and avoidance of the area cannot be feasibly achieved, a Phase III data recovery plan shall be prepared by the project Archeologist, in consultation with the Consulting Tribe, and shall be submitted to the County for their review and approval prior to implementation of the said plan.

f. Pursuant to Calif. Pub. Res. Code § 21083.2(b) avoidance is the preferred method of preservation for archaeological resources and cultural resources. If the Developer, project Archaeologist and the Consulting Tribes cannot agree on the significance of or the treatment for the archaeological or cultural resources, these issues shall be presented to the County of Riverside for decision. The County of Riverside shall make the determination based on the provisions of the California Environmental Quality Act with respect to archaeological resources, recommendations of the project Archeologist and shall consider the cultural and religious principles and practices of the Consulting Tribe. Notwithstanding any other rights available under the law, the decision of the County of Riverside shall be appealable to the County Board of Supervisors. Evidence of compliance with this mitigation measure, if a significant archaeological resource is found, shall be provided to County of Riverside upon the completion of a treatment plan and final report detailing the significance and treatment finding.

CR-6 In the event that Native American tribal cultural resources are discovered during the course of grading (inadvertent discoveries), the following procedures shall be carried out for final disposition of the discoveries: a) One or more of the following treatments, in order of preference, shall be employed with Pechanga and Soboba. Evidence that these procedures have been following shall be provided to the County of Riverside:

a. Preservation-In-Place of the tribal cultural resources, if feasible. Preservation in place means avoiding the resources, leaving them in the place where they were found with no development affecting the integrity of the resources.

b. Reburial of the resources on the project property. The measures for reburial shall include, at least, the following: Measures and provisions to protect the future reburial area from any future impacts in perpetuity. Reburial shall not occur until all legally required cataloging and basic recordation have been completed, with an exception that sacred items, burial goods, and Native American human remains are excluded. Any reburial process shall be culturally appropriate. Listing of contents and location of the reburial shall be included in the confidential Phase IV report. The Phase IV Report shall be filed with the County under a confidential cover and not subject to Public Records Request.

c. If preservation in place or reburial is not feasible then the resources shall be curated in a culturally appropriate manner at a Riverside County curation facility that meets State Resources Department Office of Historic Preservation Guidelines for the Curation of Archaeological Resources ensuring

access and use pursuant to the Guidelines. The collection and associated records shall be transferred, including title, and are to be accompanied by payment of the fees necessary for permanent curation. Evidence of curation in the form of a letter from the curation facility stating that subject archaeological materials have been received and that all fees have been paid, shall be provided by the landowner to the County of Riverside. There shall be no destructive or invasive testing on sacred items, burial goods, and Native American human remains. Results concerning finds of any inadvertent discoveries shall be included in the Phase IV monitoring report. Evidence of compliance with this mitigation measure, if a significant archaeological resource is found, shall be provided to County of Riverside upon the completion of a treatment plan and final report detailing the significance and treatment finding.

CR-7 If human remains are discovered, no further disturbance shall occur within a minimum of 100 feet of the affected area until the County Coroner has made necessary findings as to origin. If the County Coroner determines that the remains are potentially Native American, the California Native American Heritage Commission shall be notified within 24 hours of the published finding to be given a reasonable opportunity to identify the "most likely descendant". The "most likely descendant" shall then make recommendations, and engage in consultations concerning the treatment of the remains (California Public Resources Code 5097.98). (GP Objective 23.3, CEQA).

CR-8 It is understood by all parties that unless otherwise required by law, the site of any reburial of Native American human remains or associated grave goods shall not be disclosed and shall not be governed by public disclosure requirements of the California Public Records Act. The Coroner, pursuant to the specific exemption set forth in California Government Code 6254 (r), parties, and Lead Agencies, will be asked to withhold public disclosure information related to such reburial, pursuant to the specific exemption set forth in California Government Code 6254 (r).

CR-9 Upon completion of ground-disturbing activities that impact native soils, the project Archeologist shall submit two (2) copies of the Phase IV Cultural Resources Monitoring Report that complies with County of Riverside requirements for such reports. The Phase IV report shall include evidence of the required cultural/historical sensitivity training for the construction staff held during the pre-grade meeting. Portions of the Phase IV Report may be confidential. The County shall review the reports to determine adequate treatment compliance. Provided the reports are adequate, the County shall clear this condition. Once the report(s) are determined to be adequate, two (2) copies shall be submitted to the Eastern Information Center (EIC) at the University of California Riverside (UCR) and one (1) copy shall be submitted to the Pechanga and Soboba Cultural Resources Departments.

Monitoring: Riverside County Facilities Management, project Construction Manager(s), Qualified Archaeological Monitor

SI=Significant Impact; LTS=Less Than Significant or Less Than Significant With Mitigation Incorporated; NI=No Impact; AP=Analyzed in Prior EIR; M-DP=Substantially Mitigated by Uniformly Applicable Development Policies

	SI	LTS	NI	AP	M-DP
VI 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?	☐	☒	☐	☐	☐
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☒	☐	☐	☐

Source: Title 24 and Construction Plans.

Findings of Fact:

a-b) LED Lights will be used around the building and in areas of pedestrian and vehicular circulation. Lights will be placed on timers/motion sensors for maximum efficiency and illumination levels will be designed and placed in relation to the appropriate use. Invasive plants will not be used and drought tolerant plants and trees that are hardy and require low maintenance will be used to incorporate water conservation and biodiversity. The project would meet all requirements of Title 24 and any additional provisional requirements in order to assure that operation of the fire station would not conflict with adopted energy conservation plans. The project would be required to maintain consistency with all Riverside County policies related to energy conservation including Policy H-4, Conservation of Energy and Policy H-29, Sustainable Building Policy. Therefore, a less-than-significant impact related to energy conservation will occur.

Mitigation: None

Monitoring: None

SI=Significant Impact; LTS=Less Than Significant or Less Than Significant With Mitigation Incorporated; NI=No Impact; AP=Analyzed in Prior EIR; M-DP=Substantially Mitigated by Uniformly Applicable Development Policies

	SI	LTS	NI	AP	M-DP
VII GEOLOGY AND SOILS					
Would the project					
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving					
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?	☐	☒	☐	☐	☐
ii)Strong seismic ground shaking	☐	☒	☐	☐	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☒	☐	☐	☐
iv) Landslides?	☐	☒	☐	☐	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☒	☐	☐	☐

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	☒	☐	☐
d) Be located on expansive soil, as defined in Section 1802.3.2 of the California Building Code (2007), creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐	☐
e) Have soils incapable of adequately supporting use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☒	☐	☐
f) Directly or indirectly destroy a unique paleontological resource or site or unique geological feature?	☐	☒	☐	☐	☐

Source: GIS Database, Riverside County General Plan Figure S-2 "Earthquake Fault Study Zones", Figure S-4 "Earthquake-Induced Slope Instability Map," and Figures S-13 through S-21 (showing General Ground Shaking Risk); Figure S-7 "Documented Subsidence Areas"; GIS Database (RCIT) County of Riverside General Plan, California Building Code, and MTGL Geotechnical Report, February 2023.

Findings of Fact:

a) The Alquist-Priolo Earthquake Fault Zoning Act (Act) mitigates fault rupture hazards by prohibiting the development of structures for human occupancy across the trace of an active fault. The Act requires the State Geologist to delineate "Earthquake Fault Zones" along faults that are "sufficiently active" and "well defined." The boundary of an "Earthquake Fault Zone" is generally 500 feet from major active faults and between 200 and 300 feet from well-defined minor faults. Based on the information published by the Department of Conservation, State of California, the project site is not within an Alquist-Priolo Special Study Zone/Alquist-Priolo Earthquake Fault Zone. The closest known active fault is the Elsinore Fault, located approximately nine miles southwest of the project site. At this distance, potential for fault rupture is low and a less-than-significant impact would result from the implementation of the project.

The project site has and will continue to be subject to ground shaking generated from activity on local and regional faults. State law requires the design and construction of new structures to comply with current CBC requirements which address general geologic, seismic (including ground shaking), and soil constraints for new buildings. These design requirements of the CBC are designed to withstand strong seismic shaking and a less-than-significant impacts to seismic ground shaking will occur.

The project site is underlain by undocumented fill (Qf), alluvial fan deposits (Qoa) and Granitic rock of Riverside (grr). Borings taken during the geotechnical investigation encountered dense sands in the upper five feet, underlain by dense silts and sands, with granitic bedrock at depths as shallow as 16 feet. Perched groundwater was encountered at a depth of 44.5 feet below previously existing grade. Soil liquefaction is a phenomenon in which saturated, cohesionless soils layers, located within approximately 50 feet of the ground surface, lose strength due to cyclic pore water pressure generation from seismic shaking or other large cyclic loading. During the loss of stress, the soil acquires 'mobility' sufficient to permit both horizontal and vertical movements. Soils that are most susceptible to liquefaction are clean, loose, saturated, and uniformly graded fine-grained sands that lie below the groundwater table within approximately 50 feet below ground surface. Given the geologic age and relatively dense nature of the materials underlying the site, the potential for liquefaction is considered low. Therefore, less-than- significant impacts from liquefaction risk will occur.

The geotechnical study completed a review of available literature and site reconnaissance, and no evidence of previous landslides were found. Given the relatively flat topography of the site and lack of surficial landslide evidence at the site, the potential for landslides or slope instability is low. Therefore, less-than- significant impacts from landslide risk will occur.

Mitigation: None

Monitoring: None

b) The project will not result in a substantial loss of soil due to erosion. Surface soils consist of Arlington fine sandy loam, Fallbrook sandy loam, and Hanford fine sandy loam. itas gravelly sand. According to United States Department of Agriculture (USDA), erosion hazard is described as slight, moderate, severe or very severe. A rating of slight indicates that erosion is unlikely under ordinary climatic conditions while very severe indicates that significant erosion is expected, loss of soil productivity and off-site damage are likely, and erosion-control measures are costly and generally impractical. The project site ranges in rating from "moderate" to "slight". A rating of "moderate" indicates that some erosion is likely and that erosion control measures may be needed. Approximately 21.6 percent of the project site has an erosion hazard rating of "moderate". The project would be subject to Storm Water Pollution Prevention Plan (SWPPP) requirements for erosion control during construction and would require the fugitive dust control measures during construction. Best management practices (BMPs) would be undertaken to control runoff and erosion from earthmoving activities such as excavation, grading, and compaction. All grading and compaction activities would be performed under the observation of a qualified engineer. After completion of construction, the erosion potential will be decreased. All soils used in the project would be properly compacted in accordance with the Geotechnical Investigation and the County of Riverside specifications. Erosion control best management practices (BMPs), such as revegetation of bare areas, will be implemented during the lifespan of the project. Therefore, less-than-significant impacts to soil erosion will occur.

c) The project site is not considered susceptible to liquefaction, and the potential for seismic-induced settlement and lateral spreading at the project site is negligible. Additionally, the majority of the project site and vicinity are relatively flat areas with less than two percent slope aspect. There are no known landslides at the site, nor is the site in the path of any known or potential landslides. Proposed project operations do not include oil, gas, or groundwater extraction, which could result in ground subsidence. On-site soils are dense and well drained, and geotechnical field exploration and laboratory tests indicate the potential for subsidence, hydrocompaction, or soil collapse is low. Therefore, no significant impact from unstable geologic units would occur.

d) Expansive soils are generally considered a threat because of the pressure that may be induced upon structures. In general, expansive soils include characteristics that may result in expansion or contraction when exposed to water. The extent of contraction (shrink) or expansion (swell) may be influenced by the amount and type of clay in the soil. Expansive soils have a plasticity index of 15 or greater. According to the U.S. Department of Agriculture Web Soil Survey, the soil types located on the project site are AoA, AoC, FbF2, and HgA, which have a plasticity index ranging from 1.7 to 9.6. As a result, the project is not located on expansive soil and no substantial risks to life or property would occur; therefore, no significant impacts from expansive soil will occur.

e) The project is the provision of a recreational program facility which would not generate substantial amounts of new sewage or wastewater as no substantial additional staff or patrons would be needed, which could increase new sewage or wastewater. Nonetheless, upgrades to the sewage and drainage infrastructure are included as part of the project to avoid substantial effects to sewage and wastewater. Therefore, no significant impact to septic tanks or wastewater disposal systems will occur.

f) The project site is located within an area of high paleontological sensitivity. As described previously, the site has been previously graded and disturbed. Therefore, the potential to discover and/or disturb any paleontological resource is low, and impacts would be less than significant. In the unlikely event that paleontological resources are discovered during construction, Mitigation Measure **GEO-1** shall be implemented. While not required, Mitigation Measure **GEO-1** will ensure potential impacts to paleontological resources remain less than significant. Therefore, a less-than-significant impact related to paleontological resources will occur.

Mitigation:

GEO-1 In the event that any paleontological resources are unintentionally discovered during project construction, construction activities in the vicinity of the resource shall immediately halt and/or be moved to other parts of the project site. A Riverside County-qualified paleontologist shall be retained by the County or their designee to determine the significance of the resource, if any. If the find is determined to be significant, avoidance or

other appropriate measures including extraction and relocation, as recommended by the paleontologist, shall be implemented.

Monitoring: Riverside County Facilities Management, project Construction Manager(s); Qualified Paleontologist

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	SI	LTS	NI	AP	M-DP\
VIII GREENHOUSE GAS EMISSIONS					
Would the project					
a) Generate greenhouse gas (GHG) emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐	☐

Source: CalEEMod 2022.1.20.

Findings of Fact:

This section analyzes the project's contribution to global climate change impacts by evaluating the project's contribution of greenhouse gas (GHG) emissions. The primary GHG of concern is carbon dioxide (CO_2), which represents the majority (greater than 99 percent) of proposed project-related emissions. According to Section 15064.4, of the State CEQA Guidelines for determining the significance of GHG emissions, a lead agency must consider the following in the assessment of potential significant impacts:

1) *The extent to which the project may increase (or reduce) GHG emissions as compared to the existing environmental setting;*
2) *Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project;*
3) *The extent to which the project complies with regulations or requirements adopted to implement an adopted statewide, regional, or local plan for the reduction or mitigation of GHG emissions.*

To address the State's requirement to reduce GHG emissions, the County prepared the 2015 Climate Action Plan (CAP) with the target of reducing GHG emissions within the unincorporated County by 15 percent below 2008 levels by the year 2020. The County's target is consistent with the AB 32 target and ensures that the County is providing GHG reductions locally that will complement the State and international efforts of stabilizing climate change.The County determined the size of development that is too small to be able to provide the level of GHG emission reductions expected from the Screening Tables or alternate emission analysis method. To do this the County determined the GHG emission amount allowed by a project such that 90 percent of the emissions on average from all projects would exceed that level and be "captured" by the Screening Table. The 3,000 MT CO2e per year value is the low end value within that range rounded to the nearest hundred tons of emissions and is used in defining small projects that are considered less than significant and do not need to use the Screening Tables or alternative GHG mitigation analysis used in the County CAP.[3]

a) In accordance with the State CEQA Guidelines, GHG emissions were calculated for construction and operation of the project and will be assessed against the County CAP threshold of 3,000 MTCO2E/yr. GHG emissions resulting from project construction and operation were calculated using the CalEEMod model, and include emissions resulting from on-road and off-road diesel fuel consumption as well as worker commutes, vehicle travel, energy consumption, water consumption, and waste generation. As presented in **Table GHG-1**, the total operational CO2E emissions generated as a result of the project is 89 metric tons (MT) per year, including construction-related emissions (149 MT) amortized over a typical project life of 30 years.

Table GHG-1: Annual Project-Related GHG Emissions

Source	Annual Emissions (MT)			
	CO_2	CH_4	N_2O	CO_2e
Construction Emissions	5	<1	<1	5
Area Emissions	3	<1	<1	5
Energy Consumption	33	<1	<1	33
Mobile Emissions	34	<1	<1	34
Solid Waste Generation	6	<1	<1	7
Water Consumption	5	<1	<1	5
Total	**79**	<1	<1	**89**
County of Riverside's GHG Threshold				**3,000**
Significant Impact?				**No**

Source: CalEEMod, Appendix A

As shown in **Table GHG-1**, the proposed project's operational GHG emissions are below the County CAP GHG threshold, as well as the SCAQMD threshold for most land use types, of 3,000 MT CO2e and do not constitute a substantial contribution to global climate change. Therefore, a less-than-significant impact related to GHG emissions on the environment will occur.

b) The County of Riverside has adopted policies and programs in its General Plan to promote the use of clean and renewable energy sources, facilitate alternative modes of transportation, and for the sustainable use of energy. The County CAP, described above, was adopted by the Board on December 8, 2015. In particular, the CAP elaborates on the County General Plan goals and policies relative to GHG emissions and provides a specific implementation tool to guide future decisions of the County. The 2015 CAP is used as the baseline for the evaluation of consistency with applicable GHG plans, policies, or regulations. The project will not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases. The County CAP identifies three main goals which are to: provide a list of specific actions that will reduce GHG emissions, giving the highest priority to actions that provide the greatest reduction in GHG emissions and benefits to the community at the least cost; reduce emissions attributable to the County to levels consistent with the target reductions of AB 32; and establish a qualified reduction plan for which future development within the County can tier and thereby streamline the environmental analysis necessary under CEQA. Because GHG emissions are only important in the context of cumulative emissions, the focus of the analysis is on answering the question of whether incremental contributions of GHGs are a cumulatively considerable contribution to climate change impacts.

The County CAP has incorporated the measures identified in the CARB Scoping Plan as a means for reducing GHG emissions. Table GHG-2 summarizes the CARB Scoping Plan Policies for reducing GHG emissions. As shown in **Table GHG-2**, the project is consistent with the CARB Scoping Plan Policies and County CAP. Therefore, a less-than-significant impact related to consistency with plans, policies, or regulations for reducing GHG emissions will occur.

Table GHG-2: CARB Scoping Plan

Scoping Plan Measures to Reduce Greenhouse Gas Emissions	Project Compliance with Measure
Energy Efficiency: Maximize energy efficiency building and appliance standards; pursue additional efficiency including new technologies, policies, and implementation mechanisms. Pursue comparable investment in energy efficiency from all retail providers of electricity in California.	**Consistent.** The project will be designed and constructed using sustainable building practices, and will comply with the County's Sustainable Building Policy (H-29). The project will be compliant with all current Title 24 standards.
Green Building Strategy: Expand the use of green building practices to reduce the carbon footprint of California's new and existing inventory of buildings.	**Consistent.** The California Green Building Standards Code (proposed Part 11, Title 24) was adopted as part of the California Building Standards Code in the CCR. Part 11 establishes voluntary standards that became mandatory in the 2010 edition of the Code, on planning and design for sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and internal air contaminants. The project will be subject to these mandatory standards. The project will also incorporate LEED energy efficiency building measures.
Recycling and Waste: Reduce methane emissions at landfills. Increase waste diversion, composting, and commercial recycling. Move toward zero-waste.	**Consistent.** A regulation to reduce methane emissions from municipal solid waste landfills is currently being developed by the state. The Riverside Countywide Integrated Waste Management Plan (CIWMP) outlines the goals, policies, and programs the County and its cities will implement to create an integrated and effective waste management system that complies with the diversion mandates in AB 939. The project will be required to participate with County programs for recycling and waste reduction which comply with the 50 percent reduction requirement of AB 939.
Water: Continue efficiency programs and use cleaner energy sources to move and treat water.	**Consistent.** The project will comply with all applicable County ordinances, including the County's Low Impact Development (LID) standards.

Source: CARB Scoping Plan.

Mitigation: None

Monitoring: None

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	SI	LTS	NI	AP	M-DP
IX 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?	☐	☒	☐	☐	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☒	☐	☐	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances or waste within 0.25-mile of an existing or proposed school?	☐	☒	☐	☐	☐
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☒	☐	☐	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive for people residing or working in the project area?	☐	☒	☐	☐	☐
f) Impair implementation of or physically interfere with an adopted emergency response plan or an emergency evacuation plan?	☐	☒	☐	☐	☐
g) Expose people or structures to a significant risk of loss, injury or death involving wildland fires?	☐	☒	☐	☐	☐

Source: Google Earth™; Alvord Unified School District, Riverside Unified School District; DTSC, Cortese List.

Findings of Fact:

a) No hazardous materials or conditions exist on the project site and no demolition would occur which could encounter hazards, such as lead-based paint or asbestos-containing materials. project construction, may involve the limited transport, storage, use, or disposal of hazardous materials from the fueling or servicing of construction equipment on-site. Construction activities could also include general commercial cleaners, solvents, lubricants, paints, industrial coatings and other substances utilized for resurfacing. These types of chemicals are not acutely hazardous and would be used in limited quantities and in adherence to the manufacturers' guidelines. Further, these activities would be minimal, short-term, or one-time in nature. These materials are anticipated to be similar to other substances used on-site for the existing County-owned building. The project site is not identified on any list of hazardous material sites compiled pursuant to Government Code Section 65962.5. Therefore, a less-than-significant impact related to the creation of a hazard from a list of compiled hazardous sites will occur. During operation, the recreational program facility would incorporate special storage requirements and other safety measures into project design in order to minimize potential impacts. All facilities would be equipped with adequate fire suppression equipment. Any hazardous materials would be properly locked and made inaccessible to the public and/or untrained personnel in order to prevent unauthorized usage of these materials. Lastly, all hazardous materials would be used, transported, and stored in accordance to the manufacturer's labels and with all accepted BMPs, and the use of hazardous materials and substances would be subject to federal, state, and local health and safety requirements. The closest public schools are Liberty and Foothill Elementary Schoola, which are located approximately 0.5 miles to the east. The project would not result in the transport or use of acutely hazardous materials. In addition, there is no direct road access to the schools, in which vehicles with hazardous materials would travel in proximity to the school Compliance with the applicable laws and regulations would ensure that less-than significant impacts associated with the transport, use, or disposal of hazardous materials will occur.

The project site is not located within a Compatibility Zone of the Riverside Municipal Airport Land Use Compatibility Plan. Therefore, impacts from safety hazards to people residing or working in the project area from a project within an airport land use plan would be the less than significant.

b) The project will be confined within the existing County-owned property and would not create any conditions that would impair the implementation of, or physically interfere with, an emergency response plan and/or emergency evacuation plan. The project would develop emergency response plans and emergency evacuation plans to be reviewed and approved by emergency personnel. Therefore, a less-than-significant impact related to the disruption of emergency services will occur.

c) The project site is not located within or adjacent to a Very High Fire Hazard Severity Zone, as designated by the California Department of Forestry and Fire Protection. Project design includes design features such as ignition-resistant materials and incorporation of fire sprinklers, would minimize risk of exposure of persons or property to wildland fires. Therefore, a less-than-significant impact related to the wildfire will occur.

d-f) Construction vehicles and equipment contain substances such as gasoline, diesel, antifreeze, and lubricants that, if accidentally released to the environment, could be hazardous. Existing Spill Prevention, Control, and Countermeasure requirements would reduce potential impacts by requiring the development and implementation of hazardous substance control and health and safety measures. During operation, the project could require the use of hazardous materials including, but not limited to, industrial chemicals, oils, flammables, glue, and paint. However, the project would incorporate all appropriate safety measures to minimize potential impacts, including the use of fire suppression equipment and fire- retardant metal cabinets for storage. All hazardous materials utilized would be properly locked and made inaccessible to the public and/or untrained personnel in order to prevent unauthorized usage of these materials. Compliance with the applicable laws and regulations would ensure that the risks associated with the potential accidental release of hazardous materials were minimized to the greatest extent feasible. The project site is located within the Alvord Unified School District and adjacent to the Riverside Unified School District. The closest schools in the Districts are Liberty and Foothill Elementary Schools, which are located approximately 0.5 miles to the east. The project would not result in the use of acutely hazardous materials, and would be limited to paints or cleaning materials, which would not pose a significant emissions risk to surrounding receptors. In addition, there is no direct road access to the schools, in which vehicles with hazardous materials would travel in proximity to the school Therefore, a less-than-significant impact related to hazards or hazardous materials within 0.25 miles of a school will occur.

Mitigation: None

Monitor: None

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	SI	LTS	NI	AP	M-DP
X HYDROLOGY AND WATER QUALITY					
Would the project					
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	☐	☒	☐	☐	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☒	☐	☐	☐
c) Substantially alter the existing drainage pattern of the site or area, including the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:					
i) Result in substantial erosion or siltation, on- or off-site?	☐	☒	☐	☐	☐
ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☒	☐	☐	☐
iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☒	☐	☐	☐
iv) Impede or redirect flood flows	☐	☒	☐	☐	☐
d) Result in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☒	☐	☐	☐
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☒	☐	☐	☐

Source: Riverside County Flood Control District Flood Hazard Report/Condition; Riverside County General Plan; USDA Soil Conservation Service Soil Surveys; US Geological Survey; CEQA Guidelines Section 15155.

Findings of Fact:

a) The project site is located within the Temescal Creek Subbasin of the larger Santa Ana Watershed. Under existing conditions, storm water drains in a southwesterly direction toward the La Sierra Channel. La Sierra Channel joins Arlington Channel approximately 3 miles southwest of the project site. Arlington Channel connects to Temescal Creek Channel and then to the Santa Ana River, 8 miles southwest of the project site. From there, storm water flows west approximately 30 miles before discharging into the Pacific Ocean.

The County is a Co-permittee under the Santa Ana Regional Water Quality Control Board Order (SARWQCB) Order number R8-2010-0033, National Pollutant Discharge Elimination System (NPDES) Permit No. CAS618033, also known as the Municipal Separate Storm Sewer System or MS4 permit. The Clean Water Act (CWA) establishes a framework for regulating municipal and industrial (including construction) storm water discharges under the NPDES permit. Section 402(p) of the CWA requires NPDES permits for storm water discharges from municipal separate storm sewer systems (MS4), as well as other designated storm water discharges that are considered significant contributors of pollutants. All new development is required to comply with provisions of the NPDES program, including Waste Discharge Requirements (WDR), and the County's MS4, as enforced by the SARWQCB.

Projects resulting in the disturbance of 1.0 acre or more require compliance with the NPDES permit. The purpose of a SWPPP is to identify and implement BMPs to reduce construction-related impacts from erosion and sedimentation as a result of ground and vegetation disturbance, as well as impacts to surface water from contaminated stormwater discharges. BMPs may include the use of gravel bags, silt fences, check dams, hydroseed, and soil binders. The construction contractor would be required to operate and maintain these controls throughout the duration of on-site activities. In addition, the construction contractor would be required to maintain an inspection log and have the log on site to be reviewed by the County and representatives of the SARWQCB.

According to the Water Quality Control Plan for the Basin, the United States Environmental Protection Agency (USEPA)-approved 303(d) listed impairments for the project's receiving waters (Temescal Creek, Santa Ana River) include pathogens and pH. To address potential water contaminants, the project is required to comply with applicable federal, State, and local water quality regulations. All priority development projects (which would include the proposed project) in the County is required to prepare a Water Quality Management Plan (WQMP) to reduce water pollution impacts from construction and operation of the developments. WQMP's include BMPs for source control, pollution prevention, site design, low impact development implementation, and structural treatment control. BMPs or project design features in the project specific WQMP would ensure long-term water quality impacts are reduced to less than significant levels. Proper engineering design and construction in conformance with the requirements of the County, the intent of the NPDES Permit for Riverside County and the incorporated cities of Riverside County within the Santa Ana MS4 permit, and project-specific recommendations outlined in a SWPPP and WQMP would ensure impacts related to water quality standards or waste discharge requirements remain less than significant.

b) The project site does not use well water and received water from Riverside Public Utilities. As a result, operation of the project would not deplete groundwater supplies. In addition, the proposed project includes supporting infrastructure to enhance recreational program services, which would not significantly increase the demand of the site or involve the use of substantial amounts of water during the construction and operational phases of the project. Development of the project would convert pervious surfaces to impervious surfaces, thus reducing the capacity of the site to facilitate infiltration of surface flows into the groundwater table. The on-site runoff will be detained by an on-site detention basin appropriately sized to capture the site's minimum design capture volume, further facilitating infiltration of storm water and filtration into the local groundwater aquifer. Therefore, a less-than-significant impact related to project-related depletion of groundwater supply will occur.

c) The project site is located on relatively level topography and storm water drains in a southeasterly direction toward the Riverside County Flood Control storm drain system within the County Farm Road right-of-way. Development of the project site will maintain the existing drainage pattern. The SWPPP would ensure that runoff is contained during construction of the project, as measures would be established which control erosion and sediment transport to eliminate potential impacts to water quality. Therefore, a less-than-significant impact related to stormwater drainage and pollution will occur.

On-site conversion of permeable surfaces to impermeable surfaces could increase stormwater runoff rates and/or volume. NPDES regulations require development projects to retain stormwater runoff on-site at levels that generally do not exceed the existing condition. The WQMP shall identify the site's minimum design capture volume of runoff and specify appropriate LID BMPs to ensure post-development storm water runoff volume or time of concentration does not exceed pre-development storm water runoff in accordance with the NPDES MS4 Permit. Periodic maintenance of any required BMPs during project occupancy and operation will be in accordance with the schedule outlined in the WQMP. Therefore, a less-than-significant impact related to risks from flooding due to increases in stormwater runoff would occur.

The project is located in an urbanized area for which storm drain features have been previously planned and installed. Sources of storm water pollution would be addressed through adherence to NPDES permit requirements with the implementation of the SWPPP and WQMP. Therefore, a less-than-significant impact related to the creation or contribution of runoff water that would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff would occur.

The project would be required to adhere to federal, state and local water quality provisions. The project would construct on-site drainage capture improvements that have sufficient capacity to handle the activities associated with washing and fueling to prevent impacts to water quality. Additionally, project activity could include the transport and transfer of hazardous materials, on the project site. Should any of these substances enter the stormwater system or the groundwater through accidental upset conditions, it could significantly degrade water quality. However, the transport, handling, and storage of hazardous materials is stringently regulated, and compliance would eliminate or reduce the risk to the greatest extent feasible. Therefore, a less-than-significant impact related to the substantial degradation of water quality will occur.

d) The project is not located within a 100-year flood zone nor is it located within a 500-year flood zone. Implementation of the project will not substantially alter the existing drainage pattern of the site from its current condition; result in a change of absorption rate or the amount of surface run-off from the current condition; or, expose people or structures to a significant risk of loss, injury or death, or change the amount of surface water in any water body. The project site is not within an existing inundation area for dams Inundation of the project site by a tsunami is highly unlikely, as the project site is more than 30 miles northeast of the Pacific Ocean. The project site is not located in proximity to any confined bodies of water and the risk of inundation from a seiche is low. Therefore, less-than-significant impacts related to flood hazards, tsunami, or seiches, or release of pollutants due to project inundation will occur.

e) As the project would not inhibit groundwater recharge potential and would not require groundwater to supply its anticipated demand, the project would not conflict with any applicable water quality control plan or sustainable groundwater management plan. Therefore, a less-than-significant impact related to conflicting or obstructing implementation of a water quality control plan or sustainable groundwater management plan will occur.

Mitigation: None

Monitoring: None

Source: Riverside County General Plan Figure S-9 "100- and 500-Year Flood Hazard Zones"; Figure S-10 "Dam Failure Inundation Zone"; Riverside County Flood Control District Flood Hazard Report/Condition; RCIT (GIS Database); USDA. Soil Conservation Service Soil Surveys.

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	SI	LTS	NI	AP	M-DP
XI LAND USE AND PLANNING					
Would the project					
a) Physically divide an established community?	☐	☐	☒	☐	☐
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐	☐

Source: Riverside County General Plan Land Use Element; RCIT (GIS Database); City of Riverside Municipal Code, Chapter 19.140.

Findings of Fact:

a-b) The site is currently designated for Public Facilities/Institutions (PF) and is zoned as Public Facilities (PF). The YTEC expansion would not result in a substantial alteration of present or planned land use in the areas. According to the City of Riverside Municipal Code, the Public Facilities Zone (PF) is established to create and preserve areas for official and public uses of property and related activities, including civic center, public schools, public buildings, parks and recreation facilities, waterworks and drainage facilities, and similar areas that, for the welfare of the City, should be kept clear of particular structures or improvements, and for watershed areas for conservation of flood or storm waters or for protection against flood or storm waters.

The new YTEC structure would be considered a public building and the project does not propose any new uses nor does it propose or require a change in the land use designation or zoning. Since the project site is already physically bound by County Farm and the existing property lines, development of the site would not physically divide an established community. The continued use of County property as a Public Facility providing recreational program services is compatible with the surrounding residential land uses and would not result in significant effects which could adversely affect surrounding land uses. The project would not result in any changes in access to the surrounding residential community and would not create a visual separation to the surrounding community or a physical or perceived barrier which could disrupt or divide the physical arrangement of an established community. Therefore, no significant impacts related to the land use of the project in relation to the surround land uses and land use policies will occur.

Mitigation: None

Monitoring: None

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	SI	LTS	NI	AP	M-DP
XII 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 or the residents of the State?	☐	☐	☒	☐	☐
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☒	☐	☐

Source: Riverside County General Plan Figure OS-5 "Mineral Resources Area."

Findings of Fact:

a-b) The project site is classified as Mineral Resource Zone MRZ-3 (an area containing known or inferred mineral occurrences of undetermined mineral resource significance). No mineral resources are known to occur on the project site, nor has the project site been previously used for mineral extraction. The project site has no potential to be mined in the future because it is surrounded by adjacent and proximal residential uses and is not considered a State-designated mineral resource extraction zone. Therefore, development of the project site would not result in the loss of a known mineral resource that would be of value to the region and residents of the State or that has been delineated on a local land use plan. Therefore, less-than-significant impacts related to mineral resources will occur.

Mitigation: None

Monitoring: None

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	SI	LTS	NI	AP	M-DP
XIII NOISE AND VIBRATION					
Would the project					
a) Result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☒	☐	☐	☐
b) Result in generation of excessive groundborne vibration or groundborne noise levels?	☐	☒	☐	☐	☐
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☒	☐	☐

Source: Riverside County General Plan Figure S-19 "Airport Locations"; County of Riverside Airport Facilities Map; US Department of Transportation Federal Aviation Administration.

Findings of Fact:

a) Sound is described in terms of the loudness (amplitude) of the sound and frequency (pitch) of the sound. The standard unit of measurement of the loudness of sound is the decibel (dB). Since the human ear is not equally sensitive to sound at all frequencies, a special frequency-dependent rating scale has been devised to relate noise to human sensitivity. The A-weighted decibel scale (dBA) performs this compensation by differentiating among frequencies in a manner approximating the sensitivity of the human ear. The perceived loudness of sound is dependent upon many factors, including sound pressure level and frequency content. However, within the usual range of environmental noise levels, perception of loudness is relatively predictable, and should be approximated by the A-weighted sound levels (expressed as dBA) and the way the human ear perceives noise. For this reason, the A-weighted sound level has become the standard tool of environmental noise assessment.

Community noise is commonly described in terms of the ambient noise level, which is defined as the all-encompassing noise level associated with a given noise environment. A common statistical tool to measure the ambient noise level is the average, or equivalent, sound level (L_{eq}), which corresponds to a steady-state A-weighted sound level containing the same total energy as a time-varying signal over a given time period. The L_{eq} is the foundation of the composite noise descriptor, day/night average (L_{dn}), and shows very good correlation with community response to noise. Human response to noise varies widely depending on the type of noise, time of day, and sensitivity of the receptor. The effects of noise on humans can range from temporary or permanent hearing loss to mild stress and annoyance due to such things as speech interference and sleep deprivation. Certain land uses are particularly sensitive to noise, including schools, hospitals, rest homes, long-term medical and mental care facilities, and parks, and recreation areas. Residential areas are also considered noise sensitive, especially during the nighttime hours.

Noise levels decrease as the distance from the noise source to the receiver increases. Noise generated by a stationary noise source, or "point source," will decrease by approximately 6 dBA over hard surfaces (e.g., reflective surfaces such as parking lots or smooth bodies of water) and 7.5 dBA over soft surfaces (e.g., absorptive surfaces such as soft dirt, grass, or scattered bushes and trees) for each doubling of the distance. For example, if a noise source produces a noise level of 89 dBA at a reference distance of 50 feet, then the noise level would be 83 dBA at a distance of 100 feet from the noise source, 77 dBA at a distance of 200 feet, and so on. Noise generated by a mobile source will decrease by approximately 3 dBA over hard surfaces and 4.8 dBA over soft surfaces for each doubling of the distance. Ambient noise measurements were taken at sensitive receptors near the project site to establish a baseline to assess the potential noise effects from construction and operation of the project. **Table N-1** shows the existing ambient noise levels. As shown in **Table N-1**, daytime existing ambient sound levels ranged between 47.8 and 63.0 dBA L_{eq}.

Table N-1: Ambient Noise Levels at Sensitive Receptors Near the Project site

Receptor	Location	Distance to Project site	L_{max} dBA(a)	L_{eq}, dBA(a)
Single-Family Residence	Tomlinson Ave. north adjacent of project Site	170	58.8	53.9
Single-Family Residence	Selma Ave./Sharon Ave., east of project site	400	54.8	48.4
Single-Family Residence	California Ave., northwest of project site	750	77.8	63.0
Single-Family Residence	Mariposa Ave., west of project site	1000	53.4	47.8

(a)Noise Measurements taken using a Sper Scientific Class I noise meter and wind screen on December 30, 2024. Weather conditions involved partial clouds with a slight breeze.
SOURCE: Riverside County

The project would result in the construction and operation of a recreational program facility. Construction would result in temporary and periodic increases in noise, which is more likely to result in annoyance and inconveniences, rather than the more serious effects such as hearing loss, sleep deprivation, and stress. While there would be a temporary increase in noise levels within the project vicinity during construction, the operation of the facility would not create any new substantial noise that would raise ambient noise levels at surrounding sensitive receptors. Exterior noise levels emitting from the new building are estimated to range from 51 and 67 dBA and the addition of this noise to the existing ambient noise levels would noise levels by less than 1dBA (0.9 dBA) at the nearest sensitive receptor.[2] This increase would be inaudible and no new permanent noise sources would occur with implementation of the project. Therefore, during the operation of the project, no impact related to a substantial permanent increase in ambient noise levels will occur.

The permanent effects from noise have the potential to result in more severe health effects, such as stress, sleep deprivation or hearing loss and use a more stringent threshold to measure the project noise compared to the existing ambient levels. However, the speech interference level is utilized in the analysis to evaluate the less severe noise effects that would occur on a temporary or periodic basis, which are primarily focused on annoyance. The speech interference level measures the degree to which background noise interferes with speech and is shown in Figure 4. Speech spoken with slightly more vocal effort can be understood well, when the noise level is 65 dBA or lower. Therefore, an interior level of 65 dBA is used as the criterion level for determining significance for construction related activities. If the noise exceeds this level, intelligibility would be lost unless vocal effort is increased or communication distance is decreased. Noise from construction activities is generated by two primary sources: (1) the noise related to active construction equipment; and (2) the transport of workers and equipment to construction sites. Project construction is expected to require the use of earthmoving and construction equipment for site prep, excavation/grading, construction, paving, and architectural coatings. Typical operating cycles for earthmoving equipment, such as excavators, graders, and bulldozers, may involve one or two minutes of full power operation followed by three to four minutes at lower power settings. Based on the intensity of use and equipment mix, noise levels during construction are estimated to have an L_{eq} of 89 dBA at 50 feet.

[2]Assuming an interior noise level reduction of 20 dBA.

The nearest off-site noise-sensitive receptor is an existing residence located approximately 170 feet north of the project site. As shown in **Table N-2**, interior noise levels at the nearest sensitive receptors would be less than the 65 dBA speech interference threshold and well below the 8-hour NIOSH level of 85 dBA Leq. This would result in a temporary increase to existing ambient noise levels and would represent an inconvenience to the nearest residential receptors who may have to elevate their voices during the noisiest periods of construction when speakers are at distances of greater than 6 feet.

Table N-2: Project Construction Noise Impacts

Receptor	Distance	Estimated Exterior Construction Noise Level (dBA, L_{eq}) (a)	Estimated Interior Construction Noise Level (dBA, L_{eq}) (b)	Speech Interference Criteria (dBA)	Potentially Significant Impact
Single-Family Residence	170	78	58	65	No
Single-Family Residence	400	71	51	65	No
Single-Family Residence	750	65	45	65	No
Single-Family Residence	1000	63	43	65	No

(a) Construction activity used an L_{eq} of 89 dBA.
(b) A 20-dBA reduction was applied for construction as identified in the Department of Housing and Urban Development Noise Notebook.
Source: Riverside County and Google.

Because construction noise is usually generated in short bursts and the heavy equipment used during site preparation moves around the construction site, this maximum noise level is not likely to occur for sustained periods of time and the temporary inconvenience would not be a substantial increase which could alter human health or safety. Therefore, a less-than-significant impact related to noise from construction activity and equipment will occur. Construction activity, although temporary at any given location, can be substantially disruptive to adjacent uses during the construction period. Construction activity is anticipated to last 6 to 9 months and will not occur during nighttime hours or on weekends when the majority of people are home. Construction noise impacts will be minimized to the extent feasible by limiting construction hours, staging vehicles and equipment away from sensitive receptors, and using equipment that is maintained and in good operating condition. These measures have been identified as Mitigation Measures **NOI-1** through **NOI-3**. With implementation of mitigation, a less-than-significant impact related to a substantial or periodic increase in noise levels will occur.

b) No significant sources of groundborne vibration or noise would be generated during the operation of the proposed project. The construction of the project would have the potential to produce short-term ground-borne vibrations. The closest land uses potentially impacted from groundborne vibration and noise (primarily from the use of heavy construction equipment) is the single-family residence located to the south of the project site. The Federal Transit Administration has identified a construction vibration damage criterion of 0.2 inches per second peak particle velocity (PPV) for non-engineered timber and masonry buildings. General construction activity typically generates a vibration level of 0.089 inches per second PPV at 25 feet. This reference level would result in a vibration level of 0.005 inches per second PPV at the closest residence. This level would be well below the construction vibration damage criteria of 0.2 inches per second PPV and would not expose people to risk of building failure. In addition, Riverside County Ordinance No. 847 places time restrictions involving heavy equipment in order to protect sensitive receptors from impact. Furthermore, it should be emphasized that demolition and construction activities are anticipated to last 18 months and would be limited to daytime activities. Mitigation Measures **NOI-1** through **NOI-3** will ensure that groundborne vibration and noise are reduced to the greatest extent feasible. Therefore, a less-than-significant impact related to groundborne vibration and noise will occur.

c) There are no private airstrips located within the vicinity of the project site. The closest airport to the project site is the Riverside Municipal Airport, which is located approximately 2.3 miles to the northeast. The project site is located beyond the existing and future 55 dBA CNEL impact zone from the Riverside Municipal Airport. Therefore, a less-than-significant impact related to exposing people residing or working in the project area to excessive noise levels.

Mitigation:

NOI-1 A construction noise coordinator shall be established prior to construction and signage will be provided on site that will identify the designated person and contact number. The coordinator shall be responsible for receiving calls from residents regarding specific construction noise-related complaints. The coordinator would then be responsible for taking appropriate measures to reduce or eliminate noise levels as appropriate.

NOI-2 Construction activity shall be prohibited during the hours of 6:00 p.m. and 7:00 a.m. and on weekends and County-designated holidays.

NOI-3 Construction equipment shall be properly maintained and equipped with mufflers and other State-required noise-attenuation devices.

Monitoring: Riverside County and Construction Contractor

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	SI	LTS	NI	AP	M-DP
XIV POPULATION AND HOUSING					
Would the project					
a) Induce substantial unplanned population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?	☐	☐	☒	☐	☐
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☒	☐	☐

Source: Project Description; RCIT (GIS Database); Riverside County General Plan Housing Element.

Findings of Fact:

a-f) The project involves the construction and operation of a recreational program facility to enhance the public services within a County owned parcel. The project will not displace people, necessitating replacement housing and is not located within a redevelopment area. The project will primarily consist of the enhancement of existing services and would not create a demand that would result in the need for new housing or interfere with the development of planned housing. Therefore, no significant impact related to population and housing will occur.

Mitigation: None

Monitoring: None

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	SI	LTS	NI	AP	M-DP
XV PUBLIC SERVICES					
Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:					
a) Fire Protection?	☐	☒	☐	☐	☐
b) Police Protection?	☐	☒	☐	☐	☐
c) Schools?	☐	☒	☐	☐	☐
d) Parks?	☐	☒	☐	☐	☐
e) Other public facilities	☐	☒	☐	☐	☐

Source: County of Riverside Fire Department, Google Earth.

Findings of Fact:

a) Development of the project would not incrementally increase demand for fire protection services, but not to the degree that existing fire stations could not meet the demand. The City of Riverside Fire Department provides fire protection and fire suppression services to the Project area. The nearest station is located approximately one mile southeast of the Project site at 9449 Andrew Street, Riverside, California. The project site layout, including provisions for emergency vehicle access, would be reviewed for adequacy by the Fire Department. Therefore, the project would not require new or physically altered fire protection facilities, the construction of which could cause significant environmental impacts and a less-than-significant impact related to the provision of fire services will occur.

b) The project site is currently undeveloped, but fenced and adjacent to an existing County building. The location does not preclude or discourage unlawful activity; development of the site with a recreational program facility would not only deter trespassing through the presence of County staff and the public and keep police service demand increases to a minimum. Additionally, the proposed facility would be equipped with formal surveillance through the use of closed-circuit television, electronic monitoring, and potential security patrols, as well as informal surveillance such as architecture, landscaping, and lighting designed to minimize visual obstacles and eliminate places of concealment. Therefore, a less-than-significant impact related to the provision of police protection will occur.

c) The project does not include a residential component, so no direct increase in the local student population would occur. Operation of the proposed facility would supplement the correctional system by providing enhanced recreational program. Therefore, a less-than-significant impact related to the demand on schools will occur.

d) The project would enhance recreational program services. Impacts from construction and operation of the project are mitigated, as applicable, throughout this Initial Study. The proposed facility is not expected to pose significant health risks to the public, so the project will not create significant additional demand for libraries, health or hospital services, or other public facilities. Therefore, a less-than-significant impact related to the demand on other public facilities will occur.

Mitigation: None

Monitoring: None

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	SI	LTS	NI	AP	M-DP
XVI RECREATION					
Would the project					
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated??	☐	☐	☒	☐	☐
b) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☒	☐	☐

Source: RCIT (GIS Database); Ord. No. 460 Section 10.35 (Regulating the Division of Land – Park and Recreation Fees and Dedications); Ord. No. 659 (Establishing Development Impact Fees); County of Riverside General Plan.

Findings of Fact:

a-b) The project does not include the construction or expansion of a recreational facility and does not propose to include the use of an existing park or other recreational facility. The project would be constructed on a vacant portion of a County-owned site and would not displace or create additional demand for recreational area. Therefore, no significant impact related to parks and recreation will occur.

c) According to Riverside County GIS, the project site is not within a County Service Area (CSA) or recreation and park district with a Community Park and Recreation Plan. Parks and recreational services would not be affected as a result. In addition, the project site is not subject to Quimby fees. Therefore, no significant impact related to designated recreational districts will occur.

Mitigation: None

Monitoring: None

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	SI	LTS	NI	AP	M-DP
XVII TRANSPORTATION					
Would the project					
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadways, bicycle and pedestrian facilities?	☐	☒	☐	☐	☐
b) Conflict or be inconsistent with CEQA Guidelines Section 15064.3 subdivision (b)?	☐	☒	☐	☐	☐
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment?	☐	☐	☒	☐	☐
d) Result in inadequate emergency access?	☐	☐	☒	☐	☐

Findings of Fact:

a-b) The Regional Transportation Plan (RTP) is a multi-modal, long-range planning document and includes programs and policies for congestion management, transit, bicycles and pedestrians, roadways, freight, and finances. The RTP is prepared every three years by SCAG and reflects the current future horizon based on a 20-year projection of needs. Urbanized areas such as Riverside County are required by State law to adopt a Congestion Management Plan (CMP). The goals of the CMP are to reduce traffic congestion and to provide a mechanism for coordinating land use development and transportation improvement decisions. The Riverside County Congestion Management Program (CMP) is updated every two years in accordance with Proposition 111. The purpose of a CMP is to prompt reasonable growth management programs that would more effectively utilize new and existing transportation funds, alleviate traffic congestion and related impacts, and improve air quality. Local agencies are required to establish minimum level of service (LOS) thresholds in their general plans and conduct traffic impact assessments on individual development projects. Deficiency plans must be prepared when a development project would cause LOS F on non-exempt CMP roadway segments. The deficiency plans outline specific mitigation measures and a schedule for mitigating the deficiency.

The construction schedule for this project is estimated to be 320 working days. Construction traffic includes a mix of light and heavy vehicles corresponding to workers and construction trucks. Construction of the project would occur in six phases: demolition, site preparation, grading, building construction, paving, and architectural coating. The summary of construction activity is presented in **Table T-1**. Construction trip generation estimates are based on the anticipated construction schedule and phasing. Typical construction work schedules are expected to be during daylight hours only, with the arrival of construction workers occurring before the morning peak commute period and departures before the evening peak period. Truck and delivery activity to and from the site would also occur predominantly outside the peak commute periods. **Table T-2** estimates that the daily construction traffic would range from about 2 vehicles per day to about 18 vehicles per day assuming traffic is evenly spread over the working days of each phase. These are conservative assumptions assuming no carpooling of construction workers (that is all workers arrive in their individual vehicles). If only half of the workers arrive and depart pre-commute periods in the morning and evening, then the site generated traffic occurring in the peak period is about 9 trips. Construction activity is not anticipated to generate more than 18 trips during the AM or PM peak hour.

Table T-1: Summary of Construction Activity

Phase	Duration (days)	Crew	Equipment
Demolition	10	8	Concrete Industrial Saws/Rubber Tired Dozer/Tractor/Loader/Backhoe
Site Prep	10	10	Grader, Tractor/Loader/Backhoe
Grading	45	15	Excavator, Grader, Dozer, Backhoe (2)
Building Construction	240	40	Tractor/Loader/Backhoe Crane, Forklifts (2), Generator Sets (3), Backhoe,
Paving	10	15	Cement Mixer, Paver, Paving Equipment, Roller, Backhoe
Architectural Coating	5	10	Air Compressors

Source: Construction Contractor, CalEEMod.

Table T-2: Estimated Construction Daily Trip Generation

Phase	Duration (days)	Number of Workers	Maximum Truck Trips	Total Trips
Demolition	10	8	4	12
Site Prep	10	10	4	14
Grading	45	15	10	40
Building Construction	240	40	5	50
Paving	10	15	8	38
Architectural Coating	5	5	2	12

Source: CalEEMod, Construction Contractor Assumptions.

The project would provide services that would enhance the existing facility and would not increase the number or capacity of customers served. There would be a small increase in the number of employees (15), which would result in a maximum of 15 trips in the peak hours. Based on this operational plan, the project passes the screening methodology which does not require a Traffic Impact Assessment or more detailed VMT analysis. Therefore, a less-than-significant impact related to the performance of the circulation system will occur.

c) The project would not alter existing roadways and would use the same two existing access points along County Farm Road. The interior access of the project site would be modified/paved to facilitate circulation, but these improvements would not have an effect on the surrounding roadway network. As a result, the project would not create any hazardous conditions to local roadways. Therefore, a less-than-significant impact related to the creation of hazardous roadway conditions will occur.

d) Fire and emergency access is provided in compliance with the Uniform Fire Code. The project does not propose any action that would negatively affect emergency access to and from the site beyond the existing condition. Therefore, a less-than-significant impact related to emergency access will occur.

Mitigation: None

Monitoring: None

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	SI	LTS	NI	AP	M-DP
XVIII 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 the local register of historical resources as defined in Public Resources Code Section 5020.100? or	☐	☐	☒	☐	☐
(ii) A resource determined by the lead agency in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe	☐	☐	☒	☐	☐

Findings of Fact:

a) Chapter 532, Statutes of 2014 (i.e., AB 52), requires Lead Agencies evaluate a project's potential to impact "tribal cultural resources." Such resources include "[s]ites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American Tribe that are eligible for inclusion in the California Register of Historical Resources or included in a local register of historical resources." AB 52 also gives Lead Agencies the discretion to determine, supported by substantial evidence, whether a resource qualifies as a "tribal cultural resource." Also per AB 52 (specifically PRC 21080.3.1), Native American consultation is required upon request by a California Native American tribe that has previously requested that the County provide it with notice of such projects. Pursuant to AB 52, the County notified the relevant tribes of the project on December 23, 2024. Two tribes, the Pechanga Band of Luiseno Indians and Soboba Band of Luiseno Indians provided a response requesting consultation. Government-to-government consultation pursuant to AB 52 was initiated on January 20, 2025 and concluded June 18th 2025. County staff met to discuss project components, impacts, and mitigation requirements. During consultation meetings, it was requested that the consulting Tribes provide County staff with any issues or concerns regarding potential tribal cultural resources that may be present on the project site and vicinity. Tribes indicated that the area was culturally sensitive, and Mitigation Measures to protect against impacting tribal cultural resources were identified: Therefore, a less-than-significant impact related to an adverse change in the significance of a tribal resources will occur.

Mitigation: See Cultural Resources Mitigation Measures **CR-1** through **CR-9**

Monitoring: Tribal Monitor and Riverside County

SI=Significant Impact; LTS=Less Than Significant or Less Than Significant With Mitigation Incorporated; NI=No Impact;

AP=Analyzed in Prior EIR; M-DP=Substantially Mitigated by Uniformly Applicable Development Policies

	SI	LTS	NI	AP	M-DP
XIX UTILIITIES AND SERVICE SYSTEMS					
Would the project					
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☒	☐	☐	☐
b) Have sufficient water supplies available serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	☐	☒	☐	☐	☐
c) Result in a determination by the wastewater treatment provider which serves the or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☒	☐	☐	☐
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☒	☐	☐	☐
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☒	☐	☐	☐

Source: County of Riverside General Plan EIR, Water Resources.

Findings of Fact:

a) The project site will connect to existing utilities, including water, drainage, and electric power located beneath County Farm Road. All proposed improvements and utilities connections to drainage, electric power, water, and wastewater facilities would be installed during grading activities and required roadway frontage improvements for the project site. As a result, interconnection to the existing utilities surrounding the site would not result in substantial disturbance of native habitat or soils, or existing roadways or utilities. Therefore, a less-than-significant impact related to the relocation or construction of utilities will occur.

b) Water for the project will be provided by Riverside Public Utilities. The project would not increase the number of customers and the new facility would be limited to the enhancement of existing servicers and the approximately 15 new employees would not result in a significant increase in demand for water use. The project would be required to comply with the mandatory measures for non- residential buildings under Division 5.3, Part 11 of Title 24 (CALGreen) for both indoor and outdoor water use. Indoor water conservation measures include, but are not limited to, 1.28 gallons per flush for toilets, 0.125 gallons per flush for wall-mounted urinals, 0.5 gallons per flush for floor mounted urinals, 2 gallons per minute at 80 pounds per square inch (psi) for single showerheads, and 0.5 gallons per minute at 60 psi for lavatory faucets. Outdoor conservation measures address the amount of water use based on the amount of aggregate landscaping to comply with the County water-efficient landscape ordinance and the California Department of Water Resources Model Efficient Landscape Ordinance. Adherence to all applicable rules and regulations related to the conservation of water would ensure that no mitigation is required for the construction and operation of the project. Therefore, a less-than-significant impact related to water consumption for the project will occur.

c) As the project would not increase customers and would be limited to the addition of 15 employees, the project would not generate wastewater that grossly increases the existing generation of wastewater and necessitates the need for new or expanded facilities. Furthermore, the City of Riverside has several planned water facilities to accommodate future demand. Therefore, a less-than-significant impact related to wastewater treatment will occur.

d) According to the California Department of Resources Recycling and Recovery; the County's landfills collectively have a total capacity of approximately 2.6 million cubic yards. The County landfills are collectively at less than 30% capacity. Furthermore, the project would be regulated by federal, state and local government and would be required to comply with all statutes and regulations related to solid waste. All solid waste generated by the project would be disposed at a Riverside County permitted landfills. Any hazardous materials would be disposed of at a landfill specifically permitted to receive such waste. Therefore, a less than significant impact would occur. According to CalRecycle, solid waste generation from public/institutional uses can be approximately 0.007 pounds per square foot per day (lb/sq ft/day). Therefore, the proposed 14,506 square-foot facility would generate approximately 105 pounds of solid waste per day and is not expected to generate solid waste in excess of the remaining capacity of landfills serving the project site. Therefore, a less-than-significant impact related to solid waste treatment and capacity will occur.

e) The California Integrated Waste Management Act of 1989, also known as Assembly Bill 939 (AB939), revised the focus of solid waste management from landfill to diversion strategies such as source reduction, recycling, and composting. AB939 identified a 50 percent diversion rate goal by 2000. In 2008, Senate Bill 1016 (SB1016) was passed, which changed the way compliance is measured beginning in 2007. Compliance is the same under SB1016 as it was under AB939, except that the emphasis on program implementation is more focused. The most important aspect of compliance is program implementation. Compliance is evaluated by looking at a jurisdiction's per capita disposal rate as an indicator of how well its programs are doing to keep disposal at or below a jurisdiction's unique 50 percent equivalent per capita disposal target. The disposal rate targets for unincorporated Riverside County areas are 7.3 ppd per resident and 30.9 ppd per employee. The unincorporated County areas have 45 diversion programs implemented and the project's solid waste would be disposed of at an approved site in compliance with federal, state and county regulations and would not conflict with the applicable County Integrated Waste Management Plan. Therefore, a less-than-significant impact related to consistency with solid waste statutes and regulations will occur.

Mitigation: None

Monitoring: None

SI=Significant Impact; LTS=Less Than Significant or Less Than Significant With Mitigation Incorporated; NI=No Impact; AP=Analyzed in Prior EIR; M-DP=Substantially Mitigated by Uniformly Applicable Development Policies

	SI	LTS	NI	AP	M-DP
XX 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?	☐	☐	☒	☐	☐
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☒	☐	☐
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☒	☐	☐
d) Expose people or structures to significant risks, including downslope or downstream, flooding or landslides, as a result of runoff, post-fire instability, or drainage changes?	☐	☐	☒	☐	☐

Source: Sustainable Building Policy H-29.

Findings of Fact:

a) The project site is not located within or adjacent to a Very High Fire Hazard Severity Zone (VHFHSZ), as designated by the California Department of Forestry and Fire Protection (CalFire). The nearest VHFHSZ is located approximately 4,400 feet to the east and is separated from the project site by several tracts of residential structures. Design and construction of the project in accordance with the CBC and California Fire Code, which include design features such as ignition-resistant materials and incorporation of fire sprinklers, would minimize risk of exposure of persons or property to wildland fires.

Construction activities that could temporarily restrict vehicular traffic would incorporate appropriate measures to facilitate the passage of persons and vehicles through/around any temporary road closures in accordance with the California Fire Code. During construction, standard traffic control devices such as warning signs, warning lights, and flaggers will be utilized as applicable to minimize obstructions and ensure the safe passage of emergency vehicles as necessary for the purposes of coordinating efforts during local, State, and/or federal emergency events, including response to hazardous materials incidents. Implementation of these traffic control measures will include guidance and navigational tools throughout the project area in order to maintain traffic flow and safety during construction. The project is proposed with two access driveways off of County Farm Road that would provide entry and exit points for emergency access. Therefore, a less-than-significant impact related to the impairment of an emergency response plan will occur.

b) The project site is relatively flat and is surrounded by developed land uses, roadways,. On-site vegetation is routinely disked to reduce wildfire risks. Development of the site in accordance with the CBC and California Fire Code, which include design features such as ignition-resistant materials and incorporation of fire sprinklers, as well as hardscaping and irrigated landscaping, would reduce the risk of wildfire compared to the existing condition by removing sources of ignition currently on the site. Therefore, a less-than-significant impact related to the exacerbation of wildfire risk will occur.

c) The project would not require infrastructure to address wildfire risks and could potentially result in temporary or ongoing impacts to the environment. Therefore, a less-than-significant impact related to the installation of infrastructure for wildfire risks will occur.

d) The project site is relatively flat and not located within or adjacent to a VHFHSZ, as designated by CalFire, and land immediately upstream of the project site is generally developed. These factors would make the risk of flooding or landslides from wildfires minimal. Therefore, a less-than-significant impact related to the flooding and landslides from post wildfire instability will occur.

Mitigation: None

Monitoring: None

SI=Significant Impact; LTS=Less Than Significant or Less Than Significant With Mitigation Incorporated; NI=No Impact; AP=Analyzed in Prior EIR; M-DP=Substantially Mitigated by Uniformly Applicable Development Policies

	SI	LTS	NI	AP	M-DP
XXI MANDATORY FINDINGS OF SIGNIFICANCE					
Would the project					
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self- sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐	☐
(b) Does the project have impacts that are individually limited, but cumulatively considerable?(Cumulatively considerable means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of current projects, and the effects of probable future projects.)	☐	☒	☐	☐	☐
(c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐	☐

Source: Project Description; RCIT (GIS Database); Analyses contained herein.

Findings of Fact:

a) **Potential to Degrade Quality of Environment.** Implementation of the project will not degrade the quality of the environment. The greatest concern regarding degradation to the environment will occur during construction when non-renewable resources will be expended to construct the project. However, as indicated in the preceding analysis, construction effects would be abated to the greatest extent feasible with the implementation of mitigation measures. Therefore, a less-than-significant impact related to the degradation in quality of environment will occur.

Potential to Impact Biological Resources: Implementation of the project will not 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; or reduce the number, or restrict the range of an endangered, threatened, or rare species. The project is within WRMSHCP plan area; however, the MSHCP consistency analysis demonstrated that the project would be consistent with the provisions of the relevant habitat conservation plan. Although the site is devoid of native habitat, the project site and adjacent areas contains some trees in the landscaped areas that could provide suitable roosting and nesting habitat for a number of common and sensitive avian species protected under the federal MBTA. Implementation of Mitigation Measures **BIO-1** and **BIO-2** would require preconstruction surveys for burrowing owls and prior to the removal of any trees on the project site during the nesting season, to identify and avoid impacts to any burrowing owls or nesting birds. Therefore, less-than-significant impacts related to biological resources would occur.

Potential to Eliminate Important Periods of California History or Prehistory: As discussed in the Cultural Resources section, there would be less-than-significant impacts to resources of historical, cultural or paleontological significance. However, during construction of the proposed project, the potential accidental discovery of an unknown cultural resource could occur. Implementation of Mitigation Measures **CR-1** through **CR-9** will ensure that in the event of an accidental discovery, the proper procedures and process is in place to avoid any potential impact on a significant resource. Therefore, less-than-significant impacts related to cultural resources will occur.

b) The cumulative analysis considers the impacts of the recreational program facility in combination with potential environmental effects of related projects in the project area. Related projects, also referred to as cumulative projects, include recently completed projects, projects currently under construction, and future projects currently in development that have the potential to have a cumulative impact based on both geographic location and schedule of implementation. The geographic area affected by cumulative projects varies depending on the environmental topic. For example, construction noise impacts would be limited to areas directly affected by construction noise, while aesthetic impacts include the affected viewshed, which is location dependent, and the area affected by a project's traffic generally includes a larger street network and is dependent on the number of trips. Based on the narrow scope for the facility and nominal trip generation, this chapter considers the potential cumulative effects of the project in combination with projects within a one-half-mile radius of the project site, where any potential effects of the project could be cumulatively considerable.

Related projects considered in this analysis include those that have recently been completed, are near the start of construction, or are in planning. Schedule is particularly relevant to the consideration of cumulative construction-related impacts, since construction impacts tend to be relatively short-term. However, for planned projects, construction schedules are often conceptually estimated and can often change. Based on what is reasonably foreseeable, this analysis assumes these projects would be implemented concurrently with construction of the proposed project, for 2025-2027. A search of the City planning and permitting database indicated that there are five projects with the potential to have a cumulative effect when taken in combination with the project within the project vicinity. The related projects include a proposed public charter school with 500 students, a 1,389 square foot expansion of an existing medical office building, a replacement of a 7,000 square foot restaurant with a 2,700 square -foot fast food restaurant, a 36-bed assisted living center, and a 10,000 square-foot childcare facility. These projects are all minor in nature and are not concentrated near the project site or in proximity to each other. All of the sites would have construction activity on previously developed sites, would be limited to the existing lots as no substantial utility infrastructure would be anticipated. The combination of construction activity from the projects would not be of sufficient size to substantially create air quality, biological, cultural, noise, or other aesthetic construction effects, when combined with the proposed project, that would be cumulatively considerable. For operational effects, the proposed charter school, fast food restaurant, and childcare facility would generate additional traffic trips that would be added to the existing transportation network. However, as the proposed project would not generate a substantial number of trips and the cumulative effect of the proposed project in combination with the other related projects, would not be considerable. Based on the relatively small scale of the related projects, operation air quality, land use, and greenhouse gas effects are not anticipated to create a cumulative effect and the projects effect would not be cumulatively considerable. Operational impacts of the related projects from aesthetics, biological, cultural, noise, and public services would be site-specific and no cumulative or cumulatively considerable effect would occur from the proposed project. As described above, impacts from the project would not be significant or cumulatively considerable. Furthermore, mitigation identified would result in the project having no significant impact related to cumulative effects.

c) The project would not result in environmental effects which would cause substantial adverse effects on human beings, either directly or indirectly. Construction of the project would result in a one-time consumption of non-renewable resources needed to construct the project and would not expose people to hazardous conditions or hazardous materials, which could have a substantial adverse direct or indirect effect. Operation of the recreational program facility would not create conditions that would adversely affect the health of humans, increase risk to human safety, or affect the surrounding environment. The operation of the facility would provide increased quality of day care and pre-school services, which would be betterment for surrounding citizens of the County. Therefore, a less-than-significant impact related to direct and indirect effects on human beings will occur.

Mitigation:
None

Monitoring:
None

Source: Staff Review: Project Description

V. AUTHORITIES CITED

Alvord Unified School District; Assembly Bill 32 Global Warming Solutions Act; Assembly Bill 52 Native American Consultation; Bay Area Air Quality Management Plan CEQA Air Quality Guidelines; Building Standards Code (Title 24 California Code of Regulations); CalEEMod Air Quality Modeling; California Air Resources Board Land Use Handbook, California Air Resources Board Scoping Plan; California Alquist-Priolo Earthquake Fault Zoning Act; California Ambient Air Quality Standards; California Building Code; California Department of Conservation Farmland Mapping and Monitoring Program; California Department of Conservation Mineral Land Classification; California Department of Resources Recycling and Recovery; California Department of Toxic Substances Control Cortese List; California Department of Transportation CO Protocol; California Department of Transportation Scenic Highway Guidelines; California Environmental Quality Act Statute and Guidelines, California Health and Safety Code Section 7050.5-7054; California Integrated Waste Management Plan; California Public Resources Code 5097.98; California Uniform Fire Code; City of Riverside General Plan and Land Use Map; Federal Ambient Air Quality Standards; Federal Emergency Management Act Flood Insurance Rate Maps; Google Earth™; Harris Handbook of Acoustical Measurements and Noise Control, Speech Interference Thresholds; ITE Manual; On-site Inspection; MTGL Geotechnical Investigation; RCIT GIS Database; Riverside County Board Policy H-29 Sustainable Building Policy; Riverside County Climate Action Plan; Riverside County Congestion Management Program; Riverside County General Plan; Riverside County General Plan Circulation Element; Riverside County General Plan Circulation Element, Trails, and Bike System; Riverside County Final Environmental Impact Report; Riverside County Fire Department; Riverside County Flood Control District Flood Hazard Report/Condition; Riverside County General Plan Figure C-1 "Circulation Plan"; Riverside County General Plan Figure C-5 "Airport Influence Areas"; Riverside County General Plan Figure C-6 "Trails and Bikeways System; Riverside County General Plan Figure C-8 "Scenic Highways"; Riverside County General Plan Figure OS-2 "Agricultural Resources"; Riverside County General Plan Figure OS-3a "Forestry Resources Western Riverside County"; Riverside County General Plan Figure OS-4a "Western Riverside County Natural Communities Vegetation"; Riverside County General Plan Figure OS-6 "Mineral Resources Area"; Riverside County General Plan Figure OS-8 "Paleontological Sensitivity"; Riverside County General Plan Figure S-1 "Mapped Faulting in Riverside County"; Riverside County General Plan Figure S-4 "Earthquake-Induced Slope Instability Map"; Riverside County General Plan Figure S-5 "Regions Underlain by Steep Slopes"; Riverside County General Plan Figure S-8 "Wind Erosion Susceptibility Map"; Riverside County General Plan Figure S-9 "Special Flood Hazard Zones"; Riverside County General Plan Figure S-10 "Dam Failure Inundation Zone"; Riverside County General Plan Figure S-11 "Wildfire Susceptibility"; Riverside County General Plan Figure S-14 "Inventory of Emergency Response Facilities"; Riverside County General Plan Housing Element; Riverside County General Plan Land Use Element; Riverside County Library System; Riverside County General Plan Noise Element; Riverside County General Plan, Riverside Extended Mountain Area Plan; Riverside County General Plan Table N-1 "Land Use Compatibility for Community Noise Exposure"; Riverside County General Plan Safety Element; Riverside County Ordinance No. 559 (Tree Protection Ordinance); Riverside County Ordinance No. 655 (Regulating Light Pollution); Riverside County Ordinance No. 847 (Regulating Noise in Riverside County); Riverside County Public and Private Airports, California; Riverside County Regional Transportation Plan; Riverside County Sheriff's Department; Riverside County Traffic Impact Study Thresholds; Riverside County Waste Management Department; Riverside Public Utilities; Riverside Unified School District; SB1016 Solid Waste Per Capita Disposal Measurement Act; SCAQMD 2016 Air Quality Management Plan; SCAQMD Attainment Status; SCAQMD Carbon Monoxide Re-designation Request and Maintenance Plan; SCAQMD CEQA Air Quality Handbook Table 6-2; SCAQMD Localized Significance Thresholds; SCAQMD Rule 403 Fugitive Dust; SCAQMD Rule 402 Nuisance; Pechanga Band of Luiseno Indians; Soboba Band of Luiseno Indians Southern California Association of Governments, Regional Transportation Plan; URS Biological Assessment, US Department of Agriculture, Soil Conservation Service Soil Surveys; US Department of Agriculture Soil Conservation Service Shrink Swell Potentials; US Department of Transportation; US Fish and Wildlife Migratory Bird Treaty Act; US Geological Survey Preliminary Geologic Map of the Riverside West 7.5' Quadrangle; Western Riverside County Multi-Species Habitat Conservation Plan; and Williamson Act Land Map.

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APPENDIX A

MITIGATION MONITORING AND REPORTING PROGRAM

RIVERSIDE COUNTY YOUTH TREATMENT AND EDUCATION CENTER EXPNSION PROJECT

Riverside, California

June 2025

MITIGATION MONITORING AND REPORTING PROGRAM

RIVERSIDE COUNTY YOUTH TREATMENT AND EDUCATION CENTER EXPNSION PROJECT

Riverside, California

June 2025

The project will design and construct an approximately 14,506 square-foot building on the same property as the YTEC facility at 10000 County Farm Road, Riverside, California 92503. The project will enhance the recreational program services and will include a public lobby, a classroom, a dental office, an automotive vocational training shop, a welding vocational training lab, staff offices, indoor recreational area, exterior landscape, hardscape, security, lighting, fencing, and fenced access road and site improvements. The improvements would enhance recreational program services at the existing YTEC facility, would not add additional beds or increase the capacity of detained youth.

The project would also involve some utility alterations to provide service to the new building. Construction is anticipated to start in early 2026 and would be completed by the end of 2027. The implementation of the project would not add detained youth or create additional capacity. Mitigation measures were identified in the project's Initial Study and incorporated into the project to reduce potential environmental impacts to a level determined to be less than significant.

Section 21081.6 of the California Public Resources Code requires a Lead Agency to adopt a *reporting or monitoring program for the changes made to the project or conditions of project approval, adopted in order to mitigate or avoid significant effects on the environment.* Section 15097 of the *State CEQA Guidelines* summarizes the criteria required for mitigation monitoring and/or reporting. This Mitigation Monitoring and Reporting Program (MMRP) has been compiled to verify implementation of adopted mitigation measures.

The County of Riverside Office of Economic Development (EOD) will have the responsibility for implementing the measures and various public agencies will have the primary responsibility for enforcing, monitoring, and reporting the implementation of the mitigation measures. This MMRP is set up as a Documentation of Compliance Report, with space for confirming that mitigation measures have been implemented. The required mitigation measures are listed and categorized by impact area, with an accompanying identification of the following:

- **Mitigation Measure**
- **Monitoring Phase** – the phase of the project during which the mitigation measure shall be implemented and monitored:
- **Enforcement Agency** – the agency with the authority to enforce the mitigation measure
- **Monitoring Agency** – the agency to which reports involving feasibility, compliance, and implementation are made
- **Action Indicating Compliance**
- **Verification of Compliance**, which will be used during the reporting/monitoring

Mitigation Measure	Monitoring Phase	Enforcement Agency	Monitoring Agency	Action Indicating Compliance	Compliance Verification	
					Initials	Date
BIOLOGICAL RESOURCES						
BIO 1: A qualified biologist shall conduct a pre-construction nesting bird survey within three days prior to vegetation- or ground-disturbing activities if such activities are proposed during the nesting season (February 1 through September 15). The survey shall include 100 percent coverage of the project site. If no active avian nests are found during survey, no further work in this regard is required. If an active avian nest is discovered during survey, vegetation- and/or ground-disturbing activities shall be redirected around the nest(s). As determined by Riverside County, the qualified biologist shall delineate the boundaries of any such buffer area. The buffer shall be sufficient to ensure that nesting behavior is not adversely affected by the vegetation- and/or ground-disturbing activity. If such activities are delayed or suspended for more than seven days after the survey, the site shall be resurveyed. Should eggs or fledglings be discovered in any native nest, these resources cannot be disturbed until the young have hatched and fledged (matured to a stage that they can leave the nest on their own).	Pre-Construction:	California Department of Fish and Wildlife	Qualified Biologist	Completion of burrowing owl survey; establishment of buffer zone if active nest identified on-site. In the event of an active nest, the biologist will periodically monitor until the nest is inactive		

BIO 2: A qualified biologist shall conduct a pre-construction burrowing owl/Initial Take and Avoidance Survey within 30 days prior to the beginning of project construction to determine if the project site contains suitable burrowing owl habitat and to avoid any potential impacts to the species. The survey shall be performed pursuant to the Riverside County Multiple Species Habitat Conservation Plan (MSHCP) 30-day Pre-Construction Burrowing Owl Survey Guidelines (revised August 17, 2006) and include 100 percent coverage of the project site. If the survey reveals no suitable habitat for burrowing owl is present, no further work in this regard is required. If active burrowing owl burrows are determined to be present, the burrow(s) shall be flagged, and a 160-foot buffer shall be established around the burrow(s) during the non-breeding season (September 1 to January 30) and a 250-foot buffer shall be created during the breeding season (February 1 to August 31). As determined by Riverside County (County), the buffer limits may vary depending on burrow location and burrowing owl sensitivity to human activity. The buffer(s) shall be sufficient to ensure that nesting behavior is not adversely affected by the construction activity. A monitoring report shall be prepared and submitted to the County for review and approval prior to reinitiating construction activities within the buffer area(s), and construction within the designated buffer area(s) shall not proceed until written authorization is received from California Department of Fish and Wildlife (CDFW). The monitoring report shall summarize the results of the owl monitoring, describe construction restrictions currently in place, and confirm that construction activities can proceed within the buffer area(s) without jeopardizing the survival of the owl(s). Any relocation efforts must be coordinated with the CDFW. This measure shall be implemented to the satisfaction of Riverside County and, as applicable, the CDFW.	Pre-Construction: 30 days prior to construction work or vegetation removal between February 1 and August 31.	California Department of Fish and Wildlife	Qualified Biologist	Completion of nesting bird survey; establishment of buffer zone if birds identified on-site		

Mitigation Measure	Monitoring Phase	Enforcement Agency	Monitoring Agency	Action Indicating Compliance	Compliance Verification	
					Initials	Date
CULTURAL RESOURCES						
CR-1: Prior to the issuance of a grading permit, the Developer shall retain a professional archaeologist to conduct monitoring of all grading and trenching activities which may impact native soils on the project site. The project Archaeologist shall have the authority to temporarily halt and redirect earthmoving activities within a minimum of 100 feet of the affected area in the event that suspected archaeological resources are unearthed during project construction. The project archeologist and the Consulting Tribes shall attend a pre-grading meeting with the County, the construction manager and any contractors and will conduct a mandatory Cultural Resources Worker Sensitivity Training to those in attendance. The Training will include a brief review of the cultural sensitivity of the project and the surrounding area; what resources could potentially be identified during earthmoving activities; the requirements of the monitoring program; the protocols that apply in the event inadvertent discoveries of cultural resources are identified, including who to contact and appropriate avoidance measures until the find(s) can be properly evaluated; and any other appropriate protocols. All new construction personnel that will conduct earthwork or grading activities that begin work on the project following the initial Training must take the Cultural Sensitivity Training prior to beginning work and the project archaeologist and Consulting Tribes shall make themselves available to provide the training on an as-needed basis.	Pre-construction	County FM	County FM, Qualified Archaeologist	Contract with Archaeologist for Monitoring		
CR-2: Prior to the issuance of a grading permit, the Developer shall secure agreements with the Pechanga Band of Luiseño Indians (Pechanga) and Soboba Band of Luiseño Indians (Soboba) for tribal monitoring. The County is also required to provide a minimum of 30 days advance notice to Pechanga and Soboba of all grading and trenching activities which may impact native soils. The Pechanga and Soboba Tribal Representatives shall have the authority to temporarily halt and redirect earth moving activities within a minimum of 100 feet of the affected area in the event that suspected archaeological resources are unearthed during project construction. Upon discovery of in-situ archaeological resources, the parties shall promptly meet and confer, limit the closure area to the smallest reasonable area (including the possibility of reducing the stop-work radius to 50 feet after initial evaluation), and engage in good faith collaboration to execute the protocols outlined in the Cultural Resource Monitoring Plan for handling such unearthed resources.	Pre-construction	County FM	County FM, project Archaeologist Tribal Monitor	Tribal Monitoring Agreement		

Mitigation Measure	Monitoring Phase	Enforcement Agency	Monitoring Agency	Action Indicating Compliance	Compliance Verification	
					Initials	Date
CULTURAL RESOURCES						
CR-3: Prior to the issuance of the grading permit, a Cultural Resource Monitoring Plan (CRMP) is to be developed and provided to the Consulting Tribes for review. The project Archaeologist, in consultation with the Consulting Tribe, the contractor, and the County, shall develop a CRMP to address the details, timing and responsibility of all activities on the project site that may impact archaeological and tribal cultural resources. A Consulting Tribe is defined as a Tribe that initiated the AB 52 tribal consultation process for the project, has not opted out of the AB52 consultation process, and has completed AB 52 consultation with the County as provided for in Cal Pub Res Code Section 21080.3.2(b)(1) of AB52. Details in the Plan shall include: a. project description and location; b. project grading and development scheduling; c. Roles and responsibilities of individuals on the project; d. The pre-grading meeting and Cultural Resources Worker Sensitivity Training details; e. The protocols and stipulations that the contractor, County, Consulting Tribe (s) And project archaeologist will follow in the event of inadvertent cultural resources discoveries, including any newly discovered cultural resource deposits that shall be subject to a cultural resource's evaluation; f. The type of recordation needed for inadvertent finds and the stipulations of recordation of sacred items; g. Contact information of relevant individuals for the project.	Pre-construction	County FM	County FM, Qualified Archaeologist	Contract with Archaeologist for Monitoring		
CR-4: The County shall verify that the following note is included on the Grading Plan: "If any suspected archaeological resources are discovered during ground–disturbing activities and the project Archaeologist or Tribal Representatives are not present, the construction supervisor is obligated to halt work in a 100-foot radius around the find and call the project Archaeologist and the Tribal Representatives to the site to assess the significance of the find."	Pre-construction	County FM	County FM,	Approval of grading permit		

Mitigation Measure	Monitoring Phase	Enforcement Agency	Monitoring Agency	Action Indicating Compliance	Compliance Verification	
					Initials	Date
CULTURAL RESOURCES						
CR-5: If during ground disturbance activities, unanticipated unique archaeological resources are inadvertently discovered that were not assessed by the archaeological report(s) and/or environmental assessment conducted prior to project approval, the following procedures shall be followed. This mitigation shall apply to inadvertent discoveries of resources, including those with multiple artifacts in close association with each other, but may include fewer artifacts if the area of the find is determined to be of significance due to its sacred or cultural importance as determined in consultation with the Consulting Tribe. a. All ground disturbance activities within 100 feet of the discovered resources shall be halted until a meeting is convened between the Developer, the project Archaeologist, the Pechanga and Soboba Tribal Representative, and the County of Riverside Facilities Management to discuss the significance of the find. b. At the meeting, the significance of the discover(ies) shall be discussed and after consultation with the Pechanga and Soboba Tribal Representative and the project Archaeologist, a decision shall be made, with the concurrence of the County of Riverside, as to the appropriate process (documentation, recovery, avoidance, etc.) for the resources, including whether the stop-work radius from the discovered resource can be reduced to 50 feet. c. Further ground disturbance, including but not limited to, grading and trenching, shall not resume within the determined stop-work radius area of the discovery until the protocols for handling the resources has been established by all parties pursuant to the CRMP. Work shall be allowed to continue outside of the stop-work radius area and shall be monitored by Pechanga and Soboba Tribal Monitors, if needed. d. Treatment and avoidance protocols for the newly discovered resources shall be consistent with the Cultural Resources Management Plan and Monitoring Agreements entered into with Pechanga and Soboba. These protocols may include avoidance of the resources through project design, in-place preservation of resources located in native soils and/or re-burial on the project site with procedures so they are not subject to further disturbance in perpetuity as identified in Non-Disclosure of Reburial Condition/Mitigation Measures. e. If the find is determined to be unique and significant and avoidance of the area cannot be feasibly achieved, a Phase III data recovery plan shall be prepared by the project Archeologist, in consultation with the Consulting Tribes, and shall be submitted to the County for their review and approval prior to implementation of the said plan.	Grading/ Excavation	County FM	County FM, Qualified Archaeologist	CRMP		

Mitigation Measure	Monitoring Phase	Enforcement Agency	Monitoring Agency	Action Indicating Compliance	Compliance Verification	
					Initials	Date
CULTURAL RESOURCES						
f. Pursuant to Calif. Pub. Res. Code § 21083.2(b) avoidance is the preferred method of preservation for archaeological resources and cultural resources. If the Developer, project Archaeologist and the Consulting Tribes cannot agree on the significance of or the treatment for the archaeological or cultural resources, these issues shall be presented to the County of Riverside for decision. The County of Riverside shall make the determination based on the provisions of the California Environmental Quality Act with respect to archaeological resources, recommendations of the project Archeologist and shall consider the cultural and religious principles and practices of the Consulting Tribes. Notwithstanding any other rights available under the law, the decision of the County of Riverside shall be appealable to the County Board of Supervisors. Evidence of compliance with this mitigation measure, if a significant archaeological resource is found, shall be provided to County of Riverside upon the completion of a treatment plan and final report detailing the significance and treatment finding.						
CR-6: In the event that Native American tribal cultural resources are discovered during the course of grading (inadvertent discoveries), the following procedures shall be carried out for final disposition of the discoveries: a) One or more of the following treatments, in order of preference, shall be employed with Pechanga and Soboba. Evidence that these procedures have been following shall be provided to the County of Riverside: a. Preservation-In-Place of the tribal cultural resources, if feasible. Preservation in place means avoiding the resources, leaving them in the place where they were found with no development affecting the integrity of the resources. b. Reburial of the resources on the project property. The measures for reburial shall include, at least, the following: Measures and provisions to protect the future reburial area from any future impacts in perpetuity. Reburial shall not occur until all legally required cataloging and basic recordation have been completed, with an exception that sacred items, burial goods, and Native American human remains are excluded. Any reburial process shall be culturally appropriate. Listing of contents and location of the reburial shall be included in the confidential Phase IV report. The Phase IV Report shall be filed with the County under a confidential cover and not subject to Public Records Request.	Grading/ Excavation	County FM	County FM, Project Archaeologist Tribal Monitor	CRMP		

Mitigation Measure	Monitoring Phase	Enforcement Agency	Monitoring Agency	Action Indicating Compliance	Compliance Verification	
					Initials	Date
CULTURAL RESOURCES						
c. If preservation in place or reburial is not feasible then the resources shall be curated in a culturally appropriate manner at a Riverside County curation facility that meets State Resources Department Office of Historic Preservation Guidelines for the Curation of Archaeological Resources ensuring access and use pursuant to the Guidelines. The collection and associated records shall be transferred, including title, and are to be accompanied by payment of the fees necessary for permanent curation. Evidence of curation in the form of a letter from the curation facility stating that subject archaeological materials have been received and that all fees have been paid, shall be provided by the landowner to the County of Riverside. There shall be no destructive or invasive testing on sacred items, burial goods, and Native American human remains. Results concerning finds of any inadvertent discoveries shall be included in the Phase IV monitoring report. Evidence of compliance with this mitigation measure, if a significant archaeological resource is found, shall be provided to County of Riverside upon the completion of a treatment plan and final report detailing the significance and treatment finding.						
CR-7: If human remains are discovered, no further disturbance shall occur within a minimum of 100 feet of the affected area until the County Coroner has made necessary findings as to origin. If the County Coroner determines that the remains are potentially Native American, the California Native American Heritage Commission shall be notified within 24 hours of the published finding to be given a reasonable opportunity to identify the "most likely descendant". The "most likely descendant" shall then make recommendations, and engage in consultations concerning the treatment of the remains (California Public Resources Code 5097.98). (GP Objective 23.3, CEQA).	Grading/ Excavation	County FM	County FM, Project Archaeologist	Sacred and burial sites preserved in place, as feasible		
CR-8 It is understood by all parties that unless otherwise required by law, the site of any reburial of Native American human remains or associated grave goods shall not be disclosed and shall not be governed by public disclosure requirements of the California Public Records Act. The Coroner, pursuant to the specific exemption set forth in California Government Code 6254 (r), parties, and Lead Agencies, will be asked to withhold public disclosure information related to such reburial, pursuant to the specific exemption set forth in California Government Code 6254 (r).						

Mitigation Measure	Monitoring Phase	Enforcement Agency	Monitoring Agency	Action Indicating Compliance	Compliance Verification	
					Initials	Date
CULTURAL RESOURCES						
CR-9 Upon completion of ground-disturbing activities that impact native soils, the project Archeologist shall submit two (2) copies of the Phase IV Cultural Resources Monitoring Report that complies with County of Riverside requirements for such reports. The Phase IV report shall include evidence of the required cultural/historical sensitivity training for the construction staff held during the pre-grade meeting. Portions of the Phase IV Report may be confidential. The County shall review the reports to determine adequate treatment compliance. Provided the reports are adequate, the County shall clear this condition. Once the report(s) are determined to be adequate, two (2) copies shall be submitted to the Eastern Information Center (EIC) at the University of California Riverside (UCR) and one (1) copy shall be submitted to the Pechanga and Soboba Cultural Resources Departments.	Post construction	County FM	County FM, Qualified Archaeologist	CRMP		
GEOLOGY AND SOILS						
GEO-1: In the event that any paleontological resources are unintentionally discovered during project construction, construction activities in the vicinity of the resource shall immediately halt and/or be moved to other parts of the project site. A Riverside County-qualified paleontologist shall be retained by the County or their designee to determine the significance of the resource, if any. If the find is determined to be significant, avoidance or other appropriate measures including extraction and relocation, as recommended by the paleontologist, shall be implemented.						
NOISE						
NOI-1: A construction noise coordinator shall be established prior to construction and signage will be provided on site that will identify the designated person and contact number. The coordinator shall be responsible for receiving calls from residents regarding specific construction noise-related complaints. The coordinator would then be responsible for taking appropriate measures to reduce or eliminate noise levels as appropriate.	Pre-construction	County FM, Construction Contractor	County FM, Construction Contractor	Documentation of Coordinator and evidence of signage		
NOI-2: Construction activity shall be prohibited during the hours of 6:00 p.m. and 7:00 a.m. and on weekends and County-designated holidays.	Grading and Construction	County FM, Construction Contractor	County FM, Construction Contractor	Periodic inspections and monitoring during construction		
NOI-3: Construction equipment shall be properly maintained and equipped with mufflers and other State-required noise-attenuation devices.	Grading and Construction	County FM, Construction Contractor	FM, Construction Contractor	Periodic inspections and monitoring during construction		

APPENDIX B

AIR QUALITY AND GREENHOUSE GASES

YTEC Expansion Project

Riverside County, California

January 2025

2019 AIR QUALITY
SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

2019

Source/Receptor Area No.	Location	Station No.	Carbon Monoxide [a]			Ozone [b]										Nitrogen Dioxide [c]				Sulfur Dioxide [d]		
										No. Days Standard Exceeded												
			No. Days of Data	Max Conc. in ppm 1-hour	Max Conc. in ppm 8-hour	No. Days of Data	Max. Conc. in ppm 1-hour	Max. Conc. in ppm 8-hour	Fourth High Conc. ppm 8-hour	Old Federal > 0.124 ppm 1-hour	Current Federal > 0.070 ppm 8-hour	2008 Federal > 0.075 ppm 8-hour	1997 Federal > 0.084 ppm 8-hour	Current State > 0.09 ppm 1-hour	Current State > 0.070 ppm 8-hour	No. Days of Data	Max Conc. in ppb 1-hour	98th Percentile Conc. ppb 1-hour	Annual Average AAM Conc. ppb	No. Days of Data	Max. Conc. in ppb 1-hour	99th Percentile Conc. ppb 1-hour
LOS ANGELES COUNTY																						
1	Central LA	87	364	2.0	1.6	364	0.085	0.080	0.065	0	2	1	0	0	2	365	69.7	55.5	17.7	365	10.0	2.3
2	Northwest Coastal LA County	91	364	1.9	1.2	360	0.086	0.075	0.064	0	1	0	0	0	1	365	48.8	43.0	9.7	--	--	--
3	Southwest Coastal LA County	820	364	1.8	1.3	365	0.082	0.067	0.060	0	0	0	0	0	0	363	56.6	48.9	9.5	365	8.2	3.7
4	South Coastal LA County 1	72	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4	South Coastal LA County 2	77	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4	South Coastal LA County 3	33	340	3.0	2.1	343	0.074	0.064	0.055	0	0	0	0	0	0	255	71.8	56.3	16.2	344	8.9	7.7
4	I-710 Near Road##	32	--	--	--	--	--	--	--	--	--	--	--	--	--	365	97.7	78.3	22.8	--	--	--
6	West San Fernando Valley	74	363	2.6	2.2	267	0.101	0.087	0.076	0	6	4	1	1	6	365	64.4	43.8	10.7	--	--	--
8	West San Gabriel Valley	88	361	1.5	1.2	302	0.120	0.098	0.086	0	12	8	4	4	12	361	59.1	50.6	13.2	--	--	--
9	East San Gabriel Valley 1	60	361	1.6	1.1	362	0.123	0.094	0.090	0	39	21	10	34	39	365	59.7	49.8	13.7	--	--	--
9	East San Gabriel Valley 2	591	360	1.2	0.8	356	0.130	0.102	0.097	1	58	38	17	46	58	360	52.9	36.5	8.6	--	--	--
10	Pomona/Walnut Valley	75	364	1.7	1.3	365	0.096	0.083	0.077	0	12	4	0	1	12	365	64.4	57.8	17.9	--	--	--
11	South San Gabriel Valley	85	364	1.9	1.5	364	0.108	0.091	0.073	0	7	3	1	5	7	364	61.8	55.1	17.6	--	--	--
12	South Central LA County	112	363	3.8	3.2	363	0.100	0.079	0.064	0	1	1	0	1	1	363	70.0	52.8	14.1	--	--	--
13	Santa Clarita Valley	90	359	1.5	1.2	359	0.128	0.106	0.101	1	56	42	17	34	56	357	46.3	35.3	9.1	--	--	--
ORANGE COUNTY																						
16	North Orange County	3177	364	2.6	1.2	364	0.107	0.094	0.074	0	6	3	1	2	6	362	59.4	44.5	12.1	--	--	--
17	Central Orange County	3176	363	2.4	1.3	365	0.096	0.082	0.064	0	1	1	0	1	1	365	59.4	49.2	12.7	--	--	--
17	I-5 Near Road##	3131	350	2.6	1.6	--	--	--	--	--	--	--	--	--	--	365	59.4	50.4	19.2	--	--	--
18	North Coastal Orange County	3195	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
19	Saddleback Valley	3812	363	1.0	0.8	365	0.106	0.087	0.082	0	11	7	1	3	11	--	--	--	--	--	--	--
RIVERSIDE COUNTY																						
22	Corona/Norco Area	4155	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
23	Metropolitan Riverside County 1	4144	364	1.5	1.2	360	0.123	0.096	0.092	0	59	37	15	24	59	365	56.0	52.8	13.5	365	1.8	1.4
23	Metropolitan Riverside County 3	4165	364	2.0	1.3	365	0.131	0.099	0.096	2	64	42	19	26	64	346	56.0	49.4	12.2	--	--	--
24	Perris Valley	4149	--	--	--	365	0.118	0.095	0.090	0	64	38	13	26	64	--	--	--	--	--	--	--
25	Lake Elsinore	4158	364	1.6	0.7	365	0.108	0.089	0.079	0	28	11	1	4	28	365	38.0	33.3	6.8	--	--	--
26	Temecula Valley	4031	--	--	--	365	0.091	0.079	0.074	0	6	2	0	0	6	--	--	--	--	--	--	--
29	San Gorgonio Pass	4164	--	--	--	365	0.119	0.096	0.093	0	59	37	11	24	59	364	56.0	43.3	7.5	--	--	--
30	Coachella Valley 1**	4137	360	1.3	0.7	364	0.100	0.084	0.083	0	34	17	0	5	34	361	41.4	32.2	7.3	--	--	--
30	Coachella Valley 2**	4157	--	--	--	365	0.103	0.087	0.083	0	43	15	2	4	43	--	--	--	--	--	--	--
30	Coachella Valley 3**	4032	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SAN BERNARDINO COUNTY																						
32	Northwest San Bernardino Valley	5175	337	1.5	1.1	338	0.131	0.107	0.097	1	52	34	13	31	52	328	57.9	46.4	14.0	--	--	--
33	I-10 Near Road##	5035	364	1.5	1.1	--	--	--	--	--	--	--	--	--	--	346	86.3	70.5	27.6	--	--	--
33	CA-60 Near Road##	5036	--	--	--	--	--	--	--	--	--	--	--	--	--	364	87.7	73.9	29.0	--	--	--
34	Central San Bernardino Valley 1	5197	359	2.7	1.0	364	0.124	0.109	0.097	0	67	46	20	41	67	365	76.1	57.7	17.2	358	2.4	1.9
34	Central San Bernardino Valley 2	5203	352	1.3	1.1	354	0.127	0.114	0.103	2	96	73	37	63	96	352	59.3	46.3	14.3	--	--	--
35	East San Bernardino Valley	5204	--	--	--	364	0.137	0.117	0.106	8	109	88	63	73	109	--	--	--	--	--	--	--
37	Central San Bernardino Mountains	5181	--	--	--	365	0.129	0.112	0.106	2	99	79	44	53	99	--	--	--	--	--	--	--
38	East San Bernardino Mountains	5818	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	DISTRICT MAXIMUM[e]			3.8	3.2		0.137	0.117	0.106	8	109	88	63	73	109		97.7	78.3	29.0		10.0	7.7
	SOUTH COAST AIR BASIN[f]			3.8	3.2		0.137	0.117	0.106	10	126	101	71	82	126		97.7	78.3	29.0		10.0	7.7

*Incomplete Data ** Salton Sea Air Basin -- Pollutant not monitored ppm - Parts Per Million parts of air, by volume ppb – Parts Per Billion parts of air, by volume

AAM = Annual Arithmetic Mean ## Four near-road sites measuring one or more of the pollutants $PM_{2.5}$, CO and/or NO_2 are operating near freeways: I-5, I-10, I-710 and CA-60.

a) - The federal and state 8-hour CO standards (9 ppm and 9.0 ppm) and the federal and state 1-hour CO standards (35 ppm and 20 ppm) were not exceeded.

b) - The current (2015) O_3 federal standard was revised effective December 28, 2015.

c) - The NO_2 federal 1-hour standard is100 ppb and the federal annual standard is 53.4 ppb. The state 1-hour and annual standards are 0.18 ppm and 0.030 ppm.

d) - The federal SO_2 1-hour standard is 75 ppb (0.075 ppm). The state 1-hour SO standard is 0.25 ppm (250 ppb) and the state 24-hour SO_2 standard is 0.04 ppm (40 ppb).

e) - District Maximum is the maximum value calculated at any station in the South Coast AQMD Jurisdiction

f) - Concentrations are the maximum value observed at any station in the South Coast Air Basin. Number of daily exceedances are the total number of days that the indicated concentration is exceeded at any station in the South Coast Air Basin.

For information on the current standard levels and most recent revisions please refer to "Appendix II – Current Air Quality" of the "2016 AQMP" which can be accessed at https://www.aqmd.gov/home/air-quality/clean-air-plans/air-quality-mgt-plan/final-2016-aqmp . Maps showing the source/receptor area boundaries can be accessed via the Internet by entering your address in the South Coast AQMD Current Hourly Air Quality Map, at https://www.aqmd.gov/aqimap. A printed map or copy of the AQMP Appendix II is also available free of charge from the South Coast AQMD Public Information Center at 1-800-CUT-SMOG.

2019 AIR QUALITY
SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

2019

Source/Receptor Area No.	Location	Station No.	Suspended Particulates PM10 e)+					Fine Particulates PM2.5 g)#					Lead i)++		PM10 Sulfate j)	
			No. Days of Data	Max. Conc. in µg/m³ 24-hour	No. (%) Samples Exceeding Standards Federal > 150 µg/m³ 24-hour	No. (%) Samples Exceeding Standards State > 50 µg/m³ 24-hour	Annual. Average Conc. f) (AAM) µg/m³	No. Days of Data	Max. Conc. in µg/m³ 24-hour	98th Percentile Conc. in µg/m³ 24-hour	No (%) Samples Exceeding Federal Std. > 35 µg/m³ 24-hour	Annual. Average Conc. h) (AAM) µg/m³	Max. Monthly Average Conc. µg/m³	Max. 3-Months Rolling Averages µg/m³	No. Days of Data	Max. Conc. in µg/m³ 24-hour
LOS ANGELES COUNTY																
1	Central LA	087	9	62	0	3 (6%)	25.5	360	43.50	28.30	1 (0.3%)	10.85	0.012	0.010	55	5.1
2	Northwest Coastal LA County	091	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3	Southwest Coastal LA County	820	59	62	0	2 (3%)	19.2	--	--	--	--	--	0.004	0.004	--	--
4	South Coastal LA County 1	072	--	--	--	--	--	159	28.00	20.70	0	9.23	--	--	--	--
4	South Coastal LA County 2	077	60	72	0	2 (3%)	21.0	354	30.60	23.20	0	9.22	0.006	0.005	--	--
4	South Coastal LA County 3	033	58	74	0	3 (5%)	26.9	--	--	--	--	--	--	--	59	5.8
4	I-710 Near Road##	032	--	--	--	--	--	365	36.70	26.40	1 (0.3%)	10.99	--	--	--	--
6	West San Fernando Valley	074	--	--	--	--	--	118	30.00	26.30	0	9.16	--	--	--	--
8	West San Gabriel Valley	088	--	--	--	--	--	118	30.90	24.60	0	8.90	--	--	--	--
9	East San Gabriel Valley 1	060	61	82	0	4 (7%)	28.1	120	28.30	21.20	0	9.18	--	--	61	6.2
9	East San Gabriel Valley 2	591	308	97	0	3 (1%)	20.8	--	--	--	--	--	--	--	--	--
10	Pomona/Walnut Valley	075	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11	South San Gabriel Valley	085	--	--	--	--	--	119	29.60	24.40	0	10.34	0.009	0.007	--	--
12	South Central LA County	112	--	--	--	--	--	303	39.50	26.60	1 (0.3%)	10.87	0.009	0.007	--	--
13	Santa Clarita Valley	090	60	62	0	1 (2%)	18.4	--	--	--	--	--	--	--	--	--
ORANGE COUNTY																
16	North Orange County	3177	--	--	--	--	--	--	--	--	--	--	--	--	--	--
17	Central Orange County	3176	364	127	0	13 (4%)	21.9	346	36.10	23.30	3 (0.9%)	9.32	--	--	60	5.1
17	I-5 Near Road##	3131	--	--	--	--	--	--	--	--	--	--	--	--	--	--
18	North Coastal Orange County	3195	--	--	--	--	--	--	--	--	--	--	--	--	--	--
19	Saddleback Valley	3812	60	45	0	0	16.6	111	20.80	14.70	0	7.11	--	--	--	--
RIVERSIDE COUNTY																
22	Corona/Norco Area	4155	--	--	--	--	--	--	--	--	--	--	--	--	--	--
23	Metropolitan Riverside County 1	4144	120	99	0	21 (18%)	34.4	352	46.70	31.80	4 (1.1%)	11.13	0.008	0.007	121	14.6
23	Metropolitan Riverside County 3	4165	362	143	0	130 (36%)	43.1	356	46.70	36.20	9 (2.5%)	12.53	--	--	--	--
24	Perris Valley	4149	61	97	0	4 (7%)	25.3	--	--	--	--	--	--	--	--	--
25	Elsinore Valley	4158	301	93	0	5 (2%)	18.7	--	--	--	--	--	--	--	--	--
26	Temecula Valley	4031	--	--	--	--	--	--	--	--	--	--	--	--	--	--
29	San Gorgonio Pass	4164	56	63	0	2 (4%)	17.9	--	--	--	--	--	--	--	--	--
30	Coachella Valley 1**	4137	346	75	0	5 (1%)	19.5	119	15.50	12.40	0	6.05	--	--	--	--
30	Coachella Valley 2**	4157	361	141	0	27 (7%)	27.8	118	15.00	13.50	0	7.37	--	--	119	3.2
30	Coachella Valley 3**	4032	324	154	0	44 (14%)	33.3	--	--	--	--	--	--	--	--	--
SAN BERNARDINO COUNTY																
32	Northwest San Bernardino Valley	5175	306	125	0	7 (2%)	28.1	--	--	--	--	--	--	--	--	--
33	I-10 Near Road##	5035	--	--	--	--	--	--	--	--	--	--	--	--	--	--
33	CA-60 Near Road##	5036	--	--	--	--	--	364	41.30	30.70	5 (1.4%)	12.70	--	--	--	--
34	Central San Bernardino Valley 1	5197	61	88	0	12 (20%)	34.8	114	46.50	29.70	2 (1.8%)	10.84	--	--	62	5.2
34	Central San Bernardino Valley 2	5203	269	112	0	36 (13%)	29.9	97	34.80	33.00	0	10.06	0.013	0.011	--	--
35	East San Bernardino Valley	5204	59	44	0	0	21.2	--	--	--	--	--	--	--	--	--
37	Central San Bernardino Mountains	5181	54	38	0	0	16.1	--	--	--	--	--	--	--	--	--
38	East San Bernardino Mountains	5818	--	--	--	--	--	46	31.00	31.00	0	5.94	--	--	--	--
	DISTRICT MAXIMUM k)			154	0	130	43.1		46.7	36.2	9	12.70	0.013	0.011		14.6
	SOUTH COAST AIR BASIN m)			143	0	137	43.1		46.7	36.2	10	12.70	0.013	0.011		14.6

* Incomplete data due to the site improvement. ** Salton Sea Air Basin µg/m³ – Micrograms per cubic meter of air AAM – Annual Arithmetic Mean -- Pollutant not monitored

\+ High PM10 (≥ 155 µg/m3) data recorded in the Coachella Valley and the Basin (due to high winds) are excluded because they likely meet the exclusion criteria specified in the U.S. EPA Exceptional Event Rule. Exceptional event demonstrations will be submitted to U.S. EPA for events that have regulatory significance.

\# PM2.5 concentrations above the 24-hour standard attributed to wildfire smoke and fireworks are excluded because they likely meet the exclusion criteria specified in the U.S. EPA Exceptional Event Rule. Exceptional event demonstrations will be submitted to U.S. EPA for events that have regulatory significance.

e) PM10 statistics listed above are based on combined Federal Reference Method (FRM) and Federal Equivalent Method (FEM) data.

f) State annual average (AAM) PM10 standard is > 20 µg/m3. Federal annual PM10 standard (AAM > 50 µg/m3) was revoked in 2006.

g) PM2.5 statistics listed above are for the FRM data only. FEM PM2.5 continuous monitoring instruments were operated at some of the above locations for real-time alerts and forecasting only.

h) Both Federal and State standards are annual average (AAM) > 12.0 µg/m3.

i) Federal lead standard is 3-months rolling average > 0.15 µg/m3; state standard is monthly average ³ 1.5 µg/m3. Lead standards were not exceeded.

j) State sulfate standard is 24-hour ³ 25 µg/m3. There is no federal standard for sulfate.

k) District Maximum is the maximum value calculated at any station in the South Coast AQMD Jurisdiction

m) Concentrations are the maximum value observed at any station in the South Coast Air Basin. Number of daily exceedances are the total number of days that the indicated concentration is exceeded at any station in the South Coast Air Basin.

++ Higher lead concentrations were recorded at near-source monitoring sites immediately downwind of stationary lead sources. Maximum monthly and 3-month rolling averages recorded were 0. 021 µg/m3 and 0.017 µg/m3, respectively.

Four near-road sites measuring one or more of the pollutants PM2.5, CO and/or NO2 are operating near the following freeways: I-5, I-10, CA-60 and I-710.

2020 AIR QUALITY
SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

2020

Source/Receptor Area No.	Location	Station No.	Carbon Monoxide [a]			Ozone [b]				Number of Days Standard Exceeded						Nitrogen Dioxide [c]				Sulfur Dioxide [d]		
			No. Days of Data	Max Conc. in ppm 1-hour	Max Conc. in ppm 8-hour	No. Days of Data	Max. Conc. in ppm 1-hour	Max. Conc. in ppm 8-hour	Fourth High Conc. ppm 8-hour	Old Federal > 0.124 ppm 1-hour	Current Federal > 0.070 ppm 8-hour	2008 Federal > 0.075 ppm 8-hour	1997 Federal > 0.084 ppm 8-hour	Current State > 0.09 ppm 1-hour	Current State > 0.070 ppm 8-hour	No. Days of Data	Max Conc. in ppb 1-hour	98th Percentile Conc. ppb 1-hour	Annual Average AAM Conc. ppb	No. Days of Data	Max. Conc. in ppb 1-hour	99th Percentile Conc. ppb 1-hour
LOS ANGELES COUNTY																						
1	Central LA	087	359	1.9	1.5	332	0.185	0.118	0.093	1	22	16	6	14	22	364	61.8	54.7	16.9	333	3.8	3.3
2	Northwest Coastal LA County	091	365	2.0	1.2	357	0.134	0.092	0.078	1	8	5	1	6	8	360	76.6	43.9	10.6	--	--	--
3	Southwest Coastal LA County	820	364	1.6	1.3	350	0.117	0.074	0.066	0	2	0	0	1	2	364	59.7	50.9	9.5	361	6.0	3.3
4	South Coastal LA County 1	072	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4	South Coastal LA County 2	077	--	--	--	--	--	--	--	--	--		--	--	--	--	--	--	--	--	--	--
4	South Coastal LA County 3	033	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	9.4
4	South Coastal LA County 4	039	--	--	--	332	0.105	0.083	0.071	0	4	2	0	4	4	357	75.3	56.3	12.8	--	--	--
4	I-710 Near Road[##]	032	--	--	--	--	--	--	--	--	--	--	--	--	--	355	90.3	79.1	22.3	--	--	--
6	West San Fernando Valley	074	349	2.0	1.7	345	0.142	0.115	0.097	0	49	23	12	14	49	365	57.2	50.1	12.1	--	--	--
7	East San Fernando Valley	200	--	--	--	359	0.133	0.108	0.102	5	49	33	20	31	49	357	60.4	52.4	14.5	--	--	--
8	West San Gabriel Valley	088	361	2.6	2.2	354	0.163	0.115	0.108	9	60	44	21	41	60	354	61.2	49.7	13.6	--	--	--
9	East San Gabriel Valley 1	060	349	2.4	2.0	347	0.168	0.125	0.105	11	61	43	19	53	61	347	64.8	54.1	13.6	--	--	--
9	East San Gabriel Valley 2	591	310	2.3	1.9	348	0.173	0.138	0.124	17	97	71	32	76	97	366	50.4	41.9	8.5	--	--	--
10	Pomona/Walnut Valley	075	363	1.5	1.1	353	0.180	0.124	0.106	10	84	53	29	51	84	355	67.9	59.8	18.3	--	--	--
11	South San Gabriel Valley	085	362	3.1	1.7	356	0.169	0.114	0.089	3	23	15	7	20	23	365	69.2	57.8	17.8	--	--	--
12	South Central LA County	112	364	4.5	3.1	354	0.152	0.115	0.072	1	4	3	2	3	4	362	72.3	60.5	14.5	--	--	--
13	Santa Clarita Valley	090	363	1.2	0.8	348	0.148	0.122	0.106	10	73	56	29	44	73	361	46.3	35.9	9.4	--	--	--
ORANGE COUNTY																						
16	North Orange County	3177	347	2.1	1.2	340	0.171	0.113	0.088	3	23	19	6	15	23	347	57.2	50.1	12.7	--	--	--
17	Central Orange County	3176	361	2.3	1.7	356	0.142	0.097	0.079	2	15	4	3	6	15	364	70.9	52.1	13.3	--	--	--
17	I-5 Near Road[##]	3131	359	2.4	2.0	--	--	--	--	--	--	--	--	--	--	365	69.9	52.6	18.8	--	--	--
19	Saddleback Valley	3812	366	1.7	0.8	364	0.171	0.122	0.090	1	32	25	10	20	32	--	--	--	--	--	--	--
RIVERSIDE COUNTY																						
22	Corona/Norco Area	4155	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
23	Metropolitan Riverside County 1	4144	361	1.9	1.4	348	0.143	0.115	0.102	6	81	59	27	46	81	359	66.4	54.1	13.6	356	2.2	1.7
23	Metropolitan Riverside County 3	4165	359	1.8	1.5	350	0.140	0.117	0.103	7	89	62	32	51	89	352	58.1	49.9	12.3	--	--	--
24	Perris Valley	4149	--	--	--	358	0.125	0.106	0.097	1	74	48	14	34	74	--	--	--	--	--	--	--
25	Elsinore Valley	4158	358	0.9	0.7	355	0.130	0.100	0.093	1	52	30	10	18	52	345	43.6	37.9	7.4	--	--	--
26	Temecula Valley	4031	--	--	--	364	0.108	0.091	0.084	0	37	20	2	5	37	--	--	--	--	--	--	--
29	San Gorgonio Pass	4164	--	--	--	358	0.150	0.115	0.104	3	68	48	21	29	68	363	51.1	47.1	8.5	--	--	--
30	Coachella Valley 1**	4137	365	0.8	0.5	360	0.119	0.094	0.089	0	49	28	5	9	49	365	47.4	34.3	6.6	--	--	--
30	Coachella Valley 2**	4157	--	--	--	358	0.097	0.084	0.081	0	42	17	0	2	42	--	--	--	--	--	--	--
30	Coachella Valley 3**	4032	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SAN BERNARDINO COUNTY																						
32	Northwest San Bernardino Valley	5175	364	1.5	1.1	360	0.158	0.123	0.116	15	114	87	43	82	114	364	55.4	44.8	13.9	--	--	--
33	I-10 Near Road[##]	5035	363	1.5	1.2	--	--	--	--	--	--	--	--	--	--	345	94.2	75.1	28.7	--	--	--
33	CA-60 Near Road[##]	5036	--	--	--	--	--	--	--	--	--	--	--	--	--	346	101.6	78.0	29.1	--	--	--
34	Central San Bernardino Valley 1	5197	358	1.7	1.2	348	0.151	0.111	0.105	8	89	65	27	56	89	360	66.4	57.9	18.7	363	2.5	1.7
34	Central San Bernardino Valley 2	5203	360	1.9	1.4	359	0.162	0.128	0.122	15	128	110	60	89	128	365	54.0	45.6	14.9	--	--	--
35	East San Bernardino Valley	5204	--	--	--	361	0.173	0.136	0.125	16	141	127	78	104	141	--	--	--	--	--	--	--
37	Central San Bernardino Mountains	5181	--	--	--	364	0.159	0.139	0.117	7	118	97	55	69	118	--	--	--	--	--	--	--
38	East San Bernardino Mountains	5818	--	--	--	--	--	--	--	--	--		--	--	--	--	--	--	--	--	--	--
	DISTRICT MAXIMUM [e]			4.5	3.1		0.185	0.139	0.125	17	141	127	78	104	141		101.6	86.3	29.1		6.0	3.3
	SOUTH COAST AIR BASIN [f]			4.5	3.1		0.185	0.139	0.125	27	157	142	97	132	157		101.6	86.3	29.1		6.0	3.3

* Incomplete data. ** Salton Sea Air Basin -- Pollutant not monitored ppm - Parts Per Million parts of air, by volume ppb – Parts Per Billion parts of air, by volume AAM = Annual Arithmetic Mean

a) The federal and state 8-hour CO standards (9 ppm and 9.0 ppm) and the federal and state 1-hour CO standards (35 ppm and 20 ppm) were not exceeded.
b) The current (2015) O_3 federal standard was revised effective December 28, 2015.
c) The NO_2 federal 1-hour standard is100 ppb annual standard is annual arithmetic mean NO2 > 0.0534 ppm (53.4 ppb). The state 1-hour and annual standards are 0.18 ppm and 0.030 ppm.
d) The federal SO_2 1-hour standard is 75 ppb (0.075 ppm). The state standards are 1-hour average SO2 > 0.25 ppm (250 ppb) and 24-hour average SO2 > 0.04 ppm (40 ppb).
e) District Maximum is the maximum value calculated at any station in the South Coast AQMD Jurisdiction
f) Concentrations are the maximum value observed at any station in the South Coast Air Basin. Number of daily exceedances are the total number of days that the indicated concentration is exceeded at any station in the South Coast Air Basin
Four near-road sites measuring one or more of the pollutants $PM_{2.5}$, CO and/or NO_2 are operating near the following freeways: I-5, I-10, CA-60 and I-710.

South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, CA 91765-4182
www.aqmd.gov

For information on the current standard levels and most recent revisions please refer to "Appendix II – Current Air Quality" of the "2016 AQMP" which can be accessed at http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2016-air-quality-management-plan/final-2016-aqmp/appendix-ii.pdf?sfvrsn=4. Maps showing the source/receptor area boundaries can be accessed via the Internet by entering your address in the South Coast AQMD Air Quality Forecast Map at www.aqmd.gov/forecast. A printed map or copy of the AQMP Appendix II is also available free of charge from the South Coast AQMD Public Information Center at 1-800-CUT-SMOG.

2020 AIR QUALITY
SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

2020

Source/Receptor Area No.	Location	Station No.	Suspended Particulates PM10 e) k) +					Fine Particulates PM2.5 g) #					Lead i) ++		PM10 Sulfate j)	
			No. Days of Data	Max. Conc. in µg/m³ 24-hour	No. (%) Samples Exceeding Standards: Federal > 150 µg/m³ 24-hour	No. (%) Samples Exceeding Standards: State > 50 µg/m³ 24-hour	Annual. Average Conc. f) (AAM) µg/m³	No. Days of Data	Max. Conc. in µg/m³ 24-hour	98th Percentile Conc. in µg/m³ 24-hour	No (%) Samples Exceeding Federal Std. > 35 µg/m³ 24-hour	Annual. Average Conc. h) (AAM) µg/m³	Max. Monthly Average Conc. µg/m³	Max. 3-Months Rolling Averages µg/m³	No. Days of Data	Max. Conc. in µg/m³ 24-hour
LOS ANGELES COUNTY																
1	Central LA	087	337	77	0	24 (7%)	23.0	353	47.30	28.00	2 (1%)	12.31	0.013	0.011	45	3.3
2	Northwest Coastal LA County	091	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3	Southwest Coastal LA County	820	37	43	0	0	22.5	--	--	--	--	--	0.008	0.005	--	--
4	South Coastal LA County 1	072	--	--	--	--	--	117	28.10	26.10	0	11.26	--	--	--	--
4	South Coastal LA County 2	077	42	59	0	2 (5%)	24.9	357	39.00	28.00	1 (0%)	11.38	0.008	0.006	--	--
4	South Coastal LA County 3	033	12	54	0	2 (17%)	27.8	--	--	--	--	--	--	--	14	2.3
4	South Coastal LA County 4	039	--	--	--	--	--	--	--	--	--	--				
4	I-710 Near Road##	032	--	--	--	--	--	356	44.00	31.50	2 (1%)	12.93	--	--	--	--
6	West San Fernando Valley	074	--	--	--	--	--	116	27.60	26.40	0	10.13	--	--	--	--
7	East San Fernando Valley	200	--	--	--	--	--	--	--	--	--	--				
8	West San Gabriel Valley	088	--	--	--	--	--	117	34.90	31.20	0	11.06	--	--	--	--
9	East San Gabriel Valley 1	060	43	95	0	8 (19%)	37.7	116	33.00	25.80	0	11.13	0.010	0.007	45	3.1
9	East San Gabriel Valley 2	591	333	105	0	9 (3%)	25.2	--	--	--	--	--	--	--	--	--
10	Pomona/Walnut Valley	075	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11	South San Gabriel Valley	085	--	--	--	--	--	116	35.40	30.50	0	13.22	0.012	0.011	--	--
12	South Central LA County	112	--	--	--	--	--	352	43.20	34.10	7 (2%)	13.57	0.010	0.009	--	--
13	Santa Clarita Valley	090	36	48	0	0	22.5	--	--	--	--	--	--	--	--	--
ORANGE COUNTY																
16	North Orange County	3177	--	--	--	--	--	--	--	--	--	--	--	--	--	--
17	Central Orange County	3176	329	120	0	13 (4%)	23.9	355	41.40	27.10	1 (0%)	11.27	--	--	44	3.3
17	I-5 Near Road##	3131	--	--	--	--	--	--	--	--	--	--	--	--	--	--
19	Saddleback Valley	3812	42	53	0	1 (2%)	16.8	120	35.00	32.70	0	8.81	--	--	--	--
RIVERSIDE COUNTY																
22	Corona/Norco Area	4155	44	100	0	10 (23%)	39.1	--	--	--	--	--	--	--	--	--
23	Metropolitan Riverside County 1	4144	320	104	0	110 (34%)	30.0	357	41.00	29.60	4 (1%)	12.63	0.016	0.010	84	5.2
23	Metropolitan Riverside County 3	4165	304	124	0	154 (51%)	52.2	358	38.70	34.70	5 (1.%)	14.03	--	--	--	--
24	Perris Valley	4149	37	77	0	6 (16%)	35.9	--	--	--	--	--	--	--	--	--
25	Elsinore Valley	4158	334	84	0	7 (2%)	22.0	--	--	--	--	--	--	--	--	--
26	Temecula Valley	4031	--	--	--	--	--	--	--	--	--	--	--	--	--	--
29	San Gorgonio Pass	4164	42	46	0	0	19.2	--	--	--	--	--	--	--	--	--
30	Coachella Valley 1**	4137	251	48	0	0	20.4	122	23.90	16.90	0	6.42	--	--	--	--
30	Coachella Valley 2**	4157	317	77	0	8 (3%)	29.1	121	25.60	20.20	0	8.41	--	--	89	2.7
30	Coachella Valley 3**	4032	320	259	1 (0%)	69 (22%)	38.0	--	--	--	--	--	--	--	--	--
SAN BERNARDINO COUNTY																
32	Northwest San Bernardino Valley	5175	305	63	0	12 (4%)	30.5	--	--	--	--	--	--	--	--	--
33	I-10 Near Road##	5035	--	--	--	--	--	--	--	--	--	--	--	--	--	--
33	CA-60 Near Road##	5036	--	--	--	--	--	356	53.10	33.70	4 (1%)	14.36	--	--	--	--
34	Central San Bernardino Valley 1	5197	40	61	0	6 (15%)	35.8	117	46.10	27.40	1 (1%)	11.95	--	--	44	3.0
34	Central San Bernardino Valley 2	5203	320	80	0	81 (25%)	38.7	115	25.70	24.70	0	11.66	0.010	0.009	--	--
35	East San Bernardino Valley	5204	40	57	0	1 (3%)	23.4	--	--	--	--	--	--	--	--	--
37	Central San Bernardino Mountains	5181	40	51	0	1 (3%)	18.1	--	--	--	--	--	--	--	--	--
38	East San Bernardino Mountains	5818	--	--	--	--	--	58	24.30	20.40	0	7.62	--	--	--	--
	DISTRICT MAXIMUM l)			259	1	154	52.2		53.1	34.1	7	14.36	0.016	0.011		5.2
	SOUTH COAST AIR BASIN m)			124	0	173	52.2		53.1	34.1	13	14.36	0.016	0.011		5.2

* Incomplete data due to the site improvement. ** Salton Sea Air Basin µg/m³ – Micrograms per cubic meter of air AAM – Annual Arithmetic Mean -- Pollutant not monitored

\+ High PM10 (≥ 155 µg/m³) data recorded in the Coachella Valley and the Basin attributed to high winds are excluded because they likely meet the exclusion criteria specified in the U.S. EPA Exceptional Event Rule. Exceptional event demonstrations will be submitted to U.S. EPA for events that have regulatory significance.

\# PM2.5 concentrations above the 24-hour standard attributed to wildfire smoke and fireworks are excluded because they likely meet the exclusion criteria specified in the U.S. EPA Exceptional Event Rule. Exceptional event demonstrations will be submitted to U.S. EPA for events that have regulatory significance.

e) PM10 statistics listed above are based on combined Federal Reference Method (FRM) and Federal Equivalent Method (FEM) data.

f) State annual average (AAM) PM10 standard is 20 µg/m³. Federal annual PM10 standard (50 µg/m³) was revoked in 2006.

g) PM2.5 statistics listed above represent FRM data only with the exception of Central Orange County, I-710 Near Road, Metropolitan Riverside County 1 and 3, CA-60 Near Road, and South Coastal LA County 2 where FEM PM2.5 measurements are used to supplement missing FRM measurements because they pass the screening criteria in the South Coast AQMD Continuous Monitor Comparability Assessment and Request for Waiver dated July 1, 2021.

h) The Federal and State annual standards are 12.0 µg/m³.

i) Federal lead standard is 3-months rolling average > 0.15 µg/m³; state standard is monthly average ³ 1.5 µg/m³. Lead standards were not exceeded.

j) State sulfate standard is 24-hour ³ 25 µg/m³. There is no federal standard for sulfate.

k) Filter-based measurements for PM10 from March 28, 2020 to June 26, 2020 are not available due the COVID-19 Pandemic

l) District Maximum is the maximum value calculated at any station in the South Coast AQMD Jurisdiction

m) Concentrations are the maximum value observed at any station in the South Coast Air Basin. Number of daily exceedances are the total number of days that the indicated concentration is exceeded at any station in the South Coast Air Basin

++ Higher lead concentrations were recorded at near-source monitoring sites immediately downwind of stationary lead sources. Maximum monthly and 3-month rolling averages recorded were 0. 096 µg/m³ and 0.059 µg/m³, respectively.

Four near-road sites measuring one or more of the pollutants PM2.5, CO and/or NO2 are operating near the following freeways: I-5, I-10, CA-60 and I-710.

2021 AIR QUALITY
SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

2021

Source/Receptor Area No.	Location	AQS Station ID	Carbon Monoxide[a]			Ozone[b]										Nitrogen Dioxide[c]				Sulfur Dioxide[d]		
										Number of Days Standard Exceeded												
			No. Days of Data	Max 1-Hour Conc., ppm	Max 8-Hour Conc., ppm	No. Days of Data	Max 1-Hour Conc., ppm	Max 8-Hour Conc., ppm	Fourth High 8-Hour Conc., ppm	Old Federal 1-Hour 0.12 ppm	Current Federal 8-Hour 0.070 ppm	2008 Federal 8-Hour 0.075 ppm	1997 Federal 8-Hour 0.08 ppm	Current State 1-Hour 0.09 ppm	Current State 8-Hour 0.070 ppm	No. Days of Data	Max 1-Hour Conc., ppb	98th Percentile 1-Hour Conc., ppb	Annual Average (AAM) Conc., ppb	No. Days of Data	Max 1-Hour Conc., ppb	99th Percentile 1-Hour Conc., ppb
LOS ANGELES COUNTY																						
1	Central LA	060371103	364	2.0	1.6	351	0.099	0.085	0.068	0	2	1	1	1	2	356	77.8	57.3	17.7	365	2.2	2.0
2	Northwest Coastal LA County	060370113	174	1.5	1.0	356	0.095	0.082	0.059	0	1	1	0	1	1	360	60.6	41.6	10.0	--	--	--
3	Southwest LA County*	060375005	251	1.7	1.3	245	0.059	0.049	0.047	0	0	0	0	0	0	256	62.8	47.5	7.2	254	7.7	4.3
4	South Coastal LA County 1	060374002	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4	South Coastal LA County 2	060374004	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4	South Coastal LA County 4	060374009	--	--	--	356	0.086	0.064	0.060	0	0	0	0	0	0	361	59.0	55.3	12.8	360	5.9	4.2
4	I-710 Near Road	060374008	--	--	--	--	--	--	--	--	--	--	--	--	--	351	91.5	76.0	25.2	--	--	--
6	West San Fernando Valley	060371201	363	2.6	1.9	357	0.110	0.083	0.080	0	31	16	0	4	33	361	54.2	42.6	10.4	--	--	--
7	East San Fernando Valley	060374010	--	--	--	349	0.110	0.089	0.079	0	17	7	1	6	17	359	65.4	49.4	13.9	--	--	--
8	West San Gabriel Valley	060372005	364	1.9	1.6	362	0.104	0.087	0.081	0	25	13	1	12	32	364	77.3	52.0	13.6	--	--	--
9	East San Gabriel Valley 1	060370002	355	1.5	1.4	355	0.108	0.086	0.077	0	21	13	1	20	22	357	78.1	51.0	14.8	--	--	--
9	East San Gabriel Valley 2	060370016	353	1.4	0.9	356	0.125	0.096	0.090	1	54	31	11	39	58	352	68.6	47.6	10.3	--	--	--
10	Pomona/Walnut Valley	060371701	353	1.7	1.3	352	0.120	0.092	0.089	0	41	21	11	27	43	364	71.4	56.0	17.9	--	--	--
11	South San Gabriel Valley	060371602	362	1.8	1.5	357	0.104	0.074	0.068	0	3	0	0	2	3	361	72.2	54.7	17.5	--	--	--
12	South Central LA County	060371302	364	4.3	3.7	345	0.085	0.076	0.062	0	1	1	0	0	1	364	68.2	55.9	14.0	--	--	--
13	Santa Clarita Valley	060376012	365	1.0	0.7	360	0.125	0.103	0.097	1	61	47	21	30	63	365	56.9	35.2	9.9	--	--	--
ORANGE COUNTY																						
16	North Orange County	060595001	365	2.3	1.3	352	0.103	0.075	0.070	0	2	0	0	2	3	346	63.8	50.8	12.7	--	--	--
17	Central Orange County	060590007	363	2.1	1.5	355	0.089	0.068	0.063	0	0	0	0	0	0	356	67.1	53.2	12.4	--	--	--
17	I-5 Near Road	060590008	340	2.3	1.7	--	--	--	--	--	--	--	--	--	--	343	72.3	55.8	18.9	--	--	--
19	Saddleback Valley	060592022	365	1.0	0.8	363	0.105	0.081	0.078	0	8	4	0	2	8	--	--	--	--	--	--	--
RIVERSIDE COUNTY																						
23	Metropolitan Riverside County 1	060658001	365	2.1	1.8	340	0.117	0.097	0.091	0	55	32	12	20	57	341	52.0	50.7	14.3	363	2.1	1.8
23	Metropolitan Riverside County 3	060658005	365	2.0	1.6	357	0.116	0.094	0.093	0	53	33	14	20	59	365	53.3	45.1	11.7	--	--	--
24	Perris Valley	060656001	--	--	--	309	0.117	0.094	0.091	0	55	38	14	25	60	--	--	--	--	--	--	--
25	Lake Elsinore Area	060659001	364	0.9	0.8	354	0.118	0.097	0.090	0	44	22	8	18	46	357	43.7	36.4	7.0	--	--	--
26	Temecula Valley	060650016	--	--	--	364	0.095	0.083	0.078	0	10	6	0	1	11	--	--	--	--	--	--	--
29	Banning/San Gorgonio Pass	060650012	--	--	--	354	0.139	0.116	0.102	4	80	56	24	41	82	365	56.8	47.4	8.7	--	--	--
30	Coachella Valley 1**	060655001	365	0.8	0.4	357	0.110	0.092	0.088	0	35	15	7	10	38	360	35.6	32.9	6.8	--	--	--
30	Coachella Valley 2**	060652002	--	--	--	352	0.099	0.078	0.076	0	18	6	0	2	24	--	--	--	--	--	--	--
30	Coachella Valley 3**	060652005	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SAN BERNARDINO COUNTY																						
32	Northwest San Bernardino Valley	060711004	348	1.3	1.1	359	0.124	0.100	0.097	0	78	50	22	42	81	354	64.6	49.4	14.8	--	--	--
33	CA-60 Near Road	060710027	--	--	--	--	--	--	--	--	--	--	--	--	--	350	80.2	72.9	30.0	--	--	--
33	I-10 Near Road	060710026	365	2.8	1.4	--	--	--	--	--	--	--	--	--	--	365	80.8	68.3	28.6	--	--	--
34	Central San Bernardino Valley 1	060712002	362	1.9	1.4	356	0.125	0.103	0.099	1	81	56	26	44	83	364	67.2	60.7	19.0	364	5.0	1.9
34	Central San Bernardino Valley 2	060719004	359	2.0	1.6	355	0.142	0.112	0.105	6	98	74	40	66	101	362	56.3	48.9	15.1	--	--	--
35	East San Bernardino Valley	060714003	--	--	--	361	0.145	0.119	0.112	7	114	93	50	74	118	--	--	--	--	--	--	--
37	Central San Bernardino Mountains	060710005	--	--	--	345	0.148	0.120	0.107	7	110	91	55	65	111	--	--	--	--	--	--	--
38	East San Bernardino Mountains	060718001	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	DISTRICT MAXIMUM[e]			4.3	3.7		0.148	0.120	0.112	7	114	93	55	74	118		91.5	76.0	30.0		7.7	4.3
	SOUTH COAST AIR BASIN[f]			4.3	3.7		0.148	0.120	0.112	12	130	113	68	91	133		91.5	76.0	30.0		7.7	4.3

*Incomplete data due to site closure in September 2021. **Salton Sea Air Basin -- Pollutant not monitored ppm - Parts Per Million in air, by volume ppb - Parts Per Billion in air, by volume AAM - Annual Arithmetic Mean

a) The federal and state 8-hour CO standards (9 ppm and 9.0 ppm, respectively) along with the federal and state 1-hour CO standards (35 ppm and 20 ppm, respectively) were not exceeded.

b) The current (2015) O_3 federal standard became effective December 28, 2015.

c) The NO_2 federal 1-hour standard is 100 ppb and the annual standard is 53.4 ppb. The state 1-hour and annual standards are 180 ppb and 30 ppb, respectively.

d) The federal SO_2 1-hour standard is 75 ppb. The state 1-hour and annual standards are 250 ppb and 40 ppb, respectively.

e) District Maximum is the maximum value calculated at any one station in the South Coast AQMD jurisdiction.

f) Statistics are calculated with a dataset that aggregates the highest concentration at any station in the South Coast Air Basin for each day and pollutant. Therefore, concentrations are the maximum value observed at any station in the South Coast Air Basin. Number of daily exceedances are the total number of days that the indicated concentration is exceeded at any station in the South Coast Air Basin.

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For information on the current standard levels and most recent revisions please refer to "Appendix II – Current Air Quality" of the 2022 Air Quality Management Plan, which can be accessed at www.aqmd.gov/2022aqmp. A map showing the source/receptor area boundaries and station locations is available at www.aqmd.gov/aqcard2021map.

2021 AIR QUALITY
SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

2021

Source/Receptor Area No.	Location	AQS Station ID	Suspended Particulates PM10[g] No. Days of Data	Max 24-Hour Conc., µg/m³	No. (%) Samples Exceeding Federal 24-Hour 150 µg/m³	No. (%) Samples Exceeding State 24-Hour 50 µg/m³	Annual Average Conc.[h] (AAM), µg/m³	Fine Particulates PM2.5[i] No. Days of Data	Max 24-Hour Conc., µg/m³	98th Percentile 24-Hour Conc., µg/m³	No. (%) Samples Exceeding Federal 24-Hour Standard 35 µg/m³	Annual Average Conc.[j] (AAM), µg/m³	Lead[k] Max Monthly Average Conc., µg/m³	Max 3-Month Rolling Average Conc., µg/m³	PM10 Sulfate[l] No. Days of Data	Max 24-Hour Conc., µg/m³
LOS ANGELES COUNTY																
1	Central LA	060371103	60	64	0 (0%)	3 (5%)	25.5	363	61	44.8	12 (3%)	12.77	0.012	0.012	61	4.4
2	Northwest Coastal LA County	060370113	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3	Southwest LA County*	060375005	31	33	0 (0%)	0 (0%)	17.7	--	--	--	--	--	0.003	0.004	--	--
4	South Coastal LA County 1	060374002	--	--	--	--	--	119	41.2	31.2	1 (1%)	10.93	--	--	--	--
4	South Coastal LA County 2	060374004	60	48	0 (0%)	0 (0%)	22.7	364	42.9	32.8	4 (1%)	11.47	0.006	0.007	--	--
4	South Coastal LA County 4	060374009	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4	I-710 Near Road	060374008	--	--	--	--	--	365	84.6	34.8	7 (2%)	13.01	--	--	--	--
6	West San Fernando Valley	060371201	--	--	--	--	--	120	55.5	36.1	3 (3%)	10.06	--	--	--	--
7	East San Fernando Valley	060374010	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8	West San Gabriel Valley	060372005	--	--	--	--	--	119	63.6	29.9	2 (2%)	10.74	--	--	--	--
9	East San Gabriel Valley 1	060370002	61	79	0 (0%)	11 (18%)	32.8	120	61.9	36.1	3 (3%)	11.43	--	--	61	4.8
9	East San Gabriel Valley 2	060370016	358	121	0 (0%)	9 (3%)	26.8	--	--	--	--	--	--	--	--	--
10	Pomona/Walnut Valley	060371701	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11	South San Gabriel Valley	060371602	--	--	--	--	--	122	66	47.9	3 (2%)	13.07	0.011	0.010	--	--
12	South Central LA County	060371302	--	--	--	--	--	349	102.1	42.5	12 (3%)	13.41	0.007	0.009	--	--
13	Santa Clarita Valley	060376012	60	47	0 (0%)	0 (0%)	19.9	--	--	--	--	--	--	--	--	--
ORANGE COUNTY																
16	North Orange County	060595001	--	--	--	--	--	--	--	--	--	--	--	--	--	--
17	Central Orange County	060590007	361	115	0 (0%)	12 (3%)	22.9	364	54.4	36.7	9 (2%)	11.44	--	--	61	3.8
17	I-5 Near Road	060590008	--	--	--	--	--	--	--	--	--	--	--	--	--	--
19	Saddleback Valley	060592022	60	35	0 (0%)	0 (0%)	15.6	122	28.7	24.5	0 (0%)	8.27	--	--	--	--
RIVERSIDE COUNTY																
23	Metropolitan Riverside County 1	060658001	121	76	0 (0%)	16 (13%)	34.2	364	82.1	36.7	10 (3%)	12.58	0.008	0.010	122	3.4
23	Metropolitan Riverside County 3	060658005	362	132	0 (0%)	170 (47%)	49.6	364	77.6	39.7	13 (4%)	14.28	--	--	--	--
24	Perris Valley	060656001	--	--	--	--	--	--	--	--	--	--	--	--	--	--
25	Lake Elsinore Area	060659001	360	89	0 (0%)	4 (1%)	21.4	--	--	--	--	--	--	--	--	--
26	Temecula Valley	060650016	--	--	--	--	--	--	--	--	--	--	--	--	--	--
29	Banning/San Gorgonio Pass	060650012	61	48	0 (0%)	0 (0%)	20.7	--	--	--	--	--	--	--	--	--
30	Coachella Valley 1**	060655001	361	100	0 (0%)	9 (2%)	21.4	122	13.5	12.6	0 (0%)	6.2	--	--	--	--
30	Coachella Valley 2**	060652002	345	123	0 (0%)	30 (9%)	32.3	120	18	14.2	0 (0%)	8.15	--	--	121	3.3
30	Coachella Valley 3**	060652005	359	147	0 (0%)	69 (19%)	39.1	--	--	--	--	--	--	--	--	--
SAN BERNARDINO COUNTY																
32	Northwest San Bernardino Valley	060711004	358	123	0 (0%)	16 (4%)	31.7	--	--	--	--	--	--	--	--	--
33	CA-60 Near Road	060710027	--	--	--	--	--	362	65.4	43.6	13 (4%)	14.48	--	--	--	--
33	I-10 Near Road	060710026	--	--	--	--	--	--	--	--	--	--	--	--	--	--
34	Central San Bernardino Valley 1	060712002	53	73	0 (0%)	4 (8%)	32.1	120	55.1	33.4	2 (2%)	12.07	--	--	54	3.6
34	Central San Bernardino Valley 2	060719004	364	111	0 (0%)	79 (22%)	39.3	120	57.9	34.2	1 (1%)	11.9	0.013	0.008	--	--
35	East San Bernardino Valley	060714003	59	44	0 (0%)	0 (0%)	23.2	--	--	--	--	--	--	--	--	--
37	Central San Bernardino Mountains	060710005	59	33	0 (0%)	0 (0%)	15.8	--	--	--	--	--	--	--	--	--
38	East San Bernardino Mountains	060718001	--	--	--	--	--	59	24.5	21.5	0 (0%)	7.04	--	--	--	--
	DISTRICT MAXIMUM[m]			147	0	170	49.6		102.1	47.9	13	14.48	0.013	0.012		4.8
	SOUTH COAST AIR BASIN[n]			132	0	179	49.6		102.1	47.9	20	14.48	0.013	0.012		4.8

*Incomplete data due to site closure in September 2021. ** Salton Sea Air Basin µg/m³ – Micrograms per cubic meter of air AAM – Annual Arithmetic Mean -- Pollutant not monitored

g) PM10 statistics listed above are based on combined Federal Reference Method (FRM) and Federal Equivalent Method (FEM) data. High PM10 (≥ 155 µg/m³) data recorded in the Coachella Valley and the Basin (due to high winds) are excluded because they likely meet the exclusion criteria specified in the U.S. EPA Exceptional Event Rule. Exceptional event demonstrations will be submitted to U.S. EPA for events that have regulatory significance.

h) State annual average PM10 standard is 20 µg/m³. Federal annual PM10 standard (50 µg/m³) was revoked in 2006.

i) PM2.5 statistics listed above represent FRM data only with the exception of Central Orange County, Metropolitan Riverside County 1, Metropolitan Riverside County 2, South Coastal LA County 2, I-710 Near Road, and CA-60 Near Road, where FEM PM2.5 measurements are used to supplement missing FRM measurements as outlined in the U.S. EPA Response Letter (dated October 31, 2022) to the South Coast AQMD PM2.5 Continuous Monitor Comparability Assessment and Request for Waiver (available with a Public Records Request). PM2.5 concentrations above the 24-hour standard attributed to fireworks are excluded because they likely meet the exclusion criteria specified in the U.S. EPA Exceptional Event Rule. Exceptional event demonstrations will be submitted to U.S. EPA for events that have regulatory significance.

j) Both Federal and State standards are 12.0 µg/m³.

k) Lead is measured in Total Suspended Particulate (TSP) samples. Federal lead standard is 3-months rolling average (0.15 µg/m³); state standard is monthly average (1.5 µg/m³). Note 3-month averages include data from November and December 2020. Higher lead concentrations were recorded at near-source monitoring sites immediately downwind of stationary lead sources. Maximum monthly and 3-month rolling averages recorded at near-source sites were 0.083 µg/m³ and 0.057 µg/m³, respectively. Lead standards were not exceeded at any site.

l) State 24-hour sulfate standard is 25 µg/m³. There is no federal standard for sulfate.

m) District Maximum is the maximum value calculated at any one station in the South Coast AQMD jurisdiction.

n) Statistics are calculated with a dataset that aggregates the highest concentration at any station in the South Coast Air Basin for each day and pollutant. Therefore, concentrations are the maximum value observed at any station in the South Coast Air Basin. Number of daily exceedances are the total number of days that the indicated concentration is exceeded at any station in the South Coast Air Basin.

Table C-1. 2006 – 2008 Thresholds for Construction and Operation with Gradual Conversion of NOx to NO_2

SRA No.	Source Receptor Area	Allowable emissions (lbs/day) as a function of receptor distance (meters) from site boundary									
		1 Acre					2 Acre				
		25	50	100	200	500	25	50	100	200	500
1	Central LA	74	74	82	106	168	108	106	110	126	179
2	Northwest Coastal LA County	103	104	121	156	245	147	143	156	186	262
3	Southwest Coastal LA County	91	93	107	139	218	131	128	139	165	233
4	South Coastal LA County	57	58	68	90	142	82	80	87	106	151
5	Southeast LA County	80	81	94	123	192	114	111	121	145	205
6	West San Fernando Valley	103	104	121	157	245	147	143	156	187	263
7	East San Fernando Valley	80	81	94	122	191	114	111	121	144	204
8	West San Gabriel Valley	69	69	81	104	164	98	95	104	124	175
9	East San Gabriel Valley	89	112	159	251	489	128	151	200	284	513
10	Pomona/Walnut Valley	103	129	185	292	570	149	175	230	330	598
11	South San Gabriel Valley	83	84	96	123	193	121	118	126	147	206
12	South Central LA County	46	46	54	70	109	65	64	69	82	117
13	Santa Clarita Valley	114	115	133	173	273	163	159	172	204	291
15	San Gabriel Mountains	114	115	133	173	273	163	159	172	204	291
16	North Orange County	103	104	121	159	252	147	143	156	186	269
17	Central Orange County	81	83	98	123	192	115	114	125	148	205
18	North Coastal Orange County	92	93	108	140	219	131	128	139	165	235
19	Saddleback Valley	91	93	108	140	218	131	127	139	165	233
20	Central Orange County Coastal	92	93	108	140	219	131	128	139	165	235
21	Capistrano Valley	91	93	108	140	218	131	127	139	165	233
22	Norco/Corona	118	148	211	334	652	170	200	263	378	684
23	Metropolitan Riverside County	118	148	212	335	652	170	200	264	379	684
24	Perris Valley	118	148	212	335	652	170	200	264	379	684
25	Lake Elsinore	162	203	292	460	896	234	275	363	521	941
26	Temecula Valley	162	203	292	460	896	234	275	363	521	941
27	Anza Area	162	203	292	460	896	234	275	363	521	941
28	Hemet/San Jacinto Valley	162	203	292	460	896	234	275	363	521	941
29	Banning Airport	103	131	189	299	585	149	176	234	340	614
30	Coachella Valley	132	166	238	376	733	191	225	296	425	769
31	East Riverside County	132	166	238	376	733	191	225	296	425	769
32	Northwest San Bernardino Valley	118	148	211	334	652	170	200	263	378	684
33	Southwest San Bernardino Valley	118	148	211	334	652	170	200	263	378	684
34	Central San Bernardino Valley	118	148	211	334	652	170	200	263	378	684
35	East San Bernardino Valley	118	148	211	334	651	170	200	263	377	683
36	West San Bernardino Mountains	118	148	211	334	652	170	200	263	378	684
37	Central San Bernardino Mountains	118	148	211	334	652	170	200	263	378	684
38	East San Bernardino Mountains	118	148	211	334	651	170	200	263	377	683

Table C-1. 2006 – 2008 Thresholds for Construction and Operation with Gradual Conversion of NOx to NO_2 (Continued)

SRA No.	Source Receptor Area	Allowable emissions (lbs/day) as a function of receptor distance (meters) from site boundary				
		5 Acre				
		25	50	100	200	500
1	Central LA	161	157	165	173	212
2	Northwest Coastal LA County	221	212	226	250	312
3	Southwest Coastal LA County	197	189	202	222	277
4	South Coastal LA County	123	118	126	141	179
5	Southeast LA County	172	165	176	194	244
6	West San Fernando Valley	221	212	226	250	313
7	East San Fernando Valley	172	165	176	194	242
8	West San Gabriel Valley	148	141	151	166	208
9	East San Gabriel Valley	203	227	286	368	584
10	Pomona/Walnut Valley	236	265	330	426	681
11	South San Gabriel Valley	183	176	184	202	245
12	South Central LA County	98	94	101	111	139
13	Santa Clarita Valley	246	236	251	275	345
15	San Gabriel Mountains	246	236	251	275	345
16	North Orange County	221	212	226	249	317
17	Central Orange County	183	167	180	202	245
18	North Coastal Orange County	197	190	202	223	278
19	Saddleback Valley	197	189	201	222	278
20	Central Orange County Coastal	197	190	202	223	278
21	Capistrano Valley	197	189	201	222	278
22	Norco/Corona	270	302	378	486	778
23	Metropolitan Riverside County	270	302	378	488	780
24	Perris Valley	270	302	378	488	780
25	Lake Elsinore	371	416	520	672	1,072
26	Temecula Valley	371	416	520	672	1,072
27	Anza Area	371	416	520	672	1,072
28	Hemet/San Jacinto Valley	371	416	520	672	1,072
29	Banning Airport	236	265	333	434	698
30	Coachella Valley	304	340	425	547	875
31	East Riverside County	304	340	425	547	875
32	Northwest San Bernardino Valley	270	303	378	486	778
33	Southwest San Bernardino Valley	270	303	378	486	778
34	Central San Bernardino Valley	270	302	378	486	778
35	East San Bernardino Valley	270	302	378	486	778
36	West San Bernardino Mountains	270	303	378	486	778
37	Central San Bernardino Mountains	270	302	378	486	778
38	East San Bernardino Mountains	270	302	378	486	778

Table C-2. 2006 – 2008 CO Emission Thresholds for Construction and Operation

SRA No.	Source Receptor Area	Allowable emissions (lbs/day) as a function of receptor distance (meters) from site boundary									
		1 Acre					2 Acre				
		25	50	100	200	500	25	50	100	200	500
1	Central LA	680	882	1,259	2,406	7,911	1,048	1,368	1,799	3,016	8,637
2	Northwest Coastal LA County	562	833	1,233	2,367	7,724	827	1,213	1,695	2,961	8,446
3	Southwest Coastal LA County	664	785	1,156	2,228	7,269	967	1,158	1,597	2,783	7,950
4	South Coastal LA County	585	789	1,180	2,296	7,558	842	1,158	1,611	2,869	8,253
5	Southeast LA County	571	735	1,088	2,104	6,854	861	1,082	1,496	2,625	7,500
6	West San Fernando Valley	426	652	1,089	2,096	6,815	644	903	1,497	2,629	7,460
7	East San Fernando Valley	498	732	1,158	2,227	7,267	786	1,068	1,594	2,786	7,947
8	West San Gabriel Valley	535	783	1,158	2,229	7,270	812	1,125	1,594	2,785	7,957
9	East San Gabriel Valley	623	945	1,914	4,803	20,721	953	1,344	2,445	5,658	22,093
10	Pomona/Walnut Valley	612	911	1,741	4,345	18,991	885	1,358	2,298	5,097	20,256
11	South San Gabriel Valley	673	760	1,113	2,110	6,884	1,031	1,143	1,554	2,660	7,530
12	South Central LA County	231	342	632	1,545	5,452	346	515	841	1,817	5,962
13	Santa Clarita Valley	590	879	1,294	2,500	8,174	877	1,256	1,787	3,108	8,933
15	San Gabriel Mountains	590	879	1,294	2,500	8,174	877	1,256	1,787	3,108	8,933
16	North Orange County	522	685	1,014	1,975	6,531	762	1,010	1,395	2,444	7,121
17	Central Orange County	485	753	1,128	2,109	6,841	715	1,041	1,547	2,685	7,493
18	North Coastal Orange County	647	738	1,090	2,096	6,841	962	1,089	1,506	2,615	7,493
19	Saddleback Valley	696	833	1,234	2,376	7,724	993	1,227	1,696	2,965	8,454
20	Central Orange County Coastal	647	738	1,090	2,096	6,841	962	1,089	1,506	2,615	7,493
21	Capistrano Valley	696	833	1,234	2,376	7,724	993	1,227	1,696	2,965	8,454
22	Norco/Corona	674	999	1,853	4,352	17,637	1,007	1,474	2,461	5,183	18,934
23	Metropolitan Riverside County	602	887	1,746	4,359	17,640	883	1,262	2,232	5,136	18,947
24	Perris Valley	602	887	1,746	4,359	17,640	883	1,262	2,232	5,136	18,947
25	Lake Elsinore	750	1,105	2,176	5,501	23,866	1,100	1,572	2,781	6,399	25,412
26	Temecula Valley	750	1,105	2,176	5,501	23,866	1,100	1,572	2,781	6,399	25,412
27	Anza Area	750	1,105	2,176	5,501	23,866	1,100	1,572	2,781	6,399	25,412
28	Hemet/San Jacinto Valley	750	1,105	2,176	5,501	23,866	1,100	1,572	2,781	6,399	25,412
29	Banning Airport	1,000	1,420	2,623	6,154	25,057	1,541	2,049	3,458	7,395	26,890
30	Coachella Valley	878	1,387	2,565	6,021	24,417	1,299	1,931	3,409	7,174	26,212
31	East Riverside County	878	1,387	2,565	6,021	24,417	1,299	1,931	3,409	7,174	26,212
32	Northwest San Bernardino Valley	863	1,328	2,423	5,691	23,065	1,232	1,877	3,218	6,778	24,768
33	Southwest San Bernardino Valley	863	1,328	2,423	5,691	23,065	1,232	1,877	3,218	6,778	24,768
34	Central San Bernardino Valley	667	1,059	2,141	5,356	21,708	972	1,463	2,738	6,346	23,304
35	East San Bernardino Valley	775	1,205	2,279	5,351	21,703	1,174	1,712	3,029	6,375	23,294
36	West San Bernardino Mountains	863	1,328	2,423	5,691	23,065	1,232	1,877	3,218	6,778	24,768
37	Central San Bernardino Mountains	667	1,059	2,141	5,356	21,708	972	1,463	2,738	6,346	23,304
38	East San Bernardino Mountains	775	1,205	2,279	5,351	21,703	1,174	1,712	3,029	6,375	23,294

Table C-2. 2006 – 2008 CO Emission Thresholds for Construction and Operation (Continued)

SRA No.	Source Receptor Area	Allowable emissions (lbs/day) as a function of receptor distance (meters) from site boundary				
		5 Acre				
		25	50	100	200	500
1	Central LA	1,861	2,331	3,030	4,547	10,666
2	Northwest Coastal LA County	1,531	1,985	2,762	4,383	10,467
3	Southwest Coastal LA County	1,796	1,984	2,608	4,119	9,852
4	South Coastal LA County	1,530	1,982	2,613	4,184	10,198
5	Southeast LA County	1,480	1,855	2,437	3,867	9,312
6	West San Fernando Valley	1,158	1,537	2,438	3,871	9,271
7	East San Fernando Valley	1,434	1,872	2,599	4,119	9,848
8	West San Gabriel Valley	1,540	1,921	2,599	4,119	9,857
9	East San Gabriel Valley	1,733	2,299	3,680	7,600	25,558
10	Pomona/Walnut Valley	1,566	2,158	3,691	7,011	23,450
11	South San Gabriel Valley	1,814	1,984	2,549	4,024	9,342
12	South Central LA County	630	879	1,368	2,514	7,389
13	Santa Clarita Valley	1,644	2,095	2,922	4,608	11,049
15	San Gabriel Mountains	1,644	2,095	2,922	4,608	11,049
16	North Orange County	1,311	1,731	2,274	3,605	8,754
17	Central Orange County	1,253	1,734	2,498	4,018	9,336
18	North Coastal Orange County	1,711	1,864	2,455	3,888	9,272
19	Saddleback Valley	1,804	2,102	2,763	4,387	10,507
20	Central Orange County Coastal	1,711	1,864	2,455	3,888	9,272
21	Capistrano Valley	1,804	2,102	2,763	4,387	10,507
22	Norco/Corona	1,700	2,470	3,964	7,350	22,490
23	Metropolitan Riverside County	1,577	2,178	3,437	6,860	22,530
24	Perris Valley	1,577	2,178	3,437	6,860	22,530
25	Lake Elsinore	1,965	2,714	4,282	8,547	29,256
26	Temecula Valley	1,965	2,714	4,282	8,547	29,256
27	Anza Area	1,965	2,714	4,282	8,547	29,256
28	Hemet/San Jacinto Valley	1,965	2,714	4,282	8,547	29,256
29	Banning Airport	2,817	3,575	5,534	10,383	31,903
30	Coachella Valley	2,292	3,237	5,331	10,178	31,115
31	East Riverside County	2,292	3,237	5,331	10,178	31,115
32	Northwest San Bernardino Valley	2,193	2,978	5,188	9,611	29,410
33	Southwest San Bernardino Valley	2,193	2,978	5,188	9,611	29,410
34	Central San Bernardino Valley	1,746	2,396	4,142	8,532	27,680
35	East San Bernardino Valley	2,075	2,890	4,765	9,044	27,650
36	West San Bernardino Mountains	2,193	2,978	5,188	9,611	29,410
37	Central San Bernardino Mountains	1,746	2,396	4,142	8,532	27,680
38	East San Bernardino Mountains	2,075	2,890	4,765	9,044	27,650

Table C-3. PM10 Emission Thresholds for Operation

SRA No.	Source Receptor Area	Significance Threshold of 2.5 mg/m^3 Allowable emissions (lbs/day) as a function of receptor distance (meters) from boundary of site									
		1 Acre					2 Acre				
		25	50	100	200	500	25	50	100	200	500
1	Central LA	2	4	8	17	43	2	6	11	20	46
2	Northwest Coastal LA County	1	3	7	14	36	2	5	9	16	37
3	Southwest Coastal LA County	1	4	7	14	34	2	6	9	16	36
4	South Coastal LA County	1	3	7	15	38	2	5	9	17	40
5	Southeast LA County	1	3	8	16	42	2	5	10	18	44
6	West San Fernando Valley	1	3	7	15	38	2	5	8	16	39
7	East San Fernando Valley	1	3	7	13	33	2	5	9	15	35
8	West San Gabriel Valley	1	3	7	14	37	2	5	9	16	39
9	East San Gabriel Valley	2	4	9	19	48	2	6	11	20	50
10	Pomona/Walnut Valley	1	3	7	14	36	2	5	8	16	38
11	South San Gabriel Valley	1	4	7	15	37	2	6	9	17	39
12	South Central LA County	1	3	7	13	34	2	5	9	15	36
13	Santa Clarita Valley	1	3	6	13	32	2	5	8	15	34
15	San Gabriel Mountains	1	3	6	13	32	2	5	8	15	34
16	North Orange County	1	3	6	13	33	2	4	8	15	35
17	Central Orange County	1	3	7	15	38	2	5	9	17	40
18	North Coastal Orange County	1	4	7	13	33	2	6	9	15	35
19	Saddleback Valley	1	3	6	12	29	2	5	8	14	31
20	Central Orange County Coastal	1	4	7	13	33	2	6	9	15	35
21	Capistrano Valley	1	3	6	12	29	2	5	8	14	31
22	Norco/Corona	1	3	8	18	48	2	5	10	20	50
23	Metropolitan Riverside County	1	3	8	17	43	2	5	10	18	45
24	Perris Valley	1	3	8	17	43	2	5	10	18	45
25	Lake Elsinore	1	3	8	17	43	2	5	10	18	45
26	Temecula Valley	1	3	8	17	43	2	5	10	18	45
27	Anza Area	1	3	8	17	43	2	5	10	18	45
28	Hemet/San Jacinto Valley	1	3	8	17	43	2	5	10	18	45
29	Banning Airport	2	5	14	31	84	3	8	18	38	98
30	Coachella Valley	1	3	9	20	52	2	6	16	36	97
31	East Riverside County	1	3	9	20	52	2	6	16	36	97
32	Northwest San Bernardino Valley	2	4	11	25	68	2	5	9	16	39
33	Southwest San Bernardino Valley	2	4	11	25	68	2	5	9	16	39
34	Central San Bernardino Valley	1	3	8	18	47	2	6	10	20	50
35	East San Bernardino Valley	1	3	9	20	53	2	5	11	22	56
36	West San Bernardino Mountains	2	4	11	25	68	2	5	9	16	39
37	Central San Bernardino Mountains	1	3	8	18	47	2	6	10	20	50
38	East San Bernardino Mountains	1	3	9	20	53	2	5	11	22	56

Table C-3. PM10 Emission Thresholds for Operation (Continued)

SRA No.	Source Receptor Area	Significance Threshold of 2.5 mg/m^3 Allowable emissions (lbs/day) as a function of receptor distance (meters) from boundary of site				
		5 acres				
		25	50	100	200	500
1	Central LA	4	12	17	26	53
2	Northwest Coastal LA County	3	10	13	21	42
3	Southwest Coastal LA County	4	12	15	21	41
4	South Coastal LA County	4	10	14	22	46
5	Southeast LA County	4	10	15	23	49
6	West San Fernando Valley	3	9	13	21	44
7	East San Fernando Valley	4	11	14	21	41
8	West San Gabriel Valley	3	9	13	21	44
9	East San Gabriel Valley	4	11	16	26	55
10	Pomona/Walnut Valley	3	9	13	20	42
11	South San Gabriel Valley	4	11	15	22	45
12	South Central LA County	4	10	14	20	40
13	Santa Clarita Valley	3	10	13	19	39
15	San Gabriel Mountains	3	10	13	19	39
16	North Orange County	3	9	12	19	40
17	Central Orange County	3	10	14	22	45
18	North Coastal Orange County	4	11	14	21	41
19	Saddleback Valley	3	9	12	18	36
20	Central Orange County Coastal	4	11	14	21	41
21	Capistrano Valley	3	9	12	18	36
22	Norco/Corona	3	9	14	25	55
23	Metropolitan Riverside County	4	10	14	23	50
24	Perris Valley	4	10	14	23	50
25	Lake Elsinore	4	10	14	23	50
26	Temecula Valley	4	10	14	23	50
27	Anza Area	4	10	14	23	50
28	Hemet/San Jacinto Valley	4	10	14	23	50
29	Banning Airport	6	16	25	44	98
30	Coachella Valley	4	11	16	27	60
31	East Riverside County	4	11	16	27	60
32	Northwest San Bernardino Valley	4	12	20	34	78
33	Southwest San Bernardino Valley	4	12	20	34	78
34	Central San Bernardino Valley	4	11	16	26	55
35	East San Bernardino Valley	4	11	16	28	62
36	West San Bernardino Mountains	4	12	20	34	78
37	Central San Bernardino Mountains	4	11	16	26	55
38	East San Bernardino Mountains	4	11	16	28	62

Table C-4. PM10 Emission Thresholds for Construction

SRA No.	Source Receptor Area	Significance Threshold of 10.4 mg/m^3 Allowable emissions (lbs/day) as a function of receptor distance (meters) from boundary of site									
		1 Acre					2 Acre				
		25	50	100	200	500	25	50	100	200	500
1	Central LA	5	15	33	70	179	8	25	43	80	190
2	Northwest Coastal LA County	4	12	27	57	146	6	19	34	64	154
3	Southwest Coastal LA County	5	14	28	56	140	8	23	37	65	148
4	South Coastal LA County	4	13	29	61	158	7	21	37	70	167
5	Southeast LA County	4	13	30	66	173	7	21	39	74	182
6	West San Fernando Valley	4	11	27	59	155	6	17	33	66	162
7	East San Fernando Valley	4	13	26	54	136	7	21	34	62	144
8	West San Gabriel Valley	4	11	27	58	152	6	19	34	66	160
9	East San Gabriel Valley	5	14	34	75	199	7	22	42	84	207
10	Pomona/Walnut Valley	4	11	26	57	148	6	18	33	64	156
11	South San Gabriel Valley	5	13	29	60	153	7	22	37	68	162
12	South Central LA County	4	12	26	54	139	7	20	34	62	146
13	Santa Clarita Valley	4	12	25	51	131	6	19	32	59	139
15	San Gabriel Mountains	4	12	25	51	131	6	19	32	59	139
16	North Orange County	4	10	24	53	137	6	17	31	60	145
17	Central Orange County	4	12	28	60	158	6	19	35	68	166
18	North Coastal Orange County	4	13	27	54	135	7	21	35	62	144
19	Saddleback Valley	4	11	24	48	121	6	18	30	55	129
20	Central Orange County Coastal	4	13	27	54	135	7	21	35	62	144
21	Capistrano Valley	4	11	24	48	121	6	18	30	55	129
22	Norco/Corona	4	11	32	73	198	6	18	39	81	206
23	Metropolitan Riverside County	4	12	30	67	178	7	20	38	75	186
24	Perris Valley	4	12	30	67	178	7	20	38	75	186
25	Lake Elsinore	4	12	30	67	178	7	20	38	75	186
26	Temecula Valley	4	12	30	67	178	7	20	38	75	186
27	Anza Area	4	12	30	67	178	7	20	38	75	186
28	Hemet/San Jacinto Valley	4	12	30	67	178	7	20	38	75	186
29	Banning Airport	6	19	55	129	348	10	32	73	157	407
30	Coachella Valley	4	13	35	80	214	7	22	44	89	223
31	East Riverside County	4	13	35	80	214	7	22	44	89	223
32	Northwest San Bernardino Valley	5	14	44	103	280	6	19	34	66	160
33	Southwest San Bernardino Valley	5	14	44	103	280	6	19	34	66	160
34	Central San Bernardino Valley	4	13	33	74	196	7	22	42	83	205
35	East San Bernardino Valley	4	12	36	82	220	7	21	44	90	230
36	West San Bernardino Mountains	5	14	44	103	280	6	19	34	66	160
37	Central San Bernardino Mountains	4	13	33	74	196	7	22	42	83	205
38	East San Bernardino Mountains	4	12	36	82	220	7	21	44	90	230

Table C-4. PM10 Emission Thresholds for Construction (Continued)

SRA No.	Source Receptor Area	Significance Threshold of 10.4 mg/m^3 Allowable emissions (lbs/day) as a function of receptor distance (meters) from boundary of site				
		5 acres				
		25	50	100	200	500
1	Central LA	16	50	69	107	219
2	Northwest Coastal LA County	13	40	55	84	174
3	Southwest Coastal LA County	15	46	60	88	171
4	South Coastal LA County	14	42	58	92	191
5	Southeast LA County	14	42	60	95	203
6	West San Fernando Valley	11	35	51	84	181
7	East San Fernando Valley	14	42	56	84	167
8	West San Gabriel Valley	12	37	53	85	180
9	East San Gabriel Valley	14	43	63	105	229
10	Pomona/Walnut Valley	12	36	51	82	175
11	South San Gabriel Valley	14	43	59	91	186
12	South Central LA County	13	41	55	83	166
13	Santa Clarita Valley	12	38	52	79	161
15	San Gabriel Mountains	12	38	52	79	161
16	North Orange County	11	34	49	78	165
17	Central Orange County	13	39	55	88	188
18	North Coastal Orange County	14	44	57	85	167
19	Saddleback Valley	12	37	49	74	148
20	Central Orange County Coastal	14	44	57	85	167
21	Capistrano Valley	12	37	49	74	148
22	Norco/Corona	12	37	58	101	228
23	Metropolitan Riverside County	13	40	59	96	207
24	Perris Valley	13	40	59	96	207
25	Lake Elsinore	13	40	59	96	207
26	Temecula Valley	13	40	59	96	207
27	Anza Area	13	40	59	96	207
28	Hemet/San Jacinto Valley	13	40	59	96	207
29	Banning Airport	21	67	104	180	405
30	Coachella Valley	14	44	67	112	248
31	East Riverside County	14	44	67	112	248
32	Northwest San Bernardino Valley	16	50	80	140	322
33	Southwest San Bernardino Valley	16	50	80	140	322
34	Central San Bernardino Valley	14	44	65	106	229
35	East San Bernardino Valley	14	42	66	113	255
36	West San Bernardino Mountains	16	50	80	140	322
37	Central San Bernardino Mountains	14	44	65	106	229
38	East San Bernardino Mountains	14	42	66	113	255

Table C-5. PM2.5 Emission Thresholds for Operation

SRA No.	Source Receptor Area	Significance Threshold of 2.5 ug/m^3 Allowable emissions (lbs/day) as a function of receptor distance (meters) from boundary of site									
		1 Acre					2 Acre				
		25	50	100	200	500	25	50	100	200	500
1	Central LA	1	2	3	6	25	2	2	3	7	27
2	Northwest Coastal LA County	1	1	2	5	19	1	2	3	6	20
3	Southwest Coastal LA County	1	2	3	5	18	1	2	3	6	20
4	South Coastal LA County	1	2	3	7	23	1	2	4	8	25
5	Southeast LA County	1	1	2	5	21	1	2	3	6	22
6	West San Fernando Valley	1	1	2	5	19	1	2	2	5	21
7	East San Fernando Valley	1	1	2	5	17	1	2	3	5	18
8	West San Gabriel Valley	1	1	2	5	19	1	2	3	5	20
9	East San Gabriel Valley	1	2	3	6	23	2	2	3	7	25
10	Pomona/Walnut Valley	1	1	2	5	18	1	2	3	5	20
11	South San Gabriel Valley	1	2	3	5	20	2	2	3	6	22
12	South Central LA County	1	1	2	4	17	1	2	3	5	18
13	Santa Clarita Valley	1	1	2	5	18	1	2	2	5	20
15	San Gabriel Mountains	1	1	2	5	18	1	2	2	5	20
16	North Orange County	1	1	3	5	18	1	2	3	6	19
17	Central Orange County	1	1	2	6	21	1	2	3	6	22
18	North Coastal Orange County	1	2	3	6	19	2	2	3	7	20
19	Saddleback Valley	1	1	2	5	17	1	2	3	6	18
20	Central Orange County Coastal	1	2	3	6	19	2	2	3	7	20
21	Capistrano Valley	1	1	2	5	17	1	2	3	6	18
22	Norco/Corona	1	2	3	6	23	2	2	3	6	24
23	Metropolitan Riverside County	1	1	2	5	21	1	2	3	6	22
24	Perris Valley	1	1	2	5	21	1	2	3	6	22
25	Lake Elsinore	1	1	2	5	21	1	2	3	6	22
26	Temecula Valley	1	1	2	5	21	1	2	3	6	22
27	Anza Area	1	1	2	5	21	1	2	3	6	22
28	Hemet/San Jacinto Valley	1	1	2	5	21	1	2	3	6	22
29	Banning Airport	1	2	4	9	38	2	3	5	10	40
30	Coachella Valley	1	2	3	6	26	2	2	3	7	27
31	East Riverside County	1	2	3	6	26	2	2	3	7	27
32	Northwest San Bernardino Valley	1	2	3	8	34	2	2	4	9	36
33	Southwest San Bernardino Valley	1	2	3	8	34	2	2	4	9	36
34	Central San Bernardino Valley	1	2	3	6	24	1	2	3	7	25
35	East San Bernardino Valley	1	2	3	7	27	2	2	4	8	29
36	West San Bernardino Mountains	1	2	3	8	34	2	2	4	9	36
37	Central San Bernardino Mountains	1	2	3	6	24	1	2	3	7	25
38	East San Bernardino Mountains	1	2	3	7	27	2	2	4	8	29

Table C-5. PM2.5 Emission Thresholds for Operation (Continued)

SRA No.	Source Receptor Area	Significance Threshold of 2.5 ug/m3 Allowable emissions (lbs/day) as a function of receptor distance (meters) from boundary of site				
		5 Acre				
		25	50	100	200	500
1	Central LA	2	3	5	9	31
2	Northwest Coastal LA County	2	2	4	7	23
3	Southwest Coastal LA County	2	3	5	9	24
4	South Coastal LA County	2	3	5	10	29
5	Southeast LA County	2	3	4	8	25
6	West San Fernando Valley	2	2	3	7	23
7	East San Fernando Valley	2	3	4	7	21
8	West San Gabriel Valley	2	3	4	7	23
9	East San Gabriel Valley	2	3	5	9	28
10	Pomona/Walnut Valley	2	3	4	7	23
11	South San Gabriel Valley	2	3	5	9	25
12	South Central LA County	2	3	4	7	21
13	Santa Clarita Valley	2	2	3	7	23
15	San Gabriel Mountains	2	2	3	7	23
16	North Orange County	2	3	4	8	23
17	Central Orange County	2	3	4	8	27
18	North Coastal Orange County	2	3	5	9	25
19	Saddleback Valley	2	3	4	8	22
20	Central Orange County Coastal	2	3	5	9	25
21	Capistrano Valley	2	3	4	8	22
22	Norco/Corona	2	3	5	9	28
23	Metropolitan Riverside County	2	3	4	8	26
24	Perris Valley	2	3	4	8	26
25	Lake Elsinore	2	3	4	8	26
26	Temecula Valley	2	3	4	8	26
27	Anza Area	2	3	4	8	26
28	Hemet/San Jacinto Valley	2	3	4	8	26
29	Banning Airport	3	4	6	14	46
30	Coachella Valley	2	3	5	9	31
31	East Riverside County	2	3	5	9	31
32	Northwest San Bernardino Valley	2	3	5	11	41
33	Southwest San Bernardino Valley	2	3	5	11	41
34	Central San Bernardino Valley	2	3	5	9	29
35	East San Bernardino Valley	3	3	5	10	34
36	West San Bernardino Mountains	2	3	5	11	41
37	Central San Bernardino Mountains	2	3	5	9	29
38	East San Bernardino Mountains	3	3	5	10	34

Table C-6. PM2.5 Emission Thresholds for Construction

SRA No.	Source Receptor Area	Significance Threshold of 10.4 ug/m^3 Allowable emissions (lbs/day) as a function of receptor distance (meters) from boundary of site									
		1 Acre					2 Acre				
		25	50	100	200	500	25	50	100	200	500
1	Central LA	3	5	10	24	102	5	7	12	28	110
2	Northwest Coastal LA County	3	4	8	18	77	4	5	10	21	82
3	Southwest Coastal LA County	3	5	9	21	75	5	7	12	25	81
4	South Coastal LA County	3	5	10	26	93	5	7	13	30	101
5	Southeast LA County	3	4	8	19	86	4	6	10	22	92
6	West San Fernando Valley	3	4	7	18	79	4	5	9	21	84
7	East San Fernando Valley	3	4	8	18	68	4	6	10	21	73
8	West San Gabriel Valley	3	4	7	18	77	4	5	9	21	82
9	East San Gabriel Valley	3	5	9	22	94	5	7	12	26	100
10	Pomona/Walnut Valley	3	4	7	18	75	4	6	10	21	80
11	South San Gabriel Valley	4	5	9	20	83	5	8	12	24	89
12	South Central LA County	3	4	7	17	70	4	6	9	19	74
13	Santa Clarita Valley	3	4	7	18	74	4	5	9	20	80
15	San Gabriel Mountains	3	4	7	18	74	4	5	9	20	80
16	North Orange County	3	4	9	20	74	4	6	11	24	79
17	Central Orange County	3	4	9	22	85	4	6	11	25	92
18	North Coastal Orange County	3	5	9	22	76	5	7	12	26	83
19	Saddleback Valley	3	4	8	19	68	4	6	10	22	74
20	Central Orange County Coastal	3	5	9	22	76	5	7	12	26	83
21	Capistrano Valley	3	4	8	19	68	4	6	10	22	74
22	Norco/Corona	3	5	9	22	92	5	7	12	25	98
23	Metropolitan Riverside County	3	4	8	20	86	4	6	10	23	91
24	Perris Valley	3	4	8	20	86	4	6	10	23	91
25	Lake Elsinore	3	4	8	20	86	4	6	10	23	91
26	Temecula Valley	3	4	8	20	86	4	6	10	23	91
27	Anza Area	3	4	8	20	86	4	6	10	23	91
28	Hemet/San Jacinto Valley	3	4	8	20	86	4	6	10	23	91
29	Banning Airport	4	7	14	36	156	6	9	17	41	166
30	Coachella Valley	3	5	10	24	105	5	7	12	28	112
31	East Riverside County	3	5	10	24	105	5	7	12	28	112
32	Northwest San Bernardino Valley	4	6	12	32	141	5	8	14	36	150
33	Southwest San Bernardino Valley	4	6	12	32	141	5	8	14	36	150
34	Central San Bernardino Valley	3	5	9	23	98	4	6	12	26	104
35	East San Bernardino Valley	4	5	10	26	112	5	7	13	30	120
36	West San Bernardino Mountains	4	6	12	32	141	5	8	14	36	150
37	Central San Bernardino Mountains	3	5	9	23	98	4	6	12	26	104
38	East San Bernardino Mountains	4	5	10	26	112	5	7	13	30	120

Table C-6. PM2.5 Emission Thresholds for Construction (Continued)

SRA No.	Source Receptor Area	Significance Threshold of 10.4 ug/m^3 Allowable emissions (lbs/day) as a function of receptor distance (meters) from boundary of site				
		5 Acre				
		25	50	100	200	500
1	Central LA	8	11	18	36	126
2	Northwest Coastal LA County	6	8	14	29	95
3	Southwest Coastal LA County	8	11	19	35	96
4	South Coastal LA County	8	10	18	39	120
5	Southeast LA County	7	10	15	30	103
6	West San Fernando Valley	6	8	13	26	96
7	East San Fernando Valley	8	10	15	28	86
8	West San Gabriel Valley	7	9	14	27	93
9	East San Gabriel Valley	8	11	17	35	116
10	Pomona/Walnut Valley	7	9	15	28	93
11	South San Gabriel Valley	9	12	19	34	104
12	South Central LA County	7	10	15	27	86
13	Santa Clarita Valley	6	8	13	26	95
15	San Gabriel Mountains	6	8	13	26	95
16	North Orange County	6	9	15	34	95
17	Central Orange County	7	9	15	32	109
18	North Coastal Orange County	9	11	18	35	101
19	Saddleback Valley	8	11	16	30	90
20	Central Orange County Coastal	9	11	18	35	101
21	Capistrano Valley	8	11	16	30	90
22	Norco/Corona	8	11	18	34	113
23	Metropolitan Riverside County	8	10	16	31	105
24	Perris Valley	8	10	16	31	105
25	Lake Elsinore	8	10	16	31	105
26	Temecula Valley	8	10	16	31	105
27	Anza Area	8	10	16	31	105
28	Hemet/San Jacinto Valley	8	10	16	31	105
29	Banning Airport	11	14	25	55	189
30	Coachella Valley	8	11	19	37	128
31	East Riverside County	8	11	19	37	128
32	Northwest San Bernardino Valley	9	12	21	45	170
33	Southwest San Bernardino Valley	9	12	21	45	170
34	Central San Bernardino Valley	8	10	17	35	120
35	East San Bernardino Valley	9	12	20	40	140
36	West San Bernardino Mountains	9	12	21	45	170
37	Central San Bernardino Mountains	8	10	17	35	120
38	East San Bernardino Mountains	9	12	20	40	140

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

21865 Copley Drive, Diamond Bar, CA 91765-4182
Information: 1-800-CUT-SMOG (1-800-288-7664)
Internet: http://www.aqmd.gov

Air Quality Reporting

Since 1977, the South Coast Air Quality Management District has served as the local government agency responsible for measuring, reporting and taking steps to improve air quality.

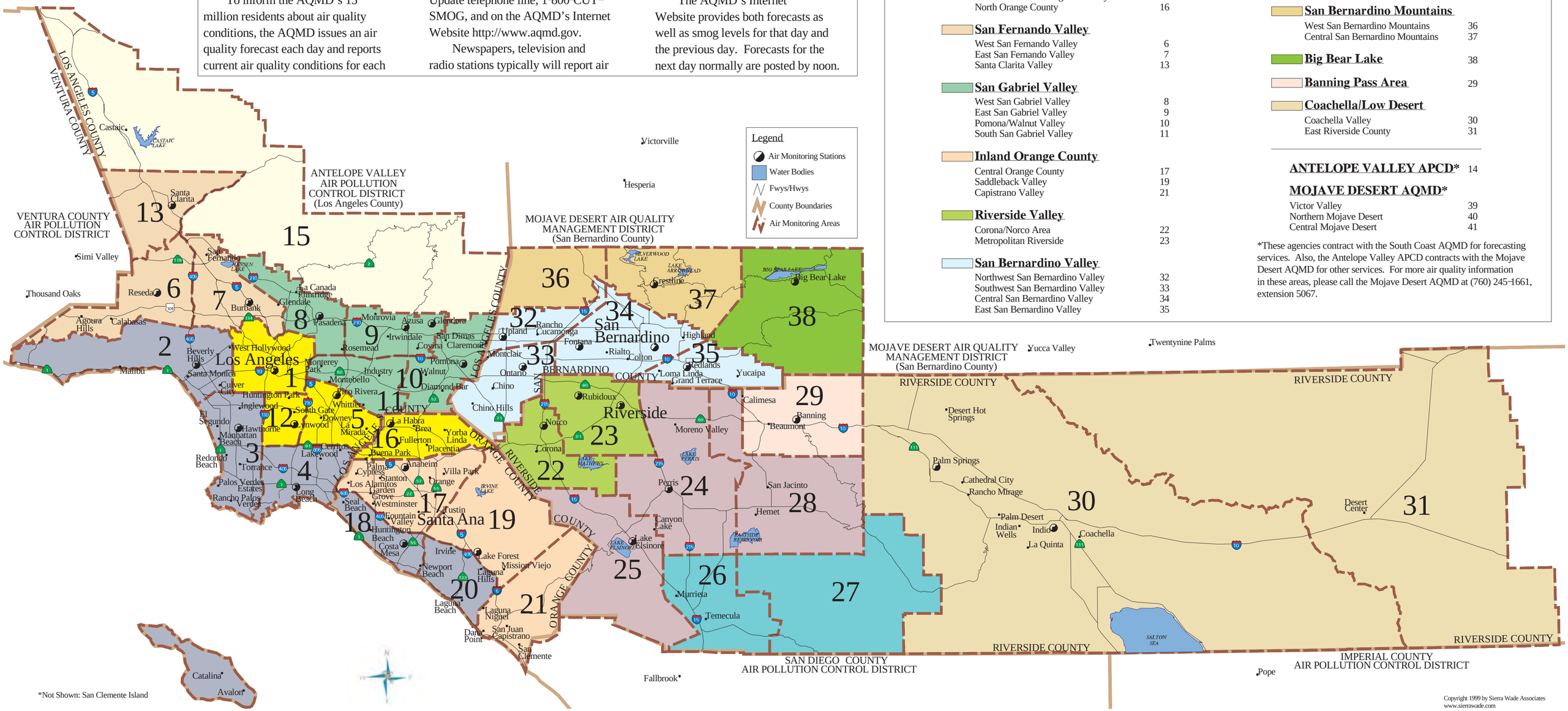
To inform the AQMD's 15 million residents about air quality conditions, the AQMD issues an air quality forecast each day and reports current air quality conditions for each numbered Monitoring Area and General Forecast Area depicted here.

This air quality information is transmitted to the public through newspapers, television, radio and pager services, through faxes to schools, through recorded messages on the AQMD's toll-free Smog Update telephone line, 1-800-CUT-SMOG, and on the AQMD's Internet Website http://www.aqmd.gov.

Newspapers, television and radio stations typically will report air quality information using the General Forecast Areas, shown in color below, which are larger groupings of the more specific Air Monitoring Areas.

The 1-800-CUT-SMOG (1-800-288-7664) line also provides smog forecast and current smog level information by ZIP code.

The AQMD's Internet Website provides both forecasts as well as smog levels for that day and the previous day. Forecasts for the next day normally are posted by noon.



*Not Shown: San Clemente Island

General Forecast Areas & Air Monitoring Areas

Coastal

Northwest Los Angeles County Coastal	2
Southwest Los Angeles County Coastal	3
South Los Angeles County Coastal	4
North Orange County Coastal	18
Central Orange County Coastal	20

Metropolitan

Central Los Angeles County	1
Southeast Los Angeles County	5
South Central Los Angeles County	12
North Orange County	16

San Fernando Valley

West San Fernando Valley	6
East San Fernando Valley	7
Santa Clarita Valley	13

San Gabriel Valley

West San Gabriel Valley	8
East San Gabriel Valley	9
Pomona/Walnut Valley	10
South San Gabriel Valley	11

Inland Orange County

Central Orange County	17
Saddleback Valley	19
Capistrano Valley	21

Riverside Valley

Corona/Norco Area	22
Metropolitan Riverside	23

San Bernardino Valley

Northwest San Bernardino Valley	32
Southwest San Bernardino Valley	33
Central San Bernardino Valley	34
East San Bernardino Valley	35

Hemet/Elsinore Area

Perris Valley	24
Lake Elsinore	25
Hemet/San Jacinto Valley	28

Temecula/Anza Area

Temecula Valley	26
Anza Area	27

San Gabriel Mountains 15

San Bernardino Mountains

West San Bernardino Mountains	36
Central San Bernardino Mountains	37

Big Bear Lake 38

Banning Pass Area 29

Coachella/Low Desert

Coachella Valley	30
East Riverside County	31

ANTELOPE VALLEY APCD* 14

MOJAVE DESERT AQMD*

Victor Valley	39
Northern Mojave Desert	40
Central Mojave Desert	41

*These agencies contract with the South Coast AQMD for forecasting services. Also, the Antelope Valley APCD contracts with the Mojave Desert AQMD for other services. For more air quality information in these areas, please call the Mojave Desert AQMD at (760) 245-1661, extension 5067.

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YTEC Expansion Project - Riverside-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

YTEC Expansion Project

Riverside-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Congregate Care (Assisted Living)	15.00	Dwelling Unit	0.94	15,000.00	43

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2027
Utility Company	Riverside Public Utilities/City of Riverside				
CO2 Intensity (lb/MWhr)	789.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - More prep, grading, building construction, and paving needed for access roads and landscaping. Based on contractor estimate of 18 months

Grading - based on construction plans

Construction Off-road Equipment Mitigation -

Mobile Land Use Mitigation -

Water Mitigation - no kitchen or showers

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	100.00	240.00
tblConstructionPhase	NumDays	2.00	45.00
tblConstructionPhase	NumDays	5.00	10.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblConstructionPhase	NumDays	1.00	10.00
tblConstructionPhase	PhaseEndDate	4/22/2026	1/22/2027
tblConstructionPhase	PhaseEndDate	4/8/2026	1/1/2027
tblConstructionPhase	PhaseEndDate	11/19/2025	1/30/2026
tblConstructionPhase	PhaseEndDate	4/15/2026	1/15/2027
tblConstructionPhase	PhaseEndDate	11/17/2025	11/28/2025
tblConstructionPhase	PhaseStartDate	4/16/2026	1/18/2027
tblConstructionPhase	PhaseStartDate	11/20/2025	2/2/2026
tblConstructionPhase	PhaseStartDate	11/18/2025	12/1/2025
tblConstructionPhase	PhaseStartDate	4/9/2026	1/4/2027
tblGrading	AcresOfGrading	33.75	2.00
tblGrading	AcresOfGrading	5.00	1.00
tblWaterMitigation	PercentReductionInFlowKitchenFaucet	18	100
tblWaterMitigation	PercentReductionInFlowShower	20	100

2.0 Emissions Summary

YTEC Expansion Project - Riverside-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2025	0.0152	0.1502	0.1225	2.9000e-004	0.0554	5.8900e-003	0.0613	0.0292	5.4600e-003	0.0347	0.0000	25.0297	25.0297	6.9500e-003	3.0000e-005	25.2131
2026	0.0790	0.7617	0.9382	1.6800e-003	0.0677	0.0328	0.1005	0.0320	0.0302	0.0621	0.0000	147.9158	147.9158	0.0434	8.2000e-004	149.2445
2027	0.0507	0.0304	0.0456	8.0000e-005	1.1100e-003	1.3500e-003	2.4600e-003	3.0000e-004	1.2700e-003	1.5600e-003	0.0000	6.5954	6.5954	1.5800e-003	2.0000e-005	6.6408
Maximum	**0.0790**	**0.7617**	**0.9382**	**1.6800e-003**	**0.0677**	**0.0328**	**0.1005**	**0.0320**	**0.0302**	**0.0621**	**0.0000**	**147.9158**	**147.9158**	**0.0434**	**8.2000e-004**	**149.2445**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2025	0.0152	0.1502	0.1225	2.8000e-004	0.0227	5.8900e-003	0.0286	0.0117	5.4600e-003	0.0172	0.0000	25.0297	25.0297	6.9500e-003	3.0000e-005	25.2130
2026	0.0790	0.7617	0.9382	1.6800e-003	0.0367	0.0328	0.0695	0.0152	0.0302	0.0454	0.0000	147.9157	147.9157	0.0434	8.2000e-004	149.2444
2027	0.0507	0.0304	0.0456	8.0000e-005	1.1100e-003	1.3500e-003	2.4600e-003	3.0000e-004	1.2700e-003	1.5600e-003	0.0000	6.5954	6.5954	1.5800e-003	2.0000e-005	6.6407
Maximum	**0.0790**	**0.7617**	**0.9382**	**1.6800e-003**	**0.0367**	**0.0328**	**0.0695**	**0.0152**	**0.0302**	**0.0454**	**0.0000**	**147.9157**	**147.9157**	**0.0434**	**8.2000e-004**	**149.2444**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.49**	**51.24**	**0.00**	**38.74**	**55.73**	**0.00**	**34.81**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**11-3-2025**	**2-2-2026**	0.2623	0.2623
2	**2-3-2026**	**5-2-2026**	0.1955	0.1955
3	**5-3-2026**	**8-2-2026**	0.2021	0.2021
4	**8-3-2026**	**11-2-2026**	0.2021	0.2021
5	**11-3-2026**	**2-2-2027**	0.1916	0.1916
		Highest	0.2623	0.2623

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1127	5.6700e-003	0.2499	2.5000e-004		0.0152	0.0152		0.0152	0.0152	1.5933	3.3144	4.9077	4.9900e-003	1.1000e-004	5.0648
Energy	1.1600e-003	9.9400e-003	4.2300e-003	6.0000e-005		8.0000e-004	8.0000e-004		8.0000e-004	8.0000e-004	0.0000	32.7971	32.7971	1.1100e-003	3.2000e-004	32.9199
Mobile	0.0176	0.0270	0.1827	4.5000e-004	0.0528	3.5000e-004	0.0532	0.0141	3.3000e-004	0.0144	0.0000	41.7772	41.7772	2.0900e-003	2.0400e-003	42.4375
Waste						0.0000	0.0000		0.0000	0.0000	2.7790	0.0000	2.7790	0.1642	0.0000	6.8847
Water						0.0000	0.0000		0.0000	0.0000	0.3101	7.0128	7.3228	0.0321	7.9000e-004	8.3610
Total	**0.1315**	**0.0426**	**0.4369**	**7.6000e-004**	**0.0528**	**0.0163**	**0.0692**	**0.0141**	**0.0163**	**0.0304**	**4.6823**	**84.9015**	**89.5838**	**0.2046**	**3.2600e-003**	**95.6678**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1127	5.6700e-003	0.2499	2.5000e-004		0.0152	0.0152		0.0152	0.0152	1.5933	3.3144	4.9077	4.9900e-003	1.1000e-004	5.0648
Energy	1.1600e-003	9.9400e-003	4.2300e-003	6.0000e-005		8.0000e-004	8.0000e-004		8.0000e-004	8.0000e-004	0.0000	32.7971	32.7971	1.1100e-003	3.2000e-004	32.9199
Mobile	0.0159	0.0228	0.1533	3.6000e-004	0.0423	2.9000e-004	0.0425	0.0113	2.7000e-004	0.0116	0.0000	33.6426	33.6426	1.8000e-003	1.7100e-003	34.1964
Waste						0.0000	0.0000		0.0000	0.0000	2.7790	0.0000	2.7790	0.1642	0.0000	6.8847
Water						0.0000	0.0000		0.0000	0.0000	0.1477	4.6252	4.7729	0.0154	3.8000e-004	5.2707
Total	**0.1297**	**0.0384**	**0.4074**	**6.7000e-004**	**0.0423**	**0.0163**	**0.0585**	**0.0113**	**0.0163**	**0.0275**	**4.5200**	**74.3793**	**78.8993**	**0.1875**	**2.5200e-003**	**84.3365**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**1.32**	**9.91**	**6.74**	**11.84**	**20.01**	**0.37**	**15.37**	**19.99**	**0.37**	**9.50**	**3.47**	**12.39**	**11.93**	**8.34**	**22.70**	**11.84**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	11/3/2025	11/14/2025	5	10	
2	Site Preparation	Site Preparation	11/15/2025	11/28/2025	5	10	
3	Grading	Grading	12/1/2025	1/30/2026	5	45	

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4	Building Construction	Building Construction	2/2/2026	1/1/2027	5	240	
5	Paving	Paving	1/4/2027	1/15/2027	5	10	
6	Architectural Coating	Architectural Coating	1/18/2027	1/22/2027	5	5	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 2

Acres of Paving: 0

Residential Indoor: 30,375; Residential Outdoor: 10,125; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Grading	Graders	1	6.00	187	0.41
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37

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Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	11.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	2.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.8700e-003	0.0255	0.0368	6.0000e-005		1.0500e-003	1.0500e-003		1.0000e-003	1.0000e-003	0.0000	5.2123	5.2123	9.3000e-004	0.0000	5.2357
Total	**2.8700e-003**	**0.0255**	**0.0368**	**6.0000e-005**		**1.0500e-003**	**1.0500e-003**		**1.0000e-003**	**1.0000e-003**	**0.0000**	**5.2123**	**5.2123**	**9.3000e-004**	**0.0000**	**5.2357**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Demolition - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4000e-004	1.0000e-004	1.3600e-003	0.0000	5.5000e-004	0.0000	5.5000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.3910	0.3910	1.0000e-005	1.0000e-005	0.3941
Total	**1.4000e-004**	**1.0000e-004**	**1.3600e-003**	**0.0000**	**5.5000e-004**	**0.0000**	**5.5000e-004**	**1.5000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**0.3910**	**0.3910**	**1.0000e-005**	**1.0000e-005**	**0.3941**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.8700e-003	0.0255	0.0368	6.0000e-005		1.0500e-003	1.0500e-003		1.0000e-003	1.0000e-003	0.0000	5.2123	5.2123	9.3000e-004	0.0000	5.2357
Total	**2.8700e-003**	**0.0255**	**0.0368**	**6.0000e-005**		**1.0500e-003**	**1.0500e-003**		**1.0000e-003**	**1.0000e-003**	**0.0000**	**5.2123**	**5.2123**	**9.3000e-004**	**0.0000**	**5.2357**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Demolition - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4000e-004	1.0000e-004	1.3600e-003	0.0000	5.5000e-004	0.0000	5.5000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.3910	0.3910	1.0000e-005	1.0000e-005	0.3941
Total	**1.4000e-004**	**1.0000e-004**	**1.3600e-003**	**0.0000**	**5.5000e-004**	**0.0000**	**5.5000e-004**	**1.5000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**0.3910**	**0.3910**	**1.0000e-005**	**1.0000e-005**	**0.3941**

3.3 Site Preparation - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.3000e-004	0.0000	5.3000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.2200e-003	0.0240	0.0191	5.0000e-005		8.3000e-004	8.3000e-004		7.6000e-004	7.6000e-004	0.0000	4.2742	4.2742	1.3800e-003	0.0000	4.3087
Total	**2.2200e-003**	**0.0240**	**0.0191**	**5.0000e-005**	**5.3000e-004**	**8.3000e-004**	**1.3600e-003**	**6.0000e-005**	**7.6000e-004**	**8.2000e-004**	**0.0000**	**4.2742**	**4.2742**	**1.3800e-003**	**0.0000**	**4.3087**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Site Preparation - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0000e-005	5.0000e-005	6.8000e-004	0.0000	2.7000e-004	0.0000	2.8000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.1955	0.1955	0.0000	0.0000	0.1970
Total	**7.0000e-005**	**5.0000e-005**	**6.8000e-004**	**0.0000**	**2.7000e-004**	**0.0000**	**2.8000e-004**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**0.0000**	**0.1955**	**0.1955**	**0.0000**	**0.0000**	**0.1970**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.1000e-004	0.0000	2.1000e-004	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.2200e-003	0.0240	0.0191	5.0000e-005		8.3000e-004	8.3000e-004		7.6000e-004	7.6000e-004	0.0000	4.2742	4.2742	1.3800e-003	0.0000	4.3087
Total	**2.2200e-003**	**0.0240**	**0.0191**	**5.0000e-005**	**2.1000e-004**	**8.3000e-004**	**1.0400e-003**	**2.0000e-005**	**7.6000e-004**	**7.8000e-004**	**0.0000**	**4.2742**	**4.2742**	**1.3800e-003**	**0.0000**	**4.3087**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Site Preparation - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0000e-005	5.0000e-005	6.8000e-004	0.0000	2.7000e-004	0.0000	2.8000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.1955	0.1955	0.0000	0.0000	0.1970
Total	**7.0000e-005**	**5.0000e-005**	**6.8000e-004**	**0.0000**	**2.7000e-004**	**0.0000**	**2.8000e-004**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**0.0000**	**0.1955**	**0.1955**	**0.0000**	**0.0000**	**0.1970**

3.4 Grading - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0530	0.0000	0.0530	0.0287	0.0000	0.0287	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.6000e-003	0.1004	0.0620	1.6000e-004		4.0100e-003	4.0100e-003		3.6900e-003	3.6900e-003	0.0000	14.2374	14.2374	4.6000e-003	0.0000	14.3525
Total	**9.6000e-003**	**0.1004**	**0.0620**	**1.6000e-004**	**0.0530**	**4.0100e-003**	**0.0570**	**0.0287**	**3.6900e-003**	**0.0324**	**0.0000**	**14.2374**	**14.2374**	**4.6000e-003**	**0.0000**	**14.3525**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.6000e-004	1.8000e-004	2.5100e-003	1.0000e-005	1.0100e-003	0.0000	1.0200e-003	2.7000e-004	0.0000	2.7000e-004	0.0000	0.7194	0.7194	2.0000e-005	2.0000e-005	0.7251
Total	**2.6000e-004**	**1.8000e-004**	**2.5100e-003**	**1.0000e-005**	**1.0100e-003**	**0.0000**	**1.0200e-003**	**2.7000e-004**	**0.0000**	**2.7000e-004**	**0.0000**	**0.7194**	**0.7194**	**2.0000e-005**	**2.0000e-005**	**0.7251**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0207	0.0000	0.0207	0.0112	0.0000	0.0112	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.6000e-003	0.1004	0.0620	1.6000e-004		4.0100e-003	4.0100e-003		3.6900e-003	3.6900e-003	0.0000	14.2374	14.2374	4.6000e-003	0.0000	14.3525
Total	**9.6000e-003**	**0.1004**	**0.0620**	**1.6000e-004**	**0.0207**	**4.0100e-003**	**0.0247**	**0.0112**	**3.6900e-003**	**0.0149**	**0.0000**	**14.2374**	**14.2374**	**4.6000e-003**	**0.0000**	**14.3525**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.6000e-004	1.8000e-004	2.5100e-003	1.0000e-005	1.0100e-003	0.0000	1.0200e-003	2.7000e-004	0.0000	2.7000e-004	0.0000	0.7194	0.7194	2.0000e-005	2.0000e-005	0.7251
Total	**2.6000e-004**	**1.8000e-004**	**2.5100e-003**	**1.0000e-005**	**1.0100e-003**	**0.0000**	**1.0200e-003**	**2.7000e-004**	**0.0000**	**2.7000e-004**	**0.0000**	**0.7194**	**0.7194**	**2.0000e-005**	**2.0000e-005**	**0.7251**

3.4 Grading - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0507	0.0000	0.0507	0.0274	0.0000	0.0274	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.1800e-003	0.0961	0.0593	1.6000e-004		3.8300e-003	3.8300e-003		3.5300e-003	3.5300e-003	0.0000	13.6184	13.6184	4.4000e-003	0.0000	13.7285
Total	**9.1800e-003**	**0.0961**	**0.0593**	**1.6000e-004**	**0.0507**	**3.8300e-003**	**0.0546**	**0.0274**	**3.5300e-003**	**0.0310**	**0.0000**	**13.6184**	**13.6184**	**4.4000e-003**	**0.0000**	**13.7285**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.3000e-004	1.5000e-004	2.2500e-003	1.0000e-005	9.7000e-004	0.0000	9.7000e-004	2.6000e-004	0.0000	2.6000e-004	0.0000	0.6667	0.6667	1.0000e-005	2.0000e-005	0.6718
Total	**2.3000e-004**	**1.5000e-004**	**2.2500e-003**	**1.0000e-005**	**9.7000e-004**	**0.0000**	**9.7000e-004**	**2.6000e-004**	**0.0000**	**2.6000e-004**	**0.0000**	**0.6667**	**0.6667**	**1.0000e-005**	**2.0000e-005**	**0.6718**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0198	0.0000	0.0198	0.0107	0.0000	0.0107	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.1800e-003	0.0961	0.0593	1.6000e-004		3.8300e-003	3.8300e-003		3.5300e-003	3.5300e-003	0.0000	13.6184	13.6184	4.4000e-003	0.0000	13.7285
Total	**9.1800e-003**	**0.0961**	**0.0593**	**1.6000e-004**	**0.0198**	**3.8300e-003**	**0.0236**	**0.0107**	**3.5300e-003**	**0.0142**	**0.0000**	**13.6184**	**13.6184**	**4.4000e-003**	**0.0000**	**13.7285**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2026

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.3000e-004	1.5000e-004	2.2500e-003	1.0000e-005	9.7000e-004	0.0000	9.7000e-004	2.6000e-004	0.0000	2.6000e-004	0.0000	0.6667	0.6667	1.0000e-005	2.0000e-005	0.6718
Total	**2.3000e-004**	**1.5000e-004**	**2.2500e-003**	**1.0000e-005**	**9.7000e-004**	**0.0000**	**9.7000e-004**	**2.6000e-004**	**0.0000**	**2.6000e-004**	**0.0000**	**0.6667**	**0.6667**	**1.0000e-005**	**2.0000e-005**	**0.6718**

3.5 Building Construction - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0658	0.6551	0.8399	1.3600e-003		0.0288	0.0288		0.0265	0.0265	0.0000	119.8534	119.8534	0.0388	0.0000	120.8225
Total	**0.0658**	**0.6551**	**0.8399**	**1.3600e-003**		**0.0288**	**0.0288**		**0.0265**	**0.0265**	**0.0000**	**119.8534**	**119.8534**	**0.0388**	**0.0000**	**120.8225**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.5000e-004	8.0500e-003	3.1600e-003	4.0000e-005	1.5100e-003	7.0000e-005	1.5800e-003	4.4000e-004	6.0000e-005	5.0000e-004	0.0000	3.8187	3.8187	5.0000e-005	5.6000e-004	3.9872
Worker	3.5000e-003	2.2800e-003	0.0336	1.1000e-004	0.0145	6.0000e-005	0.0145	3.8400e-003	5.0000e-005	3.8900e-003	0.0000	9.9586	9.9586	2.0000e-004	2.4000e-004	10.0346
Total	**3.7500e-003**	**0.0103**	**0.0368**	**1.5000e-004**	**0.0160**	**1.3000e-004**	**0.0161**	**4.2800e-003**	**1.1000e-004**	**4.3900e-003**	**0.0000**	**13.7774**	**13.7774**	**2.5000e-004**	**8.0000e-004**	**14.0218**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0658	0.6551	0.8399	1.3600e-003		0.0288	0.0288		0.0265	0.0265	0.0000	119.8532	119.8532	0.0388	0.0000	120.8223
Total	**0.0658**	**0.6551**	**0.8399**	**1.3600e-003**		**0.0288**	**0.0288**		**0.0265**	**0.0265**	**0.0000**	**119.8532**	**119.8532**	**0.0388**	**0.0000**	**120.8223**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2026

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.5000e-004	8.0500e-003	3.1600e-003	4.0000e-005	1.5100e-003	7.0000e-005	1.5800e-003	4.4000e-004	6.0000e-005	5.0000e-004	0.0000	3.8187	3.8187	5.0000e-005	5.6000e-004	3.9872
Worker	3.5000e-003	2.2800e-003	0.0336	1.1000e-004	0.0145	6.0000e-005	0.0145	3.8400e-003	5.0000e-005	3.8900e-003	0.0000	9.9586	9.9586	2.0000e-004	2.4000e-004	10.0346
Total	**3.7500e-003**	**0.0103**	**0.0368**	**1.5000e-004**	**0.0160**	**1.3000e-004**	**0.0161**	**4.2800e-003**	**1.1000e-004**	**4.3900e-003**	**0.0000**	**13.7774**	**13.7774**	**2.5000e-004**	**8.0000e-004**	**14.0218**

3.5 Building Construction - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.8000e-004	2.7400e-003	3.5100e-003	1.0000e-005		1.2000e-004	1.2000e-004		1.1000e-004	1.1000e-004	0.0000	0.5015	0.5015	1.6000e-004	0.0000	0.5055
Total	**2.8000e-004**	**2.7400e-003**	**3.5100e-003**	**1.0000e-005**		**1.2000e-004**	**1.2000e-004**		**1.1000e-004**	**1.1000e-004**	**0.0000**	**0.5015**	**0.5015**	**1.6000e-004**	**0.0000**	**0.5055**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2027

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0157	0.0157	0.0000	0.0000	0.0164
Worker	1.0000e-005	1.0000e-005	1.3000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0405	0.0405	0.0000	0.0000	0.0408
Total	**1.0000e-005**	**4.0000e-005**	**1.4000e-004**	**0.0000**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0561**	**0.0561**	**0.0000**	**0.0000**	**0.0571**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.8000e-004	2.7400e-003	3.5100e-003	1.0000e-005		1.2000e-004	1.2000e-004		1.1000e-004	1.1000e-004	0.0000	0.5015	0.5015	1.6000e-004	0.0000	0.5055
Total	**2.8000e-004**	**2.7400e-003**	**3.5100e-003**	**1.0000e-005**		**1.2000e-004**	**1.2000e-004**		**1.1000e-004**	**1.1000e-004**	**0.0000**	**0.5015**	**0.5015**	**1.6000e-004**	**0.0000**	**0.5055**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2027

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0157	0.0157	0.0000	0.0000	0.0164
Worker	1.0000e-005	1.0000e-005	1.3000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0405	0.0405	0.0000	0.0000	0.0408
Total	**1.0000e-005**	**4.0000e-005**	**1.4000e-004**	**0.0000**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0561**	**0.0561**	**0.0000**	**0.0000**	**0.0571**

3.6 Paving - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.8200e-003	0.0246	0.0351	6.0000e-005		1.0900e-003	1.0900e-003		1.0200e-003	1.0200e-003	0.0000	4.7005	4.7005	1.3700e-003	0.0000	4.7347
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.8200e-003**	**0.0246**	**0.0351**	**6.0000e-005**		**1.0900e-003**	**1.0900e-003**		**1.0200e-003**	**1.0200e-003**	**0.0000**	**4.7005**	**4.7005**	**1.3700e-003**	**0.0000**	**4.7347**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Paving - 2027

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.3000e-004	1.4000e-004	2.1700e-003	1.0000e-005	9.9000e-004	0.0000	9.9000e-004	2.6000e-004	0.0000	2.7000e-004	0.0000	0.6623	0.6623	1.0000e-005	2.0000e-005	0.6672
Total	**2.3000e-004**	**1.4000e-004**	**2.1700e-003**	**1.0000e-005**	**9.9000e-004**	**0.0000**	**9.9000e-004**	**2.6000e-004**	**0.0000**	**2.7000e-004**	**0.0000**	**0.6623**	**0.6623**	**1.0000e-005**	**2.0000e-005**	**0.6672**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.8200e-003	0.0246	0.0351	6.0000e-005		1.0900e-003	1.0900e-003		1.0200e-003	1.0200e-003	0.0000	4.7004	4.7004	1.3700e-003	0.0000	4.7347
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.8200e-003**	**0.0246**	**0.0351**	**6.0000e-005**		**1.0900e-003**	**1.0900e-003**		**1.0200e-003**	**1.0200e-003**	**0.0000**	**4.7004**	**4.7004**	**1.3700e-003**	**0.0000**	**4.7347**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Paving - 2027

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.3000e-004	1.4000e-004	2.1700e-003	1.0000e-005	9.9000e-004	0.0000	9.9000e-004	2.6000e-004	0.0000	2.7000e-004	0.0000	0.6623	0.6623	1.0000e-005	2.0000e-005	0.6672
Total	**2.3000e-004**	**1.4000e-004**	**2.1700e-003**	**1.0000e-005**	**9.9000e-004**	**0.0000**	**9.9000e-004**	**2.6000e-004**	**0.0000**	**2.7000e-004**	**0.0000**	**0.6623**	**0.6623**	**1.0000e-005**	**2.0000e-005**	**0.6672**

3.7 Architectural Coating - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0469					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.3000e-004	2.8600e-003	4.5200e-003	1.0000e-005		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	0.6383	0.6383	3.0000e-005	0.0000	0.6392
Total	**0.0474**	**2.8600e-003**	**4.5200e-003**	**1.0000e-005**		**1.3000e-004**	**1.3000e-004**		**1.3000e-004**	**1.3000e-004**	**0.0000**	**0.6383**	**0.6383**	**3.0000e-005**	**0.0000**	**0.6392**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.7 Architectural Coating - 2027

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	1.2000e-004	0.0000	5.0000e-005	0.0000	6.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0368	0.0368	0.0000	0.0000	0.0371
Total	**1.0000e-005**	**1.0000e-005**	**1.2000e-004**	**0.0000**	**5.0000e-005**	**0.0000**	**6.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0368**	**0.0368**	**0.0000**	**0.0000**	**0.0371**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0469					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.3000e-004	2.8600e-003	4.5200e-003	1.0000e-005		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	0.6383	0.6383	3.0000e-005	0.0000	0.6392
Total	**0.0474**	**2.8600e-003**	**4.5200e-003**	**1.0000e-005**		**1.3000e-004**	**1.3000e-004**		**1.3000e-004**	**1.3000e-004**	**0.0000**	**0.6383**	**0.6383**	**3.0000e-005**	**0.0000**	**0.6392**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.7 Architectural Coating - 2027

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	1.2000e-004	0.0000	5.0000e-005	0.0000	6.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0368	0.0368	0.0000	0.0000	0.0371
Total	**1.0000e-005**	**1.0000e-005**	**1.2000e-004**	**0.0000**	**5.0000e-005**	**0.0000**	**6.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0368**	**0.0368**	**0.0000**	**0.0000**	**0.0371**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Limit Parking Supply

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0159	0.0228	0.1533	3.6000e-004	0.0423	2.9000e-004	0.0425	0.0113	2.7000e-004	0.0116	0.0000	33.6426	33.6426	1.8000e-003	1.7100e-003	34.1964
Unmitigated	0.0176	0.0270	0.1827	4.5000e-004	0.0528	3.5000e-004	0.0532	0.0141	3.3000e-004	0.0144	0.0000	41.7772	41.7772	2.0900e-003	2.0400e-003	42.4375

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Congregate Care (Assisted Living)	39.00	43.95	47.25	139,713	111,770
Total	39.00	43.95	47.25	139,713	111,770

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Congregate Care (Assisted	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Congregate Care (Assisted Living)	0.544951	0.056922	0.175129	0.132247	0.024165	0.006855	0.011655	0.018450	0.000608	0.000293	0.023172	0.001089	0.004464

5.0 Energy Detail

Historical Energy Use: N

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	21.2848	21.2848	8.9000e-004	1.1000e-004	21.3391
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	21.2848	21.2848	8.9000e-004	1.1000e-004	21.3391
NaturalGas Mitigated	1.1600e-003	9.9400e-003	4.2300e-003	6.0000e-005		8.0000e-004	8.0000e-004		8.0000e-004	8.0000e-004	0.0000	11.5123	11.5123	2.2000e-004	2.1000e-004	11.5807
NaturalGas Unmitigated	1.1600e-003	9.9400e-003	4.2300e-003	6.0000e-005		8.0000e-004	8.0000e-004		8.0000e-004	8.0000e-004	0.0000	11.5123	11.5123	2.2000e-004	2.1000e-004	11.5807

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Congregate Care (Assisted Living)	215733	1.1600e-003	9.9400e-003	4.2300e-003	6.0000e-005		8.0000e-004	8.0000e-004		8.0000e-004	8.0000e-004	0.0000	11.5123	11.5123	2.2000e-004	2.1000e-004	11.5807
Total		**1.1600e-003**	**9.9400e-003**	**4.2300e-003**	**6.0000e-005**		**8.0000e-004**	**8.0000e-004**		**8.0000e-004**	**8.0000e-004**	**0.0000**	**11.5123**	**11.5123**	**2.2000e-004**	**2.1000e-004**	**11.5807**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Congregate Care (Assisted Living)	215733	1.1600e-003	9.9400e-003	4.2300e-003	6.0000e-005		8.0000e-004	8.0000e-004		8.0000e-004	8.0000e-004	0.0000	11.5123	11.5123	2.2000e-004	2.1000e-004	11.5807
Total		**1.1600e-003**	**9.9400e-003**	**4.2300e-003**	**6.0000e-005**		**8.0000e-004**	**8.0000e-004**		**8.0000e-004**	**8.0000e-004**	**0.0000**	**11.5123**	**11.5123**	**2.2000e-004**	**2.1000e-004**	**11.5807**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Congregate Care (Assisted Living)	59400.1	21.2848	8.9000e-004	1.1000e-004	21.3391
Total		**21.2848**	**8.9000e-004**	**1.1000e-004**	**21.3391**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Congregate Care (Assisted Living)	59400.1	21.2848	8.9000e-004	1.1000e-004	21.3391
Total		**21.2848**	**8.9000e-004**	**1.1000e-004**	**21.3391**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1127	5.6700e-003	0.2499	2.5000e-004		0.0152	0.0152		0.0152	0.0152	1.5933	3.3144	4.9077	4.9900e-003	1.1000e-004	5.0648
Unmitigated	0.1127	5.6700e-003	0.2499	2.5000e-004		0.0152	0.0152		0.0152	0.0152	1.5933	3.3144	4.9077	4.9900e-003	1.1000e-004	5.0648

YTEC Expansion Project - Riverside-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	4.6900e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0542					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0491	3.8900e-003	0.0954	2.4000e-004		0.0143	0.0143		0.0143	0.0143	1.5933	3.0618	4.6550	4.7500e-003	1.1000e-004	4.8061
Landscaping	4.6400e-003	1.7800e-003	0.1545	1.0000e-005		8.6000e-004	8.6000e-004		8.6000e-004	8.6000e-004	0.0000	0.2527	0.2527	2.4000e-004	0.0000	0.2587
Total	**0.1127**	**5.6700e-003**	**0.2499**	**2.5000e-004**		**0.0152**	**0.0152**		**0.0152**	**0.0152**	**1.5933**	**3.3144**	**4.9077**	**4.9900e-003**	**1.1000e-004**	**5.0648**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	4.6900e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0542					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0491	3.8900e-003	0.0954	2.4000e-004		0.0143	0.0143		0.0143	0.0143	1.5933	3.0618	4.6550	4.7500e-003	1.1000e-004	4.8061
Landscaping	4.6400e-003	1.7800e-003	0.1545	1.0000e-005		8.6000e-004	8.6000e-004		8.6000e-004	8.6000e-004	0.0000	0.2527	0.2527	2.4000e-004	0.0000	0.2587
Total	**0.1127**	**5.6700e-003**	**0.2499**	**2.5000e-004**		**0.0152**	**0.0152**		**0.0152**	**0.0152**	**1.5933**	**3.3144**	**4.9077**	**4.9900e-003**	**1.1000e-004**	**5.0648**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	4.7729	0.0154	3.8000e-004	5.2707
Unmitigated	7.3228	0.0321	7.9000e-004	8.3610

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Congregate Care (Assisted Living)	0.97731 / 0.61613	7.3228	0.0321	7.9000e-004	8.3610
Total		**7.3228**	**0.0321**	**7.9000e-004**	**8.3610**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Congregate Care (Assisted Living)	0.465591 / 0.61613	4.7729	0.0154	3.8000e-004	5.2707
Total		**4.7729**	**0.0154**	**3.8000e-004**	**5.2707**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	2.7790	0.1642	0.0000	6.8847
Unmitigated	2.7790	0.1642	0.0000	6.8847

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Congregate Care (Assisted Living)	13.69	2.7790	0.1642	0.0000	6.8847
Total		**2.7790**	**0.1642**	**0.0000**	**6.8847**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Congregate Care (Assisted Living)	13.69	2.7790	0.1642	0.0000	6.8847
Total		**2.7790**	**0.1642**	**0.0000**	**6.8847**

9.0 Operational Offroad

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

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

YTEC Expansion Project - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

YTEC Expansion Project

Riverside-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Congregate Care (Assisted Living)	15.00	Dwelling Unit	0.94	15,000.00	43

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2027
Utility Company	Riverside Public Utilities/City of Riverside				
CO2 Intensity (lb/MWhr)	789.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - More prep, grading, building construction, and paving needed for access roads and landscaping. Based on contractor estimate of 18 months

Grading - based on construction plans

Construction Off-road Equipment Mitigation -

Mobile Land Use Mitigation -

Water Mitigation - no kitchen or showers

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	100.00	240.00
tblConstructionPhase	NumDays	2.00	45.00
tblConstructionPhase	NumDays	5.00	10.00

YTEC Expansion Project - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblConstructionPhase	NumDays	1.00	10.00
tblConstructionPhase	PhaseEndDate	4/22/2026	1/22/2027
tblConstructionPhase	PhaseEndDate	4/8/2026	1/1/2027
tblConstructionPhase	PhaseEndDate	11/19/2025	1/30/2026
tblConstructionPhase	PhaseEndDate	4/15/2026	1/15/2027
tblConstructionPhase	PhaseEndDate	11/17/2025	11/28/2025
tblConstructionPhase	PhaseStartDate	4/16/2026	1/18/2027
tblConstructionPhase	PhaseStartDate	11/20/2025	2/2/2026
tblConstructionPhase	PhaseStartDate	11/18/2025	12/1/2025
tblConstructionPhase	PhaseStartDate	4/9/2026	1/4/2027
tblGrading	AcresOfGrading	33.75	2.00
tblGrading	AcresOfGrading	5.00	1.00
tblWaterMitigation	PercentReductionInFlowKitchenFaucet	18	100
tblWaterMitigation	PercentReductionInFlowShower	20	100

2.0 Emissions Summary

YTEC Expansion Project - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2025	0.8604	8.7485	7.6821	0.0148	4.6531	0.3488	5.0019	2.5115	0.3209	2.8323	0.0000	1,439.0425	1,439.0425	0.4429	2.0300e-003	1,450.5992
2026	0.8589	8.7471	7.3820	0.0148	4.6531	0.3487	5.0019	2.5115	0.3208	2.8323	0.0000	1,436.7176	1,436.7176	0.4427	7.2700e-003	1,448.2421
2027	18.9482	5.5618	7.5310	0.0128	0.2012	0.2423	0.4206	0.0534	0.2229	0.2592	0.0000	1,236.2430	1,236.2430	0.3597	7.0500e-003	1,247.3382
Maximum	**18.9482**	**8.7485**	**7.6821**	**0.0148**	**4.6531**	**0.3488**	**5.0019**	**2.5115**	**0.3209**	**2.8323**	**0.0000**	**1,439.0425**	**1,439.0425**	**0.4429**	**7.2700e-003**	**1,450.5992**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2025	0.8604	8.7485	7.6821	0.0148	1.8693	0.3488	2.2180	0.9939	0.3209	1.3148	0.0000	1,439.0425	1,439.0425	0.4429	2.0300e-003	1,450.5992
2026	0.8589	8.7471	7.3820	0.0148	1.8693	0.3487	2.2180	0.9939	0.3208	1.3148	0.0000	1,436.7176	1,436.7176	0.4427	7.2700e-003	1,448.2421
2027	18.9482	5.5618	7.5310	0.0128	0.2012	0.2423	0.4206	0.0534	0.2229	0.2592	0.0000	1,236.2430	1,236.2430	0.3597	7.0500e-003	1,247.3382
Maximum	**18.9482**	**8.7485**	**7.6821**	**0.0148**	**1.8693**	**0.3488**	**2.2180**	**0.9939**	**0.3209**	**1.3148**	**0.0000**	**1,439.0425**	**1,439.0425**	**0.4429**	**7.2700e-003**	**1,450.5992**

YTEC Expansion Project - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	58.56	0.00	53.41	59.79	0.00	51.23	0.00	0.00	0.00	0.00	0.00	0.00

YTEC Expansion Project - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	4.2904	0.3255	8.8646	0.0195		1.1527	1.1527		1.1527	1.1527	140.5038	272.2283	412.7321	0.4211	9.5400e-003	426.1025
Energy	6.3700e-003	0.0545	0.0232	3.5000e-004		4.4000e-003	4.4000e-003		4.4000e-003	4.4000e-003		69.5351	69.5351	1.3300e-003	1.2700e-003	69.9483
Mobile	0.1302	0.1606	1.2665	3.0400e-003	0.3410	2.2400e-003	0.3432	0.0910	2.1000e-003	0.0931		309.8228	309.8228	0.0144	0.0139	314.3313
Total	**4.4270**	**0.5405**	**10.1543**	**0.0229**	**0.3410**	**1.1593**	**1.5003**	**0.0910**	**1.1592**	**1.2501**	**140.5038**	**651.5861**	**792.0899**	**0.4368**	**0.0247**	**810.3820**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	4.2904	0.3255	8.8646	0.0195		1.1527	1.1527		1.1527	1.1527	140.5038	272.2283	412.7321	0.4211	9.5400e-003	426.1025
Energy	6.3700e-003	0.0545	0.0232	3.5000e-004		4.4000e-003	4.4000e-003		4.4000e-003	4.4000e-003		69.5351	69.5351	1.3300e-003	1.2700e-003	69.9483
Mobile	0.1191	0.1357	1.0536	2.4500e-003	0.2728	1.8300e-003	0.2746	0.0728	1.7100e-003	0.0745		249.3907	249.3907	0.0123	0.0117	253.1709
Total	**4.4158**	**0.5156**	**9.9414**	**0.0223**	**0.2728**	**1.1589**	**1.4317**	**0.0728**	**1.1588**	**1.2316**	**140.5038**	**591.1540**	**731.6578**	**0.4348**	**0.0225**	**749.2217**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.25**	**4.60**	**2.10**	**2.57**	**20.00**	**0.04**	**4.57**	**20.00**	**0.03**	**1.49**	**0.00**	**9.27**	**7.63**	**0.48**	**9.14**	**7.55**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	11/3/2025	11/14/2025	5	10	
2	Site Preparation	Site Preparation	11/15/2025	11/28/2025	5	10	
3	Grading	Grading	12/1/2025	1/30/2026	5	45	
4	Building Construction	Building Construction	2/2/2026	1/1/2027	5	240	
5	Paving	Paving	1/4/2027	1/15/2027	5	10	
6	Architectural Coating	Architectural Coating	1/18/2027	1/22/2027	5	5	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 2

Acres of Paving: 0

Residential Indoor: 30,375; Residential Outdoor: 10,125; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20

YTEC Expansion Project - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Grading	Graders	1	6.00	187	0.41
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	11.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	2.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

YTEC Expansion Project - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Demolition - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5743	5.1008	7.3641	0.0120		0.2102	0.2102		0.2008	0.2008		1,149.1195	1,149.1195	0.2060		1,154.2705
Total	**0.5743**	**5.1008**	**7.3641**	**0.0120**		**0.2102**	**0.2102**		**0.2008**	**0.2008**		**1,149.1195**	**1,149.1195**	**0.2060**		**1,154.2705**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0318	0.0180	0.3181	9.2000e-004	0.1118	4.7000e-004	0.1123	0.0296	4.4000e-004	0.0301		92.9298	92.9298	1.8800e-003	2.0300e-003	93.5828
Total	**0.0318**	**0.0180**	**0.3181**	**9.2000e-004**	**0.1118**	**4.7000e-004**	**0.1123**	**0.0296**	**4.4000e-004**	**0.0301**		**92.9298**	**92.9298**	**1.8800e-003**	**2.0300e-003**	**93.5828**

YTEC Expansion Project - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Demolition - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5743	5.1008	7.3641	0.0120		0.2102	0.2102		0.2008	0.2008	0.0000	1,149.1195	1,149.1195	0.2060		1,154.2705
Total	**0.5743**	**5.1008**	**7.3641**	**0.0120**		**0.2102**	**0.2102**		**0.2008**	**0.2008**	**0.0000**	**1,149.1195**	**1,149.1195**	**0.2060**		**1,154.2705**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0318	0.0180	0.3181	9.2000e-004	0.1118	4.7000e-004	0.1123	0.0296	4.4000e-004	0.0301		92.9298	92.9298	1.8800e-003	2.0300e-003	93.5828
Total	**0.0318**	**0.0180**	**0.3181**	**9.2000e-004**	**0.1118**	**4.7000e-004**	**0.1123**	**0.0296**	**4.4000e-004**	**0.0301**		**92.9298**	**92.9298**	**1.8800e-003**	**2.0300e-003**	**93.5828**

YTEC Expansion Project - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Site Preparation - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.1061	0.0000	0.1061	0.0115	0.0000	0.0115			0.0000			0.0000
Off-Road	0.4432	4.7918	3.8238	9.7300e-003		0.1654	0.1654		0.1521	0.1521		942.2955	942.2955	0.3048		949.9144
Total	**0.4432**	**4.7918**	**3.8238**	**9.7300e-003**	**0.1061**	**0.1654**	**0.2714**	**0.0115**	**0.1521**	**0.1636**		**942.2955**	**942.2955**	**0.3048**		**949.9144**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0159	9.0100e-003	0.1590	4.6000e-004	0.0559	2.4000e-004	0.0561	0.0148	2.2000e-004	0.0150		46.4649	46.4649	9.4000e-004	1.0200e-003	46.7914
Total	**0.0159**	**9.0100e-003**	**0.1590**	**4.6000e-004**	**0.0559**	**2.4000e-004**	**0.0561**	**0.0148**	**2.2000e-004**	**0.0150**		**46.4649**	**46.4649**	**9.4000e-004**	**1.0200e-003**	**46.7914**

YTEC Expansion Project - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Site Preparation - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0414	0.0000	0.0414	4.4700e-003	0.0000	4.4700e-003			0.0000			0.0000
Off-Road	0.4432	4.7918	3.8238	9.7300e-003		0.1654	0.1654		0.1521	0.1521	0.0000	942.2955	942.2955	0.3048		949.9144
Total	**0.4432**	**4.7918**	**3.8238**	**9.7300e-003**	**0.0414**	**0.1654**	**0.2067**	**4.4700e-003**	**0.1521**	**0.1566**	**0.0000**	**942.2955**	**942.2955**	**0.3048**		**949.9144**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0159	9.0100e-003	0.1590	4.6000e-004	0.0559	2.4000e-004	0.0561	0.0148	2.2000e-004	0.0150		46.4649	46.4649	9.4000e-004	1.0200e-003	46.7914
Total	**0.0159**	**9.0100e-003**	**0.1590**	**4.6000e-004**	**0.0559**	**2.4000e-004**	**0.0561**	**0.0148**	**2.2000e-004**	**0.0150**		**46.4649**	**46.4649**	**9.4000e-004**	**1.0200e-003**	**46.7914**

YTEC Expansion Project - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.5637	0.0000	4.5637	2.4878	0.0000	2.4878			0.0000			0.0000
Off-Road	0.8350	8.7341	5.3948	0.0141		0.3484	0.3484		0.3205	0.3205		1,364.6987	1,364.6987	0.4414		1,375.7329
Total	**0.8350**	**8.7341**	**5.3948**	**0.0141**	**4.5637**	**0.3484**	**4.9121**	**2.4878**	**0.3205**	**2.8083**		**1,364.6987**	**1,364.6987**	**0.4414**		**1,375.7329**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0254	0.0144	0.2545	7.4000e-004	0.0894	3.8000e-004	0.0898	0.0237	3.5000e-004	0.0241		74.3438	74.3438	1.5000e-003	1.6300e-003	74.8663
Total	**0.0254**	**0.0144**	**0.2545**	**7.4000e-004**	**0.0894**	**3.8000e-004**	**0.0898**	**0.0237**	**3.5000e-004**	**0.0241**		**74.3438**	**74.3438**	**1.5000e-003**	**1.6300e-003**	**74.8663**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.7798	0.0000	1.7798	0.9702	0.0000	0.9702			0.0000			0.0000
Off-Road	0.8350	8.7341	5.3948	0.0141		0.3484	0.3484		0.3205	0.3205	0.0000	1,364.6987	1,364.6987	0.4414		1,375.7329
Total	**0.8350**	**8.7341**	**5.3948**	**0.0141**	**1.7798**	**0.3484**	**2.1282**	**0.9702**	**0.3205**	**1.2907**	**0.0000**	**1,364.6987**	**1,364.6987**	**0.4414**		**1,375.7329**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0254	0.0144	0.2545	7.4000e-004	0.0894	3.8000e-004	0.0898	0.0237	3.5000e-004	0.0241		74.3438	74.3438	1.5000e-003	1.6300e-003	74.8663
Total	**0.0254**	**0.0144**	**0.2545**	**7.4000e-004**	**0.0894**	**3.8000e-004**	**0.0898**	**0.0237**	**3.5000e-004**	**0.0241**		**74.3438**	**74.3438**	**1.5000e-003**	**1.6300e-003**	**74.8663**

YTEC Expansion Project - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.5637	0.0000	4.5637	2.4878	0.0000	2.4878			0.0000			0.0000
Off-Road	0.8350	8.7341	5.3948	0.0141		0.3484	0.3484		0.3205	0.3205		1,364.6987	1,364.6987	0.4414		1,375.7329
Total	**0.8350**	**8.7341**	**5.3948**	**0.0141**	**4.5637**	**0.3484**	**4.9121**	**2.4878**	**0.3205**	**2.8083**		**1,364.6987**	**1,364.6987**	**0.4414**		**1,375.7329**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0239	0.0130	0.2384	7.1000e-004	0.0894	3.6000e-004	0.0898	0.0237	3.3000e-004	0.0240		72.0190	72.0190	1.3600e-003	1.5300e-003	72.5092
Total	**0.0239**	**0.0130**	**0.2384**	**7.1000e-004**	**0.0894**	**3.6000e-004**	**0.0898**	**0.0237**	**3.3000e-004**	**0.0240**		**72.0190**	**72.0190**	**1.3600e-003**	**1.5300e-003**	**72.5092**

YTEC Expansion Project - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2026

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.7798	0.0000	1.7798	0.9702	0.0000	0.9702			0.0000			0.0000
Off-Road	0.8350	8.7341	5.3948	0.0141		0.3484	0.3484		0.3205	0.3205	0.0000	1,364.6987	1,364.6987	0.4414		1,375.7329
Total	**0.8350**	**8.7341**	**5.3948**	**0.0141**	**1.7798**	**0.3484**	**2.1282**	**0.9702**	**0.3205**	**1.2907**	**0.0000**	**1,364.6987**	**1,364.6987**	**0.4414**		**1,375.7329**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0239	0.0130	0.2384	7.1000e-004	0.0894	3.6000e-004	0.0898	0.0237	3.3000e-004	0.0240		72.0190	72.0190	1.3600e-003	1.5300e-003	72.5092
Total	**0.0239**	**0.0130**	**0.2384**	**7.1000e-004**	**0.0894**	**3.6000e-004**	**0.0898**	**0.0237**	**3.3000e-004**	**0.0240**		**72.0190**	**72.0190**	**1.3600e-003**	**1.5300e-003**	**72.5092**

YTEC Expansion Project - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5510	5.4820	7.0282	0.0114		0.2413	0.2413		0.2220	0.2220		1,105.5711	1,105.5711	0.3576		1,114.5102
Total	**0.5510**	**5.4820**	**7.0282**	**0.0114**		**0.2413**	**0.2413**		**0.2220**	**0.2220**		**1,105.5711**	**1,105.5711**	**0.3576**		**1,114.5102**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.1600e-003	0.0642	0.0260	3.3000e-004	0.0128	5.6000e-004	0.0134	3.6900e-003	5.4000e-004	4.2300e-003		35.1880	35.1880	4.2000e-004	5.1700e-003	36.7396
Worker	0.0328	0.0179	0.3278	9.8000e-004	0.1230	4.9000e-004	0.1235	0.0326	4.5000e-004	0.0331		99.0261	99.0261	1.8700e-003	2.1000e-003	99.7001
Total	**0.0350**	**0.0821**	**0.3538**	**1.3100e-003**	**0.1358**	**1.0500e-003**	**0.1368**	**0.0363**	**9.9000e-004**	**0.0373**		**134.2140**	**134.2140**	**2.2900e-003**	**7.2700e-003**	**136.4397**

YTEC Expansion Project - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2026

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5510	5.4820	7.0282	0.0114		0.2413	0.2413		0.2220	0.2220	0.0000	1,105.5711	1,105.5711	0.3576		1,114.5102
Total	**0.5510**	**5.4820**	**7.0282**	**0.0114**		**0.2413**	**0.2413**		**0.2220**	**0.2220**	**0.0000**	**1,105.5711**	**1,105.5711**	**0.3576**		**1,114.5102**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.1600e-003	0.0642	0.0260	3.3000e-004	0.0128	5.6000e-004	0.0134	3.6900e-003	5.4000e-004	4.2300e-003		35.1880	35.1880	4.2000e-004	5.1700e-003	36.7396
Worker	0.0328	0.0179	0.3278	9.8000e-004	0.1230	4.9000e-004	0.1235	0.0326	4.5000e-004	0.0331		99.0261	99.0261	1.8700e-003	2.1000e-003	99.7001
Total	**0.0350**	**0.0821**	**0.3538**	**1.3100e-003**	**0.1358**	**1.0500e-003**	**0.1368**	**0.0363**	**9.9000e-004**	**0.0373**		**134.2140**	**134.2140**	**2.2900e-003**	**7.2700e-003**	**136.4397**

YTEC Expansion Project - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5510	5.4820	7.0282	0.0114		0.2413	0.2413		0.2220	0.2220		1,105.5711	1,105.5711	0.3576		1,114.5102
Total	**0.5510**	**5.4820**	**7.0282**	**0.0114**		**0.2413**	**0.2413**		**0.2220**	**0.2220**		**1,105.5711**	**1,105.5711**	**0.3576**		**1,114.5102**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.1400e-003	0.0635	0.0258	3.2000e-004	0.0128	5.6000e-004	0.0134	3.6900e-003	5.4000e-004	4.2200e-003		34.5020	34.5020	4.3000e-004	5.0600e-003	36.0213
Worker	0.0309	0.0163	0.3088	9.5000e-004	0.1230	4.6000e-004	0.1234	0.0326	4.3000e-004	0.0330		96.1699	96.1699	1.7000e-003	1.9900e-003	96.8067
Total	**0.0330**	**0.0799**	**0.3346**	**1.2700e-003**	**0.1358**	**1.0200e-003**	**0.1368**	**0.0363**	**9.7000e-004**	**0.0373**		**130.6719**	**130.6719**	**2.1300e-003**	**7.0500e-003**	**132.8280**

YTEC Expansion Project - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2027

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5510	5.4820	7.0282	0.0114		0.2413	0.2413		0.2220	0.2220	0.0000	1,105.5711	1,105.5711	0.3576		1,114.5102
Total	**0.5510**	**5.4820**	**7.0282**	**0.0114**		**0.2413**	**0.2413**		**0.2220**	**0.2220**	**0.0000**	**1,105.5711**	**1,105.5711**	**0.3576**		**1,114.5102**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.1400e-003	0.0635	0.0258	3.2000e-004	0.0128	5.6000e-004	0.0134	3.6900e-003	5.4000e-004	4.2200e-003		34.5020	34.5020	4.3000e-004	5.0600e-003	36.0213
Worker	0.0309	0.0163	0.3088	9.5000e-004	0.1230	4.6000e-004	0.1234	0.0326	4.3000e-004	0.0330		96.1699	96.1699	1.7000e-003	1.9900e-003	96.8067
Total	**0.0330**	**0.0799**	**0.3346**	**1.2700e-003**	**0.1358**	**1.0200e-003**	**0.1368**	**0.0363**	**9.7000e-004**	**0.0373**		**130.6719**	**130.6719**	**2.1300e-003**	**7.0500e-003**	**132.8280**

YTEC Expansion Project - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Paving - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5638	4.9206	7.0257	0.0113		0.2186	0.2186		0.2046	0.2046		1,036.2711	1,036.2711	0.3019		1,043.8179
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.5638**	**4.9206**	**7.0257**	**0.0113**		**0.2186**	**0.2186**		**0.2046**	**0.2046**		**1,036.2711**	**1,036.2711**	**0.3019**		**1,043.8179**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0505	0.0267	0.5053	1.5600e-003	0.2012	7.6000e-004	0.2020	0.0534	7.0000e-004	0.0541		157.3690	157.3690	2.7900e-003	3.2600e-003	158.4109
Total	**0.0505**	**0.0267**	**0.5053**	**1.5600e-003**	**0.2012**	**7.6000e-004**	**0.2020**	**0.0534**	**7.0000e-004**	**0.0541**		**157.3690**	**157.3690**	**2.7900e-003**	**3.2600e-003**	**158.4109**

YTEC Expansion Project - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Paving - 2027

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5638	4.9206	7.0257	0.0113		0.2186	0.2186		0.2046	0.2046	0.0000	1,036.2711	1,036.2711	0.3019		1,043.8179
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.5638**	**4.9206**	**7.0257**	**0.0113**		**0.2186**	**0.2186**		**0.2046**	**0.2046**	**0.0000**	**1,036.2711**	**1,036.2711**	**0.3019**		**1,043.8179**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0505	0.0267	0.5053	1.5600e-003	0.2012	7.6000e-004	0.2020	0.0534	7.0000e-004	0.0541		157.3690	157.3690	2.7900e-003	3.2600e-003	158.4109
Total	**0.0505**	**0.0267**	**0.5053**	**1.5600e-003**	**0.2012**	**7.6000e-004**	**0.2020**	**0.0534**	**7.0000e-004**	**0.0541**		**157.3690**	**157.3690**	**2.7900e-003**	**3.2600e-003**	**158.4109**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.7 Architectural Coating - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	18.7718					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**18.9426**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.6200e-003	2.9700e-003	0.0562	1.7000e-004	0.0224	8.0000e-005	0.0224	5.9300e-003	8.0000e-005	6.0100e-003		17.4854	17.4854	3.1000e-004	3.6000e-004	17.6012
Total	**5.6200e-003**	**2.9700e-003**	**0.0562**	**1.7000e-004**	**0.0224**	**8.0000e-005**	**0.0224**	**5.9300e-003**	**8.0000e-005**	**6.0100e-003**		**17.4854**	**17.4854**	**3.1000e-004**	**3.6000e-004**	**17.6012**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.7 Architectural Coating - 2027

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	18.7718					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**18.9426**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.6200e-003	2.9700e-003	0.0562	1.7000e-004	0.0224	8.0000e-005	0.0224	5.9300e-003	8.0000e-005	6.0100e-003		17.4854	17.4854	3.1000e-004	3.6000e-004	17.6012
Total	**5.6200e-003**	**2.9700e-003**	**0.0562**	**1.7000e-004**	**0.0224**	**8.0000e-005**	**0.0224**	**5.9300e-003**	**8.0000e-005**	**6.0100e-003**		**17.4854**	**17.4854**	**3.1000e-004**	**3.6000e-004**	**17.6012**

YTEC Expansion Project - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Limit Parking Supply

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.1191	0.1357	1.0536	2.4500e-003	0.2728	1.8300e-003	0.2746	0.0728	1.7100e-003	0.0745		249.3907	249.3907	0.0123	0.0117	253.1709
Unmitigated	0.1302	0.1606	1.2665	3.0400e-003	0.3410	2.2400e-003	0.3432	0.0910	2.1000e-003	0.0931		309.8228	309.8228	0.0144	0.0139	314.3313

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Congregate Care (Assisted Living)	39.00	43.95	47.25	139,713	111,770
Total	39.00	43.95	47.25	139,713	111,770

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Congregate Care (Assisted	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Congregate Care (Assisted Living)	0.544951	0.056922	0.175129	0.132247	0.024165	0.006855	0.011655	0.018450	0.000608	0.000293	0.023172	0.001089	0.004464

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	6.3700e-003	0.0545	0.0232	3.5000e-004		4.4000e-003	4.4000e-003		4.4000e-003	4.4000e-003		69.5351	69.5351	1.3300e-003	1.2700e-003	69.9483
NaturalGas Unmitigated	6.3700e-003	0.0545	0.0232	3.5000e-004		4.4000e-003	4.4000e-003		4.4000e-003	4.4000e-003		69.5351	69.5351	1.3300e-003	1.2700e-003	69.9483

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Congregate Care (Assisted Living)	591.048	6.3700e-003	0.0545	0.0232	3.5000e-004		4.4000e-003	4.4000e-003		4.4000e-003	4.4000e-003		69.5351	69.5351	1.3300e-003	1.2700e-003	69.9483
Total		**6.3700e-003**	**0.0545**	**0.0232**	**3.5000e-004**		**4.4000e-003**	**4.4000e-003**		**4.4000e-003**	**4.4000e-003**		**69.5351**	**69.5351**	**1.3300e-003**	**1.2700e-003**	**69.9483**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Congregate Care (Assisted Living)	0.591048	6.3700e-003	0.0545	0.0232	3.5000e-004		4.4000e-003	4.4000e-003		4.4000e-003	4.4000e-003		69.5351	69.5351	1.3300e-003	1.2700e-003	69.9483
Total		**6.3700e-003**	**0.0545**	**0.0232**	**3.5000e-004**		**4.4000e-003**	**4.4000e-003**		**4.4000e-003**	**4.4000e-003**		**69.5351**	**69.5351**	**1.3300e-003**	**1.2700e-003**	**69.9483**

6.0 Area Detail

6.1 Mitigation Measures Area

YTEC Expansion Project - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	4.2904	0.3255	8.8646	0.0195		1.1527	1.1527		1.1527	1.1527	140.5038	272.2283	412.7321	0.4211	9.5400e-003	426.1025
Unmitigated	4.2904	0.3255	8.8646	0.0195		1.1527	1.1527		1.1527	1.1527	140.5038	272.2283	412.7321	0.4211	9.5400e-003	426.1025

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0257					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.2970					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	3.9305	0.3112	7.6283	0.0195		1.1458	1.1458		1.1458	1.1458	140.5038	270.0000	410.5038	0.4190	9.5400e-003	423.8209
Landscaping	0.0371	0.0142	1.2364	7.0000e-005		6.8600e-003	6.8600e-003		6.8600e-003	6.8600e-003		2.2283	2.2283	2.1300e-003		2.2816
Total	**4.2904**	**0.3255**	**8.8646**	**0.0195**		**1.1527**	**1.1527**		**1.1527**	**1.1527**	**140.5038**	**272.2283**	**412.7321**	**0.4211**	**9.5400e-003**	**426.1025**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0257					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.2970					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	3.9305	0.3112	7.6283	0.0195		1.1458	1.1458		1.1458	1.1458	140.5038	270.0000	410.5038	0.4190	9.5400e-003	423.8209
Landscaping	0.0371	0.0142	1.2364	7.0000e-005		6.8600e-003	6.8600e-003		6.8600e-003	6.8600e-003		2.2283	2.2283	2.1300e-003		2.2816
Total	**4.2904**	**0.3255**	**8.8646**	**0.0195**		**1.1527**	**1.1527**		**1.1527**	**1.1527**	**140.5038**	**272.2283**	**412.7321**	**0.4211**	**9.5400e-003**	**426.1025**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

YTEC Expansion Project - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

YTEC Expansion Project

Riverside-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Congregate Care (Assisted Living)	15.00	Dwelling Unit	0.94	15,000.00	43

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2027
Utility Company	Riverside Public Utilities/City of Riverside				
CO2 Intensity (lb/MWhr)	789.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - More prep, grading, building construction, and paving needed for access roads and landscaping. Based on contractor estimate of 18 months

Grading - based on construction plans

Construction Off-road Equipment Mitigation -

Mobile Land Use Mitigation -

Water Mitigation - no kitchen or showers

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	100.00	240.00
tblConstructionPhase	NumDays	2.00	45.00
tblConstructionPhase	NumDays	5.00	10.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblConstructionPhase	NumDays	1.00	10.00
tblConstructionPhase	PhaseEndDate	4/22/2026	1/22/2027
tblConstructionPhase	PhaseEndDate	4/8/2026	1/1/2027
tblConstructionPhase	PhaseEndDate	11/19/2025	1/30/2026
tblConstructionPhase	PhaseEndDate	4/15/2026	1/15/2027
tblConstructionPhase	PhaseEndDate	11/17/2025	11/28/2025
tblConstructionPhase	PhaseStartDate	4/16/2026	1/18/2027
tblConstructionPhase	PhaseStartDate	11/20/2025	2/2/2026
tblConstructionPhase	PhaseStartDate	11/18/2025	12/1/2025
tblConstructionPhase	PhaseStartDate	4/9/2026	1/4/2027
tblGrading	AcresOfGrading	33.75	2.00
tblGrading	AcresOfGrading	5.00	1.00
tblWaterMitigation	PercentReductionInFlowKitchenFaucet	18	100
tblWaterMitigation	PercentReductionInFlowShower	20	100

2.0 Emissions Summary

YTEC Expansion Project - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2025	0.8590	8.7490	7.6228	0.0148	4.6531	0.3488	5.0019	2.5115	0.3209	2.8323	0.0000	1,432.0920	1,432.0920	0.4429	2.0800e-003	1,443.6599
2026	0.8576	8.7476	7.3220	0.0147	4.6531	0.3487	5.0019	2.5115	0.3208	2.8323	0.0000	1,429.9981	1,429.9981	0.4427	7.3400e-003	1,441.5331
2027	18.9479	5.5663	7.4375	0.0127	0.2012	0.2423	0.4206	0.0534	0.2229	0.2592	0.0000	1,227.3714	1,227.3714	0.3597	7.1200e-003	1,238.4850
Maximum	**18.9479**	**8.7490**	**7.6228**	**0.0148**	**4.6531**	**0.3488**	**5.0019**	**2.5115**	**0.3209**	**2.8323**	**0.0000**	**1,432.0920**	**1,432.0920**	**0.4429**	**7.3400e-003**	**1,443.6599**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2025	0.8590	8.7490	7.6228	0.0148	1.8693	0.3488	2.2180	0.9939	0.3209	1.3148	0.0000	1,432.0920	1,432.0920	0.4429	2.0800e-003	1,443.6599
2026	0.8576	8.7476	7.3220	0.0147	1.8693	0.3487	2.2180	0.9939	0.3208	1.3148	0.0000	1,429.9981	1,429.9981	0.4427	7.3400e-003	1,441.5331
2027	18.9479	5.5663	7.4375	0.0127	0.2012	0.2423	0.4206	0.0534	0.2229	0.2592	0.0000	1,227.3714	1,227.3714	0.3597	7.1200e-003	1,238.4850
Maximum	**18.9479**	**8.7490**	**7.6228**	**0.0148**	**1.8693**	**0.3488**	**2.2180**	**0.9939**	**0.3209**	**1.3148**	**0.0000**	**1,432.0920**	**1,432.0920**	**0.4429**	**7.3400e-003**	**1,443.6599**

YTEC Expansion Project - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	58.56	0.00	53.41	59.79	0.00	51.23	0.00	0.00	0.00	0.00	0.00	0.00

YTEC Expansion Project - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	4.2904	0.3255	8.8646	0.0195		1.1527	1.1527		1.1527	1.1527	140.5038	272.2283	412.7321	0.4211	9.5400e-003	426.1025
Energy	6.3700e-003	0.0545	0.0232	3.5000e-004		4.4000e-003	4.4000e-003		4.4000e-003	4.4000e-003		69.5351	69.5351	1.3300e-003	1.2700e-003	69.9483
Mobile	0.1106	0.1707	1.1242	2.8200e-003	0.3410	2.2400e-003	0.3432	0.0910	2.1000e-003	0.0931		287.9076	287.9076	0.0147	0.0142	292.5102
Total	**4.4074**	**0.5507**	**10.0120**	**0.0227**	**0.3410**	**1.1593**	**1.5003**	**0.0910**	**1.1592**	**1.2501**	**140.5038**	**629.6710**	**770.1747**	**0.4371**	**0.0250**	**788.5610**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	4.2904	0.3255	8.8646	0.0195		1.1527	1.1527		1.1527	1.1527	140.5038	272.2283	412.7321	0.4211	9.5400e-003	426.1025
Energy	6.3700e-003	0.0545	0.0232	3.5000e-004		4.4000e-003	4.4000e-003		4.4000e-003	4.4000e-003		69.5351	69.5351	1.3300e-003	1.2700e-003	69.9483
Mobile	0.0997	0.1442	0.9452	2.2700e-003	0.2728	1.8300e-003	0.2746	0.0728	1.7100e-003	0.0745		231.8837	231.8837	0.0126	0.0119	235.7467
Total	**4.3964**	**0.5242**	**9.8330**	**0.0222**	**0.2728**	**1.1589**	**1.4317**	**0.0728**	**1.1588**	**1.2316**	**140.5038**	**573.6471**	**714.1509**	**0.4351**	**0.0227**	**731.7975**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.25	4.81	1.79	2.42	20.00	0.04	4.57	20.00	0.03	1.49	0.00	8.90	7.27	0.46	9.23	7.20

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	11/3/2025	11/14/2025	5	10	
2	Site Preparation	Site Preparation	11/15/2025	11/28/2025	5	10	
3	Grading	Grading	12/1/2025	1/30/2026	5	45	
4	Building Construction	Building Construction	2/2/2026	1/1/2027	5	240	
5	Paving	Paving	1/4/2027	1/15/2027	5	10	
6	Architectural Coating	Architectural Coating	1/18/2027	1/22/2027	5	5	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 2

Acres of Paving: 0

Residential Indoor: 30,375; Residential Outdoor: 10,125; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Grading	Graders	1	6.00	187	0.41
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	11.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	2.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Demolition - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5743	5.1008	7.3641	0.0120		0.2102	0.2102		0.2008	0.2008		1,149.1195	1,149.1195	0.2060		1,154.2705
Total	**0.5743**	**5.1008**	**7.3641**	**0.0120**		**0.2102**	**0.2102**		**0.2008**	**0.2008**		**1,149.1195**	**1,149.1195**	**0.2060**		**1,154.2705**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0300	0.0187	0.2587	8.3000e-004	0.1118	4.7000e-004	0.1123	0.0296	4.4000e-004	0.0301		84.2417	84.2417	1.8800e-003	2.0800e-003	84.9087
Total	**0.0300**	**0.0187**	**0.2587**	**8.3000e-004**	**0.1118**	**4.7000e-004**	**0.1123**	**0.0296**	**4.4000e-004**	**0.0301**		**84.2417**	**84.2417**	**1.8800e-003**	**2.0800e-003**	**84.9087**

YTEC Expansion Project - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Demolition - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5743	5.1008	7.3641	0.0120		0.2102	0.2102		0.2008	0.2008	0.0000	1,149.1195	1,149.1195	0.2060		1,154.2705
Total	**0.5743**	**5.1008**	**7.3641**	**0.0120**		**0.2102**	**0.2102**		**0.2008**	**0.2008**	**0.0000**	**1,149.1195**	**1,149.1195**	**0.2060**		**1,154.2705**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0300	0.0187	0.2587	8.3000e-004	0.1118	4.7000e-004	0.1123	0.0296	4.4000e-004	0.0301		84.2417	84.2417	1.8800e-003	2.0800e-003	84.9087
Total	**0.0300**	**0.0187**	**0.2587**	**8.3000e-004**	**0.1118**	**4.7000e-004**	**0.1123**	**0.0296**	**4.4000e-004**	**0.0301**		**84.2417**	**84.2417**	**1.8800e-003**	**2.0800e-003**	**84.9087**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Site Preparation - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.1061	0.0000	0.1061	0.0115	0.0000	0.0115			0.0000			0.0000
Off-Road	0.4432	4.7918	3.8238	9.7300e-003		0.1654	0.1654		0.1521	0.1521		942.2955	942.2955	0.3048		949.9144
Total	**0.4432**	**4.7918**	**3.8238**	**9.7300e-003**	**0.1061**	**0.1654**	**0.2714**	**0.0115**	**0.1521**	**0.1636**		**942.2955**	**942.2955**	**0.3048**		**949.9144**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0150	9.3400e-003	0.1294	4.2000e-004	0.0559	2.4000e-004	0.0561	0.0148	2.2000e-004	0.0150		42.1208	42.1208	9.4000e-004	1.0400e-003	42.4543
Total	**0.0150**	**9.3400e-003**	**0.1294**	**4.2000e-004**	**0.0559**	**2.4000e-004**	**0.0561**	**0.0148**	**2.2000e-004**	**0.0150**		**42.1208**	**42.1208**	**9.4000e-004**	**1.0400e-003**	**42.4543**

YTEC Expansion Project - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Site Preparation - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0414	0.0000	0.0414	4.4700e-003	0.0000	4.4700e-003			0.0000			0.0000
Off-Road	0.4432	4.7918	3.8238	9.7300e-003		0.1654	0.1654		0.1521	0.1521	0.0000	942.2955	942.2955	0.3048		949.9144
Total	**0.4432**	**4.7918**	**3.8238**	**9.7300e-003**	**0.0414**	**0.1654**	**0.2067**	**4.4700e-003**	**0.1521**	**0.1566**	**0.0000**	**942.2955**	**942.2955**	**0.3048**		**949.9144**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0150	9.3400e-003	0.1294	4.2000e-004	0.0559	2.4000e-004	0.0561	0.0148	2.2000e-004	0.0150		42.1208	42.1208	9.4000e-004	1.0400e-003	42.4543
Total	**0.0150**	**9.3400e-003**	**0.1294**	**4.2000e-004**	**0.0559**	**2.4000e-004**	**0.0561**	**0.0148**	**2.2000e-004**	**0.0150**		**42.1208**	**42.1208**	**9.4000e-004**	**1.0400e-003**	**42.4543**

YTEC Expansion Project - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.5637	0.0000	4.5637	2.4878	0.0000	2.4878			0.0000			0.0000
Off-Road	0.8350	8.7341	5.3948	0.0141		0.3484	0.3484		0.3205	0.3205		1,364.6987	1,364.6987	0.4414		1,375.7329
Total	**0.8350**	**8.7341**	**5.3948**	**0.0141**	**4.5637**	**0.3484**	**4.9121**	**2.4878**	**0.3205**	**2.8083**		**1,364.6987**	**1,364.6987**	**0.4414**		**1,375.7329**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0240	0.0149	0.2070	6.7000e-004	0.0894	3.8000e-004	0.0898	0.0237	3.5000e-004	0.0241		67.3933	67.3933	1.5000e-003	1.6600e-003	67.9270
Total	**0.0240**	**0.0149**	**0.2070**	**6.7000e-004**	**0.0894**	**3.8000e-004**	**0.0898**	**0.0237**	**3.5000e-004**	**0.0241**		**67.3933**	**67.3933**	**1.5000e-003**	**1.6600e-003**	**67.9270**

YTEC Expansion Project - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.7798	0.0000	1.7798	0.9702	0.0000	0.9702			0.0000			0.0000
Off-Road	0.8350	8.7341	5.3948	0.0141		0.3484	0.3484		0.3205	0.3205	0.0000	1,364.6987	1,364.6987	0.4414		1,375.7329
Total	**0.8350**	**8.7341**	**5.3948**	**0.0141**	**1.7798**	**0.3484**	**2.1282**	**0.9702**	**0.3205**	**1.2907**	**0.0000**	**1,364.6987**	**1,364.6987**	**0.4414**		**1,375.7329**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0240	0.0149	0.2070	6.7000e-004	0.0894	3.8000e-004	0.0898	0.0237	3.5000e-004	0.0241		67.3933	67.3933	1.5000e-003	1.6600e-003	67.9270
Total	**0.0240**	**0.0149**	**0.2070**	**6.7000e-004**	**0.0894**	**3.8000e-004**	**0.0898**	**0.0237**	**3.5000e-004**	**0.0241**		**67.3933**	**67.3933**	**1.5000e-003**	**1.6600e-003**	**67.9270**

YTEC Expansion Project - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.5637	0.0000	4.5637	2.4878	0.0000	2.4878			0.0000			0.0000
Off-Road	0.8350	8.7341	5.3948	0.0141		0.3484	0.3484		0.3205	0.3205		1,364.6987	1,364.6987	0.4414		1,375.7329
Total	**0.8350**	**8.7341**	**5.3948**	**0.0141**	**4.5637**	**0.3484**	**4.9121**	**2.4878**	**0.3205**	**2.8083**		**1,364.6987**	**1,364.6987**	**0.4414**		**1,375.7329**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0226	0.0135	0.1941	6.5000e-004	0.0894	3.6000e-004	0.0898	0.0237	3.3000e-004	0.0240		65.2994	65.2994	1.3700e-003	1.5700e-003	65.8002
Total	**0.0226**	**0.0135**	**0.1941**	**6.5000e-004**	**0.0894**	**3.6000e-004**	**0.0898**	**0.0237**	**3.3000e-004**	**0.0240**		**65.2994**	**65.2994**	**1.3700e-003**	**1.5700e-003**	**65.8002**

YTEC Expansion Project - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2026

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.7798	0.0000	1.7798	0.9702	0.0000	0.9702			0.0000			0.0000
Off-Road	0.8350	8.7341	5.3948	0.0141		0.3484	0.3484		0.3205	0.3205	0.0000	1,364.6987	1,364.6987	0.4414		1,375.7329
Total	**0.8350**	**8.7341**	**5.3948**	**0.0141**	**1.7798**	**0.3484**	**2.1282**	**0.9702**	**0.3205**	**1.2907**	**0.0000**	**1,364.6987**	**1,364.6987**	**0.4414**		**1,375.7329**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0226	0.0135	0.1941	6.5000e-004	0.0894	3.6000e-004	0.0898	0.0237	3.3000e-004	0.0240		65.2994	65.2994	1.3700e-003	1.5700e-003	65.8002
Total	**0.0226**	**0.0135**	**0.1941**	**6.5000e-004**	**0.0894**	**3.6000e-004**	**0.0898**	**0.0237**	**3.3000e-004**	**0.0240**		**65.2994**	**65.2994**	**1.3700e-003**	**1.5700e-003**	**65.8002**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5510	5.4820	7.0282	0.0114		0.2413	0.2413		0.2220	0.2220		1,105.5711	1,105.5711	0.3576		1,114.5102
Total	**0.5510**	**5.4820**	**7.0282**	**0.0114**		**0.2413**	**0.2413**		**0.2220**	**0.2220**		**1,105.5711**	**1,105.5711**	**0.3576**		**1,114.5102**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0000e-003	0.0681	0.0270	3.3000e-004	0.0128	5.7000e-004	0.0134	3.6900e-003	5.4000e-004	4.2300e-003		35.2768	35.2768	4.1000e-004	5.1900e-003	36.8333
Worker	0.0311	0.0186	0.2669	8.9000e-004	0.1230	4.9000e-004	0.1235	0.0326	4.5000e-004	0.0331		89.7867	89.7867	1.8800e-003	2.1500e-003	90.4752
Total	**0.0331**	**0.0866**	**0.2938**	**1.2200e-003**	**0.1358**	**1.0600e-003**	**0.1368**	**0.0363**	**9.9000e-004**	**0.0373**		**125.0635**	**125.0635**	**2.2900e-003**	**7.3400e-003**	**127.3085**

YTEC Expansion Project - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2026

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5510	5.4820	7.0282	0.0114		0.2413	0.2413		0.2220	0.2220	0.0000	1,105.5711	1,105.5711	0.3576		1,114.5102
Total	**0.5510**	**5.4820**	**7.0282**	**0.0114**		**0.2413**	**0.2413**		**0.2220**	**0.2220**	**0.0000**	**1,105.5711**	**1,105.5711**	**0.3576**		**1,114.5102**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0000e-003	0.0681	0.0270	3.3000e-004	0.0128	5.7000e-004	0.0134	3.6900e-003	5.4000e-004	4.2300e-003		35.2768	35.2768	4.1000e-004	5.1900e-003	36.8333
Worker	0.0311	0.0186	0.2669	8.9000e-004	0.1230	4.9000e-004	0.1235	0.0326	4.5000e-004	0.0331		89.7867	89.7867	1.8800e-003	2.1500e-003	90.4752
Total	**0.0331**	**0.0866**	**0.2938**	**1.2200e-003**	**0.1358**	**1.0600e-003**	**0.1368**	**0.0363**	**9.9000e-004**	**0.0373**		**125.0635**	**125.0635**	**2.2900e-003**	**7.3400e-003**	**127.3085**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5510	5.4820	7.0282	0.0114		0.2413	0.2413		0.2220	0.2220		1,105.5711	1,105.5711	0.3576		1,114.5102
Total	**0.5510**	**5.4820**	**7.0282**	**0.0114**		**0.2413**	**0.2413**		**0.2220**	**0.2220**		**1,105.5711**	**1,105.5711**	**0.3576**		**1,114.5102**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.9800e-003	0.0674	0.0267	3.3000e-004	0.0128	5.6000e-004	0.0134	3.6900e-003	5.4000e-004	4.2300e-003		34.5896	34.5896	4.3000e-004	5.0800e-003	36.1137
Worker	0.0293	0.0169	0.2516	8.6000e-004	0.1230	4.6000e-004	0.1234	0.0326	4.3000e-004	0.0330		87.2108	87.2108	1.7100e-003	2.0400e-003	87.8612
Total	**0.0313**	**0.0843**	**0.2784**	**1.1900e-003**	**0.1358**	**1.0200e-003**	**0.1368**	**0.0363**	**9.7000e-004**	**0.0373**		**121.8003**	**121.8003**	**2.1400e-003**	**7.1200e-003**	**123.9748**

YTEC Expansion Project - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2027

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5510	5.4820	7.0282	0.0114		0.2413	0.2413		0.2220	0.2220	0.0000	1,105.5711	1,105.5711	0.3576		1,114.5102
Total	**0.5510**	**5.4820**	**7.0282**	**0.0114**		**0.2413**	**0.2413**		**0.2220**	**0.2220**	**0.0000**	**1,105.5711**	**1,105.5711**	**0.3576**		**1,114.5102**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.9800e-003	0.0674	0.0267	3.3000e-004	0.0128	5.6000e-004	0.0134	3.6900e-003	5.4000e-004	4.2300e-003		34.5896	34.5896	4.3000e-004	5.0800e-003	36.1137
Worker	0.0293	0.0169	0.2516	8.6000e-004	0.1230	4.6000e-004	0.1234	0.0326	4.3000e-004	0.0330		87.2108	87.2108	1.7100e-003	2.0400e-003	87.8612
Total	**0.0313**	**0.0843**	**0.2784**	**1.1900e-003**	**0.1358**	**1.0200e-003**	**0.1368**	**0.0363**	**9.7000e-004**	**0.0373**		**121.8003**	**121.8003**	**2.1400e-003**	**7.1200e-003**	**123.9748**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Paving - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5638	4.9206	7.0257	0.0113		0.2186	0.2186		0.2046	0.2046		1,036.2711	1,036.2711	0.3019		1,043.8179
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.5638**	**4.9206**	**7.0257**	**0.0113**		**0.2186**	**0.2186**		**0.2046**	**0.2046**		**1,036.2711**	**1,036.2711**	**0.3019**		**1,043.8179**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0479	0.0277	0.4118	1.4100e-003	0.2012	7.6000e-004	0.2020	0.0534	7.0000e-004	0.0541		142.7085	142.7085	2.8000e-003	3.3400e-003	143.7728
Total	**0.0479**	**0.0277**	**0.4118**	**1.4100e-003**	**0.2012**	**7.6000e-004**	**0.2020**	**0.0534**	**7.0000e-004**	**0.0541**		**142.7085**	**142.7085**	**2.8000e-003**	**3.3400e-003**	**143.7728**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Paving - 2027

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5638	4.9206	7.0257	0.0113		0.2186	0.2186		0.2046	0.2046	0.0000	1,036.2711	1,036.2711	0.3019		1,043.8179
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.5638**	**4.9206**	**7.0257**	**0.0113**		**0.2186**	**0.2186**		**0.2046**	**0.2046**	**0.0000**	**1,036.2711**	**1,036.2711**	**0.3019**		**1,043.8179**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0479	0.0277	0.4118	1.4100e-003	0.2012	7.6000e-004	0.2020	0.0534	7.0000e-004	0.0541		142.7085	142.7085	2.8000e-003	3.3400e-003	143.7728
Total	**0.0479**	**0.0277**	**0.4118**	**1.4100e-003**	**0.2012**	**7.6000e-004**	**0.2020**	**0.0534**	**7.0000e-004**	**0.0541**		**142.7085**	**142.7085**	**2.8000e-003**	**3.3400e-003**	**143.7728**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.7 Architectural Coating - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	18.7718					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**18.9426**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.3300e-003	3.0800e-003	0.0458	1.6000e-004	0.0224	8.0000e-005	0.0224	5.9300e-003	8.0000e-005	6.0100e-003		15.8565	15.8565	3.1000e-004	3.7000e-004	15.9748
Total	**5.3300e-003**	**3.0800e-003**	**0.0458**	**1.6000e-004**	**0.0224**	**8.0000e-005**	**0.0224**	**5.9300e-003**	**8.0000e-005**	**6.0100e-003**		**15.8565**	**15.8565**	**3.1000e-004**	**3.7000e-004**	**15.9748**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.7 Architectural Coating - 2027

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	18.7718					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**18.9426**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.3300e-003	3.0800e-003	0.0458	1.6000e-004	0.0224	8.0000e-005	0.0224	5.9300e-003	8.0000e-005	6.0100e-003		15.8565	15.8565	3.1000e-004	3.7000e-004	15.9748
Total	**5.3300e-003**	**3.0800e-003**	**0.0458**	**1.6000e-004**	**0.0224**	**8.0000e-005**	**0.0224**	**5.9300e-003**	**8.0000e-005**	**6.0100e-003**		**15.8565**	**15.8565**	**3.1000e-004**	**3.7000e-004**	**15.9748**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Limit Parking Supply

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0997	0.1442	0.9452	2.2700e-003	0.2728	1.8300e-003	0.2746	0.0728	1.7100e-003	0.0745		231.8837	231.8837	0.0126	0.0119	235.7467
Unmitigated	0.1106	0.1707	1.1242	2.8200e-003	0.3410	2.2400e-003	0.3432	0.0910	2.1000e-003	0.0931		287.9076	287.9076	0.0147	0.0142	292.5102

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Congregate Care (Assisted Living)	39.00	43.95	47.25	139,713	111,770
Total	39.00	43.95	47.25	139,713	111,770

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Congregate Care (Assisted	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Congregate Care (Assisted Living)	0.544951	0.056922	0.175129	0.132247	0.024165	0.006855	0.011655	0.018450	0.000608	0.000293	0.023172	0.001089	0.004464

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	6.3700e-003	0.0545	0.0232	3.5000e-004		4.4000e-003	4.4000e-003		4.4000e-003	4.4000e-003		69.5351	69.5351	1.3300e-003	1.2700e-003	69.9483
NaturalGas Unmitigated	6.3700e-003	0.0545	0.0232	3.5000e-004		4.4000e-003	4.4000e-003		4.4000e-003	4.4000e-003		69.5351	69.5351	1.3300e-003	1.2700e-003	69.9483

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Congregate Care (Assisted Living)	591.048	6.3700e-003	0.0545	0.0232	3.5000e-004		4.4000e-003	4.4000e-003		4.4000e-003	4.4000e-003		69.5351	69.5351	1.3300e-003	1.2700e-003	69.9483
Total		**6.3700e-003**	**0.0545**	**0.0232**	**3.5000e-004**		**4.4000e-003**	**4.4000e-003**		**4.4000e-003**	**4.4000e-003**		**69.5351**	**69.5351**	**1.3300e-003**	**1.2700e-003**	**69.9483**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Congregate Care (Assisted Living)	0.591048	6.3700e-003	0.0545	0.0232	3.5000e-004		4.4000e-003	4.4000e-003		4.4000e-003	4.4000e-003		69.5351	69.5351	1.3300e-003	1.2700e-003	69.9483
Total		**6.3700e-003**	**0.0545**	**0.0232**	**3.5000e-004**		**4.4000e-003**	**4.4000e-003**		**4.4000e-003**	**4.4000e-003**		**69.5351**	**69.5351**	**1.3300e-003**	**1.2700e-003**	**69.9483**

6.0 Area Detail

6.1 Mitigation Measures Area

YTEC Expansion Project - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	4.2904	0.3255	8.8646	0.0195		1.1527	1.1527		1.1527	1.1527	140.5038	272.2283	412.7321	0.4211	9.5400e-003	426.1025
Unmitigated	4.2904	0.3255	8.8646	0.0195		1.1527	1.1527		1.1527	1.1527	140.5038	272.2283	412.7321	0.4211	9.5400e-003	426.1025

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0257					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.2970					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	3.9305	0.3112	7.6283	0.0195		1.1458	1.1458		1.1458	1.1458	140.5038	270.0000	410.5038	0.4190	9.5400e-003	423.8209
Landscaping	0.0371	0.0142	1.2364	7.0000e-005		6.8600e-003	6.8600e-003		6.8600e-003	6.8600e-003		2.2283	2.2283	2.1300e-003		2.2816
Total	**4.2904**	**0.3255**	**8.8646**	**0.0195**		**1.1527**	**1.1527**		**1.1527**	**1.1527**	**140.5038**	**272.2283**	**412.7321**	**0.4211**	**9.5400e-003**	**426.1025**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0257					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.2970					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	3.9305	0.3112	7.6283	0.0195		1.1458	1.1458		1.1458	1.1458	140.5038	270.0000	410.5038	0.4190	9.5400e-003	423.8209
Landscaping	0.0371	0.0142	1.2364	7.0000e-005		6.8600e-003	6.8600e-003		6.8600e-003	6.8600e-003		2.2283	2.2283	2.1300e-003		2.2816
Total	**4.2904**	**0.3255**	**8.8646**	**0.0195**		**1.1527**	**1.1527**		**1.1527**	**1.1527**	**140.5038**	**272.2283**	**412.7321**	**0.4211**	**9.5400e-003**	**426.1025**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

APPENDIX C

GEOTECHNICAL EVALUATION

YTEC Expansion Project

Riverside, California

GEOTECHNICAL INVESTIGATION

YTEC Vocational Expansion
10000 County Farm Road
Riverside, California





Jon Aldana, CCM, LEED® AP
County of Riverside Facilities Management
3450 14th Street, Suite 200

Date: February 8, 2023
MTGL Project No.: 2659A73
MTGL Log No.: 23-0048

















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February 8, 2023

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MTGL Log No.: 23-0048
MTGL Branch: Anaheim

Jon Aldana, CCM, LEED® AP
County of Riverside Facilities Management
3450 14th Street, Suite 200
Riverside, California 92501

Subject: **GEOTECHNICAL INVESTIGATION**
YTEC Vocational Expansion
10000 County Farm Road
Riverside, California

Dear Jon,

MTGL Inc. is pleased to present this report describing the results of our geotechnical investigation for the subject project. With your authorization, we have performed this work in general accordance with our proposal dated December 15, 2022. Based on the results of our investigation, we consider the planned developments feasible from a geotechnical perspective, provided the recommendations of this report are followed.

We appreciate this opportunity to be of continued service and look forward to providing additional consulting services during the planning and construction of the project. Should you have any questions regarding this report, please do not hesitate to contact us.

Respectfully submitted,
MTGL, Inc.

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EXECUTIVE SUMMARY

In accordance with your request and authorization, we have completed our geotechnical investigation for the YTEC Vocational Expansion project located at 10000 County Farm Road, Riverside, California. We understand this project currently consists of the proposed design and construction of a new approximately 15,000 square-foot multi-use building located adjacent to the existing YTEC facility. The purpose of our work was to provide conclusions and recommendations regarding the geotechnical aspects of the project.

Our subsurface investigation was performed on January 18, 2023, and consisted of drilling six (6) exploratory soil borings within areas of proposed improvements. Four borings (B-1 through B-4) were drilled to depths ranging from about 20½ to 31 feet (BGS) using hand tools and a truck-mounted drilling rig equipped with an 8-inch diameter hollow stem auger. Additionally, two shallow borings (P-1 and P-2) were drilled to depths up to 5 feet BGS using hand tools and converted to borehole percolation tests to evaluate infiltration feasibility. An MTGL engineer logged the borings and collected samples of the encountered materials for geotechnical laboratory testing. Selected samples were tested in our laboratory to evaluate their engineering properties.

As encountered in our borings, the site is underlain by undocumented fill (Qf), alluvial fan deposits (Qoa), and granitic rock (grr). Fill was encountered in each of the borings and extended to depths of up to approximately 3 below the existing ground surface. The fill generally consisted of brown to dark brown, loose to medium dense silty sand. Alluvial fan deposits were encountered beneath the fill and were observed to extend to a depth of up to approximately 17 feet below the existing ground surface. The alluvial fan deposits generally consisted of variably colored, medium dense to very dense silty sand. Granitic rock was encountered beneath the alluvial fan deposits and extended to the maximum depth explored. The granitic rock generally consisted of light gray to brown, very dense, weathered granitic rock that breaks down to silty sand.

The main geotechnical considerations affecting the project are the presence of potentially compressible undocumented fill and upper loose portions of the alluvial fan deposits. To reduce the potential for settlement, the existing fill and upper loose portions of the alluvial fan deposits should be excavated in their entirety below the proposed building and other settlement sensitive improvements. Although not anticipated, the proposed structure should not be underlain by cut/fill transitions. To reduce the potential for expansive heave, concrete slabs-on-grade, hardscape, and site and retaining wall and site wall footings should be underlain by at least 2 feet of material with an expansion index of 20 or less. The recommendations presented herein may need to be updated once final plans are developed.

In general, conventional shallow spread footings or mat foundations bearing entirely on compacted fill may be used for the support of the proposed structures.

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ATTACHMENTS:

Figure 1 – Site Location Map
Figure 2 – Site Topography Map
Figure 3 – Subsurface Exploration Map
Figure 4 – Regional Geology Map
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Appendix A – References
Appendix B – Field Investigation
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Appendix D – General Earthwork and Grading Specifications
Appendix E – Borehole Percolation Test Results

1.00 INTRODUCTION

In accordance with your request and authorization, MTGL, Inc. has completed a geotechnical investigation for the subject site. The following report presents a summary of our findings, conclusions and recommendations based on our field investigation, laboratory testing, and engineering analysis.

1.01 SITE DESCRIPTION

The project site is located within the Arlington neighborhood of Riverside, California. The site is located on an irregularly shaped parcel, Assessment No. (PIN) 145120003. The site is bounded by single-family residences to the north, public service buildings to the east and south, and open space land and California Avenue to the west. Elevation in the vicinity of the planned building ranges from approximately 762 to 766 feet MSL (Google Earth, 2022). The approximate site location is shown on the accompanying Site Location Map (Figure 1). The topography at the site is relatively flat in the area of the planned building, gently descending in elevation towards the southeast. There are two ascending hilltops located immediately east and west of the site. Granitic rock outcrops were observed located around and atop each hill. Figure 2 presents a Site Topography Map in the vicinity of the site.

1.01.1 REVIEW OF HISTORIC AERIAL PHOTOGRAPHS

Our review of historic aerial photographs indicates that the site was developed to its current configuration between 2014 and 2016, including construction of the existing youth center. Prior to 2014, the southern portion of the parcel was occupied by four closely spaced buildings oriented in an irregular fashion, constructed between 1967 and 1980. In 1966, the parcel was occupied by a few structures in the southern portion, and open space throughout the rest of the parcel. The 1948 aerial photograph shows various structures throughout the parcel, including approximately five structures in the planned project area. These structures were presumably used for agricultural and/or farming purposes based on the surrounding land use at the time of the photograph.

1.02 PLANNED CONSTRUCTION

Based on our review of the provided documents, we understand the project will consist of the design and construction of a new approximately 15,000 square-foot multi-use building located adjacent to the existing YTEC facility. Associated civil improvements may include new utilities, sidewalks, driveways, shallow storm water best management practices (BMPs), and other auxiliary features.

1.03 SCOPE OF WORK

We conducted this investigation in general conformance with the scope of work presented in our proposal No. P-22-991. The scope of our geotechnical services included the following:

- Reviewing readily available literature and maps to obtain background information of regional geology, site development, seismicity, and ground water.
- Marking out boring locations on the site and contacting Underground Service Alert (USA) to locate onsite utility lines and conducting a geologic reconnaissance of the site.
- Utilizing a private utility locator service to clear borings of potential underground utility conflicts.
- Drilling, logging, and sampling of six exploratory borings using hand tools and an 8-inch diameter hollow stem auger drill rig to a maximum depth of 31½ feet BGS.
- Converting two shallow borings to borehole percolation tests.
- Performing two borehole percolation tests.
- Performing laboratory testing of select samples.
- Performing geotechnical engineering review of compiled data and performing geotechnical engineering analyses.
- Preparation of this report summarizing our findings and presenting our conclusions and recommendations for the proposed construction.

1.03.1 FIELD INVESTIGATION

Prior to performing our field investigation, a site reconnaissance was performed by an MTGL geologist to observe the existing surface conditions, mark out proposed boring locations, evaluate each location with respect to obvious subsurface structures and determine access for the drilling rig. Underground Service Alert (USA) was then notified of the marked locations for utility clearance as required by law. In addition, a private utility locator, Atlas Technical Consultants, was subcontracted to mark out potential utility conflicts.

Our subsurface investigation was performed on January 18, 2023, and consisted of drilling six exploratory soil borings within areas of proposed improvements. Four borings (B-1 through B-4) were drilled to depths ranging from about 20½ to 31 feet (BGS) using hand tools and a truck-mounted drilling rig equipped with ar 8-inch diameter hollow stem auger. Additionally, two shallow borings (P-1 and P-2) were drilled to depths up to 5 feet BGS using hand tools and converted to borehole percolation tests to evaluate infiltration feasibility. See Appendix B for further discussion of the field exploration and logs of test borings. Figure 3 presents a Subsurface Exploration Map.

An MTGL engineer logged the borings and collected samples of the encountered materials for geotechnical laboratory testing. Representative disturbed bulk soil samples were obtained from the borings in the upper 5 feet. In-situ testing, including driving Modified California (CAL) and Standard Penetration Test (SPT) samplers at selected depth intervals, was performed and relatively undisturbed samples obtained. Samplers were driven into the bottom of the boring with successive drops of a 140 pound weight falling 30 inches. The energy corrected number of blows per foot required to drive the CAL and SPT samplers are shown on the boring logs in the N_{60} column (Appendix B). A conversion factor of 0.65 was used to normalize N_{60} values obtained by Modified California samplers, Burmister (1948). SPTs were performed in general accordance with the American Society for Testing and Materials (ASTM) D1586 standard test method.

Soil samples were inspected and described in general conformance with the Unified Soil Classification System (USCS). Samples were sealed and packaged for transportation to our geotechnical laboratory. After completion of drilling, the borings were backfilled in accordance with DEH requirements.

1.03.2 LABORATORY TESTING

Laboratory testing was performed on select samples to verify the field classification of the recovered samples and evaluate the gectechnical properties of the subsurface materials. Laboratory tests were performed in general conformance with applicable ASTM or State of California Department of Transportation (Caltrans) standard methods. The results of our laboratory tests are presented in Appendix C.

1.03.3 GEOTECHNICAL ANALYSIS AND REPORT PREPARATION

This report was prepared to present our geotechnical conclusions and recommendations based on the findings of the background review, field exploration, laboratory testing, and geotechnical analysis of the complied data.

2.00 FINDINGS

2.01 REVIEW OF PREVIOUS GEOTECHNICAL STUDIES

To aid in the preparation of this report, we have reviewed the geotechnical and infiltration study reports previously performed for the existing detention center. A brief summary of each is provided below.

Previous Geotechnical Reports Reviewed

Author, Year	Title
CHJ Consultants, 2012	Geotechnical Investigation, Proposed Van Horn Juvenile Detention Facility, 10000 County Farm Road, Riverside, California, Job No. 12435-3, dated July 20.
CHJ Consultants, 2014	Report of Infiltration Testing, Van Horn Youth Treatment Education Center, 10000 County Farm Road, Riverside, California, Job no. 14386-2, dated June 12.

2.01.1 CHJ CONSULTANTS (2012)

This investigation included the drilling, logging, and sampling of 11 borings, drilled with a hollow stem auger, extending to approximately 10 to 45 feet BGS. This investigation was performed southeast of the planned expansion building for development of the existing YTEC detention center. Borings encountered loose to very dense sands in the upper 5 feet, underlain by loose to very dense sands and silts, in turn underlain by granitic bedrock. Granitic bedrock was encountered in six of the borings at depths as shallow as 16 feet below previously existing grade. Perched groundwater was encountered in one of the borings at a depth of approximately 44½ feet below previously existing grade.

The geotechnical data indicated that the site was suitable for the project provided the recommendations contained in the report are implemented during planning, grading, and construction. Recommendations for earthwork preparation consisted of removal and recompaction of the upper 5 feet of existing soils. Conventional shallow foundations were recommended for design.

2.01.2 CHJ CONSULTANTS (2014)

This study included the performance of surficial stormwater infiltration testing in accordance with ASTM D3385 at three test locations (P-1 through P-3). The test locations were located south and southeast of the existing detention facility. A subsurface investigation was not included as part of the scope of work. The study provided the unfactored (i.e. no factor of

safety applied) infiltration rates of P-1, P-2, and P-3 as 0.5, 4.1, and 0.2 inches per hour, respectively.

This report was a data report, and as such, conclusions and recommendations were not provided for the proposed development.

2.02 SUBSURFACE CONDITIONS

As encountered in our borings, the site is underlain by undocumented fill (Qf), alluvial fan deposits (Qoa) and Granitic rock of Riverside (grr). Materials encountered in our borings were generally consistent with the mapped geologic units presented by Dibblee (2004). Figure 4 presents a map of regional geology within the vicinity of the site. Figures 5A and 5B present geologic cross-sections A-A' and B-B'. Descriptions of the materials encountered in the borings are presented below.

Fill - Fill was encountered in each of the borings and extended to depths of up to approximately 3 below the existing ground surface. As encountered, the fill generally consisted of brown to dark brown, loose to medium dense silty sand.

No documentation regarding the placement of fill underlying the site was available at the time of this report. Thus, the fill is considered undocumented and unsuitable for the support of proposed structure. Additionally, historical aerial photographs indicate the site was originally developed prior to 1948 which predates widespread implementation of modern fill control standards and methods.

Alluvial Fan Deposits (Qoa) – Late Pliocene to Pleistocene-age alluvial fan deposits underlie the fill and were encountered in each of the borings. These materials were observed to extend up to a depth of approximately 17 feet below the existing ground surface and extended to the total depths explored in borings P-1 and P-2. As encountered, the alluvial fan deposits generally consisted of variably colored, medium dense to very dense silty sand. The alluvial deposits encountered contained fragments of granitic rock.

Granitic Rock (grr) – Early Cretaceous-age granitic rock, mapped as Granite of Riverside, was observed underlying the alluvial fan deposits in Borings B-1 through B-4 and extended to the maximum depths explored. Refusal was encountered in Boring B-4 at a depth of approximately 31 feet. As encountered, the granitic rock generally consisted of light gray to brown, very dense, weathered granitic rock that breaks down to silty sand. Iron oxide was encountered within the granitic rock. Weathering generally decreased with depth.

A summary of boring locations and pertinent data for each boring are presented in the table below.

SUMMARY OF SUBSURFACE SOIL CONDITIONS

Boring No.	Drilled Depth (Feet)	Latitude (Degrees)	Longitude (Degrees)	Surface Conditions	Existing Ground Elevation (Feet)*	Approximate Thickness of Fill (Feet)	Groundwater Depth Below Ground Surface (Feet)
B-1	20½	33.92146	-117.46035	Turf	762	1	Not Encountered
B-2	20½	33.92151	-117.45999	Turf	763	1	Not Encountered
B-3	20½	33.92129	-117.46034	Turf	764	1	Not Encountered
B-4	31	33.92136	-117.45999	Turf	761	2	Not Encountered
P-1	5	33.92115	-117.46024	Turf	764	3	Not Encountered
P-2	5	33.92108	-117.46031	Turf	766	2	Not Encountered

*Approximated using Google Earth

2.03 SURFACE AND GROUNDWATER CONDITIONS

Groundwater was not encountered in the borings. No areas of ponding or standing water were present at the time of our study. Further, no springs or areas of natural seepage were found. Additionally, no visible seepage was observed within the borehole after drilling.

Based on our review of readily available data, groundwater was encountered in monitoring wells located approximately ½ mile southwest of the site, at an elevation of approximately 717 feet MSL as measured from a surface elevation of 740 feet MSL (Stratus Environmental, Inc., 2012).

We do not anticipate groundwater to be encountered during the proposed construction. However, changes in rainfall, irrigation and local drainage may produce seepage or perched groundwater conditions below the site. These conditions are generally difficult to predict and typically mitigated if and when they occur.

2.04 GEOLOGIC HAZARDS

Geologic hazards are summarized and discussed with respect to the site and proposed development below.

2.04.1 STRONG GROUND MOTION AND MAPPED SEISMIC DESIGN PARAMETERS

A geologic hazard likely to affect the project is ground shaking as a result of movement along an active fault zone in the vicinity of the subject site (USGS, 2023). Based on the relatively dense materials underlying the site, the site may be classified as Site Class C. The mapped site coefficients and maximum considered earthquake (MCER) spectral response acceleration parameters for this site class and location in accordance with the 2019 CBC are presented below:

2019 CALIFORNIA BUILDING CODE – MAPPED SITE COEFFICIENTS

Site Coordinates	
Latitude	**Longitude**
33.9214°	-117.4602°
Site Coefficients and Spectral Response Acceleration Parameters	**Values**
Site Class	C
Site Coefficients, F_a	1.2
Site Coefficients, F_v	1.428
Mapped Spectral Response Acceleration at Short Period, S_s	1.5 g
Mapped Spectral Response Acceleration at 1-Second Period, S_1	0.572 g
Mapped Design Spectral Acceleration at Short Period, S_{DS}	1.2 g
Design Spectral Acceleration at 1-Second Period, S_{D1}	0.544
Peak Ground Acceleration, PGA_m	0.601 g

2.04.2 ACTIVE FAULTING AND FAULT-RUPTURE HAZARD

The closest known active fault is the Elsinore fault zone (Chino Section) located approximately 9 miles southwest of the project site (USGS, 2023). Other regional faults capable of generating seismic hazards include the Newport-Inglewood-Rose Canyon fault zone, Elsinore fault zone (Glen Ivy Section), San Joaquin Hills Thrust, Palos Verdes, and Santa Cruz-Catalina Ridge faults to the southwest and the San Jacinto and San Andreas fault zones to the northeast. The site is not located in an Alquist-Priolo Earthquake Fault Zone. Based on our review of the referenced fault databases and geologic maps, no active faults are known to underlie or project toward the site; thus, the potential for fault rupture to occur at the site is considered low.

2.04.3 LIQUEFACTION AND DYNAMIC SETTLEMENT

Liquefaction occurs when loose, saturated sands and silts are subjected to strong ground shaking. The soils lose shear strength and behave like a liquid, resulting in ground surface settlements. Additional effects of liquefaction include possible lateral spreading and liquefaction-induced bearing failure during an earthquake. Given the geologic age and relatively dense nature of the materials underlying the site, the potential for liquefaction is considered low.

2.04.3.1 BEARING FAILURE

When liquefaction occurs, the soil can completely lose its shear strength and lose its capacity to support structures resulting in a foundation bearing failure. Lightweight structures which are embedded into liquefiable soil and extend below the groundwater table contain large void spaces which may "float" or lift up and out of

the ground surface during or after an earthquake. Based on our analysis, the potential for bearing capacity failure due to liquefaction is considered low.

2.04.3.2 LATERAL SPREADING (LATERAL DISPLACEMENT)

Lateral spreading is a condition where a relatively stiff block of soil moves laterally toward a free face or slope on a liquefied zone of subsurface soil. Lateral spreads generally develop along gentle slopes and move toward a free face such as an incised river channel. Lateral spreads can cause significant horizontal movement causing fissures, and scarps to develop at the surface. Lateral spreads have been observed to disrupt foundations located across a failure, to rupture sewers, pipelines and other utilities and compress or buckle structures at the toe of the spread. Due to the site being relatively flat, the potential for lateral spreading is considered negligible.

2.04.3.3 LIFELINE HAZARDS

Liquefaction, lateral spreading, and seismically induced settlement of structures may also pose problems for streets and lifelines. Specifically, natural gas pipelines may break and catch fire during an earthquake and water lines may break preventing firefighters from accessing water. Therefore, consideration should be given to providing isolated and flexible connections for gas and water utility lines as a preventive measure.

2.04.4 TSUNAMIS, SEICHES, AND FLOODING

The site is not mapped as being located within an area mapped by the California Geological Survey as subject to inundation by tsunami (State of California, 2021). Therefore, the potential for a tsunami to affect the site is considered low.

Seiches are periodic oscillations in large bodies of water such as lakes, harbors, bays, or reservoirs. The site is not located adjacent to any confined bodies of water; therefore, the potential for a seiche to affect the site is considered low.

The site is not mapped as being located within a flood hazard area as identified by FEMA flood hazard maps. According to the Flood Insurance Rate Map (FIRM), the site is mapped as being located within an area designated as Zone X (FEMA, 2008). Zone X is defined as an area of minimal flood hazard.

2.04.5 LANDSLIDES AND SLOPE STABILITY

Based on our review of available literature, no landslides have been mapped within the project boundaries. Additionally, no evidence of landslides was observed during our site reconnaissance and subsurface investigation. Given the relatively flat topography, and lack of surficial landslide evidence at the site, the potential for landslides or slope instabilities to occur at the site is considered low.

2.04.6 SUBSIDENCE

The site is not mapped as being located in an area of known subsidence associated with fluid withdrawal (groundwater or petroleum) (USGS, 2023) therefore, the potential for subsidence due to the extraction of fluids is considered negligible.

2.04.7 HYDRO-CONSOLIDATION

Hydro-consolidation can occur in recently deposited sediments (less than 10,000 years old) that were deposited in a semi-arid environment. Examples of such sediments are aeolian sands, alluvial fan deposits, and mudflow sediments deposited during flash floods. The pore spaces between the particle grains can re-adjust when inundated by groundwater causing the material to consolidate. The relatively dense materials underlying the site are not considered susceptible to hydro-consolidation.

3.00 CONCLUSIONS

3.01 GENERAL CONCLUSIONS

Based on our geotechnical review of the planned construction, it is our opinion that the site is suitable for the proposed construction provided our conclusions are taken into consideration during design, and our recommendations are incorporated into the construction plans and specifications and implemented during grading and construction. The recommendations presented herein may need to be updated once final plans are developed.

The main geotechnical considerations affecting the project are the presence of potentially compressible undocumented fill and upper loose portions of the alluvial fan deposits. To reduce the potential for settlement, the existing fill and upper loose portions of the alluvial fan deposits should be excavated in their entirety below the proposed building and other settlement sensitive improvements. Although not anticipated, the proposed structure should not be underlain by cut/fill transitions. To reduce the potential for expansive heave, concrete slabs-on-grade, hardscape, and site and retaining wall and site wall footings should be underlain by at least 2 feet of material with an expansion index of 20 or less. The recommendations presented herein may need to be updated once final plans are developed.

In general, conventional shallow spread footings or mat foundations bearing entirely on compacted fill may be used for the support of the proposed structures.

Footings located adjacent to or within slopes should be extended to a depth such that a minimum horizontal distance of H/3 (where H is the height of the slope) or 40 feet exists between the lower outside footing edge and the face of the slope in accordance with California Building Code (CBC) requirements.

4.00 RECOMMENDATIONS

The following recommendations are provided to address the geotechnical aspects of this project and are considered minimum. They may be superseded by more conservative requirements of the architect, structural engineer, building code, or governing agencies. In addition to the recommendations in this section, additional general earthwork and grading specifications are included in Appendix D.

4.01 EARTHWORK

4.01.1 SITE PREPARATION AND CLEARING

Site preparation should begin with the removal of surface vegetation, trash, debris, and existing structures or improvements. Abandoned underground improvements such as utility pipes and tanks should be removed from the site and capped or rerouted at the project perimeter. Resulting excavations should be backfilled and compacted in accordance with the recommendations provided in this report.

Removal of underground tanks is subject to state law as regulated by the County, City and/or Fire Department. If storage tanks containing hazardous or unknown substances are encountered, the proper authorities must be notified prior to any attempts at removing such objects. If water wells are encountered during construction, they should be exposed and capped in accordance with the requirements of the regulating agencies.

4.01.2 EXCAVATION CHARACTERISTICS

Based on the materials encountered during our investigation, it is anticipated that excavations can be achieved with conventional heavy duty earthwork equipment in good working order. Very difficult excavation should be anticipated in very dense zones of the old alluvial fan deposits and granitic rock. Gravel and cobbles should also be anticipated. Contract documents should specify that the contractor mobilize equipment capable of excavating and compacting very dense materials. Although not encountered in our investigation, boulders may be encountered in portions of the alluvial fan deposits. Although not anticipated in very dense alluvial deposits or granitic rock, excavation sidewall instabilities or raveling may develop in zones of low cohesion materials. Rock breakers, carbide tipped augers, or carbide/diamond tipped coring equipment may be required to excavate/drill hard granitic rock materials.

4.01.3 REMOVALS AND OVER EXCAVATIONS

Recommendations for over excavation of the existing materials are provided for the building area supported on shallow foundations, and non-structural areas. Structural plans and foundation elevations were not available at the time of our investigation. Therefore, once formal plans are prepared and available for review, this office should review these plans from a geotechnical viewpoint, comment on any changes, and revise the recommendations of this report, if necessary.

4.01.3.1 STRUCTURES SUPPORTED ON CONVENTIONAL FOUNDATIONS

Existing undocumented fills and underlying loose native soils should be excavated in their entirety beneath the proposed buildings and other settlement sensitive structures to expose competent alluvial fan deposits. Over excavations on the order of 4 feet below existing ground surface or 2 feet below the bottom of foundations, whichever is deeper. Additionally, the proposed structures should not be underlain by cut/fill transitions. Horizontally, over excavation for the building and structural areas should extend a minimum distance of 5 feet outside the building limits or up to existing improvements, whichever is less.

4.01.3.2 NON-STRUCTURAL AREAS

Non-structural areas such as sidewalks and other miscellaneous flatwork areas including paved areas will require a minimum depth of 2 feet of removal and re-compaction below the lowest adjacent grade. Excavation for hardscape areas should extend a minimum distance of 2 feet outside the hardscape limits.

The exposed soils beneath over-excavations and in cut areas not otherwise requiring over-excavation should be scarified to a minimum depth of 12 inches, moisture conditioned and compacted to a minimum of 90% relative compaction.

The above recommendations are based on the assumption that soils encountered during field exploration are representative of soils throughout the site. Removal and over-excavation depths must be verified, and adjusted if necessary, at the time of grading.

4.01.4 FILL MATERIALS

Removed and/or over-excavated soils, except for roots, debris, and rocks greater than 6 inches, may be used as compacted fill. Concrete slabs should be underlain by at least 2 feet of material with an expansion index of 20 or less as determined by ASTM D4829. Based on our field investigation and laboratory testing, we expect that most of the onsite materials will meet the expansion index criteria and that import materials will not be required.

Prior to placing fill, exposed surfaces at the bottom of the excavations should be scarified to a depth of 8 inches, moisture conditioned to near optimum moisture content, and compacted to at least 90% relative compaction. Fill should be placed in horizontal lifts at a thickness appropriate for the equipment spreading, mixing, and compacting the material, but generally should not exceed 8 inches in loose thickness. Fill should be moisture conditioned to near optimum moisture content and compacted to at least 90% relative compaction. Fill should be benched into sloping ground inclined steeper than 5:1 (horizontal to vertical). The maximum dry density and optimum moisture content for evaluating relative compaction should be determined in accordance with ASTM D1557.

Utility trench backfill beneath structures, pavements and hardscape should be compacted to at least 90% relative compaction. The upper 12 inches of subgrade beneath pavements should be compacted to at least 95%.

4.01.5 EXPANSIVE SOILS

Laboratory test results indicate the on-site soils have an expansion index of very low. To reduce the potential for expansive heave, soils with an expansion index greater than 20 should be removed in the upper 2 feet of the planned structure or any hardscape areas. Granular material having an expansion index of 20 or less should be used as replacement fill. We anticipate that the onsite sandy soils will meet the expansion index criteria.

4.01.6 IMPORTED SOILS

If needed, imported soil should consist of predominately granular soil, free of organic matter and rocks greater than 4 inches. Imported soil should have an expansion index of 20 or less and should be inspected and, if appropriate, tested prior to transport to the site.

4.01.7 OVERSIZED MATERIALS

Excavations may generate oversized material. Oversized material is defined as rocks or cemented clasts greater than 6 inches in largest dimension. Oversized material should be broken down to no greater than 6 inches in largest dimension for use in fill, used as landscape material, or disposed of off-site.

4.01.8 TEMPORARY EXCAVATIONS

Temporary excavations 4 feet deep or less can be made vertically. Deeper temporary excavations in fill should be laid back no steeper than 1½:1 (horizontal:vertical). The faces of temporary slopes should be inspected daily by the Contractor's Competent Person before personnel are allowed to enter the excavation. Zones of potential instability, sloughing, or

raveling should be brought to the attention of the engineer and corrective action implemented before personnel begin working in the excavation. Excavated soils should not be stockpiled behind temporary excavations within a distance equal to the depth of the excavation. MTGL should be notified if other surcharge loads are anticipated so that lateral load criteria can be developed for the specific situation. If temporary slopes are to be maintained during the rainy season, berms are recommended along the tops of slopes to prevent runoff water from entering the excavation and eroding the slope faces.

Temporary slopes and excavations should be made in conformance with applicable OSHA standards and requirements. Based on the results of our investigation, the subsurface materials can be categorized as Type C soil.

Slopes steeper than those described above will require shoring. Additionally, temporary excavations that extend below a plane inclined at 1½:1 (horizontal:vertical) downward from the outside bottom edge of existing structures or improvements will require shoring. Soldier piles and lagging, internally braced shoring or trench boxes could be used. If trench boxes are used, the soil immediately adjacent to the trench box is not directly supported. Ground surface deformations immediately adjacent to the pit or trench could be greater where trench boxes are used compared to other methods of shoring.

4.01.9 TEMPORARY SHORING

For design of cantilevered shoring, an active soil pressure equal to a fluid weighing 40 pcf can be used for level retained ground. The surcharge loads on shoring from traffic and construction equipment adjacent to the excavation can be modeled by assuming an additional 2 feet of soil behind the shoring.

For design of soldier piles, an allowable passive pressure of 350 psf per foot of embedment over 2.5 times the pile diameter or the spacing of the piles, whichever is less, up to a maximum of 4,500 psf can be used for soil above the groundwater level. An allowable passive pressure of 175 psf per foot of embedment over 2.5 times the pile diameter or the spacing of the piles, whichever is less, up to a maximum of 2,250 psf can be used for soil below the groundwater level. Hydrostatic pressure should be applied below the groundwater level.

Soldier piles should be spaced at least three pile diameters, center to center. Continuous lagging will be required throughout. The soldier piles should be designed for the full-anticipated lateral pressure; however, the pressure on the lagging will be less due to arching

in the soils. For design of lagging, the earth pressure but can be limited to a maximum value of 400 psf.

Installation of soldier piles below groundwater (or dewatered soil) will require special construction techniques and equipment, such as temporary casing and/or drilling slurry to cope with groundwater and potential heavy caving. Other installation methods may be available. If soldier piles are anticipated to extend to a depth below 44 feet (historic groundwater depth), contract documents should specify that the contractor mobilize equipment capable of installing piles below groundwater (or dewatered soil) to reduce the potential that claims for delays or extra work will arise.

Piles should be filled with concrete immediately after drilling. The concrete should be pumped to the bottom of the drilled holes using the tremie method. If casing is used, the casing should be removed as the concrete is placed, keeping the level of the concrete at least 5 feet above the bottom of the casing at all times.

4.01.10 SLOPES

All permanent slopes should be constructed no steeper than 2:1 (horizontal: vertical). Faces of fill slopes should be compacted either by rolling with a sheepsfoot roller or other suitable equipment or by overfilling and cutting back to design grade. Fills should be benched into sloping ground when inclined steeper than 5:1 (horizontal: vertical). It is our opinion that cut slopes constructed no steeper than 1½:1 (horizontal: vertical) will possess an adequate factor of safety. An engineering geologist should observe all cut slopes during grading to ascertain that no unforeseen adverse geologic conditions are encountered that require revised recommendations.

Where buildings are planned near the top of a slope steeper than 3:1 (horizontal to vertical), special foundations or stabilization measures are recommended. Footings located adjacent to or within existing slopes should be deepened to a depth such that a minimum horizontal distance of H/3 (where H is the height of the slope) exists between the lower outside footing edge and the face of the slope.

All slopes are susceptible to surficial slope failure and erosion. Water should not be allowed to flow over the top of slope. Additionally, slopes should be planted with vegetation that will reduce the potential for erosion.

4.01.11 TEMPORARY DEWATERING

Groundwater seepage may occur locally due to local irrigation or following heavy rain. Temporary dewatering can be accomplished by sloping the excavation bottom to a sump and pumping from the sump. A layer of gravel about 6 inches thick placed in the bottom of the excavation will facilitate groundwater flow and can be used as a working platform.

A specialty dewatering contractor should be contacted for additional project specific dewatering recommendations.

4.02 FOUNDATIONS

In general, shallow foundations including conventional shallow spread footings and mat foundations bearing on compacted fill can be used for the support of the proposed structures.

Our recommendations are only minimum criteria based on geotechnical factors and should not be considered a structural design, or to preclude more restrictive criteria of governing agencies or by the structural engineer. The foundation system should be designed by the project's structural engineer, incorporating the geotechnical parameters described herein and the requirements of applicable building codes.

The foundation recommendations provided herein are considered generally consistent with methods typically used in southern California, however, other alternatives may be available. Based on the results of our geotechnical investigation, recommendations for various foundation systems are presented in the following sections.

4.02.1 CONVENTIONAL SHALLOW FOUNDATIONS

The planned structures can be supported on shallow conventional spread and/or continuous footings bearing entirely on compacted fill. An allowable bearing capacity of 2,000 psf may be used to design the foundations. The bearing capacity can be increased by 400 psf for each foot of depth below the minimum and 200 psf for each foot of width beyond the minimum up to a maximum of 3,500 psf. The bearing value can be increased by ⅓ when considering the total of all loads, including wind or seismic forces. Footings located adjacent to or within slopes should be extended to a depth such that a minimum horizontal distance of H/3 (where H is the height of the slope) or 40 feet exists between the lower outside footing edge and the face of the slope in accordance with California Building Code (CBC) requirements.

The recommended minimum footing width and embedment depth below the lowest adjacent grade are as follows:

CONVENTIONAL SHALLOW FOUNDATIONS

Foundation Type	Minimum Width	Minimum Depth
Continuous (Interior)	12 inches	18 inches
Continuous (Perimeter)	12 inches	24 inches
Spread Footings	24 inches	24 inches

Lateral loads will be resisted by friction between the bottoms of footings and passive pressure on the faces of footings and other structural elements below grade. An allowable coefficient of friction of 0.35 can be used. Passive pressure can be computed using an allowable lateral pressure of 350 psf per foot of depth below the ground surface for level ground conditions. Passive pressures should be reduced by half if used in conjunction with friction. The passive pressure can be increased by ⅓ when considering the total of all loads, including wind or seismic forces. The upper 1 foot of soil should not be relied on for passive support unless the ground is covered with pavements or slabs.

4.02.2 MAT FOUNDATIONS

The planned structures can be supported on a structural mat slab bearing compacted fill. An allowable bearing capacity of 1,500 psf can be used to design the foundations. This value can be increased by ⅓ when considering the total of all loads, including wind or seismic forces. Thickness and reinforcement of the slab foundation should be in accordance with the recommendations of the project's structural engineer. Mat foundations typically experience some deflection due to loads placed on the mat and the reaction of the soils underlying the mat. A design modulus of subgrade reaction, K, of 150 pounds per cubic inch (pci) may be used for compacted fill in evaluating such deflections. This value is based on an area of one square foot and should be adjusted for large mats. Adjusted values of the modulus of subgrade reaction, K_v, can be obtained from the following equation for square mats of various widths on sand:

$$K_V = K\left[\frac{B+1}{2B}\right]^2 \text{ (pci); for b} \leq 20 \text{ Feet}$$

$$K_V = \frac{K}{2}\left[\frac{B+1}{2B}\right]^2 \text{ (pci); for b} \geq 40 \text{ Feet}$$

Where B is the width of the mat in feet. For B between 20 and 40 feet, K_v can be interpolated.

Adjusted values of the modulus of subgrade reaction, K', can be obtained from the following equation for rectangle mats of various widths:

$$K' = \frac{K_v\left[1+0.5\left(\frac{B}{L}\right)\right]}{1.5} \text{ (pci)}$$

Where, B is width the and L is the length of the mat in feet.

Lateral loads will be resisted by friction between the bottom of the mat foundation and underlying soil, and passive pressure on the faces of the mat foundations. A coefficient of friction of 0.35 can be used. Passive pressure can be computed using an allowable lateral pressure of 350 psf per foot of depth below the ground surface for level ground conditions. Passive pressure should be reduced by half when used in conjunction with friction. The passive pressure can be increased by ⅓ when considering the total of all loads, including wind or seismic forces. The upper 1-foot of soil should not be relied on for passive support unless the ground is covered with pavements or slabs.

The slab thickness and reinforcement should be designed by the structural engineer. The corrosion potential of on-site soils with respect to reinforced concrete will need to be considered in the concrete mix design.

4.02.3 CAST IN DRILLED HOLE (CIDH) DEEP FOUNDATIONS

Pole type foundations are assumed to be used to support canopies, light poles, and signs. At this time, it is unknown if any pole type foundations will be used. However, for preliminary design purposes, individual drilled, cast-in-place concrete piers may be designed using a uniform skin friction of 300 psf. The upper 2 feet of all piers should be neglected when evaluating allowable axial capacities. Total downward capacities estimated may be increased by one-third for short-term transient loads.

Lateral resistance may be evaluated using Section 1807A of the 2022 CBC for a silty sand material. A lateral soil bearing of 150 pounds per square feet per foot of embedment may be used to verify required embedment depth. For piles with an axial load, piles should be spaced at least 3 pile diameters, center to center.

During excavation, layers of cohesionless soils may be encountered; thus, caving of the pile shafts should be anticipated. Special care should be taken during construction to stabilize the sides of the CIDH piles, as required.

4.02.4 SETTLEMENT CONSIDERATIONS

Foundations should be designed for the anticipated settlements. Static settlement of an individual foundation member will vary depending on the plan dimensions of the foundation and the actual load supported.

We estimate maximum static settlement of foundations designed and constructed in accordance with the recommendations presented to be on the order of 1 inch. Differential settlement between similarly loaded and adjacent footings are expected to be less than ½

inch across 40 feet, provided footings are founded on similar materials. Static settlement of all foundations is expected to occur rapidly and should be essentially complete shortly after initial application of the loads.

4.03 INTERIOR SLABS ON GRADE

The project's structural engineer should design concrete slabs-on-grades for buildings. However, it is recommended that interior slabs be at least 5 inches thick and reinforced with at least No. 4 bars at 18 inches on center each way. The concrete should have a 28-day compressive strength of at least 3,000 psi, a water to cement ratio of 0.50 or less, and a slump of 4 inches or less.

Slabs should be provided with weakened plane joints. Joints should be placed in accordance with the American Concrete Institute (ACI) guidelines. The project's architect should select the final joint patterns. A 1 inch maximum size aggregate mix is recommended for concrete slabs. The corrosion potential of on-site soils with respect to reinforced concrete will need to be taken into account in concrete mix design. Coarse and fine aggregate in concrete should conform to the "Greenbook" Standard Specifications for Public Works Construction.

Moisture protection should be installed beneath slabs where moisture sensitive floor coverings will be used. The project's architect should review the tolerable moisture transmission rate of the proposed floor covering and specify an appropriate moisture protection system. Typically, a plastic vapor barrier (15-mil Stegowrap or equivalent) is used and should comply with ASTM E1745. The vapor barrier installation should comply with ASTM E1643 and ACI 302.1R. The floor covering manufacturer should be consulted to determine the volume of moisture vapor allowable and treatment needed to reduce moisture vapor emissions to acceptable limits for the particular type of floor covering installed.

4.04 HARDSCAPE

Hardscape and other exterior concrete slabs-on-grade not subject to vehicular loads should be underlain by at least 2 feet of material with an expansion index of 20 or less. Exterior slabs should be at least 4 inches thick and reinforced with at least No. 3 bars at 18 inches on center each way. Slabs should be provided with weakened plane joints. Joints should be placed in accordance with the American Concrete Institute (ACI) guidelines. The project's architect should select the final joint patterns. A 1 inch maximum size aggregate mix is recommended for concrete for exterior slabs. The corrosion potential of on-site soils with respect to reinforced concrete will need to be taken into account in concrete mix design. Coarse and fine aggregate in concrete should conform to the "Greenbook" Standard Specifications for Public Works Construction.

4.05 PREWETTING RECOMMENDATIONS

Prior to placing concrete slabs and flatwork, the underlying soils should be brought to within a minimum of 2% and a maximum of 4% above its optimum moisture content for a depth of 12 inches prior to the placement of concrete. The geotechnical consultant should perform in-situ moisture tests to verify that the appropriate moisture content has been achieved a maximum of 24 hours prior to the placement of concrete or moisture barriers.

Once the slab subgrade soil has been pre-wetted and compacted, the soil should not be allowed to dry prior to concrete placement. If the subgrade soil is dry, the moisture content of the soil should be restored prior to placement of concrete and re-tested.

Proper moisture conditioning and compaction of subgrade soils should be performed prior to placement of concrete. Even with proper site preparation, some soil moisture changes of the subgrade soils supporting the concrete flatwork due to edge effects (shrink/swell) may occur. Drying and/or wetting of subgrade soils adjacent to landscaped areas or open fields may increase the potential of shrink/swell effects beneath concrete flatwork areas. To help reduce edge effects, lateral cutoffs, such as inverted curbs are recommended. Control joints should be used to reduce the potential for flatwork panel cracks as a result of minor soil shrink/swell.

The recommendations are intended to reduce the potential for cracking of slabs; however, even with the incorporation of the recommendations presented herein, slabs may still exhibit some cracking. The occurrence of concrete shrinkage cracks is independent of the supporting soil characteristics.

4.06 CORROSIVITY

Soluble sulfate tests indicate that concrete at the subject site will have a moderate exposure to water soluble sulfate in the soil. We recommend that the concrete be designed to resist a moderate exposure category. Our recommendations for concrete exposed to sulfate-containing soils are presented below.

RECOMMENDATIONS FOR CONCRETE EXPOSED TO SULFATE CONTAINING SOILS

Sulfate Exposure Severity	Class	Water soluble sulfate (SO_4) in soil (% by wgt)	Sulfate (SO_4) in water (ppm)	Maximum Water to Cement Ratio by Weight	Minimum Compressive Strength (psi)	Cement Type	Calcium Chloride Admixture
Negligible	S0	0.00 - 0.10	0-150	—	2,500	—	No Restriction
Moderate	**S1**	**0.10 - 0.20**	**150-1,500**	**0.50**	**4,000**	**II/V**	**No Restriction**
Severe	S2	0.20 - 2.00	1,500-10,000	0.45	4,500	V	Not Permitted
Very Severe	S3	Over 2.00	Over 10,000	0.45	4,500	V Plus Pozzolan	Not Permitted

Corrosivity testing consisting of soils reactivity (pH) and resistivity (ohms-cm) were also tested on select soil samples. The test results indicate that the soils have a soil reactivity of 7.4 and a resistivity of 5,000 ohms-cm. A neutral or non-corrosive soil has a reactivity value ranging from 5.5 to 8.4. Generally, soils that could be considered corrosive to metal have resistivities less than 3,000 ohms-cm. Those soils with resistivity values of less than 1,000 ohms-cm can be considered extremely corrosive.

Based on our test results, it is our opinion that the underlying soils at the site have a moderate corrosion potential. Protection of buried pipes utilizing coatings on all underground pipes; clean backfills and a cathodic protection system can be effective in controlling corrosion. A qualified corrosion engineer should be consulted to further assess the corrosive properties of the soil and provide mitigation measures appropriate to the improvements.

4.07 RETAINING STRUCTURES

Embedded structural walls should be designed for lateral earth pressures exerted on the walls. The magnitude of these earth pressures will depend on the amount of deformation that the wall can yield under the load. If the wall can yield sufficiently to mobilize the full shear strength of the soils, it may be designed for the active condition. If the wall cannot yield under the applied load, then the shear strength of the soil cannot be mobilized, and the earth pressures will be higher. These walls such as basement walls and swimming pools should be designed for the at rest condition. If a structure moves towards the retained soils, the resulting resistance developed by the soil will be the passive resistance.

For design purposes, the recommended equivalent fluid pressure for each case for walls constructed above the static groundwater table and backfilled with non-expansive soils is provided below. Retaining wall backfill should be compacted to at least 90% relative compaction based on the maximum density defined by ASTM D1557. Retaining structures should be designed to resist the following lateral earth pressures.

- Coefficient of Friction (Soil to Footing) – 0.35
- Passive Earth Pressure - Equivalent Fluid Weight of 350 pcf (Maximum of 3,500 psf)
- At rest lateral earth pressure - 60 pcf
- Active Earth Pressures (Equivalent Fluid Weights):

Slope of Retained Material	Equivalent Fluid Weight (pcf)
Level	40
2:1 (H:V)	60

It is recommended that all retaining wall footings be embedded at least 24 inches below the lowest adjacent finish grade. In addition, the wall footings should be designed and reinforced as required for structural considerations. The wall areas should be over excavated to a minimum depth of 2 feet below the bottom of the proposed footings. The required horizontal limits of the over excavation area shall be a minimum distance of 2 feet.

Lateral resistance parameters provided above are ultimate values. Therefore, a suitable factor of safety should be applied to these values for design purposes. The appropriate factor of safety will depend on the design condition and should be determined by the project's structural engineer. These parameters do not include loading from adjacent structures. If any super-imposed loads are anticipated, this office should be notified so that appropriate recommendations for earth pressures may be provided.

Retaining structures should be designed with effective drainage to prevent the accumulation of subsurface water behind the walls. Back-drains should be installed behind retaining walls exceeding 3 feet in height. Back-drains may consist of a 2 feet wide zone of ¾ inch crushed rock. The backdrain should be separated from the adjacent soils using a non-woven filter fabric, such as Mirafi 140N or equivalent. Weep holes should be provided, or a perforated pipe should be installed at the base of the back-drain and sloped to discharge to a suitable storm drain facility. As an alternative, a geo-composite drainage system such as Mira-drain 6000 or equivalent placed behind the wall and connected to a suitable storm drain facility can be used. The project's architect should provide waterproofing specifications and details. A typical detail for retaining wall backdrains is presented as Figure 7. Backdrains should be outleted to suitable drainage devices.

4.08 SEISMIC EARTH PRESSURES

If required, the seismic earth pressure can be taken as equivalent to the pressure of a fluid weighing 23 pcf. This value is for level backfill and does not include a factor of safety. Appropriate factors of safety should be incorporated into the design. This pressure is in addition to the un-factored, static

active earth pressure. The passive pressure and bearing capacity can be increased by ⅓ in determining the seismic stability of the wall.

4.09 PAVEMENT STRUCTURAL SECTIONS

Recommended pavement structural sections are based on the procedures outlined in "Design Procedures for Flexible Pavements" of the Highway Design Manual, California Department of Transportation. This procedure uses the principal that the pavement structural section must be of an adequate thickness to distribute the load from the design traffic (TI) to the subgrade soils in such a manner that the stresses from the applied loads do not exceed the strength of the soil (R value). Pavement sections were designed based on an R-Value of 41. The recommended structural sections are as follows:

ASPHALT PAVEMENT STRUCTURAL SECTIONS

Pavement Area	Traffic Index	Asphalt Thickness (inches)	Base Thickness (inches)
Parking Areas	5.0	3	4
Driveways	6.0	4	4
Fire Access Lanes	7.5	5	7

PORTLAND CEMENT CONCRETE PAVEMENT STRUCTURAL SECTION

Pavement Area	Traffic Index	PCC Thickness (inches)	Base Thickness (inches)
Parking Areas & Driveways (min f'c = 4,500 psi)	5.0 – 7.0	6	4
Fire Access Lanes (min f'c = 4,500 psi)	7.5 – 8.0	7½	4

The upper 12 inches of subgrade should be scarified, moisture conditioned to near optimum moisture content, and compacted to at least 95% relative compaction. Soft or yielding areas should be removed and replaced with compacted fill or aggregate base. Aggregate base and asphalt concrete should conform to the Caltrans Standard Specifications or the "Greenbook" and should be compacted to at least 95% relative compaction. Aggregate base should have an R-value of not less than 78. Materials and methods of construction should conform to good engineering practices.

4.10 UTILITY TRENCHES

Cal/OSHA construction safety orders should be observed during all underground work. Utility trench backfill within street right of way, utility easements, under or adjacent to sidewalks, driveways, or building pads should be observed and tested by the geotechnical consultant to verify proper

compaction. Trenches excavated adjacent to foundations should not extend within the footing influence zone defined as the area within a line projected at a 1:1 (horizontal to vertical) drawn from the bottom edge of the footing. Trenches crossing perpendicular to foundations should be excavated and backfilled prior to the construction of the foundations. The excavations should be backfilled in the presence of the geotechnical engineer and tested to verify adequate compaction beneath the proposed footing.

4.10.1 THRUST BLOCKS

For level ground conditions, a passive earth pressure of 350 psf per foot of depth below the lowest adjacent final grade can be used to compute allowable thrust block resistance.

4.10.2 MODULUS OF SOIL REACTION

A modulus of soil reaction (E') of 1,000 psi can be used to evaluate the deflection of buried flexible pipelines. This value assumes that granular bedding material is placed adjacent to the pipe and is compacted to at least 90% relative compaction.

4.10.3 BEDDING

Pipe bedding as specified in the "Greenbook" Standard Specifications for Public Works Construction can be used. Bedding material should consist of clean sand having a sand equivalent not less than 30 and should extend to at least 12 inches above the top of pipe. Alternative materials meeting the intent of the bedding specifications are also acceptable. Samples of materials proposed for use as bedding should be provided to the engineer for inspection and testing before the material is imported for use on the project. The on-site materials are not expected to meet "Greenbook" bedding specifications. The pipe bedding material should be placed over the full width of the trench. After placement of the pipe, the bedding should be brought up uniformly on both sides of the pipe to reduce the potential for unbalanced loads. No voids or uncompacted areas should be left beneath the pipe haunches. Ponding or jetting the pipe bedding should not be allowed.

4.10.4 BACKFILL

Excavated material free of organic debris and rocks greater than 6 inches in any dimension are generally expected to be suitable for use as backfill. Imported material should not contain rocks greater than 4 inches in any dimension or organic debris. Imported material should have an expansion index of 20 or less. MTGL should observe and, if appropriate, test proposed imported materials before they are delivered to the site. Backfill should be placed in lifts 8 inches or less in loose thickness, moisture conditioned to optimum moisture content or slightly above, and compacted to at least 90% relative compaction. The upper 12 inches

of soil beneath pavement subgrade should be compacted to at least 95% relative compaction.

4.11 INFILTRATION FEASIBILITY

MTGL conducted an infiltration feasibility study at the site on January 18th & 19th, 2023. At this time, no preliminary BMP exhibits were available for review. Additionally, the project is in planning phase. Our fieldwork consisted of converting two shallow geotechnical borings to percolation test holes. The borings were prepared and tested by an MTGL engineer in general accordance with methods described in the Riverside County – Low Impact Development BMP Design handbook (2011). Appendix E presents percolation test data and results. A summary of our results is presented in the following table.

INFILTRATION RATE TEST RESULTS

Test Location	Test Depth (Feet)	Material Type at Test Depth (USCS Classification)	Adjusted Infiltration Rate* (Inches/Hour)
P-1	5	**Alluvial Fan Deposits (Qoa)**: SILTY SAND (SM)	0.1
P-2	5	**Alluvial Fan Deposits (Qoa)**: SILTY SAND (SM)	0.3

*The adjusted infiltration rate is calculated by applying a factor of safety of 2 to the tested infiltration rate.

During our investigation, native alluvial fan deposits were encountered at depths ranging from 2 to 3 feet BGS. As encountered, these deposits consisted primarily of silty sand material with a fines content ranging from 43 to 49 percent. This variability in fines content will impact the effectiveness with which the site stormwater will be able to permeate into the existing native soils. Therefore, partial infiltration of stormwater is recommended. BMP facility sidewalls should be lined with an impermeable geomembrane to reduce the potential for water-related distress to adjacent structures or improvements. A subdrain should be installed at the bottom of the BMP facilities. Foundations should be set back at least 10 feet from BMP facilities, or the foundations deepened to a depth that extends below the bottom of the BMPs.

4.12 CONSTRUCTION CONSIDERATIONS

4.12.1 MOISTURE-SENSITIVE SOILS AND WEATHER-RELATED CONCERNS

The upper soils encountered at this site may be sensitive to disturbances caused by construction traffic and to changes in moisture content. During wet weather periods, increases in the moisture content of the soil can cause significant reduction in the soil strength and its support capabilities. In addition, soils that become excessively wet may be slow to dry and thus significantly delay the progress of the grading operations. Therefore, it will be advantageous to perform earthwork and foundation construction activities during

the dry season. Much of the on-site soils may be susceptible to erosion during periods of inclement weather. As a result, the project's Civil Engineer/Architect and Grading Contractor should take appropriate precautions to reduce the potential for erosion during and after construction.

4.12.2 DRAINAGE AND GROUNDWATER CONSIDERATIONS

Based on our investigation, groundwater is expected to be below the anticipated depths of grading and the installation of subdrains is not expected to be necessary. However, variations in the ground water table may result from fluctuation in the ground surface topography, subsurface stratification, precipitation, irrigation, and other factors such as impermeable and/or cemented formational materials overlain by fill soils. In addition, during retaining wall excavations, seepage may be encountered. Therefore, we recommend that a representative of MTGL, Inc. be present during grading operations to evaluate areas of seepage. Drainage devices for reduction of water accumulation can be recommended should these conditions occur.

Water should not be allowed to collect in the foundation excavation, on floor slab areas, or on prepared subgrades of the construction area either during or after construction. Undercut or excavated areas should be sloped to facilitate removal of any collected rainwater, groundwater, or surface runoff. Positive site drainage should be provided to reduce infiltration of surface water around the perimeter of the structure and beneath the floor slabs. The grades should be sloped away from the structure and surface drainage should be collected and discharged such that water is not permitted to infiltrate the backfill and floor slab areas.

4.12.3 SITE DRAINAGE

The site should be designed to provide for positive drainage away from structures in accordance with the building code and applicable local requirements. Unpaved areas should slope no less than 2% away from structure. Paved areas should slope no less than 1% away from structures. Concentrated roof and surface drainage from the site should be collected in engineered, non-erosive drainage devices and conducted to a safe point of discharge. The site drainage should be designed by a civil engineer.

4.13 PLAN REVIEW

MTGL should review the grading and foundation plans to verify that the intent of the recommendations presented in this report has been implemented and that revised recommendations are not necessary as a result of changes after this report was completed.

5.00 GEOTECHNICAL OBSERVATION AND TESTING

The recommendations provided in this report are based on preliminary design information and subsurface conditions as interpreted from the investigation. Our preliminary conclusions and recommendations should be reviewed and verified during site grading and revised accordingly if exposed geotechnical conditions vary from our preliminary findings and interpretations. The geotechnical consultant should perform geotechnical observation and testing during the following phases of grading and construction:

- During site grading and over-excavation.
- During foundation excavations and placement.
- Upon completion of retaining wall footing excavation prior to placing concrete.
- During excavation and backfilling of utility trenches.
- During processing and compaction of the subgrade for the access and parking areas and prior to construction of pavement sections.
- When any unusual or unexpected geotechnical conditions are encountered during any phase of construction.

6.00 LIMITATIONS

The findings, conclusions, and recommendations contained in this report are based on the site conditions as they existed at the time of our investigation, and further assume that the subsurface conditions encountered during our investigation are representative of conditions throughout the site. Should subsurface conditions be encountered during construction that are different from those described in this report, this office should be notified immediately so that our recommendations may be re-evaluated.

This report was prepared for the exclusive use and benefit of the owner, architect, and engineer for evaluating the design of the facilities as it relates to geotechnical aspects. It should be made available to prospective contractors for information on factual data only, and not as a warranty of subsurface conditions included in this report.

Our investigation was performed using the standard of care and level of skill ordinarily exercised under similar circumstances by reputable soil engineers and geologists currently practicing in this or similar localities. No warranty, express or implied, is made as to the conclusions and professional advice included in this report.

This firm does not practice or consult in the field of safety engineering. We do not direct the Contractor's operations, and we are not responsible for their actions. The contractor will be solely and completely responsible for working conditions on the job site, including the safety of all persons and property during performance of the work. This responsibility will apply continuously and will not be limited to our normal hours of operation.

The findings of this report are considered valid as of the present date. However, changes in the conditions of a site can occur with the passage of time, whether they are due to natural events or to human activities on this or adjacent sites. In addition, changes in applicable or appropriate codes and standards may occur, whether they result from legislation or the broadening of knowledge.

Accordingly, this report may become invalidated wholly or partially by changes outside our control. Therefore, this report is subject to review and revision as changed conditions are identified.

FIGURES



SITE LOCATION MAP
County of Riverside YTEC
Riverside, California

MTGL Project No.:	Date:	Author:
2659A73	February, 2023	JCR

Geotechnical Engineering
Construction Inspection
Materials Testing
Environmental

MTGL

Figure No.
1



Reference:
United States Geological Survey (USGS), Riverside West Quadrangle, California - Riverside Co. 7.5 Minute Series, Contour Interval 20 Feet, North American Vertical Datum of 1988.

SITE TOPOGRAPHY MAP
County of Riverside YTEC
Riverside, California

MTGI Project No.:	Date:	Author:
2659A73	February, 2023	JCR

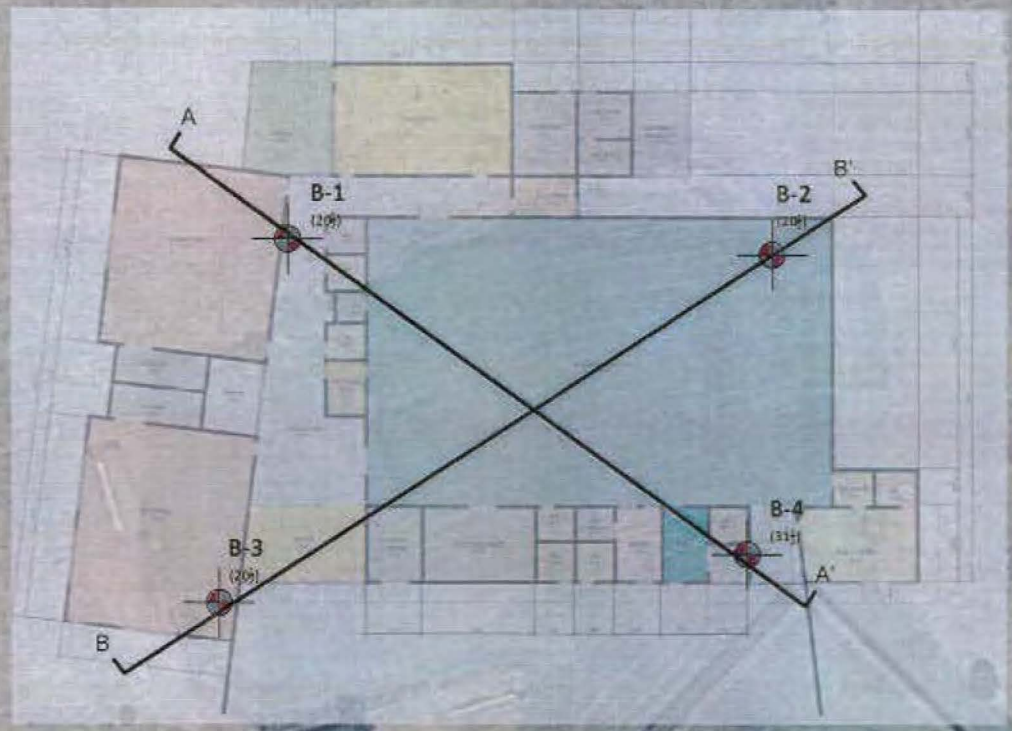
Geotechnical Engineering
Construction Inspection
Materials Testing
Environmental

Figure No.
2

Reference: Lionakis (2022), Riverside YTEC, 10000 County Farm Road, Riverside, CA 92503, Sheet A-111 - Floor Plan, Lionakis Project No. 021150.

Note: All locations are approximate

©2022 Google Earth



P-1 (5')

P-2 (5')

0' 40' 80'

SCALE (feet)

N

LEGEND

A A' - Geologic Cross Section

B-1 (20') - Location of Boring (Depth in Feet)

SUBSURFACE EXPLORATION MAP
County of Riverside YTEC
Riverside, California

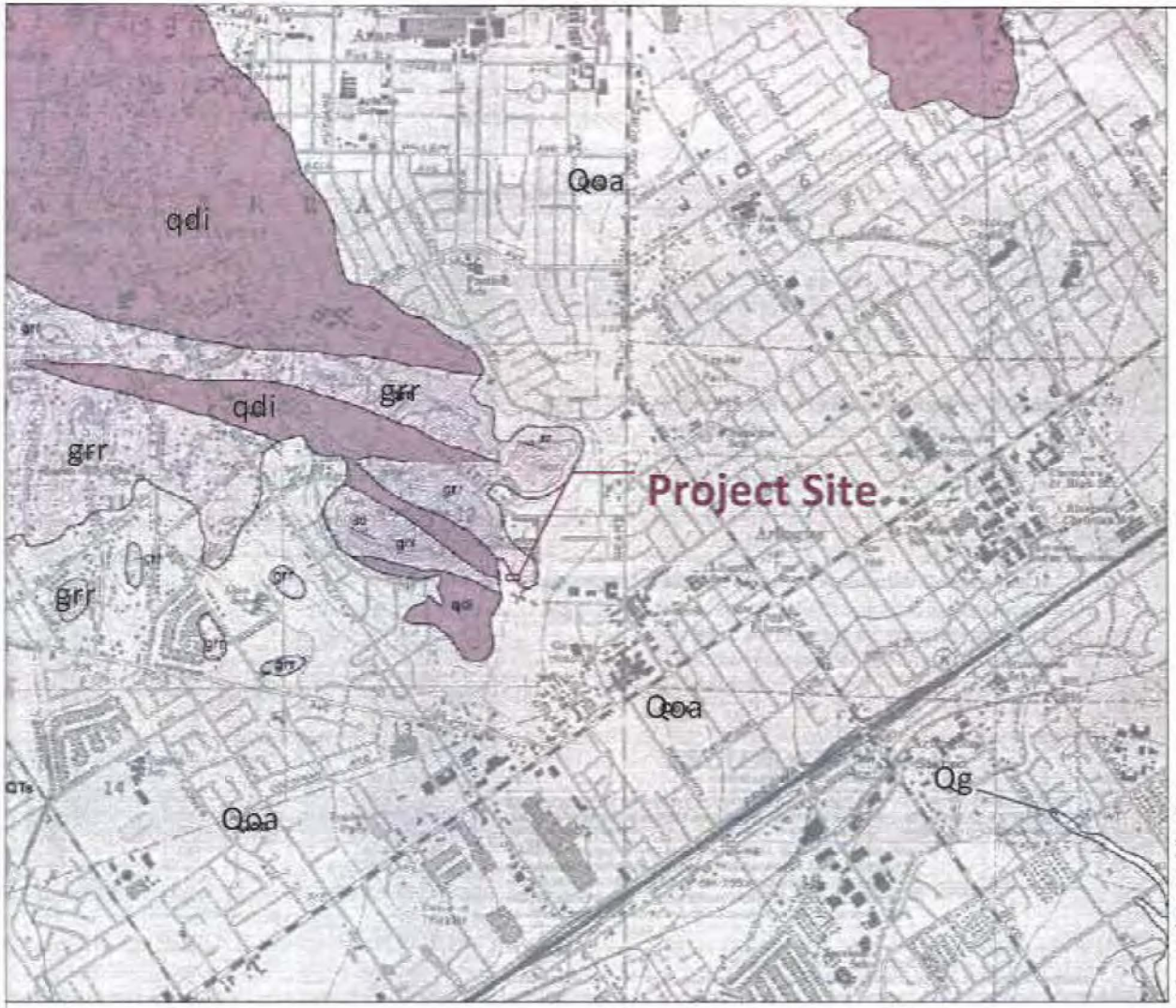
MTGL Project No.:	Date:	Author:
2659A73	February, 2023	JCR

Geotechnical Engineering
Construction Inspection
Materials Testing
Environmental

MTGL

Figure No.

3



EXPLANATION:

Qg — **Surficial Deposits, Alluvial gravel and sand (Holocene)** – Alluvial gravel and sand of stream channels.

Qoa — **Older Surficial Deposits, Alluvial fan deposits (Pleistocene)** – Alluvial fan deposits of sand, minor gravel, tan to light reddish brown.

grr — **Granitic Rock of Peninsular Ranges (Middle Cretaceous)** – Granite of Riverside area, tan-white, massive, medium grained, composed of quartz, potassic feldspar and sodic plagioclase feldspar.

qdi — **Plutonic Rocks of Peninsular Ranges (Early Cretaceous)** – Quartz diorite, light gray, contains scattered dark gray discoid inclusions parallel to gneissoid foliations; rock somewhat incoherent, weathered to low relief.

GEOLOGIC SYMBOLS

not all symbols shown on each map

FORMATION CONTACT *dashed where inferred or indefinite, dotted where concealed*

MEMBER CONTACT *between units of a formation* — *Prominent bed*

CONTACT BETWEEN SURFICIAL SEDIMENTS *located only approximately in places*

FAULT: *Dashed where indefinite or inferred, dotted where concealed, queried where existence is doubtful. Parallel arrows indicate inferred relative lateral movement. Relative vertical movement is shown by U/D (U=upthrown side, D=downthrown side). Short arrow indicates dip of fault plane. Sawteeth are on upper plate of low angle thrust fault.*

FOLDS: *overturned* — **ANTICLINE** — **SYNCLINE**

arrow on axial trace of fold indicates direction of plunge; dotted where concealed by surficial sediments

Strike and dip of Sedimentary rocks — *inclined* — *inclined (approximate)* — *overturned* — *horizontal* — *vertical*

Strike and dip of metamorphic or igneous rock foliation or flow banding or compositional layers — *inclined* — *inclined (approximate)* — *vertical* — *overturned*

Reference:
Thomas W. Dibblee, Jr. (2004), Geologic Map of the Riverside West / South ½ of Fontana Quadrangles, San Bernardino and Riverside County, California, 7.5-minute Quadrangles, Scale 1:24,000.

0 ½ 1
SCALE (Mile)

Note: All locations are approximate.

N

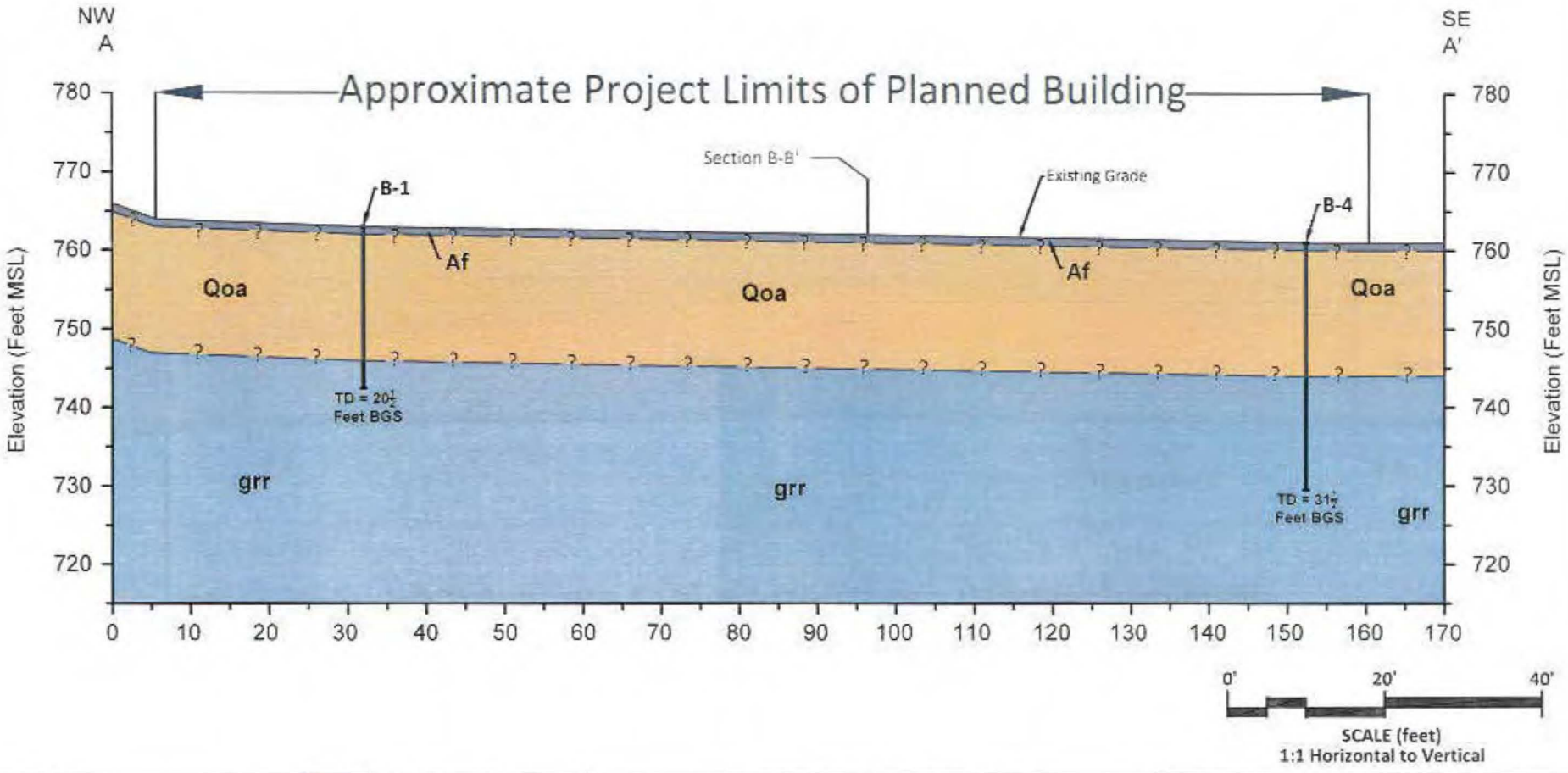
REGIONAL GEOLOGY MAP
County of Riverside YTEC
Riverside, California

MTGL Project No.:	Date:	Author:
2659A73	February, 2023	JCR

Geotechnical Engineering
Construction Inspection
Materials Testing
Environmental

Figure No.
4

Note: All locations and elevations are approximate.



LEGEND

- Geologic Contact, Queried Where Uncertain or Inferred
- B-1 — Boring Location
- Af — Undocumented Fill
- Qoa — Alluvial Fan Deposits
- grr — Granitic Rock

GEOLOGIC CROSS SECTION A-A'

County of Riverside YTEC
Riverside, California

MTGL Project No.:	Date:	Author:
2659A73	February, 2023	JCR

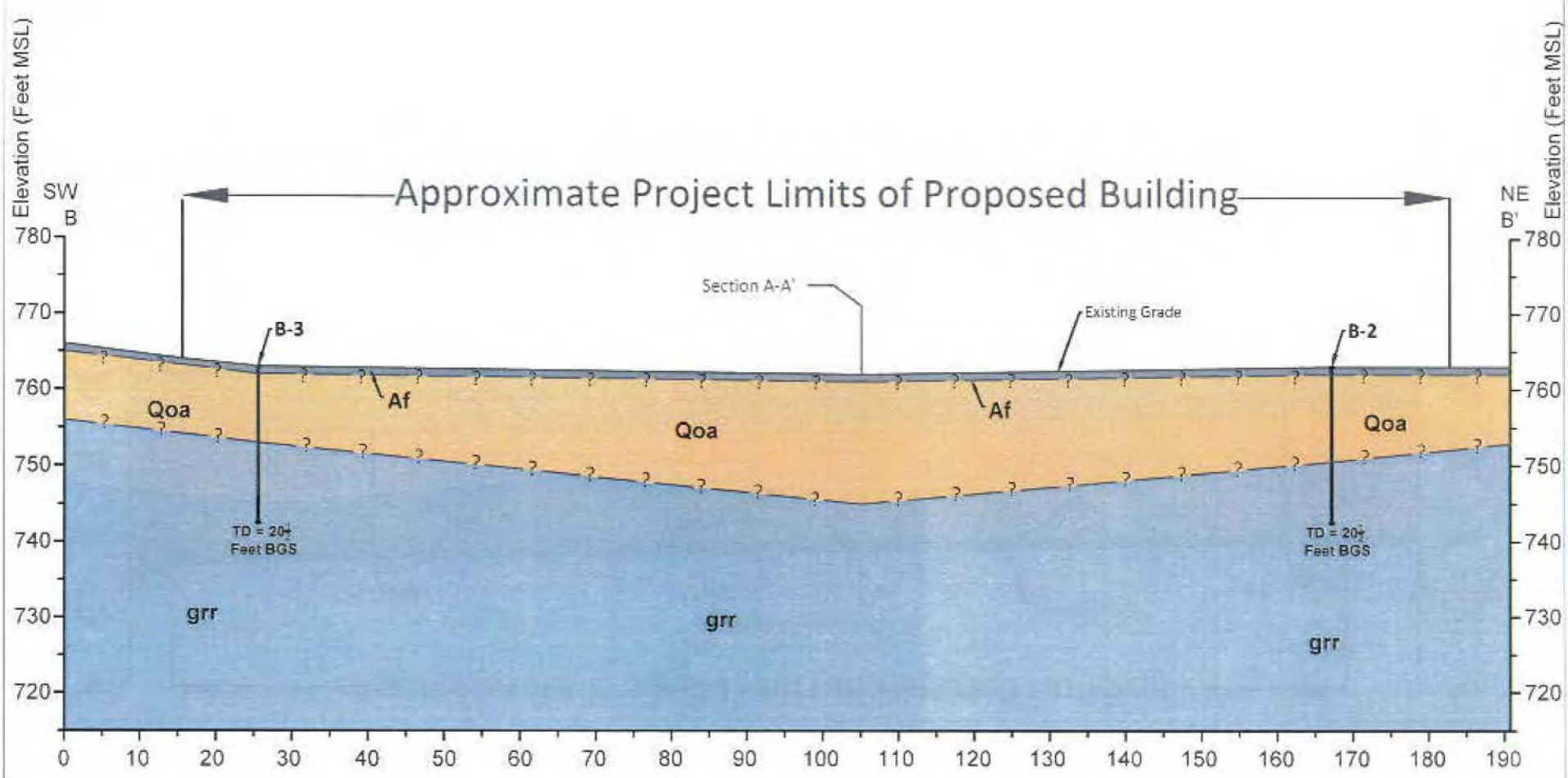
Geotechnical Engineering
Construction Inspection
Materials Testing
Environmental

MTGL

Figure No.

5A

Note: All locations and elevations are approximate.



0' 20' 40'

SCALE (feet)
1:1 Horizontal to Vertical

LEGEND

—?— Geologic Contact, Queried Where Uncertain or Inferred	Af Undocumented Fill
B-1 Boring Location	Qoa Alluvial Fan Deposits
	grr Granitic Rock

GEOLOGIC CROSS SECTION B-B'

County of Riverside YTEC
Riverside, California

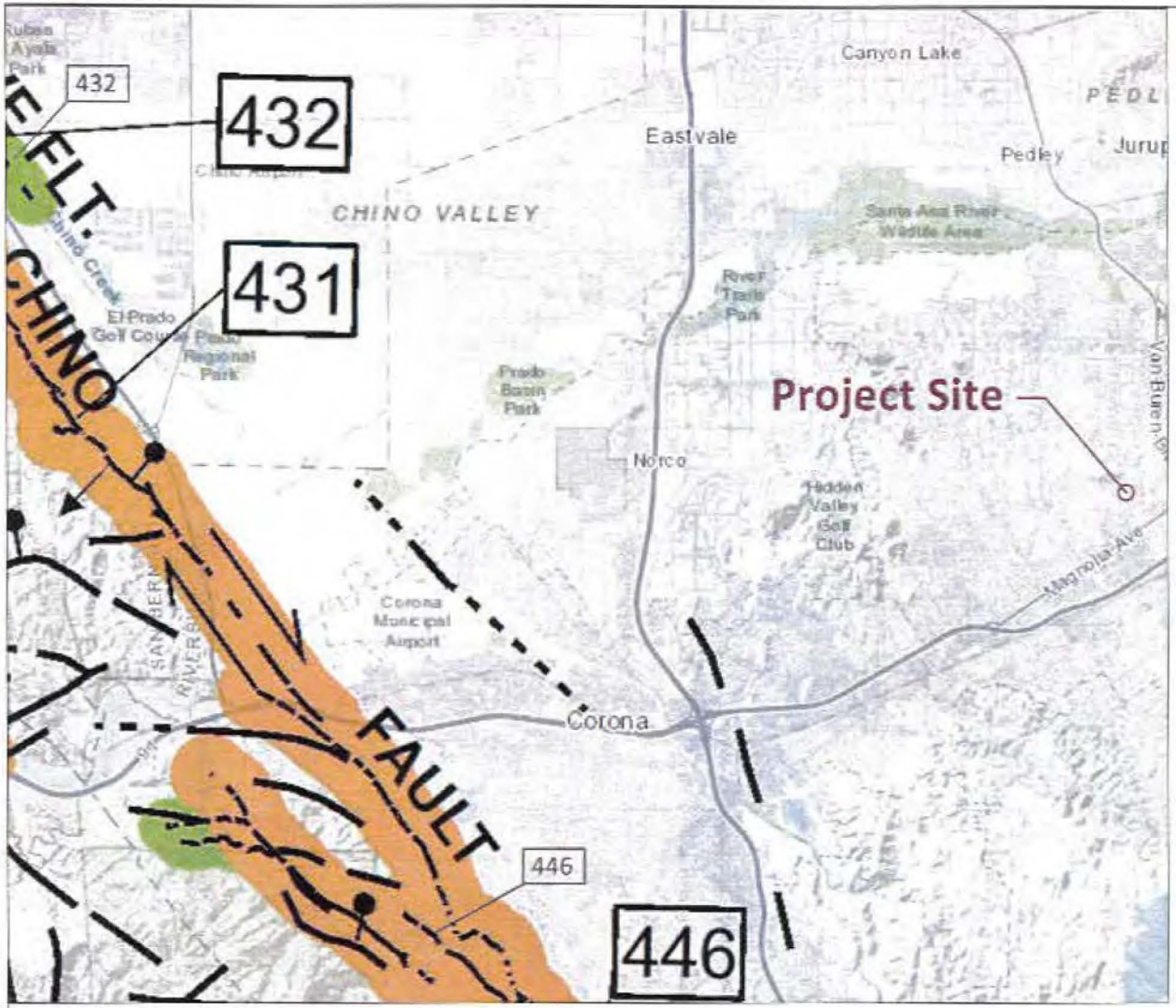
MTGL Project No.:	Date:	Author:
2659A73	February, 2023	JCR

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Environmental

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Figure No.

5B



EXPLANATION:

Holocene fault displacement (during past 11,700 years) without historic record

Late Quaternary fault displacement (during past 700,000 years)

Quaternary fault (age undifferentiated).

Pre-Quaternary fault (older that 1.6 million years) or fault without recognized Quaternary displacement.

ADDITIONAL FAULT SYMBOLS

Bar and ball on downthrown side (relative or apparent).

Arrows along fault indicate relative or apparent direction of lateral movement.

Arrow on fault indicates direction of dip.

JENNINGS ID NUMBER:

431	Chino fault, Elsinore fault zone, Chino section
432	Central Avenue fault
446	Main Street fault, Elsinore fault zone, Glen Ivy section

Reference:
California Geological Survey, 2015, Fault Activity Map, C.W. Jennings, W.A. Bryant, accessed on February 2, 2023, at https://maps.conservation.ca.gov/cgs/fam

Fault traces on land are indicated by solid lines where well located, by dashed lines where approximately located or inferred, and by dotted lines where concealed by younger rocks or by lakes or bays. Fault traces are queried where continuation or existence is uncertain. All offshore faults based on seismic reflection profile records are shown as solid lines where well defined, dashed where inferred, queried where uncertain.

0' 2 4

SCALE (Miles)

Note: All locations are approximate.

N

REGIONAL FAULT MAP

County of Riverside YTEC
Riverside, California

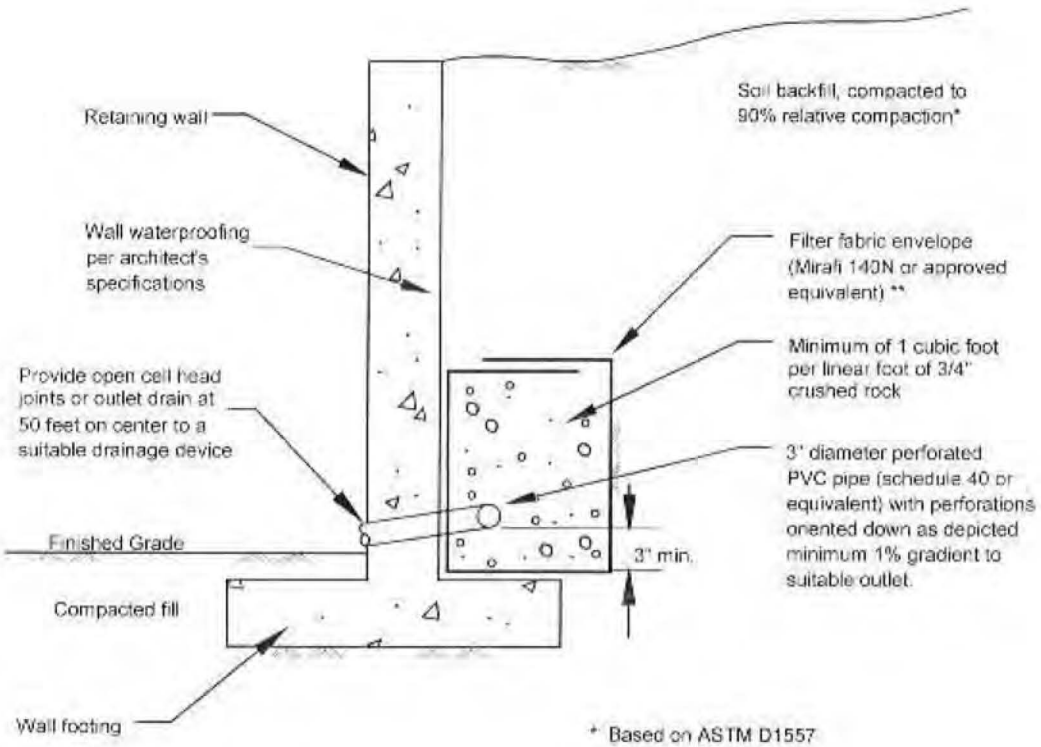
MTGL Project No.:	Date:	Author:
2659A73	February, 2023	JCR

Geotechnical Engineering
Construction Inspection
Materials Testing
Environmental

MTGL

Figure No.

6



* Based on ASTM D1557

** If class 2 permeable material (See gradation to left) is used in place of 3/4" - 1 1/2" gravel. Filter fabric may be deleted. Class 2 permeable material compacted to 90% relative compaction. *

SPECIFICATIONS FOR CLASS 2 PERMEABLE MATERIAL (CAL TRANS SPECIFICATIONS)

Sieve Size	% Passing
1"	100
3/4"	90-100
3/8"	40-100
No.4	25-40
No.8	18-33
No.30	5-15
No.50	0-7
No.200	0-3

RETAINING WALL DRAINAGE DETAIL

APPENDIX A

REFERENCES

APPENDIX A

REFERENCES

American Society of Civil Engineers, 2017, ASCE 7-16 Minimum Design Loads and Associated Criteria for Building and Other Structures.

California Building Standards Commission, 2019, California Building Code, Title 24, California Code of Regulations.

California Geological Survey, 2002, California Geomorphic Provinces, Note 36.

California Geological Survey, 2007, Fault-Rupture Hazard Zones in California, Special Publication 42.

California Geological Survey, 2008, Guidelines for Evaluating and Mitigating Seismic Hazards in California, Special Publication 117.

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Federal Emergency Management Agency, 2008, Flood Insurance Rate Map, National Flood Hazard Layer FIRMette, FEMA Map No. 06065C0715G, dated August 28th.

Lionakis, 2022, Schematic Plans for Riverside YTEC, 10000 County Farm Road, Riverside, CA 92503, Sheet Nos. AS101, A-111, Dated November.

OSHPD, 2023, Seismic Design Maps Calculator, https://seismicmaps.org/, accessed January.

Stratus Environmental, Inc., 2012, Semi-Annual Status Report, Second Half 2011, Former USA Station No. 241, 3950 Tyler Street, Riverside, California, Project No. 1007-3950-1, dated January 31.

Dibblee, Jr. T. W., 2004, Geologic Map of the Riverside West / South ½ of Fontana Quadrangles, San Bernardino and Riverside County, California, Dibblee Geology Center Map #DF-128, dated August.

State of California, 2021, Tsunami Hazard Area Map, Orange County; produced by the California Geological Survey and the California Governor's Office of Emergency Services, dated July 8, displayed at multiple scales.

United States Geological Survey, 2023, Areas of Land Subsidence in California, https://ca.water.usgs.gov/land_subsidence/california-subsidence-areas.html, accessed January 2023.

United States Geological Survey, 2023, U.S. Quaternary Faults, https://usgs.maps.arcgis.com/apps/webappviewer/index.html?id=5a6038b3a1684561a9b0aadf88412fcf, accessed January 2023.

APPENDIX B

FIELD EXPLORATION PROGRAM

APPENDIX B

FIELD EXPLORATION PROGRAM

The subsurface conditions for this Geotechnical Investigation were explored by excavating exploratory borings with an 8-inch diameter hollow-stem-auger and hand tools. Driven samples were obtained by SPT or a Modified California Tube Sampler. The approximate locations of the borings are shown on the Subsurface Exploration Map (Figure 3). The field exploration was performed under the supervision of our engineer and geologist who maintained a continuous log of the subsurface soils encountered and obtained samples for laboratory testing.

Subsurface conditions are summarized on the accompanying Logs of Borings. The logs contain descriptive information and interpretation of subsurface conditions based on the obtained samples. The stratum indicated on these logs represents the approximate boundary between earth units, however, transitions may be gradual. The logs show subsurface conditions at the dates and locations indicated and may not be representative of subsurface conditions at other locations and times.

Identification of the soils encountered during the subsurface exploration was made using the field identification procedure of the Unified Soils Classification System (ASTM D2488). A legend indicating the symbols and definitions used in this classification system and a legend defining the terms used in describing the relative compaction, consistency or firmness of the soil are attached in this appendix. Bag samples of the major earth units were obtained for laboratory inspection and testing, and the in-place density of the various strata encountered in the exploration was determined.

The exploratory borings were backfilled in general accordance with DEH requirements and patched where appropriate.

UNIFIED SOIL CLASSIFICATION SYSTEM					
No. 200 U.S. Standard Sieve is the smallest particle visible	Coarse-grained soils >1/2 of materials is larger than #200 sieve	GRAVELS are more than half of coarse fraction larger than #4 sieve	Clean Gravels (less than 5% fines)	GW	Well-graded gravels, gravel-sand mixtures, little or no fines
			Gravels with fines	GP	Poorly graded gravels, gravel-sand mixtures, little or no fines
		SANDS are more than half of coarse fraction larger than #4 sieve	Clean Sands (less than 5% fines)	GM	Silty Gravels, poorly graded gravel-sand-silt mixtures
			Sands with fines	GC	Clayey Gravels, poorly graded gravel-sand-clay mixtures
	Fine-grained Soils >1/2 of materials is smaller than #200 sieve	SILTS AND CLAYS Liquid Limit Less than 50		SW	Well-graded sands, gravelly sands, little or no fines
				SP	Poorly graded sands, gravelly sands, little or no fines
				SM	Silty Sands, poorly graded sands-gravel-clay mixtures
				SC	Clayey Sands, poorly graded sand-gravel-silt mixtures
				ML	Inorganic clays of low to med plasticity, gravelly, sandy, silty, or lean clays
		SILTS AND CLAYS Liquid Limit Greater than 50		CL	Inorganic clays of low to med plasticity, gravelly, sandy, silty, or lean clays
				OL	Organic silts and clays of low plasticity
				MH	Inorganic silts, micaceous or diatomaceous fine sands or silts
				CH	Inorganic clays of high plasticity, fat clays
				OH	Organic silts and clays of medium to high plasticity
Highly Organic Soils				PT	Peat, humus swamp soils with high organic content

GRAIN SIZE					SIZE PROPORTION
Description		Sieve Size	Grain Size	Approximate Size	Trace – Less than 5%
Boulders		>12"	>12"	Larger than basketball-sized	Few – 5% to 10%
Cobbles		3"- 12"	3"- 12"	Fist-sized to basketball-sized	Little – 15% to 20%
Gravel	Coarse	¾"- 3"	¾"- 3"	Thumb-sized	Some – 30% to 45%
	Fine	#4 - ¾"	0.19" - 0.75"	Peat-sized to thumb-sized	Mostly – 50% to 100%
Sand	Coarse	#10 - #4	0.079" - 0.19"	Rock salt-sized to pea-sized	**MOISTURE CONTENT**
	Medium	#40 - #10	0.017" - 0.079"	Sugar-sized to rock salt-sized	Dry – Absence of moisture
	Fine	#200 - #40	0.0029" - 0.017"	Flour-sized to sugar-sized	Moist – Damp but not visible
Fines		Passing #200	<0.0029"	Flour-sized or smaller	Wet – Visible free water

Project: **YTEC** Project Location: **Riverside, California** Project Number: **2659A73**	Key to Log of Boring **Sheet 1 of 1**

Elevation (feet)	Depth (feet)	Sample Type	Sampling Resistance	N60	Material Type	Graphic Log	MATERIAL DESCRIPTION	Water Content, %	Dry Unit Weight, pcf	Lab Testing	REMARKS
1	2	3	4	5	6	7	8	9	10	11	12

COLUMN DESCRIPTIONS

1. Elevation (feet): Elevation (MSL, feet).
2. Depth (feet): Depth in feet below the ground surface.
3. Sample Type: Type of soil sample collected at the depth interval shown.
4. Sampling Resistance: Number of blows to advance driven sampler 0.5 feet (or distance shown) beyond seating interval using the hammer identified on the boring log.
5. N60: N60 Value calculated from blow counts
6. Material Type: Type of material encountered
7. Graphic Log: Graphic depiction of the subsurface material encountered.
8. MATERIAL DESCRIPTION: Description of material encountered. May include consistency, moisture, color, and other descriptive text.
9. Water Content, %: Water content of the soil sample, expressed as percentage of dry weight of sample.
10. Dry Unit Weight, pcf: Dry weight per unit volume of soil sample measured in laboratory, in pounds per cubic foot.
11. Lab Testing: Lab Tests being run on sampes taken back to lab
12. REMARKS: Comments and observations regarding drilling or sampling made by driller or field personnel.

FIELD AND LABORATORY TEST ABBREVIATIONS

Swell: Swell Potential Test
AL: Atterberg Limits
EI: Expansion Index
DS: Direct Shear Test
COR: Corrosivity
MAX: Maximum Density Test
CONS: One-dimensional consolidation test
PD: Particle Size Distribution (percent passing No. 200 sieve)
UC: Unconfined compressive strength test, Qu, in ksf
WA: Wash sieve (percent passing No. 200 Sieve)

MATERIAL GRAPHIC SYMBOLS

Granite
Grass and/or topsoil
Silty SAND (SM)

TYPICAL SAMPLER GRAPHIC SYMBOLS

Auger sampler
Bulk Sample
3-inch-OD California w/ brass rings
CME Sampler
Grab Sample
2.5-inch-OD Modified California w/ brass liners
Pitcher Sample
2-inch-OD unlined split spoon (SPT)
Shelby Tube (Thin-walled, fixed head)

OTHER GRAPHIC SYMBOLS

Water level (at time of drilling, ATD)
Water level (after waiting)
Minor change in material properties within a stratum
Inferred/gradational contact between strata
Queried contact between strata

GENERAL NOTES

1: Soil classifications are based on the Unified Soil Classification System. Descriptions and stratum lines are interpretive, and actual lithologic changes may be gradual. Field descriptions may have been modified to reflect results of lab tests.
2: Descriptions on these logs apply only at the specific boring locations and at the time the borings were advanced. They are not warranted to be representative of subsurface conditions at other locations or times.

C:\Users\rvaverdi\Documents\2659A73 YTEC GI\Boring Logs.bgi[master 2 base.tpl]

Project: **YTEC** Project Location: **Riverside, California** Project Number: **2659A73**	Log of Boring B-1 **Sheet 1 of 1**

Date(s) Drilled **1/18/23**	Logged By **JCR**	Checked By **GSW**
Drilling Method **Hollow Stem Auger**	Drill Bit Size/Type **8" / HSA**	Total Depth of Borehole **20.5 feet bgs**
Drill Rig Type **Track-Mounted**	Drilling Contractor **Baja Exploration**	Approximate Surface Elevation **762 Feet MSL**
Groundwater Level and Date Measured **Not Encountered**	Sampling Method(s) **Bulk, Modified California, SPT**	Hammer Data **140 lb / 30" Drop**
Borehole Backfill **Soil Cuttings**	Location **33.92146, -117.46035**	

Elevation (feet)	Depth (feet)	Sample Type	Sampling Resistance	N60	Material Type	Graphic Log	MATERIAL DESCRIPTION	Water Content, %	Dry Unit Weight, pcf	Lab Testing	REMARKS
762	0				Grass		Surface - Grass field.				
					SM		**FILL (Af):** SILTY SAND, trace clay, brown, rootlets, slightly micaceous, moist, loose to medium dense.				
					SM		**ALLUVIAL FAN DEPOSITS (Qoa):** SILTY SAND, trace clay, dark brown, slightly micaceous, moist, medium dense to dense.			AL, PD	
757	5		14 20 26	40			Brown to reddish brown, increase in moisture content, dense.	4.1	133.1		
			6 8 8	21			Decrease in fine content, medium dense.				
752	10		11 11 12	30			SILTY SAND, reddish brown to grayish brown, trace very weathered granitic rock fragments that break down to silty sand, slightly micaceous, moist, medium dense.			CONS	
			5 8 9	23							
747	15		8 11 11	19			SILTY SAND, reddish brown, trace weathered granitic rock fragments that break down to silty sand, slightly micaceous, moist, medium dense.				
742	20		50-6"	100			**GRANITIC ROCK (grr):** Very weathered granitic rock that breaks down to silty sand, grayish brown, very dense.				
							Boring terminated at 20.5 feet BGS as planned. No groundwater encountered. Boring backfilled with soil cuttings on 1/18/23.				
737	25										
732	30										

C:\Users\jrowe\Documents\2659A73 YTEC GI\Borings\logs.ngs master 2 base.tpl

Project: **YTEC** Project Location: **Riverside, California** Project Number: **2659A73**	Log of Boring B-2 **Sheet 1 of 1**

Date(s) Drilled **1/18/23**	Logged By **JCR**	Checked By **GSW**
Drilling Method **Hollow Stem Auger**	Drill Bit Size/Type **8" / HSA**	Total Depth of Borehole **20.5 feet bgs**
Drill Rig Type **Track-Mounted**	Drilling Contractor **Baja Exploration**	Approximate Surface Elevation **763 Feet MSL**
Groundwater Level and Date Measured **Not Encountered**	Sampling Method(s) **Bulk, Modified California, SPT**	Hammer Data **140 lb / 30" Drop**
Borehole Backfill **Soil Cuttings**	Location **33.92151, -117.45999**	

Elevation (feet)	Depth (feet)	Sample Type	Sampling Resistance	N60	Material Type	Graphic Log	MATERIAL DESCRIPTION	Water Content, %	Dry Unit Weight, pcf	Lab Testing	REMARKS
763	0				Grass SM SM		Surface - Grass field. **FILL (Af):** SILTY SAND, trace clay, brown, rootlets, slightly micaceous, moist, loose to medium dense.				
758	5		8 8 15	31			**ALLUVIAL FAN DEPOSITS (Qoa):** SILTY SAND, trace clay, dark brown, slightly micaceous, moist, medium dense to dense. Dense.				
			50-4"	100			SILTY SAND, dark brown to reddish brown, slightly micaceous, slightly cemented, very dense.	12.8	103.2		
753	10		29 50-4"	100			Reddish brown, trace very weathered granitic rock that breaks down to silty sand.				
			50-5"	100			**GRANITIC ROCK (grr):** Silty sand, grayish brown to reddish brown, slightly micaceous, very dense.	4.8	112.6		
748	15		50-6"	100			Grayish brown.				
743	20		50-5"	100			Boring terminated at 20.5 feet BGS as planned. No groundwater encountered. Boring backfilled with soil cuttings on 1/18/23.				
738	25										
733	30										

C:\Users\jrowe\Documents\2659A73 YTEC GI\Boring_Logs.bgd master 2 base lp1

Project: **YTEC** Project Location: **Riverside, California** Project Number: **2659A73**	Log of Boring B-3 **Sheet 1 of 1**

Date(s) Drilled **1/18/23**	Logged By **JCR**	Checked By **GSW**
Drilling Method **Hollow Stem Auger**	Drill Bit Size/Type **8" / HSA**	Total Depth of Borehole **20.5 feet bgs**
Drill Rig Type **Track-Mounted**	Drilling Contractor **Baja Exploration**	Approximate Surface Elevation **764 Feet MSL**
Groundwater Level and Date Measured **Not Encountered**	Sampling Method(s) **Bulk, Modified California, SPT**	Hammer Data **140 lb / 30" Drop**
Borehole Backfill **Soil Cuttings**	Location **33.92129, -117.46034**	

Elevation (feet)	Depth (feet)	Sample Type	Sampling Resistance	N60	Material Type	Graphic Log	MATERIAL DESCRIPTION	Water Content, %	Dry Unit Weight, pcf	Lab Testing	REMARKS
764	0				Grass SM SM		Surface - Grass field. **FILL (Af):** SILTY SAND, trace clay, brown, rootlets, slightly micaceous, moist, loose to medium dense.				
759	5		7 12 16	37			**ALLUVIAL FAN DEPOSITS (Qoa):** SILTY SAND, trace clay, dark brown, slightly micaceous, moist, medium dense to dense. Reddish brown, trace rock fragments, dense.			EI, CORR	
			50-5"	80			Dark brown to reddish brown, very dense.	5.3	110.5		
754	10		50-5"	120			**GRANITIC ROCK (grr):** Very weathered granitic rock that breaks down to silty sand, dark brown to grayish brown, slightly micaceous, moist, very dense.				
			50-3"	100				30.0	100.3		
749	15		50-2"	100			Reddish brown to grayish brown.				
744	20		50-3"	100			Less weathered granitic rock that breaks down to silty sand, slightly cemented, very dense. Boring terminated at 20.5' BGS as planned. No groundwater. Boring backfilled with soil cuttings on 1/18/23.				
739	25										
734	30										

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Project: **YTEC** Project Location: **Riverside, California** Project Number: **2659A73**	Log of Boring B-4 **Sheet 1 of 2**

Date(s) Drilled **1/18/23**	Logged By **JCR**	Checked By **GSW**
Drilling Method **Hollow Stem Auger**	Drill Bit Size/Type **8" / HSA**	Total Depth of Borehole **31.5 feet bgs**
Drill Rig Type **Track-Mounted**	Drilling Contractor **Baja Exploration**	Approximate Surface Elevation **761 Feet MSL**
Groundwater Level and Date Measured **Not Encountered**	Sampling Method(s) **Bulk, Modified California, SPT**	Hammer Data **140 lb / 30" Drop**
Borehole Backfill **Soil Cuttings**	Location **33.92136, -117.45999**	

Elevation (feet)	Depth (feet)	Sample Type	Sampling Resistance	N60	Material Type	Graphic Log	MATERIAL DESCRIPTION	Water Content, %	Dry Unit Weight, pcf	Lab Testing	REMARKS
761	0				Grass		Surface - Grass field.				
					SM		**FILL (Af):** SILTY SAND, trace clay, brown, rootlets, slightly micaceous, moist, loose to medium dense.			RV	
					SM		**ALLUVIAL FAN DEPOSITS (Qoa):** SILTY SAND, trace clay, dark brown, slightly micaceous, trace pinhole voids, moist, medium dense to dense.			PD, MAX, DS	
756	5		12 18 36	46			Dense.	10.1	127.5		
			10 8 10	24			Medium dense.				
751	10		32 50-2"	82			SILTY SAND, reddish brown to grayish brown, slightly micaceous, trace very weathered granitic rock fragments that break down to silty sand, very dense.	8.9	122.7		
			8 7 8	20			Reddish brown to yellowish brown, slightly less fines, medium dense.				
746	15		10 28 50-3"	68			Increased grain size, very dense.	6.6	125.2		
741	20		36 50-2"	100			**GRANITIC ROCK (grr):** Very weathered granitic rock that breaks down to silty sand, light grayish brown, micaceous, very dense.				
736	25		50-1"	100			Less weathered granitic rock that breaks down to SILTY SAND, grayish brown, micaceous, trace iron oxide, very dense. 27 Feet - Increased difficulty in drilling.				
731	30										

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Project: **YTEC**
Project Location: **Riverside, California**
Project Number: **2659A73**

Log of Boring B-4
Sheet 2 of 2

Elevation (feet)	Depth (feet)	Sample Type	Sampling Resistance	N60	Material Type	Graphic Log	MATERIAL DESCRIPTION	Water Content, %	Dry Unit Weight, pcf	Lab Testing	REMARKS
731	30		50/1"	100			**GRANITIC ROCK (grr):** Less weathered granitic rock that breaks down to silty sand, grayish brown, micaceous, trace iron oxide, very dense.				
			50/1"	100			Boring terminated at 31.5 feet BGS due to refusal on granitic rock.				
726	35						No groundwater encountered.				
							Boring backfilled with soil cuttings on 1/18/23.				
721	40										
716	45										
711	50										
706	55										
701	60										
696	65										

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Project: **YTEC** Project Location: **Riverside, California** Project Number: **2659A73**	Log of Boring P-1 **Sheet 1 of 1**

Date(s) Drilled **1/18/23**	Logged By **JCR**	Checked By **GSW**
Drilling Method **Hollow Stem Auger**	Drill Bit Size/Type **8" / HSA**	Total Depth of Borehole **5 feet bgs**
Drill Rig Type **Track-Mounted**	Drilling Contractor **Baja Exploration**	Approximate Surface Elevation **764 Feet MSL**
Groundwater Level and Date Measured **Not Encountered**	Sampling Method(s) **Bulk**	Hammer Data **140 lb / 30" Drop**
Borehole Backfill **Soil Cuttings**	Location **33.92115, -117.46024**	

Elevation (feet)	Depth (feet)	Material Type	MATERIAL DESCRIPTION	Water Content, %	Dry Unit Weight, pcf	Lab Testing	REMARKS
764	0	Grass	Surface - Grass field.				
		SM	**FILL (Af):** SILTY SAND, trace clay, dark brown, rootlets, slightly micaceous, moist, loose to medium dense.				
		SM	**ALLUVIAL FAN DEPOSITS (Qoa):** SILTY SAND, trace clay, brown to light brown, slightly micaceous, moist, medium dense to dense.			PD	
759	5		Boring terminated at 5 feet BGS as planned. No groundwater encountered. Boring converted to perc test hole on 1/18/23. Boring backfilled with soil cuttings on 1/19/23.				
754	10						
749	15						
744	20						
739	25						
734	30						

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Project: YTEC Project Location: Riverside, California Project Number: 2659A73	Log of Boring P-2 Sheet 1 of 1

Date(s) Drilled: 1/18/23	Logged By: JCR	Checked By: GSW
Drilling Method: Hollow Stem Auger	Drill Bit Size/Type: 8" / HSA	Total Depth of Borehole: 5 feet bgs
Drill Rig Type: Track-Mounted	Drilling Contractor: Baja Exploration	Approximate Surface Elevation: 766 Feet MSL
Groundwater Level and Date Measured: Not Encountered	Sampling Method(s): Bulk	Hammer Data: 140 lb / 30" Drop
Borehole Backfill: Soil Cuttings	Location: 33.92108, -117.46031	

Elevation (feet)	Depth (feet)	Sample Type	Sampling Resistance	N60	Material Type	Graphic Log	MATERIAL DESCRIPTION	Water Content, %	Dry Unit Weight, pcf	Lab Testing	REMARKS
766	0				Grass		Surface - Grass field.				
					SM		**FILL (Af):** SILTY SAND, trace clay, dark brown, rootlets, slightly micaceous, moist, loose to medium dense.				
					SM		**ALLUVIAL FAN DEPOSITS (Qoa):** SILTY SAND, trace clay, brown to light brown, slightly micaceous, moist, medium dense to dense.			PD	
761	5						Boring terminated at 5 feet BGS as planned. No groundwater encountered. Boring converted to perc test hole on 1/18/23. Boring backfilled with soil cuttings on 1/19/23.				
756	10										
751	15										
746	20										
741	25										
736	30										

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APPENDIX C

LABORATORY TEST PROCEDURES

APPENDIX C

LABORATORY TESTING PROCEDURES

1. Particle Size Analysis

   Particle size analysis on representative soil samples were determined using the standard test method of the ASTM D6913.

2. Atterberg Limits

   The liquid limit, plastic limit, and the plasticity index of the major soil types encountered were determined using the standard test methods of the ASTM D4318.

3. Expansion Index

   Expansion index of materials encountered were determined using the standard test methods of the ASTM D4829.

4. Maximum Density

   Maximum density tests were performed on a representative bag sample of the near surface soils in accordance with ASTM D1557.

5. Direct Shear

   Direct Shear Tests were performed on in-place samples of site soils in accordance with ASTM D3080.

6. Resistance Value Testing

   R-Value testing was completed in substantial compliance with Caltrans Test Method 301. Graphical plots of our tests are included in this appendix.

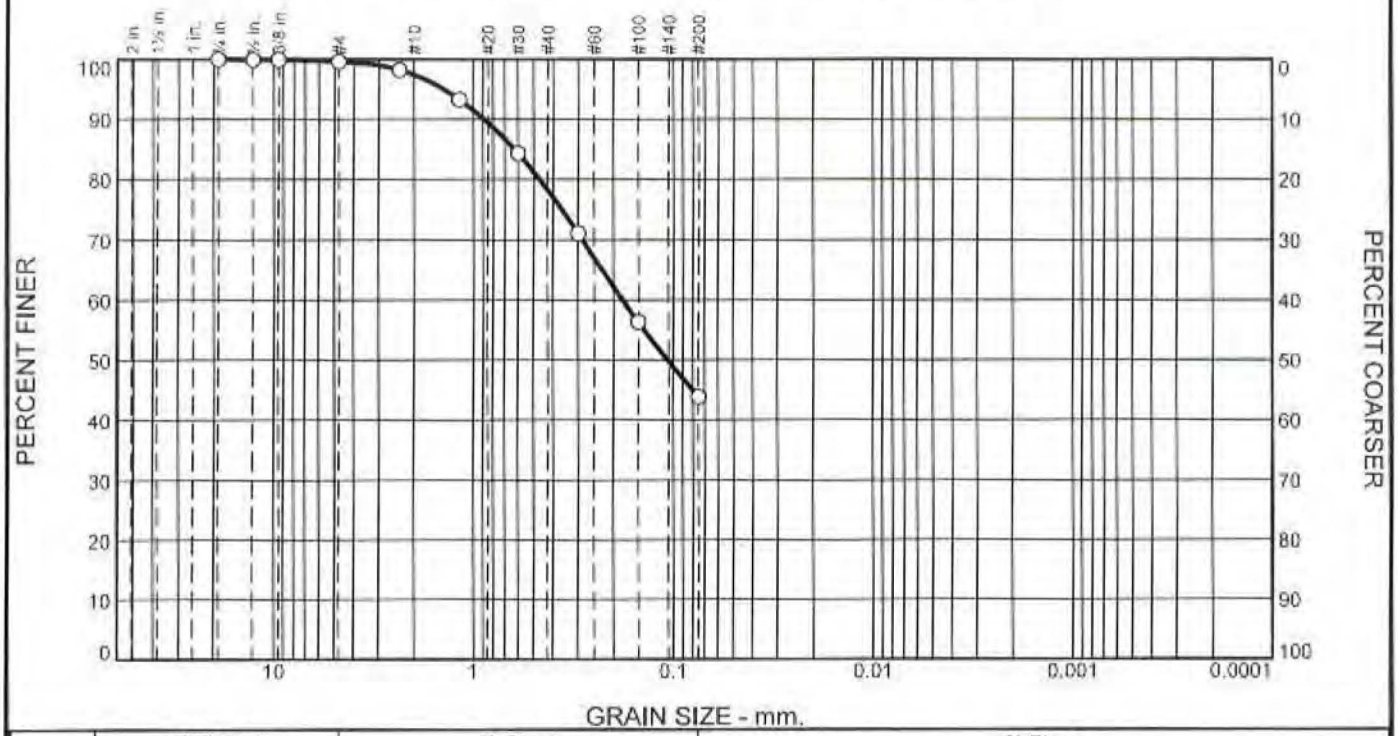
7. Corrosion

   Chemical testing was performed on representative samples to determine the corrosion potential of the onsite soils. Testing consisted of pH, chlorides (CTM 422), soluble sulfates (CTM 417), and resistivity (CTM 643).

8. Consolidation

   Consolidation testing was performed on representative samples to determine the collapse potential of the onsite soils. Testing was performed in accordance with ASTM D2435.

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.4	2.2	19.2	34.4	43.8	

Test Results	
Opening Size	Percent Finer
3/4"	100.0
1/2"	99.9
3/8"	99.9
#4	99.6
#8	98.2
#16	93.3
#30	84.4
#50	71.0
#100	56.3
#200	43.8

Group Symbol: **Group Name:**
SILTY SAND (SM)

Atterberg Limits (ASTM D 4318)
PL= 16.7 LL= 18.7 PI= 2.0

Classification
USCS (D 2487)= SM AASHTO (M 145)= A-4(0)

Coefficients
D_{90}= 0.8834 D_{85}= 0.6241 D_{60}= 0.1796
D_{50}= 0.1071 D_{30}= D_{15}=
D_{10}= C_u= C_c=

Remarks
SAMPLED BY JAY ROWERDINK
F.M.=0.97

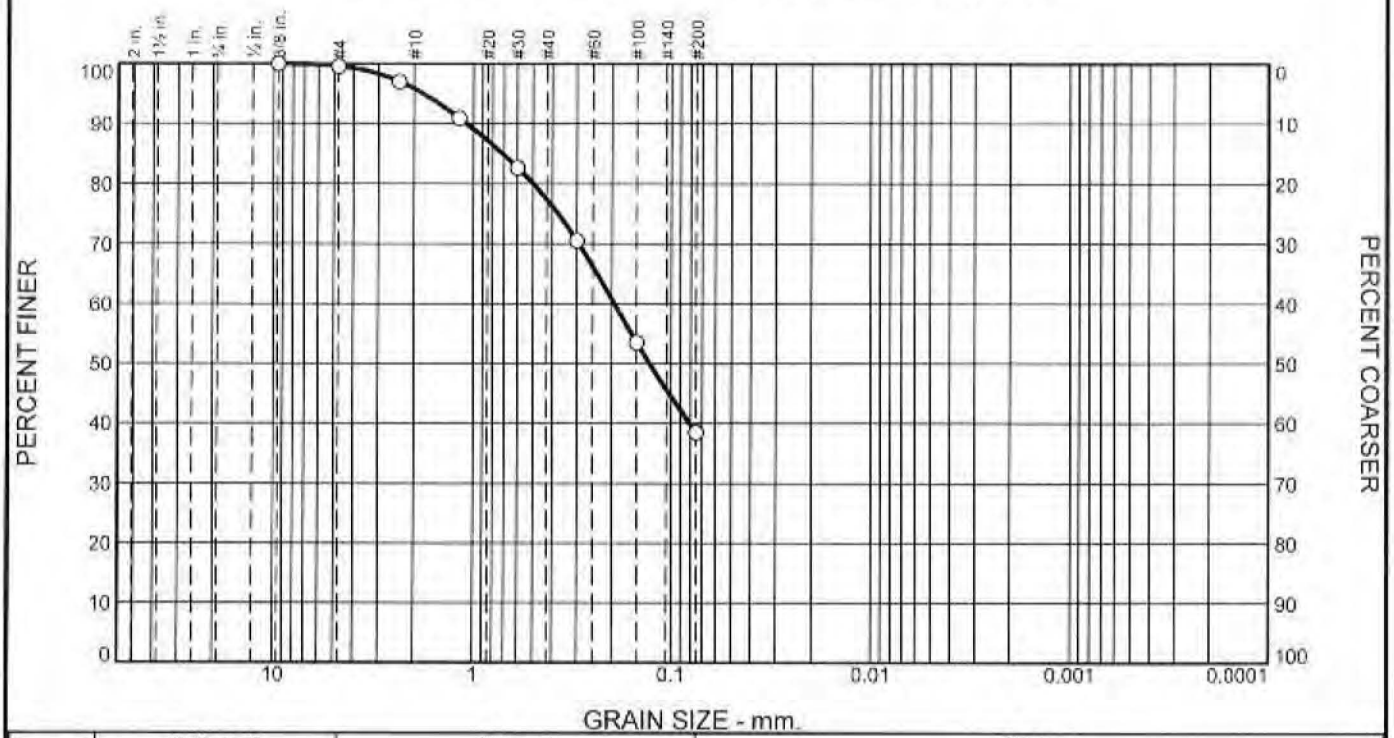
Date Received: 01-18-2023 **Date Tested:** 01-20-2023
Tested By: JAG
Checked By: JC
Title: PE,GE

Location: B1 @ 1'-5'
Sample Number: 1264
Date Sampled: 01-18-2023

MTGL

Client: COUNTY OF RIVERSIDE
Project: YTEC VOCATIONAL EXPANSION
Project No: 2659A73

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.4	3.8	18.5	38.8	38.5	

Test Results	
Opening Size	Percent Finer
3/8"	100.0
#4	99.6
#8	97.0
#16	90.9
#30	82.6
#50	70.5
#100	53.5
#200	38.5

Group Symbol: **Group Name:**
SILTY SAND (SM)

Atterberg Limits (ASTM D 4318)
PL= LL= PI=

Classification
USCS (D 2487)= AASHTO (M 145)=

Coefficients
D_{90}= 1.0874 D_{85}= 0.7143 D_{60}= 0.1946
D_{50}= 0.1289 D_{30}= D_{15}=
D_{10}= C_u= C_c=

Remarks
SAMPLED BY JAY ROWERDINK
F.M.=1.06

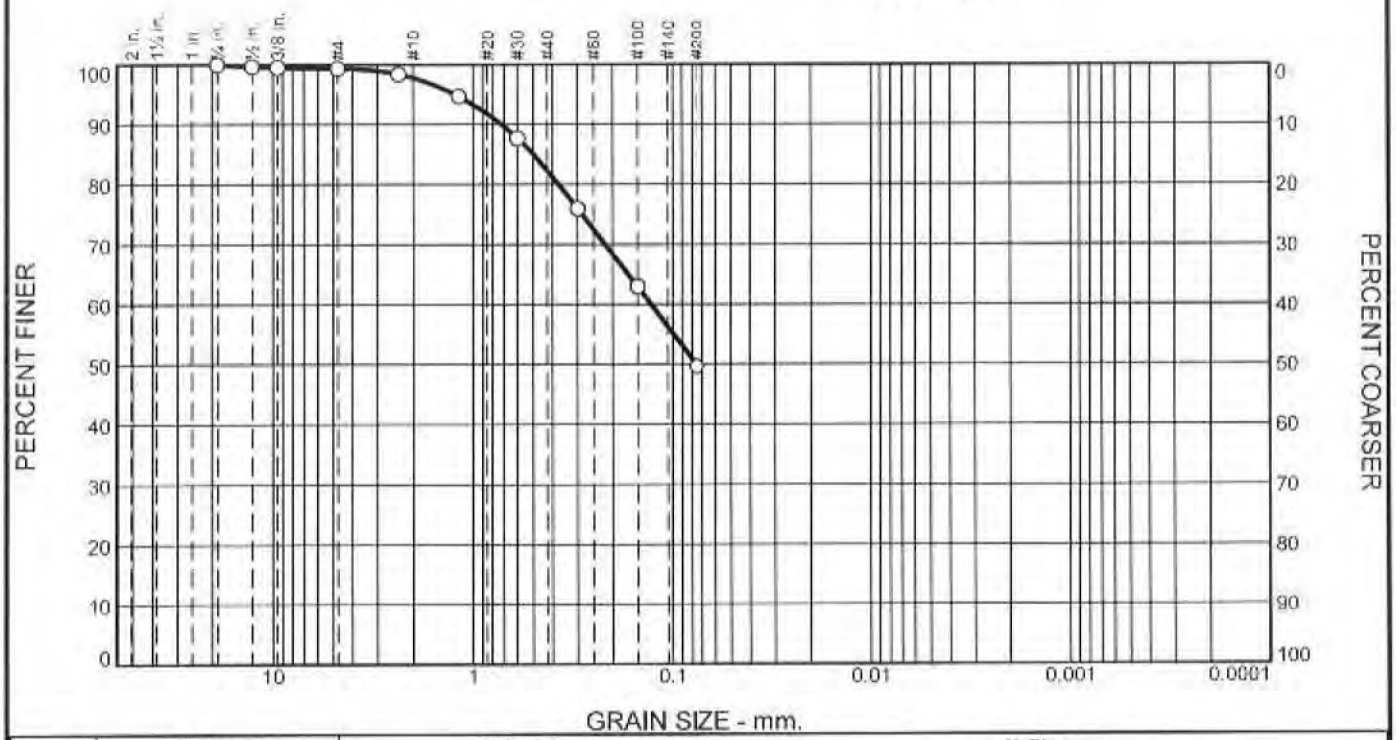
Date Received: 01-20-2023 **Date Tested:** 01-20-2023
Tested By: JAG
Checked By: IC
Title: PE,GE

Location: B4 @ 2'-5'
Sample Number: 1264
Date Sampled: 01-18-2023

MTGL

Client: COUNTY OF RIVERSIDE
Project: YTEC VOCATIONAL EXPANSION
Project No: 2659A73

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.7	1.5	15.5	32.7	49.6	

Test Results	
Opening Size	Percent Finer
3/4"	100.0
1/2"	99.7
3/8"	99.5
#4	99.3
#8	98.4
#16	94.7
#30	87.7
#50	76.0
#100	62.9
#200	49.6

Group Symbol: **Group Name:**
SILTY SAND (SM)

Atterberg Limits (ASTM D 4318)
PL= LL= PI=

Classification
USCS (D 2487)= AASHTO (M 145)=

Coefficients
D_{90}= 0.7182 D_{85}= 0.5012 D_{60}= 0.1285
D_{50}= 0.0764 D_{30}= D_{15}=
D_{10}= C_u= C_c=

Remarks
SAMPLED BY JAY ROWERDINK
F.M.=0.81

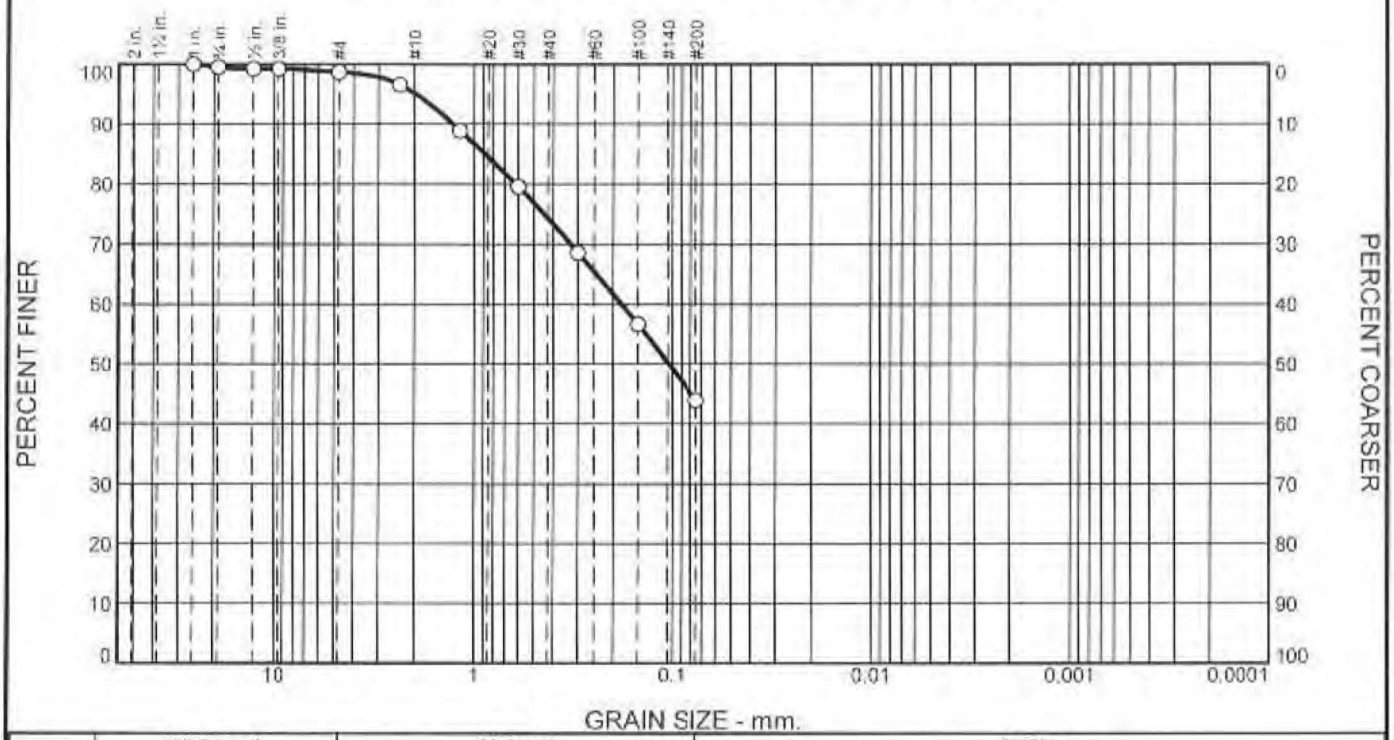
Date Received: 01-20-2023 **Date Tested:** 02-02-2023
Tested By: JAG
Checked By: L CHUN
Title: PE,GE

Location: P-1 @ 3'-5'
Sample Number: 1264
Date Sampled: 01-18-2023

MTGL

Client: COUNTY OF RIVERSIDE
Project: YTEC VOCATIONAL EXPANSION
Project No: 2659A73

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.5	0.8	3.5	21.0	30.3	43.9	

Test Results	
Opening Size	Percent Finer
1"	100.0
3/4"	99.5
1/2"	99.2
3/8"	99.2
#4	98.7
#8	96.6
#16	88.9
#30	79.6
#50	68.5
#100	56.6
#200	43.9

Group Symbol: **Group Name:**
SILTY SAND (SM)

Atterberg Limits (ASTM D 4318)
PL= LL= PI=

Classification
USCS (D 2487)= AASHTO (M 145)=

Coefficients
D_{90}= 1.2828 D_{85}= 0.8808 D_{60}= 0.1815
D_{50}= 0.1043 D_{30}= D_{15}=
D_{10}= C_u= C_c=

Remarks
SAMPLED BY JAY ROWERDINK
F.M.=1.12

Date Received: 01-20-2023 **Date Tested:** 02-02-2023
Tested By: JAG
Checked By: L CHUN
Title: PE,GE

Location: P-2 @ 2'-5'
Sample Number: 1264
Date Sampled: 01-18-2023

MTGL

Client: COUNTY OF RIVERSIDE
Project: YTEC VOCATIONAL EXPANSION
Project No: 2659A73

R-VALUE

CALIFORNIA TEST 301

SAMPLE	DESCRIPTION	R-VALUE
B-4 at 0 to 2 Feet	SILTY SAND (SM)	41

MAXIMUM DRY DENSITY AND OPTIMUM MOISTURE CONTENT

ASTM D1557

SAMPLE	DESCRIPTION	MAXIMUM DRY DENSITY (pcf)	OPTIMUM MOISTURE (%)
B-4 at 2 to 5 Feet	SILTY SAND (SM)	122.1	12.4

EXPANSION INDEX

ASTM D4829

SAMPLE	DESCRIPTION	EXPANSION INDEX
B-3 at 1 to 5 Feet	SILTY SAND (SM)	0

Classification of Expansive Soil [1]

Expansion Index	Expansion Potential
1-20	Very Low
21-50	Low
51-90	Medium
91-130	High
Above 130	Very High

1. ASTM - D4829

RESISTIVITY, pH, SOLUBLE CHLORIDE and SOLUBLE SULFATE

Resitivity (CT.643), Soluble Sulfates (CT.417) Soluble Chlorides (CT.442)

SAMPLE	pH	RESISTIVITY (Ω-cm)	SULFATE (ppm)	CHLORIDE (ppm)
B-3 at 1 to 5 Feet	7.4	5,000	158	45

ATTERBERG LIMITS

ASTM D4318

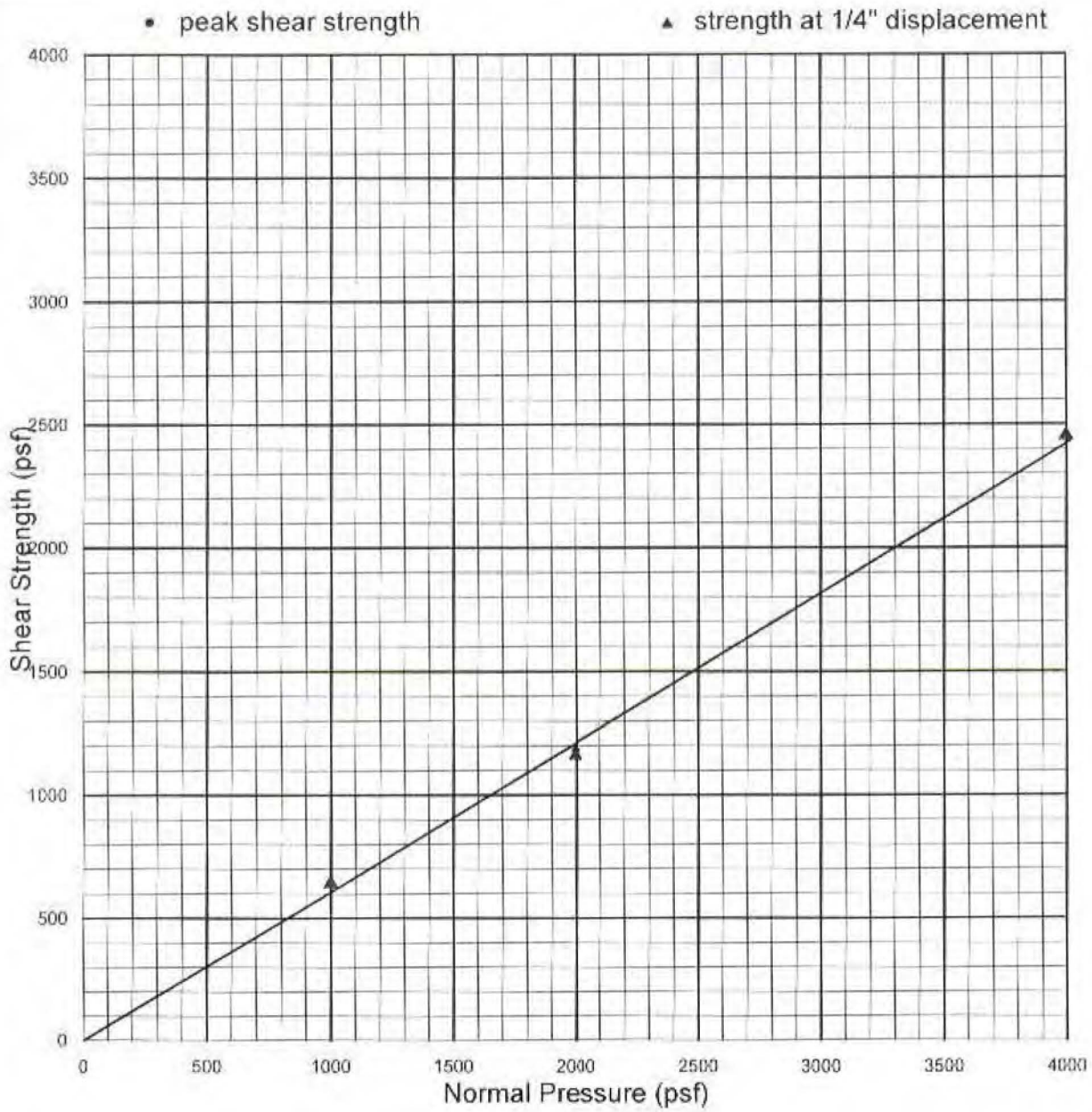
SAMPLE	DESCRIPTION	Liquid Limit	Plastic Limit	Plastic Index
B-1 at 1 to 5 Feet	SILTY SAND	19	16.7	2

* NP indicates non plastic

MTGL # 2659A73

DIRECT SHEAR TEST - ASTM D-3080

Job No. 2012-0123



Strain Rate: 0.0084 in. / min.

Sample	Type	Description	Dry Density (pcf)	Initial W.C. (%)	Final W.C. (%)
B-4@2'-5'	Remolded & Saturated	Silty Sand	109.9 (90% Max Density)	12.5	15.7

Normal Pressure (psf)	Peak Shear Strength (psf)	Ultimate Shear Strength (psf)
1000	640 @ 0.2250"	640
2000	1180 @ 0.2350"	1160
4000	2450 @ 0.2500"	2450
	C = 0 psf	C = 0 psf
	ϕ = 31 deg.	ϕ = 31 deg.

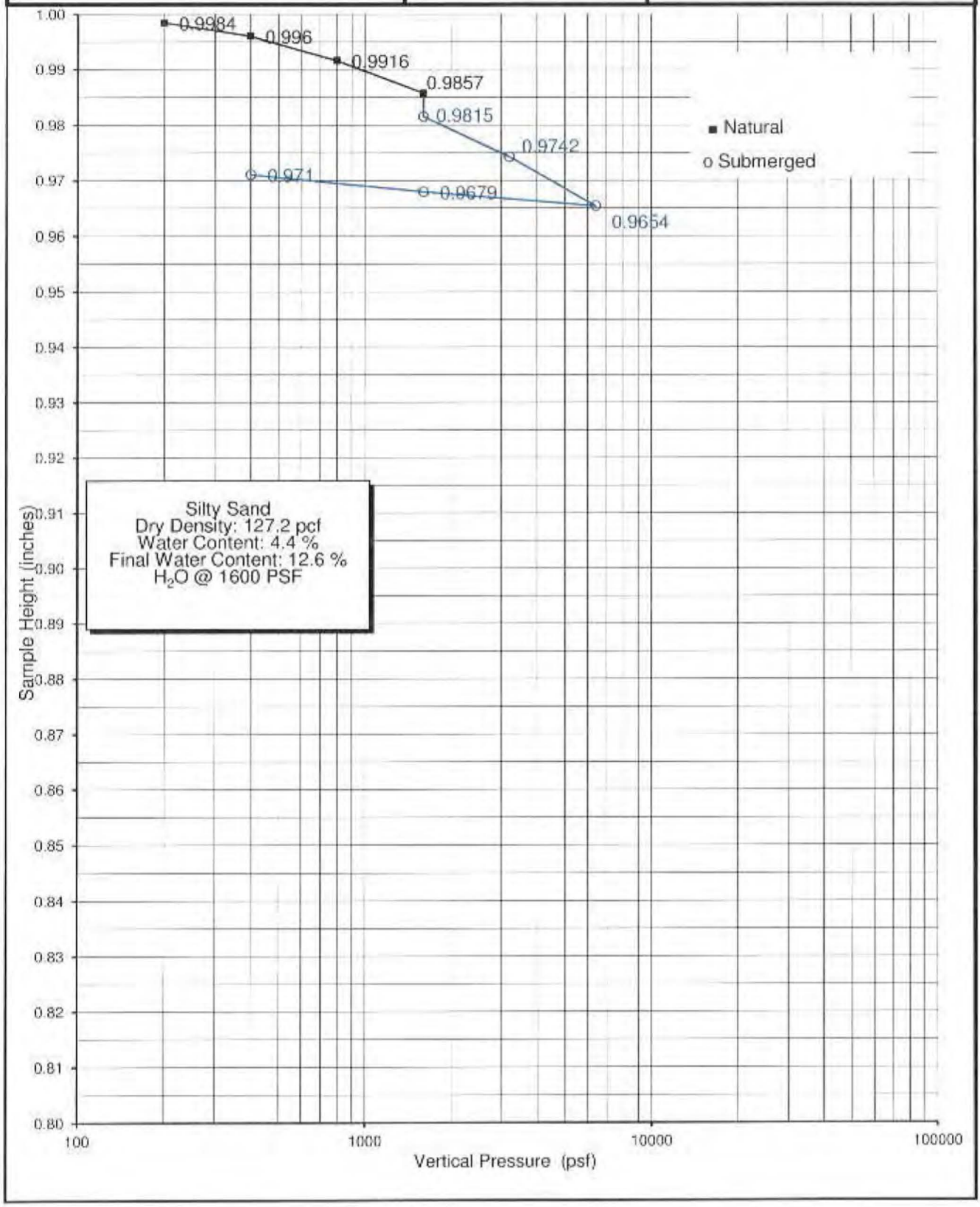
Date: 01-27-2023

GeoLogic Associates

MTGL # 2659A73

CONSOLIDATION TEST - ASTM D2435

Boring / Sample No. B-1	Depth: 11' - 11.5'	Date 01-20-23



APPENDIX D

GENERAL EARTHWORK AND GRADING SPECIFICATIONS

APPENDIX D

GENERAL EARTHWORK AND GRADING SPECIFICATIONS

GENERAL

These specifications present general procedures and requirements for grading and earthwork as shown on the approved grading plans, including preparation of areas to be filled, placement of fill, installation of subdrains, and excavations. The recommendations contained in the attached geotechnical report are a part of the earthwork and grading specifications and shall supersede the provisions contained herein in the case of conflict. Evaluations performed by the Consultant during the course of grading may result in new recommendations, which could supersede these specifications, or the recommendations of the geotechnical report.

EARTHWORK OBSERVATION AND TESTING

Prior to the start of grading, a qualified Geotechnical Consultant (Geotechnical Engineer and Engineering Geologist) shall be employed for the purpose of observing earthwork procedures and testing the fills for conformance with the recommendations of the geotechnical report and these specifications. It will be necessary that the Consultant provide adequate testing and observation so that he may determine that the work was accomplished as specified. It shall be the responsibility of the Contractor to assist the Consultant and keep them apprised of work schedules and changes so that he may schedule his personnel accordingly.

It shall be the sole responsibility of the Contractor to provide adequate equipment and methods to accomplish the work in accordance with applicable grading codes or agency ordinances, these specifications, and the approved grading plans.

Maximum dry density tests used to determine the degree of compaction will be performed in accordance with the American Society for Testing and Materials Test Method (ASTM) D1557.

PREPARATION OF AREAS TO BE FILLED

Clearing and Grubbing: All brush, vegetation and debris shall be removed or piled and otherwise disposed of.

Processing: The existing ground which is determined to be satisfactory for support of fill shall be scarified to a minimum depth of 8 inches. Existing ground, which is not satisfactory, shall be over-excavated as specified in the following section.

Over-excavation: Soft, dry, spongy, highly fractured, or otherwise unsuitable ground, extending to such a depth that surface processing cannot adequately improve the condition, shall be over-excavated down to firm ground, approved by the Consultant.

Moisture conditioning: Over-excavated and processed soils shall be watered, dried-back, blended, and mixed as required to have a relatively uniform moisture content near the optimum moisture content as determined by ASTM D1557.

Re-compaction: Over-excavated and processed soils, which have been mixed, and moisture conditioned uniformly shall be recompacted to a minimum relative compaction of 90% of ASTM D1557.

Benching: Where soils are placed on ground with slopes steeper than 5:1 (horizontal to vertical), the ground shall be stepped or benched. Benches shall be excavated in firm material for a minimum width of 4 feet.

FILL MATERIAL

General: Material to be placed as fill shall be free of organic matter and other deleterious substances and shall be approved by the Consultant.

Oversize: Oversized material defined as rock, or other irreducible material with a maximum dimension greater than 6 inches, shall not be buried or placed in fill, unless the location, material, and disposal methods are specifically approved by the Consultant. Oversize disposal operations shall be such that nesting of oversized material does not occur, and such that the oversize material is completely surrounded by compacted or densified fill. Oversize material shall not be placed within 10 feet vertically of finish grade or within the range of future utilities or underground construction, unless specifically approved by the Consultant.

Import: If importing of fill material is required for grading, the import material shall meet the general requirements.

FILL PLACEMENT AND COMPACTION

Fill Lifts: Approved fill material shall be placed in areas prepared to receive fill in near-horizontal layers not exceeding 8 inches in compacted thickness. The Consultant may approve thicker lifts if testing indicates the grading procedures are such that adequate compaction is being achieved with lifts of greater thickness. Each layer shall be spread evenly and shall be thoroughly mixed during spreading to attain uniformity of material and moisture in each layer.

Fill Moisture: Fill layers at a moisture content less than optimum shall be watered and mixed, and wet fill layers shall be aerated by scarification or shall be blended with drier material. Moisture conditioning and mixing of fill layers shall continue until the fill material is at uniform moisture content at or near optimum.

Compaction of Fill: After each layer has been evenly spread, moisture conditioned, and mixed, it shall be uniformly compacted to not less than 90% of maximum dry density in accordance with ASTM D1557. Compaction equipment shall be adequately sized and shall be either specifically designed for soil compaction or of proven reliability, to efficiently achieve the specified degree of compaction.

Fill Slopes: Compacting on slopes shall be accomplished, in addition to normal compacting procedures, by backrolling of slopes with sheepsfoot rollers at frequent increments of 2 to 3 feet as the fill is placed, or by other methods producing satisfactory results. At the completion of grading, the relative compaction of the slope out to the slope face shall be at least 90% in accordance with ASTM D1557.

Compaction Testing: Field tests to check the fill moisture and degree of compaction will be performed by the consultant. The location and frequency of tests shall be at the consultant's discretion. In general, these tests will be taken at an interval not exceeding 2 feet in vertical rise, and/or 1,000 cubic yards of fill placed. In addition, on slope faces, at least one test shall be taken for each 5,000 square feet of slope face and/or each 10 feet of vertical height of slope.

SUBDRAIN INSTALLATION

Subdrain systems, if required, shall be installed in approved ground to conform to the approximate alignment and details shown on the plans or herein. The subdrain location or materials shall not be changed or modified without the approval of the Consultant. The Consultant, however, may recommend and, upon approval, direct changes in subdrain line, grade, or materials. All subdrains should be surveyed for line and grade after installation and sufficient time shall be allowed for the surveys, prior to commencement of fill over the subdrain.

EXCAVATION

Excavations and cut slopes will be examined during grading. If directed by the Consultant, further excavation or over-excavation and refilling of cut areas, and/or remedial grading of cut slopes shall be performed. Where fill over cut slopes are to be graded, unless otherwise approved, the cut portion of the slope shall be made and approved by the Consultant prior to placement of materials for construction of the fill portion of the slope.

APPENDIX E

BOREHOLE PERCOLATION TEST RESULTS

PERCOLATION TEST DATA

Project:	YTEC GI	Project No:	2659A73	Date:	1/18/2023
Test Hole No.:	P-1	Tested by:	J. Rowerdink		
Depth of Hole (in), D_T:	60	USCS Soil Classification:	SM		
Test Hole Dimensions (inches)				Length	Width
Diameter (inches) =	8	Sides (if rectangular) =		N/A	N/A

Sandy Soil Criteria Test *

Trial No.	Start Time	Stop Time	Time Interval, (min.)	Initial Depth to Water (in)	Final Depth to Water (in)	Change in Water Level (in)	Greater than or Equal to 6" (y/n)
1	2:25 PM	2:50 PM	25	45.6	46.8	1.2	No
2	2:50 PM	3:15 PM	25	46.8	47.4	0.6	No

*If two consecutive measurements show that six inches of water seeps away in less than 25 minutes, the test shall be run for an additional hour with measurements taken every 10 minutes. Otherwise, pre-soak (fill) overnight. Obtain at least twelve measurements per hole over at least six hours (approximately 30 minute intervals) with a precision of at least 0.25".

Trial No.	Start Time	Stop Time	Dt Time Interval (min)	D_o Initial Depth to Water (in)	D_f Final Depth to Water (in)	DD Change in Water Level (in)	Percolation Rate (min/in)	Infiltration Rate (in/hr)
1	8:00 AM	8:30 AM	30	41.4	42.6	1.2	25.00	0.2
2	8:30 AM	9:00 AM	30	42.6	43.2	0.6	50.00	0.1
3	9:00 AM	9:30 AM	30	43.2	43.8	0.6	50.00	0.1
4	9:30 AM	10:00 AM	30	43.8	44.4	0.6	50.00	0.1
5	10:00 AM	10:30 AM	30	44.4	44.4	0.0	0.00	0.0
6	10:30 AM	11:00 AM	30	44.4	44.4	0.0	0.00	0.0
7	11:00 AM	11:30 AM	30	44.4	44.4	0.0	0.00	0.0
8	11:30 AM	12:00 PM	30	44.4	45.0	0.6	50.00	0.1
9	12:00 PM	12:30 PM	30	45.0	45.0	0.0	0.00	0.0
10	12:30 PM	1:00 PM	30	45.0	45.0	0.0	0.00	0.0
11	1:00 PM	1:30 PM	30	45.0	45.0	0.0	0.00	0.0
12	1:30 PM	2:00 PM	30	45.0	45.6	0.6	50.00	0.1
13								
14								
15								

COMMENTS:

PERCOLATION TEST DATA

Project:	YTEC GI	Project No:	2659A73	Date:	1/18/2023
Test Hole No.:	P-2	Tested by:	J. Rowerdink		
Depth of Hole (in), D_T:	60	USCS Soil Classification:	SM		

Test Hole Dimensions (inches)			Length	Width	
Diameter (inches) =	8	Sides (if rectangular) =	N/A	N/A	

Sandy Soil Criteria Test *

Trial No.	Start Time	Stop Time	Time Interval, (min.)	Initial Depth to Water (in)	Final Depth to Water (in)	Change in Water Level (in)	Greater than or Equal to 6" (y/n)
1	2:27 PM	2:52 PM	25	45.0	46.2	1.2	No
2	2:52 PM	3:17 PM	25	46.2	46.8	0.6	No

*If two consecutive measurements show that six inches of water seeps away in less than 25 minutes, the test shall be run for an additional hour with measurements taken every 10 minutes. Otherwise, pre-soak (fill) overnight. Obtain at least twelve measurements per hole over at least six hours (approximately 30 minute intervals) with a precision of at least 0.25".

Trial No.	Start Time	Stop Time	Dt Time Interval (min)	D_o Initial Depth to Water (in)	D_f Final Depth to Water (in)	DD Change in Water Level (in)	Percolation Rate (min/in)	Infiltration Rate (in/hr)
1	8:05 AM	8:35 AM	30	48.6	50.4	1.8	16.67	0.6
2	8:35 AM	9:05 AM	30	50.4	52.8	2.4	12.50	0.9
3	9:05 AM	9:35 AM	30	52.8	54.6	1.8	16.67	0.9
4	9:35 AM	10:05 AM	30	43.2	43.8	0.6	50.00	0.1
5	10:05 AM	10:35 AM	30	43.8	46.2	2.4	12.50	0.6
6	10:35 AM	11:05 AM	30	46.2	48.0	1.8	16.67	0.5
7	11:05 AM	11:35 AM	30	48.0	50.4	2.4	12.50	0.8
8	11:35 AM	12:05 PM	30	43.8	45.0	1.2	25.00	0.3
9	12:05 PM	12:35 PM	30	45.0	47.4	2.4	12.50	0.6
10	12:35 PM	1:05 PM	30	47.4	49.2	1.8	16.67	0.5
11	1:05 PM	1:35 PM	30	49.2	50.0	0.8	37.50	0.3
12	1:35 PM	2:05 PM	30	50.0	50.8	0.8	37.50	0.3
13								
14								
15								

COMMENTS: