City of Avenal Planning Commission Meeting

VIA ZOOM VIDEO/WEB CONFERENCING:
Web Link: bit.ly/AvenalCouncil or use https://us02web.zoom.us/j/87243440488
Or by calling +1 669 900 6833 and use meeting ID 872 4344 0488 to join.

Monday, July 11, 2022
6:00 P.M.

Commissioners

Lymari Larrios – Chair
Donna Elliot – Vice Chair
Amado Cervantes
Tyler Naranjo

Ex-Officio Members:
Mayor Alvaro Preciado
Brian Skaggs, City Engineer
Rob Williams, Public Works Director

Staff
Kao Nou Yang, Community & Economic Development Director
Maria Ortiz, City Clerk
Moses Diaz, City Attorney

Last Adopted Resolution: 2020-09

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AGENDA

1. **CALL TO ORDER:** Chair Lymari Larrios

2. **APPROVAL OF MINUTES:** February 7, 2022

3. **PUBLIC COMMENT/ ANNOUNCEMENTS/ UNSCHEDULED APPEARANCES:**

   Any person may directly address the Planning Commission at this time on items on the agenda or on any other items of interest to the public within the subject matter jurisdiction of the Planning Commission. State Law prohibits any member of the Commission from commenting or taking action on matter not on the agenda. Comment limited to three (3) minutes per person.

4. **PUBLIC HEARINGS:**

   A. **Tentative Tract Map No. 21-01 / Variance 21-01 (Oasis Valley) –** A proposal to divide approximately 24.63 acre into 111 single residential lots located within the Northwestern part of Avenal, CA, generally located north of San Benito Street and West of "A" Avenue, Avenal. Assessor's Parcel No.

The project shall include construction of 111 Single Family Residents. 1 lot for stormwater detention basin, and a 2-lot pocket park. All street improvements shall be constructed to conform to City's Improvement Standards.

i. Staff Report
ii. Public Hearing
iii. Discussion / Action

5. OLD BUSINESS: None

6. NEW BUSINESS: None

7. ECONOMIC DEVELOPMENT OVERSIGHT COMMITTEE COMMENTS:

A. Economic /Community Development Activity Update

i. Discussion

8. COMMENTS:

A. Planning Commissioners

B. Staff Comments / Correspondence

i. Zoning and Subdivision Ordinance Comprehensive Update – QK

9. ADJOURNMENT – NEXT MEETING August 1, 2022

In compliance with the American with Disabilities Act, if you need special assistance to participate in this meeting, please contact the City Clerk's office (559) 386-5766. Notice 48 hours prior to the meeting will enable the City to make reasonable arrangements to ensure accessibility to this meeting. [28 CFR 35.0235.02.35.104 AA Title II]. **A special live viewing of this meeting will be hosted online at https://www.facebook.com/avenalcommunity/.**

Materials related to an item on this Agenda submitted to the Commission after distribution of the agenda packet are available for public inspection in the Planning Department's Office located at City Hall, 919 Skyline Blvd., Avenal, California, during normal business hours.

AVENAL PLANNING COMMISSION REGULAR MEETING
AVENAL THEATER: 233 E. KINGS STREET

Monday, February 7, 2022
6:00 P.M.
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MINUTES

1. CALL TO ORDER:

Vice - Chair Elliot opened the regular Planning Commission Meeting at 6:04 p.m.

Commissioners Present:	Elliott, Larios, Naranjo, Cervantes
Commissioners Absent:	Tillotson
Staff Present:	Mayor Preciado, City Manager Lopez, City Clerk Ortiz, Director Yang, Community Development Assistant Ibarra

2. SWEARING-IN OF NEW COMMISSIONERS:

A. City Clerk Ortiz sworn in two new Planning Commissioners Amado Cervantes who was appointed by Mayor Preciado and Tyler Naranjo who was appointed by Mayor Pro tem Ramirez.

3. APPROVAL OF MINUTES: October 5, 2020

i. February 7, 2022, Minutes motion to approve by Commissioner Elliot, second by Commissioner Naranjo. Motion carried 4-0, one absent.

4. PUBLIC COMMENT/ ANNOUNCEMENTS/ UNSCHEDULED APPEARANCES:

A. Mayor Preciado wanted to congratulate the new Commissioners and welcomed them to the community and their family members.
B. City Manager Lopez wanted to welcome and formally introduce the Director of Community and Economic Development Kao Nou Yang and Community Development Assistant Yanth Ibarra to the planning commission and also welcomes and congratulated the New appointed and sworn in Commissioners.

5. PUBLIC HEARING- NONE

6. OLD BUSINESS: NONE

7. NEW BUSINESS:

A. Elections of Officers for Terms Jan 2022- Jan 2023

i. Nominations for Chairperson opened by Vice Chair Elliot
   a. Commissioner Elliott nominated Commissioner Larios for Chairperson. Commissioner Naranjo second the nomination. No other nominations.
   b. Vice-Chair closed nominations
ii. Voting opened by Vice- Chair Elliot
   a. Voting for Commissioner Larios as Chairperson 4-0 with 1 Absent
iii. Nominations for Vice - Chairperson opened by Vice Chair Elliot
   a. Commissioner Larios nominated Commissioner Elliot for Vice Chairperson. Commissioner Naranjo second the nomination. No other nominations.

b. Vice-Chair closed nominations

iv. Voting opened by Vice- Chair Elliot

a. Voting for Commissioner Elliot as Vice Chair Chairperson 4-0 1 Absent

B. Formal Adoption of the Planning Commission By-laws

i. Director Yang presented the new Planning Commission bylaws adopted by the City Council on January 2, 2022, and present to all the commissioners a copy of said by-laws and resolutions. Staff recommended that Planning commission make a motion to accept the bylaws as approved by City Council.

a. Motion by Vice-Chair Elliott and Seconded by Naranjo 4-0 with 1 absent

C. Legislative Updates

i. City Attorney Moses Diaz gave an information overview of some of the legislative bills (SB-8 Housing Crisis, SB 9 Accessory Dwelling Units (ADUs), SB 10 zoning for ADU & AB 345 ADUs being sold separately)

8. ECONOMIC DEVELOPMENT OVERSIGHT COMMITTEE COMMENTS

A. Economic /Community Development Activity Update

i. Director Yang gave an overview of some of the projects and works that the Department is working on such as the Comprehensive Zoning and Subdivision Ordinance update being awarded to QK, New housing specifically ADUs, CrisComm Company being contracted to be the Economic Development Team for the City, and the implementation of an electronic permitting system online on the City's website.

9. COMMENTS

A. Planning Commissioners Comment: None

B. Staff Comments:

i. City Clerk informed Planning Commissioners and City Staff to fill out 700 forms and return them back to the City Clerk as soon as possible.

ADJOURNMENT

There being no further business the meeting was adjourned at 6:45 p.m.

CITY OF AVENAL PLANNING COMMISSION
STAFF REPORT

Tentative Tract Map No. 21-01
Tentative Tract No. 993 (Cielito Lindo 3)
Variance No. 21-01
July 11, 2022

APPLICANT:
Oasis Valley No 1 LLC
P.O. Box 670,
Huron, CA 93234
(559) 945-9075

PROPERTY OWNER:
Oasis Valley No 1 LLC
P.O. Box 670,
Huron, CA 93234
(559) 945-9075

LOCATION:
Approximately 24.63 acres north of San Benito Street and West of "A" Avenue within the City of Avenal, Assessor's Parcel Number 038-270-066. Latitude: 36.010843°, Longitude: -120.142371°

GENERAL PLAN DESIGNATION:
Low Density Residential (LDR)

ZONE DISTRICT CLASSIFICATION:
Single-Family Residential (R-1)

DISCUSSION:
The City of Avenal Community Development received an application for a land development permit that proposed to divide approximately 24.63 acre into 111 single residential lots located within the Northwestern part of Avenal, CA, generally located north of San Benito Street and West of "A" Avenue, Avenal. The project shall include construction of 111 Single Family Residents. 1 lot for stormwater detention basin, and a 2-lot pocket park. All street improvements shall be constructed to conform to City's Improvement Standards. Each Residential lot shall be wood frame construction with a 2-car garage and driveway permitting 2 vehicle parking. The applicant is also proposing a variance to reduce the minimum lot width to 50 feet (50') and a reduction of the minimum lot size to 5,000 square feet for a 15% of the total lots proposed.

CURRENT USE OF SITE:
Currently approximately 24.63 acres of APN 038-270-066 is highly disturbed and consists entirely of fallow land which is regularly disked for fire suppression. The site lacks any substantial vegetation such as trees, brushes, or shrubs, and is covered mostly by non-native grasses.

LAND USE

SURROUNDING SITE: To the North is vacant land that extends over the Westerly three-quarters of the project with Reef-Sunset Middle School play fields over the Easterly one-quarter; on the East and South are existing developed properties consisting of single-family residential homes. The homes are single story with rear yard setbacks of 20 feet; on the West is vacant land.

ENVIRONMENTAL REVIEW: On June 22, 2022, the environmental review period ended for this proposal. The *California Environmental Quality Act (CEQA)*review took into account all impacts of the proposed map no further *CEQA* analysis is necessary. A review of this project in compliance with *CEQA* indicates that there may be significant adverse impacts to the environment; however, those impacts can be mitigated to an insignificant level by implementing the mitigation monitoring program attached to the Planning Commission Resolution for this project as Exhibit "A." There is no evidence in the record that indicates that the project has potential for adverse effects on wildlife, resources, or habitat for wildlife. A copy of the Initial Study is attached.

PROJECT REVIEW:

February 5, 2021,	Application submitted
April 13, 2021,	Revised Map resubmitted
July 15, 2021,	Application certified complete
July 25, 2021,	Initial Project Consultation Notice Sent to Regulatory Agencies
May 24, 2022,	Begin 30-day review period for environmental review
June 22, 2022,	30-day environmental review period ends
July 11, 2022,	Planning Commission hearing

STAFF ANALYSIS: In order to approve this map, the Commission is first required to find that:

- The use conforms to the policies of the *General Plan*.
- The use should not be detrimental to public health and safety, nor materially injurious to properties in the vicinity.
- The use will comply with applicable provisions of the *Ordinance*.

With regard to these required findings, staff comments that:

1. GENERAL PLAN FINDINGS:

A. Section 66474(a) of the *California Government Code* allows a legislative body to approve a tentative map if the proposed map is consistent with the applicable general plan. The proposed land division, as recommended for approval, is consistent with the policies of the *2035 General Plan*, specifically:

1) Figure 1-2 of the "Land Use Element" designates this site as Low Density Residential (LDR).

2) Page LU-2 of the "Land Use Element" of the *City of Avenal 2035 General Plan* states that the general plan land use map designates the general distribution of land uses including housing, business, industrial, open space, and public facilities within the City's sphere of influence (SOI) as shown on Figure 1-2. These destinations identify the locations in the City where specific types of land use may occur. While the designations are implemented (carried out on a day-to-day basis) by the specific rules provided for each zoning district in the City's Zoning Ordinance, the General Plan provides the overall parameters of density and intensity for urban land use designation.

3) Page LU-3, of the "Land Use Element" of the *City of Avenal 2035 General Plan* states that Low Density Residential (LDR) is intended to encourage comprehensively planned low density residential development. The maximum population density allowed for a dwelling in this designation is 21 persons per acre and the net density ranges from between 2 to 10 dwellings units per net acre.

4) Page LU-6, Goal LU-1 of the "Land Use Element" of the *City of Avenal 2035 General Plan* states that development shall preserve and enhance Avenal's unique and small-town character.

5) Page LU-6 Action LU-1.1A of the Land Use Element of the *City of Avenal 2035 General Plan* states that develop designed review standards for structures, landscaping and related development must facilitate compatibility with the surrounding uses and the overall character of the community.

6) Page LU-8 Policy LU-2.2 of the "Land Use Element" of the *City of Avenal 2035 General Plan* states the prioritization of development of vacant and undeveloped and/or re-developable land within the boundaries of the existing developed area and where urban services are or can be made available

7) Page LU-9 Policy LU-3.4 of the "Land Use Element" of the *City of Avenal 2035 General Plan* requires new urban-level development in the urbanizes portion of the City to be served or demonstrated that it can be served by the City's sewer system.

8) Page LU-9 Policy 3.5 of the "Land use element: of the *City of Avenal 2035 General Plan* requires consistency with the extension of public services and facilities and other City policies and plan when considering annexation.

9) Page LU-22, Policy LU-10.5 of the "Land Use Element" of the *City of Avenal 2035 General Plan* requires developers to mitigate impacts to schools in accordance with adopted Reef-Sunset Unified School District (RSUSD) development fees.

10) Page LU-22 Action LU-10.5A of the "Land Use Element" of the *City of Avenal 2035 General Plan* states that referred development proposals which have the potential to affect school capacity to the Reef-Sunset Unified School District for review and comments to ensure that adequate facilities are implemented to served the proposed developments.

11) Page PSF-3 Policy PSF-1.3 of the "Public Services and Facilities Element" of the *City of Avenal 2035 General Plan* requires that new development pay its own way by contributing to the expansion of the City's public facilities and services, through appropriate development fees.

12) Page PSF-3 Policy PSF-1.9 of the "Public Services and Facilities Element" of the *City of Avenal 2035 General Pla*n require existing and new business, residents, and industries to connect to the City's water and sewer system.

13) Page PSF-4 Policy PSF-1.10 of the "Public Services and Facilities Element" of the *City of Avenal 2035 General Plan* requires that prior to issuance of building permits, new development shall demonstrate that adequate sewage capacity and sewage treatment capacity exists or that conditions of project approval will ensure adequate capacity will be created as part of the project. Conditions may include installation of necessary facilities or other methods acceptable to the City.

14) Page PSF-4 Policy PSF-1.12 of the "Public Services and Facilities Element" of the *City of Avenal 2035 General Plan* requires all development to have an adequate water supply. Requires significant discretionary projects to demonstrate adequate long-term and sustainable water supplies by preparing a verified water supply assessment.

15) Page PSF-4 Action PSF-1.12B of the "Public Services and Facilities Element" of the *City of Avenal 2035 General Plan* states that implementation of conditions of approval which development is to assure that the necessary sewer collection facility is in place and/or wastewater treatment plant capacity is available prior to issuance of a building permit

2. PUBLIC HEALTH AND SAFETY FINDINGS:

A. The proposed project should not be detrimental to public health and safety, nor materially injurious to properties in the vicinity. A Mitigated Negative Declaration has been recommended for this project. The proposed project may have significant adverse impacts on the environment; however, those impacts can be mitigated to an insignificant level by implementing the mitigation monitoring program attached to the Planning Commission's Resolution for this project as Exhibit "A" The Mitigated Negative Declaration reflects the Planning Commission's independent judgment and analysis.

B. The proposed project will not have a significant impact on the environment provided that the following mitigation measures, pursuant to Section 15041 of the *California Code of Regulations*, are carried out during any development of the land subsequent to the division. These mitigation measures are conditions of development, not conditions of approving the Final Map.

1) All lighting shall be hooded and directed on site to prevent glare onto surrounding properties and roadways.

2) The developer shall comply with San Joaquin Valley Unified Air Pollution Control District Regulation VIII concerning fugitive dust rules.

3) If, in the course of project construction or operation, any archaeological or historical resources are uncovered, discovered, or otherwise detected or observed, activities within twenty-five (25) feet of the find shall cease. A qualified paleontologist shall be contacted and advise the City's of the site's significance. If the findings are deemed significant by the City, appropriate mitigation measures shall be required prior to any resumption of work in the affected area of the project.

3. ZONING ORDINANCE FINDINGS:

A. The proposed division complies with the applicable provisions of the *Ordinance*, specifically: The proposed subdivision, as recommended for approval, is consistent with the *Zoning Ordinance*.

B. Chapter 9.10 Section 9.10.02 of the Zoning Ordinance states that Table 9-3 prescribes the land use regulations for "Single-Family Residential (R-1)" zoning districts. The regulations for each district are established by letter designation shown in the key to Table 9-3.

C. Chapter 9.10 Section 9.10.05 of the Zoning Ordinance states that Table 9-4 and Figure 9.10-1 prescribes the minimum lot size and minimum lot area per dwelling for the Single- Family Residential zone district.

1) This finding can be made since the project site is located within the Single-Family Residential Zone District and 100 parcels lots resulting from the division will all meet the 6,000 square feet minimum parcel size and have a width of at least 60 feet interior and 70 feet corner.

D. Chapter 9.71 Section 9.71.04 of the Zoning Ordinance states that The Planning Commission may approve or conditionally approve an application for a variance if it finds all of the following:

1) Special circumstances exist applicable to the subject property, including size, shape, topography, location, or surroundings, such that the strict application of the Zoning Ordinance deprives such property of privileges enjoyed by other property in the vicinity and in the same zoning district or districts.

a. The steep Topography 12 feet drop from the North to South creating terracing along the rear lot setbacks requiring additional lot depth to allow for usable rear yard space. The proposed subdivision has 23 lots that are less than 6,000 square feet but are scattered throughout so it will not be obvious the lots are smaller. Surrounding neighborhood dop consist of lots in the 5,000 square feet rands with adequate on-site and street parking being met. This reduction is only for 15% of the total lots to enable more affordable housing.

2) The granting of the variance does not constitute a grant of special privileges inconsistent with the limitations upon other properties in the vicinity and zoning districts in which such property is located.

a. The granting of this variance will not constitute a grant of special privileges due to the precedent set by the existing subdivisions of Cielito Lindo No. 1 and 2 and the Arroyo del Camino subdivision, where minim parcel size of not less than 5,000 square feet was grant due to limitations of the property and ground.

3) The granting of the variance will not be materially detrimental to the public health, safety, or welfare or to property or residents in the vicinity.

a. the granting of this variance will not be materially detrimental to the public health, safety, or welfare or to property or residences within the vicinity. The variance will only be reducing a small percentage of the lots in the proposed subdivision. In addition, the developer will be dedicating approximately 10,000 square feet to the city for a neighborhood park to the center of the neighborhood.

4) The use for which the variance is applied shall be consistent with the underlying zone.

a. The use for which the variance us applied to will be consistent with the underlying zone for construction single family residences. The underlying zone building setbacks will be met i.e.. 20 feet front yards., 20 feet rear yard and 5 feet side yard setbacks. For the 50 feet wide and 100 feet deep smaller lots.

STATEMENT OF FINDINGS OF CONSISTENCY:

4. FLOOD PLAIN FINDINGS:

A. The site is within Other Areas Zone X as shown on the National Flood Insurance Program, Flood Insurance Rate Map (FIRM), Map Number 06031C0395C dated June 16, 2009. There are no development restrictions associated with Other Areas Zone X since these are areas determined to be outside the 0.2 percent annual chance floodplain.

RECOMMENDATIONS:

It is recommended that the Commission, approve Tentative Tract No. 993 as described above and adopt Planning Commission Resolution No. _____. Approval of this Resolution will:

1. Find that the proposed project may have significant adverse impacts on the environment; however, those impacts can be mitigated to an insignificant level by implementing the Mitigation Monitoring & Reporting Program (MMRP) attached to the resolution as Exhibit "A," and approves a ***Mitigated Negative Declaration***.

2. Find that the project is consistent with the *General Plan and Zoning Ordinance.*

3. Approve the project with specified conditions of approval.

The approval of Tentative Tract No. 993 shall become effective upon the expiration of ten (10) days following the date on which Tentative Tract No. 993 was approved unless an appeal is filed, or the City Council acts to review the decision of Planning Commission.

Tentative Tract No. 993 shall lapse and shall become null and void three (3) years following the date on which Tentative Tract No. 993 became effective, unless prior to the expiration of three (3) years a final map is recorded. A Tentative Tract may be renewed for a period or periods of time not exceeding a total of three (3) years if an application **(by letter)** for an extension of time for the Tentative Tract is filed with the Community & Economic Development Department prior to the permit's expiration date. However, the total extension time may not be more than three (3) years beyond the end of the original approval.

For the information of the applicant, compliance with other adopted rules and regulations of any local or state regulatory agency shall be required by Planning Commission. These include, but are not limited to, the following:

COMMUNITY & ECONOMIC DEVELOPMENT DEPARTMENT: Contact Kao Nou Yang of the Community & Economic Development Department at (559) 401-9854 regarding the following requirements:

1. The applicant in consideration of the approval of said Tentative Tract Map No. 993 hereby agrees to hold the City and all of its Departments, officers, agents and Employees free and harmless of and from all claims of any king or nature arising out of or by any reason of said project and

development said land by any person, firm or cooperation, public or private and from the cost and expense of defending the same including attorney fees.

2. The Applicant/ Owner shall be required to enter into a Subdivision Improvement Agreements with the City in accordance with the Subdivision Map Act.

3. All proposals of the applicant shall be conditions of approval if not mentioned herein.

4. Surveying and mapping requirements shall conform to Section 66448 of the Subdivision Map Act.

5. A Final Map is required which substantially complies with the approved Tentative Tract Map No. 993.

6. A grading plan shall be submitted to the City Engineer and the City Building Official for their review and approval with, or prior to, the submission of the improvement drawings for the subdivision. This must be done before the Final Map is recorded.

7. The development shall comply with all regulations of *Zoning Ordinance Title 9*, with particular reference to the Single Family Residential (R-1) Zone District standards contained in Chapter 9.10.

8. The minimum yard requirements from property line to a structure shall be as follows:

    a. The minimum front yard setback shall be not less than twenty (20) feet from the front property line.

    b. The minimum side yard setback on the street side of a corner lot shall be not less than five (5) feet from the property line.

    c. The minimum rear yard setback shall be not less than twenty (20) feet from the rear property line.

9. The minimum distance between structures shall be ten (10) feet.

10. Pursuant to Section 9.10.13 of the *City of Avenal Zoning Ordinance*, the project shall comply with the following requirements pertaining to fencing and gates:

    a. Applicability: All fences, walls, and hedges which are equal to or exceed 36 inches in height, located in any district, are subject to the requirements set forth herein.

    b. Building Permit: A building permit application for a fence shall consist of a standard building permit application together with a site plan drawn to scale. The site plan must show abutting streets, lot lines and their dimensions, existing buildings and their dimensions, the proposed fence location, and proposed setbacks. A drawing or picture of the fence indicating its style and height shall also be provided.

    c. Fence Standards:

        1) Residential Fences, walls and decorative posts shall be constructed of wood fence material, stone, brick, and wrought iron, Plywood sheathing material shall not be used. Any residential fence constructed in a street (front) yard or side street yard shall not exceed 50% in opacity. Residential fences shall not exceed 3 feet in height when located within a

required street (front) yard or side street yard and shall not exceed 7 feet in height when located in any other yard.

2) Temporary Fences for the purpose of protecting construction and excavation sites and protecting plants during grading and construction is permitted for up to 180 consecutive days or for intervals not exceeding an aggregate of 180 days in any calendar year.

3) Swimming pools shall be entirely enclosed by a non-climbable wall or fence at least five (5) feet in height. For the purposes of this ordinance, the term "non-climbable" shall mean, "lacking any fingerholds or toeholds on the outside surface of the wall." The wall or fence shall be equipped with self- closing gates, with the latching mechanism being located not less than four (4) feet above the ground. The fence or wall must be installed and approved by the building inspector prior to the pool being filled with water.

4) Fences or structures exceeding seven (7) feet in height, to enclose tennis courts or other game areas, located within the rear half of a lot shall be composed of wire mesh capable of admitting at least ninety (90) percent of light as measured on a calibrated light meter.

5) Chain link fencing may be used subject to permission of the Community Development Director.

d. Fence Location: On all properties, no fence, wall, or hedge shall be located closer than one (1) foot to a front lot line or street right-of-way and shall be set back at least one (1) inch from other lot lines, unless a city encroachment permit is issued.

e. Orientation: In any case where a fence, wall or hedge separates two distinctly different land uses, the fence supports, or other structural components of the fence or wall shall face the more intensive land use as determined by the Zoning Administrator.

f. Maintenance of Fences: All fences, walls and hedges shall be maintained in a structurally sound and attractive manner.

11. Landscape and Irrigation plans for the public right-of-way shall be incorporated into the improvement plans and shall require approval by the Public Work Department and Community & Economic Development departments.

12. The applicant shall comply with all adopted rules and regulations of the Kings County Public Works Department, Fire Department, and Department of Environmental Heath Services, and all other local and state regulatory agencies.

13. Pursuant to Section 66020(d)(1) of the California Government Code, the owner is hereby notified that the 90-day approval period in which the applicant may protest the imposition of fees, dedications, reservations, or other exactions, begins on the date that this resolution is adopted.

14. The Final Map shall be recorded.

15. Within ten (10) days following the date of the decision of Planning Commission, the decision may be appealed to the City Council. The appeal shall be filed with the City Clerk.

PUBLIC WORKS REQUIREMENTS Contact Scott Davis, Public Works Supervisor or Brian Skaggs, City Engineer at the City of Avenal's Public Works Department at (559) 362-0401, regarding the following requirements::

1. All proposals of the applicant shall be conditions of approval if not mentioned herein.

2. The applicant shall comply with all Requirements of the City's Improvement Standards and Specifications.

3. Surveying and mapping requirements shall conform to Section 66448 of the *Subdivision Map Act*.

4. A field survey may be required.

5. Improvement, Grading and Drainage Plans Shall be reviewed and approved by the Public Works Department PRIOR to Development.

6. A Storm water pollution prevention plan (SWPPP) per the state General permit for storm water discharges associated the Construction Activities.

7. A Final Map is required that substantially complies with the approved Tentative Tract Map No. 993.

8. The city Public Works Department must approve all other alternatives Public works Systems in lieu of the above.

9. Any "tie-ins" to the City's water and sewer system shall be approved and inspected by the Public Works Department.

10. All public improvements are completed and approved by the City engineer and accepted by the City Council for maintenance.

11. All utilities required for the proposed subdivision shall be placed underground as required.

12. The applicant shall install all utilities. Streetlights shall be installed at locations as required by the City engineer and the public works Department.

KINGS COUNTY FIRE DEPARTMENT: Contact Aaron Parreira of the Kings County Fire Department at (559) 852-2885 regarding the following requirements:

1. No structure shall be more than 300 feet from a fire hydrant.

2. Fire hydrants shall have two, two- and one-half inch outlets and one four- and one-half inch outlet. Outlets shall be equipped with national hose standard thread. All outlets shall be provided with caps to prevent debris from accumulating within the hydrant.

3. Fire hydrants shall have a minimum of 36 inches of clear space around the hydrant and shall be a minimum of 6 inches above grade

4. Fire hydrants or water tank, and roads of an all-weather surface capable of supporting heavy fire apparatus, shall be in place before combustible construction materials begin to accumulate.

5. All plans shall comply with the California Fire Code and all regulations of the Kings County Fire Department.

6. Division shall not interfere with fire department access. No structure or future structures hall be farther than 150 feet from fire apparatus access. Access roads and adequate turnaround provisions shall be provided if fire apparatus access distance is exceeded

7. Address identification required per Section 505.1 of the CFC

8. Any future development must comply with applicable Fire Code, including rural firefighting water supply requirements.

KINGS COUNTY ENVIRONMENTAL HEALTH DEPARTMENT: Contact Troy Hommerding of the Kings County Environmental Health Department at (559) 852-2627 regarding the following requirements:

1. *Coccidiodes immiti,* the fungus that causes valley fever, a serious and potentially long-term respiratory illness, is endemic in the soils of Kings County. Construction activities that disturb soils containing the spores of the fungus can put workers and the nearby public at risk. Effective dust control must be maintained on the job site at all times in order to reduce the risk of valley fever to workers and nearby residents. More information regarding the prevention of work related valley fever is available at https://www.cdph.ca.gov/Programs/CID/DCDC/CDPH%20Document%20Library/ValleyFeverFactSheet.pdf . Contact the San Joaquin Valley Air Pollution Control District for more information on dust control techniques.

SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT Contact Eric Mclaughlin at SJVAPCD at (559) 230-5808, regarding the following requirements:

1. The applicant shall comply with all San Joaquin Valley Air Pollution Control District *Regulation VIII* requirements (attached).

2. The applicant shall review and comply with all applicable measures including those addressed in SJVAPCD letter dated August 2, 2021. (see attached)

CALIFORNIA DEPARTMENT OF TRANSPORTATION Contact Nicholas Isla of CALTRANS at (559) 981-7373 for the following requirements:

1. An assessment of multi-modal facilities should be conducted to develop an integrated multi-modal transportation system to serve and help alleviate traffic congestion caused by the project and related development in this area of the City. The assessment should include the following:

    a. Pedestrian walkways should link this proposal to an internal project area walkway, transit facilities, as well as other walkways in the surrounding area.

    b. The project should consider bicycles as an alternative mode of transportation and offer internal amenities to encourage bicycle use.

c. Transit services are located south of the project on W. San Joaquin St and are within ¼-mile of the site. Transit services should be extended to provide services to what will be a high activity center.

PREPARATION:

Prepared by the City of Avenal Community & Economic Development Department – Planning Division (Kao Nou Yang) on June 14, 2022. Copies are available for review at the City of Avenal Community & Economic Development- Planning Division, Avenal, California, or at the City Clerk's Office, Avenal, California.

BEFORE PLANNING COMMISSION FOR PARCEL MAPS AND SUBDIVISIONS CITY OF AVENAL, STATE OF CALIFORNIA

IN THE MATTER OF TENTATIVE TRACT MAP NO. 993 / VARIANCE NO. 21-01 (CILENTO LINDO NO. 3)

RESOLUTION NO. 2022-01

RE: Located generally located north of San Benito Street and West of "A" Avenue

WHEREAS, on February 5, 2021, Oasis Valley No. 1 LLC filed Tentative Tract No. 993 to divide approximately 24.63 acre into 111 single residential lots; and

WHEREAS the application was determined to be complete on July 15, 2021; and

WHEREAS, on June 22, 2022, the thirty-day public review period for the proposed Initial Study/Mitigated Negative Declaration for this project closed; and

WHEREAS, on July 11, 2022, the Community & Economic Department Planning Division recommended that a de minimis Mitigated Negative Declaration be approved for the proposal; and

WHEREAS, on July 11, 2022, the City Planning Department staff notified the applicant of the proposed recommendation on this project; and

WHEREAS, on July 11, 2022, the Planning Commission held a duly noticed public hearing to receive testimony from any interested person.

NOW, THEREFORE, BE IT RESOLVED, that this Planning Commission finds that:

1. An Initial Study of the project has been conducted by the Lead Agency to evaluate the potential for any adverse environmental impact.

2. There is no evidence in the record that indicates that the project has potential for adverse effect on wildlife, resources, or habitat for wildlife.

3. The presumption that the project will have a potential for adverse effect on fish and wildlife resources or the habitat upon which wildlife depends is rebutted based on evidence in the record that:

   A. The project does not involve any riparian land, rivers, streams, watercourses, or wetlands under State and Federal jurisdiction.

   B. The project does not disturb any plant life required to sustain habitat for fish or wildlife.

   C. The project does not disturb any rare or unique plant life or ecological communities dependent on plant life.

   D. The project does not threaten any listed or endangered plant or animals or the habitat in which they are believed to reside.

E. The project does not disturb any plants or animals that are subject to special management in the Fish and Game Code, Public Resources Code, the Water Code or any regulations thereto.

F. The project does not disturb any marine or terrestrial species which are subject to the jurisdiction of the Department of Fish and Game and ecological communities in which they reside.

G. The project will not degrade any air or water resources which will individually or cumulatively result in a loss of biological diversity among plants and animals residing in the air or water.

4. The proposed project may have a significant adverse impact on the environment; however, those impacts can be mitigated to an insignificant level by implementing the mitigation monitoring program attached to this resolution as Exhibit "A." A de minimis Mitigated Negative Declaration for Tentative Tract No. 993 has been recommended to be certified as the environmental document for this project. The proposed division will not have a significant impact on the environment provided that the following mitigation measures, pursuant to Section 15041 of the *California Code of Regulations*, are carried out during any development of the land subsequent to the division.

5. Section 66474(a) of the *California Government Code* allows a legislative body to approve a tentative map if the proposed map is consistent with the applicable general plan. The proposed land division, as recommended for approval, is consistent with the policies of the *2035 General Plan*, specifically:

A. Figure 1-2 of the "Land Use Element" designates this site as Low Density Residential (LDR).

B. Page LU-2 of the "Land Use Element" of the *City of Avenal 2035 General Plan* states that the general plan land use map designates the general distribution of land uses including housing, business, industrial, open space, and public facilities within the City's sphere of influence (SOI) as shown on Figure 1-2. These destinations identify the locations in the City where specific types of land use may occur. While the designations are implemented (carried out on a day-to-day basis) by the specific rules provided for each zoning district in the City's Zoning Ordinance, the General Plan provides the overall parameters of density and intensity for urban land use designation.

C. Page LU-3, of the "Land Use Element" of the *City of Avenal 2035 General Plan* states that Low Density Residential (LDR) is intended to encourage comprehensively planned low density residential development. The maximum population density allowed for a dwelling in this designation is 21 persons per acre and the net density ranges from between 2 to 10 dwellings units per net acre.

D. Page LU-6, Goal LU-1 of the "Land Use Element" of the *City of Avenal 2035 General Plan* states that development shall preserve and enhance Avenal's unique and small-town character.

E. Page LU-6 Action LU-1.1A of the Land Use Element of the *City of Avenal 2035 General Plan* states that develop designed review standards for structures, landscaping and related development must facilitate compatibility with the surrounding uses and the overall character of the community.

F. Page LU-8 Policy LU-2.2 of the "Land Use Element" of the *City of Avenal 2035 General Plan* states the prioritization of development of vacant and undeveloped and/or re-developable land within the boundaries of the existing developed area and where urban services are or can be made available

G. Page LU-9 Policy LU-3.4 of the "Land Use Element" of the *City of Avenal 2035 General Plan* requires new urban-level development in the urbanizes portion of the City to be served or demonstrated that it can be served by the City's sewer system.

H. Page LU-9 Policy 3.5 of the "Land use element: of the *City of Avenal 2035 General Plan* requires consistency with the extension of public services and facilities and other City policies and plan when considering annexation.

I. Page LU-22, Policy LU-10.5 of the "Land Use Element" of the *City of Avenal 2035 General Plan* requires developers to mitigate impacts to schools in accordance with adopted Reef-Sunset Unified School District (RSUSD) development fees.

J. Page LU-22 Action LU-10.5A of the "Land Use Element" of the *City of Avenal 2035 General Plan* states that referred development proposals which have the potential to affect school capacity to the Reef-Sunset Unified School District for review and comments to ensure that adequate facilities are implemented to served the proposed developments.

K. Page PSF-3 Policy PSF-1.3 of the "Public Services and Facilities Element" of the *City of Avenal 2035 General Plan* requires that new development pay its own way by contributing to the expansion of the City's public facilities and services, through appropriate development fees.

L. Page PSF-3 Policy PSF-1.9 of the "Public Services and Facilities Element" of the *City of Avenal 2035 General Pla*n require existing and new business, residents, and industries to connect to the City's water and sewer system.

M. Page PSF-4 Policy PSF-1.10 of the "Public Services and Facilities Element" of the *City of Avenal 2035 General Plan* requires that prior to issuance of building permits, new development shall demonstrate that adequate sewage capacity and sewage treatment capacity exists or that conditions of project approval will ensure adequate capacity will be created as part of the project. Conditions may include installation of necessary facilities or other methods acceptable to the City.

N. Page PSF-4 Policy PSF-1.12 of the "Public Services and Facilities Element" of the *City of Avenal 2035 General Plan* requires all development to have an adequate water supply. Requires significant discretionary projects to demonstrate adequate long-term and sustainable water supplies by preparing a verified water supply assessment.

O. Page PSF-4 Action PSF-1.12B of the "Public Services and Facilities Element" of the *City of Avenal 2035 General Plan* states that implementation of conditions of approval which development is to assure that the necessary sewer collection facility is in place and/or wastewater treatment plant capacity is available prior to issuance of a building permit

6. The proposed division, as recommended for approval, <u>is consistent</u> with the *Zoning Ordinance*.

A. Chapter 9.10 Section 9.10.02 of the Zoning Ordinance states that Table 9-3 prescribes the land use regulations for "Single-Family Residential (R-1)" zoning districts. The regulations for each district are established by letter designation shown in the key to Table 9-3.

B. Chapter 9.10 Section 9.10.05 of the Zoning Ordinance states that Table 9-4 and Figure 9.10-1 prescribes the minimum lot size and minimum lot area per dwelling for the Single- Family Residential zone district.

1) This finding can be made since the project site is located within the Single-Family Residential Zone District and 100 parcels lots resulting from the division will all meet the 6,000 square feet minimum parcel size and have a width of at least 60 feet interior and 70 feet corner.

C. Chapter 9.71 Section 9.71.04 of the Zoning Ordinance states that The Planning Commission may approve or conditionally approve an application for a variance if it finds all of the following:

1) Special circumstances exist applicable to the subject property, including size, shape, topography, location, or surroundings, such that the strict application of the Zoning Ordinance deprives such property of privileges enjoyed by other property in the vicinity and in the same zoning district or districts.

   a. The steep Topography 12 feet drop from the North to South creating terracing along the rear lot setbacks requiring additional lot depth to allow for usable rear yard space. The proposed subdivision has 23 lots that are less than 6,000 square feet but are scattered throughout so it will not be obvious the lots are smaller. Surrounding neighborhood dop consist of lots in the 5,000 square feet rands with adequate on-site and street parking being met. This reduction is only for 15% of the total lots to enable more affordable housing.

2) The granting of the variance does not constitute a grant of special privileges inconsistent with the limitations upon other properties in the vicinity and zoning districts in which such property is located.

   a. The granting of this variance will not constitute a grant of special privileges due to the precedent set by the existing subdivisions of Cielito Lindo No. 1 and 2 and the Arroyo del Camino subdivision, where minim parcel size of not less than 5,000 square feet was grant due to limitations of the property and ground.

3) The granting of the variance will not be materially detrimental to the public health, safety, or welfare or to property or residents in the vicinity.

   a. The granting of this variance will not be materially detrimental to the public health, safety, or welfare or to property or residences within the vicinity. The variance will only be reducing a small percentage of the lots in the proposed subdivision. In addition, the developer will be dedicating approximately 10,000 square feet to the city for a neighborhood park to the center of the neighborhood.

4) The use for which the variance is applied shall be consistent with the underlying zone.

   a. The use for which the variance us applied to will be consistent with the underlying zone for construction single family residences. The underlying zone building setbacks will be met i.e.. 20 feet front yards., 20 feet rear yard and 5 feet side yard setbacks. For the 50 feet wide and 100 feet deep smaller lots.

BE IT FURTHER RESOLVED, that based on the above findings, this Planning Commission approves the de minimis Mitigated Negative Declaration for Tentative Tract No. 993, and approves Tentative Tract No. 993, as proposed, subject to the conditions and exceptions as follows:

COMMUNITY & ECONOMIC DEVELOPMENT DEPARTMENT: Contact Kao Nou Yang of the Community & Economic Development Department at (559) 401-9854 regarding the following requirements:

1. The applicant in consideration of the approval of said Tentative Tract Map No. 993 hereby agrees to hold the City and all of its Departments, officers, agents and Employees free and harmless of and from all claims of any kind or nature arising out of or by any reason of said project and development said land by any person, firm or cooperation, public or private and from the cost and expense of defending the same including attorney fees.

2. The Applicant/ Owner shall be required to enter into a Subdivision Improvement Agreement with the City in accordance with the Subdivision Map Act.

3. All proposals of the applicant shall be conditions of approval if not mentioned herein.

4. Surveying and mapping requirements shall conform to Section 66448 of the Subdivision Map Act.

5. A Final Map is required which substantially complies with the approved Tentative Tract Map No. 993.

6. A grading plan shall be submitted to the City Engineer and the City Building Official for their review and approval with, or prior to, the submission of the improvement drawings for the subdivision. This must be done before the Final Map is recorded.

7. The development shall comply with all regulations of *Zoning Ordinance Title 9*, with particular reference to the Single Family Residential (R-1) Zone District standards contained in Chapter 9.10.

8. The minimum yard requirements from property line to a structure shall be as follows:

a. The minimum front yard setback shall be not less than twenty (20) feet from the front property line.

b. The minimum side yard setback on the street side of a corner lot shall be not less than five (5) feet from the property line.

c. The minimum rear yard setback shall be not less than twenty (20) feet from the rear property line.

9. The minimum distance between structures shall be ten (10) feet.

10. Pursuant to Section 9.10.13 of the *City of Avenal Zoning Ordinance*, the project shall comply with the following requirements pertaining to fencing and gates:

    a. Applicability: All fences, walls, and hedges which are equal to or exceed 36 inches in height, located in any district, are subject to the requirements set forth herein.

        i. Building Permit: A building permit application for a fence shall consist of a standard building permit application together with a site plan drawn to scale. The site plan must show abutting streets, lot lines and their dimensions, existing buildings and their dimensions, the proposed fence location, and proposed setbacks. A drawing or picture of the fence indicating its style and height shall also be provided.

    b. Fence Standards:

        i. Residential Fences, walls and decorative posts shall be constructed of wood fence material, stone, brick, and wrought iron, Plywood sheathing material shall not be used. Any residential fence constructed in a street (front) yard or side street yard shall not exceed 50% in opacity. Residential fences shall not exceed 3 feet in height when located within a required street (front) yard or side street yard and shall not exceed 7 feet in height when located in any other yard.

ii. Temporary Fences for the purpose of protecting construction and excavation sites and protecting plants during grading and construction is permitted for up to 180 consecutive days or for intervals not exceeding an aggregate of 180 days in any calendar year.

iii. Swimming pools shall be entirely enclosed by a non-climbable wall or fence at least five (5) feet in height. For the purposes of this ordinance, the term "non-climbable" shall mean, "lacking any fingerholds or toeholds on the outside surface of the wall." The wall or fence shall be equipped with self- closing gates, with the latching mechanism being located not less than four (4) feet above the ground. The fence or wall must be installed and approved by the building inspector prior to the pool being filled with water.

iv. Fences or structures exceeding seven (7) feet in height, to enclose tennis courts or other game areas, located within the rear half of a lot shall be composed of wire mesh capable of admitting at least ninety (90) percent of light as measured on a calibrated light meter.

v. Chain link fencing may be used subject to permission of the Community Development Director.

c. Fence Location: On all properties, no fence, wall, or hedge shall be located closer than one (1) foot to a front lot line or street right-of-way and shall be set back at least one (1) inch from other lot lines, unless a city encroachment permit is issued.

d. Orientation: In any case where a fence, wall or hedge separates two distinctly different land uses, the fence supports, or other structural components of the fence or wall shall face the more intensive land use as determined by the Zoning Administrator.

e. Maintenance of Fences: All fences, walls and hedges shall be maintained in a structurally sound and attractive manner.

11. Landscape and Irrigation plans for the public right-of-way shall be incorporated into the improvement plans and shall require approval by the Public Work Department and Community & Economic Development departments.

12. The applicant shall comply with all adopted rules and regulations of the Kings County Public Works Department, Fire Department, and Department of Environmental Heath Services, and all other local and state regulatory agencies.

13. Pursuant to Section 66020(d)(1) of the California Government Code, the owner is hereby notified that the 90-day approval period in which the applicant may protest the imposition of fees, dedications, reservations, or other exactions, begins on the date that this resolution is adopted.

14. The Final Map shall be recorded.

15. Within ten (10) days following the date of the decision of Planning Commission, the decision may be appealed to the City Council. The appeal shall be filed with the City Clerk.

PUBLIC WORKS REQUIREMENTS Contact Scott Davis, Public Works Supervisor or Brian Skaggs, City Engineer at the City of Avenal's Public Works Department at (559) 362-0401 or (559) 582-9237, regarding the following requirements::

1. All proposals of the applicant shall be conditions of approval if not mentioned herein.

2. The applicant shall comply with all Requirements of the City's Improvement Standards and Specifications.

3. Surveying and mapping requirements shall conform to Section 66448 of the *Subdivision Map Act*.

4. A field survey may be required.

5. Improvement, Grading and Drainage Plans Shall be reviewed and approved by the Public Works Department PRIOR to Development.

6. A Storm water pollution prevention plan (SWPPP) per the state General permit for storm water discharges associated the Construction Activities.

7. A Final Map is required that substantially complies with the approved Tentative Tract Map No. 993.

8. The city Public Works Department must approval all other alternatives Public works Systems in lieu of the above.

9. Any "tie-ins" to the City's water and sewer system shall be approved and inspected by the Public Works Department.

10. All public improvements are completed and approved by the City Engineer and accepted by the City Council for maintenance.

11. All utilities required for the proposed subdivision shall be placed underground as required.

12. The applicant shall install all utilities. Streetlights shall be installed at locations as required by the City engineer and the public works Department.

KINGS COUNTY FIRE DEPARTMENT: Contact Aaron Parreira of the Kings County Fire Department at (559) 852-2885 regarding the following requirements:

1. No structure shall be more than 300 feet from a fire hydrant.

2. Fire hydrants shall have two, two- and one-half inch outlets and one four- and one-half inch outlet. Outlets shall be equipped with national hose standard thread. All outlets shall be provided with caps to prevent debris from accumulating within the hydrant.

3. Fire hydrants shall have a minimum of 36 inches of clear space around the hydrant and shall be a minimum of 6 inches above grade

4. Fire hydrants or water tank, and roads of an all-weather surface capable of supporting heavy fire apparatus, shall be in place before combustible construction materials begin to accumulate.

5. All plans shall comply with the California Fire Code and all regulations of the Kings County Fire Department.

6. Division shall not interfere with fire department access. No structure or future structures hall be farther than 150 feet from fire apparatus access. Access roads and adequate turnaround provisions shall be provided if fire apparatus access distance is exceeded

7. Address identification required per Section 505.1 of the CFC

8. Any future development must comply with applicable Fire Code, including rural firefighting water supply requirements.

KINGS COUNTY ENVIRONMENTAL HEALTH DEPARTMENT: Contact Troy Hommerding of the Kings County Environmental Health Department at (559) 852-2627 regarding the following requirements:

1. *Coccidiodes immiti,* the fungus that causes valley fever, a serious and potentially long-term respiratory illness, is endemic in the soils of Kings County. Construction activities that disturb soils containing the spores of the fungus can put workers and the nearby public at risk. Effective dust control must be maintained on the job site at all times in order to reduce the risk of valley fever to workers and nearby residents. More information regarding the prevention of work related valley fever is available at https://www.cdph.ca.gov/Programs/CID/DCDC/CDPH%20Document%20Library/ValleyFeverFactSheet.pdf . Contact the San Joaquin Valley Air Pollution Control District for more information on dust control techniques.

SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT Contact Eric Mclaughlin at SJVAPCD at (559) 230-5808, regarding the following requirements:

1. The applicant shall comply with all San Joaquin Valley Air Pollution Control District *Regulation VIII* requirements (attached).

2. The applicant shall review and comply with all applicable measures including those addressed in SJVAPCD letter dated August 2, 2021. (see attached)

CALIFORNIA DEPARTMENT OF TRANSPORTATION Contact Nicholas Isla of CALTRANS at (559) 981-7373 for the following requirements:

1. An assessment of multi-modal facilities should be conducted to develop an integrated multi-modal transportation system to serve and help alleviate traffic congestion caused by the project and related development in this area of the City. The assessment should include the following:

    a. Pedestrian walkways should link this proposal to an internal project area walkway, transit facilities, as well as other walkways in the surrounding area.

    b. The project should consider bicycles as an alternative mode of transportation and offer internal amenities to encourage bicycle use.

    c. Transit services are located south of the project on W. San Joaquin St and are within ¼-mile of the site. Transit services should be extended to provide services to what will be a high activity center.

The foregoing Resolution No. 2022-01 was adopted on a motion by Commissioner _____ and seconded by Commissioner _____, at a regular meeting held on July 11, 2022, by the following vote:

AYES:
NOES:
ABSTAIN:
ABSENT:

City of Avenal Planning Commission

_____
Lymari Larios, Chairperson of the Planning Commission

WITNESS, my hand this ____ day of July 2022.

_____
Kao Nou Yang
Secretary to the Planning Commission

cc: City of Avenal Community Development – Building Division
City of Avenal Public Works – Code Compliance Division
City of Avenal Public Works Department – Engineering Division
City of Avenal Public Works Department – Utilities Division
City of Avenal Police Department
City of Avenal Finance Department
Kings County Assessor
Kings County Fire Department
Kings County Health Department - Environmental Health Services Division
San Joaquin Valley Air Pollution Control District
PG&E (via email)
Oasis Valley No 1 LLC, P.O. Box 670, Huron, CA 93234

H:\Community Development\Current Planning\Land Division\Tenative Tract Map - TTM\TTM 21-01 Oasis Valley\PC\TT 993 Reso.doc

Environmental Checklist - Initial Study

Tentative Tract No. 21-01 - Oasis Valley

Cielito Lindo 3

Prepared for:

City of Avenal
919 Skyline Blvd.
Avenal, CA 93204
(559) 386-5776
Contact: Kao Nou Yang

Prepared by:

Tri City Engineering, Inc.
4630 W Jennifer Ave #101
Fresno, CA 93722
(559) 447-9075
Contact: Christopher Marks

May 11, 2022

Project Title:

Tentative Tract No. 21-01 – Oasis Valley

Lead Agency Name and Address:

City of Avenal Community & Economic Development Department – Planning Division

919 Skyline Blvd.

Avenal, CA 93204

City of Avenal Contact Person and Phone Number:

Kao Nou Yang, City of Avenal Community & Economic Development Department – Planning Division

(559) 386-5776

Project Location:

The project is generally located approximately 24.63 acres north of San Benito Street and West of "A" Avenue within the City of Avenal, Assessor's Parcel Number 038-270-066. Latitude: 36.010843°, Longitude: -120.142371°

Project Sponsor's Name and Contact Information:

Oasis Valley No 1 LLC

PO Box 670, Huron, CA 93234

(559) 945-9075

General Plan Land Use Designation:

Low Density Residential (LDR)

Zone District:

Single Family Residential (R-1)

Description of Project:

The applicant is proposing to divide approximately 24.63 acre into 111 single residential lots located within the Northwestern part of Avenal, CA , generally located north of San Benito Street and West of "A" Avenue, Avenal. The project shall include construction of 111 Single Family Residents. **1** lot for stormwater detention basin, and a 2 lot pocket park. All street improvements shall be constructed to conform to City's Improvement Standards. Each Residential lot shall be wood frame construction with a 2 car garage and driveway permitting 2 vehicle parking.

Current Use of the Site:

The existing site is highly disturbed and consists entirely of fallow land which is regularly disked for fire suppression. The site lacks any substantial vegetation such as trees, brushes, or shrubs, and is covered mostly by non-native grasses.

Surrounding Land Uses:

To the North is vacant land that extends over the Westerly three-quarters of the project with Reef-Sunset Middle School play fields over the Easterly one-quarter; on the East and South are existing developed properties consisting of single-family residential homes. The homes are single story with rear yard setbacks of 20 feet; on the West is vacant land.

Other Public Agencies Whose Approval is Required:

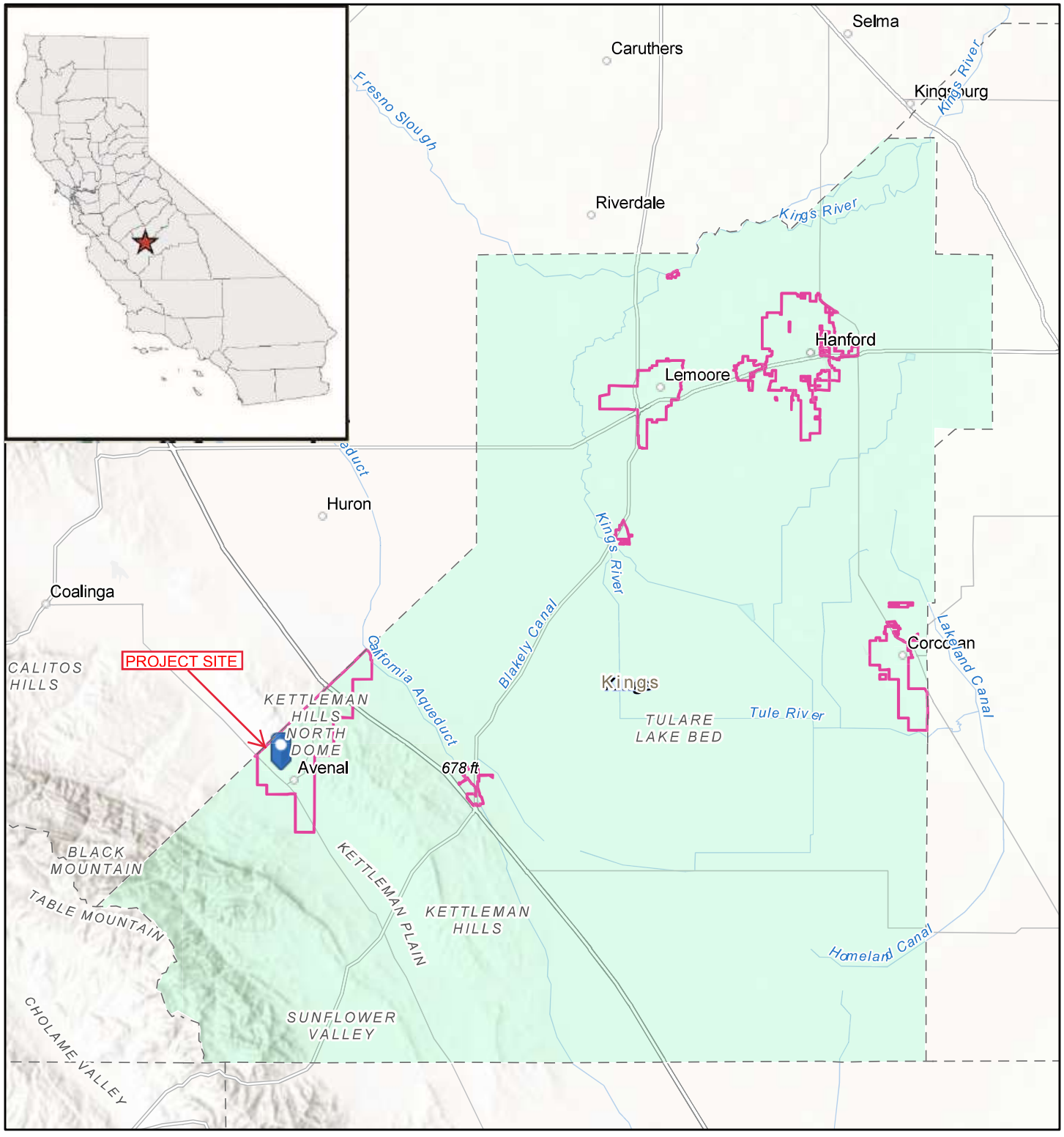
City of Avenal Planning Commission
City of Avenal Public Works Department
San Joaquin Valley Air Pollution Control District (Construction Notification/Dust Control Plan),
California State Water Resources Control Board (NPDES Construction General Permit)

Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code Section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?

The City of Avenal received a formal request from the Santa Rosa Rancheria Tachi Yokut Tribe and the Torres Martinez Desert Cahuilla Indians in 2016. The City sent a written notice providing details of the project to both tribal groups, in addition to the tribal groups listed on the Native American Heritage Commission contact list. The request was sent on July 23, 2021. At the time of this publication, the City had not received a response to the formal notification nor a request to initiate the consultation process for this particular project.

Note: Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process. (See Public Resources Code Section 21080.3.2.) Information may also be available from the California Native American Heritage Commission's Sacred Lands File per Public Resources Code section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that Public Resources Code Section 21082.3(c) contains provisions specific to confidentiality.

Regional Location Map



11/8/2021, 2:25:01 PM

1:577,791

0 4 8 16 mi

0 5 10 20 km

City and Community Boundaries

County Boundary

Kings

Esri, CGIAR, USGS, Fresno County Dept. PWP, Esri, HERE, Garmin, SafeGraph, FAO, METI/NASA, USGS, Bureau of Land Management, EPA, NPS

ArcGIS Web AppBuilder
Esri, USGS | Esri, FAO, NOAA | Esri, FAO, NOAA |

PROJECT VICINITY MAP



4

TENTATIVE TRACT NO. 933

"CIELITO LINDO 3"

AVENAL, CALIFORNIA

TRI CITY engineering

Tri City Engineering, Inc.
Engineers Surveyors

4630 W. Jennifer Ave. #101
Fresno, CA 93722-6415
PH: 559-447-9075
FAX 559-447-9074
www.TriCityEngineering.com

DATE	APPRVD.	REVISION
△		
△		
△		
△		
△		

Scale:	1"=250'
Date:	2021.Oct.04
Drwn:	CM
Chckd:	DJ
JN#:	2871

TENTATIVE TRACT No. 933

"CIELITO LINDO 3"

IN THE CITY OF AVENAL, COUNTY OF KINGS, STATE OF CALIFORNIA

Sheet One of One Sheet

April 2021

Legal Description:

Unsubdivided Remainder of Tract No. 903 "CIELITO LINDO 2", according to the map recorded in Volume 25 of Licensed Surveyor Plats, at pages 52 and 53, Kings County Records.

General Site Information:

Existing Zone: R-1
Existing Land Use: Vacant
APN: 038-270-066

Proposed Zone: R-1
Proposed Land Use: Single Family Residence
Area of Subdivision: 24.63 AC
Minimum Lot Size: 50.83' x 100.04'
Average Lot Size: 60'x110'

Proposed Source of Water: City of Avenal
Proposed Sewage Disposal: City of Avenal
Proposed Storm Water Disposal: Storm Water Ponding Basin
Proposed Source of Gas: Pacific Gas & Electric
Proposed Source of Electrical: Pacific Gas & Electric

School District: Avenal Unified School District

Proposed Underground Water & Sewer per City of Avenal Standards

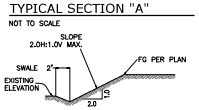
Proposed Surface Permanent Pavement, Curb, Gutter, Sidewalk, Street Lighting per City of Avenal Standards.

Street Utility Improvements Shall be Constructed as Required to Provided each Parcel Created with Permanent Street, Water and Sewer Services.

Subject Parcel Lies in Flood Zone "X", Defined as Areas of 500-year flood; areas of 100-year flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levies from 100-year flood, per NFPM, Flood Insurance Rate Map Community Panel Number 06031C0395C, effective date June 16, 2009.

TYPICAL SECTION "A"

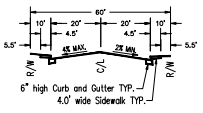
NOT TO SCALE



Proposed Street Section:

Street Construction to be per City Standard Requirements

Proposed Typical 60' Interior Street



Map Prepared by:

Tri City Engineering, Inc.

4630 West Jennifer Ave. Office: (559) 447-9075
Fresno CA 93722 Fax: (559) 447-9074
Email: Info@TriCityEngineering.com

Owner / Subdivider

Oasis Valley No. 1 LLC
P.O. BOX 670
HURON CA. 93234
PH: (559) 945 - 7810
Attn: KEN GONG

Existing Easements:

ALL EASEMENTS TO REMAIN, UNLESS CLEARLY NOTED OTHERWISE.

E# - NO EXISTING ONSITE EASEMENTS PRESENT

Proposed Easements:

THE FOLLOWING TO BE OFFERED FOR PUBLIC USE:

PE1 - A 10' WIDE PUBLIC UTILITY EASEMENT TO BE CREATED AT EACH PROPOSED LOT STREET FRONTAGE. ADJOINING TO PROPERTY LINE.

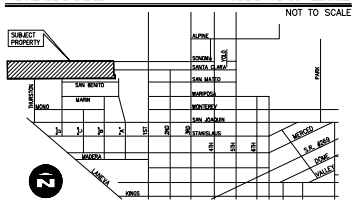
Legend:

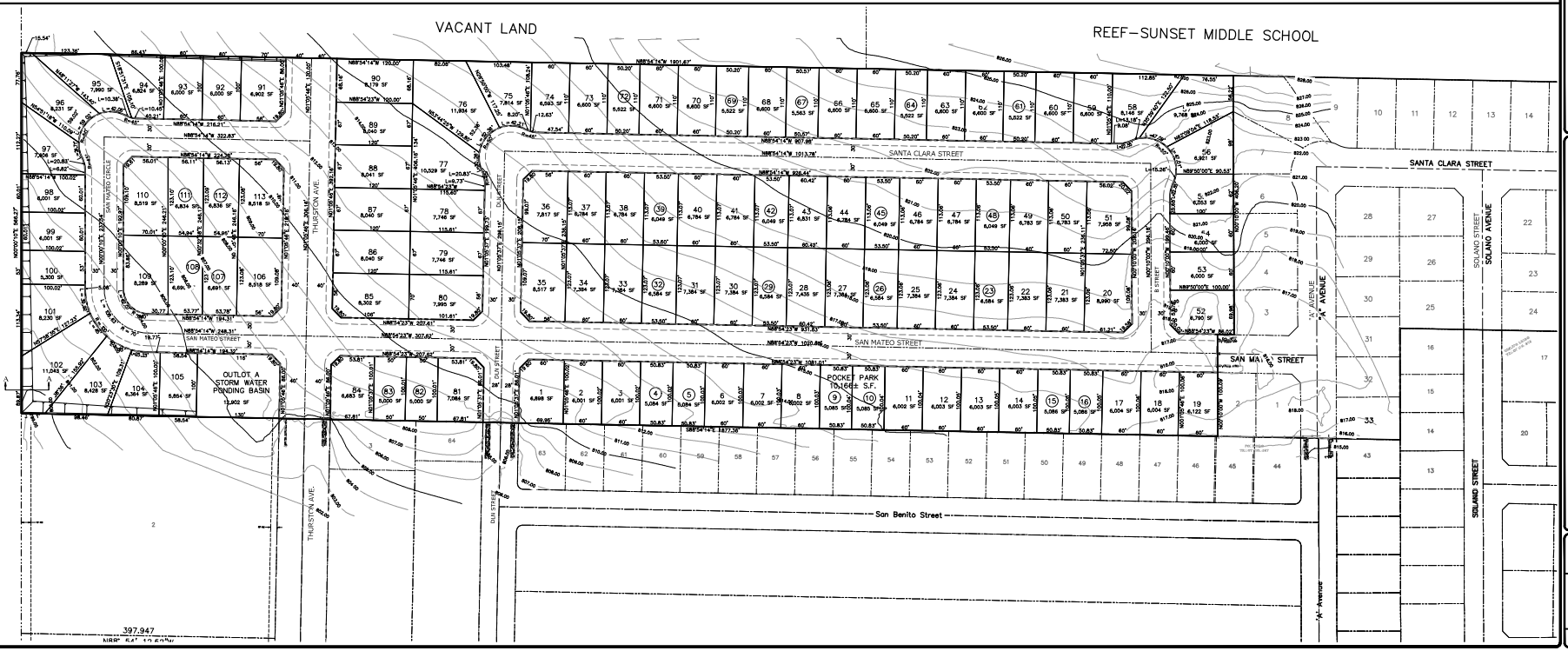
- Existing Parcel Boundary
- Proposed Parcel Division Line
- PE# — Refers to Proposed Easement - See Listing
- P# — Refers to Existing Easement - See Listing
- ☆ — Denotes Area to be Offered for Dedication for Public Street Purposes
- • — Property Boundary Bearings and Distances per Record Deed - See Legal Description.
- •• — Proposed Parcel Division Line Distances Shown are to the Nearest Foot.
- ••• — All Distances are in Feet & Decimal Feet thereafter, per Record.
- (1) — Indicates lot widths less than 60 feet

VICINITY MAP

CITY OF AVENAL

NOT TO SCALE





TENTATIVE SUBDIVISION MAP FOR:

OASIS VALLEY No. 1, LLC

AVENAL CALIFORNIA

Tri City Engineering, Inc.
Engineers
Surveyors
4630 W. Jennifer Ave. #101
Fresno, CA 93722-6416
PH: 559-447-9075
FAX: 559-447-9074
www.TriCityEngineering.com

Scale: 1"=80'
Date: 2021.Apr.13
Drwn: SZ
Chckd: DJ

SHEET NO.

C.1

OF 1 SHEETS

JN#: 2871

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental topics checked below would be potentially affected by this project in an adverse manner, involving at least one Environmental Issue/Significance Criteria that is a "Potentially Significant Impact" as indicated by the analysis in the following Evaluation of Environmental Impacts.

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

Determination: *(to be completed by the Lead Agency)*

On the basis of this initial evaluation:

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

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

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

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

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE

DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature of City Representative	Date
Kao Nou Yang	City of Avenal
Printed Name	For

EVALUATION OF ENVIRONMENTAL IMPACTS

The following instructions are for the evaluation of project impacts in the CEQA Environmental Checklist:

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4. "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures and briefly explain how they reduce the effect to a less than significant level.

5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:

a) Earlier Analysis Used. Identify and state where they are available for review.

b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6. Lead Agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances).Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

9. The explanation of each issue should identify:

a) the significance criteria or threshold, if any, used to evaluate each question; and

b) the mitigation measure identified, if any, to reduce the impact to less than significance.

PROJECT EVALUATION

Under CEQA, impacts are determined to be:

No Impact: The project will result in no direct or indirect impact on the environment.

Less Than Significant Impact: The project will result in a direct or indirect impact on the environment, but the impact is not substantially adverse.

Less Than Significant With Mitigation Incorporated: The project will result in a potentially significant adverse impact on the environment, but mitigation measures are identified to reduce the impact to a less than significant level.

Potentially Significant Impact: The project may result in a direct or indirect impact on the environment and the impact may be substantially adverse, but information is not known at the time to determine whether the impact would not be substantially adverse. If the impact is confirmed to be substantially adverse, it is determined to be a **Significant Impact**.

I. AESTHETICS	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
Except as provided in Public Resources Code Section 21099, would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c) In nonurbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☒	☐	☐

a) **No Impact**. Under CEQA, a scenic vista is defined as the viewpoint that provides expansive views of a highly-valued landscape for the public's benefit. Scenic vistas can be impacted either by constructing a structure that blocks the vista, or by altering the vista itself. No scenic vistas are adjacent to, or within the vicinity of the project site. As outlined in the General Plan, Scenic views in Avenal include views of the Kettleman Hills to the east and northeast, and the Kreyenhagen Hills to the west (Avenal. 2018). The project site is a vacant lot bounded by vacant property to the west and north, and residential neighborhoods to the south and east. While the project would construct new single-family residential structures, the structures would be similar to the residential uses directly south and east. As such, the project would not introduce a new visual obstacle to the existing scenic views, and no impact to scenic vistas because there are none.

b) **No Impact.** A scenic road can be defined as a highway, road, drive, or street that provides opportunities for the enjoyment of natural and human-made scenic resources, in addition to its transportation function. Scenic roads direct views to areas of exceptional beauty, natural resources or landmarks, or historic or cultural interest. According to the California Department of Transportation (Caltrans) Scenic Highway Program, there are no State-designated or eligible scenic routes located within Avenal. Therefore, no impact would occur to any state or locally designated scenic highway as a result of the proposed project.

c) **Less Than Significant Impact.** Degradation of visual character or quality is defined by substantial changes to the existing site appearance through construction of structures such that they are poorly designed or conflict

with the site's existing surroundings. While the site is currently vacant land, the proposed project will not be incompatible with the surrounding lots which are primarily residential. The proposed project includes single family residential lots, a park, and a storm water basin all of which will be in compliance with City design guidelines and applicable development standards. By incorporating these new improvements, no degradation will occur to the existing visual character or quality of the site itself, or surroundings. However, the project's construction related activities would result in short-term impacts to the area's visual character and quality. These impacts are temporary and would not result in permanent visual impact so they will have a less than significant impact. Standard construction practices and city guidelines will be followed so no mitigation is required.

d) **Less Than Significant Impact with Mitigation.** The proposed project will construct interior and exterior lights on/in 111 new homes as well as street lighting along the new private streets. These new varied sources of lighting could impact the surrounding properties, could impact individuals within the proposed development, and could contribute to an increase in the area's total ambient lighting. The proposed project includes planting of street trees which will help shield these new lighting impacts, especially as the trees mature.

Prior to issuance of building permits, project would be subject to Avenal's Policy Goal NR-4.2 "Minimize obtrusive light by limiting outdoor lighting that is misdirected, excessive, or unnecessary." All new lights would be required to have shielding or other light pollution limiting characteristics such as a hood or lumen restrictions, as well as spacing requirements per the City Construction Standards. The proposed project does not include construction of buildings or structures with large reflective surfaces that would amplify daytime glare. For these reasons, the project would result in less than significant impact concerning daytime and nighttime glare and as long as mitigation is incorporated.

> **Mitigation Measure: AES-1:** Prior to Building Permit issuance, the applicant shall submit an exterior lighting plan that shows shielding of any exterior lights such that lighting does not extend beyond the site. The plan shall identify the type and position of all lights and their compliance with Title 24 Lighting Requirements.
>
> **Mitigation Measure: AES-2:** Prior to Building Permit issuance, the applicant shall submit a project landscaping plan that improves project aesthetics and provides visual screening of ambient lighting and project built elements to existing viewer groups. Species shall be comprised of both native and regionally suitable non-native trees, shrubs, and plants of varying heights.

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

a) **No Impact**. The proposed project site does not have lands that are designated as Prime Farmland, Farmland of Statewide importance, or Unique Farmland.

b) **No Impact.** The Project area does not conflict with existing zoning for agricultural use or Williamson Act contract.

c) **No Impact.** The Project area does not conflict with existing zoning for forest land, timberland, or timberland zoned Timberland Production.

d) **No Impact.** The Project area and existing surrounding areas do not contain any forest land.

e) **No Impact.** There are no farmlands or forestry resources in the project vicinity.

III. AIR QUALITY	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. 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?	☐	☐	☒	☐

The project site is located in the eastern portion of the San Joaquin Valley Air Basin which is monitored by the San Joaquin Valley Air Pollution Control District (SJVAPCD). The region is currently in nonattainment for O3, PM10, and PM2.5 under the California standards, and O3 and PM2.5 under the national standards. Ozone is a secondary pollutant that can be formed miles from the source of emissions, through reactions of ROG and NOX emissions in the presence of sunlight. Therefore, ROG and NOX are termed ozone precursors.

To determine if a project would have a significant impact on air quality, the type, level, and impact of emissions generated by the project must be evaluated. For this analysis California Emissions Estimator Model (CalEEMod) version 2020.4.0 was used. The CalEEMod was developed by the South Coast Air Quality Management District in cooperation with other air districts throughout the State. The CalEEMod allows users to quantify construction and operational pollutants and emissions as a result of various inputted land use types. Construction emissions are those emissions which occur during the different phases of construction; ie. demolition, site preparation, grading, building construction, paving, and application of architectural coatings. Operational emissions are those emissions that occur when the project is occupied by the future residents. The major sources are motor vehicles, architectural coatings (painting), consumer products, landscape equipment, electricity, electricity consumption, natural gas, water and wastewater, refrigerants, solid waste, and vegetation.

While the final determination of whether a project is significant is left up to the lead agency pursuant to Section 15064(b) of the CEQA Guidelines, the SJVAPCD recommends that its quantitative air pollution thresholds be used to determine the significance of project emissions. SJVAPCD's annual emissions significance thresholds for both construction and operational emissions are as follows:

SJVAPCD Air Quality Thresholds of Significance - Criteria Pollutants

Pollutant/Precursor	Maximum Annual Emissions (tons/year)	
	Construction	Operation
Carbon Monoxide (CO)	100	100
Oxides of Nitrogen (NOx)	10	10
Reactive Organic Gases (ROG)	10	10
Sulfur Oxides (SOx)	27	27
PM_{10} Particulate	15	15
$PM_{2.5}$ Particulate	15	15
Source: SJVAPCD March 2015. Website: "http://www.valleyair.org/transportation/0714-GAMAQI-Criteria-Pollutant-Thresholds-of-Significance.pdf"		

Construction on the project is expected to begin May of 2022 and is expected to last 22-24 months. It is anticipated that construction phases such as site preparation, excavation/grading, paving, building construction, and architectural coating would occur sequentially and without overlap. The existing site is unimproved and contains no structures so no demolition phase is included in the analysis. According to preliminary site plans there will be a balance of earthwork quantities, therefore no export or import of soils are expected. CalEEMod defaults were utilized for construction phases, construction timelines, and equipment types and sizes. First operational use would occur as early as March of 2024. For the purposes of this report the unmitigated scenarios will be analyzed.

Construction Air Pollution Emissions Summary (Unmitigated)

Year	Maximum Annual Emissions[1] (tons/year)					
	ROG	NO_X	C0	SO_x	PM_{10}	$PM_{2.5}$
2022	**.2182**	**2.0221**	**1.8501**	**0.0039**	**0.4190**	**0.2179**
2023	**.2594**	**2.1593**	**2.5884**	**0.0057**	**0.2588**	**0.1327**
2024	**2.4433**	**0.1863**	**0.2712**	**0.0005**	**0.0180**	**0.0105**
Maximum	**2.4433**	**2.1593**	**2.58894**	**0.0057**	**0.4190**	**0.2179**
SJVAPCD Threshold	**10**	**10**	**100**	**27**	**15**	**15**
Emissions Exceed Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Notes:
ROG = reactive organic gases NOx = oxides of nitrogen PM10 = particulate matter 10 microns or less in diameter
PM2.5 = particulate matter 2.5 microns or less in diameter CO = carbon monoxide SO_x = sulfur oxides
Source: see CalEEMod model output

Operational Air Pollution Emissions Summary (Unmitigated)

Category	Maximum Annual Emissions (tons/year)					
	ROG	NO_x	CO	So_x	PM_{10}	$PM_{2.5}$
Area	1.6827	0.1119	4.5726	0.0125	0.6163	0.6163
Energy	0.0144	0.1229	0.0523	0.0008	0.0099	0.0099
Mobile	0.2764	0.3855	2.3861	0.0055	0.5835	0.1585
Total	**1.9734**	**0.6203**	**7.0110**	**0.0188**	**1.2098**	**0.7848**
SJVAPCD Significance Threshold	**10**	**10**	**100**	**27**	**15**	**15**
Emissions Exceed Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Notes:
NOx = oxides of nitrogen PM_{10} = particulate matter 10 microns or less in diameter ROG = reactive organic gases
$PM_{2.5}$ = particulate matter 2.5 microns or less in diameter CO = carbon monoxide
Source: see CalEEMod model output

a) **Less Than Significant Impact**. Per the SJVAPCD Guidance for Assessing and Mitigating Air Quality Impacts document otherwise known as GAMAQI, projects with emissions below the thresholds of significance for criteria pollutants would be determined to not conflict or obstruct implementation of the District's air quality plan. The results of the CalEEMod analysis indicate that none of the district's thresholds are exceeded; therefore there is less than significant impact.

b) **Less Than Significant Impact.** The region is currently in nonattainment status for ozone, PM2.5 and PM10. As shown the project does not exceed the district's thresholds for either of the ozone precursor's (ROG and NOX), PM2.5 or PM10 so the project does not contribute to those existing violations. Furthermore, the project will comply to all SJVAPCD rules and regulations including but not limited to SJVAPCD Rule 9510-Indirect Source Review (ISR) and Regulation VIII-Fugitive PM10 Prohibitions. Results of the CalEEMod modeling as well as compliance with all SJVAPCD's rules and regulations ensures that the project would be considered to not violate any air quality standard or contribute substantially to an existing or projected air quality violation.

c) **Less Than Significant Impact with Mitigation.** Sensitive receptors refer to those segments of the population most susceptible to poor air quality (children, the elderly, and those with pre-existing serious health problems affected by air quality). Sensitive receptors are most prevalently found in schoolyards, parks and playgrounds, daycare centers, nursing homes, hospitals, and residential communities. The closest off-site sensitive receptors are existing residences located adjacent to the project site to the south and east, and the school play field to the north. Once the project is complete, future residents would also be possible sensitive receptors.

Project construction would result in an increase in the localized emissions of both dust and diesel exhaust; however, this impact would be short term and would subside once construction is completed. Construction duration is anticipated to last 20-22 months, however the phase producing the greatest increase (grading and excavation) is expected to last only 35 to 45 days. Earthmoving activities of this project scale requires submittance of an approved dust control plan to the District identifying dust control measures. These dust control measures would minimize construction impacts on nearby sensitive receptors to less than significant levels. Construction diesel emissions are temporary, mobile and limited in number, impacting the local area for only a period of days or weeks. The health risk to sensitive receptors from construction diesel exhaust can also be deemed less than significant.

Once the project is built out the project is analyzed for possible operational emissions. Localized high levels of CO are typically a result of traffic congestion or slow-moving or idling vehicles. At project build-out the new localized streets will tie seamlessly into the existing neighborhoods to the east and to the south and allow easier access to the Thurston Avenue a 60' wide future collector. This will aid in vehicle speeds. No intersections within or near the project vicinity would suffer from a reduced Level of Service as a result of the minor increase in traffic. Based on the improved roadway connectivity and insignificant impact to the level of service to surrounding streets, no CO hotspots will occur. Additionally, CO emissions will continue to decline as older vehicles are phased out with newer cleaner vehicles.

The San Joaquin Valley is considered an endemic area for Valley Fever. Valley fever, or coccidioidomycosis, is an infection caused by inhalation of the spores of the fungus *Coccidioides immitis (C. immitis).* The existing project site being previously cultivated for many seasons makes it less than favorable for the C immitis fungus. Furthermore, fugitive dust will be minimized by complying with the District's rules and regulations. The potential to expose sensitive receptors to Valley Fever Spores is less than significant.

> **Mitigation Measure AIR-1:** Dust abatement will be on-going though the construction of the project. During clearing, grading, earthmoving, or excavation operations, excessive fugitive dust emissions shall be controlled by regular watering. Land disturbance outside the project area shall be minimized to prevent fugitive dust. All operations shall limit or expeditiously remove the accumulation of mud or dirt from adjacent public streets at the end of each workday. (The use of dry rotary brushes is expressly prohibited except where preceded or accompanied by sufficient wetting to limit the visible dust emissions). (Use of blower devices is expressly forbidden). Within urban areas, trackout shall be immediately removed when it extends 50 or more feet from the site and at the end of each workday.

d) **Less Than Significant Impact.** Existing and future land use does not fall in to the category of land uses typically identified as being sources of objectionable odors. During construction diesel powered equipment may create localized odors; however, these odors would be short term and are not likely to extend outside the site boundaries. Any potential odor impacts would be less than significant.

IV. BIOLOGICAL RESOURCES:	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a. Have a substantial adverse effect, either directly or through habitat modification, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☒
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☒
c. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☒
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

A site visit was conducted by Christopher Marks of Tri City Engineering on October 20, 2021. The project site is highly disturbed and consists entirely of fallow land which is regularly disked for fire suppression. The site lacks any substantial vegetation such as trees, brushes, or shrubs, and is covered mostly by non-native grasses. The project is located in an urban setting with residential uses to the South and to the West, and additional tilled fallow land to the north and east.

a) **No Impact**. An official species list was generated for the project by the Sacramento Fish and Wildlife Office through an Information and Planning Consultation (IPaC) query tool. Twelve threatened, endangered, or candidate species were identified as occurring within the :Avenal Quadrangle. The species included the Giant Kangaroo rat, San Joaquin Kit Fox, California Condor, Blunt-nosed Leopard Lizard, Giant Garter Snake, California

Red-legged Frog, California Tiger Salamander, Delta Smelt, Monarch Butterfly, Vernal Poll Fairy Shrimp, California Jewelflower, and San Joaquin Wooly-Threads. The site visit conducted on October 20, 2021 concluded that no potential habitat was present, no species were present, and no critical habitat was present within or adjacent to the project area. The project area is highly disturbed and regular tilling of the soil as well as development of the adjacent properties prohibits potential habitats to occur. There will be no impact to the species Identified.

b) **No Impact.** There are no riparian or other sensitive natural communities located on the project site.

c) **No Impact.** A search of the U.S. Fish and Wildlife Service National Wetlands Inventory produced no wetlands at or near the project site. The projects construction and long-term occupancy of homes will have no impact to federally protected wetlands.

d) **No impact.** The project site is not part of an established wildlife movement corridor based on the existing site characteristics. The site completely lacks rivers, streams, shrubs, or wooded strips that would facilitate any movement of wildlife species. Development of the project will have no Impact.

e) **No impact.** No trees are being removed as part of the project.

f) **No impact.** There are no areas within or near the project vicinity that are covered by an adopted or local, regional, or state conservation plan.

V. CULTURAL RESOURCES	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
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 dedicated cemeteries?	☐	☒	☐	☐

A prehistoric and historic site records and literature search was conducted for the project area through the Southern San Joaquin Valley Archaeological Information Center (SSJVAI) of the California Historical Resources Information System (CHRIS) on October 25, 2021, File number 21-419. The records indicate that one cultural study has been completed in the South Side of the project area, and one was completed within a one-half mile radius. There are no known recorded resources in the project area or within a one-half mile radius.

This is consistent with the Avenal General Plan 2025 EIR which found no evidence of cultural resources within the area.

A site inspection was completed by Christopher Marks of Tri City Engineering on October 20, 2021. The project site is highly disturbed and consists entirely of fallow land which is regularly disked for fire suppression. The site is surrounded by roadways and residential neighborhoods to the south and east. Scanning of the site was conducted from existing dirt roads that dissect the project area. No surface evidence was encountered that would suggest existence of archaeological resources within the project area.

A review of twenty-five historic aerials dating from year 1940 to year 2021 indicates that no structures have ever been constructed on the site. Additionally, regular tilling of the vacant land began as early as 1981 - leaving the site highly disturbed.

a) **No Impact**. There is no evidence for the presence of historical resources within the project area.

b) **Less Than Significant Impact with Mitigation.** The existing project site has been highly disturbed and tilled for fire suppression on a regular basis. The potential for encountering archaeological resources or human remains within the project site is low; however, discovering and destroying such resources or remains would be considered a potentially significant Impact. Mitigation measure CULT-1 and CULT-2 would reduce the Impacts to the a less than significant level should any resources or remains be encountered during construction.

> **Mitigation Measure CULT-1:** If prehistoric or historic-era cultural materials are encountered during construction activities, all work in the immediate vicinity of the find shall halt until a qualified archaeologist can evaluate the find and make recommendations. Cultural resource materials may include prehistoric resources such as flaked and ground stone tools and debris, shell, bone, ceramics, and fire-affected rock as well as historic resources such as glass, metal, wood, brick, or structural remnants. If the qualified archaeologist determines that the discovery represents a potentially significant cultural resource, additional investigations may be required to mitigate adverse impacts from Project implementation. These additional studies may include avoidance, testing, and evaluation or data recovery excavation. A copy of all actions shall be submitted to the Lead Agency.
>
> **Mitigation Measure CULT-2:** If human remains are discovered during construction or operational activities, further excavation or disturbance shall be prohibited pursuant to Section 7050.5 of the California Health and Safety Code. The specific protocol, guidelines, and channels of communication outlined by the NAHC, in accordance with Section 7050.5 of the Health and Safety Code, Section 5097.98 of the Public Resources Code (Chapter 1492, Statutes of 1982, Senate Bill 297), and Senate Bill 447 (Chapter 44, Statutes of 1987), shall be followed. Section 7050.5(c) shall guide the potential Native American involvement, in the event of discovery of human remains, at the direction of the county coroner.

c) **Less Than Significant Impact with Mitigation.** See b)

VI. ENERGY	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
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?	☐	☐	☒	☐

a) **Less than Significant Impact**. Energy use during the construction phase of the project is in the form of diesel fuel. Typical construction equipment for this scale of development includes excavators, dozers, tractors, loader, backhoes, graders, scrapers, cranes, forklifts, generator sets, welders, pavers, and rollers. While this project already falls below the San Joaquin Valley Air Pollution Control District emissions thresholds, the use of fuel-efficient vehicles and equipment would be utilized where feasible. Construction equipment is classified in tiers which are based upon established emissions standards. Generally speaking, the newer the equipment, the higher the tier the equipment is likely to have. For this project it can be expected that a minimum of tier 3 engines, or engines manufactured between 2006-2011, will be utilized. The use of tier 3 engines or newer will minimize fuel consumption over the course of construction. CalEEMod was utilized to estimate and calculate on-site fuel consumption during the construction phase. Total consumption is estimated to be 58,332 gallons, see table below for breakdown.

Construction Energy Consumption

Phase Name	Off road Equip-ment Type	total hrs	Amt	Us-age Hrs	HP	LF	HP-Hour	Fuel Consumption (gal)	Total per phase per day	days	total gal-lons per phase
Site Prep-aration	Rubber Tired Dozers	24	3	8.00	247	0.40	2371.2	121.40544			
Site Prepara-tion	Tractors/ Loaders/ Backhoes	32	4	8.00	97	0.37	1148.4	58.802176	180.2076	10	1802.076
Grading	Excavators	16	2	8.00	158	0.38	960.64	49.184768			
Grading	Graders	8	1	8.00	187	0.41	613.36	31.404032			
Grading	Rubber Tired Dozers	8	1	8.00	247	0.40	790.4	40.46848			

Grading	Scrapers	16	2	8.00	367	0.48	2818.5	144.310272			
Grading	Tractors/ Loaders/ Backhoes	16	2	8.00	97	0.37	574.24	29.401088	294.7686	35	10316.901
Building Construction	Cranes	7	1	7.00	231	0.29	468.93	24.009216			
Building Construction	Forklifts	24	3	8.00	89	0.20	427.2	21.87264			
Building Construction	Generator Sets	8	1	8.00	84	0.74	497.28	25.460736			
Building Construction	Tractors/ Loaders/ Backhoes	21	3	7.00	97	0.37	753.69	38.588928			
Building Construction	Welders	8	1	8.00	46	0.45	165.6	8.47872	118.41024	370	43811.7888
Paving	Pavers	16	2	8.00	130	0.42	873.6	44.72832			
Paving	Paving Equip..	16	2	8.00	132	0.36	760.32	38.928384			
Paving	Rollers	16	2	8.00	80	0.38	486.4	24.90368	108.56038	20	2171.2077
Architectural Coating	Air Compressors	6	1	6.00	78	0.48	224.6	11.501568	11.501568	20	230.03136
HP-Hour = Load Factor x Total Hours x Horsepower				1 gallon of diesel oil = 54.5796 HP-Hour Fuel Consumption = HP-Hour x .01832 of diesel oil						**Total**	**58332.00486**

The proposed project has no special construction requirements that would require unusual fuel consumption. The resulting project fuel consumption is comparable to other developments within the state of California of this size. For these reasons, construction related fuel consumption is not inefficient, wasteful, or unnecessary.

Operational energy use will occur once the development is occupied by residents. Energy use will come in the form of heating and cooling, refrigeration, lighting, electronics, and vehicle usage. CalEEMod was again utilized to estimate the energy demand at final occupancy. Annual energy usage is provided in the table below.

Energy by Land Use - Electricity

Land Use	Electrical Use (kWh/yr)	Natural Gas Use (kBTU/yr)	Average Daily Trip Rate (trips/day)
Single Family Housing (111 units)	885,110	2,668,170	1,048

The proposed project will meet all Title 24 Building Energy Efficiency Standards, specifically 2019 CALGreen Code standards. These standards set minimum efficiency and conservation requirements for energy, water, recycling, waste reduction, and material usage. In complying with Title 24 requirements, the project will not result in wasteful, inefficient, or unnecessary energy usage during project construction or operation.

b) **Less than Significant Impact.** As mentioned in a), the project will meet all Title 24 requirements and City of Avenal building codes. Adherence to state and local building codes ensures the project is consistent with all plans for renewable energy or energy efficiency.

VII. GEOLOGY AND SOILS	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
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? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒
ii. Strong seismic ground shaking?	☐	☐	☒	☐
iii. Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv. Landslides?	☐	☐	☐	☒
b. Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	☐	☒
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐
e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐

a.i) **No Impact**. The Alquist-Priolo Earthquake Fault Zoning Act (1972) delineates regulatory "Zones of Required Investigation" to increase public safety and minimize potential loss of life and property as a direct result of earthquake ground failures. While there are seven potentially active faults located within 70 miles of the City of Avenal (Avenal 2018), a quick search of the most recent Alquist-Priolo Earthquake Fault Zoning Map indicates

that the project site does not lie in a zone of required investigation or near a known earthquake fault. The earthquake hazards map is provided in the appendix for reference. A soils report conducted by Central Valley Testing, Inc. also supports this conclusion and is included in the appendix of this document.

ii) **Less Than Significant Impact.** Avenal lies within the county of Kings, in the San Joaquin Valley. The entire area as a whole is a seismically active area. According to the Avenal General plan for 2035, the nearby Thrust fault has the potential to produce earthquakes that reach 6.5 to 7.0 on the Richter scale. These earthquakes will result in strong ground shaking. However, strict adherence to all state and local building codes will ensure that the project will have a less than significant Impact of introducing any adverse effects to people or property due to strong seismic ground shaking when it does occur.

iii) **Less Than Significant Impact.** Liquefaction occurs when the soil turns to quicksand as a result of earthquake driven ground vibrations and cannot support structures. According to the Caltrans Geotechnical Manual Preliminary Screening of Potentially Liquifiable Soils document, potentially liquifiable soils can be identified using the several characteristics. They include groundwater table depth, age of soil, soil composition, results of penetration tests, and magnitude of earthquakes. Based on the attached soils report the soil characteristics exhibit a "low potential for liquefaction under seismic conditions; no mitigation measures will be necessary for liquefaction or seismic settlement" (Central Valley Testing).

iv) **No impact.** A search of the CGS Information Warehouse for Landslides indicates that there have been no landslides in the project area. See appendix of this document for Landslides Mapper. While absence of mapped landslides is not indicative of reduced probability or susceptibility, an area exhibiting numerous landslides would tend to be a cause for further investigation. Landslide susceptibility is based upon rock strength and slope of terrain. Even areas with weak materials can have very low susceptibility to landslides given very low slopes. The project site in question has a very low slope (1.27% average) to the southwest. Additionally, soil types reported at the location are not "weak" in nature. The lack of elevation change and the soil types analyzed in the soils report indicate that there is no potential impact to life or property due to landslides.

b) **Less Than Significant Impact.** A General Construction Permit issued by the State of California Central Valley Regional Water Quality Control Board (RWQCB) will be a required condition of approval for the project. As required by the state a Storm Water Pollution Prevention Plan (SWPPP) shall be developed and implemented. The SWPPP will Identify the appropriate best management practices (BMP's) to be used during construction to minimize erosion and sedimentation of the project site. Implementation of the

Once project build-out is complete the project site will have both permeable and impermeable surfaces. Storm water runoff from permeable surfaces will enter City storm drain network and will be deposited to the proposed storm water detention basin. Storm drainage infrastructure will be sized accordingly to account for the appropriate rain events.

By Implementing BMP's identified in the SWPPP, as well as sizing the storm drain network adequately for final build-out, development of the project would not result in substantial soil erosion or the loss of topsoil. No further mitigation is necessary.

c) **Less Than Significant Impact.** As indicated in previous responses the project site does not lie within a "Zone of Required Investigation", and the CA Seismic Hazards Mapping Program has not Identified any landslide hazards within the City of Avenal. Furthermore, the soils report does not indicate that there is a potential for liquefaction, and existing site slope and soil characteristics do not introduce the possibility for landslides. Compliance with all state and local building codes and regulations is adequate to conclude that development of the project will not cause the existing site to become unstable.

d) **Less Than Significant Impact.** Table 18-1-B of the Uniform Building Code (1994), has been added to the Appendix of this document for reference. According the soils report by Central Valley Testing, below the top 12 inches of soil clay was encountered and an expansion index of 73 and 79 was recorded between two different samples. These results correspond with a medium potential of expansion according to table 18-1-B of the Uniform Building Code (1994). Given that the soils possess a medium potential of expansion mitigation measure GEO-1 will be required. Mitigation measure GEO-1 would reduce potential project impacts from expansive soils to a less than significant level.

Mitigation Measure GEO-1: Prior to the issuance of project Building Permits, the applicant shall submit plans and specifications complying with all of the recommendations of the Geotechnical investigation. Subgrade to be compacted to 90% relative compaction based on ASTM D-1557-78. Compaction reports shall be supplied by the approved testing agency. Imported fill material shall be predominantly non-expansive granular material meeting the requirements set forth in the Geotechnical investigation.

e) **No Impact.** The proposed project will not use septic systems but will connect to the existing city of Avenal wastewater sewer infrastructure.

f) **Less Than Significant Impact with Mitigation.** Avenal General Plan 2025 EIR found no evidence of paleontological resources or unique geological features in Avenal. Furthermore, a site investigation found no evidence of such features on the surface. Disturbance to the soil associated with grading activities have the potential to unearth both paleontological resources or unique geological features; however implementation of mitigation measure GEO-2 will minimize the risk of disturbance to a less than significant level.

Mitigation Measure GEO-2: If any paleontological resources are encountered during ground disturbance activities, all work within 25 feet of the find shall halt until a qualified paleontologist as defined by the Society of Vertebrate Paleontology Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources (2010), can evaluate the find and make recommendations regarding treatment. Paleontological resource materials may include resources such as fossils, plant impressions, or animal tracks preserved in rock. The qualified paleontologist shall contact the Natural History Museum of Kings County or other appropriate facility regarding any discoveries of paleontological resources.

If the qualified paleontologist determines that the discovery represents a potentially significant paleontological resource, additional investigations and fossil recovery may be required to mitigate adverse impacts from Project implementation. If avoidance is not feasible, the paleontological resources shall be evaluated for their significance. If the resources are not significant, avoidance is not necessary. If the resources are significant, they shall be avoided to ensure no adverse effects, or such effects must be mitigated. Construction in that area shall not resume until the resource appropriate measures are recommended or the materials are determined to be less than significant. If the resource is significant and fossil recovery is the identified form of treatment, then the fossil shall be deposited in an accredited and permanent scientific institution. Copies of all correspondence and reports shall be submitted to the Lead Agency.

VIII. **GREENHOUSE GAS EMISSIONS**	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b. Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

a) **Less Than Significant Impact.** The total greenhouse gas (GHG) emissions for the project were modeled using CalEEMod version 2020.4.0 and shown in the table below. For this analysis, the project's carbon dioxide equivalents (CO_2e) will be examined. The half-life of CO_2 in the atmosphere is approximately 100 years, so while the construction phase for this project is only 22-24 months, the CO_2 or CO_2e produced lingers in the atmosphere long-term. The GHGs present in the atmosphere absorb radiant energy reflected by the earth and contribute to the global climate change. To account for the long-term presence of CO_2e produced during the construction phase, construction related GHGs will be amortized over 30 years and added to the operational GHG emissions. These numbers are summarized in the table below.

Project Construction Greenhouse Gas Emissions

Year	MTCO2e per year
2022	355.1258
2023	522.5746
2024	45.0613
Total	522.5746
Amortized over 30 years	17.42

Total operational emissions from resident occupancy were also modeled by CalEEMod Version 2020.4.0. There are many design features for the project that inherently reduce greenhouse gas emissions. The project will increase destination accessibility by being located near downtown Avenal, increase transit accessibility by being located near route 12 of the kings area rural transit (KART), and improve development design by enhancing walkability and connectivity through sidewalk and intersection density. These design features reduce vehicle trips and as a result reduce greenhouse gas emissions. California Air Pollution Control Officers Association (CAPCOA), the same entity who created CalEEMod, published methods for quantifying individual design features. CalEEMod users have the option of including these design features in their simulations to view site specific impacts. A summary of the operational emissions with these design features applied are shown in the table below.

Project Operational Greenhouse Gas Emissions

Source	MTCO2e per year
Area	49.7541
Energy	225.9332
Mobile	282.1268
Waste	82.1942
Water	14.9917
Operations Total	**654.9999**

Per the SJVAPCD Fact Sheet "demonstration of a 29 percent reduction in GHG emissions, from business-as-usual, is required to determine that a project would have a less than cumulatively significant impact. To determine the Business-as-usual (BAU) baseline scenario, year 2005 model assumptions were inputted into CalEEMod version 2020.4.0. The 2005 BAU model scenario will effectively represent conditions where no regulations have been adopted to reduce project GHGs. Full assumptions and CalEEMod model outputs are provided in the Appendix. A summary of the BAU baseline scenario results are shown below.

BAU Baseline (2005 Scenario) Greenhouse Gas Emissions

Source	MTCO2e per year
Construction	
Amortized Construction Emissions	**21.84**
Operations	
Area	59.7759
Energy	225.9332
Mobile	936.9577
Waste	82.1942
Water	14.9917
Operations Total	**1,309.8526**

A summary of the Project GHG emissions compared to the business-as-usual for the project are shown in the table below.

Project GHG Emissions Compared to BAU Baseline Emissions

Source	Business as Usual	Emissions ($MTCO_2e$ per year) 2022 Project	Percent Reduction
Amortized Construction Emissions	21.84	17.42	20.24%
Operational	1,309.8526	654.9999	49.9%
Total	**1,331.6926**	**672.4199**	**49.51%**
	Reduction from BAU	**659.272**	—
	Percent Reduction	**49.51%**	—

The amount of CO_2e emissions that would be generated by the project are less than the 2005 BAU emissions for the project by 659.272 metric tons per year, which is a 49.5% reduction. This exceeds the 29% minimum reduction threshold set by SJVAPCD; therefore, the project has a less than significant impact.

b) **Less Than Significant Impact.** The City of Avenal does not have a standalone GHG reduction plan; however, the city did participate in a collaborative planning effort to develop a Regional Climate Action Plan. The Final Regional Climate Action Plan was accepted by the City of Avenal on May 8, 2014. The SJVAPCD threshold for GHG reduction is more stringent than the regional CAP, therefore in meeting the minimum threshold set forth by SJVAPCD (see "a)" above), the project does not conflict with any applicable plan, policy, or regulation.

IX. HAZARDS AND HAZARDOUS MATERIALS	**Potentially Significant Impact**	**Less Than Significant With Mitigation**	**Less Than Significant Impact**	**No Impact**
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 one-quarter mile of an existing or proposed school?	☐	☐	☒	☐
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code § 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☒	☐
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
g. Expose people or structures either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	☐	☐	☐	☒

a) **Less Than Signification Impact**. The proposed project constructs 111 single family residential homes, a pocket park, a storm water retention basin, and an internal roadway network. Fuels, oils, mechanical fluids, and chemicals typical of home construction will be among some materials transported, stored, used and disposed of during construction. All chemicals would be accompanied by their applicable Material Safety Data Sheets (MSDS) and all state and local requirements would be followed for usage and disposal. This includes compliance with National Pollution Discharge Elimination System (NPDES) general permit requirements and SWPPP implementation. Impacts during the construction phase are deemed less than significant.

Upon project build-out, future residents may use common household cleaners, paint, etc.. These operational impacts are deemed less than significant.

b) **Less Than Significant Impact:** A search of the Department of Conservation's Well Finder Map found no oil or gas wells within a half mile of the project site. The two closest wells are Well 1-17 operated by Vintage Production California and Well 318-11P operated by California Resources Production Corporation. Well 1-17 has a status of canceled and is located 4,675 feet northeast of the project site and well 318-11P is a new well located 10,165 feet to the NW. Neither well will Impact development of the proposed site.

A search of the State Water Board's GeoTracker database revealed no leaking underground storage tanks sites within one-half mile of the project site. The closest site of a leak is 3,660 feet to the south east and was cleaned up in 1992. This site poses no significant impact.

A search of the Department of Toxic Substances Control (DTSC) EnviroStor database for hazardous waste and substance sites showed no sites within a half mile. The closest site, 1.23 miles to the southeast received a "no further action" determination in June of 2000 by the DTSC after site surface samples tested below the detection limits for the potential contaminants. This site poses no significant Impact.

c) **Less Than Significant Impact.** Reef-Sunset Middle School is located on the adjacent property to the northeast. The proposed project land use is not of the type to emit hazardous materials or substances. Any construction related emissions would be short term, and less than significant. Project Impacts would be less than significant to the neighboring school.

d) **Less Than Significant Impact.** See b) above.

e) **No Impact.** The project does lie within an airport influence area per the Kings County Airport Land Use Compatibility Plan.

f) **No impact.** The city's general plan does not identify specific evacuation routes. The Kings County Health and Safety Element of the 2035 General Plan Illustrates the primary evacuation routes across the county. Highway 269 and interstate 5 are shown as primary routes, while Avenal Cutoff Road is shown as a secondary route. The proposed project at completion will provide greater connectivity to these primary and secondary evacuation routes with the creation of internal streets. Existing dead-end streets in the residential neighborhoods to the

south and east will now have direct thoroughfare to Thurston Avenue and San Joaquin Avenue Street allowing quicker egress.

g) **Less Than Significant Impact** The existing site and the site to the north is vacant land that is tilled regularly for fire protection. Per the Avenal General Plan the existing site lies in a moderate fire hazard severity zone. Development of the site to a residential neighborhood complete with a network of water mains and fire hydrants would decrease the risk of wildfire below what currently exists. Therefore, the risk for wildland fires is less than significant.

X. HYDROLOGY AND WATER QUALITY	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☒	☐	☐
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☐	☒
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i) result in substantial erosion or siltation onsite or offsite;	☐	☐	☒	☐
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding onsite or offsite;	☐	☐	☒	☐
iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of pollutant runoff, or	☐	☐	☒	☐
iv) impede or redirect flood flows?	☐	☐	☒	☐
d.In a flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☒	☐
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☒

a) **Less Than Significant Impact with Mitigation**. Construction activities could create large areas of bare soil that when exposed to rain events could result in erosion and possible sedimentation. To mitigate possible construction related runoff, the construction site will be subject to all NPDES General Permit requirements, including development and Implementation of a SWPPP. To ensure compliance and a less than significant impact, the development would be subject to mitigation measure HYDR-1

Mitigation Measure HYDR-1: Prior to issuing of grading or building permits, the Project applicant shall submit to the City 1) the approved Storm Water Pollution Prevention Plan (SWPPP) and 2) the Notice of Intent (NOI) to comply with the General National Pollutant Discharge Elimination System (NPDES) from the Central Valley Regional Water Quality Control Board (RWQCB). The requirements of the SWPPP and NPDES shall be incorporated into design specifications and construction contracts. Best management practices (BMP's) shall be applicable to site conditions and be Identified on a water pollution control drawing.

b) **No Impact.** Construction phases and operational uses will not require groundwater withdrawal. Water at all life stages of the project will source water from the City of Avenal domestic water services.

c.i) **Less Than Significant Impact.** Please see a) above. There are no streams or rivers near the site. Existing topography is relatively flat, with all surface water draining to the southwest. The project will create driveways, sidewalks, and an internal network of roadways which will increase the imperviousness of the site. Substantial erosion or siltation onsite or offsite is not expected to occur. New stormwater facilities will be adequately sized to capture any off-site and on-site stormwater runoff. Additionally, the site includes landscaping areas and a pocket park that would allow for natural percolation of any surface water not directed to new or existing drainage facilities.

ii) **Less Than Significant Impact.** See c.i) above. The project is not within a floodplain as identified on FEMA Flood Insurance Rate Map (FIRM) Panel 395. The map has been included in the appendix of this document. The site lies within zone x, indicating an area outside of the 0.2% annual chance floodplain.

iii) **Less Than Significant Impact.** See answers a), c.i), and c.ii) above. The project as part of conditions of approval includes design and calculations of new permanent stormwater and sewer facilities. Capacities of on-site sewer mains, stormwater trunklines, and detention basins would be adequately sized in accordance with professional engineering design practices in accordance with all local and state requirements.

iv) **Less Than Significant Impact.** See answers a) and c) above. All facilities would be sized accordingly to capture runoff from impervious surfaces. There are no rivers or streams within or near the project site.

d) **Less Than Significant Impact.** See answer c.iv) above.

e) **No Impact.** The City of Avenal does not source groundwater for its municipal water supply. Construction and Operational uses of water would not deplete groundwater supplies and as a result the project would not conflict with any groundwater management plan (Avenal. 2018).

XI. LAND USE AND PLANNING	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a. Physically divide an established community?	☐	☐	☐	☒
b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒

a) **No Impact**. The proposed project is 111 single family residences. The project will not create any division or barriers to the adjacent residential land uses to the south and east, but will serve to better connect the established community. No impact will occur and no mitigation is required.

b) **No Impact**. The City of Avenal General Plan designates the site as R-1, Single Family Residential. The proposed project will develop 111 single family homes. The project is consistent with the land use plan, policies, and growth goals from the City of Avenal's General Plan.

XII. MINERAL RESOURCES	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local General Plan, specific plan, or other land use plan?	☐	☐	☐	☒

a) **No Impact**. A search of the Mineral Land Classification (MLC) Studies index show no known mineral resources or Mineral Resource Zones near the project site (refer to appendix for map). Furthermore, from the Hazards and Hazardous Materials section, while it was determined that there are gas and oil wells located near the project site, no capped, operating, or planned wells are shown within a half mile radius of the site. The project will have no impact on a known mineral resource that would be a value to the region or to the state.

b) **Less Than Significant Impact.** From a) above, there are no known mineral resources within or adjacent to the project site. The project will have no known impact.

XII. NOISE	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☒	☐	☐
b. Generate excessive ground borne vibration or groundborne noise levels?	☐	☐	☒	☐
c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

a) **Less Than Significant with Mitigation.** From the City of Avenal General Plan noise levels below 60 dB are generally acceptable, levels between 60 and 70 dB are marginally acceptable, and level over 70 dB are typically unacceptable. Construction related activities will contribute to the noise environment of adjacent residential neighborhoods and school. Construction noise can be intrusive due to its high output and repetitive nature. Decibel levels for typical construction equipment is often 80 dB, but can reach peak levels 88 dB or higher. While noise from construction may operate or peak at decibel levels above what is acceptable, the noise is short term and unavoidable. In an effort to mitigate potential impact, and reduce the timing and levels of construction noise, the project construction activities will be subject to mitigation measure NOISE-1.

Mitigation Measure NOISE-1: Reduce noise from construction activities by requiring sound attenuating devices on construction vehicles and equipment. Restrict construction activities to the hours between 7 am and 9 pm Monday through Friday and 8 am and 5 pm on Saturday and Sunday from all construction project unless it can be shown that construction outside those times would not increase noise impacts to sensitive receptors.

The primary source of long term operational noise at the project site will be traffic to and from the project site and from traffic traveling along route 33. The proposed homes closest to the roadway will be 650 feet away. The distance, coupled with a 6 foot perimeter block wall will help attenuate any traffic related noise received by future occupants and keep roadway noise levels below the acceptable level of 60 dB.

The project will add 1,048 trips per day to the circulation at full build-out. This relatively low number of trips is not expected to increase ambient noise by a significant amount. The area is active with trips from adjacent

residential land uses, noise from the nearby school, and agriculture noise from the northwest. The project will not introduce a new significant source of noise that is not already present within the area. Noise impacts from construction and operation are considered less than significant.

b) **Less Than Significant Impact.** No demolition of structures is required for this project. No blasting or pile driving during construction is expected. Project grading and excavating equipment as well as vibratory rollers during paving may generate minor ground-borne vibrations. Duration of vibrations would be momentary within the 22-24 month construction period and are not expected to significantly impact nearby residential neighborhoods or structures. Occupancy of the 111 residents would generate no ground-borne vibration.

c) **Less Than Significant Impact.** The proposed project site is located approximately 0.5 miles away from the nearest hangar at Avenal Airport CA69. CA69 is a gliderport airport that is home to six single engine airplanes (AirNav). There are no public airports within the area. The exposure of construction workers or future residents to excessive aircraft noise is less than significant.

XIV. POPULATION AND HOUSING	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a. Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

a) **No Impact**. The current Avenal population is 14,052 and The City of Avenal General Plan calls for it to grow to 16,039 by 2025 (Avenal. 2018). To house this population, the City has a goal of constructing 433 residences by 2025. The 111 new homes associated with the proposed project are expected to house a population of 454 people. Housing growth and population growth is in line with the City's general plan. Furthermore the 24.63 acre site falls in an area that is identified for future development. Population growth as a result of this project is planned.

b) **No Impact.** The existing site is vacant land and would no displace existing people or housing.

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

a) **Less Than Significant Impact With Mitigation**. Existing fire services to the project site are already provided by the Kings County Fire Department (KCFD) through Station #12. Station 12 is located on 516 Fresno Street, which is 0.75 miles southwest of the project site. Response time to the project site is approximately 5-7 minutes. The project is not expected to affect fire response times because the site is already within the KCFD service area. The project would not call for additional fire protection facilities to be developed. The project would be developed in compliance with the California Building Code and Uniform Fire Code. Fire lanes, fire hydrant spacing, water main sizing, and emergency vehicle accessibility are just a few of the fire safety elements that would be a part of the final design. In meeting all design requirements, any impacts will be less than significant. To further mitigate any impacts the developer will be subject to mitigation measure PUB-1 which requires payment of any public service fees associated with the development.

Mitigation Measure PUB-1: Prior to the issuance of grading or building permits, the Project developer shall pay applicable fees as required by Kings County Adopted Public Facilities Fees, Reef Sunset Unified School District Developer fees, City of Avenal Park Impact Fees, and City of Avenal General Government Impact Fees.

The Avenal Police Department (APD) provides law enforcement services to the City of Avenal along with the Kings County Sheriff's Office. The APD located at 317 Alpine street in Avenal and is located approximately a half mile from the Project site. The site is also within the jurisdiction of the California Highway Patrol (CHP).

Neither the APD nor the CHP would need to expand its existing service area or construct a new facility to serve the project site. Impacts will be less than significant.

The project site is located in the Reef Sunset Unified School District. Development of 111 single family residence homes is expected to increase the enrollment of at some or all of the District's schools; no roads, facilities, or additional infrastructure is anticipated to be built as a result. To offset any significant impacts the developer will be subject to mitigation measure PUB-1 which requires payment of school developer fees.

Future residents would have access to both Avenal Neighborhood Park and Floyd D Rice Park located within city limits. They would also have access to several public parks in the neighboring communities of Coalinga, Huron, Hanford, and Lemoore. The increase of 454 persons resulting from the project is not expected to impact existing facilities. Furthermore, the project includes development of a 10,166 SF community park within the project site between DLN Street and B Street. Development of the park as part of the project reduces any impact that could be incurred on other parks. The developer will further reduce impact with payment of any applicable park impact fees in PUB-1.

No other public or government facilities would be impacted by the proposed project.

XVI. RECREATION

a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☒	☐
b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☒	☐

a) **Less Than Significant Impact.** As discussed in a) above the project 454 additional persons would increase the use of existing parks and facilities; however the impact is deemed less than significant. Furthermore, the project develops 10,166 SF within the project site as a pocket park. Development of this park offsets the service ratio expected by existing parks. Creation of a new pocket park coupled with mitigation measure PUB-1 would result in a less than significant impact.

b) **Less Than Significant Impact.** While the project does not create new recreational facilities, the addition of 454 persons will not have a significant impact. Additionally, payment of applicable developer fees required in part by mitigation measure PUB-1 offset the cost for maintenance and upkeep of existing facilities. The project will have less than significant impact.

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

a) **Less Than Significant Impact**.

The proposed development for 111 single family homes sits west of N "A" Avenue and north of San Benito Street. Construction of an internal network streets to serve the neighborhood include east-west streets San Mateo Street, San Mateo Circle, and Santa Clara Street, and north south streets of Thurston Avenue, DLN Street, and "B" Street. Connection to existing roadway networks will be via Thurston Avenue, DLN Street, and San Mateo Street. All streets are 60' wide except for Thurston which is an 80' wide street that will serve as a collector street for proposed and future development. Approximate occupancy date of the project is year 2024.

Traffic movements to and from the site will be exclusively to the south and east as there are currently no developments or connecting roadways to the north or west. Traffic control immediately adjacent to the project site consists of both uncontrolled intersections and stop sign controlled intersections. There are no signalized intersections within a half mile of the project site. It is expected that 100% of the traffic traveling to and from the project site will pass through the intersections of Thurston Street and San Joaquin, "C" Street and San Joaquin, and "A" Street and San Joaquin. San Joaquin Street is an existing two-lane collector street that intersects with State Route 33 at its west end and State Route 269 on its east end. San Joaquin Street sees an average daily traffic of 660 and operates at an "A" level of service (Avenal, 2018).

From the City of Avenal General Plan the threshold for acceptable traffic operations at all City intersections and roadways segments is a Level of Service (LOS) "C". Any project that drives roadway or intersection levels of service to LOS "D" would be deemed as having significant impact. A look at the table below shows vehicle service volumes for urban streets for varying LOS classifications for Stop Sign Controlled Roadways.

Roadway Classifications Level of Service and Average Daily Traffic

Functional System	LANES	Level of Service B Service Volume	C Service Volume	D Service Volume	E Service Volume
Princ. Arterial	2	7,600	11,100	12,400	13,600
Minor Arterial	2	6,800	10,200	11,500	12,600
Collector (with 2-way left turn)	3	5,900	9,300	10,600	11,700
Collector	2	5,200	8,500	9,800	10,900

Source: US Department of Transportation. FHA: Simplified Highway Capacity Calculation Method Table 16

Looking at the above table, a 3-lane collector street would need to have a service volume of 10,600 ADT before reaching a "D" LOS. San Joaquin currently has an ADT of 660. For project traffic impacts to be significant the ADT at San Joaquin would need to be increased by 9940.

The proposed project trip generation rates were estimated in accordance with the Institute of Transportation Engineers (ITE) Trip Generation Manual 10th Edition. Trips generated are shown in the table below.

Trip Generation Rates For ITE Land Use Code 210

Trip Generation Rates									
			AM Peak Hour			PM Peak Hour			
Land Use	Source[1]	Unit[2]	% In	% Out	Rate	% In	% Out	Rate	Daily
Single Family Housing	ITE 210	DU	25%	75%	0.74	63%	37%	0.99	9.44

Trips Generated									
			AM Peak Hour			PM Peak Hour			
Land Use	Quantity	Unit[2]	In	Out	Total	In	Out	Total	Daily
Singe Family Housing	111	DU	21	61	82	69	41	110	1048

Source: ITE Trip Generation Manual-10th Edition

An estimated 1048 trips will be generated daily as a result of the project. Of those trips AM Peak Hour trips and PM Peak hour trips are calculated. From the table, AM trips are expected to peak at 82 trips and PM trips would peak just over 100. The project generated trips are insignificant when compared to the number of trips needed to change San Joaquin and its intersections from LOS A to LOS D. Traffic impacts are less than significant.

b) **Less Than Significant Impact.** As of July 1, 2020, public agencies are subject to Senate Bill 743 which replaces level of service (LOS) analysis with vehicle miles traveled (VMT) for projects qualifying to meet CEQA

requirements (Cal DOT SB 743). The VMT thresholds and guidelines for determining the impact a project will have on transportation will be discussed and analyzed.

In the technical advisory, the Office of Planning and Research (OPR) concludes that a residential development that would generate vehicle travel that is 15 or more percent below the existing residential VMT per capita, measured against the region or city, may indicate a less-than-significant transportation impact. For this analysis Kings County will be measured against.

According to Highway Performance Monitoring System (HPMS) Data, Kings County has a measured daily VMT of 1,471,690. From the most recent census the population of Kings County is 152,940. The resulting VMT per capita is 9.62. This same value can be reached by using the Kings County Online VMT Mapping Tool (see appendix). Per the OPR technical advisory in order for the project to have a less than significant transportation impact a project specific VMT per capita must be 15% below that of the existing regional VMT per capita. Therefore, the threshold for significance of impact is 8.2 VMT per capita.

To calculate project VMT CalEEMod version 2020.4.0 was used. By default, CalEEMod uses only very general estimates for trip length based on county-wide averages. To account for this, data from both the 2017 Survey of Travel Trends conducted by NHTS and California Statewide Travel Demand Model (CSTDM) was used to input project site specific values.

The project site is in close-proximity to both SR 269 and I-5 so it is assumed that approximately 30 percent of project generated trips would be regional trips using either of these highway systems. To estimate regional length of trip the CSTDM data for traffic analysis zones (TAZ) 2063 and 2604 was averaged. The results are a home-work (H-W), home-shopping (H-S) and home-other (H-O) trip length that is specific to regional travelers with the project site as their base. The remaining 70% of project generated trips are assumed to be local trips. From NHTS data, the average local trip length is 1.19 miles--which is consistent with Avenal's small geographic footprint. To input into CalEEMod, weighted averages for H-W, H-S, and H-O values were determined. CalEEMod defaults for trip generation values and trip distribution are taken from the Institute of Transportation Engineers, Trip Generation Manual 10th Edition. 2010 census data was used to determine the project population based on residents per household and construction of 111 households. All CalEEMod outputs are provided in the appendix, but a summary of the results for VMT analysis are provided in the following table.

Project Generated Trip Summary

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	1,047.84	1,058.94	949.05	1,544,964	778,752

The mitigated Annual VMT is reached after applying features inherent to the project's design that reduce the number of vehicle trips made by future occupants. The project will benefit from increased destination accessibility, increased transit accessibility, and improved development design as described in the greenhouse gas emissions section. An annual VMT of 778,752 results in a daily project VMT of 2,133.57. Applying a project population of 454 yields a VMT per capita of 4.69 which is below the Kings County threshold of significance value of 8.2 VMT per Capita. Transportation related impacts from the project are therefore less than significant.

Project reductions in VMT are a result of features inherent in the design and location of project site. No additional mitigation measures are required.

c) & d) **No impact.** The project has been designed in accordance with all city road and improvement standards. Internal roadway network and connecting roadways provide adequate egress/ingress for emergency vehicles. No impact is expected to occur.

XVIII. TRIBAL CULTURAL RESOURCES	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code § 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, scared place, or object with cultural value to a California Native American tribe, and that is:	☐	☒	☐	☐
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	☐	☒	☐	☐
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 § 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code § 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☒	☐	☐

a) **Less Than Significant Impact with Mitigation.** See discussion in Section V. Cultural Resources. There is no evidence for the presence of tribal historical resources within the project area, however incorporation of Mitigation Measures CULT-1 and CULT-2 will ensure that any impacts are less than significant.

i.) and ii) See above.

XIX. UTILITIES AND SERVICE SYSTEMS	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a. Require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	☐	☐	☒	☐
c. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐
d. Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐
e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☒	☐

a) **Less Than Significant Impact.** The project constructs single family homes on a site designated in the Avenal General Plan for residential development. Proposed on-site sewer and water infrastructure placed within roadway right of way throughout the project site and will connect to existing City of Avenal sewer and water infrastructure. Sewer will be conveyed to the Avenal Wastewater Treatment Plant which has set aside approximately 0.35 mgd of its capacity for planned growth (Avenal, 2018). Sewer impacts are considered less than significant.

The City of Avenal's water supply comes from the San Luis Canal. Water and is allocated to the City of Avenal via an agreement with the U.S. Bureau of Reclamation (USBR). Water allocation from the USBR varies between a full allocation of 3500 acre-feet per year, to a percentage of historical use during drought years. After being pulled from the canal, water is conveyed to the City's Water Treatment Plant. The water treatment currently operates at 36% below its design capacity for the treatment of water (Avenal 2018). From the CalEEMod simulation the project is anticipated to use approximately 11,791,470 gallons (36.18 acre-feet) of water annually. The proposed project's water demand will not trigger the construction or expansion of existing water facilities. Additionally, while City water allocation is subject to reduction by the USBR, the City anticipates sufficient water to serve planned future developments.

Pacific Gas & Electric provides all natural gas and electrical needs for the city. Per the General Plan, existing facilities are adequately sized to meet the demand of all existing and planned developments. AT&T provides all telecommunications needs. The construction of new or expanded facilities are not expected to be required for these utilities.

b) **Less Than Significant Impact.** see a)

c) **Less Than Significant Impact.** see a)

d) **Less Than Significant Impact.** All project waste would be conveyed to the existing City of Avenal Landfill located approximately 1.16 miles northeast of the project site. The landfill is owned by the City of Avenal and operated by Madera Disposal Systems. As of 8/31/2020 the remaining capacity was 28,900,000 of 36,300,000 and has a ceased operation date of 03/31/2056 (California Department of Resources Recycling and Recovery). It is not expected that waste generation from construction or future occupancy will have a significant impact. Moreover, future residents would be subject to all waste reduction and recycling programs implemented by the City to divert waste from the landfill. The project does not and would not conflict with federal, state and local statues and regulations related to soldi waste.

e) **Less Than Significant Impact.** From the discussion above, the Avenal Regional Landfill has sufficient capacity to store all construction and occupancy generated waste. The development would be subject to any and all City and county rules and regulations regarding waste diversion and recycling goals.

XX. WILDFIRE	**Potentially Significant Impact**	**Less Than Significant With Mitigation**	**Less Than Significant Impact**	**No Impact**
If located in or near state responsibility areas or lands classified as very high or 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 slope instability, or drainage changes?	☐	☐	☒	☐

a) **Less Than Significant Impact.** The project is consistent with the Kings County Emergency Operations Plan (EOP) and will comply with all local and state regulations including but not limited to the Uniform Fire Code. The proposed project would not inhibit any roadways, but instead create better connectivity through the construction of the projects internal roadway network. The project would have less than significant impact.

b) **Less Than Significant Impact.** The existing site gently sloped and currently poses a greater wildfire risk than the proposed development. The existing vacant lot requires regular tilling for fire prevention and has no water mains or hydrants. The proposed development would meet all building and local fire code requirements. Impacts are less than significant.

c) **Less Than Significant Impact.** All new infrastructure would be constructed in accordance with all state and local regulations. The proposed project site sits adjacent to similar residential land uses so no new access road, fire breaks, or emergency access roads would be required. The site to the north of the project site is also vacant land that receives regular tilling for fire suppression. There would be no exacerbation of fire risk.

d) **Less Than Significant Impact.** See also geology and soils section. The site is not within a floodplain, nor is the site at risk for downstream flooding or landslides due to runoff or post fire slope instability. Impacts are less than significant.

XXI. MANDATORY FINDINGS OF SIGNIFICANCE	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
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 rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☒	☐
b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	☐	☐	☒	☐
c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

a) **Less Than Significant Impact.** The project will not substantially degrade the quality of the environment and would not have an impact to fish or wildlife or plant species. The project site is currently vacant land that is highly disturbed due to regular tilling. The project does not include the removal of any trees, structures, or riparian habitats or any suitable habitats for species identified by the US Fish and Wildlife Department as possibly residing in the area. Additionally, there are no known cultural or prehistoric resources or artifacts located on the project site.

b) **Less Than Significant Impact.** The proposed development is consistent with the planned buildout of the City of Avenal General Plan 2035. Application of project specific mitigation measures related to air quality, cultural resources, geology and soils, hydrology and water quality, noise and vibration, and public services and recreation have been identified in this impact checklist. These mitigation measures reduce any potentially project-specific significant impacts to less than significant levels. These less than significant impacts would not otherwise be cumulatively considered when viewed in connection with previous, current, or future planned growth.

b) **Less Than Significant Impact.** As described in this impact checklist, the project would not cause substantial adverse effects on human beings during the construction or operational phases. All possible impacts that could be seen as significant have been identified and mitigated to a level that make them less than significant.

SUMMARY OF MITIGATION MEASURES

AES-1: Prior to Building Permit issuance, the applicant shall submit an exterior lighting plan that shows shielding of any exterior lights such that lighting does not extend beyond the site. The plan shall identify the type and position of all lights and their compliance with Title 24 Lighting Requirements.

AES-2: Prior to Building Permit issuance, the applicant shall submit a project landscaping plan that improves project aesthetics and provides visual screening of ambient lighting and project built elements to existing viewer groups. Species shall be comprised of both native and regionally suitable non-native trees, shrubs, and plants of varying heights.

AIR-1: Dust abatement will be on-going though the construction of the project. During clearing, grading, earthmoving, or excavation operations, excessive fugitive dust emissions shall be controlled by regular watering. Land disturbance outside the project area shall be minimized to prevent fugitive dust. All operations shall limit or expeditiously remove the accumulation of mud or dirt from adjacent public streets at the end of each workday. (The use of dry rotary brushes is expressly prohibited except where preceded or accompanied by sufficient wetting to limit the visible dust emissions). (Use of blower devices is expressly forbidden). Within urban areas, trackout shall be immediately removed when it extends 50 or more feet from the site and at the end of each workday.

CULT-1: If prehistoric or historic-era cultural materials are encountered during construction activities, all work in the immediate vicinity of the find shall halt until a qualified archaeologist can evaluate the find and make recommendations. Cultural resource materials may include prehistoric resources such as flaked and ground stone tools and debris, shell, bone, ceramics, and fire-affected rock as well as historic resources such as glass, metal, wood, brick, or structural remnants. If the qualified archaeologist determines that the discovery represents a potentially significant cultural resource, additional investigations may be required to mitigate adverse impacts from Project implementation. These additional studies may include avoidance, testing, and evaluation or data recovery excavation. A copy of all actions shall be submitted to the Lead Agency.

CULT-2: If human remains are discovered during construction or operational activities, further excavation or disturbance shall be prohibited pursuant to Section 7050.5 of the California Health and Safety Code. The specific protocol, guidelines, and channels of communication outlined by the NAHC, in accordance with Section 7050.5 of the Health and Safety Code, Section 5097.98 of the Public Resources Code (Chapter 1492, Statutes of 1982, Senate Bill 297), and Senate Bill 447 (Chapter 44, Statutes of 1987), shall be followed. Section 7050.5(c) shall guide the potential Native American involvement, in the event of discovery of human remains, at the direction of the county coroner.

GEO-1: Prior to the issuance of project Building Permits, the applicant shall submit plans and specifications complying with all of the recommendations of the Geotechnical investigation. Subgrade to be compacted to 90% relative compaction based on ASTM D-1557-78. Compaction reports shall be supplied by the approved testing agency. Imported fill material shall be predominantly non-expansive granular material meeting the requirements set forth in the Geotechnical investigation.

GEO-2: If any paleontological resources are encountered during ground disturbance activities, all work within 25 feet of the find shall halt until a qualified paleontologist as defined by the Society of Vertebrate Paleontology Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources (2010), can evaluate the find and make recommendations regarding treatment. Paleontological resource materials may include resources such as fossils, plant impressions, or animal tracks preserved in rock. The qualified paleontologist shall contact the Natural History Museum of Kings County or other appropriate facility regarding any discoveries of paleontological resources.

HYDR-1: Prior to issuing of grading or building permits, the Project applicant shall submit to the City 1) the approved Storm Water Pollution Prevention Plan (SWPPP) and 2) the Notice of Intent (NOI) to comply with the General National Pollutant Discharge Elimination System (NPDES) from the Central Valley Regional Water Quality Control Board (RWQCB). The requirements of the SWPPP and NPDES shall be incorporated into design specifications and construction contracts. Best management practices (BMP's) shall be applicable to site conditions and be Identified on a water pollution control drawing.

NOISE-1: Reduce noise from construction activities by requiring sound attenuating devices on construction vehicles and equipment. Restrict construction activities to the hours between 7 am and 9 pm Monday through Friday and 8 am and 5 pm on Saturday and Sunday from all construction project unless it can be shown that construction outside those times would not increase noise impacts to sensitive receptors.

PUB-1: Prior to the issuance of grading or building permits, the Project developer shall pay applicable fees as required by Kings County Adopted Public Facilities Fees, Reef Sunset Unified School District Developer fees, City of Avenal Park Impact Fees, and City of Avenal General Government Impact Fees.

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APPENDIX

1. **Existing Site Photos**
2. **CHRIS Records Search Request**
3. **Historical Photos Inventory**
4. **USGS Avenal Quadrangle 7.5 Minute Series Map**
5. **FEMA Flood Insurance Rate Map Panel 395**
6. **California Important Farmland Finder**
7. **CGS Mineral Land Classification**
8. **CGS Landslide Inventory**
9. **National Wetlands Inventory Map**
10. **U.S. Fish and Wildlife Service Official Species List**
11. **CNDDB Quad Species List**
12. **CVT Soils Report**
13. **Earthquake Zones of Required Investigation**
14. **Uniform Building Code Table 18-I-A**
15. **CalEEMod Output - Proposed Project Cielito Lindo 3**
16. **CalEEMod Output - BAU Baseline Scenario**
17. **Kings County VMT Per Capita Mapper**
18. **GeoTracker Cleanup Sites**
19. **EnviroStor Cleanup Sites**
20. **CalGEM Well Finder**



Looking west toward SR 33



Looking North from SW corner



Looking east from southern edge



Looking West toward existing development and school field



Looking North to adjacent vacant lands



Looking West Toward SR 33

California Historical Resources Information System



Fresno
Kern
Kings
Madera
Tulare

Southern San Joaquin Valley Information Center
California State University, Bakersfield
Mail Stop: 72 DOB
9001 Stockdale Highway
Bakersfield, California 93311-1022
(661) 654-2289
E-mail: ssjvic@csub.edu
Website: www.csub.edu/ssjvic

To: Christopher Marks
Tri City Engineering
4630 W Jennifer Ave #101
Fresno, CA 93722

Record Search 21-419

Date: November 08, 2021

Re: Cielito Lindo 3

County: Kings

Map(s): Avenal 7.5'

CULTURAL RESOURCES RECORDS SEARCH

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

The following are the results of a search of the cultural resource files at the Southern San Joaquin Valley Information Center. These files include known and recorded cultural resources sites, inventory and excavation reports filed with this office, and resources listed on the National Register of Historic Places, the OHP Built Environment Resources Directory, California State Historical Landmarks, California Register of Historical Resources, California Inventory of Historic Resources, and California Points of Historical Interest. Due to processing delays and other factors, not all of the historical resource reports and resource records that have been submitted to the OHP are available via this records search. Additional information may be available through the federal, state, and local agencies that produced or paid for historical resource management work in the search area.

PRIOR CULTURAL RESOURCE STUDIES CONDUCTED WITHIN THE PROJECT AREA AND THE ONE-HALF MILE RADIUS

According to the information in our files, there has been a small portion of one cultural resource study in the South side of the Project Area, KI-00046, and one additional cultural resource study that fell in the one-half mile radius, KI-00196. Both cultural resource studies are greater than five years in age and should be considered "out of date" for current studies.

KNOWN/RECORDED CULTURAL RESOURCES WITHIN THE PROJECT AREA AND THE ONE-HALF MILE RADIUS

There are no recorded resources within the project area, or within the one-half mile radius.

There are no recorded cultural resources within the project area or radius that are listed in the National Register of Historic Places, the California Register of Historical Resources, the California Points of Historical Interest, California Inventory of Historic Resources, or the California State Historic Landmarks.

COMMENTS AND RECOMMENDATIONS

We understand this project is a proposed 24.63-acre residential subdivision of 111 single family residences, 1 lot for stormwater detention basin, and a 2 lot pocket park. Further, we understand this project area is a vacant lot surrounded by residential homes. Because only a small portion of this project area has been previously studied for cultural resources, it is unknown if any are present. As such, prior to ground disturbance activities, we recommend a qualified, professional consultant conduct a field survey to determine if cultural resources are present. A list of qualified consultants can be found at www.chrisinfo.org.

We also recommend that you contact the Native American Heritage Commission in Sacramento. They will provide you with a current list of Native American individuals/organizations that can assist you with information regarding cultural resources that may not be included in the CHRIS Inventory and that may be of concern to the Native groups in the area. The Commission can consult their "Sacred Lands Inventory" file to determine what sacred resources, if any, exist within this project area and the way in which these resources might be managed. Finally, please consult with the lead agency on this project to determine if any other cultural resource investigation is required. If you need any additional information or have any questions or concerns, please contact our office at (661) 654-2289.

By:



Jeremy E David, Assistant Coordinator **Date**: November 8, 2021

Please note that invoices for Information Center services will be sent under separate cover from the California State University, Bakersfield Accounting Office.



1940
Source: USGS (1940-11-28 - 1940-12-12)



1958
Source: USGS (1958-07-05 - 1958-07-05)



1962
Source: USGS (1962-08-07 - 1962-08-12)



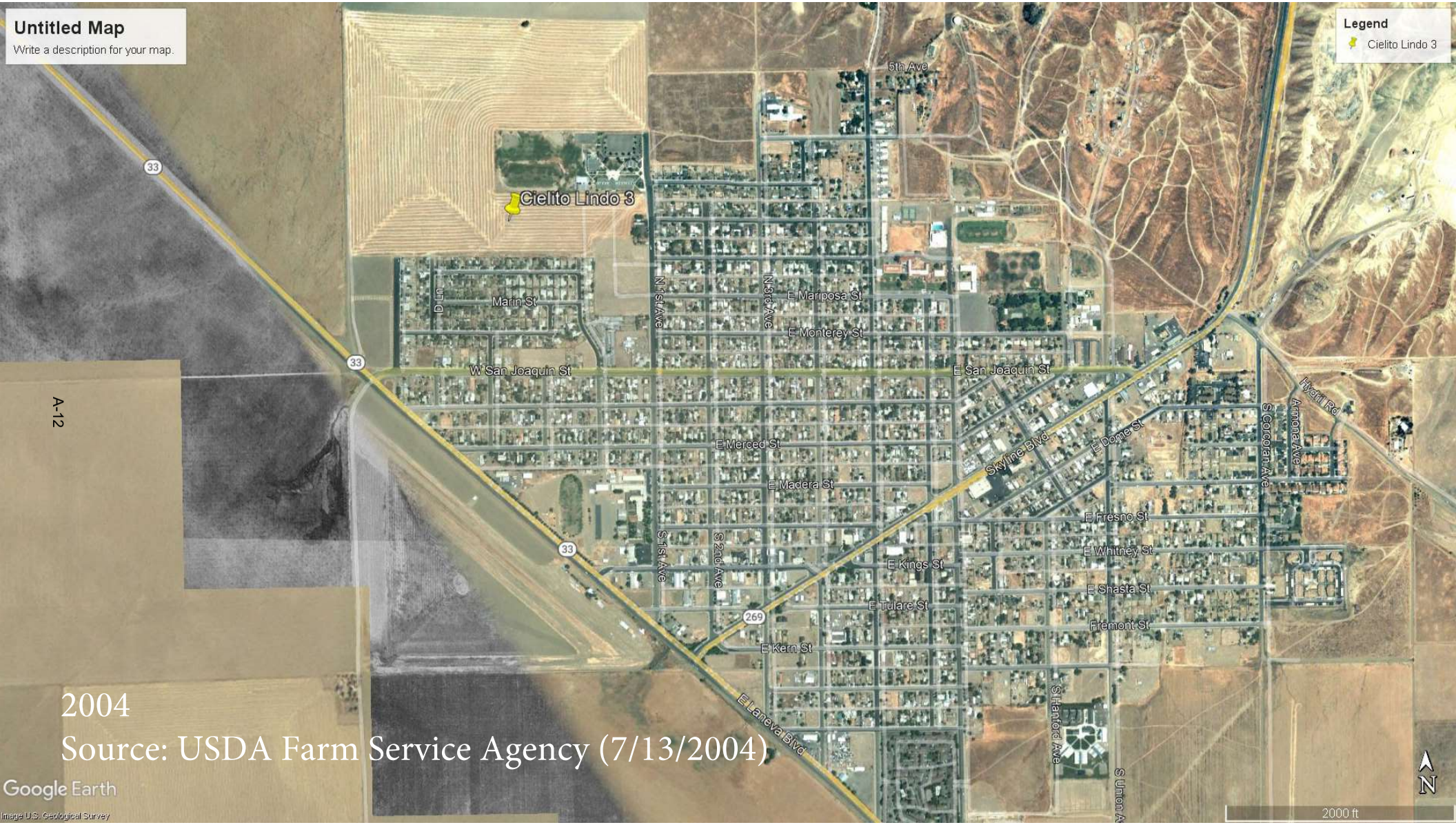
1971
Source: USGS (1971-04-28 - 1971-06-02)



1981
Source: USDA NHAP81 (1981-08-01 - 1981-12-07)



1994
Source: USGS DOQQ (1994-04-21 - 1994-09-30)



2004

Source: USDA Farm Service Agency (7/13/2004)

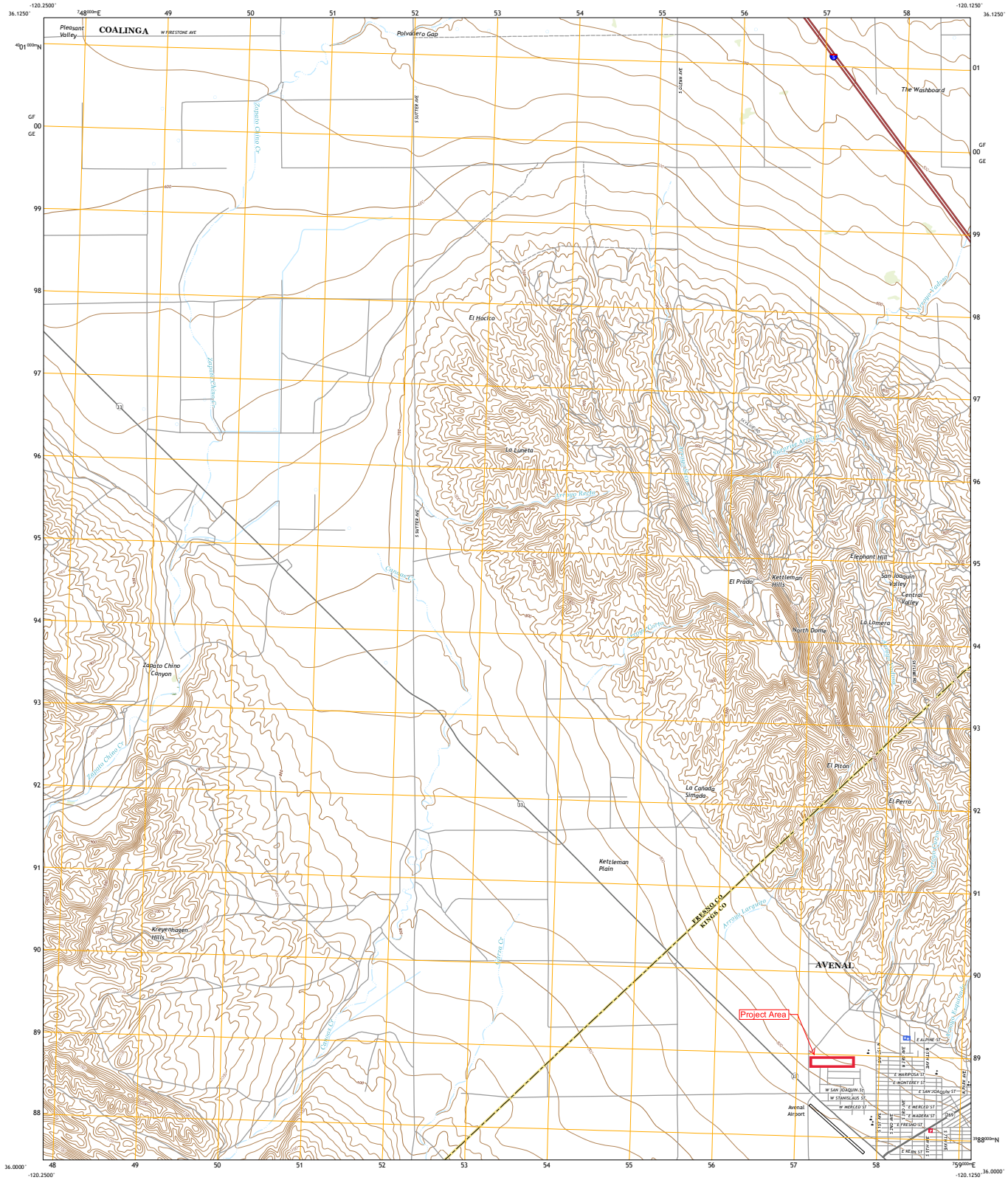

Untitled Map
Write a description for your map.
Legend
Cielito Lindo 3
Cielito Lindo 3
5th Ave
33
A-13
Marin St
N 1st Ave
N 3rd Ave
E Mariposa St
E Monterey St
W San Joaquin St
E San Joaquin St
E Merced St
E Madera St
Skyline Blvd
E Dome St
S Corcoran Ave
Armona Ave
Ivory Rd
E Fresno St
E Whitney St
S 1st Ave
S 2nd Ave
E Kings St
E Shasta St
E Tulare St
269
Fremont St
E Kern St
E Laneva Blvd
S Hanford Ave
S Union Ave
2006
Source: USDA Farm Service Agency (4/27/2006)
Google Earth
Image U.S. Geological Survey
N
2000 ft


Untitled Map
Write a description for your map.
Legend
Cielito Lindo 3
Cielito Lindo 3
5th Ave
Marini St
N 1st Ave
N 3rd Ave
E Mariposa St
E Monterey St
W San Joaquin St
E San Joaquin St
A-14
33
E Merced St
E Madera St
Skyline Blvd
E Dome St
S Cedar Ave
Armona Ave
Hydrril Rd
E Fresno St
E Whitney St
S 1st Ave
S 2nd Ave
E Kings St
E Shasta St
E Tulare St
269
Fremont St
E Kern St
E Laneva Blvd
S Hanford Ave
S Union A
2010
Source: USDA Farm Service Agency (4/24/2010)
Google Earth
Image U.S. Geological Survey
N
2000 ft

U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

The National Map US Topo

AVENAL QUADRANGLE
CALIFORNIA
7.5-MINUTE SERIES



Produced by the United States Geological Survey
North American Datum of 1983 (NAD83)
World Geodetic System of 1984 (WGS84). Projection and
1 000-meter grid:Universal Transverse Mercator, Zone 10S
This map is not a legal document. Boundaries may be
generalized for this map scale. Private lands within government
reservations may not be shown. Obtain permission before
entering private lands.

Imagery.....NAIP, June 2016 - October 2016
Roads.....U.S. Census Bureau, 2016
Names.....GNIS, 1981 - 2017
Hydrography.....National Hydrography Dataset, 2005 - 2018
Contours.....National Elevation Dataset, 2009
Boundaries.....Multiple sources; see metadata file 2016 - 2017
Public Land Survey System.....BLM, 2018
Wetlands.....FWS National Wetlands Inventory 1981 - 2014

UTM GRID AND 2017 MAGNETIC NORTH
DECLINATION AT CENTER OF SHEET

SCALE 1:24 000

CONTOUR INTERVAL 20 FEET
NORTH AMERICAN VERTICAL DATUM OF 1988

This map was produced to conform with the
National Geospatial Program US Topo Product Standard, 2011.
A metadata file associated with this product is draft version 0.6.18

ADJOINING QUADRANGLES
1 Coalinga
2 Guijarral Hills
3 Huron
4 Kreyenhagen Hills
5 La Cima
6 The Dark Hole
7 Garza Peak
8 Kettleman Plain

ROAD CLASSIFICATION
Expressway
Secondary Hwy
Ramp
Local Connector
Local Road
4WD
Interstate Route
US Route
State Route

AVENAL, CA
2018

MAP ID 20190930
USGS X24K1941
NGA REF NO.

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The **community map repository** should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations** (BFEs) and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Coastal Base Flood Elevations shown on this map apply only landward of 0.0' North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the summary of Stillwater Elevations table in the Flood Insurance Study Report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations table should be used for construction, and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures**. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures in this jurisdiction.

The **projection** used in the preparation of this map was California State Plane, Zone III. The **horizontal datum** was NAD83, GRS80 spheroid. Differences in datum, spheroid, projection or State Plane zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same **vertical datum**. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at http://www.ngs.noaa.gov or contact the National Geodetic Survey at the following address:

NGS Information Services
NOAA, N/NGS12
National Geodetic Survey, SSMC-3, #9202
1315 East-West Highway
Silver Spring, Maryland 20910-3282
(301) 713-3242

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at **(301) 713-3242**, or visit their website at http://www.ngs.noaa.gov/.

Base map information shown on this FIRM was derived from multiple sources. This information was compiled from the National Geodetic Survey, 2005, Kings County Planning Agency, 2006, and U.S. Geological Survey, 1989. Additional information was photogrammetrically compiled at a scale of 1:12,000 from aerial photography dated 2004.

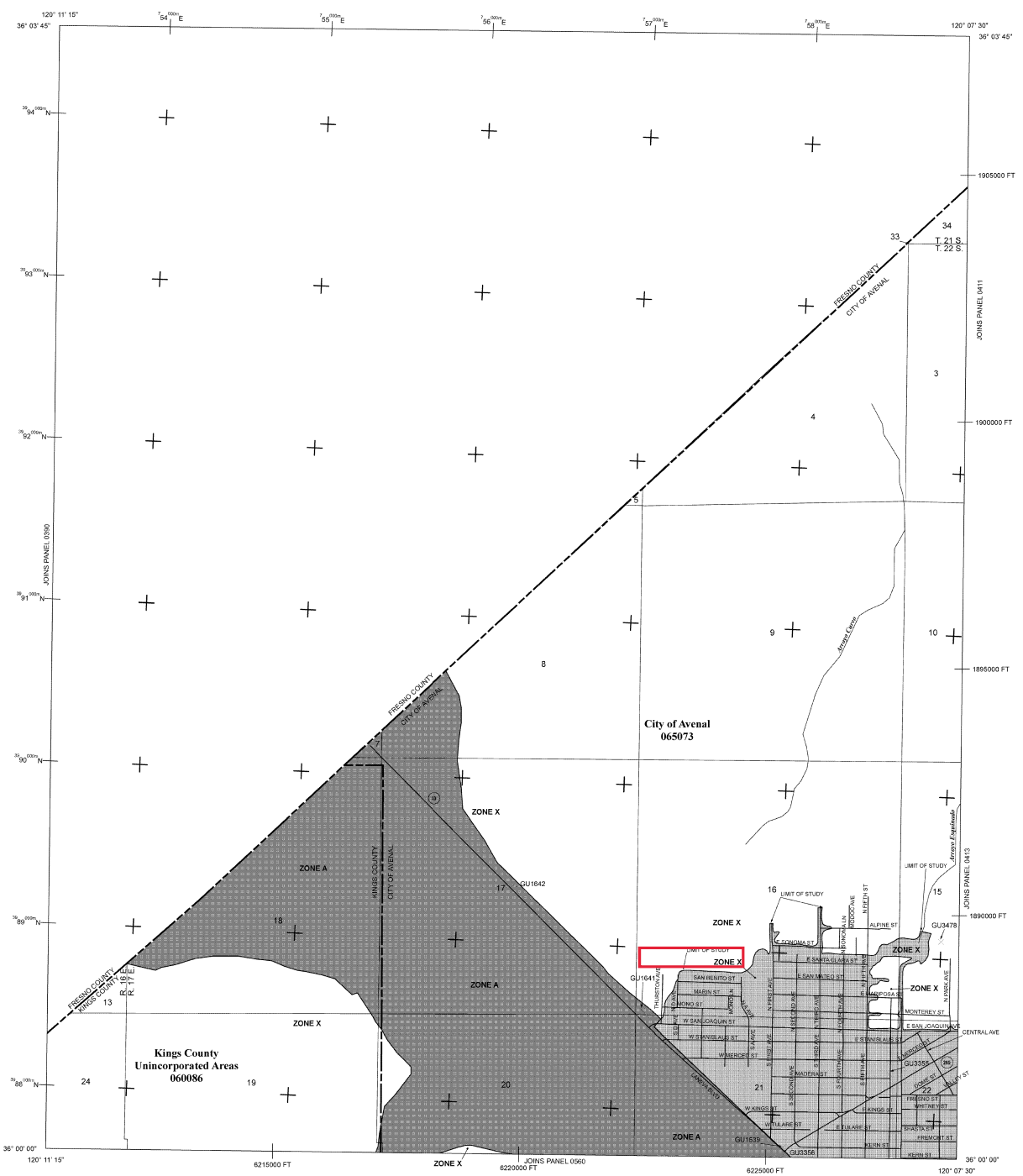
This map reflects more detailed and up-to-date **stream channel configurations** than those shown on the previous FIRM for this jurisdiction. The floodplains and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations. As a result, the Flood Profiles and Floodway Data tables in the Flood Insurance Study report (which contains authoritative hydraulic data) may reflect stream channel distances that differ from what is shown on this map.

Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

Please refer to the separately printed **Map Index** for an overview map of the county showing the layout of map panels; community map repository addresses; and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

Contact the **FEMA Map Service Center** at 1-800-358-9616 for information on available products associated with this FIRM. Available products may include previously issued Letters of Map Change, a Flood Insurance Study report, and/or digital versions of this map. The FEMA Map Service Center may also be reached by Fax at 1-800-358-9620 and their website at http://www.msc.fema.gov/.

If you have **questions about this map** or questions concerning the National Flood Insurance Program in general, please call **1- 877- FEMA MAP** (1-877-336-2627) or visit the FEMA website at http://www.fema.gov/.



LEGEND

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

- **ZONE A** No Base Flood Elevations determined.
- **ZONE AE** Base Flood Elevations determined.
- **ZONE AH** Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
- **ZONE AO** Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
- **ZONE AR** Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
- **ZONE A99** Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
- **ZONE V** Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
- **ZONE VE** Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

- **ZONE X** Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

- **ZONE X** **ZONE D** Areas determined to be outside the 0.2% annual chance floodplain. Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- Floodplain boundary
- Floodway boundary
- Zone D Boundary
- CBRS and OPA Boundary
- Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- 513 (EL 987) Base Flood Elevation line and value; elevation in feet*
- Base Flood Elevation value where uniform within zone; elevation in feet*

*Referenced to the North American Vertical Datum of 1988

- A — A Cross section line
- 23 — 23 Transect line
- 97° 07' 30", 32° 22' 30" Geographic coordinates referenced to the North American Datum of 1983 (NAD 83), Western Hemisphere
- 6760000 E 1000-meter Universal Transverse Mercator grid values, zone 10 and 11
- 600000 FT 5000-foot grid ticks: California State Plane coordinate system, zone IV (FIPSZONE 0404), Lambert Conformal Conic Projection
- DX5510 X Bench mark (see explanation in Notes to Users section of this FIRM panel)
- M1.5 River Mile

MAP REPOSITORIES
Refer to Map Repositories list on Map Index.

EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP PANEL
JUNE 16, 2009

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

MAP SCALE 1" = 1000'

500 0 1000 2000 FEET
300 0 300 600 METERS

NFIP NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0395C

FIRM

FLOOD INSURANCE RATE MAP

KINGS COUNTY, CALIFORNIA AND INCORPORATED AREAS

PANEL 395 OF 875

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

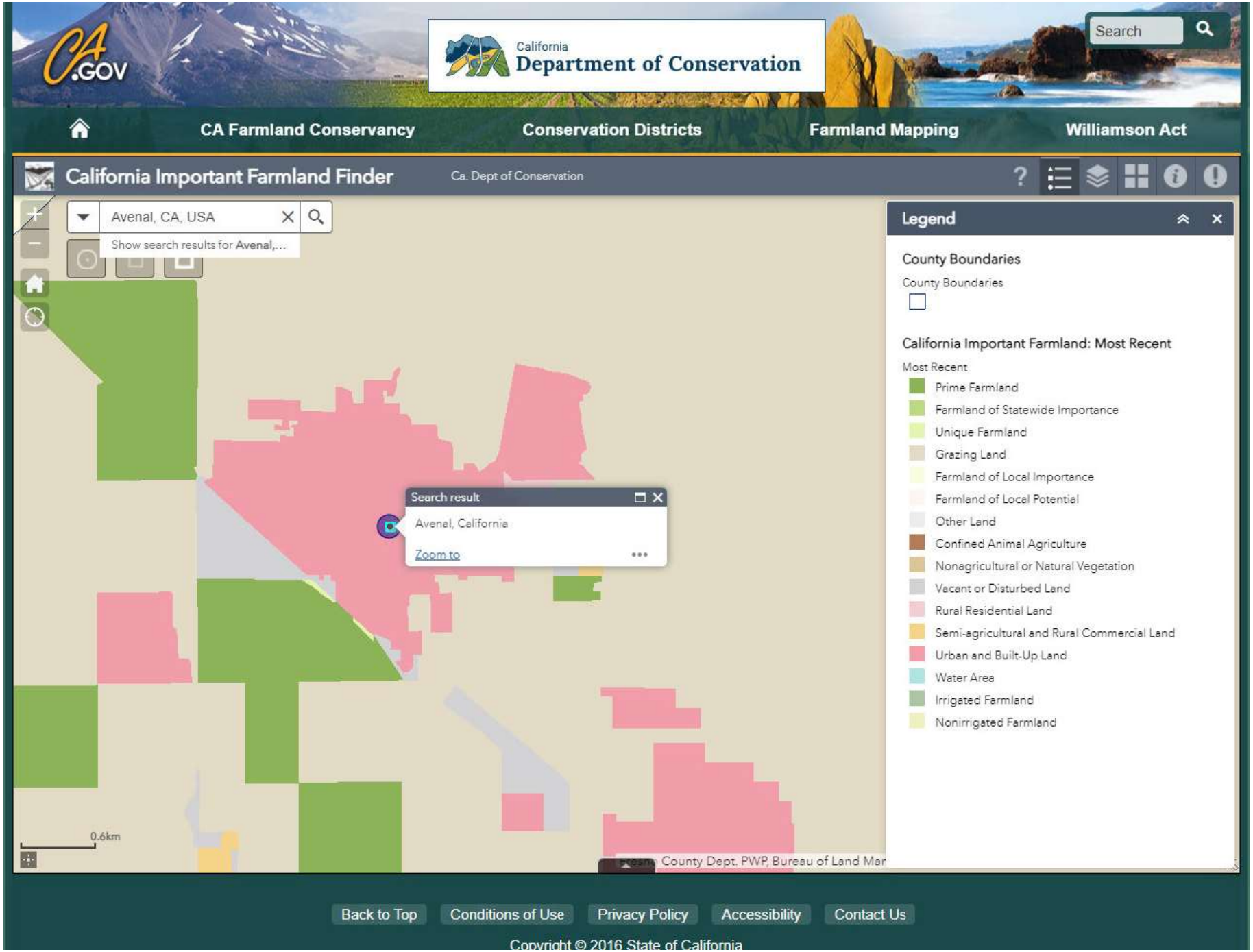
COMMUNITY	NUMBER	PANEL	SUFFIX
AVENAL, CITY OF	065073	0395	C
KINGS COUNTY	060086	0395	C

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

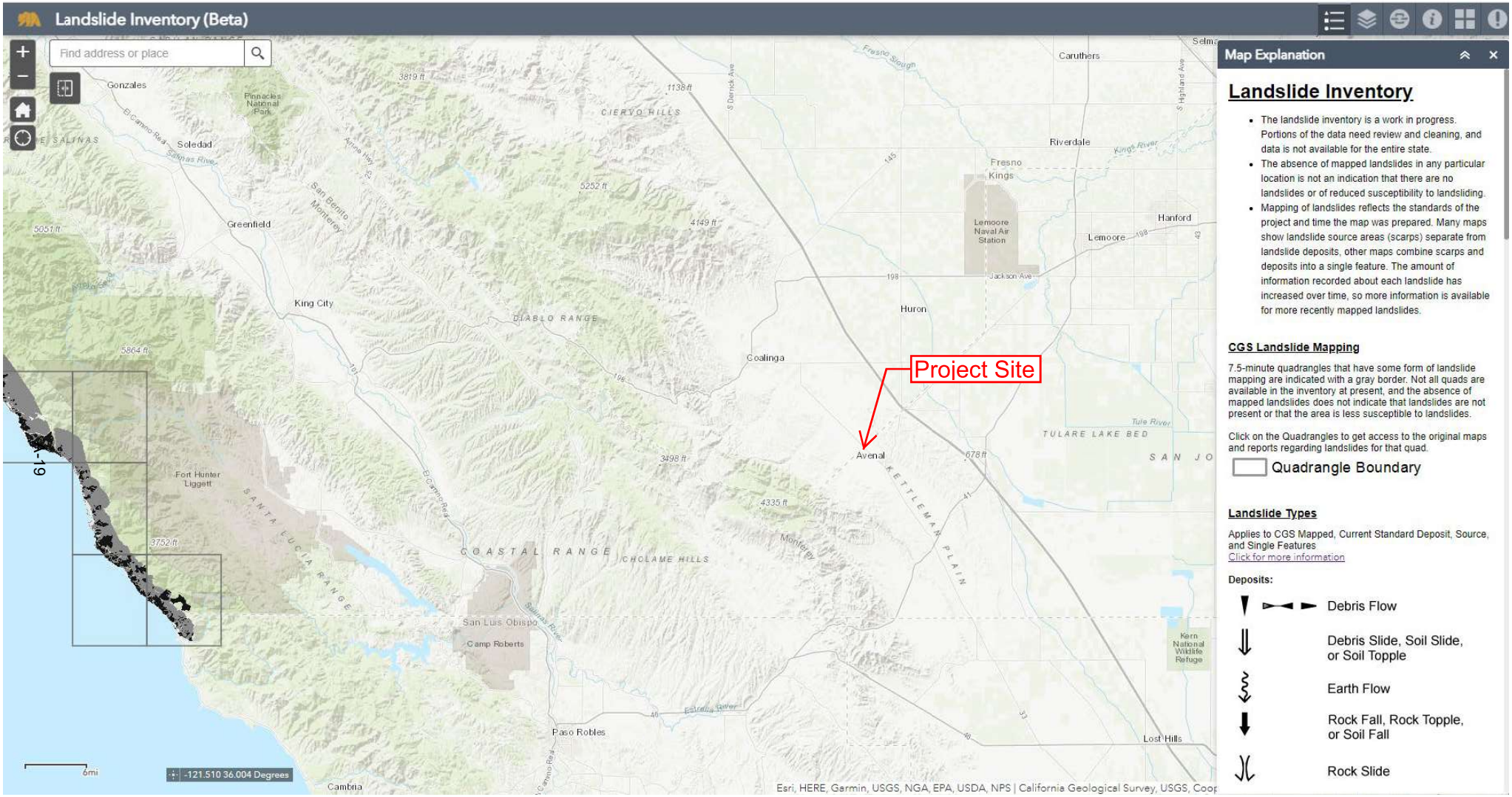
MAP NUMBER
06031C0395C

EFFECTIVE DATE
JUNE 16, 2009

Federal Emergency Management Agency


CA.GOV
California
Department of Conservation
Search
CA Farmland Conservancy
Conservation Districts
Farmland Mapping
Williamson Act
California Important Farmland Finder
Ca. Dept of Conservation
Avenal, CA, USA
Show search results for Avenal,...
Search result
Avenal, California
Zoom to
Legend
County Boundaries
County Boundaries
California Important Farmland: Most Recent
Most Recent
Prime Farmland
Farmland of Statewide Importance
Unique Farmland
Grazing Land
Farmland of Local Importance
Farmland of Local Potential
Other Land
Confined Animal Agriculture
Nonagricultural or Natural Vegetation
Vacant or Disturbed Land
Rural Residential Land
Semi-agricultural and Rural Commercial Land
Urban and Built-Up Land
Water Area
Irrigated Farmland
Nonirrigated Farmland
0.6km
County Dept. PWP, Bureau of Land Mar
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Department of Conservation
California Department of Conservation
California Geological Survey
Regulatory Maps
AP Site Investigation Reports
Landslides
Mineral Lands Classification
Tsunami Hazard Area
Borehole Database
Help
CGS Information Warehouse: Mineral Land Classification
ArcGIS World Geocoding S
Salinas
Soledad
Fresno
Kings Canyon National Park
Sequoia National Park
Visalia
Lemoore
Coalinga
Avenal
Fort Hunter Liggett
Sequoia National Forest
Naval Air Warfare Center China Lake
Ridgecrest
Fort Irwin
Carrizo Plain National Monument
4335 ft
3752 ft
14482 ft
11083 ft
9988 ft
8451 ft
4901 ft
30mi
-119.812 35.959 Degrees
Esri, HERE, Garmin, FAO, USGS, EPA, NPS
Back to Top
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Contact Us
Copyright © 2015 State of California


Landslide Inventory (Beta)
Find address or place
Map Explanation
Landslide Inventory
The landslide inventory is a work in progress. Portions of the data need review and cleaning, and data is not available for the entire state.
The absence of mapped landslides in any particular location is not an indication that there are no landslides or of reduced susceptibility to landsliding.
Mapping of landslides reflects the standards of the project and time the map was prepared. Many maps show landslide source areas (scarps) separate from landslide deposits, other maps combine scarps and deposits into a single feature. The amount of information recorded about each landslide has increased over time, so more information is available for more recently mapped landslides.
CGS Landslide Mapping
7.5-minute quadrangles that have some form of landslide mapping are indicated with a gray border. Not all quads are available in the inventory at present, and the absence of mapped landslides does not indicate that landslides are not present or that the area is less susceptible to landslides.
Click on the Quadrangles to get access to the original maps and reports regarding landslides for that quad.
Quadrangle Boundary
Landslide Types
Applies to CGS Mapped, Current Standard Deposit, Source, and Single Features
Click for more information
Deposits:
Debris Flow
Debris Slide, Soil Slide, or Soil Topple
Earth Flow
Rock Fall, Rock Topple, or Soil Fall
Rock Slide
Project Site
Avenal
Coalinga
Huron
Lemoore
Hanford
Riverdale
Caruthers
Fresno
Kings
Lemoore Naval Air Station
Kern National Wildlife Refuge
Lost Hills
Gonzales
Soledad
Greenfield
King City
Fort Hunter Liggett
San Luis Obispo
Camp Roberts
Paso Robles
Cambria
Pinnacles National Park
CIERVO HILLS
DIABLO RANGE
COASTAL RANGE
CHOLAME HILLS
SANTA LUCIA RANGE
KETTLEMAN PLAIN
TULARE LAKE BED
SAN JO
I-19
6mi
-121.510 36.004 Degrees
Esri, HERE, Garmin, USGS, NGA, EPA, USDA, NPS | California Geological Survey, USGS, Coop

U.S. Fish and Wildlife Service

National Wetlands Inventory

Cielito Lindo 3



October 25, 2021

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
Phone: (916) 414-6600 Fax: (916) 414-6713

In Reply Refer To: October 22, 2021
Consultation Code: 08ESMF00-2022-SLI-0170
Event Code: 08ESMF00-2022-E-00494
Project Name: Cielito Lindo 3

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, under the jurisdiction of the U.S. Fish and Wildlife Service (Service) that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the Service under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

Please follow the link below to see if your proposed project has the potential to affect other species or their habitats under the jurisdiction of the National Marine Fisheries Service:

http://www.nwr.noaa.gov/protected_species/species_list/species_lists.html

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to

utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
(916) 414-6600

Project Summary

Consultation Code: 08ESMF00-2022-SLI-0170
Event Code: Some(08ESMF00-2022-E-00494)
Project Name: Cielito Lindo 3
Project Type: DEVELOPMENT
Project Description: 24.63 acre residential subdivision located in the Northwestern part of Avenal, CA. Subdivision proposes 111 single family residences, 1 lot for stormwater detention basin, and a 2 lot pocket park.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@36.010805149999996,-120.1436137494868,14z



Counties: Kings County, California

Endangered Species Act Species

There is a total of 12 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Giant Kangaroo Rat *Dipodomys ingens* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6051	Endangered
San Joaquin Kit Fox *Vulpes macrotis mutica* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/2873	Endangered

Birds

NAME	STATUS
California Condor *Gymnogyps californianus* Population: U.S.A. only, except where listed as an experimental population There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/8193	Endangered

Reptiles

NAME	STATUS
Blunt-nosed Leopard Lizard *Gambelia silus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/625	Endangered
Giant Garter Snake *Thamnophis gigas* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4482	Threatened

Amphibians

NAME	STATUS
California Red-legged Frog *Rana draytonii* There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/2891	Threatened
California Tiger Salamander *Ambystoma californiense* Population: U.S.A. (Central CA DPS) There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/2076	Threatened

Fishes

NAME	STATUS
Delta Smelt *Hypomesus transpacificus* There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/321	Threatened

Insects

NAME	STATUS
Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

Crustaceans

NAME	STATUS
Vernal Pool Fairy Shrimp *Branchinecta lynchi* There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/498	Threatened

Flowering Plants

NAME	STATUS
California Jewelflower *Caulanthus californicus*	Endangered
No critical habitat has been designated for this species.	
Species profile: https://ecos.fws.gov/ecp/species/4599	
San Joaquin Wooly-threads *Monolopia (=Lembertia) congdonii*	Endangered
No critical habitat has been designated for this species.	
Species profile: https://ecos.fws.gov/ecp/species/3746	

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

CNDDB Quad Species List 11 records.

Element Type	Scientific Name	Common Name	Element Code	Federal Status	State Status	CDFW Status	CA Rare Plant Rank	Quad Code	Quad Name	Data Status	Taxonomic Sort
Animals - Birds	Athene cunicularia	burrowing owl	ABNSB10010	None	None	SSC	-	3612012	AVENAL	Mapped and Unprocessed	Animals - Birds - Strigidae - Athene cunicularia
Animals - Insects	Coelus gracilis	San Joaquin dune beetle	IICOL4A020	None	None	-	-	3612012	AVENAL	Mapped	Animals - Insects - Tenebrionidae - Coelus gracilis
Animals - Mammals	Vulpes macrotis mutica	San Joaquin kit fox	AMAJA03041	Endangered	Threatened	-	-	3612012	AVENAL	Mapped	Animals - Mammals - Canidae - Vulpes macrotis mutica
Animals - Mammals	Onychomys torridus tularensis	Tulare grasshopper mouse	AMAFF06021	None	None	SSC	-	3612012	AVENAL	Mapped	Animals - Mammals - Cricetidae - Onychomys torridus tularensis
Animals - Mammals	Taxidea taxus	American badger	AMAJF04010	None	None	SSC	-	3612012	AVENAL	Mapped and Unprocessed	Animals - Mammals - Mustelidae - Taxidea taxus
Animals - Mammals	Ammospermophilus nelsoni	Nelson's antelope squirrel	AMAFB04040	None	Threatened	-	-	3612012	AVENAL	Unprocessed	Animals - Mammals - Sciuridae - Ammospermophilus nelsoni
Animals - Reptiles	Gambelia sila	blunt-nosed leopard lizard	ARACF07010	Endangered	Endangered	FP	-	3612012	AVENAL	Mapped and Unprocessed	Animals - Reptiles - Crotaphytidae - Gambelia sila
Plants - Vascular	Monolopia congdonii	San Joaquin woollythreads	PDASTA8010	Endangered	None	-	1B.2	3612012	AVENAL	Mapped and Unprocessed	Plants - Vascular - Asteraceae - Monolopia congdonii
Plants - Vascular	Caulanthus californicus	California jewelflower	PDBRA31010	Endangered	Endangered	-	1B.1	3612012	AVENAL	Mapped	Plants - Vascular - Brassicaceae - Caulanthus californicus
Plants - Vascular	Caulanthus lemmonii	Lemmon's jewelflower	PDBRA0M0E0	None	None	-	1B.2	3612012	AVENAL	Mapped	Plants - Vascular - Brassicaceae - Caulanthus lemmonii
Plants - Vascular	Eriastrum hooveri	Hoover's eriastrum	PDPLM03070	Delisted	None	-	4.2	3612012	AVENAL	Unprocessed	Plants - Vascular - Polemoniaceae - Eriastrum hooveri

CENTRAL VALLEY TESTING, Inc.
materials testing and inspection services
soils and environmental investigations

Geotechnical Engineering Investigation

Proposed Residential Development
Cielito Lindo Tract No. 813 Phase II
Avenal, California

Report No. 14-0310
June 29, 2013

Prepared For:
Mr. Ken Gong
Panda Koala Inc.
Huron, California

CENTRAL VALLEY TESTING, Inc.

materials testing and inspection services
soils and environmental investigations

June 29, 2013 **Report No. 13-0310**

Mr. Ken Gong
Panda Koala Inc.
36322 Lassen Avenue
Huron, California

Subject: Proposed Residential Development
Cielito Lindo Tract No. 813 Phase II
Avenal, California

Dear Gong;

At your authorization, we have completed a Geotechnical Engineering Investigation for the above referenced project.

The accompanying report contains the results of our field exploration, laboratory testing, geotechnical engineering evaluations and recommendations to assist the design consultants in the formulation of building site preparation procedures and in the design of building foundations and slab systems.

If you have any questions or if we can be of any further assistance please do not hesitate to phone our office at (559) 732-3039.

REGISTERED PROFESSIONAL ENGINEER
DALE H. WINN
No. 23273
Exp. 12/31/2016
CIVIL
STATE OF CALIFORNIA

Dale H. Winn
Principal Engineer
RCE 23273

Respectfully submitted
CENTRAL VALLEY TESTING, INC.

Dennis R. Myers
Director of Operations

P.O. Box 2669, Visalia, CA. 93279-2669 • (559) 732-3039 • (559) 264-2224

TABLE OF CONTENTS

PAGE

1.0 INTRODUCTION....4

2.0 PROJECT DESCRIPTION....4

3.0 GEOLOGIC/SEISMIC CONDITIONS....4

4.0 SOILS PROFILE AND SUBSURFACE CONDITIONS....5

5.0 ADMINISTRATIVE SUMMARY....6

6.0 SITE PREPARATION....7

7.0 ALTERNATE 1- FILL PLACEMENT....7

8.0 ALTERNATE 2- REWORKING OF EXISTING SOIL....8

9.0 ENGINEERED FILL....8

10.0 FOUNDATIONS....9

11.0 SEISMIC PARAMETERS....10

12.0 LIQUEFACTION SEISMIC SETTLEMENT....10

13.0 SLAB-ON-GRADE....11

14.0 LATERAL LOADING....11

15.0 POST-CONSTRUCTION WATER CONTROL....12

16.0 UTILITY TRENCH BACKFILL....12

17.0 TESTING AND INSPECTION....13

18.0 LIMITATIONS....13

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1.0 INTRODUCTION;

This report presents the results of our Geotechnical Engineering Investigation for the identified project located in Avenal, California. It is our understanding that the development will consist of a subdivision single story wood framed Structures with concrete slab-on-grade construction.

The purpose of this investigation was to evaluate the foundation materials and subsurface conditions of the site. Methods of analysis included site reconnaissance, examination of adjacent property, exploratory soil borings and sampling, laboratory testing of selected soil samples, and engineering evaluation of the resultant data. Conclusions and recommendations concerning the soil and foundation engineering aspects of the project site with suggested methods of testing and inspection are provided in this report.

2.0 PROJECT DESCRIPTION;

At the time of our investigation the site was relatively level, recently tilled with a light growth of grass and weeds. The structure will be located in the central sector of the property.

3.0 GEOLOGIC/SEISMIC CONDITIONS;

The San Joaquin Valley, which includes the Avenal area, is a topographic and structural basin that is bounded on the east by the Sierra Nevada and on the west by the Coast Ranges. The Sierra Nevada, a fault block dipping gently southwestward, is comprised of igneous and metamorphic rocks of pre-Tertiary age that form the basement complex beneath the San Joaquin Valley. The Coast Ranges contain folded and faulted sedimentary rock of Mesozoic and Cenozoic age, which are similar to those rocks that underlie the Valley at depth and non-conformably overlie the basement complex; gently dipping to nearly horizontal sedimentary rocks of Tertiary and Quaternary age overlie the older rocks.

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3.0 GEOLOGIC/SEISMIC CONDITIONS "Continued"

These younger rocks are mostly of continental origin and in the Avenal area were derived form the Sierra Nevada. The Coast Ranges evolved as a result of folding, faulting and accretion of diverse geologic terrains. They are broken by numerous faults, the San Andreas Fault being the most notable feature. Both the Sierra Nevada and Coast Range are geologically young mountain ranges and possess active and potentially active fault zones. Major active faults and fault zones occur at some distance to the east, west and south of the Avenal area. The Owens Valley Fault Zone bounds the eastern edge of the Sierra Nevada block and contains both active and potentially active faults. Portions of the Ortigalita, Hayward, Calaveras, and Rinconada Faults, which are from 65 to 85 miles to the west, are considered potentially active. The Nunez Fault is approximately 80 miles southwest of Avenal. This fault experienced a 6.0 moment magnitude event during the 1983 Coalinga earthquake that caused ground-shaking of V intensity (modified Mercalli Scale) in the Avenal area. The San Andreas Fault is possibly the best known fault and is located about 40-50 miles to the west. There are no active fault traces in the project vicinity. Accordingly, the project area is not within an Earthquake Fault Zone (Special Studies Zone) and will not require a special site investigation by an Engineering Geologist.

4.0 SOILS PROFILE AND SUBSURFACE CONDITIONS

Subsurface soil conditions were explored by drilling 4 borings to a maximum depth of 15 feet. Detailed descriptions of the soils encountered are presented in the boring log. The stratification lines shown on the log represent the approximate boundary between soil types. The actual in-site transition may be gradual. The top 12 inches of the surface soils consisted of asphalt and aggregate base material. These soils have low strength characteristics and are highly compressible.

Below the surface soil clay was encountered. Field and laboratory tests suggest that these soils are moderately strong, slightly compressible and have a high potential for expansion. Penetration resistance ranged from 8 to 18 blows per foot. In-place dry densities ranged from 97 to 107 pcf. Representative soil samples consolidated from 2.5 to 3.10 percent under a 2 ksf load when saturated.

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4.0 SOILS PROFILE AND SUBSURFACE CONDITIONS "Continued"

These soils had Uniform Building Code Expansion Index's of 73 and 79. For additional information about the soil encountered, please refer to the logs of borings. Ground water was encountered in the borings at a depth of 9 feet

5.0 ADMINISTRATIVE SUMMARY;

The project site surface soils are identified as expansive clays. The clay exhibits a major swell potential and is subject to volumetric changes if the moisture content varies. The clayey soil in its present condition poses a major hazard to construction in terms of possible post-construction movement of the foundation and slab systems if no mitigation measures are employed.

Other than complete soil replacement, mitigation measures will not eliminate post-construction soil movement but will reduce the soil movement. The success of the mitigation measures will depend on the thoroughness of the contractor, developer and site owner in dealing with the soil conditions. In any event, the developer/builder/owner should be aware that some soil movement is expected.

Two alternates are recommended to minimize potential soil movement. The first alternate will require replacement of at least 2 feet of soil within the building area with non expansive imported fill. The second alternate would be to increase the native soil moisture content to an acceptable level prior to pouring the floor slabs. The slabs-on-grade and continuous footings for both alternates should be nominally reinforced to minimize cracking and vertical offset.

The second alternate utilizes slightly deeper perimeter footings. After construction, the deep perimeter footing will have an encapsulating effect on the soils underlying the floor slab. The encapsulation will retard moisture fluctuations in the soil and should reduce post-construction soil movement.

The on-site clayey soils typically exhibit high expansive characteristics, and their use for Engineered Fill is not encouraged. Over-compacting expansive soils may result in excessive post-construction soil pressures, which can cause structural stress.

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6.0 SITE PREPARATION;

In general, all organic and deleterious materials must be removed from area which will receive building foundations, engineered fill, slabs or other areas deemed important by the Soils Engineer.

Buried structures encountered during construction should be property removed and backfilled.

In general, any septic tanks, debris pits or cesspools should be entirely removed. Water wells should be abandoned in accordance with State and local regulatory agency requirements.

Two alternates are recommended to minimize potential soil movement for conventional footings and slab-on grade floor systems.

7.0 ALTERNATE 1 - FILL PLACEMENT

Placement of two feet of nonexpansive fill within the building areas should minimize the potential soil movement. The intent is to support the floor systems with at least two feet of nonexpansive fill. The fill placement serves two functions: (1) It provides a uniform mat of soil which will more evenly distribute soil pressures; and (2) It reduces the moisture fluctuations of the clayey soil beneath the building area. The fill material should be a silty or clayey soil with a low plasticity. Clean sand or a very sandy soil is not acceptable for this purpose. A sandy soil will allow surface water to drain into the expansive clays below, which may result in soil swelling. The import fill should be approved by the soils engineer prior to placement. The fill should be placed as specified for engineered fill.

In addition, prior to fill placement, the exposed native ground within the proposed building area should be scarified to a depth of 6 inches, moisture-conditioned to 3% to 5% above optimum, and recompacted to between 87% and 90% relative compaction.

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8.0 ALTERNATE 2 - REWORKING OF EXISTING SOIL

Post-construction subgrade movement beneath slabs may be reduced by increasing the moisture content of the top 12 inches of expansive soil. The moisture-content within this layer should be 3% 5% above optimum moisture content.

The moisture content may be increased two ways: (1) prolonged saturation (or flooding); or (2) physically working the soils by excavating, moisturizing and replacing. If the soil is excavated, it should be moisture conditioned to 3 to 5 % above optimum moisture and recompacted to between 87% and 90% of relative compaction based on ASTM D1557.

Over-compaction should be minimized, because over-compaction of this clayey material may be minimized, because over-compaction of this clayey material may result in excessive post-construction swell pressures. The moisture content must be maintained until the floor slab is poured. If the moisture content is lost, the moisture will be reestablished prior to pouring the floor slabs.

In addition, deepened reinforced footings and stem-walls may be used. The stem-walls and footings should be designed by a structural engineer familiar with this type of construction.

9.0 ENGINEERED FILL;

The organic-free on-site soils are predominantly clay. These on-site clayey soils are not encouraged for use as engineered fill. These soils have a low to high potential for expansion and fluctuate with varying moisture content. However, if these clay-rich soils are used as general-fill, the following is recommended. The soil should be carefully and thoroughly moisture-conditioned to 3% to 5% above optimum moisture content. The moisture-conditioned clay should be compacted to between 85% and 88% relative compaction. Over-compaction of this clayey material may result in excessive post-construction swell pressures on non-expansive imported structural fill material should be predominantly nonexpansive fine-grained material with a plasticity index less than 20, and Uniform Building Code Expansion Index less than 15.

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9.0 ENGINEERED FILL "Continued"

Both imported and nonexpansive on-site soil used as structural fill should be compacted to a relative density of a least 90%. Both moisture content and relative compaction should be based on ASTM Test Method D1557.

Additional lifts should not be placed if the previous lift did not meet the required dry density requirements. In no case should the exposed native soil be allowed to dry out prior to placement of fill material. Excessive drying may also result in post-construction movement upon rewetting of the soil.

10.0 FOUNDATIONS;

The undisturbed native soil below the surface soil appears to be moderately strong. The recommended site preparation and compaction of the surface soil should detect and minimize any loose soil conditions. The proposed structures may be supported on a shallow foundation system bearing on undisturbed native soil or on engineered fill. Spread and continuous footings can be designed for the following maximum allowable soil bearing pressures.

LOAD	ALLOWABLE LOADING
Dead Load Only	2,000 PSF
Dead-plus-live load	2,667 PSF
Total load including wind & seismic	3,556 PSF

The footing depth depends on which mitigation measure was used to minimize soil movement. The foundations should be designed by the structural engineer. We are assuming the foundations will be designed using pier or spread footings. If the fill placement alternate is utilized, footings should have a minimum depth of 12 inches. The reworking of native soil alternate will require a minimum footing depth of 18 inches and 12 inches for the interior footings.

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10.0 FOUNDATIONS; "Continued"

The deep perimeter footings will have an encapsulating effect on the moisturized soils which will retard moisture fluctuations in the soils. The footing depths cited should be measured from pad grade (soil grade) or adjacent exterior grade, whichever is lower. Footings should have a minimum width of 12 inches, regardless of load. The total settlement is not expected to exceed 1/2 inch. Differential settlement should be less than one inch.

Most of the settlement is expected if the foundations soils are allowed to become saturated. The footings excavations should not be allowed to dry out at any time prior to pouring concrete.

Backfill over spread footings with pedestals should be a granular-type fill. Expansive clay soils will not be suitable for this purpose. Nominal top and bottom reinforcement is recommended to develop beam action in the footings. A structural engineer familiar with this type of construction should design the footings. **11.0**

11.0 SEISMIC PARMETERS:

The site class per table 1803.6, of the 2010 California Building Code is based on the site soil conditions. It is our opinion that the site class D is most consistent with the subject soil conditions. These parameters are based on probabilistic ground motion of 2% probability of exceeedance in 50 years.

Site Coordinates; Latitude 36.010714 Longitude -120.138695		
Seismic Item	**Value**	**CBC Reference**
Site Class	D	Table 1613.5.2
Site Coefficient, F_a	1.00	Table 1613.5.3(1)
S_S	1.542 g	Figure 1613.5(3)
S_{MS}	1.542 g	Section 1613.5.3
S_{DS}	1.028 g	Section 1613.5.5
Site Coefficient, F_V	1.50	Table 1613.5.3(2)
S_1	0.600 g	Figure 1613.5(4)
S_{M1}	0.900 g	Section 1613.5.3
S_{D1}	0.600 g	Section 1613.5.4

12.0 LIQUEFACTION SEISMIC SETTLEMENT:

Soil liquefaction is a state of soil particles suspension caused by complete loss of strength when the effective stress drops to zero. Liquefaction normally occurs under saturated conditions where strength is frictional. Liquefaction usually occurs under vibratory conditions such as those indulged by a seismic events. Based on the low potential for liquefaction under seismic conditions; no mitigation measures will be necessary for liquefaction or seismic settlement.

13.0 SLAB-ON-GRADE:

Slab-on-grade construction should be appropriate for this project. Slab-on-grade construction should have a moisture barrier incorporated into the floor slab design where floor covering will be used. Interior slabs-on-grade should have at least 2 inches of clean free-draining concrete sand placed below the floor slab. The sand should conform to ASTM C33 requirements for fine aggregate.

The slabs should be reinforced to reduce crack separation and possible vertical offset at the cracks. We suggest at least 6 x 6 - 10/10 wire fabric or #3 reinforcing bars placed on 24-inch centers be used for these purposes. The exterior slabs should be poured separately in order to act independently of the walls and foundation system. Exterior finish grades should be sloped a minimum of 2 % away from all interior slab areas to preclude ponding of water adjacent to the structures. All fills required to bring the building pads to grade should be engineered fills.

14.0 LATERAL LOADING CRITERIA;

Lateral loads may be resisted by soil friction and by passive resistance of soils. A coefficient of friction of 0.39 may be used between the footings and the supporting soil. The passive resistance of the native material or proposed compacted fill may be assumed to be equal to the pressure developed by a fluid with a density of 275 pcf. The frictional and passive resistance of the soil may be combined without reduction in determining the total lateral resistance. A one-third increase in the above value may be used for short duration wind or seismic loads.

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14.0 LATERAL LOADING CRITERIA "Continued"

Retaining structures may be designed for an active or at-rest pressure, depending on the wall restraints. An unrestrained wall, such as a simple cantilever retaining wall, can be designed for an equipment fluid pressure of 36 pcf, which is the active earth pressure.

Restrained walls, such as basement walls which cannot move, should be designed for an at-rest pressure or equivalent fluid pressure of 60 pcf. These design pressures assume the material has moisture content similar to that found at the time of our exploration. These lateral pressures are earth pressure only and should be increased where hydrostatic; foundation, traffic and equipment loads are adjacent to the walls.

15.0 POST-CONSTRUCTION WATER CONTROL;

Prior to occupancy, the soil around the perimeter of the structure should be kept damp. The structure should be landscaped around most of the perimeter.

The landscape watering will help minimize a seasonal change below the structure. The use of automatic sprinkler systems is suggested. Disruption of irrigation cycles may affect the soil moisture content and cause a volumetric change of the soil. The shrubs and trees should be at least 10 and 20 feet, respectively, from the building. Gutters and down spouts are recommended to discharge rain water and least 10 feet from the structure, preferably at the street. The building should be graded with a positive grade of at least 1 to 1.5 percent away from the structure for the first 15 feet.

16.0 UTILITY TRENCH BACKFILL;

Utility trench backfill placed in or adjacent to building areas and exterior slabs should be compacted to at least 90% relative compaction based on ASTM Method D-1557-02. Trench backfill is paved areas should have the same compaction requirements as above with the following additions.
The upper-two feet of trench backfill in paved areas should be compacted to at least 95% relative

compaction. The contractor is responsible for removing all the water sensitive settlement from the trench backfill location and compaction requirements. The contractor should use appropriate equipment and methods to avoid damage to the utilities and/or structures during fill placement and compaction. Select fill around pipes and conduits should have 100% passing on the No. 4 sieve and a maximum of 3% passing on the No. 200 sieve.

17.0 TESTING AND INSPECTION;

A representative of Central Valley Testing, Inc. should be present at the site during the earthwork activities to verify that actual subsurface conditions are consistent with the exploratory field work. This representative can also verify that the intents of these recommendations are incorporated into the project design and construction. A representative of Central Valley Testing Inc. must be on-site during all earth work procedures to provide the necessary testing and inspections so certification for the building pad can be given. Central Valley Testing, Inc. will not be responsible for line or grade since this is the responsibility of the project Prime Contractor.

18.0 LIMITATIONS;

The recommendations made in this report area based on the assumption that soil conditions do not vary significantly from those disclosed in the exploratory borings. If any variations or undesirable conditions are encountered during construction, the soils engineer should be notified so that supplemental recommendations can be made. The recommendations also assume that water is not allowed free access to or under the building foundation or area. The conclusions of this report are based on the information provided regarding the proposed construction.

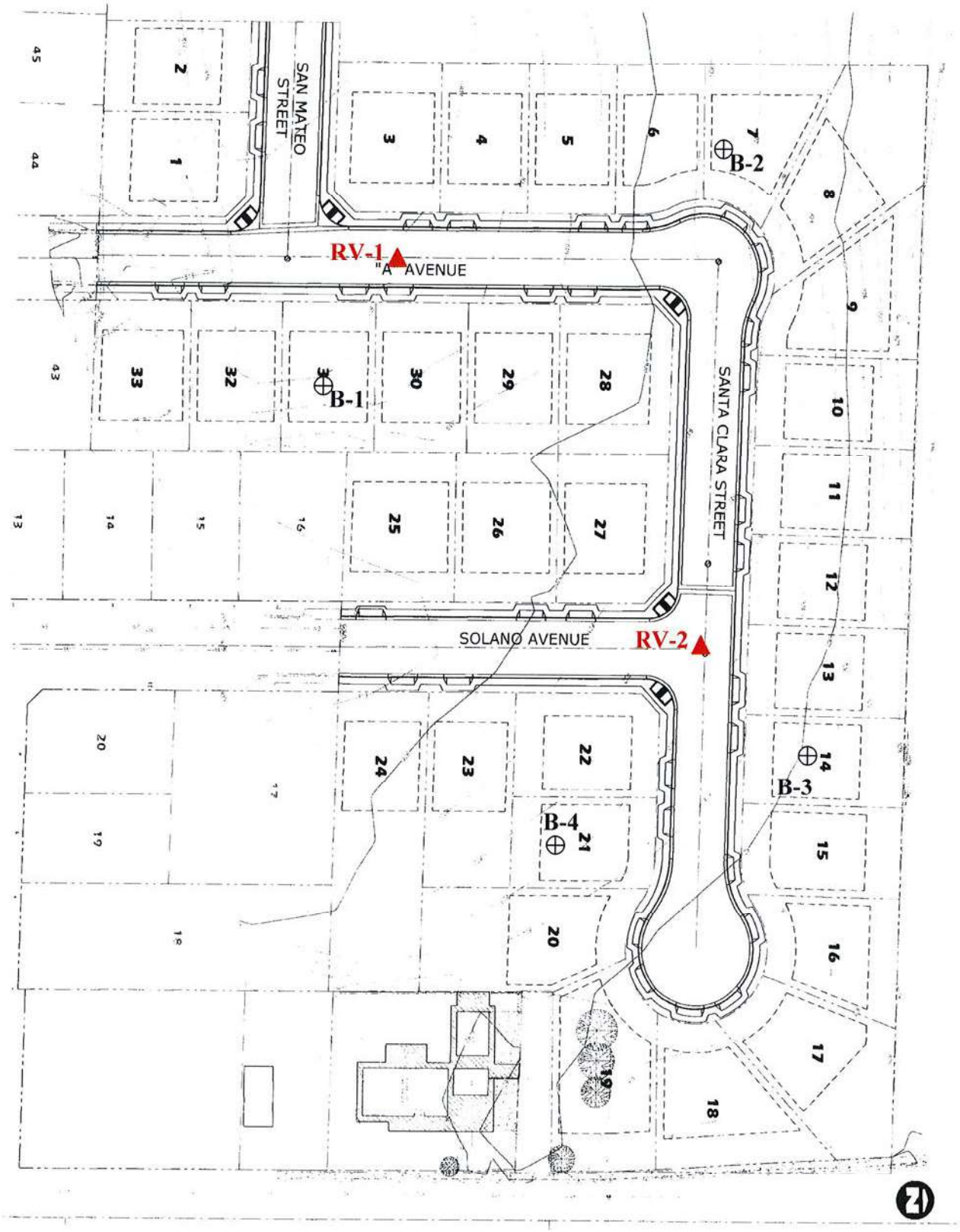
If the proposed construction is relocated or redesigned, the conclusions in this report may not be valid. The soils engineer should be notified of any such changes so the recommendations can be reviewed and re-evaluated. The geotechnical data presented herewith is based upon professional interpretation utilizing the Astate of the art@ and a degree of conservatism deemed property for this project.

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It is not warranted that such data and interpretation cannot be superseded by future geotechnical developments.

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Boring & R-Value Location Map
Report No. 14-0310



CENTRAL VALLEY TESTING, Inc.

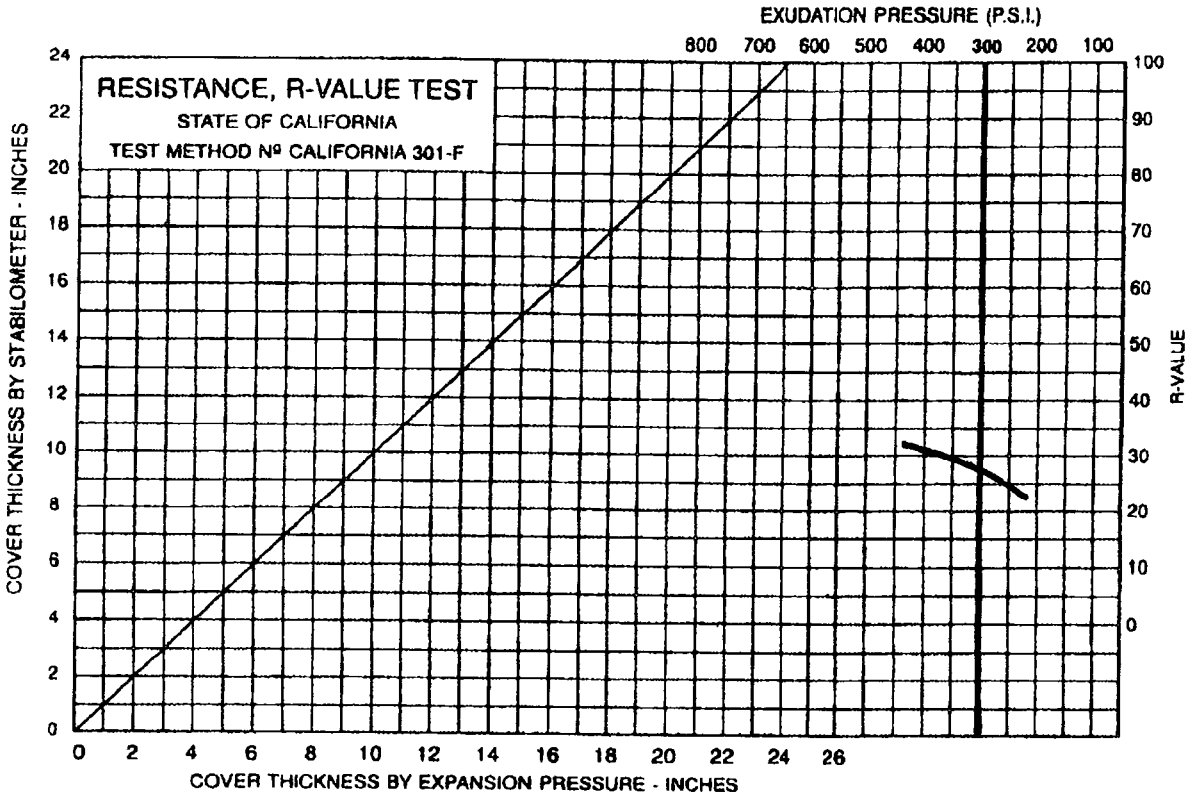
construction materials testing and inspection services, soils and environmental investigations

Client: Panda Koala, Inc.

Address: P.O. Box 670 Report No. 14-0310 RV-1

Huron, California 93234 Date 6/24/13

Project/File No.: Cielito Lindo Development, Phase II, Avenal, California



SAMPLE NO: 1, "A" Street Between Lots 3 & 30

SAMPLE ID: Clayey Sandy Silt (CL)

SPECIMEN	A	B	C
EXUDATION PRESSURE (PSI)	218	321	444
EXPANSION DIAL (.0001")	-	-	-
EXPANSION PRESSURE (PFS)	-	-	-
RESISTANCE VALUE "R"	23	29	32
% MOISTURE AT TEST	16.7	15.3	14.2
DRY DENSITY AT TEST (PCF)	115.1	115.6	116.3

"R" VALUE AT 300-PSI EXUDATION PRESSURE: (28)

"R" VALUE BY EXPANSION PRESSURE (TI=)

CENTRAL VALLEY TESTING, Inc.

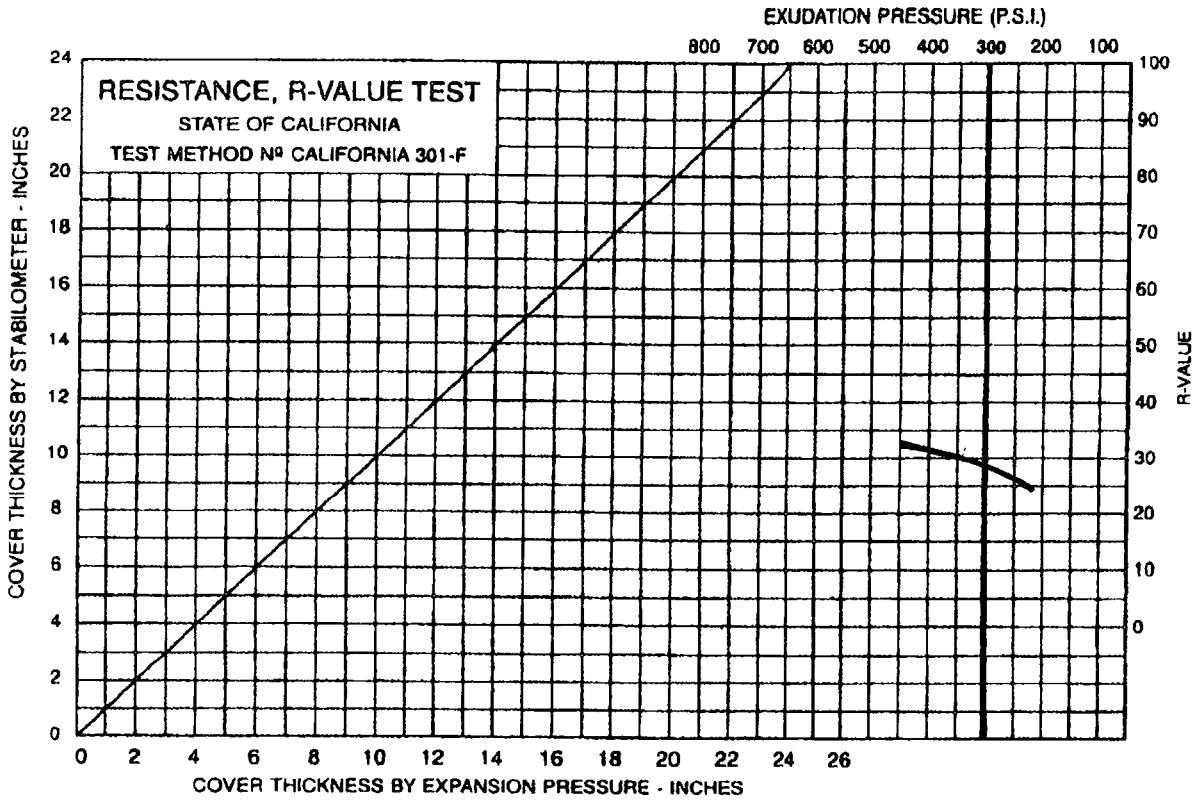
construction materials testing and inspection services, soils and environmental investigations

Client: Panda Koala, Inc.

Address: P.O. Box 670 Report No. 14-0310 RV-2

Huron, California 93234 Date 6/24/13

Project/File No.: Cielito Lindo Development, Phase II, Avenal, California



SAMPLE NO: 2, Intersection of Solano Avenue and Santa Clara Street

SAMPLE ID: Clayey Sandy Silt (CL/ML)

SPECIMEN	A	B	C
EXUDATION PRESSURE (PSI)	223	327	449
EXPANSION DIAL (.0001")	-	-	-
EXPANSION PRESSURE (PFS)	-	-	-
RESISTANCE VALUE "R"	25	30	33
	17.2	16.4	18.3
DRY DENSITY AT TEST (PCF)	114.8	115.6	116.2

"R" VALUE AT 300-PSI EXUDATION PRESSURE: (29)

"R" VALUE BY EXPANSION PRESSURE (TI=)

SOIL LOG

PROJECT: Cielito Lindo Development
Tract No. 813, Phase II
Avenal, California

BORING NO. 1
REPORT NO. 13-0310

DATE : June 19, 2013 **TYPE OF BORING:** Auger
BORING ELEV: --- **GROUNDWATER LEVEL** **LOGGED BY:** JE

DEPTH FT.	SAMPLES	BLOWS PER 6 IN.	SOIL DESCRIPTION	MOISTURE CONTENT %	DRY DENSITY pcf	N-VALUE BLOWS/FT.	INTERNAL ANGEL OF FRICTION DEGREES
			12-18 inches of Distrubed Clayey Sandy Silt, Dry				
5	X	5 6 4	Light Yellowish Brown Clayey Sandy Silt (ML/CL), Moist, Drills Easy	10.7	99.3	10	
10	X	6 7 7	Yellowish Brown Clayey Silt (CL), Moist, Drills Easy	9.4	102.1	14	
15			Moisture and Sand Content Increases				
20			Bottom of Boring				

SOIL LOG

PROJECT: Cielito Lindo Development
Tract No. 813, Phase II
Avenal, California

BORING NO. 2
REPORT NO. 13-0310

DATE : June 19, 2013 **TYPE OF BORING:** Auger
BORING ELEV: --- **GROUNDWATER LEVEL** **LOGGED BY:** JE

DEPTH FT.	SAMPLES	BLOWS PER 6 IN.	SOIL DESCRIPTION	MOISTURE CONTENT %	DRY DENSITY pcf	N-VALUE BLOWS/FT.	INTERNAL ANGEL OF FRICTION DEGREES
			12-18 Inches of Disturbed Clayey Sandy Silt				
5	X	4 6 6	Light Yellowish Brown Clayey Sandy Silt (ML/CL), Moist, Drills Easy	11.4	101.6	12	
10	X	3 9 9	Sand Content Increases (ML), Moist, Drills Easy	9.7	107.4	18	
15							
20			Bottom of Boring				

SOIL LOG

PROJECT: Cielito Lindo Development
Tract No. 813, Phase II
Avenal, California

BORING NO. 3
REPORT NO. 13-0310

DATE : June 19, 2013 **TYPE OF BORING:** Auger
BORING ELEV: --- **GROUNDWATER LEVEL** **LOGGED BY:** JE

DEPTH FT.	SAMPLES	BLOWS PER 6 IN.	SOIL DESCRIPTION	MOISTURE CONTENT %	DRY DENSITY pcf	N-VALUE BLOWS/FT.	INTERNAL ANGEL OF FRICTION DEGREES
–			12-18 Inches of Disturbed Sandy Silt				
– 5 – 10	X	6 7 8	Light Yellowish Brown Clayey Sandy Silt (CL/ML), Moist, Drills Easy	11.6	101.2	15	
– 15 – 20			Bottom of Boring				

SOIL LOG

PROJECT: Cielito Lindo Development
Tract No. 813, Phase II
Avenal, California

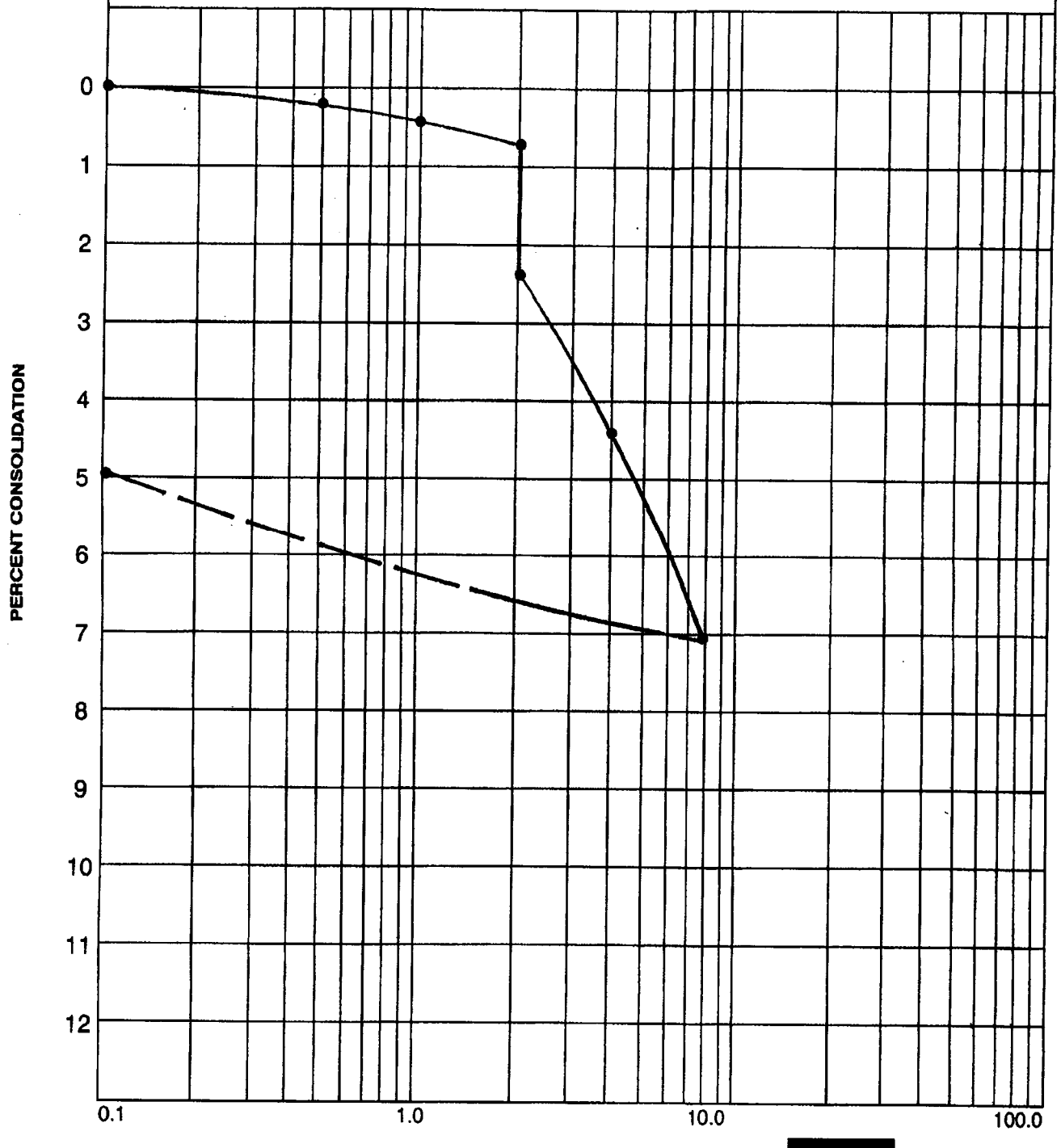
BORING NO. 4
REPORT NO. 13-0310

DATE : June 19, 2013 **TYPE OF BORING:** Auger
BORING ELEV: --- **GROUNDWATER LEVEL** **LOGGED BY:** JE

DEPTH FT.	SAMPLES	BLOWS PER 6 IN.	SOIL DESCRIPTION	MOISTURE CONTENT %	DRY DENSITY pcf	N-VALUE BLOWS/FT.	INTERNAL ANGEL OF FRICTION DEGREES
			12-18 Inches of Disturbed Sandy Silt				
5	X	6 4 4	Light Yellowish Brown Clayey Sandy Silt (CL), Moist, Drills Easy	12.6	97.3	8	
10	X	5 4 5	Yellowish Brown Fine Sandy Silt (ML/CL), Moist, Drills Easy	11.9	99.4	9	
15 20			Bottom of Boring				

CONSOLIDATION TEST

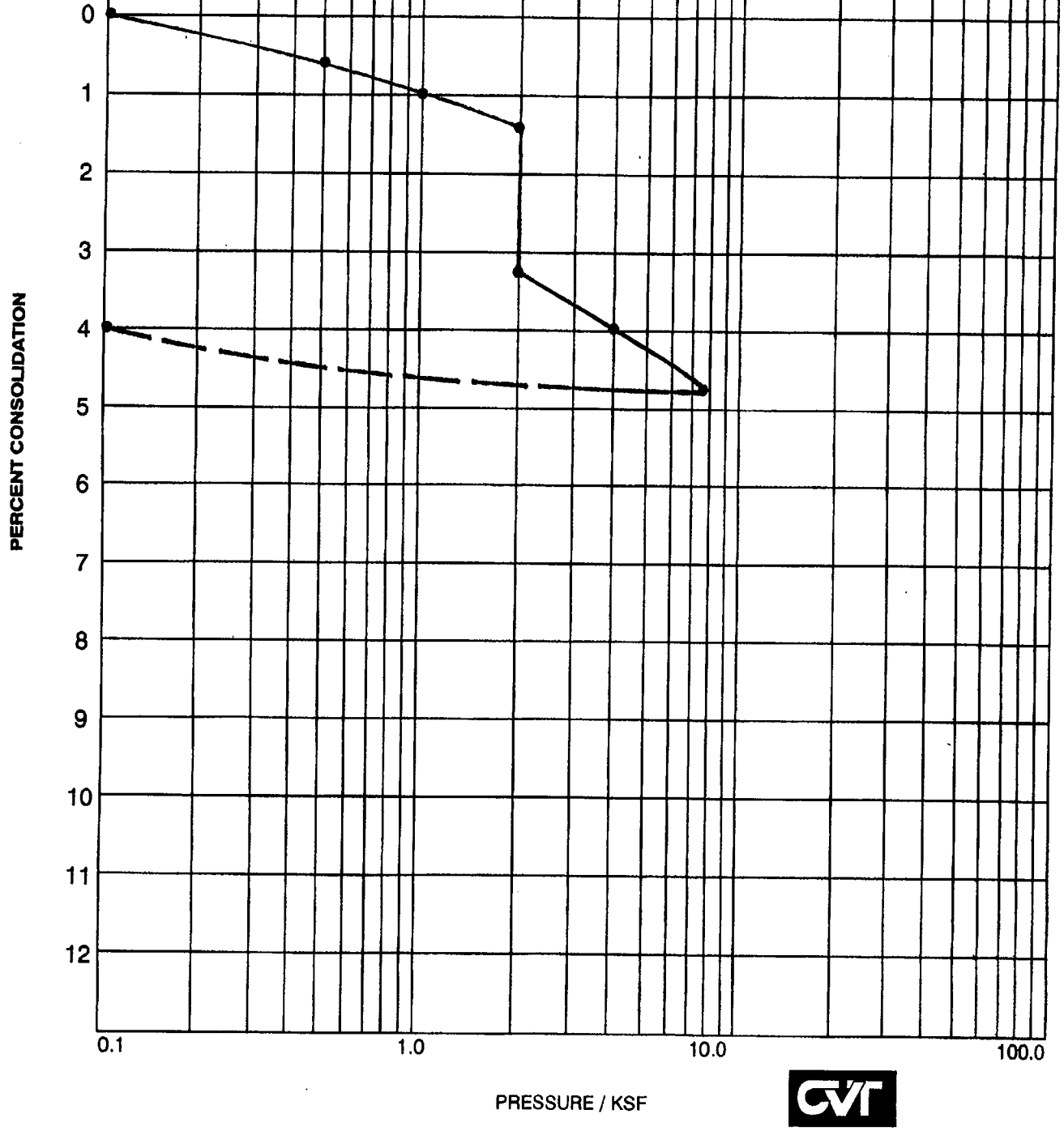
PROJECT NO./NAME	BORING NO.	DEPTH FT.	BLOWS PER FT.	SOIL TYPE
14-0310	1	3-4	10	(CL/ML)



CENTRAL VALLEY TESTING, INC.

CONSOLIDATION TEST

PROJECT NO./NAME	BORING NO.	DEPTH FT.	BLOWS PER FT.	SOIL TYPE
14-0310	3	6-7	15	(ML/CL)



CENTRAL VALLEY TESTING, INC.

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materials testing and inspection services
soils and environmental investigations

UBC EXPANSION INDEX

SUMMARY OF EXPANSION TEST DATA

Surcharge Pressure (PSF)	Initial Dry Density (PCF)	Initial Moisture (%)	Initial Reading Inches	Final Inches
144.0	114.3	17.2	1.000	1.073

Expansion Index by Uniform Building Code Standard No. 18-2	73

CLASSIFICATION OF EXPANSIVE SOIL

Expansion Index	Potential Expansion
0-20	**Very Low**
21-50	**Low**
51-90	**Medium**
91-130	**High**
Above 130	**Very High**

Project: 14-0310 Cielito LIndo Development, Phase II
Sample Location: B-2 & 4 Feet

PO Box 2669, Visalia, CA 93279 • (559) 732-3039 • (559) 264-2224
Fax # (559) 732-8141

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soils and environmental investigations

UBC EXPANSION INDEX

SUMMARY OF EXPANSION TEST DATA

Surcharge Pressure (PSF)	Initial Dry Density (PCF)	Initial Moisture (%)	Initial Reading Inches	Final Inches
144.0	113.7	17.2	1.000	1.079

Expansion Index by Uniform Building Code Standard No. 18-2	79

CLASSIFICATION OF EXPANSIVE SOIL

Expansion Index	Potential Expansion
0-20	**Very Low**
21-50	**Low**
51-90	**Medium**
91-130	**High**
Above 130	**Very High**

Project: Cielito Lindo Development, Phase II
Sample Location: B-4 @ 6 Feet

PO Box 2669, Visalia, CA 93279 • (559) 732-3039 • (559) 264-2224
Fax # (559) 732-8141

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Panda Koala Inc.
Cielito Lindo Dev. Phase II, Avenal

13-0310

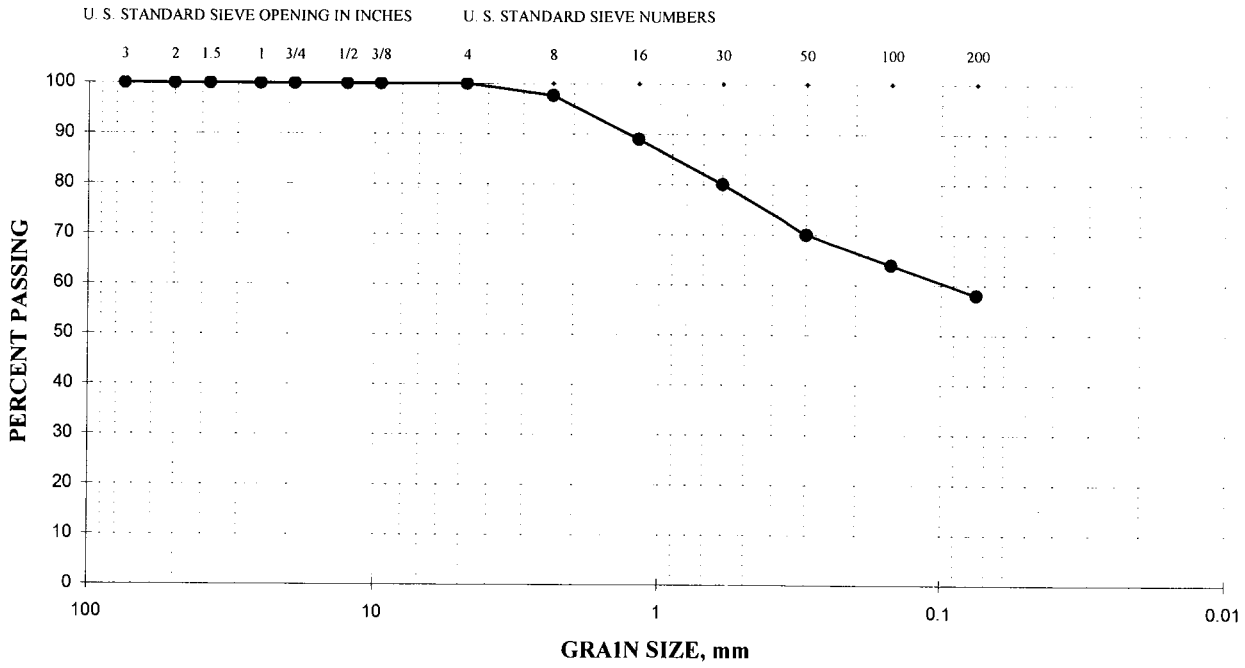
PARTICLE SIZE ANALYSIS

ASTM D 422-02; D 1140-00

Boring #1, 3 to 4 ft.
Clayey sandy Silt; (CL)
*Soil description based on visual-manual procedures

June 21, 2013

Sieve size	% Retained	% Passing
3" (75-mm)	0	100
2" (50-mm)	0	100
1.5" (37.5-mm)	0	100
1" (25-mm)	0	100
3/4" (19-mm)	0	100
1/2" (12.5-mm)	0	100
3/8" (9.5-mm)	0	100
#4 (4.75-mm)	0	100
#8 (2.36-mm)	2	98
#16 (1.18-mm)	3	89
#30 (600-µm)	5	80
#50 (300-µm)	7	70
#100 (150-µm)	11	64
#200 (75-µm)	17	58



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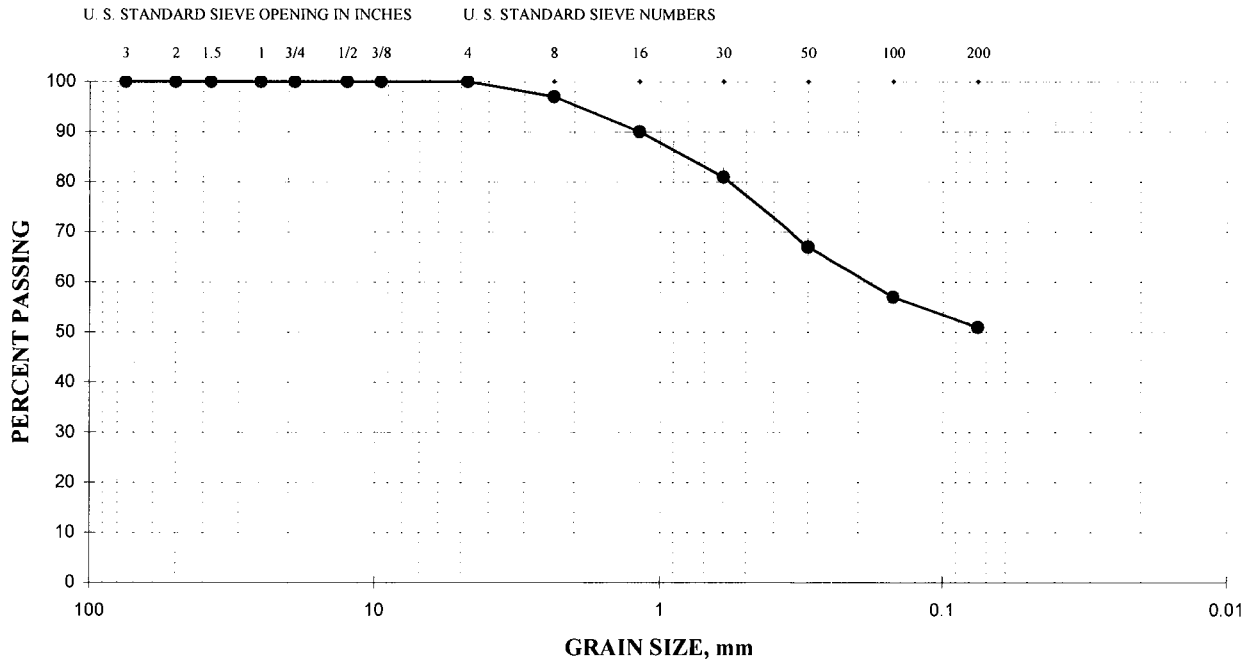
Panda Koala Inc. 13-0310
Cielito Lindo Dev. Phase II, Avenal

PARTICLE SIZE ANALYSIS

ASTM D 422-02; D 1140-00

Boring #2, 7-8 ft. June 21, 2013
Clayey sandy Silt; (CL)
*Soil description based on visual-manual procedures

Sieve size	% Retained	% Passing
3" (75-mm)	0	100
2" (50-mm)	0	100
1.5" (37.5-mm)	0	100
1" (25-mm)	0	100
3/4" (19-mm)	0	100
1/2" (12.5-mm)	0	100
3/8" (9.5-mm)	0	100
#4 (4.75-mm)	0	100
#8 (2.36-mm)	2	97
#16 (1.18-mm)	3	90
#30 (600-µm)	5	81
#50 (300-µm)	7	67
#100 (150-µm)	11	57
#200 (75-µm)	17	51



CENTRAL VALLEY TESTING, Inc.

materials testing and inspection services
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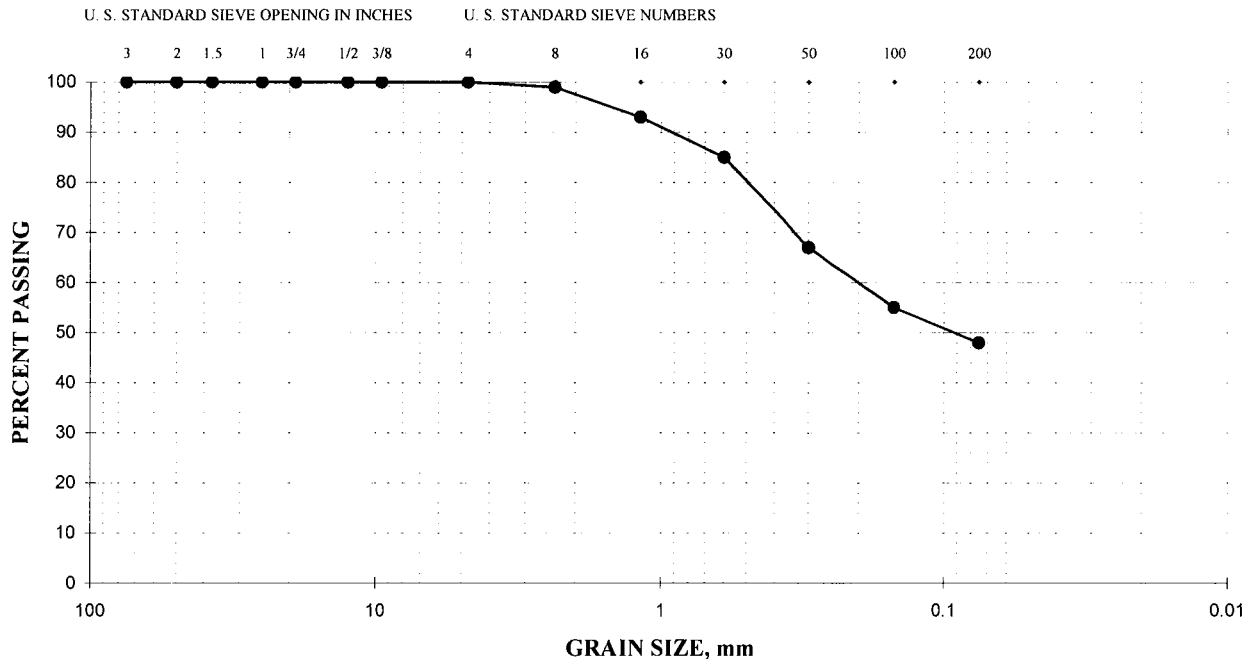
Panda Koala Inc. 13-0310
Cielito Lindo Dev. Phase II, Avenal

PARTICLE SIZE ANALYSIS

ASTM D 422-02; D 1140-00

Boring #3, 5-6 ft. June 21, 2013
Clayey sandy Silt; (CL)
*Soil description based on visual-manual procedures

Sieve size	% Retained	% Passing
3" (75-mm)	0	100
2" (50-mm)	0	100
1.5" (37.5-mm)	0	100
1" (25-mm)	0	100
3/4" (19-mm)	0	100
1/2" (12.5-mm)	0	100
3/8" (9.5-mm)	0	100
#4 (4.75-mm)	0	100
#8 (2.36-mm)	2	99
#16 (1.18-mm)	3	93
#30 (600-µm)	5	85
#50 (300-µm)	7	67
#100 (150-µm)	11	55
#200 (75-µm)	17	48



CENTRAL VALLEY TESTING, Inc.

materials testing and inspection services
soils and environmental investigations

Panda Koala Inc.
Cielito Lindo Dev. Phase II, Avenal

13-0310

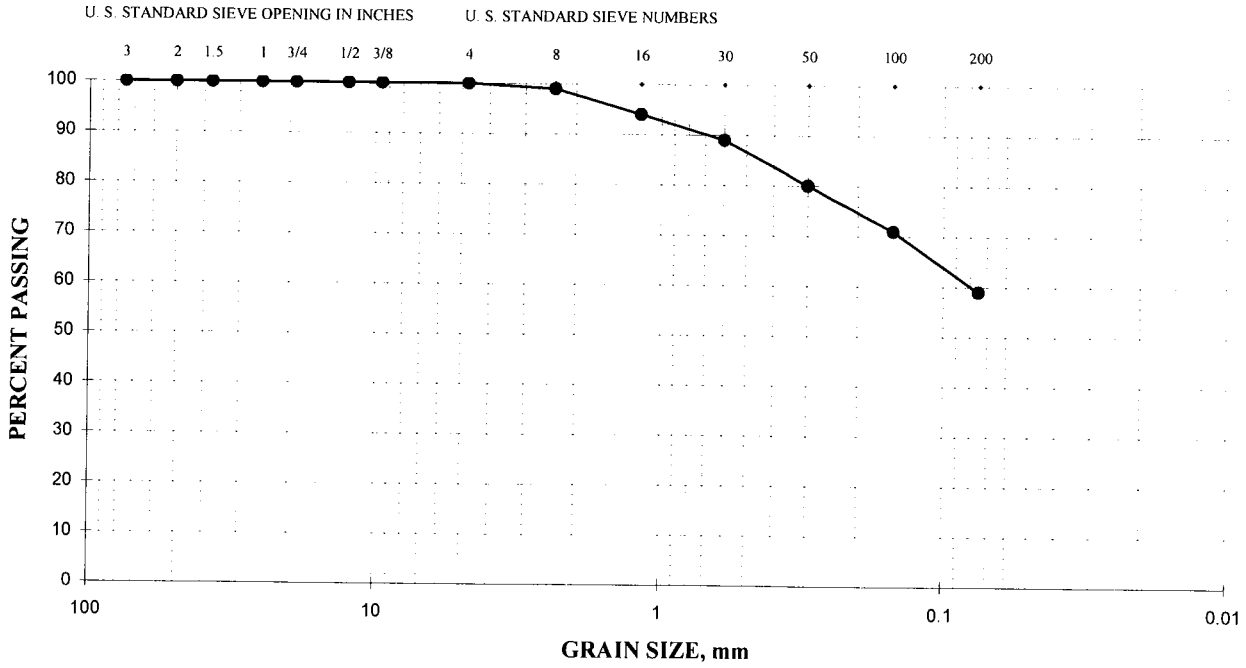
PARTICLE SIZE ANALYSIS

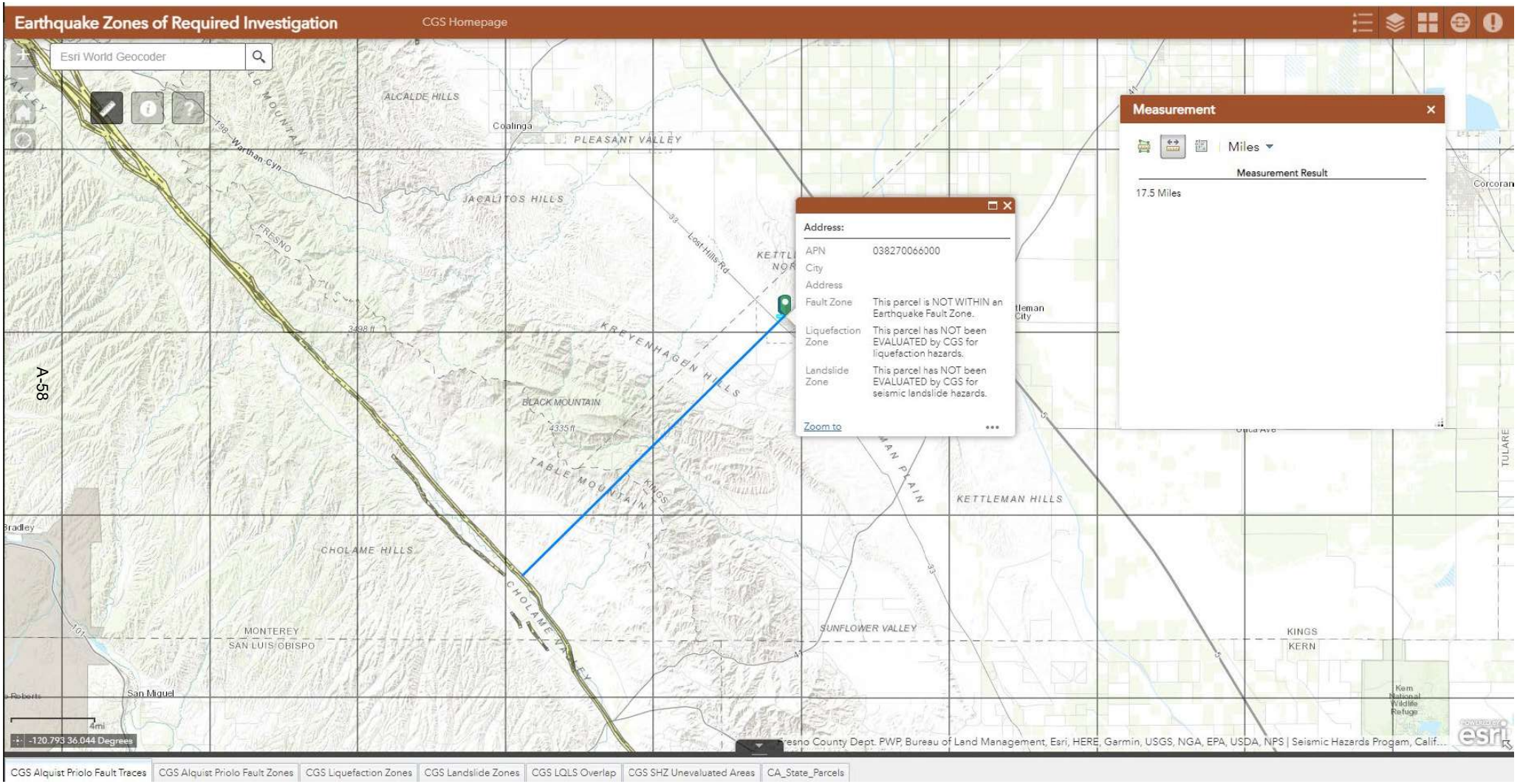
ASTM D 422-02; D 1140-00

Boring #4, 9-10 ft.
Clayey sandy Silt; (CL)
*Soil description based on visual-manual procedures

June 21, 2013

Sieve size	% Retained	% Passing
3" (75-mm)	0	100
2" (50-mm)	0	100
1.5" (37.5-mm)	0	100
1" (25-mm)	0	100
3/4" (19-mm)	0	100
1/2" (12.5-mm)	0	100
3/8" (9.5-mm)	0	100
#4 (4.75-mm)	0	100
#8 (2.36-mm)	2	99
#16 (1.18-mm)	3	94
#30 (600-µm)	5	89
#50 (300-µm)	7	80
#100 (150-µm)	11	71
#200 (75-µm)	17	59




Earthquake Zones of Required Investigation
CGS Homepage
Esri World Geocoder
Measurement
Miles
Measurement Result
17.5 Miles
Address:
APN 038270066000
City
Address
Fault Zone This parcel is NOT WITHIN an Earthquake Fault Zone.
Liquefaction Zone This parcel has NOT been EVALUATED by CGS for liquefaction hazards.
Landslide Zone This parcel has NOT been EVALUATED by CGS for seismic landslide hazards.
Zoom to
ALCALDE HILLS
PLEASANT VALLEY
JACALITOS HILLS
KREYENHAGEN HILLS
BLACK MOUNTAIN
TABLE MOUNTAIN
KETTLEMAN HILLS
CHOLAME HILLS
SUNFLOWER VALLEY
Coalinga
Corcoran
Bradley
San Miguel
MONTEREY
SAN LUIS OBISPO
KINGS
KERN
TULARE
A-58
Lost Hills Rd
Warthan Cyn
-120.793 36.044 Degrees
Fresno County Dept. PWP, Bureau of Land Management, Esri, HERE, Garmin, USGS, NGA, EPA, USDA, NPS | Seismic Hazards Progam, Calif...
CGS Alquist Priolo Fault Traces
CGS Alquist Priolo Fault Zones
CGS Liquefaction Zones
CGS Landslide Zones
CGS LQLS Overlap
CGS SHZ Unevaluated Areas
CA_State_Parcels

1809.5.2 Steel piles, nonprestressed concrete piles and prestressed concrete piles.

1809.5.2.1 Steel piles. Piles shall conform to width-thickness ratios of stiffened, unstiffened and tubular compression elements as shown in Chapter 22, Division VIII.

1809.5.2.2 Nonprestressed concrete piles. Piles shall have transverse reinforcement meeting the requirements of Section 1921.4.

EXCEPTION: Transverse reinforcement need not exceed the amount determined by Formula (21 2) in Section 1921.4.4.1 for spiral or circular hoop reinforcement or by Formula (21-4) in Section 1921.4.4.1 for rectangular hoop reinforcement.

1809.5.2.3 Prestressed concrete piles. Piles shall have a minimum volumetric ratio of spiral reinforcement no less than 0.021 for 14-inch (356 mm) square and smaller piles, and 0.012 for 24-inch (610 mm) square and larger piles unless a smaller value can be justified by rational analysis. Interpolation may be used between the specified ratios for intermediate sizes.

TABLE 18-I-A—ALLOWABLE FOUNDATION AND LATERAL PRESSURE

CLASS OF MATERIALS[1]	ALLOWABLE FOUNDATION PRESSURE (psf)[2] × 0.0479 for kPa	LATERAL BEARING LBS./SQ./FT./FT. OF DEPTH BELOW NATURAL GRADE[3] × 0.157 for kPa per meter	LATERAL SLIDING[4] Coefficient[5]	LATERAL SLIDING[4] Resistance (psf)[6] × 0.0479 for kPa
1. Massive crystalline bedrock	4,000	1,200	.70	
2. Sedimentary and foliated rock	2,000	400	.35	
3. Sandy gravel and/or gravel (GW and GP)	2,000	200	.35	
4. Sand, silty sand, clayey sand, silty gravel and clayey gravel (SW, SP, SM, SC, GM and GC)	1,500	150	.25	
5. Clay, sandy clay, silty clay and clayey silt (CL, ML, MH and CH)	1,000[7]	100		130

[1]For soil classifications OL, OH and PT (i.e., organic clays and peat), a foundation investigation shall be required.
[2]All values of allowable foundation pressure are for footings having a minimum width of 12 inches (305 mm) and a minimum depth of 12 inches (305 mm) into natural grade. Except as in Footnote 7 below, increase of 20 percent allowed for each additional foot (305 mm) of width or depth to a maximum value of three times the designated value.
[3]May be increased the amount of the designated value for each additional foot (305 mm) of depth to a maximum of 15 times the designated value. Isolated poles for uses such as flagpoles or signs and poles used to support buildings which are not adversely affected by a $^1/_2$-inch (13 mm) motion at ground surface due to short-term lateral loads may be designed using lateral bearing values equal to two times the tabulated values.
[4]Lateral bearing and lateral sliding resistance may be combined.
[5]Coefficient to be multiplied by the dead load.
[6]Lateral sliding resistance value to be multiplied by the contact area. In no case shall the lateral sliding resistance exceed one half the dead load.
[7]No increase for width is allowed.

TABLE 18-I-B—CLASSIFICATION OF EXPANSIVE SOIL

EXPANSION INDEX	POTENTIAL EXPANSION
0-20	Very low
21-50	Low
51-90	Medium
91-130	High
Above 130	Very high

Cielito Lindo 3 - Kings County, Annual

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

Cielito Lindo 3

Kings County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	195.00	1000sqft	4.48	195,000.00	0
Single Family Housing	111.00	Dwelling Unit	20.15	253,000.00	454

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	37
Climate Zone	3			**Operational Year**	2024
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

A-60

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Tentative Tract No. 933
Average single family size home 2200 SF
195,000 SF of internal roadway system
Average household size from 2010 census data is 4.09/household

Construction Phase - No demolition phase required

Vehicle Trips - home based work, home based shopping, home based other trip lengths taken from CALTRANS Demand Model VMT data and NHTS 2017 Survey Data

Fleet Mix - District Approved Residential Fleet Mix 2022

Construction Off-road Equipment Mitigation - Construction Off-road Equipment Mitigation - Construction Off-road Equipment Mitigation - All grading equipment and pavers will be 2006 and newer
500 Gallon Water Truck utilized 2x daily - default daily reducted for provided frequency

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

Mobile Land Use Mitigation - LUT-9 Walkability Design
LUT-4 Destination Accessibility
LUT-5 Transit Accessibility

Area Mitigation -

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Area Coating -

Architectural Coating -

Woodstoves -

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblFleetMix	HHD	0.04	0.02
tblFleetMix	HHD	0.04	0.02

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

tblFleetMix	LDA	0.50	0.53
tblFleetMix	LDA	0.50	0.53
tblFleetMix	LDT1	0.05	0.20
tblFleetMix	LDT1	0.05	0.20
tblFleetMix	LDT2	0.17	0.17
tblFleetMix	LDT2	0.17	0.17
tblFleetMix	LHD1	0.03	1.3000e-003
tblFleetMix	LHD1	0.03	1.3000e-003
tblFleetMix	LHD2	6.7450e-003	9.0000e-004
tblFleetMix	LHD2	6.7450e-003	9.0000e-004
tblFleetMix	MCY	0.02	2.5000e-003
tblFleetMix	MCY	0.02	2.5000e-003
tblFleetMix	MDV	0.16	0.05
tblFleetMix	MDV	0.16	0.05
tblFleetMix	MH	3.5200e-003	1.8000e-003
tblFleetMix	MH	3.5200e-003	1.8000e-003
tblFleetMix	MHD	8.2690e-003	8.6000e-003
tblFleetMix	MHD	8.2690e-003	8.6000e-003
tblFleetMix	OBUS	6.2000e-004	0.00
tblFleetMix	OBUS	6.2000e-004	0.00
tblFleetMix	SBUS	1.1520e-003	7.0000e-004
tblFleetMix	SBUS	1.1520e-003	7.0000e-004
tblFleetMix	UBUS	1.8900e-004	4.4000e-003
tblFleetMix	UBUS	1.8900e-004	4.4000e-003
tblLandUse	LandUseSquareFeet	199,800.00	253,000.00
tblLandUse	LotAcreage	36.04	20.15
tblLandUse	Population	317.00	454.00
tblVehicleTrips	HO_TL	7.50	2.78
tblVehicleTrips	HS_TL	7.30	2.50

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

tblVehicleTrips	HW_TL	10.80	7.25

2.0 Emissions Summary

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					
2022	0.2182	2.0221	1.8501	3.9600e-003	0.3278	0.0912	0.4190	0.1330	0.0850	0.2179	0.0000	350.8837	350.8837	0.0753	7.9200e-003	355.1258
2023	0.2594	2.1593	2.5884	5.7800e-003	0.1655	0.0933	0.2588	0.0449	0.0878	0.1327	0.0000	514.9343	514.9343	0.0752	0.0193	522.5746
2024	2.4433	0.1863	0.2712	5.0000e-004	9.5000e-003	8.4700e-003	0.0180	2.5600e-003	7.9000e-003	0.0105	0.0000	44.5868	44.5868	9.5500e-003	7.9000e-004	45.0613
Maximum	**2.4433**	**2.1593**	**2.5884**	**5.7800e-003**	**0.3278**	**0.0933**	**0.4190**	**0.1330**	**0.0878**	**0.2179**	**0.0000**	**514.9343**	**514.9343**	**0.0753**	**0.0193**	**522.5746**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.1438	1.7300	2.0534	3.9600e-003	0.1851	0.0819	0.2670	0.0700	0.0803	0.1503	0.0000	350.8834	350.8834	0.0753	7.9200e-003	355.1255
2023	0.2337	2.2271	2.6262	5.7800e-003	0.1655	0.1089	0.2744	0.0449	0.1055	0.1503	0.0000	514.9340	514.9340	0.0752	0.0193	522.5742
2024	2.4381	0.2078	0.2993	5.0000e-004	9.5000e-003	0.0106	0.0201	2.5600e-003	0.0105	0.0130	0.0000	44.5868	44.5868	9.5500e-003	7.9000e-004	45.0613
Maximum	**2.4381**	**2.2271**	**2.6262**	**5.7800e-003**	**0.1851**	**0.1089**	**0.2744**	**0.0700**	**0.1055**	**0.1503**	**0.0000**	**514.9340**	**514.9340**	**0.0753**	**0.0193**	**522.5742**

Cielito Lindo 3 - Kings County, Annual

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	3.61	4.64	-5.71	0.00	28.37	-4.33	19.30	34.90	-8.65	13.10	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	5-15-2022	8-14-2022	1.2161	0.8566
2	8-15-2022	11-14-2022	0.6767	0.6741
3	11-15-2022	2-14-2023	0.6474	0.6513
4	2-15-2023	5-14-2023	0.5921	0.6024
5	5-15-2023	8-14-2023	0.6099	0.6206
6	8-15-2023	11-14-2023	0.6120	0.6226
7	11-15-2023	2-14-2024	0.9348	0.9561
8	2-15-2024	5-14-2024	1.9965	1.9965
		Highest	1.9965	1.9965

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	tons/yr										MT/yr					
Area	1.6827	0.1119	4.5726	0.0125		0.6163	0.6163		0.6163	0.6163	81.4609	49.4358	130.8967	0.3830	8.8000e-004	140.7353
Energy	0.0144	0.1229	0.0523	7.8000e-004		9.9400e-003	9.9400e-003		9.9400e-003	9.9400e-003	0.0000	224.2773	224.2773	0.0160	4.2200e-003	225.9332
Mobile	0.2764	0.3855	2.3861	5.5100e-003	0.5791	4.4400e-003	0.5835	0.1544	4.1300e-003	0.1585	0.0000	515.7004	515.7004	0.0433	0.0299	525.6862
Waste						0.0000	0.0000		0.0000	0.0000	33.1768	0.0000	33.1768	1.9607	0.0000	82.1942
Water						0.0000	0.0000		0.0000	0.0000	2.2944	5.0972	7.3916	0.2365	5.6600e-003	14.9917
Total	**1.9734**	**0.6203**	**7.0110**	**0.0188**	**0.5791**	**0.6307**	**1.2098**	**0.1544**	**0.6304**	**0.7848**	**116.9321**	**794.5107**	**911.4428**	**2.6395**	**0.0406**	**989.5405**

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	1.2720	0.0510	0.8433	3.1000e-004		7.9300e-003	7.9300e-003		7.9300e-003	7.9300e-003	0.0000	49.4358	49.4358	2.2200e-003	8.8000e-004	49.7541
Energy	0.0144	0.1229	0.0523	7.8000e-004		9.9400e-003	9.9400e-003		9.9400e-003	9.9400e-003	0.0000	224.2773	224.2773	0.0160	4.2200e-003	225.9332
Mobile	0.2612	0.2760	1.6871	2.9400e-003	0.2919	2.6200e-003	0.2945	0.0778	2.4400e-003	0.0803	0.0000	275.2070	275.2070	0.0318	0.0206	282.1268
Waste						0.0000	0.0000		0.0000	0.0000	33.1768	0.0000	33.1768	1.9607	0.0000	82.1942
Water						0.0000	0.0000		0.0000	0.0000	2.2944	5.0972	7.3916	0.2365	5.6600e-003	14.9917
Total	**1.5476**	**0.4500**	**2.5828**	**4.0300e-003**	**0.2919**	**0.0205**	**0.3124**	**0.0778**	**0.0203**	**0.0981**	**35.4713**	**554.0173**	**589.4886**	**2.2472**	**0.0313**	**654.9999**

	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	**21.58**	**27.45**	**63.16**	**78.53**	**49.59**	**96.75**	**74.18**	**49.60**	**96.78**	**87.49**	**69.67**	**30.27**	**35.32**	**14.86**	**22.93**	**33.81**

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	5/15/2022	6/10/2022	5	20	
2	Site Preparation	Site Preparation	6/11/2022	6/24/2022	5	10	
3	Grading	Grading	6/25/2022	8/12/2022	5	35	

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

4	Building Construction	Building Construction	8/13/2022	1/12/2024	5	370	
5	Paving	Paving	1/13/2024	2/9/2024	5	20	
6	Architectural Coating	Architectural Coating	2/10/2024	3/8/2024	5	20	

Acres of Grading (Site Preparation Phase): 15

Acres of Grading (Grading Phase): 105

Acres of Paving: 4.48

Residential Indoor: 512,325; Residential Outdoor: 170,775; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 11,700 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36

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

Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

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	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	122.00	44.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	24.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0264	0.2572	0.2059	3.9000e-004		0.0124	0.0124		0.0116	0.0116	0.0000	33.9902	33.9902	9.5500e-003	0.0000	34.2289
Total	**0.0264**	**0.2572**	**0.2059**	**3.9000e-004**		**0.0124**	**0.0124**		**0.0116**	**0.0116**	**0.0000**	**33.9902**	**33.9902**	**9.5500e-003**	**0.0000**	**34.2289**

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

3.2 Demolition - 2022

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	4.9000e-004	3.6000e-004	4.0700e-003	1.0000e-005	1.2100e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	0.9795	0.9795	3.0000e-005	3.0000e-005	0.9894
Total	**4.9000e-004**	**3.6000e-004**	**4.0700e-003**	**1.0000e-005**	**1.2100e-003**	**1.0000e-005**	**1.2100e-003**	**3.2000e-004**	**1.0000e-005**	**3.3000e-004**	**0.0000**	**0.9795**	**0.9795**	**3.0000e-005**	**3.0000e-005**	**0.9894**

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	0.0116	0.1826	0.2448	3.9000e-004		8.1300e-003	8.1300e-003		8.1300e-003	8.1300e-003	0.0000	33.9902	33.9902	9.5500e-003	0.0000	34.2289
Total	**0.0116**	**0.1826**	**0.2448**	**3.9000e-004**		**8.1300e-003**	**8.1300e-003**		**8.1300e-003**	**8.1300e-003**	**0.0000**	**33.9902**	**33.9902**	**9.5500e-003**	**0.0000**	**34.2289**

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

3.2 Demolition - 2022

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	4.9000e-004	3.6000e-004	4.0700e-003	1.0000e-005	1.2100e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	0.9795	0.9795	3.0000e-005	3.0000e-005	0.9894
Total	**4.9000e-004**	**3.6000e-004**	**4.0700e-003**	**1.0000e-005**	**1.2100e-003**	**1.0000e-005**	**1.2100e-003**	**3.2000e-004**	**1.0000e-005**	**3.3000e-004**	**0.0000**	**0.9795**	**0.9795**	**3.0000e-005**	**3.0000e-005**	**0.9894**

3.3 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0983	0.0000	0.0983	0.0505	0.0000	0.0505	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0159	0.1654	0.0985	1.9000e-004		8.0600e-003	8.0600e-003		7.4200e-003	7.4200e-003	0.0000	16.7197	16.7197	5.4100e-003	0.0000	16.8549
Total	**0.0159**	**0.1654**	**0.0985**	**1.9000e-004**	**0.0983**	**8.0600e-003**	**0.1064**	**0.0505**	**7.4200e-003**	**0.0579**	**0.0000**	**16.7197**	**16.7197**	**5.4100e-003**	**0.0000**	**16.8549**

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

3.3 Site Preparation - 2022

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	3.0000e-004	2.1000e-004	2.4400e-003	1.0000e-005	7.2000e-004	0.0000	7.3000e-004	1.9000e-004	0.0000	2.0000e-004	0.0000	0.5877	0.5877	2.0000e-005	2.0000e-005	0.5936
Total	**3.0000e-004**	**2.1000e-004**	**2.4400e-003**	**1.0000e-005**	**7.2000e-004**	**0.0000**	**7.3000e-004**	**1.9000e-004**	**0.0000**	**2.0000e-004**	**0.0000**	**0.5877**	**0.5877**	**2.0000e-005**	**2.0000e-005**	**0.5936**

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					0.0442	0.0000	0.0442	0.0227	0.0000	0.0227	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.6600e-003	0.0953	0.1148	1.9000e-004		4.7300e-003	4.7300e-003		4.7300e-003	4.7300e-003	0.0000	16.7197	16.7197	5.4100e-003	0.0000	16.8549
Total	**4.6600e-003**	**0.0953**	**0.1148**	**1.9000e-004**	**0.0442**	**4.7300e-003**	**0.0490**	**0.0227**	**4.7300e-003**	**0.0275**	**0.0000**	**16.7197**	**16.7197**	**5.4100e-003**	**0.0000**	**16.8549**

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

3.3 Site Preparation - 2022

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	3.0000e-004	2.1000e-004	2.4400e-003	1.0000e-005	7.2000e-004	0.0000	7.3000e-004	1.9000e-004	0.0000	2.0000e-004	0.0000	0.5877	0.5877	2.0000e-005	2.0000e-005	0.5936
Total	**3.0000e-004**	**2.1000e-004**	**2.4400e-003**	**1.0000e-005**	**7.2000e-004**	**0.0000**	**7.3000e-004**	**1.9000e-004**	**0.0000**	**2.0000e-004**	**0.0000**	**0.5877**	**0.5877**	**2.0000e-005**	**2.0000e-005**	**0.5936**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1611	0.0000	0.1611	0.0639	0.0000	0.0639	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0634	0.6798	0.5082	1.0900e-003		0.0286	0.0286		0.0263	0.0263	0.0000	95.4356	95.4356	0.0309	0.0000	96.2072
Total	**0.0634**	**0.6798**	**0.5082**	**1.0900e-003**	**0.1611**	**0.0286**	**0.1897**	**0.0639**	**0.0263**	**0.0903**	**0.0000**	**95.4356**	**95.4356**	**0.0309**	**0.0000**	**96.2072**

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

3.4 Grading - 2022

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	1.1500e-003	8.3000e-004	9.4900e-003	2.0000e-005	2.8100e-003	2.0000e-005	2.8300e-003	7.5000e-004	1.0000e-005	7.6000e-004	0.0000	2.2856	2.2856	8.0000e-005	7.0000e-005	2.3085
Total	**1.1500e-003**	**8.3000e-004**	**9.4900e-003**	**2.0000e-005**	**2.8100e-003**	**2.0000e-005**	**2.8300e-003**	**7.5000e-004**	**1.0000e-005**	**7.6000e-004**	**0.0000**	**2.2856**	**2.2856**	**8.0000e-005**	**7.0000e-005**	**2.3085**

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					0.0725	0.0000	0.0725	0.0288	0.0000	0.0288	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0267	0.5246	0.6426	1.0900e-003		0.0227	0.0227		0.0227	0.0227	0.0000	95.4354	95.4354	0.0309	0.0000	96.2071
Total	**0.0267**	**0.5246**	**0.6426**	**1.0900e-003**	**0.0725**	**0.0227**	**0.0952**	**0.0288**	**0.0227**	**0.0515**	**0.0000**	**95.4354**	**95.4354**	**0.0309**	**0.0000**	**96.2071**

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

3.4 Grading - 2022

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	1.1500e-003	8.3000e-004	9.4900e-003	2.0000e-005	2.8100e-003	2.0000e-005	2.8300e-003	7.5000e-004	1.0000e-005	7.6000e-004	0.0000	2.2856	2.2856	8.0000e-005	7.0000e-005	2.3085
Total	**1.1500e-003**	**8.3000e-004**	**9.4900e-003**	**2.0000e-005**	**2.8100e-003**	**2.0000e-005**	**2.8300e-003**	**7.5000e-004**	**1.0000e-005**	**7.6000e-004**	**0.0000**	**2.2856**	**2.2856**	**8.0000e-005**	**7.0000e-005**	**2.3085**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0853	0.7808	0.8182	1.3500e-003		0.0405	0.0405		0.0381	0.0381	0.0000	115.8626	115.8626	0.0278	0.0000	116.5566
Total	**0.0853**	**0.7808**	**0.8182**	**1.3500e-003**		**0.0405**	**0.0405**		**0.0381**	**0.0381**	**0.0000**	**115.8626**	**115.8626**	**0.0278**	**0.0000**	**116.5566**

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

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.1900e-003	0.1231	0.0379	4.7000e-004	0.0147	1.3900e-003	0.0160	4.2300e-003	1.3300e-003	5.5600e-003	0.0000	45.1887	45.1887	2.7000e-004	6.5700e-003	47.1532
Worker	0.0201	0.0145	0.1654	4.3000e-004	0.0490	2.7000e-004	0.0493	0.0130	2.5000e-004	0.0133	0.0000	39.8341	39.8341	1.3300e-003	1.2300e-003	40.2336
Total	**0.0253**	**0.1376**	**0.2033**	**9.0000e-004**	**0.0637**	**1.6600e-003**	**0.0653**	**0.0173**	**1.5800e-003**	**0.0188**	**0.0000**	**85.0228**	**85.0228**	**1.6000e-003**	**7.8000e-003**	**87.3869**

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	0.0737	0.7885	0.8318	1.3500e-003		0.0446	0.0446		0.0431	0.0431	0.0000	115.8625	115.8625	0.0278	0.0000	116.5564
Total	**0.0737**	**0.7885**	**0.8318**	**1.3500e-003**		**0.0446**	**0.0446**		**0.0431**	**0.0431**	**0.0000**	**115.8625**	**115.8625**	**0.0278**	**0.0000**	**116.5564**

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

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.1900e-003	0.1231	0.0379	4.7000e-004	0.0147	1.3900e-003	0.0160	4.2300e-003	1.3300e-003	5.5600e-003	0.0000	45.1887	45.1887	2.7000e-004	6.5700e-003	47.1532
Worker	0.0201	0.0145	0.1654	4.3000e-004	0.0490	2.7000e-004	0.0493	0.0130	2.5000e-004	0.0133	0.0000	39.8341	39.8341	1.3300e-003	1.2300e-003	40.2336
Total	**0.0253**	**0.1376**	**0.2033**	**9.0000e-004**	**0.0637**	**1.6600e-003**	**0.0653**	**0.0173**	**1.5800e-003**	**0.0188**	**0.0000**	**85.0228**	**85.0228**	**1.6000e-003**	**7.8000e-003**	**87.3869**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

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

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

3.5 Building Construction - 2023

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	7.0000e-003	0.2564	0.0845	1.1900e-003	0.0381	1.6900e-003	0.0398	0.0110	1.6100e-003	0.0126	0.0000	113.3508	113.3508	4.3000e-004	0.0164	118.2473
Worker	0.0479	0.0329	0.3922	1.0900e-003	0.1274	6.5000e-004	0.1281	0.0339	6.0000e-004	0.0345	0.0000	100.2374	100.2374	3.0900e-003	2.9300e-003	101.1890
Total	**0.0549**	**0.2892**	**0.4767**	**2.2800e-003**	**0.1655**	**2.3400e-003**	**0.1679**	**0.0449**	**2.2100e-003**	**0.0471**	**0.0000**	**213.5882**	**213.5882**	**3.5200e-003**	**0.0193**	**219.4363**

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	0.1787	1.9379	2.1495	3.5000e-003		0.1066	0.1066		0.1033	0.1033	0.0000	301.3458	301.3458	0.0717	0.0000	303.1380
Total	**0.1787**	**1.9379**	**2.1495**	**3.5000e-003**		**0.1066**	**0.1066**		**0.1033**	**0.1033**	**0.0000**	**301.3458**	**301.3458**	**0.0717**	**0.0000**	**303.1380**

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

3.5 Building Construction - 2023

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	7.0000e-003	0.2564	0.0845	1.1900e-003	0.0381	1.6900e-003	0.0398	0.0110	1.6100e-003	0.0126	0.0000	113.3508	113.3508	4.3000e-004	0.0164	118.2473
Worker	0.0479	0.0329	0.3922	1.0900e-003	0.1274	6.5000e-004	0.1281	0.0339	6.0000e-004	0.0345	0.0000	100.2374	100.2374	3.0900e-003	2.9300e-003	101.1890
Total	**0.0549**	**0.2892**	**0.4767**	**2.2800e-003**	**0.1655**	**2.3400e-003**	**0.1679**	**0.0449**	**2.2100e-003**	**0.0471**	**0.0000**	**213.5882**	**213.5882**	**3.5200e-003**	**0.0193**	**219.4363**

3.5 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.3600e-003	0.0672	0.0808	1.3000e-004		3.0700e-003	3.0700e-003		2.8800e-003	2.8800e-003	0.0000	11.5925	11.5925	2.7400e-003	0.0000	11.6610
Total	**7.3600e-003**	**0.0672**	**0.0808**	**1.3000e-004**		**3.0700e-003**	**3.0700e-003**		**2.8800e-003**	**2.8800e-003**	**0.0000**	**11.5925**	**11.5925**	**2.7400e-003**	**0.0000**	**11.6610**

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

3.5 Building Construction - 2024

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	2.6000e-004	9.8500e-003	3.1600e-003	4.0000e-005	1.4700e-003	7.0000e-005	1.5300e-003	4.2000e-004	6.0000e-005	4.9000e-004	0.0000	4.2959	4.2959	2.0000e-005	6.2000e-004	4.4810
Worker	1.7000e-003	1.1200e-003	0.0139	4.0000e-005	4.9000e-003	2.0000e-005	4.9200e-003	1.3000e-003	2.0000e-005	1.3200e-003	0.0000	3.7324	3.7324	1.1000e-004	1.0000e-004	3.7662
Total	**1.9600e-003**	**0.0110**	**0.0171**	**8.0000e-005**	**6.3700e-003**	**9.0000e-005**	**6.4500e-003**	**1.7200e-003**	**8.0000e-005**	**1.8100e-003**	**0.0000**	**8.0283**	**8.0283**	**1.3000e-004**	**7.2000e-004**	**8.2472**

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	6.4700e-003	0.0710	0.0822	1.3000e-004		3.7900e-003	3.7900e-003		3.6800e-003	3.6800e-003	0.0000	11.5924	11.5924	2.7400e-003	0.0000	11.6610
Total	**6.4700e-003**	**0.0710**	**0.0822**	**1.3000e-004**		**3.7900e-003**	**3.7900e-003**		**3.6800e-003**	**3.6800e-003**	**0.0000**	**11.5924**	**11.5924**	**2.7400e-003**	**0.0000**	**11.6610**

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

3.5 Building Construction - 2024

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	2.6000e-004	9.8500e-003	3.1600e-003	4.0000e-005	1.4700e-003	7.0000e-005	1.5300e-003	4.2000e-004	6.0000e-005	4.9000e-004	0.0000	4.2959	4.2959	2.0000e-005	6.2000e-004	4.4810
Worker	1.7000e-003	1.1200e-003	0.0139	4.0000e-005	4.9000e-003	2.0000e-005	4.9200e-003	1.3000e-003	2.0000e-005	1.3200e-003	0.0000	3.7324	3.7324	1.1000e-004	1.0000e-004	3.7662
Total	**1.9600e-003**	**0.0110**	**0.0171**	**8.0000e-005**	**6.3700e-003**	**9.0000e-005**	**6.4500e-003**	**1.7200e-003**	**8.0000e-005**	**1.8100e-003**	**0.0000**	**8.0283**	**8.0283**	**1.3000e-004**	**7.2000e-004**	**8.2472**

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.8800e-003	0.0953	0.1463	2.3000e-004		4.6900e-003	4.6900e-003		4.3100e-003	4.3100e-003	0.0000	20.0265	20.0265	6.4800e-003	0.0000	20.1885
Paving	5.8700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0158**	**0.0953**	**0.1463**	**2.3000e-004**		**4.6900e-003**	**4.6900e-003**		**4.3100e-003**	**4.3100e-003**	**0.0000**	**20.0265**	**20.0265**	**6.4800e-003**	**0.0000**	**20.1885**

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

3.6 Paving - 2024

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	4.2000e-004	2.7000e-004	3.4200e-003	1.0000e-005	1.2100e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	0.9178	0.9178	3.0000e-005	3.0000e-005	0.9261
Total	**4.2000e-004**	**2.7000e-004**	**3.4200e-003**	**1.0000e-005**	**1.2100e-003**	**1.0000e-005**	**1.2100e-003**	**3.2000e-004**	**1.0000e-005**	**3.3000e-004**	**0.0000**	**0.9178**	**0.9178**	**3.0000e-005**	**3.0000e-005**	**0.9261**

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	5.6100e-003	0.1130	0.1730	2.3000e-004		6.0900e-003	6.0900e-003		6.0900e-003	6.0900e-003	0.0000	20.0265	20.0265	6.4800e-003	0.0000	20.1884
Paving	5.8700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0115**	**0.1130**	**0.1730**	**2.3000e-004**		**6.0900e-003**	**6.0900e-003**		**6.0900e-003**	**6.0900e-003**	**0.0000**	**20.0265**	**20.0265**	**6.4800e-003**	**0.0000**	**20.1884**

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

3.6 Paving - 2024

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	4.2000e-004	2.7000e-004	3.4200e-003	1.0000e-005	1.2100e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	0.9178	0.9178	3.0000e-005	3.0000e-005	0.9261
Total	**4.2000e-004**	**2.7000e-004**	**3.4200e-003**	**1.0000e-005**	**1.2100e-003**	**1.0000e-005**	**1.2100e-003**	**3.2000e-004**	**1.0000e-005**	**3.3000e-004**	**0.0000**	**0.9178**	**0.9178**	**3.0000e-005**	**3.0000e-005**	**0.9261**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.4153					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8100e-003	0.0122	0.0181	3.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	2.5533	2.5533	1.4000e-004	0.0000	2.5569
Total	**2.4171**	**0.0122**	**0.0181**	**3.0000e-005**		**6.1000e-004**	**6.1000e-004**		**6.1000e-004**	**6.1000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.4000e-004**	**0.0000**	**2.5569**

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

3.7 Architectural Coating - 2024

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	6.7000e-004	4.4000e-004	5.4800e-003	2.0000e-005	1.9300e-003	1.0000e-005	1.9400e-003	5.1000e-004	1.0000e-005	5.2000e-004	0.0000	1.4685	1.4685	4.0000e-005	4.0000e-005	1.4818
Total	**6.7000e-004**	**4.4000e-004**	**5.4800e-003**	**2.0000e-005**	**1.9300e-003**	**1.0000e-005**	**1.9400e-003**	**5.1000e-004**	**1.0000e-005**	**5.2000e-004**	**0.0000**	**1.4685**	**1.4685**	**4.0000e-005**	**4.0000e-005**	**1.4818**

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	2.4153					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8100e-003	0.0122	0.0181	3.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	2.5533	2.5533	1.4000e-004	0.0000	2.5568
Total	**2.4171**	**0.0122**	**0.0181**	**3.0000e-005**		**6.1000e-004**	**6.1000e-004**		**6.1000e-004**	**6.1000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.4000e-004**	**0.0000**	**2.5568**

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

3.7 Architectural Coating - 2024

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	6.7000e-004	4.4000e-004	5.4800e-003	2.0000e-005	1.9300e-003	1.0000e-005	1.9400e-003	5.1000e-004	1.0000e-005	5.2000e-004	0.0000	1.4685	1.4685	4.0000e-005	4.0000e-005	1.4818
Total	**6.7000e-004**	**4.4000e-004**	**5.4800e-003**	**2.0000e-005**	**1.9300e-003**	**1.0000e-005**	**1.9400e-003**	**5.1000e-004**	**1.0000e-005**	**5.2000e-004**	**0.0000**	**1.4685**	**1.4685**	**4.0000e-005**	**4.0000e-005**	**1.4818**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Improve Walkability Design

Improve Destination Accessibility

Increase Transit Accessibility

Improve Pedestrian Network

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	0.2612	0.2760	1.6871	2.9400e-003	0.2919	2.6200e-003	0.2945	0.0778	2.4400e-003	0.0803	0.0000	275.2070	275.2070	0.0318	0.0206	282.1268
Unmitigated	0.2764	0.3855	2.3861	5.5100e-003	0.5791	4.4400e-003	0.5835	0.1544	4.1300e-003	0.1585	0.0000	515.7004	515.7004	0.0433	0.0299	525.6862

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Single Family Housing	1,047.84	1,058.94	949.05	1,544,964	778,752
Total	1,047.84	1,058.94	949.05	1,544,964	778,752

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
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Single Family Housing	7.25	2.50	2.78	42.30	19.60	38.10	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.534300	0.203000	0.167300	0.054500	0.001300	0.000900	0.008600	0.020700	0.000000	0.004400	0.002500	0.000700	0.001800
Single Family Housing	0.534300	0.203000	0.167300	0.054500	0.001300	0.000900	0.008600	0.020700	0.000000	0.004400	0.002500	0.000700	0.001800

5.0 Energy Detail

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

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	81.8937	81.8937	0.0133	1.6100e-003	82.7035
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	81.8937	81.8937	0.0133	1.6100e-003	82.7035
NaturalGas Mitigated	0.0144	0.1229	0.0523	7.8000e-004		9.9400e-003	9.9400e-003		9.9400e-003	9.9400e-003	0.0000	142.3836	142.3836	2.7300e-003	2.6100e-003	143.2297
NaturalGas Unmitigated	0.0144	0.1229	0.0523	7.8000e-004		9.9400e-003	9.9400e-003		9.9400e-003	9.9400e-003	0.0000	142.3836	142.3836	2.7300e-003	2.6100e-003	143.2297

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	tons/yr										MT/yr					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	2.66817e+006	0.0144	0.1229	0.0523	7.8000e-004		9.9400e-003	9.9400e-003		9.9400e-003	9.9400e-003	0.0000	142.3836	142.3836	2.7300e-003	2.6100e-003	143.2297
Total		**0.0144**	**0.1229**	**0.0523**	**7.8000e-004**		**9.9400e-003**	**9.9400e-003**		**9.9400e-003**	**9.9400e-003**	**0.0000**	**142.3836**	**142.3836**	**2.7300e-003**	**2.6100e-003**	**143.2297**

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					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	2.66817e+006	0.0144	0.1229	0.0523	7.8000e-004		9.9400e-003	9.9400e-003		9.9400e-003	9.9400e-003	0.0000	142.3836	142.3836	2.7300e-003	2.6100e-003	143.2297
Total		**0.0144**	**0.1229**	**0.0523**	**7.8000e-004**		**9.9400e-003**	**9.9400e-003**		**9.9400e-003**	**9.9400e-003**	**0.0000**	**142.3836**	**142.3836**	**2.7300e-003**	**2.6100e-003**	**143.2297**

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

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	885110	81.8937	0.0133	1.6100e-003	82.7035
Total		**81.8937**	**0.0133**	**1.6100e-003**	**82.7035**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	885110	81.8937	0.0133	1.6100e-003	82.7035
Total		**81.8937**	**0.0133**	**1.6100e-003**	**82.7035**

6.0 Area Detail

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

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

	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	1.2720	0.0510	0.8433	3.1000e-004		7.9300e-003	7.9300e-003		7.9300e-003	7.9300e-003	0.0000	49.4358	49.4358	2.2200e-003	8.8000e-004	49.7541
Unmitigated	1.6827	0.1119	4.5726	0.0125		0.6163	0.6163		0.6163	0.6163	81.4609	49.4358	130.8967	0.3830	8.8000e-004	140.7353

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	0.2415					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.0007					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.4155	0.1024	3.7470	0.0124		0.6117	0.6117		0.6117	0.6117	81.4609	48.0860	129.5469	0.3817	8.8000e-004	139.3530
Landscaping	0.0249	9.5100e-003	0.8256	4.0000e-005		4.5700e-003	4.5700e-003		4.5700e-003	4.5700e-003	0.0000	1.3498	1.3498	1.3000e-003	0.0000	1.3823
Total	**1.6827**	**0.1119**	**4.5726**	**0.0125**		**0.6163**	**0.6163**		**0.6163**	**0.6163**	**81.4609**	**49.4358**	**130.8967**	**0.3830**	**8.8000e-004**	**140.7353**

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	0.2415					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.0007					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	4.8600e-003	0.0415	0.0177	2.7000e-004		3.3600e-003	3.3600e-003		3.3600e-003	3.3600e-003	0.0000	48.0860	48.0860	9.2000e-004	8.8000e-004	48.3718
Landscaping	0.0249	9.5100e-003	0.8256	4.0000e-005		4.5700e-003	4.5700e-003		4.5700e-003	4.5700e-003	0.0000	1.3498	1.3498	1.3000e-003	0.0000	1.3823
Total	**1.2720**	**0.0510**	**0.8433**	**3.1000e-004**		**7.9300e-003**	**7.9300e-003**		**7.9300e-003**	**7.9300e-003**	**0.0000**	**49.4358**	**49.4358**	**2.2200e-003**	**8.8000e-004**	**49.7541**

Page

7.0 Water Detail

7.1 Mitigation Measures Water

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	7.3916	0.2365	5.6600e-003	14.9917
Unmitigated	7.3916	0.2365	5.6600e-003	14.9917

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	7.2321 / 4.55937	7.3916	0.2365	5.6600e-003	14.9917
Total		**7.3916**	**0.2365**	**5.6600e-003**	**14.9917**

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			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	7.2321 / 4.55937	7.3916	0.2365	5.6600e-003	14.9917
Total		**7.3916**	**0.2365**	**5.6600e-003**	**14.9917**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	33.1768	1.9607	0.0000	82.1942
Unmitigated	33.1768	1.9607	0.0000	82.1942

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			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	163.44	33.1768	1.9607	0.0000	82.1942
Total		**33.1768**	**1.9607**	**0.0000**	**82.1942**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	163.44	33.1768	1.9607	0.0000	82.1942
Total		**33.1768**	**1.9607**	**0.0000**	**82.1942**

9.0 Operational Offroad

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

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

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

2005 BAU Baseline Scenario

Kings County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	195.00	1000sqft	4.48	195,000.00	0
Single Family Housing	111.00	Dwelling Unit	20.15	253,000.00	454

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	37
Climate Zone	3			**Operational Year**	2005
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

A-97

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Tentative Tract No. 933
Average single family size home 2200 SF
195,000 SF of internal roadway system
Average household size from 2010 census data is 4.09/household

Construction Phase - No demolition phase required

Vehicle Trips - home based work, home based shopping, home based other trip lengths taken from CALTRANS Demand Model VMT data and NHTS 2017 Survey Data

Fleet Mix -

Construction Off-road Equipment Mitigation -
500 Gallon Water Truck utilized 2x daily - default daily reducted for provided frequency

Mobile Land Use Mitigation -

2005 BAU Baseline Scenario - Kings County, Annual

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

Area Mitigation -

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Area Coating -

Architectural Coating -

Woodstoves -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	PhaseEndDate	6/11/2003	5/14/2003
tblLandUse	LandUseSquareFeet	199,800.00	253,000.00
tblLandUse	LotAcreage	36.04	20.15
tblLandUse	Population	317.00	454.00
tblVehicleTrips	HO_TL	7.50	2.78
tblVehicleTrips	HS_TL	7.30	2.50
tblVehicleTrips	HW_TL	10.80	7.25

2.0 Emissions Summary

2005 BAU Baseline Scenario - Kings 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					
2003	0.9834	5.8117	4.1929	0.0351	0.3265	0.3564	0.6829	0.1326	0.3551	0.4877	0.0000	382.2999	382.2999	0.0773	0.0177	389.5136
2004	1.7100	8.5561	7.5059	0.0544	0.1668	0.5729	0.7397	0.0452	0.5694	0.6146	0.0000	638.4499	638.4499	0.1320	0.0447	655.0820
2005	4.1188	0.6925	0.4444	4.6800e-003	8.2300e-003	0.0463	0.0545	2.2100e-003	0.0462	0.0484	0.0000	49.3036	49.3036	9.1700e-003	1.5600e-003	49.9986
Maximum	**4.1188**	**8.5561**	**7.5059**	**0.0544**	**0.3265**	**0.5729**	**0.7397**	**0.1326**	**0.5694**	**0.6146**	**0.0000**	**638.4499**	**638.4499**	**0.1320**	**0.0447**	**655.0820**

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					
2003	0.9834	5.8117	4.1929	0.0351	0.1839	0.3564	0.5403	0.0697	0.3551	0.4248	0.0000	382.2996	382.2996	0.0773	0.0177	389.5133
2004	1.7100	8.5561	7.5059	0.0544	0.1668	0.5729	0.7397	0.0452	0.5694	0.6146	0.0000	638.4495	638.4495	0.1320	0.0447	655.0816
2005	4.1188	0.6925	0.4444	4.6800e-003	8.2300e-003	0.0463	0.0545	2.2100e-003	0.0462	0.0484	0.0000	49.3035	49.3035	9.1700e-003	1.5600e-003	49.9986
Maximum	**4.1188**	**8.5561**	**7.5059**	**0.0544**	**0.1839**	**0.5729**	**0.7397**	**0.0697**	**0.5694**	**0.6146**	**0.0000**	**638.4495**	**638.4495**	**0.1320**	**0.0447**	**655.0816**

2005 BAU Baseline Scenario - Kings County, Annual

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	28.44	0.00	9.66	34.96	0.00	5.47	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	5-15-2003	8-14-2003	2.9045	2.9045
2	8-15-2003	11-14-2003	2.5779	2.5779
3	11-15-2003	2-14-2004	2.6012	2.6012
4	2-15-2004	5-14-2004	2.5229	2.5229
5	5-15-2004	8-14-2004	2.5557	2.5557
6	8-15-2004	11-14-2004	2.5779	2.5779
7	11-15-2004	2-14-2005	2.8291	2.8291
8	2-15-2005	5-14-2005	3.3335	3.3335
		Highest	3.3335	3.3335

2005 BAU Baseline Scenario - Kings County, Annual

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	tons/yr										MT/yr					
Area	1.8577	0.1154	4.7051	0.0125		0.6158	0.6158		0.6158	0.6158	81.4609	49.4358	130.8967	0.3839	8.8000e-004	140.7571
Energy	0.0144	0.1229	0.0523	7.8000e-004		9.9400e-003	9.9400e-003		9.9400e-003	9.9400e-003	0.0000	224.2773	224.2773	0.0160	4.2200e-003	225.9332
Mobile	1.4677	3.1742	12.5511	0.0203	0.5837	0.0655	0.6491	0.1563	0.0622	0.2185	0.0000	809.0338	809.0338	0.1429	0.1002	842.4590
Waste						0.0000	0.0000		0.0000	0.0000	33.1768	0.0000	33.1768	1.9607	0.0000	82.1942
Water						0.0000	0.0000		0.0000	0.0000	2.2944	5.0972	7.3916	0.2365	5.6600e-003	14.9917
Total	**3.3397**	**3.4125**	**17.3085**	**0.0336**	**0.5837**	**0.6912**	**1.2748**	**0.1563**	**0.6880**	**0.8443**	**116.9321**	**1,087.8441**	**1,204.7762**	**2.7400**	**0.1109**	**1,306.3351**

2005 BAU Baseline Scenario - Kings County, Annual

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	1.4470	0.0545	0.9758	3.1000e-004		7.4000e-003	7.4000e-003		7.4000e-003	7.4000e-003	0.0000	49.4358	49.4358	3.0900e-003	8.8000e-004	49.7759
Energy	0.0144	0.1229	0.0523	7.8000e-004		9.9400e-003	9.9400e-003		9.9400e-003	9.9400e-003	0.0000	224.2773	224.2773	0.0160	4.2200e-003	225.9332
Mobile	1.5286	3.4825	13.7573	0.0226	0.6537	0.0725	0.7262	0.1751	0.0690	0.2440	0.0000	900.5972	900.5972	0.1507	0.1094	936.9577
Waste						0.0000	0.0000		0.0000	0.0000	33.1768	0.0000	33.1768	1.9607	0.0000	82.1942
Water						0.0000	0.0000		0.0000	0.0000	2.2944	5.0972	7.3916	0.2365	5.6600e-003	14.9917
Total	**2.9900**	**3.6600**	**14.7854**	**0.0237**	**0.6537**	**0.0899**	**0.7436**	**0.1751**	**0.0863**	**0.2614**	**35.4713**	**1,179.4075**	**1,214.8787**	**2.3670**	**0.1201**	**1,309.8526**

	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	**10.47**	**-7.25**	**14.58**	**29.58**	**-12.00**	**87.00**	**41.67**	**-12.00**	**87.45**	**69.04**	**69.67**	**-8.42**	**-0.84**	**13.61**	**-8.29**	**-0.27**

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	5/15/2003	5/14/2003	5	0	
2	Site Preparation	Site Preparation	6/12/2003	6/25/2003	5	10	
3	Grading	Grading	6/26/2003	8/13/2003	5	35	

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

4	Building Construction	Building Construction	8/14/2003	1/12/2005	5	370	
5	Paving	Paving	1/13/2005	2/9/2005	5	20	
6	Architectural Coating	Architectural Coating	2/10/2005	3/9/2005	5	20	

Acres of Grading (Site Preparation Phase): 15

Acres of Grading (Grading Phase): 105

Acres of Paving: 4.48

Residential Indoor: 512,325; Residential Outdoor: 170,775; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 11,700 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36

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

Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

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	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	122.00	44.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	24.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

A-10

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2003

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

3.2 Demolition - 2003

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

3.2 Demolition - 2003

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.3 Site Preparation - 2003

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					0.0983	0.0000	0.0983	0.0505	0.0000	0.0505	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0561	0.4016	0.1539	2.2500e-003		0.0252	0.0252		0.0252	0.0252	0.0000	20.0023	20.0023	4.5700e-003	0.0000	20.1165
Total	**0.0561**	**0.4016**	**0.1539**	**2.2500e-003**	**0.0983**	**0.0252**	**0.1235**	**0.0505**	**0.0252**	**0.0758**	**0.0000**	**20.0023**	**20.0023**	**4.5700e-003**	**0.0000**	**20.1165**

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

3.3 Site Preparation - 2003

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	2.0600e-003	2.8100e-003	0.0198	1.0000e-005	7.2000e-004	3.0000e-005	7.5000e-004	1.9000e-004	3.0000e-005	2.2000e-004	0.0000	0.8388	0.8388	1.6000e-004	1.3000e-004	0.8825
Total	**2.0600e-003**	**2.8100e-003**	**0.0198**	**1.0000e-005**	**7.2000e-004**	**3.0000e-005**	**7.5000e-004**	**1.9000e-004**	**3.0000e-005**	**2.2000e-004**	**0.0000**	**0.8388**	**0.8388**	**1.6000e-004**	**1.3000e-004**	**0.8825**

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					0.0442	0.0000	0.0442	0.0227	0.0000	0.0227	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0561	0.4016	0.1539	2.2500e-003		0.0252	0.0252		0.0252	0.0252	0.0000	20.0023	20.0023	4.5700e-003	0.0000	20.1164
Total	**0.0561**	**0.4016**	**0.1539**	**2.2500e-003**	**0.0442**	**0.0252**	**0.0695**	**0.0227**	**0.0252**	**0.0480**	**0.0000**	**20.0023**	**20.0023**	**4.5700e-003**	**0.0000**	**20.1164**

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

3.3 Site Preparation - 2003

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	2.0600e-003	2.8100e-003	0.0198	1.0000e-005	7.2000e-004	3.0000e-005	7.5000e-004	1.9000e-004	3.0000e-005	2.2000e-004	0.0000	0.8388	0.8388	1.6000e-004	1.3000e-004	0.8825
Total	**2.0600e-003**	**2.8100e-003**	**0.0198**	**1.0000e-005**	**7.2000e-004**	**3.0000e-005**	**7.5000e-004**	**1.9000e-004**	**3.0000e-005**	**2.2000e-004**	**0.0000**	**0.8388**	**0.8388**	**1.6000e-004**	**1.3000e-004**	**0.8825**

3.4 Grading - 2003

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					0.1611	0.0000	0.1611	0.0639	0.0000	0.0639	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2646	2.1307	1.0772	0.0120		0.1124	0.1124		0.1124	0.1124	0.0000	114.5134	114.5134	0.0215	0.0000	115.0513
Total	**0.2646**	**2.1307**	**1.0772**	**0.0120**	**0.1611**	**0.1124**	**0.2734**	**0.0639**	**0.1124**	**0.1763**	**0.0000**	**114.5134**	**114.5134**	**0.0215**	**0.0000**	**115.0513**

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

3.4 Grading - 2003

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	8.0000e-003	0.0109	0.0772	5.0000e-005	2.8100e-003	1.2000e-004	2.9300e-003	7.5000e-004	1.1000e-004	8.6000e-004	0.0000	3.2622	3.2622	6.3000e-004	5.2000e-004	3.4320
Total	**8.0000e-003**	**0.0109**	**0.0772**	**5.0000e-005**	**2.8100e-003**	**1.2000e-004**	**2.9300e-003**	**7.5000e-004**	**1.1000e-004**	**8.6000e-004**	**0.0000**	**3.2622**	**3.2622**	**6.3000e-004**	**5.2000e-004**	**3.4320**

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					0.0725	0.0000	0.0725	0.0288	0.0000	0.0288	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2646	2.1307	1.0772	0.0120		0.1124	0.1124		0.1124	0.1124	0.0000	114.5133	114.5133	0.0215	0.0000	115.0511
Total	**0.2646**	**2.1307**	**1.0772**	**0.0120**	**0.0725**	**0.1124**	**0.1849**	**0.0288**	**0.1124**	**0.1411**	**0.0000**	**114.5133**	**114.5133**	**0.0215**	**0.0000**	**115.0511**

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

3.4 Grading - 2003

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	8.0000e-003	0.0109	0.0772	5.0000e-005	2.8100e-003	1.2000e-004	2.9300e-003	7.5000e-004	1.1000e-004	8.6000e-004	0.0000	3.2622	3.2622	6.3000e-004	5.2000e-004	3.4320
Total	**8.0000e-003**	**0.0109**	**0.0772**	**5.0000e-005**	**2.8100e-003**	**1.2000e-004**	**2.9300e-003**	**7.5000e-004**	**1.1000e-004**	**8.6000e-004**	**0.0000**	**3.2622**	**3.2622**	**6.3000e-004**	**5.2000e-004**	**3.4320**

3.5 Building Construction - 2003

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	0.4362	2.4131	1.1180	0.0152		0.1897	0.1897		0.1897	0.1897	0.0000	131.4305	131.4305	0.0355	0.0000	132.3187
Total	**0.4362**	**2.4131**	**1.1180**	**0.0152**		**0.1897**	**0.1897**		**0.1897**	**0.1897**	**0.0000**	**131.4305**	**131.4305**	**0.0355**	**0.0000**	**132.3187**

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

3.5 Building Construction - 2003

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	0.0770	0.6622	0.4022	4.6700e-003	0.0147	0.0269	0.0416	4.2300e-003	0.0257	0.0300	0.0000	55.3976	55.3976	3.8000e-003	8.0700e-003	57.8974
Worker	0.1395	0.1904	1.3447	9.0000e-004	0.0490	2.0400e-003	0.0511	0.0130	1.8900e-003	0.0149	0.0000	56.8550	56.8550	0.0110	9.0100e-003	59.8152
Total	**0.2164**	**0.8526**	**1.7469**	**5.5700e-003**	**0.0637**	**0.0290**	**0.0926**	**0.0173**	**0.0276**	**0.0449**	**0.0000**	**112.2527**	**112.2527**	**0.0148**	**0.0171**	**117.7126**

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	0.4362	2.4131	1.1180	0.0152		0.1897	0.1897		0.1897	0.1897	0.0000	131.4304	131.4304	0.0355	0.0000	132.3186
Total	**0.4362**	**2.4131**	**1.1180**	**0.0152**		**0.1897**	**0.1897**		**0.1897**	**0.1897**	**0.0000**	**131.4304**	**131.4304**	**0.0355**	**0.0000**	**132.3186**

2005 BAU Baseline Scenario - Kings County, Annual

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

3.5 Building Construction - 2003

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	0.0770	0.6622	0.4022	4.6700e-003	0.0147	0.0269	0.0416	4.2300e-003	0.0257	0.0300	0.0000	55.3976	55.3976	3.8000e-003	8.0700e-003	57.8974
Worker	0.1395	0.1904	1.3447	9.0000e-004	0.0490	2.0400e-003	0.0511	0.0130	1.8900e-003	0.0149	0.0000	56.8550	56.8550	0.0110	9.0100e-003	59.8152
Total	**0.2164**	**0.8526**	**1.7469**	**5.5700e-003**	**0.0637**	**0.0290**	**0.0926**	**0.0173**	**0.0276**	**0.0449**	**0.0000**	**112.2527**	**112.2527**	**0.0148**	**0.0171**	**117.7126**

3.5 Building Construction - 2004

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	1.1429	6.3223	2.9290	0.0398		0.4970	0.4970		0.4970	0.4970	0.0000	344.3479	344.3479	0.0931	0.0000	346.6750
Total	**1.1429**	**6.3223**	**2.9290**	**0.0398**		**0.4970**	**0.4970**		**0.4970**	**0.4970**	**0.0000**	**344.3479**	**344.3479**	**0.0931**	**0.0000**	**346.6750**

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

3.5 Building Construction - 2004

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	0.2016	1.7348	1.0537	0.0122	0.0384	0.0705	0.1089	0.0111	0.0674	0.0785	0.0000	145.1418	145.1418	9.9700e-003	0.0211	151.6911
Worker	0.3654	0.4989	3.5232	2.3500e-003	0.1284	5.3500e-003	0.1337	0.0341	4.9600e-003	0.0391	0.0000	148.9602	148.9602	0.0289	0.0236	156.7159
Total	**0.5670**	**2.2338**	**4.5769**	**0.0146**	**0.1668**	**0.0758**	**0.2426**	**0.0452**	**0.0724**	**0.1176**	**0.0000**	**294.1019**	**294.1019**	**0.0389**	**0.0447**	**308.4070**

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	1.1429	6.3223	2.9290	0.0398		0.4970	0.4970		0.4970	0.4970	0.0000	344.3475	344.3475	0.0931	0.0000	346.6746
Total	**1.1429**	**6.3223**	**2.9290**	**0.0398**		**0.4970**	**0.4970**		**0.4970**	**0.4970**	**0.0000**	**344.3475**	**344.3475**	**0.0931**	**0.0000**	**346.6746**

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

3.5 Building Construction - 2004

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	0.2016	1.7348	1.0537	0.0122	0.0384	0.0705	0.1089	0.0111	0.0674	0.0785	0.0000	145.1418	145.1418	9.9700e-003	0.0211	151.6911
Worker	0.3654	0.4989	3.5232	2.3500e-003	0.1284	5.3500e-003	0.1337	0.0341	4.9600e-003	0.0391	0.0000	148.9602	148.9602	0.0289	0.0236	156.7159
Total	**0.5670**	**2.2338**	**4.5769**	**0.0146**	**0.1668**	**0.0758**	**0.2426**	**0.0452**	**0.0724**	**0.1176**	**0.0000**	**294.1019**	**294.1019**	**0.0389**	**0.0447**	**308.4070**

3.5 Building Construction - 2005

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	0.0301	0.1658	0.0816	1.2200e-003		0.0139	0.0139		0.0139	0.0139	0.0000	10.5144	10.5144	2.4500e-003	0.0000	10.5758
Total	**0.0301**	**0.1658**	**0.0816**	**1.2200e-003**		**0.0139**	**0.0139**		**0.0139**	**0.0139**	**0.0000**	**10.5144**	**10.5144**	**2.4500e-003**	**0.0000**	**10.5758**

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

3.5 Building Construction - 2005

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.1500e-003	0.0491	0.0190	3.9000e-004	1.1700e-003	1.9800e-003	3.1600e-003	3.4000e-004	1.9000e-003	2.2400e-003	0.0000	4.3281	4.3281	2.4000e-004	6.5000e-004	4.5272
Worker	7.7300e-003	0.0100	0.0795	5.0000e-005	3.9200e-003	9.0000e-005	4.0100e-003	1.0400e-003	9.0000e-005	1.1300e-003	0.0000	4.3399	4.3399	6.3000e-004	5.1000e-004	4.5073
Total	**0.0129**	**0.0592**	**0.0986**	**4.4000e-004**	**5.0900e-003**	**2.0700e-003**	**7.1700e-003**	**1.3800e-003**	**1.9900e-003**	**3.3700e-003**	**0.0000**	**8.6680**	**8.6680**	**8.7000e-004**	**1.1600e-003**	**9.0345**

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	0.0301	0.1658	0.0816	1.2200e-003		0.0139	0.0139		0.0139	0.0139	0.0000	10.5144	10.5144	2.4500e-003	0.0000	10.5758
Total	**0.0301**	**0.1658**	**0.0816**	**1.2200e-003**		**0.0139**	**0.0139**		**0.0139**	**0.0139**	**0.0000**	**10.5144**	**10.5144**	**2.4500e-003**	**0.0000**	**10.5758**

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

3.5 Building Construction - 2005

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.1500e-003	0.0491	0.0190	3.9000e-004	1.1700e-003	1.9800e-003	3.1600e-003	3.4000e-004	1.9000e-003	2.2400e-003	0.0000	4.3281	4.3281	2.4000e-004	6.5000e-004	4.5272
Worker	7.7300e-003	0.0100	0.0795	5.0000e-005	3.9200e-003	9.0000e-005	4.0100e-003	1.0400e-003	9.0000e-005	1.1300e-003	0.0000	4.3399	4.3399	6.3000e-004	5.1000e-004	4.5073
Total	**0.0129**	**0.0592**	**0.0986**	**4.4000e-004**	**5.0900e-003**	**2.0700e-003**	**7.1700e-003**	**1.3800e-003**	**1.9900e-003**	**3.3700e-003**	**0.0000**	**8.6680**	**8.6680**	**8.7000e-004**	**1.1600e-003**	**9.0345**

3.6 Paving - 2005

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	0.0579	0.4167	0.1800	2.7000e-003		0.0264	0.0264		0.0264	0.0264	0.0000	24.0995	24.0995	4.7200e-003	0.0000	24.2176
Paving	5.8700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0638**	**0.4167**	**0.1800**	**2.7000e-003**		**0.0264**	**0.0264**		**0.0264**	**0.0264**	**0.0000**	**24.0995**	**24.0995**	**4.7200e-003**	**0.0000**	**24.2176**

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

3.6 Paving - 2005

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	2.3800e-003	3.0900e-003	0.0244	1.0000e-005	1.2100e-003	3.0000e-005	1.2300e-003	3.2000e-004	3.0000e-005	3.5000e-004	0.0000	1.3340	1.3340	1.9000e-004	1.6000e-004	1.3854
Total	**2.3800e-003**	**3.0900e-003**	**0.0244**	**1.0000e-005**	**1.2100e-003**	**3.0000e-005**	**1.2300e-003**	**3.2000e-004**	**3.0000e-005**	**3.5000e-004**	**0.0000**	**1.3340**	**1.3340**	**1.9000e-004**	**1.6000e-004**	**1.3854**

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	0.0579	0.4167	0.1800	2.7000e-003		0.0264	0.0264		0.0264	0.0264	0.0000	24.0995	24.0995	4.7200e-003	0.0000	24.2175
Paving	5.8700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0638**	**0.4167**	**0.1800**	**2.7000e-003**		**0.0264**	**0.0264**		**0.0264**	**0.0264**	**0.0000**	**24.0995**	**24.0995**	**4.7200e-003**	**0.0000**	**24.2175**

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

3.6 Paving - 2005

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	2.3800e-003	3.0900e-003	0.0244	1.0000e-005	1.2100e-003	3.0000e-005	1.2300e-003	3.2000e-004	3.0000e-005	3.5000e-004	0.0000	1.3340	1.3340	1.9000e-004	1.6000e-004	1.3854
Total	**2.3800e-003**	**3.0900e-003**	**0.0244**	**1.0000e-005**	**1.2100e-003**	**3.0000e-005**	**1.2300e-003**	**3.2000e-004**	**3.0000e-005**	**3.5000e-004**	**0.0000**	**1.3340**	**1.3340**	**1.9000e-004**	**1.6000e-004**	**1.3854**

3.7 Architectural Coating - 2005

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	3.9984					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.5200e-003	0.0428	0.0208	3.0000e-004		3.8400e-003	3.8400e-003		3.8400e-003	3.8400e-003	0.0000	2.5533	2.5533	6.2000e-004	0.0000	2.5686
Total	**4.0059**	**0.0428**	**0.0208**	**3.0000e-004**		**3.8400e-003**	**3.8400e-003**		**3.8400e-003**	**3.8400e-003**	**0.0000**	**2.5533**	**2.5533**	**6.2000e-004**	**0.0000**	**2.5686**

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

3.7 Architectural Coating - 2005

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	3.8000e-003	4.9400e-003	0.0391	2.0000e-005	1.9300e-003	5.0000e-005	1.9700e-003	5.1000e-004	4.0000e-005	5.6000e-004	0.0000	2.1344	2.1344	3.1000e-004	2.5000e-004	2.2167
Total	**3.8000e-003**	**4.9400e-003**	**0.0391**	**2.0000e-005**	**1.9300e-003**	**5.0000e-005**	**1.9700e-003**	**5.1000e-004**	**4.0000e-005**	**5.6000e-004**	**0.0000**	**2.1344**	**2.1344**	**3.1000e-004**	**2.5000e-004**	**2.2167**

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	3.9984					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.5200e-003	0.0428	0.0208	3.0000e-004		3.8400e-003	3.8400e-003		3.8400e-003	3.8400e-003	0.0000	2.5533	2.5533	6.2000e-004	0.0000	2.5686
Total	**4.0059**	**0.0428**	**0.0208**	**3.0000e-004**		**3.8400e-003**	**3.8400e-003**		**3.8400e-003**	**3.8400e-003**	**0.0000**	**2.5533**	**2.5533**	**6.2000e-004**	**0.0000**	**2.5686**

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

3.7 Architectural Coating - 2005

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	3.8000e-003	4.9400e-003	0.0391	2.0000e-005	1.9300e-003	5.0000e-005	1.9700e-003	5.1000e-004	4.0000e-005	5.6000e-004	0.0000	2.1344	2.1344	3.1000e-004	2.5000e-004	2.2167
Total	**3.8000e-003**	**4.9400e-003**	**0.0391**	**2.0000e-005**	**1.9300e-003**	**5.0000e-005**	**1.9700e-003**	**5.1000e-004**	**4.0000e-005**	**5.6000e-004**	**0.0000**	**2.1344**	**2.1344**	**3.1000e-004**	**2.5000e-004**	**2.2167**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Improve Walkability Design

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	1.5286	3.4825	13.7573	0.0226	0.6537	0.0725	0.7262	0.1751	0.0690	0.2440	0.0000	900.5972	900.5972	0.1507	0.1094	936.9577
Unmitigated	1.4677	3.1742	12.5511	0.0203	0.5837	0.0655	0.6491	0.1563	0.0622	0.2185	0.0000	809.0338	809.0338	0.1429	0.1002	842.4590

4.2 Trip Summary Information

5-12

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Single Family Housing	1,047.84	1,058.94	949.05	1,544,964	1,730,360
Total	1,047.84	1,058.94	949.05	1,544,964	1,730,360

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
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Single Family Housing	7.25	2.50	2.78	42.30	19.60	38.10	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.469644	0.076968	0.160836	0.173619	0.042235	0.005594	0.011165	0.028022	0.000693	0.000053	0.021206	0.001062	0.008904
Single Family Housing	0.469644	0.076968	0.160836	0.173619	0.042235	0.005594	0.011165	0.028022	0.000693	0.000053	0.021206	0.001062	0.008904

5.0 Energy Detail

2005 BAU Baseline Scenario - Kings County, Annual

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

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	81.8937	81.8937	0.0133	1.6100e-003	82.7035
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	81.8937	81.8937	0.0133	1.6100e-003	82.7035
NaturalGas Mitigated	0.0144	0.1229	0.0523	7.8000e-004		9.9400e-003	9.9400e-003		9.9400e-003	9.9400e-003	0.0000	142.3836	142.3836	2.7300e-003	2.6100e-003	143.2297
NaturalGas Unmitigated	0.0144	0.1229	0.0523	7.8000e-004		9.9400e-003	9.9400e-003		9.9400e-003	9.9400e-003	0.0000	142.3836	142.3836	2.7300e-003	2.6100e-003	143.2297

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	tons/yr										MT/yr					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	2.66817e+006	0.0144	0.1229	0.0523	7.8000e-004		9.9400e-003	9.9400e-003		9.9400e-003	9.9400e-003	0.0000	142.3836	142.3836	2.7300e-003	2.6100e-003	143.2297
Total		**0.0144**	**0.1229**	**0.0523**	**7.8000e-004**		**9.9400e-003**	**9.9400e-003**		**9.9400e-003**	**9.9400e-003**	**0.0000**	**142.3836**	**142.3836**	**2.7300e-003**	**2.6100e-003**	**143.2297**

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					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	2.66817e+006	0.0144	0.1229	0.0523	7.8000e-004		9.9400e-003	9.9400e-003		9.9400e-003	9.9400e-003	0.0000	142.3836	142.3836	2.7300e-003	2.6100e-003	143.2297
Total		**0.0144**	**0.1229**	**0.0523**	**7.8000e-004**		**9.9400e-003**	**9.9400e-003**		**9.9400e-003**	**9.9400e-003**	**0.0000**	**142.3836**	**142.3836**	**2.7300e-003**	**2.6100e-003**	**143.2297**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	885110	81.8937	0.0133	1.6100e-003	82.7035
Total		**81.8937**	**0.0133**	**1.6100e-003**	**82.7035**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	885110	81.8937	0.0133	1.6100e-003	82.7035
Total		**81.8937**	**0.0133**	**1.6100e-003**	**82.7035**

6.0 Area Detail

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

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

	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	1.4470	0.0545	0.9758	3.1000e-004		7.4000e-003	7.4000e-003		7.4000e-003	7.4000e-003	0.0000	49.4358	49.4358	3.0900e-003	8.8000e-004	49.7759
Unmitigated	1.8577	0.1154	4.7051	0.0125		0.6158	0.6158		0.6158	0.6158	81.4609	49.4358	130.8967	0.3839	8.8000e-004	140.7571

2005 BAU Baseline Scenario - Kings 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	0.3998					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.0007					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.4155	0.1024	3.7470	0.0124		0.6117	0.6117		0.6117	0.6117	81.4609	48.0860	129.5469	0.3817	8.8000e-004	139.3530
Landscaping	0.0417	0.0130	0.9581	4.0000e-005		4.0400e-003	4.0400e-003		4.0400e-003	4.0400e-003	0.0000	1.3498	1.3498	2.1700e-003	0.0000	1.4041
Total	**1.8577**	**0.1154**	**4.7051**	**0.0125**		**0.6158**	**0.6158**		**0.6158**	**0.6158**	**81.4609**	**49.4358**	**130.8967**	**0.3839**	**8.8000e-004**	**140.7570**

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	0.3998					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.0007					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	4.8600e-003	0.0415	0.0177	2.7000e-004		3.3600e-003	3.3600e-003		3.3600e-003	3.3600e-003	0.0000	48.0860	48.0860	9.2000e-004	8.8000e-004	48.3718
Landscaping	0.0417	0.0130	0.9581	4.0000e-005		4.0400e-003	4.0400e-003		4.0400e-003	4.0400e-003	0.0000	1.3498	1.3498	2.1700e-003	0.0000	1.4041
Total	**1.4471**	**0.0545**	**0.9758**	**3.1000e-004**		**7.4000e-003**	**7.4000e-003**		**7.4000e-003**	**7.4000e-003**	**0.0000**	**49.4358**	**49.4358**	**3.0900e-003**	**8.8000e-004**	**49.7759**

7.0 Water Detail

7.1 Mitigation Measures Water

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	7.3916	0.2365	5.6600e-003	14.9917
Unmitigated	7.3916	0.2365	5.6600e-003	14.9917

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	7.2321 / 4.55937	7.3916	0.2365	5.6600e-003	14.9917
Total		**7.3916**	**0.2365**	**5.6600e-003**	**14.9917**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	7.2321 / 4.55937	7.3916	0.2365	5.6600e-003	14.9917
Total		**7.3916**	**0.2365**	**5.6600e-003**	**14.9917**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	33.1768	1.9607	0.0000	82.1942
Unmitigated	33.1768	1.9607	0.0000	82.1942

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	163.44	33.1768	1.9607	0.0000	82.1942
Total		**33.1768**	**1.9607**	**0.0000**	**82.1942**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	163.44	33.1768	1.9607	0.0000	82.1942
Total		**33.1768**	**1.9607**	**0.0000**	**82.1942**

9.0 Operational Offroad

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

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

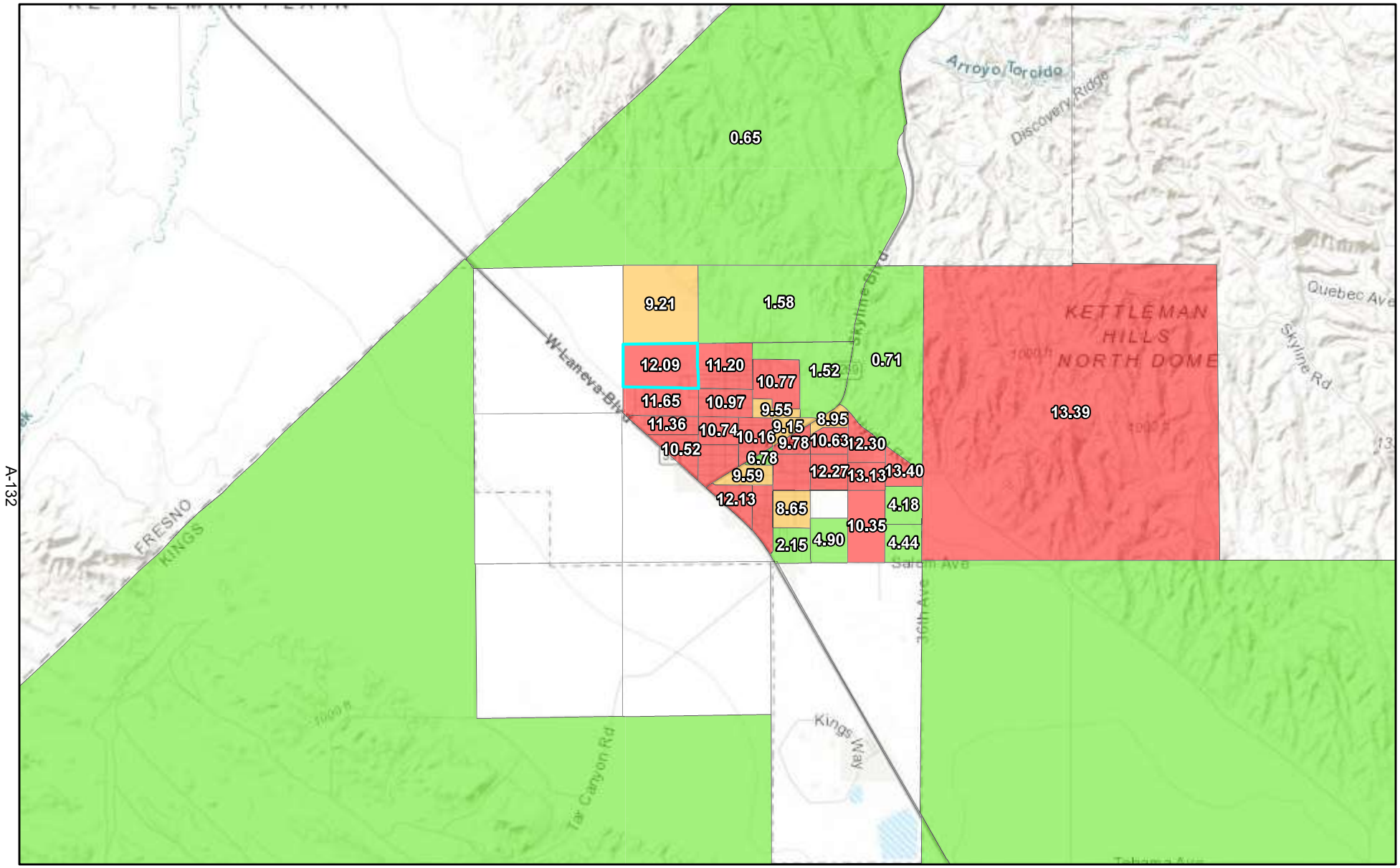
Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

ArcGIS Web Map



11/3/2021, 8:49:24 AM

Vehicle Miles Traveled per Capita

< 8.2 (15% or More Below County Average)

8.2 – 9.6 (14% Below County Average to Average)

> 9.6 (Above County Average)

1:72,224

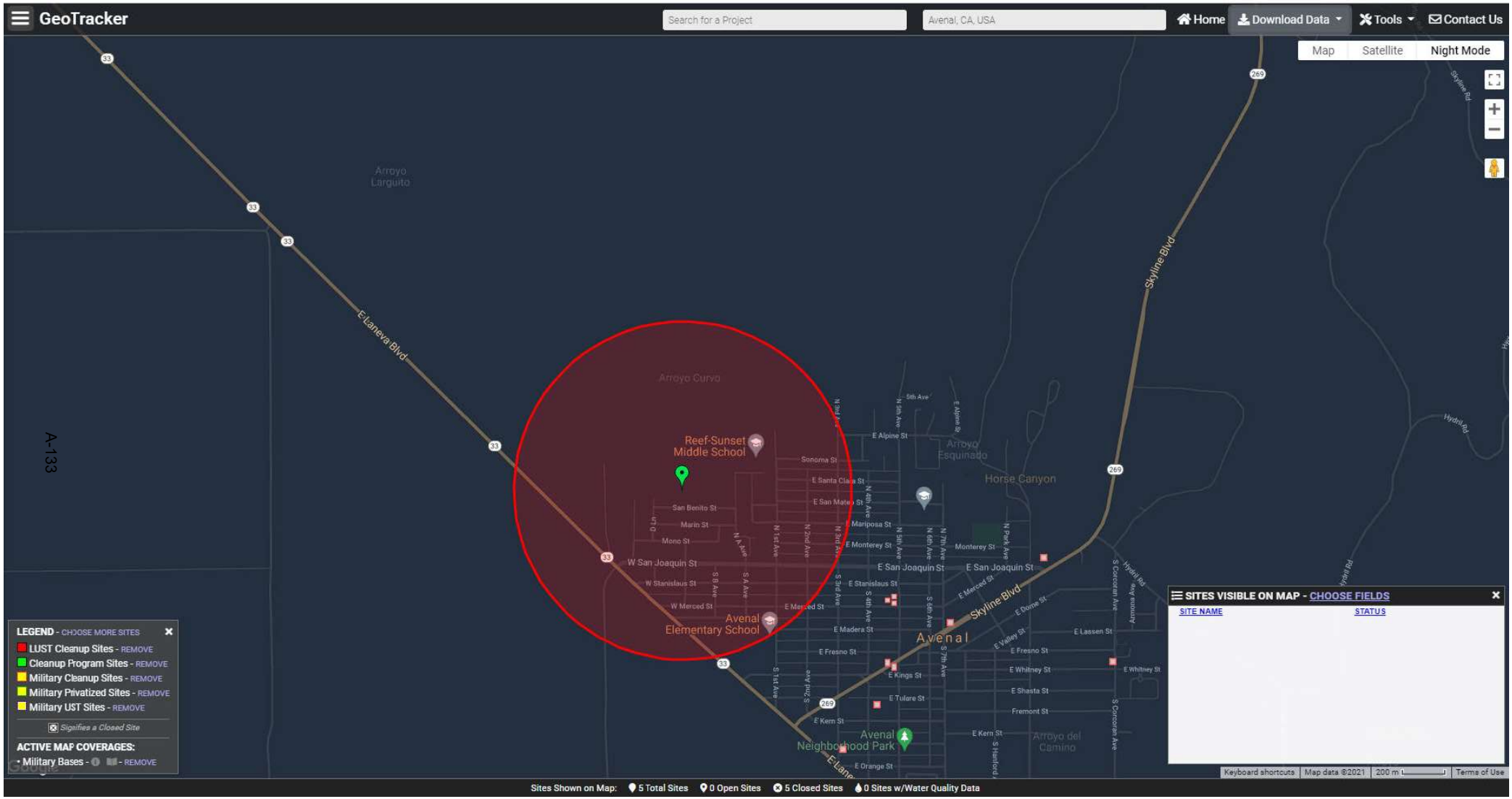
0 0.5 1 2 mi

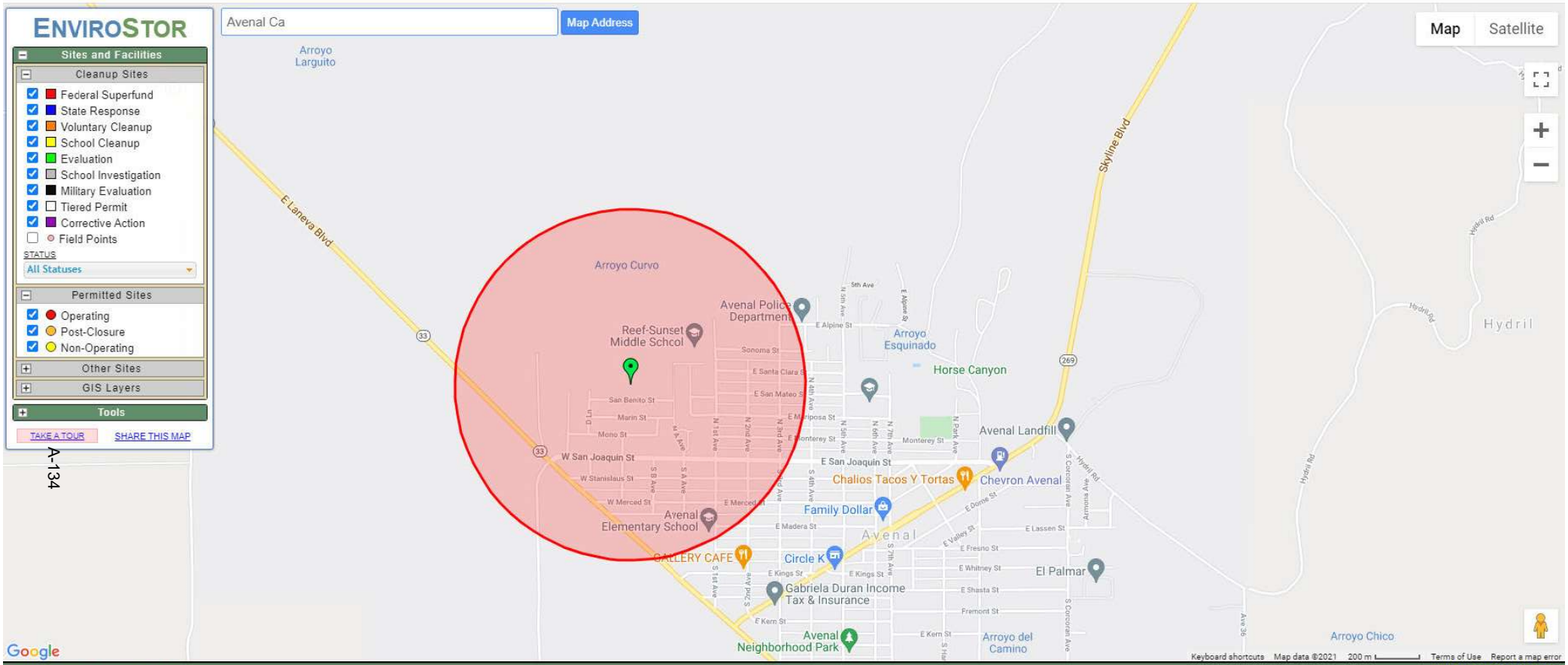
0 0.75 1.5 3 km

Fresno County Dept. PWP, Bureau of Land Management, Esri, HERE,

ArcGIS Web AppBuilder

Fresno County Dept. PWP, Bureau of Land Management, Esri, HERE, Garmin, INCREMENT P, USGS, METI/NASA, NGA, EPA, USDA |

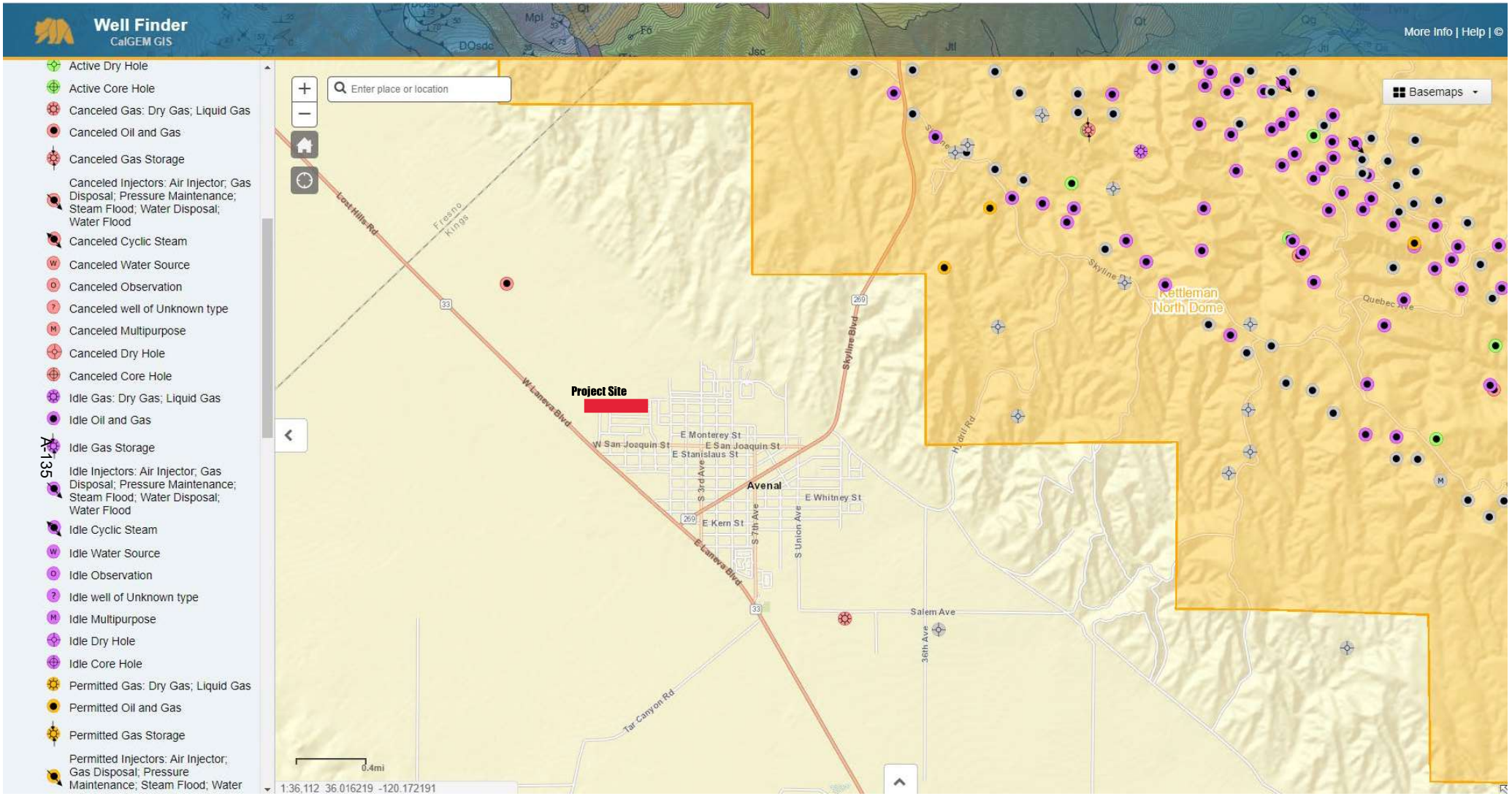

GeoTracker
Search for a Project
Avenal, CA, USA
Home
Download Data
Tools
Contact Us
Map
Satellite
Night Mode
Arroyo Larguito
E Laneva Blvd
A-133
Arroyo Curvo
Reef-Sunset Middle School
Avenal Elementary School
Arroyo Esquinado
Horse Canyon
Skyline Blvd
Avenal
Avenal Neighborhood Park
Arroyo del Camino
W San Joaquin St
E San Joaquin St
Monterey St
E Alpine St
Sonoma St
E Santa Clara St
E Mariposa St
E Monterey St
W Stanislaus St
E Stanislaus St
W Merced St
E Merced St
E Madera St
E Fresno St
E Kings St
E Tulare St
E Kern St
E Orange St
E Dome St
E Valley St
E Lassen St
E Whitney St
E Shasta St
Fremont St
SITES VISIBLE ON MAP - CHOOSE FIELDS
SITE NAME
STATUS
LEGEND - CHOOSE MORE SITES
LUST Cleanup Sites - REMOVE
Cleanup Program Sites - REMOVE
Military Cleanup Sites - REMOVE
Military Privatized Sites - REMOVE
Military UST Sites - REMOVE
Signifies a Closed Site
ACTIVE MAP COVERAGES:
• Military Bases - REMOVE
Keyboard shortcuts
Map data ©2021
200 m
Terms of Use
Sites Shown on Map:
5 Total Sites
0 Open Sites
5 Closed Sites
0 Sites w/Water Quality Data



A-134

SITES FOUND IN SEARCH RADIUS — 0 SITES LISTED — EXPORT THIS LIST TO EXCEL

PROJECT NAME	STATUS	PROJECT TYPE	ADDRESS	CITY


Well Finder
CalGEM GIS
More Info | Help | ©
Active Dry Hole
Active Core Hole
Canceled Gas: Dry Gas; Liquid Gas
Canceled Oil and Gas
Canceled Gas Storage
Canceled Injectors: Air Injector; Gas Disposal; Pressure Maintenance; Steam Flood; Water Disposal; Water Flood
Canceled Cyclic Steam
Canceled Water Source
Canceled Observation
Canceled well of Unknown type
Canceled Multipurpose
Canceled Dry Hole
Canceled Core Hole
Idle Gas: Dry Gas; Liquid Gas
Idle Oil and Gas
Idle Gas Storage
Idle Injectors: Air Injector; Gas Disposal; Pressure Maintenance; Steam Flood; Water Disposal; Water Flood
Idle Cyclic Steam
Idle Water Source
Idle Observation
Idle well of Unknown type
Idle Multipurpose
Idle Dry Hole
Idle Core Hole
Permitted Gas: Dry Gas; Liquid Gas
Permitted Oil and Gas
Permitted Gas Storage
Permitted Injectors: Air Injector; Gas Disposal; Pressure Maintenance; Steam Flood; Water
Enter place or location
Basemaps
Project Site
Avenal
Kettleman North Dome
Lost Hills Rd
W Laneva Blvd
E Laneva Blvd
Skyline Blvd
E Monterey St
W San Joaquin St
E San Joaquin St
E Stanislaus St
S 3rd Ave
S 7th Ave
S Union Ave
E Whitney St
E Kern St
Salem Ave
36th Ave
Tar Canyon Rd
Skyline Dr
Quebec Ave
Hydril Rd
Fresno
Kings
33
269
0.4mi
1:36,112 36.016219 -120.172191

Mitigation Monitoring and Reporting Plan

Mitigation Measure	Requirements of Measure	Responsible Party	Compliance Timing	Compliance Action
AES-1	Prior to Building Permit issuance, the applicant shall submit an exterior lighting plan that shows shielding of any exterior lights such that lighting does not extend beyond the site. The plan shall identify the type and position of all lights and their compliance with Title 24 Lighting Requirements.	Contractor	Prior to construction	City review of Lighting Plan and issuance of Building Permit.
AES-2	Prior to Building Permit issuance, the applicant shall submit a project landscaping plan that improves project aesthetics and provides visual screening of ambient lighting and project-built elements to existing view-er groups. Species shall be comprised of both native and regionally suitable non-native trees, shrubs, and plants of varying heights.	Contractor	Prior to construction	City review of Landscaping Plan and issuance of Building Permit
AIR-1	Dust abatement will be on-going though the construction of the project. a. During clearing, grading, earth-moving, or excavation operations, excessive fugitive dust emissions shall be controlled by regular watering. b. Land disturbance outside the project area shall be minimized to prevent fugitive dust. c. All operations shall limit or expeditiously remove the accumulation of mud or dirt from adjacent public streets at the end of each workday. i. The use of dry rotary brushes is expressly prohibited except where preceded or accompanied by sufficient wetting to limit the visible dust emissions. ii. Use of blower devices is expressly forbidden. d. Within urban areas, trackout shall be immediately removed when it extends 50 or more feet from the site and at the end of each workday.	Contractor	During any site preparation and during construction	Incorporation of dust abatement specifications on construction plans. Periodic site visits during construction to ensure compliance

Mitigation Measure	Requirements of Measure	Responsible Party	Compliance Timing	Compliance Action
CULT-1	If prehistoric or historic era cultural materials are encountered during construction activities, all work in the immediate vicinity of the find shall halt until a qualified archaeologist can evaluate the find and make recommendations. Cultural resource materials may include prehistoric resources such as flaked and ground stone tools and debris, shell, bone, ceramics, and fire-affected rock as well as historic resources such as glass, metal, wood, brick, or structural remnants. If the qualified archaeologist determines that the discovery represents a potentially significant cultural resource, additional investigations may be required to mitigate adverse impacts from Project implementation. These additional studies may include avoidance, testing, and evaluation or data recovery excavation. A copy of all actions shall be submitted to the Lead Agency.	City of Avenal and Contractor	During construction	Stop work and notify project proponent immediately in the event that potentially significant cultural resource is encountered
CULT-2	If human remains are discovered during construction or operational activities, further excavation or disturbance shall be prohibited pursuant to Section 7050.5 of the California Health and Safety Code. The specific protocol, guidelines, and channels of communication outlined by the NAHC, in accordance with Section 7050.5 of the Health and Safety Code, Section 5097.98 of the Public Resources Code (Chapter 1492, Statutes of 1982, Senate Bill 297), and Senate Bill 447 (Chapter 44, Statutes of 1987), shall be followed. Section 7050.5(c) shall guide the potential Native American involvement, in the event of discovery of human remains, at the direction of the county coroner.	Contractor	During construction	Stop work immediately and follow the specified notification protocol for the potential discovery of human remains
GEO-1	Prior to the issuance of project Building Permits, the applicant shall submit plans and specifications complying with all of the recommendations of the Geotechnical investigation. Subgrade to be compacted to 90% relative compaction based on ASTM D-1557-78. Compaction reports shall be supplied by the approved testing agency. Imported fill material shall be predominantly non-expansive granular material meeting the requirements set forth in the Geotechnical investigation.	City of Avenal and Contractor	Prior to and during construction	Incorporation of geotechnical specifications on construction plans and issuance of Building Permit by City. City review of compaction testing reports during construction.

Mitigation Measure	Requirements of Measure	Responsible Party	Compliance Timing	Compliance Action
GEO-2	If any paleontological resources are encountered during ground disturbance activities, all work within 25 feet of the find shall halt until a qualified paleontologist as defined by the Society of Vertebrate Paleontology Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources (2010), can evaluate the find and make recommendations regarding treatment. Paleontological resource materials may include resources such as fossils, plant impressions, or animal tracks preserved in rock. The qualified paleontologist shall contact the Natural History Museum of Kings County or other appropriate facility regarding any discoveries of paleontological resources.	Contractor	During Construction	Halt all work within 25 feet of the find to allow evaluation by a qualified paleontologist
HYDR-1	Prior to issuing of grading or building permits, the Project applicant shall submit to the City 1) the approved Storm Water Pollution Prevention Plan (SWPPP) and 2) the Notice of Intent (NOI) to comply with the General National Pollutant Discharge Elimination System (NPDES) from the Central Valley Regional Water Quality Control Board (RWQCB). The requirements of the SWPPP and NPDES shall be incorporated into design specifications and construction contracts. Best management practices (BMP's) shall be applicable to site conditions and be Identified on a water pollution control drawing.	City of Avenal and Contractor	Prior to and during construction	City issuance of Grading Permit or Building Permit after review of the approved SWPPP and General Construction Permit. Periodic site visits to ensure implementation of BMP's during construction
NOISE-1	Reduce noise from construction activities by requiring sound attenuating devices on construction vehicles and equipment. Restrict construction activities to the hours between 7 am and 9 pm Monday through Friday and 8 am and 5 pm on Saturday and Sunday from all construction project unless it can be shown that construction outside those times would not increase noise impacts to sensitive receptors.	Contractor		Include hours of construction on plans and ensure compliance through periodic site visits
PUB-1	Prior to the issuance of grading or building permits, the Project developer shall pay applicable fees as required by Kings County Adopted Public Facilities Fees, Reef Sunset Unified School District Developer fees, City of Avenal Park Impact Fees, and City of Avenal General Government Impact Fees.	City of Avenal and Contractor		Verification of Payment of applicable impact fees by City, and issuance of Grading or Building Permit

TENTATIVE TRACT No. 933

"CIELITO LINDO 3"

IN THE CITY OF AVENAL, COUNTY OF KINGS, STATE OF CALIFORNIA

Sheet One of One Sheet

April 2021

Legal Description:

Unsubdivided Remainder of Tract No. 903 "CIELITO LINDO 2", according to the map recorded in Volume 25 of Licensed Surveyor Plats, at pages 52 and 53, Kings County Records.

General Site Information:

Existing Zone: R-1
Existing Land Use: Vacant
APN: 038-270-066

Proposed Zone: R-1
Proposed Land Use: Single Family Residence
Area of Subdivision: 24.63 AC
Minimum Lot Size: 50.83' x 100.04'
Average Lot Size: 60'x110'

Proposed Source of Water: City of Avenal
Proposed Sewage Disposal: City of Avenal
Proposed Storm Water Disposal: Storm Water Ponding Basin
Proposed Source of Gas: Pacific Gas & Electric
Proposed Source of Electrical: Pacific Gas & Electric

School District: Avenal Unified School District

Proposed Underground Water & Sewer per City of Avenal Standards

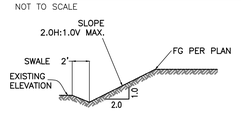
Proposed Surface Permanent Pavement, Curb, Gutter, Sidewalk, Street Lighting per City of Avenal Standards.

Street Utility Improvements Shall be Constructed as Required to Provided each Parcel Created with Permanent Street, Water and Sewer Services.

Subject Parcel Lies in Flood Zone "X", Defined as Areas of 500-year flood; areas of 100-year flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levies from 100-year flood, per NFPM, Flood Insurance Rate Map Community Panel Number 06031C0395C, effective date June 16, 2009.

TYPICAL SECTION "A"

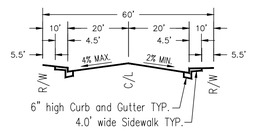
NOT TO SCALE



Proposed Street Section:

Street Construction to be per City Standard Requirements

Proposed Typical 60' Interior Street



Map Prepared by:

Tri City Engineering, Inc.

4630 West Jennifer Ave. Office: (559) 447-9075
Fresno CA 93722 Fax: (559) 447-9074
Email: Info@TriCityEngineering.com

Existing Easements:

ALL EASEMENTS TO REMAIN, UNLESS CLEARLY NOTED OTHERWISE.

E# - NO EXISTING ONSITE EASEMENTS PRESENT

Owner / Subdivider

Oasis Valley No. 1 LLC
P.O. BOX 670
HURON CA. 93234
PH: (559) 945 - 7810
Attn: KEN GONG

Proposed Easements:

THE FOLLOWING TO BE OFFERED FOR PUBLIC USE:

PE1 - A 10' WIDE PUBLIC UTILITY EASEMENT TO BE CREATED AT EACH PROPOSED LOT STREET FRONTAGE. ADJOINING TO PROPERTY LINE.

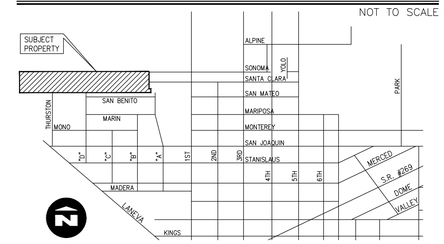
Legend:

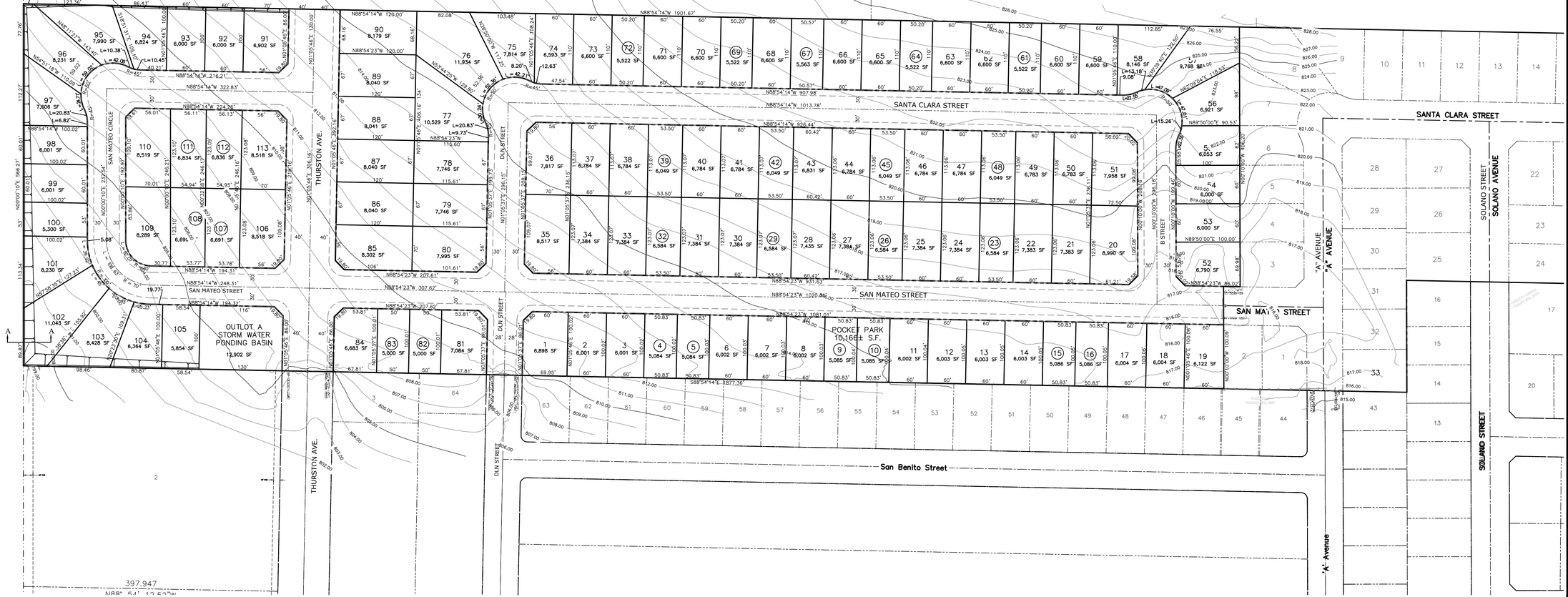
- Existing Parcel Boundary
- Proposed Parcel Division Line
- PE# — Refers to Proposed Easement - See Listing
- P# — Refers to Existing Easement - See Listing
- ☆ — Denotes Area to be Offered for Dedication for Public Street Purposes

* Property Boundary Bearings and Distances perRecord Deed - See Legal Description.
** Proposed Parcel Division Line Distances Shown areto the Nearest Foot.
*** All Distances are in Feet & Decimal Feet thereafter, per Record.
① Indicates lot widths less than 60 feet

VICINITY MAP — CITY OF AVENAL

NOT TO SCALE





THE DIMENSIONS, LOCATIONS, & SIZES SHOWN IN THIS DRAWING ARE NOT EXACT. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS, LOCATIONS, & SIZES AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO EXCAVATING. FOR BEST RESULTS, CONTACT UNDERGROUND SERVICE ALERT AT LEAST 48 WORKING HOURS, BUT NOT MORE THAN 10 WORKING DAYS, PRIOR TO EXCAVATING. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE ALL UNDERGROUND SERVICE LINES PRIOR TO EXCAVATING. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO UTILITIES RESULTING FROM FAILURE TO LOCATE AND PROTECT UTILITIES. IN THE EVENT OF ANY DISCREPANCIES BETWEEN THESE PLANS AND FIELD CONDITIONS, THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY. IF NOTIFICATION IS NOT GIVEN, THE ENGINEER WILL NOT BE RESPONSIBLE FOR ANY CONSTRUCTION PERFORMED UNDER THESE CONDITIONS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION. THESE PLANS ARE THE PROPERTY OF TRI CITY ENGINEERING AND SHALL NOT BE REPRODUCED WITHOUT THE EXPRESS WRITTEN PERMISSION OF TRI CITY ENGINEERING.

REGISTERED PROFESSIONAL ENGINEER — GREGORY S. BUCU — No. C57148 — CIVIL — STATE OF CALIFORNIA

DATE	APPROVD.	REVISION

Tri City Engineering, Inc.
Engineers
Surveyors
4630 W. Jennifer Ave. #101
Fresno, CA. 93722-6415
PH: 559-447-9075
FAX: 559-447-9074
www.TriCityEngineering.com

TRI CITY engineering

TENTATIVE SUBDIVISION MAP FOR:

OASIS VALLEY No. 1, LLC

CALIFORNIA

AVENAL

Scale: 1"=80'
Date: 2021.Apr.13
Drwn: SZ
Chckd: DJ

SHEET NO.
C.1
OF 1 SHEETS

JN#: 2871