INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

Castlerock Residential Project

Prepared for:

City of DINUBA

City of Dinuba
405 E. El Monte Way
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PROJECT INFORMATION

This document is the Initial Study for the potential environmental effects of the ~~City of Dinuba's (City)~~ Castlerock Residential Project (Project) proposed in the City of Dinuba (City). The City of Dinuba will act as the Lead Agency for this project pursuant to the California Environmental Quality Act (CEQA) and the CEQA Guidelines. Copies of all materials referenced in this report are available for review in the project file during regular business hours at the Dinuba Public Works Department, 1088 E. Kamm Ave, Dinuba, CA 93618.

Project title

Castlerock Residential Project

Lead agency name and address

City of Dinuba
1088 E Kamm Ave
Dinuba, CA 93618

Contact person and phone number

Karl Schoettler
City of Dinuba
(559) 591-5924
Email: karl@weplancities.com

Project location

The City of Dinuba lies in the Central San Joaquin Valley region, in the northwestern portion of Tulare County. The proposed Project lies east of Randle Road and Park Way, west of Road 92 and south of El Monte Way. The proposed 71-lot single-family residential subdivision will be located on 15.44 acres of currently vacant land, assigned Assessor's Parcel Number 018-180-031. The City of Dinuba is approximately eight miles northeast of State Route (SR) 99 and 5.5 miles west of SR 63 (see Figure 1).

Figure 1 – Location

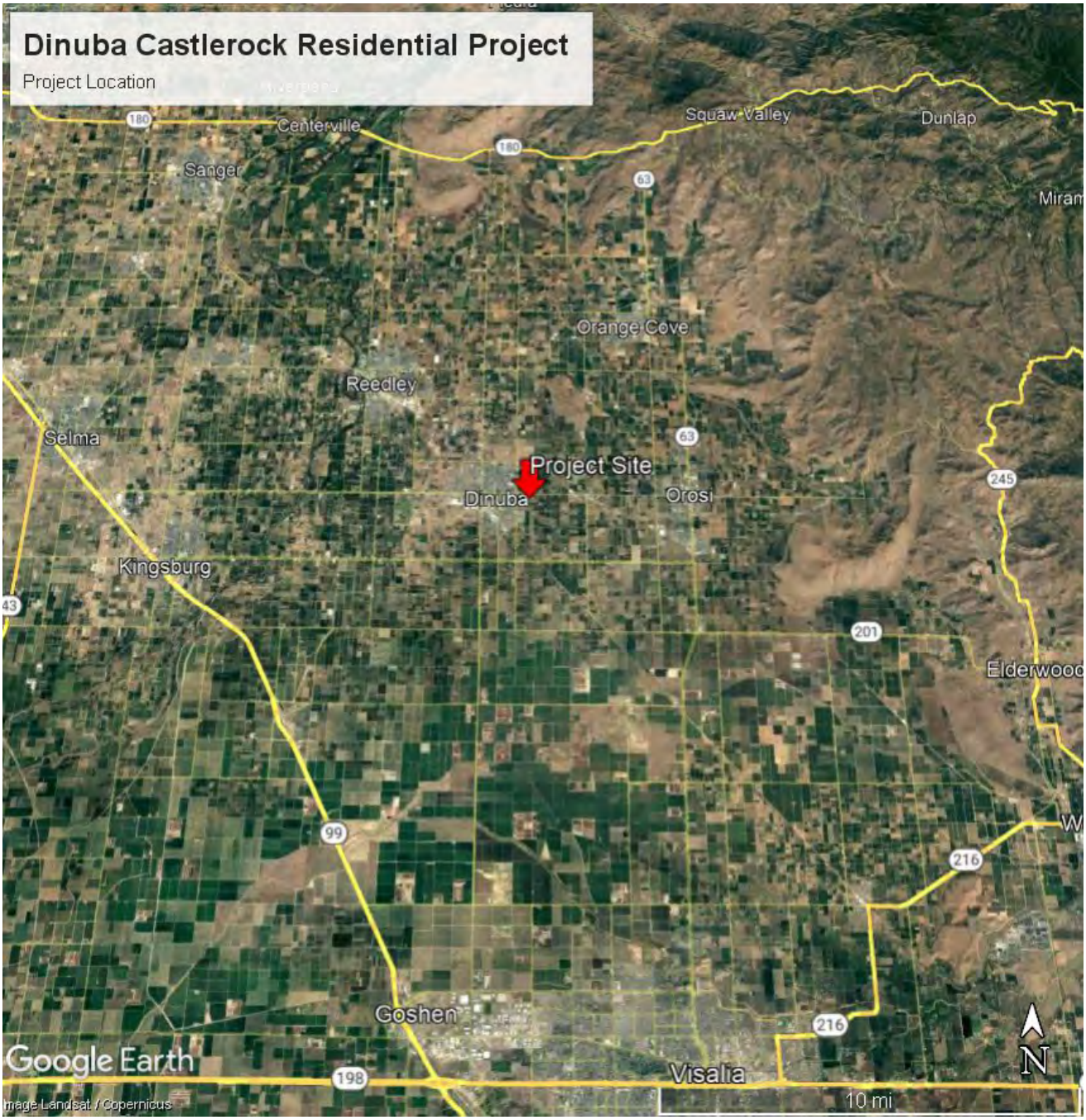


Figure 2 – Site Aerial

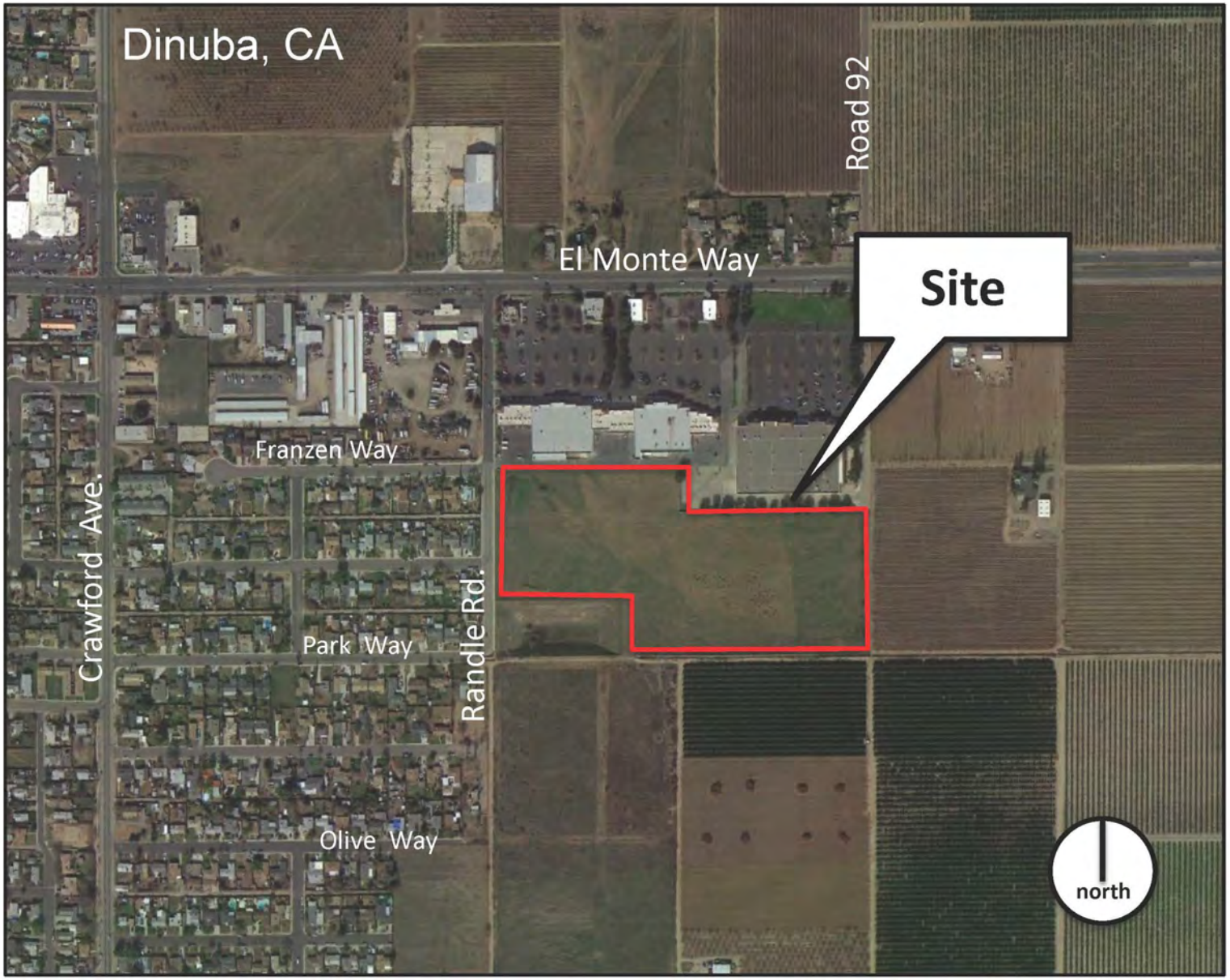
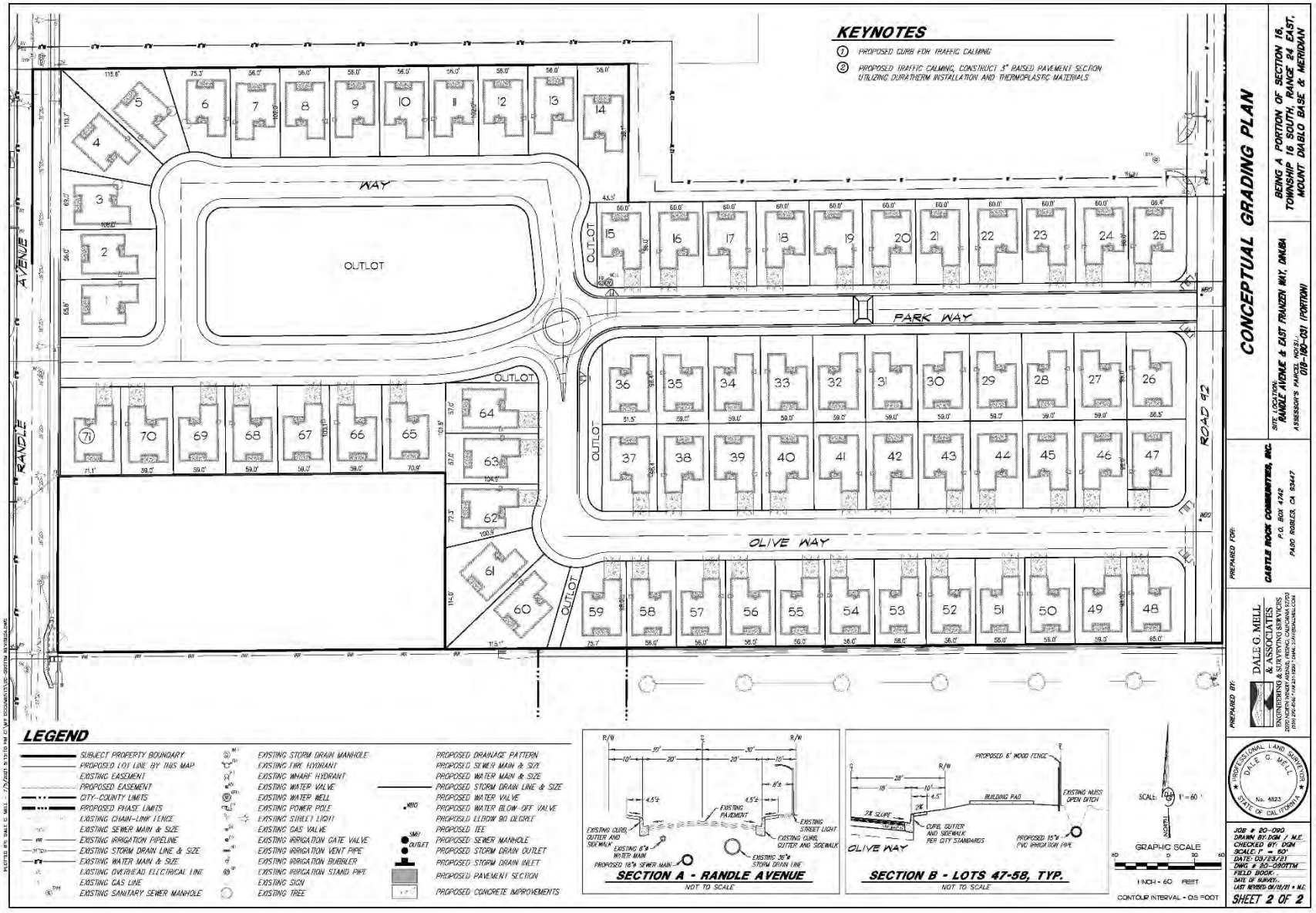


Figure 3 – Site Plan



Project sponsor's name/address

Landmark Builders Group
P.O. Box 4742
Paso Robles, CA 93447

General plan designation

Medium Density Residential

Zoning

R-1-6 (Single Family Residential, 6,000 square foot minimum lot size)

Project Description

The Project consists of a Rezone, Planned Development and Vesting Tentative Tract Map to allow for the construction of a new 71-unit single-family residential development and the associated improvements (see Figure 3).

Project Components

- Construction of 71 single-family residential units.
- Construction of internal roads, accessed from Randle Avenue to the west and Road 92 to the east.
- Construction curb, gutter and sidewalks per City Standards.
- Connection to City utilities

Surrounding Land Uses/Existing Conditions

The proposed Project site is currently vacant.
Lands directly surrounding the proposed Project are described as follows:

- North: El Monte Shopping Center.
- South: Agriculture and vacant fields.
- East: Agriculture and rural residences.
- West: Single-family residential homes.

Other Public Agencies Involved

- State of California Native American Heritage Commission
- San Joaquin Valley Air Pollution Control District
- Central Valley Regional Water Quality Control Board
- U.S. Department of Agriculture

Tribal Consultation

The City of Dinuba has not received any project-specific requests from any Tribes in the geographic area with which it is traditionally and culturally affiliated with or otherwise to be notified about projects in the City of Dinuba.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

☐ Aesthetics	☐ Agriculture Resources and Forest Resources	☐ Air Quality
☐ Biological Resources	☐ Cultural Resources	☐ Energy
☐ Geology / Soils	☐ Greenhouse Gas Emissions	☐ Hazards & Hazardous Materials
☐ Hydrology / 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

On the basis of this initial evaluation:

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

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

☐ I find that the 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.

City of Dinuba _____ Date _____

ENVIRONMENTAL CHECKLIST

I. AESTHETICS

Would the project:

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

ENVIRONMENTAL SETTING

The proposed Project site is located in the Southern San Joaquin Valley region, in the northwestern portion of Tulare County, in eastern Dinuba, California. The site resides in a residential, commercial and agricultural area, with single-family tract homes and agricultural fields dominating the visual landscape. The Project site generally flat and is bounded to the west by Randle Road. The area immediately west of the Project site consists of single-family homes. A commercial shopping center lies immediately north. To the east and south lie agricultural land uses. There are no adopted scenic resources or scenic vistas in the area. State Routes (SR) in the proposed Project vicinity include SR 201, SR 63 and SR 99.

The existing visual character of the site consists of vacant land with minimal vegetation. Views of the proposed Project site area visible from Randle Road and the parking lot road behind the shopping center.

RESPONSES

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?

Less Than Significant Impact. A scenic vista is defined as a viewpoint that provides expansive views of highly valued landscape for the benefit of the general public. The City of Dinuba does not identify any scenic vistas within the Project area. Tulare County identifies El Monte Way/Avenue 416 as part of a system of County scenic routes located less than one-quarter mile to the north, according to Figure 7.1 of the Tulare County General Plan. However, views from this roadway would be unaffected by the development of the Project because of the nature of the Project, intervening land uses and distance.

The Project site is within an urbanized area of east Dinuba. There are no scenic vistas or other protected scenic resources on or near the site. Visual character of the site is addressed further in Response C. below.

There are no scenic highways near the proposed site.

Therefore, the Project has ***less than significant impact*** on scenic vistas or designated scenic resources or highways.

Mitigation Measures: None are required.

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

Less than Significant Impact. The proposed Project would alter the existing visual character of public views of the site from vacant land to fully developed with single-family tract homes. The Project design is subject to the City's Design Guidelines adopted for the City's General Plan which apply to site layout, building design, landscaping, interior street design, lighting, parking and signage. Per the City's Design Guidelines, detailed architectural plans, color palettes and building materials as well as landscaping plans will be submitted by the Project developer to the City of Dinuba. The plans shall be required prior

to issuance of any building permits. The review shall be substantially based on the building plans and elevations illustrated within this document.

The proposed Project will require removal of minimal vegetation on the vacant parcel. Landscaping, fences and an outlot for park development are incorporated into the project design.

The improvements such as those proposed by the Project are typical of City urban areas and are generally expected from residents of the City. These improvements would not substantially degrade the visual character of the area and would not diminish the visual quality of the area, as they would be consistent with the existing visual setting. The proposed Project itself is not visually imposing against the scale of the existing adjacent residential buildings and nature of the surrounding area.

Therefore, the Project would have ***less than significant impacts*** on the visual character of the area.

Mitigation Measures: None are required.

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

Less Than Significant Impact. Nighttime lighting is necessary to provide and maintain safe, secure, and attractive environments; however, these lights have the potential to produce spillover light and glare and waste energy, and if designed incorrectly, could be considered unattractive. Light that falls beyond the intended area is referred to as "light trespass." Types of light trespass include spillover light and glare. Minimizing all these forms of obtrusive light is an important environmental consideration. A less obtrusive and well-designed energy efficient fixture would face downward, emit the correct intensity of light for the use, and incorporate energy timers.

Spillover light is light emitted by a lighting installation that falls outside the boundaries of the property on which the installation is sited. Spillover light can adversely affect light-sensitive uses, such as residential neighborhoods at nighttime. Because light dissipates as it travels from the source, the intensity of a light fixture is often increased at the source to compensate for the dissipated light. This can further increase the amount of light that illuminates adjacent uses. Spillover light can be minimized by using only the level of light necessary, and by using cutoff type fixtures or shielded light fixtures, or a combination of fixture types.

Glare results when a light source directly in the field of vision is brighter than the eye can comfortably accept. Squinting or turning away from a light source is an indication of glare. The presence of a bright light in an otherwise dark setting may be distracting or annoying, referred to as discomfort glare, or it

may diminish the ability to see other objects in the darkened environment, referred to as disability glare. Glare can be reduced by design features that block direct line of sight to the light source and that direct light downward, with little or no light emitted at high (near horizontal) angles, since this light would travel long distances. Cutoff-type light fixtures minimize glare because they emit relatively low-intensity light at these angles.

Current sources of light in the Project area are from adjacent uses, including commercial security and parking lot lighting to the north and streetlights from the residential development to the west. The Project would necessitate street lighting and such lighting that would be subject to City standards. Accordingly, potential impacts would be considered ***less than significant***.

Mitigation Measures: None are required.

II. AGRICULTURE AND FOREST RESOURCES

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d. Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

The City of Dinuba is located in Tulare County in the San Joaquin Valley, California. The proposed Project site is located in eastern Dinuba and is considered *Farmland of Local Importance* by the State Farmland Mapping and Monitoring Program (FMMP).[1] No *Prime Farmland, Unique Farmland* or *Farmland of Statewide Importance*, or land under Williamson Act contracts occur in the proposed Project area.

Agricultural uses less than one-quarter mile to the east and south are the nearest agricultural areas.

RESPONSES

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?

No Impact. There are no agricultural resources or forest lands present on the Project site, which is currently zoned as R-1-6 (Single Family Residential) and designated as Medium Density Residential by the City of Dinuba. The proposed Project would not conflict with the City's land use designations. There are no existing agricultural uses or operations within the Project boundaries. While the site location is considered *Farmland of Local Importance*, the proposed Project would not convert prime farmland, conflict with an existing agricultural use, or result in the conversion of existing farmland. Additionally, no Williamson Act contracted lands would be impacted due to the Project.

[1] California Department of Conservation. California Important Farmland Finder. https://maps.conservation.ca.gov/DLRP/CIFF/. Accessed January 2022.

The proposed Project does not conflict with any forest land or Timberland Production or result in any loss of forest land. The proposed Project does not include any changes which will affect the existing environment. Therefore, the Project has ***no impact*** on agricultural and forest resources.

Mitigation Measures: None are required.

III. AIR QUALITY

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is 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 or adversely affecting a substantial number of people)?	☐	☐	☒	☐

ENVIRONMENTAL SETTING

The climate of the City of Dinuba and the San Joaquin Valley is characterized by long, hot summers and stagnant, foggy, winters. Precipitation is low and temperature inversions are common. These characteristics are conducive to the formation and retention of air pollutants and are in part influenced by the surrounding mountains which intercept precipitation and act as a barrier to the passage of cold air and air pollutants.

The proposed Project lies within the San Joaquin Valley Air Basin, which is managed by the San Joaquin Valley Air Pollution Control District (SJVAPCD or Air District). National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) have been established for the following criteria pollutants: carbon monoxide (CO), ozone (O_3), sulfur dioxide (SO_2), nitrogen dioxide (NO_2), particulate matter (PM_{10} and $PM_{2.5}$), and lead (Pb). The CAAQS also set standards for sulfates, hydrogen sulfide, and visibility.

Air quality plans or attainment plans are used to bring the applicable air basin into attainment with all state and federal ambient air quality standards designed to protect the health and safety of residents within that air basin. Areas are classified under the Federal Clean Air Act as either

"attainment", "non-attainment", or "extreme non-attainment" areas for each criteria pollutant based on whether the NAAQS have been achieved or not. Attainment relative to the State standards is determined by the California Air Resources Board (CARB). The San Joaquin Valley is designated as a State and Federal extreme non-attainment area for O_3, a State and Federal non-attainment area for $PM_{2.5}$, a State non-attainment area for PM_{10}, and Federal and State attainment area for CO, SO_2, NO_2, and Pb.

Standards and attainment status for listed pollutants in the Air District can be found in Table 1. Note that both state and federal standards are presented.

Table 1

Standards and Attainment Status for Listed Pollutants in the Air District

	Federal Standard	California Standard
Ozone	0.075 ppm (8-hr avg)	0.07 ppm (8-hr avg) 0.09 ppm (1-hr avg)
Carbon Monoxide	9.0 ppm (8-hr avg) 35.0 ppm (1-hr avg)	9.0 ppm (8-hr avg) 20.0 ppm (1-hr avg)
Nitrogen Dioxide	0.053 ppm (annual avg)	0.30 ppm (annual avg) 0.18 ppm (1-hr avg)
Sulfur Dioxide	0.03 ppm (annual avg) 0.14 ppm (24-hr avg) 0.5 ppm (3-hr avg)	0.04 ppm (24-hr avg) 0.25 ppm (1hr avg)
Lead	1.5 µg/m3 (calendar quarter) 0.15 µg/m3 (rolling 3-month avg)	1.5 µg/m3 (30-day avg)
Particulate Matter (PM10)	150 µg/m3 (24-hr avg)	20 µg/m3 (annual avg) 50 µg/m3 (24-hr avg)
Particulate Matter (PM2.5)	15 µg/m3 (annual avg)	35 µg/m3 (24-hr avg) 12 µg/m3 (annual avg)

µg/m3 = micrograms per cubic meter

Additional State regulations include:

CARB Portable Equipment Registration Program – This program was designed to allow owners and operators of portable engines and other common construction or farming equipment to register their equipment under a statewide program so they may operate it statewide without the need to obtain a permit from the local air district.

U.S. EPA/CARB Off-Road Mobile Sources Emission Reduction Program – The California Clean Air Act (CCAA) requires CARB to achieve a maximum degree of emissions reductions from off-road mobile sources to attain State Ambient Air Quality Standards (SAAQS); off- road mobile sources include most construction equipment. Tier 1 standards for large compression-ignition engines used in off-road mobile sources went into effect in California in 1996. These standards, along with ongoing rulemaking, address emissions of nitrogen oxides (NOX) and toxic particulate matter from diesel engines. CARB is currently developing a control measure to reduce diesel PM and NOX emissions from existing off-road diesel equipment throughout the state.

California Global Warming Solutions Act – Established in 2006, Assembly Bill 32 (AB 32) requires that California's GHG emissions be reduced to 1990 levels by the year 2020. This will be implemented through a statewide cap on GHG emissions, which will be phased in beginning in 2012. AB 32 requires CARB to develop regulations and a mandatory reporting system to monitor global warming emissions levels.

The state has made steady progress in implementing AB 32 and achieving targets included in Executive Order S-3-05. The progress is evident in updated emission inventories prepared by CARB, which showed that the state inventory dropped below 1990 levels for the first time in 2016. CARB's Climate Change Scoping Plan (subsequently amended by the 2017 update) includes projections indicating that the state would meet or exceed the 2020 target with adopted regulations.

RESPONSES

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?

Less Than Significant Impact. The proposed Project lies within the San Joaquin Valley Air Basin (SJVAB). At the Federal level, the SJVAB is designated as extreme nonattainment for the 8-hour ozone standard, attainment for PM_{10} and CO, and nonattainment fort $PM_{2.5}$. At the State level, the SJVAB is designated as nonattainment for the 8-hour ozone, PM_{10}, and $PM_{2.5}$ standards. Although the Federal 1-hour ozone standard was revoked in 2005, areas must still attain this standard, and the SJVAPCD recently requested an EPA finding that the SJVAB has attained the standard based on 2011-2013 data[2].

[2] San Joaquin Valley Air Pollution Control District. Guidance to Assessing and Mitigating Air Quality Impacts. February 19, 2015. Page 28. https://www.valleyair.org/transportation/GAMAQI-2015/FINAL-DRAFT-GAMAQI.PDF. Accessed October 2021.

To meet Federal Clean Air Act (CAA) requirements, the SJVAPCD has multiple air quality attainment plan (AQAP) documents, including:

- Extreme Ozone Attainment Demonstration Plan (EOADP) for attainment of the 1-hour ozone standard (2004);
- 2007 Ozone Plan for attainment of the 8-hour ozone standard;
- 2007 PM_{10} Maintenance Plan and Request for Redesignation; and
- 2008 $PM_{2.5}$ Plan.

Because of the region's non-attainment status for ozone, PM2.5, and PM10, if the project-generated emissions of either of the ozone precursor pollutants (ROG or NOx), PM10, or PM2.5 were to exceed the SJVAPCD's significance thresholds, then the project uses would be considered to conflict with the attainment plans. In addition, if the project uses were to result in a change in land use and corresponding increases in vehicle miles traveled, they may result in an increase in vehicle miles traveled that is unaccounted for in regional emissions inventories contained in regional air quality control plans.

The annual significance thresholds to be used for the Project for construction and operational emissions are as follows[3]:

- 10 tons per year ROG;
- 10 tons per year NOx;
- 15 tons per year PM_{10}; and
- 15 tons per year $PM_{2.5}$.

Project Emissions

Site preparation and Project construction would involve excavation, grading, hauling, and various activities needed to construct the Project. During construction, the Project could generate pollutants such as hydrocarbons, oxides of nitrogen, carbon monoxide, and suspended PM. A major source of PM would be windblown dust generated during construction activities. Sources of fugitive dust would include disturbed soils at the construction site and trucks carrying uncovered loads of soils. Vehicles leaving the site could deposit dirt and mud on local streets, which could be an additional source of airborne dust

[3] San Joaquin Valley Air Control District – Air Quality Threshold of Significance – Criteria Pollutants. http://www.valleyair.org/transportation/0714-GAMAQI-Criteria-Pollutant-Thresholds-of-Significance.pdf. Accessed October 2021.

after it dries. PM10 emissions would vary from day to day, depending on the nature and magnitude of construction activity and local weather conditions. PM10 emissions would depend on soil moisture, the silt content of soil, wind speed, and the amount of operating equipment. Larger dust particles would settle near the source, while fine particles would be dispersed over greater distances from the construction site. These emissions would be temporary and limited to the immediate area surrounding the construction site.

The proposed Project construction schedule would begin in late 2021 and would last through 2023. Emissions were estimated using the California Emissions Estimator Model (CalEEMod), 2016.3.2. Construction related emissions are shown in Table 2. Refer to Appendix A – Air Emissions Output Table for the full emissions output estimates for construction and operational activities.

Table 2
Project Construction and Operational Emissions

	VOC (ROG) (tons/year)	NO_x (tons/year)	PM10* (tons/year)	CO2 (MT/year)
2021	0.12	1.26	0.28	142.98
2022	0.24	2.15	0.14	351.39
2023	1.24	0.38	0.02	70.98
Total Construction Emissions:	1.60	3.79	0.44	565.35
Annual Operational Emissions:	1.35	2.75	1.46	1,364.01
Threshold of Significance	10	10	15	--
Exceed Threshold?	No	No	No	N/A

** Appendix A includes projected emissions from ozone, carbon monoxide, lead, particulate matter (less than 2.5 microns in diameter), but are not included in this table because there is no established threshold of significance for these emissions.*

As shown in Table 2, construction emissions would be below the SJVAPCD's threshold for annual construction emissions. However, the SJVAPCD has implemented Regulation VIII measures for dust control related to construction projects, which are applicable to the Project and will be enforced by the City and the City's contractor.

Long-Term (Operational) Emissions

The Project is being implemented in response to existing and planned growth in the area and the site is designated by the General Plan as "Medium Density Residential". A new single-family residential neighborhood would provide needed housing to the growing community of Dinuba. The Project will improve housing availability within the City, but would not generate additional vehicle trips in the area beyond what was already planned for and analyzed in the City's General Plan EIR. The Project is not

therefore considered growth inducing. In addition, there are no stationary source emissions resulting from the Project.

As described above, construction/operational emissions would not exceed the SJVAPCD's significance thresholds for ROG, NOx, and PM10. As a result, the Project uses would not conflict with emissions inventories contained in regional air quality attainment plans and would not result in a significant contribution to the region's air quality non-attainment status[4]. Likewise, the Project would not result in a cumulatively considerable net increase of any criteria pollutant within the SJVAPCD jurisdiction. Finally, the Project would also not expose sensitive receptors to substantial pollutant concentrations. It will not cumulatively increase any criteria pollutant and will not result in substantial pollutant concentrations.

Any impacts to air resources would be considered ***less than significant***.

Mitigation Measures: None are required.

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

Less than Significant Impact. Land uses that are typically identified as sources of objectionable odors include landfills, transfer stations, sewage treatment plants, wastewater pump stations, composting facilities, feed lots, coffee roasters, asphalt batch plants, and rendering plants. The Project includes a residential development and as such, would not be a source of ongoing objectionable odors.

During construction, the various diesel-powered vehicles and equipment in use on-site would create localized odors. These odors would be temporary and would not likely be noticeable for extended periods of time beyond the Project's site boundaries. The potential for diesel odor impacts would therefore be less than significant. Any impacts would be ***less than significant.***

Mitigation Measures: None are required.

[4] San Joaquin Valley Air Pollution Control District. Guidance to Assessing and Mitigating Air Quality Impacts. February 19, 2015. Page 65. https://www.valleyair.org/transportation/GAMAQI-2015/FINAL-DRAFT-GAMAQI.PDF. Accessed October 2021.

IV. BIOLOGICAL RESOURCES

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☒	☐
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☒
c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
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?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

The proposed Project site is located in a portion of the central San Joaquin Valley that has, for decades, experienced intensive agricultural and urban disturbances. Current agricultural endeavors in the region include dairies, groves, and row crops.

Like most of California, the Central San Joaquin Valley experiences a Mediterranean climate. Warm dry summers are followed by cool moist winters. Summer temperatures usually exceed 90 degrees Fahrenheit, and the relative humidity is generally very low. Winter temperatures rarely raise much above 70 degrees Fahrenheit, with daytime highs often below 60 degrees Fahrenheit. Annual precipitation within the proposed Project site is about 10 inches, almost 85% of which falls between the months of October and March. Nearly all precipitation falls in the form of rain and storm-water readily infiltrates the soils of the surrounding sites.

Native plant and animal species once abundant in the region have become locally extirpated or have experienced large reductions in their populations due to conversion of upland, riparian, and aquatic habitats to agricultural and urban uses. Remaining native habitats are particularly valuable to native wildlife species including special status species that still persist in the region.

The site is currently vacant. The Project site's surrounding lands consist primarily of single-family residences, commercial businesses and agriculture.

No aquatic or wetland features occur on the proposed Project site; therefore, jurisdictional waters are considered absent from the site. A ponding basin managed by the City of Dinuba lies directly south of the Project site.

RESPONSES

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

Less than Significant Impact. The site is currently fallow and disked for weed control and fire suppression. The site is in an area that is highly disturbed and lacking in substantial vegetation, such as trees, brush or shrubs. This factor suggests that the Project site is extremely unlikely to serve as nesting habitat for bird species or any animal or plant species. No wetlands or waters of the U.S. or water of the State were found within the Project area. Additionally, according to the City of Dinuba General Plan Update Background Report, Special Status Species Figure 9-5,[5] there are no special status species found in the area. Any impacts to special status species are considered ***less than significant.***

Mitigation Measures: None are required.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

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

No Impact. There are no natural waterways, sensitive natural communities, or protected wetlands on the subject site. As such, there is ***no impact.***

Mitigation Measures: None are required.

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?

[5] City of Dinuba General Plan Update Background Report. October 2006. https://www.dinuba.org/images/docs/Planning/Dinuba-General-Plan-Background-Report.pdf. Accessed November 2021.

Less than Significant Impact with Mitigation. There are no natural waterways or natural vegetation on the subject site, and the site is not used for movement of wildlife species or for a migratory wildlife corridor, nor is the site used for native wildlife nursery sites. The parcel is currently vacant land with minimal vegetation. The site is highly disturbed; however, in the event that migratory and/or native avian species are nesting within or adjacent to the proposed Project area at the time of construction, construction activities could result in nest abandonment and/or direct mortality to individual birds. Project activities that injure or kill native birds or lead to nest abandonment would violate the California Fish and Game Code. The implementation of **BIO-1** would ensure that potential impacts remain ***less than significant.***

Mitigation Measures:

BIO-1: **1)** To the extent practicable, construction shall be scheduled to avoid the nesting season, which extends from February through August.

2) If it is not possible to schedule construction between September and January, preconstruction surveys for nesting birds shall be conducted by a qualified biologist to ensure that no active nests will be disturbed during Project implementation. A preconstruction survey shall be conducted no more than 14 days prior to the initiation of construction activities. During this survey, the qualified biologist shall inspect all potential nest substrates in and immediately adjacent to the impact area for nests. If an active nest is found close enough to the construction area to be disturbed by these activities, the qualified biologist shall determine the extent of a construction-free buffer to be established around the nest. If work cannot proceed without disturbing the nesting birds, work may need to be halted or redirected to other areas until nesting and fledging are completed or the nest has otherwise failed for non-construction related reasons.

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

No Impact. The proposed Project is consistent with the goals and policies of the City of Dinuba General Plan, and will be consistent with the goals and policies of the Tulare County General Plan. The Project will not conflict with the General Plan's policies related to "no-net-loss" of wetlands and preservation of riparian habitats because wetlands and riparian habitats are absent from the Project site. The Project will not result in significant loss of habitat for special status animal species and will therefore be consistent with General Plan policies related to wildlife habitat. Therefore, the proposed Project would have ***no impact.***

Mitigation Measures: None are required.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No Impact. The proposed Project site is not within an area set aside for the conservation of habitat or sensitive plant or animal species pursuant to a Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. As such, there is ***no impact***.

Mitigation Measures: None are required.

V. CULTURAL RESOURCES

Would the project:

		Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a.	Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☐	☐	☒
b.	Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☒	☐	☐
c.	Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐

ENVIRONMENTAL SETTING

Archaeological resources are places where human activity has measurably altered the earth or left deposits of physical remains. Archaeological resources may be either prehistoric (before the introduction of writing in a particular area) or historic (after the introduction of writing). The majority of such places in this region are associated with either Native American or Euroamerican occupation of the area. The most frequently encountered prehistoric and early historic Native American archaeological sites are village settlements with residential areas and sometimes cemeteries; temporary camps where food and raw materials were collected; smaller, briefly occupied sites where tools were manufactured or repaired; and special-use areas like caves, rock shelters, and sites of rock art. Historic archaeological sites may include foundations or features such as privies, corrals, and trash dumps.

A Phase I Cultural Resource Survey was performed on behalf of the proposed Project by Hudlow Cultural Resource Associates, report date October 2021 (See Appendix B). A record search of the project area and the environs within one half-mile was conducted at the Southern San Joaquin Archaeological Information Center. Information Center staff conducted the record search, RS# 21-370, on October 12, 2021. The record search revealed that four cultural resource surveys have been conducted within one half-mile of the project area. One project has previously addressed a portion of the parcel in question (Tibbet and Lloyd 2017). Fourteen historic cultural resources are located within one half-mile of the current project area; each cultural resource is a historic structure. Nine are residences, three are educational structures, one is a commercial center, and the last is horticultural.

On September 27, 2021, Scott M. Hudlow conducted a pedestrian archaeological survey of the entire proposed project area. Hudlow surveyed in north/south transects across the entire lot in 15-meter (33 feet) intervals. All archaeological material more than fifty years of age or earlier encountered during the inventory would have been recorded. Site and isolate forms would be completed, artifacts and maps would be drawn.

One cultural resource was identified, CB-1. CB-1 is an abandoned, remnant agricultural canal. CB-1 dates to 1940, at least in part. The canal is partially concrete lined and partially an earthen canal (Figures 4 and 5). The concrete-lined portion is stamped with the date 1940. The stamp also bears the initials WPA, which stands for the Works Progress Administration, a federal New Deal agency, which existed between 1935 and 1943, which undertook many similar infrastructure projects across the entire country. The earthen portion is probably older. The canal runs along the southern border of the property. The full report is included as Appendix B.

RESPONSES

a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?

No Impact. As discussed above, one cultural resource was identified. CB-1 is an abandoned, remnant agricultural canal. CB-1 dates to 1940, at least in part. The canal is partially concrete lined and partially an earthen canal. The concrete-lined portion is stamped with the date 1940. The earthen portion is probably older. However, this site is not eligible for nomination to the California Register of Historic Resources under Criteria 1-4. This site is not associated with events that have made a significant contribution to the broad patterns of local or regional history or the cultural heritage of California or the United States (Criterion 1). This site is not associated with the lives of persons important to local, California or national history (Criterion 2). This site does not embody the distinctive characteristics of a type, period, region or method of construction or represents the work of a master or possesses high artistic values (Criterion 3). Lastly, this site will not yield, or have the potential to yield, information important to the prehistory or history of the local area, California or the nation (Criterion 4). The Phase I Cultural Resource Survey has concluded that no further investigation is required. As such, there is ***no impact***.

Mitigation Measures: None are required.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

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

Less than Significant Impact with Mitigation. The project area is highly disturbed, consisting of vacant land, with minimal vegetation. One cultural resource was identified; however, this site is not eligible for nomination to the California Register of Historic Resources under Criteria 1-4. There are no other known or visible cultural or archaeological resources, paleontological resources, or human remains that exist on the surface of the project area. Therefore, it is determined that the project has low potential to impact any sensitive resources and no further cultural resources work is required unless project plans change to include work not currently identified in the project description.

Although no significant cultural or archaeological resources, paleontological resources or human remains have been identified in the project area, the possibility exists that such resources or remains may be discovered during Project site preparation, excavation and/or grading activities. Mitigation Measures CUL – 1 and CUL – 2 will be implemented to ensure that Project will result in ***less than significant impacts with mitigation***.

Mitigation Measures:

CUL – 1 Should evidence of prehistoric archeological resources be discovered during construction, the contractor shall halt all work within 25 feet of the find and the resource shall be evaluated by a qualified archaeologist. If evidence of any archaeological, cultural, and/or historical deposits is found, hand excavation and/or mechanical excavation shall proceed to evaluate the deposits for determination of significance as defined by the CEQA guidelines. The archaeologist shall submit reports, to the satisfaction of the City of Dinuba, describing the testing program and subsequent results. These reports shall identify any program mitigation that the project proponent shall complete in order to mitigate archaeological impacts (including resource recovery and/or avoidance testing and analysis, removal, reburial, and curation of archaeological resources).

CUL – 2 In order to ensure that the proposed project does not impact buried human remains during construction, the project proponent shall be responsible for on-going monitoring of project construction. Prior to the issuance of any grading permit, the project proponent shall provide the City of Dinuba with documentation identifying construction personnel that will be responsible for on-site monitoring. If buried

human remains are encountered during construction, further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains shall be halted until the Tulare County coroner is contacted and the coroner has made the determinations and notifications required pursuant to Health and Safety Code Section 7050.5. If the coroner determines that Health and Safety Code Section 7050.5(c) require that he give notice to the Native American Heritage Commission, then such notice shall be given within 24 hours, as required by Health and Safety Code Section 7050.5(c). In that event, the NAHC will conduct the notifications required by Public Resources Code Section 5097.98. Until the consultations described below have been completed, the landowner shall further ensure that the immediate vicinity, according to generally accepted cultural or archaeological standards or practices where Native American human remains are located, is not disturbed by further development activity until the landowner has discussed and conferred with the Most Likely Descendants on all reasonable options regarding the descendants' preferences and treatments, as prescribed by Public Resources Code Section 5097.98(b). The NAHC will mediate any disputes regarding treatment of remains in accordance with Public Resources Code Section 5097.94(k). The landowner shall be entitled to exercise rights established by Public Resources Code Section 5097.98(e) if any of the circumstances established by that provision become applicable.

VI. ENERGY

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐
b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☒	☐

ENVIRONMENTAL SETTING

California's total energy consumption is second-highest in the nation, but, in 2018, the state's per capita energy consumption ranked 48th, due in part to its mild climate and its energy efficiency programs. In 2019, California ranked second in the nation in conventional hydroelectric generation and first as a producer of electricity from solar, geothermal, and biomass resources.[6]

Energy usage is typically quantified using the British thermal unit (BTU). As a point of reference, the approximately amounts of energy contained in common energy sources are as follows:

Energy Source	BTUs[7]
Gasoline	120,281 per gallon
Natural Gas	1,037 per cubic foot
Electricity	3,412 per kilowatt-hour

[6] U.S. Energy Information Administration. Independent Statistics and Analysis. California Profile Overview. https://www.eia.gov/state/?sid=CA#tabs-1. Accessed October 2021.

[7] U.S. Energy Information Administration. Energy Units and Calculators Explained. https://www.eia.gov/energyexplained/units-and-calculators/british-thermal-units.php. Accessed January 2022.

California electrical consumption in 2020 was 853.6 trillion BTU[8], as provided in Table 3, while total electrical consumption by Tulare County in 2020 was 4642.8 GWh.[9]

Table 3

2020 California Energy Consumption[10]

End User	BTU of energy consumed (in trillions)	Percentage of total consumption
Residential	323.9	37.94
Commercial	365.1	42.77
Industrial	162.5	19.04
Transportation	2.1	0.25
Total	**853.6**	--

The California Department of Transportation (Caltrans) reports that approximately 36.4 million vehicles were registered in the state as of January 1, 2019. A total estimated 347.2 billion vehicles miles were traveled (VMT) on all public roads for the year 2018.[11]

Applicable Regulations

California Energy Code (Title 24, Part 6, Building Energy Efficiency Standards)

California Code of Regulations Title 24, Part 6 comprises the California Energy Code, which was adopted to ensure that building construction, system design and installation achieve energy efficiency. The California Energy Code was first established in 1978 by the CEC in response to a legislative mandate to reduce California's energy consumption, and apply to energy consumed for heating, cooling, ventilation, water heating, and lighting in new residential and non-residential buildings. The standards are updated periodically to increase the baseline energy efficiency requirements. The 2013 Building Energy Efficiency Standards focus on several key areas to improve the energy efficiency of newly constructed buildings and additions and alterations to existing buildings and include requirements to enable both demand reductions during critical peak periods and future solar electric and thermal system installations. Although it was not originally intended to reduce greenhouse gas (GHG) emissions, electricity production

[8] U.S. Energy Information Administration. Electricity Consumption Estimates. https://www.eia.gov/state/seds/sep_fuel/html/pdf/fuel_use_es.pdf. Accessed January 2022.
[9] California Energy Commission. Electricity Consumption by County. https://ecdms.energy.ca.gov/elecbycounty.aspx. Accessed January 2022.
[10] Ibid.
[11] Caltrans. 2020. California Transportation Fact Booklet. https://dot.ca.gov/-/media/dot-media/programs/research-innovation-system-information/documents/caltrans-fact-booklets/2020-cfb-v2-a11y.pdf. Accessed January 2022.

by fossil fuels results in GHG emissions and energy efficient buildings require less electricity. Therefore, increased energy efficiency results in decreased GHG emissions.

California Green Building Standards Code (Title 24, Part II, CALGreen)

The California Building Standards Commission adopted the California Green Buildings Standards Code (CALGreen in Part 11 of the Title 24 Building Standards Code) for all new construction statewide on July 17, 2008. Originally a volunteer measure, the code became mandatory in 2010 and the most recent update (2019) went into effect on January 1, 2020. CALGreen sets targets for energy efficiency, water consumption, dual plumbing systems for potable and recyclable water, diversion of construction waste from landfills, and use of environmentally sensitive materials in construction and design, including eco-friendly flooring, carpeting, paint, coatings, thermal insulation, and acoustical wall and ceiling panels. The 2019 CALGreen Code includes mandatory measures for non-residential development related to site development; water use; weather resistance and moisture management; construction waste reduction, disposal, and recycling; building maintenance and operation; pollutant control; indoor air quality; environmental comfort; and outdoor air quality. Mandatory measures for residential development pertain to green building; planning and design; energy efficiency; water efficiency and conservation; material conservation and resource efficiency; environmental quality; and installer and special inspector qualifications.

Clean Energy and Pollution Reduction Act (SB 350)

The Clean Energy and Pollution Reduction Act (SB 350) was passed by California Governor Brown on October 7, 2015, and establishes new clean energy, clean air, and greenhouse gas reduction goals for the year 2030 and beyond. SB 350 establishes a greenhouse gas reduction target of 40 percent below 1990 levels for the State of California, further enhancing the ability for the state to meet the goal of reducing greenhouse gas emissions by 80 percent below 1990 levels by the year 2050.

Renewable Portfolio Standard (SB 1078 and SB 107)

Established in 2002 under SB 1078, the state's Renewables Portfolio Standard (RPS) was amended under SB 107 to require accelerated energy reduction goals by requiring that by the year 2010, 20 percent of electricity sales in the state be served by renewable energy resources. In years following its adoption, Executive Order S-14-08 was signed, requiring electricity retail sellers to provide 33 percent of their service loads with renewable energy by the year 2020. In 2011, SB X1-2 was signed, aligning the RPS target with the 33 percent requirement by the year 2020. This new RPS applied to all state electricity retailers, including publicly owned utilities, investor-owned utilities, electrical service providers, and community choice aggregators. All entities included under the RPS were required to adopt the RPS 20 percent by year 2020 reduction goal by the end of 2013, adopt a reduction goal of 25 percent by the end

of 2016, and meet the 33 percent reduction goal by the end of 2020. In addition, the Air Resources Board, under Executive Order S-21-09, was required to adopt regulations consistent with these 33 percent renewable energy targets.

RESPONSES

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?

Less Than Significant Impact. The proposed Project includes construction and operation of a 71-unit single-family residential tract, on 15.44 acres. The Project would introduce energy usage on a site that is presently demanding minimal energy. The Project at build-out may consume high amounts of energy in the short-term during Project construction, and low amounts of energy in the long-term during Project operation.

During construction, the Project would consume energy in two general forms: (1) the fuel energy consumed by construction vehicles and equipment; and (2) bound energy in construction materials, such as asphalt, steel, concrete, pipes, and manufactured or processed materials such as lumber and glass. Title 24 Building Energy Efficiency Standards provide guidance on construction techniques to maximize energy conservation and it is expected that contractors and owners have a strong financial incentive to use recycled materials and products originating from nearby sources in order to reduce materials costs. As such, it is anticipated that materials used in construction and construction vehicle fuel energy would not involve the wasteful, inefficient, or unnecessary consumption of energy.

Operational Project energy consumption would occur for multiple purposes, including but not limited to, building heating and cooling, refrigeration, lighting and electronics. Operational energy would also be consumed during each vehicle trip associated with the proposed use. CalEEMod was utilized to generate the estimated energy demand of the proposed Project. Annual Project energy consumption is provided in Table 4 while model assumptions along with the output files are provided in Appendix A.

Table 4
Annual Project Energy Consumption

Land Use	Electricity Use in kWh/year	Natural Gas Use in kBTU/year
Single-Family Residential	610,178	1,827,090

The proposed Project would be required to comply with Title 24 Building Energy Efficiency Standards, which provide minimum efficiency standards related to various building features, including appliances, water and space heating and cooling equipment, building insulation and roofing, and lighting.

California's Building Energy Efficiency Standards are updated on an approximately three-year cycle. Starting in 2020, the 2019 standards improve upon existing standards, focusing on three key areas: proposing new requirements for installation of solar photovoltaics for newly constructed low-rise residential buildings; updating current ventilation and Indoor Air Quality (IAQ) requirements; and extending Title 24 Part 6 to apply to healthcare facilities. The 2019 Building Energy Efficiency Standards are approximately 53 percent more efficient than the 2016 Title 24 Energy Standards for residential development. As such, implementation of Title 24 standards significantly increases energy savings, and it is generally assumed that compliance with Title 24 ensures projects will not result in the inefficient, wasteful, or unnecessary consumption of energy.

As discussed in Impact XVII – Transportation/Traffic, at build-out the Project will generate a maximum of 759 daily trips and is anticipated to have 55 a.m. peak hour trips and 73 p.m. peak hour trips. The length of these trips and the individual vehicle fuel efficiencies are not known; therefore, the resulting energy consumption cannot be accurately calculated. Adopted federal vehicle fuel standards have continually improved since their original adoption in 1975 and assists in avoiding the inefficient, wasteful, and unnecessary use of energy by vehicles.

As discussed previously, the proposed Project would be required to implement and be consistent with existing energy design standards at the local and state level. The Project would be subject to energy conservation requirements in the California Energy Code and CALGreen. Adherence to state code requirements would ensure that the Project would not result in wasteful and inefficient use of non-renewable resources due to building operation.

Therefore, any impacts are ***less than significant***.

Mitigation Measures: None are required.

VII. GEOLOGY AND SOILS

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Expose people or structures to 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 off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☐	☒
d. Be located on expansive soil, as defined in Table 18-1-B of the most recently adopted Uniform Building Code	☐	☐	☒	☐

	creating substantial risks to life or property?				
e.	Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒
f.	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐

ENVIRONMENTAL SETTING

Dinuba is located near the eastern edge of the Central Valley, which is a nearly flat northwest-southeast trending basin approximately 450 miles long and approximately 75 miles wide. The City of Dinuba is located on soils characterized by a thick section of sedimentary rock overlying a granitic basement layer. The hazards due to ground-shaking are considered low due to the relative distance of the City from seismic faults. The nearest faults are the Sierra Nevada Fault Zone (approximately 60 miles east), the San Joaquin Fault (approximately 75 miles northwest), and the San Andreas Fault (approximately 75 miles to the southwest). The City of Dinuba is located in a Seismic Zone II, as defined by the California Uniform Building Code.

RESPONSES

a-i) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

a-ii) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking?

a-iii) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction?

a-iv) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?

Less than Significant Impact. The proposed project site is not located in an earthquake fault zone as delineated by the 1972 Alquist-Priolo Earthquake Fault Zoning Map Act. The nearest known potentially active fault is the Sierra Nevada Fault Zone, located approximately sixty miles east of the site. No active faults have been mapped within the project boundaries, so there is no potential for fault rupture. It is anticipated that the proposed Project site would be subject to some ground acceleration and ground shaking associated with seismic activity during its design life. The proposed Project site would be engineered and constructed in strict accordance with the earthquake resistant design requirements contained in the latest edition of the California Building Code (CBC) for seismic zone II, as well as Title 24 of the California Administrative Code, and therefore would avoid potential seismically induced hazards on planned structures.

The proposed Project site has a generally flat topography, which would preclude the likeliness of a landslide. The impact of seismic or landslide hazards on the project would be ***less than significant.***

Mitigation Measures: None are required.

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

Less than Significant Impact. The proposed Project will construct up to 71 single-family residential units on approximately 15.44 acres. The Project site has a generally flat topography and is in an established urban area. Construction activities associated with the Project involves ground preparation work for the new housing development and associated improvements. These activities could expose barren soils to sources of wind or water, resulting in the potential for erosion and sedimentation on and off the Project site. During construction, nuisance flow caused by minor rain could flow off-site. The City and/or contractor would be required to employ appropriate sediment and erosion control Best Management Practices as part of a Stormwater Pollution Prevention Plan (SWPPP) that would be required in the California National Pollution Discharge Elimination System (NPDES). As such, any impacts would be considered ***less than significant.***

Mitigation Measures: None are required.

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

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

Less Than Significant Impact. See Section VI a. above. The site is not at significant risk from ground shaking, liquefaction, or landslide and is otherwise considered geologically stable. The City of Dinuba sits on top of a mix of different loam classifications; however, the general earth material profile of the site depicted by the subsurface exploration consists of sandy silt and silty sand in the upper 3 to 16.5 feet underlain by a layer of poorly graded sand, silty sand and sandy silt to the depth explored of 21.5 feet below existing ground surface (bgs).[12] The coarse-grained soils have a relative density of medium dense to very dense and the fine-grained soils had a consistency of medium stiff to hard.

Saturated granular sediments can experience liquefaction if subject to seismically induced ground motion of sufficient intensity and duration.[13] Based on the absence of groundwater within the upper 50 feet, the consistency of the on-site soils (moderate to high relative density) and anticipated ground motion, analysis (Youd 2001) indicates that liquefaction and seismically induced settlement is unlikely.

An Expansion Index (EI) test was performed on a soil sample collected from the near surface soils of the site.[14] The test indicated the near surface soils are moderately expansive as indicated by an EI of 59. These soils are susceptible to volume changes associated with changes in soil moisture content. The potential for future differential movement resulting from these soils can be reduced to normally tolerable levels by following the moisture conditions and compaction recommendations presented in the Geotechnical Investigation Report. Moisture conditions and compaction mitigation implemented during the grading should be consistent with the expansiveness determined. Careful attention must be paid to future maintenance, inducing site drainage and irrigation practices.

The near surface soils within the project site to a depth of approximately 2 feet bgs are subject to moderate hydrocompaction[15]. Hydrocompactive soil has a loose skeletal structure, which is weakly cemented by soluble salts and/or minor amounts of clay. Increases in soil moisture reduce the interparticle cementation (dry strength) of the soil resulting in a decrease in volume of the soil structure. This condition can lead to post settlement of structures if soils subsequently become wetted. At the present moisture content, the on-site natural soil has sufficient strength to support the planned structure. However, if the soil is subjected to post-construction moisture increases, moderate soil compression will

[12] Geotechnical Investigation Report, Proposed Residential Subdivision, Randle Avenue and Park Way, Dinuba, California. Technicon Engineering Services, February 1, 2021. Page 5.

[13] Ibid, pages 8-9.

[14] Ibid, page 10.

[15] Ibid, page 11.

occur. The amount of compression will be dependent upon imposed loads, depth of moisture increase, and the amount of moisture increase. The potential post construction settlement in building areas due to presence of these hydrocompactive soils is anticipated to be about 3 inches. Based on past experience and the variability of future moisture increase, the potential settlement could be totally differential over a distance of about 10 feet. The post construction settlement below hardscape areas (i.e. driveways, sidewalks, pavements, etc.) is anticipated to be minimal (less than 1-inch). It is assumed the proposed structures cannot tolerate the potential post construction settlement described above. Consequently, mitigation of the potential effect of these soils will be necessary within the proposed building locations and structures/improvements that may be sensitive to settlement. Recommendations for mitigation are provided in the Geotechnical Investigation Report.

Subsidence is typically related to over-extraction of groundwater from certain types of geologic formations where the water is partly responsible for supporting the ground surface. The City of Dinuba is not recognized by the U.S. Geological Service as being in an area of subsidence.[16] Additionally, ongoing potential impacts of groundwater depletion and subsidence are constantly being monitored by USGS through a system of extensometers positioned throughout the San Joaquin Valley. Continuous measurements and aquifer-system response analysis enables appropriate governing of parameters set to mitigate subsidence impacts in the region. With implementation of the recommendations given by the Geotechnical Investigation Report, impacts will remain ***less than significant.***

Mitigation Measures: None are required.

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

No Impact. The proposed Project does not include the construction, replacement, or disturbance of septic tanks or alternative wastewater disposal systems. The Project will be required to tie into existing City sewer services (See Utilities section for more details). Therefore, there is ***no impact.***

Mitigation Measures: None are required.

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

[16] U.S. Geological Service. Areas of Land Subsidence in California. https://ca.water.usgs.gov/land_subsidence/california-subsidence-areas.html Accessed October 2021.

Less Than Significant Impact. As identified in the cultural studies performed for the Project site (see Appendix B), there are no known paleontological resources on or near the site. Mitigation measures have been added that will protect unknown (buried) resources during construction, including paleontological resources. There are no unique geological features on site or in the area. Therefore, there is a ***less than significant impact***.

Mitigation Measures: None are required.

VIII. GREENHOUSE GAS EMISSIONS

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

ENVIRONMENTAL SETTING

Various gases in the earth's atmosphere play an important role in moderating the earth's surface temperature. Solar radiation enters earth's atmosphere from space and a portion of the radiation is absorbed by the earth's surface. The earth emits this radiation back toward space, but the properties of the radiation change from high-frequency solar radiation to lower-frequency infrared radiation. GHGs are transparent to solar radiation but are effective in absorbing infrared radiation. Consequently, radiation that would otherwise escape back into space is retained, resulting in a warming of the earth's atmosphere. This phenomenon is known as the greenhouse effect.

Scientific research to date indicates that some of the observed climate change is a result of increased GHG emissions associated with human activity. Among the GHGs contributing to the greenhouse effect are water vapor, carbon dioxide (CO_2), methane (CH_4), ozone, Nitrous Oxide (NO_x), and chlorofluorocarbons. Human-caused emissions of these GHGs in excess of natural ambient concentrations are considered responsible for enhancing the greenhouse effect. GHG emissions contributing to global climate change are attributable, in large part, to human activities associated with the industrial/manufacturing, utility, transportation, residential, and agricultural sectors.

In California, the transportation sector is the largest emitter of GHGs, followed by electricity generation. Global climate change is, indeed, a global issue. GHGs are global pollutants, unlike criteria pollutants and Toxic Air Contaminants (which are pollutants of regional and/or local concern). Global climate change, if it occurs, could potentially affect water resources in California. Rising temperatures could be anticipated to result in sea-level rise (as polar ice caps melt) and possibly change the timing and amount of precipitation, which could alter water quality. According to some, climate change could result in more extreme weather patterns; both heavier precipitation that could lead to flooding, as well as more

extended drought periods. There is uncertainty regarding the timing, magnitude, and nature of the potential changes to water resources as a result of climate change; however, several trends are evident.

Snowpack and snowmelt may also be affected by climate change. Much of California's precipitation falls as snow in the Sierra Nevada and southern Cascades, and snowpack represents approximately 35 percent of the state's useable annual water supply. The snowmelt typically occurs from April through July; it provides natural water flow to streams and reservoirs after the annual rainy season has ended. As air temperatures increase due to climate change, the water stored in California's snowpack could be affected by increasing temperatures resulting in: (1) decreased snowfall, and (2) earlier snowmelt.

RESPONSES

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?

Less Than Significant Impact. The U.S. Environmental Protection Agency published a rule for the mandatory reporting of greenhouse gases from sources that in general emit 25,000 metric tons or more of carbon dioxide (CO_2) per year. As shown in the modeling results (Appendix A), the Project will produce the following CO_2:

2021 Project Construction	142.98 MT/yr
2022 Project Construction	351.39 MT/yr
2023 Project Construction	70.98 MT/yr
Total Project Construction Emissions	565.35 MT/yr

Amortizing the total construction CO_2 emissions over a 30-year period results in 18.85 MT/yr. The total operational CO_2 emissions indicated in the emissions analysis for the proposed Project is 1,364.01 MT/yr. Adding the amortized construction emissions to the total operational emissions results in 1,382.86 MT/yr. This represents five and a half percent of the reporting threshold. As such, any impacts resulting from conflicting a GHG plan, policy, or regulation, or significantly impacting the environment as a result of project development is considered ***less than significant***.

Mitigation Measures: None are required.

IX. HAZARDS AND HAZARDOUS MATERIALS

Would the project:

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

	response plan or emergency evacuation plan?				
g.	Expose people or structures either directly or indirectly to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

The proposed Project site is located in the easternmost portion of the City of Dinuba. The area immediately surrounding the proposed Project consists of commercial, agricultural and single- family residential uses. The nearest residences are immediately west of the site along Randle Road. The project parcel is currently vacant.

A Phase I Environmental Site Assessment was performed on behalf of the proposed Project by Technicon Engineering Services, Inc. on January 13, 2021. This assessment revealed no evidence of recognized environmental conditions (RECs), controlled RECs, historical RECs, or records of environmental liens in connection with the property. No further investigation is warranted at this time. Although not noted as an REC, an irrigation well was noted on the central portion of the site. It is recommended that if the well is not utilized as part of future site development, that the well should be destroyed in accordance with state and local regulations.

RESPONSES

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?

Less than Significant Impact. The proposed Project would include the construction of up to 71 single-family residential homes and new internal access roads. Proposed Project construction activities may involve the use and transport of hazardous materials. These materials may include fuels, oils, mechanical fluids, and other chemicals used during construction. Transportation, storage, use, and disposal of hazardous materials during construction activities would be required to comply with applicable federal, state, and local statutes and regulations. Compliance would ensure that human health and the environment are not exposed to hazardous materials. In addition, the Project would be required to comply with the National Pollutant Discharge Elimination System (NPDES) permit program through the

submission and implementation of a Stormwater Pollution Prevention Plan during construction activities to prevent contaminated runoff from leaving the project site. Therefore, no significant impacts would occur during construction activities.

The operational phase of the proposed Project would occur after construction is completed and residents move in to occupy the structures on a day-to-day basis. The proposed Project includes land uses that are considered compatible with the surrounding uses. None of these land uses routinely transport, use, or dispose of hazardous materials, or present a reasonably foreseeable release of hazardous materials, with the exception of common residential grade hazardous materials such as household and commercial cleaners, paint, etc. The proposed Project would not create a significant hazard through the routine transport, use, or disposal of hazardous materials, nor would a significant hazard to the public or to the environment through the reasonably foreseeable upset and accidental conditions involving the likely release of hazardous materials into the environment occur. Therefore, the proposed Project will not create a significant hazard to the public or the environment and any impacts would be ***less than significant***.

Mitigation Measures: None are required.

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

Less Than Significant Impact. Dinuba Junior Academy Christian School is approximately 0.2 miles to the northwest of the proposed Project site, while Jefferson Elementary School is approximately 0.4 miles southwest. As the proposed Project includes the development of single-family residences, it is not reasonably foreseeable that the proposed Project will cause a significant impact by emitting hazardous waste or bringing hazardous materials within one-quarter mile of an existing or proposed school. Residential land uses do not generate, store, or dispose of significant quantities of hazardous materials. Such uses also do not normally involve dangerous activities that could expose persons onsite or in the surrounding areas to large quantities of hazardous materials. See also Responses a. and b. regarding hazardous material handling. There would a ***less than significant impact.***

Mitigation Measures: None are required.

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

No Impact. The Phase I ESA performed an environmental records review of federal and equivalent state agency records in order to help identify recognized environmental conditions (RECs) in connection with the property. The Project site is not located on any lists of hazardous materials sites complied pursuant to Government Code Section 65962.5. There are two sites within a one-half mile radius identified by the Department of Toxic Substances Control's (DTSC) EnviroStor database; one is a proposed 18.8-acres school site located south of the Project site. The DTSC's review of the investigation determined that "no further action" was required for this site. The second site is a proposed 1.5-acre school site, also located south of the Project site. Again, DTSC determined that "no further action" would be required. According to the Tulare County Health and Human Services Agency (HHSA), two facilities adjacent to the Project site were listed on the Certified Unified Program Agency (CUPA) list; however, both facilities have shut down.

There are no hazardous materials sites that impact the Project. As such, ***no impacts*** would occur that would create a significant hazard to the public or the environment.

Mitigation Measures: None are required.

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

Less than Significant Impact. There are no private or public airstrips in the Project vicinity. The Sequoia Field Airport is located approximately 6.9 miles to the southeast of the proposed Project site. Thus, any impacts are ***less than significant***.

Mitigation Measures: None are required.

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

No Impact. The Project will not interfere with any adopted emergency response or evacuation plan. There is ***no impact.***

Mitigation Measures: None are required.

g) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

No Impact. There are no wildlands on or near the Project site. There is ***no impact***.

Mitigation Measures: None are required.

X. HYDROLOGY AND WATER QUALITY

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	☒	☐
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:	☐	☐	☒	☐
i. Result in substantial erosion or siltation on- or off- site;	☐	☐	☒	☐
ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or 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 polluted runoff; or	☐	☐	☒	☐
iv. impede or redirect flood flows?	☐	☐	☒	☐

X. HYDROLOGY AND WATER QUALITY

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

The City of Dinuba is located within the San Joaquin Valley in the northwest corner of Tulare County, approximately 27 miles southeast of the Fresno/Clovis metropolitan area. The foothills of the Sierra Nevada Mountain Range are approximately nine miles to the east and the Kings River lies approximately five miles to the west. The topography of the City is relatively flat with an elevation of approximately 330 feet above sea level. The area surrounding the City of Dinuba and outside its sphere of influence consists mainly of agricultural lands. Numerous irrigation canals and ditches have been constructed within the vicinity of Dinuba to deliver water from the Kings River to the adjacent agricultural lands.

The City supplies groundwater to residents through City-owned wells. In 2020, the City's public water system area consisted of 6,311 municipal connections and it supplied a volume of 1,553 million gallons (MG) of water to its service area. Actual 2020 water usage of 165 gallons per capita per day (gpcd) within the service area was lower that the City's water use target of 179 gpcd.[17]

The City of Dinuba will provide water to the Project site and the Project will be required to tie into the City's existing water service infrastructure.

[17] City of Dinuba 2020 Urban Water Management Plan. Page 1-3.

RESPONSES

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

Less than Significant Impact. The proposed Project site is 15.44 acres in size. Grading, excavation and loading activities associated with construction activities could temporarily increase runoff, erosion, and sedimentation. Construction activities also could result in soil compaction and wind erosion effects that could adversely affect soils and reduce the revegetation potential at construction sites and staging areas.

Three general sources of potential short-term construction-related stormwater pollution associated with the proposed project are: 1) the handling, storage, and disposal of construction materials containing pollutants; 2) the maintenance and operation of construction equipment; and 3) earth moving activities which, when not controlled, may generate soil erosion and transportation, via storm runoff or mechanical equipment. Generally, routine safety precautions for handling and storing construction materials may effectively mitigate the potential pollution of stormwater by these materials. These same types of common sense, "good housekeeping" procedures can be extended to non-hazardous stormwater pollutants such as sawdust and other solid wastes.

Poorly maintained vehicles and heavy equipment leaking fuel, oil, antifreeze, or other fluids on the construction site are also common sources of stormwater pollution and soil contamination. In addition, grading activities can greatly increase erosion processes. Two general strategies are recommended to prevent construction silt from entering local storm drains. First, erosion control procedures should be implemented for those areas that must be exposed. Secondly, the area should be secured to control offsite migration of pollutants. These Best Management Practices (BMPs) would be required in the Stormwater Pollution Prevention Plan (SWPPP) to be prepared prior to commencement of Project construction. When properly designed and implemented, these "good-housekeeping" practices are expected to reduce short-term construction-related impacts to less than significant.

In accordance with the National Pollution Discharge Elimination System (NPDES) Stormwater Program, the Project will be required to comply with existing regulatory requirements to prepare a SWPPP designed to control erosion and the loss of topsoil to the extent practicable using BMPs that the Regional Water Quality Control Board (RWQCB) has deemed effective in controlling erosion, sedimentation, runoff during construction activities. The specific controls are subject to the review and approval by the RWQCB and are an existing regulatory requirement.

The Project will comply with all City ordinances and standards to assure proper grading and drainage. Compliance with all local, state, and federal regulations will prevent violation of water quality standards or waste discharge requirements. The Project will be required to prepare a grading and drainage plan

for review and approval by the City Engineer, prior to issuance of building permits. Therefore, any impacts will be ***less than significant***.

Mitigation Measures: None are required.

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

Less Than Significant Impact. Site development will result in an increased demand for water. The City's Urban Water Management Plan (UWMP) reported that in 2020, the volume of water delivered to municipal connections was 1,553 million gallons (MG) and approximately 65% of that was for residential use.[18]

The site is currently designated in the General Plan as Medium Density Residential, and the proposed Project is allowable under that land use designation. As such, water demand resulting from site development was incorporated and planned for in the City's UWMP. According to page 1-3 of the UWMP, "Water demands are anticipated to increase in proportion to population growth. Water demands in the Public Water System service are projected to total approximately 2,427 MG annually in 2040." Additionally, the additional residential demand has been included in the City's water infrastructure plans. Lastly, compliance with existing State regulations will ensure that impacts to groundwater supply will be ***less than significant.***

Mitigation Measures: None are required.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

   i. result in substantial erosion or siltation on- or offsite;

   ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;

[18] City of Dinuba 2020 Urban Water Management Plan. Page 4-2.

iii. create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or

iv. impede or redirect flood flows?

Less than Significant Impact. The proposed Project includes minor changes to the existing stormwater drainage pattern of the area through the installation of asphalt, residences, driveways, landscaping, curb, gutter and sidewalks. Standard construction practices and compliance with state and federal regulations, City ordinance and regulations, *The Uniform Building Code*, and adherence to profession engineering design approved by the City of Dinuba will reduce or eliminate drainage impacts from the Project. There are no streams or rivers near the site. Any impacts would be ***less than significant.***

Mitigation Measures: None are required.

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

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

No Impact. The Project is not within a regulatory floodway or within a base floodplain (100 year) elevation, as identified by the Federal Emergency Management Agency (Map Number 06107C034E, effective 6/16/09). In addition, the Project does not include any housing or structures that would be subject to flooding either from a watercourse or from dam inundation. There are no bodies of water near the site that would create a potential risk of hazards from seiche, tsunami or mudflow. The Project will not conflict with any water quality control plans or sustainable groundwater management plan. However, as mentioned in Section c., all new development within the City of Dinuba Planning Area must conform to standards and plans contained in the Dinuba Stormwater Drainage Master Plan. By conforming to all standards and policies as outlined, there will be ***no impacts*** associated with the Project.

Mitigation Measures: None are required.

XI. LAND USE AND PLANNING

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Physically divide an established community?	☐	☐	☒	☐
b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐

ENVIRONMENTAL SETTING

The proposed Project site is in the eastern portion of the City of Dinuba. The site lies east of Randle Road and Park Way, west of Road 92. The vicinity is heavily developed with commercial, agricultural and residential uses. The site is currently vacant, see Figure 2 – Vicinity Map. The site is currently zoned R-1-6 (Single Family Residential) and designated by the City as Medium Density Residential. The Project consists of the construction and operation of a new 71- unit single-family residential development and associated improvements.

RESPONSES

a) Physically divide an established community?

b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the General Plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

Less Than Significant Impact. The immediate vicinity of the proposed Project site is comprised of a commercial shopping center to the north, residential neighborhoods to the west and agricultural purposes and rural residences to the south and east. The proposed Project will not divide an existing community; rather, it will extend an existing one. The Project will include construction of internal roads, accessed from Randle Avenue onto Park Way, as well as accessed from Road 92 onto Olive Way and Park Way.

The area is highly disturbed with urban uses.

Based upon compliance with the goals, objectives and policies referenced herein below, the proposed project is determined to be consistent with the Dinuba General Plan goals and objectives related to land use and the urban form:

Policy 1.1: Develop design review standards for structures, landscaping and related development to facilitate compatibility with surrounding uses and the overall character of the community.

The site plan and all design features will be reviewed by the City and all appropriate entities for approval prior to construction.

Objective: Designate and allow for the development of a wide range of residential housing types in the City to meet the needs of all the City's citizens.

The Project is intended for single-family occupancy. The Project will incorporate an outlot for a park and pedestrian spaces into the site design for the enjoyment of all future residents.

Objective A: Promote stable high quality residential neighborhoods.
Objective B: Encourage new residential neighborhoods that have the desirable characteristics of traditional small-town neighborhoods.

The Project will connect with the existing single-family residential neighborhood, located west of the site. The Project will be entirely consistent with neighboring residential land uses.

Policy 1.24: Commercial uses may be located either in the center or at the periphery of neighborhoods, and should be integrated with residential uses and designed to be as accessible and appealing to pedestrians as possible, in order to encourage walking and biking.

The Project is adjacent to a commercial shopping center, which will be easily accessed by car or on foot by residents in the new housing development.

The proposed Project will not divide an existing community and it will not conflict with an established land use plan. Any impacts are ***less than significant.***

Mitigation Measures: None are required.

XII. MINERAL RESOURCES

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

Tulare County commercially extracts important minerals such as sand, gravel, crushed rock and natural gas.[19] Other minerals have been mined in the county to a smaller extent, including tungsten, chromite, copper, gold, lead, manganese, silver, zinc, barite, feldspar, limestone and silica. Aggregate resources are considered the County's most valuable extractive mineral. No mineral resource locations are within the vicinity of the City of Dinuba.[20]

RESPONSES

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?

No Impact. There are no known mineral resources in the proposed Project area and the site is not included in a State classified mineral resource zones. Therefore, there is ***no impact***.

Mitigation Measures: None are required.

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[19] Tulare County General Plan Background Report, February 2010. Page 10-17.

[20] City of Dinuba General Plan Update Background Report, October 2006. Page 9-12.

XIII. NOISE

Would the project:

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

ENVIRONMENTAL SETTING

Noise is most often described as unwanted sound. Although sound can be easily measured, the perception of noise and the physical response to sound complicate the analysis of its impact on people. The City of Dinuba is impacted by a multitude of noise sources. Principal noise sources include traffic on roadways, agricultural noise and industrial noise. Mobile sources of noise, especially cars and trucks, are the most common and significant sources of noise in most communities, and they are predominant sources of noise in the City. The Project site is located in an area with a mix of uses. The predominant noise sources in the Project area include traffic on local roadways, residential noise (lawn movers, audio equipment, voices, etc.) and noise from the nearby commercial shopping center. Agricultural noise is unlikely but possible. Sensitive receptors in the area include the residential housing immediately west of the Project site.

RESPONSES

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

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

Less than Significant Impact.

Short-term (Construction) Noise Impacts

Proposed Project construction-related activities will involve temporary noise sources. Typical construction related equipment include graders, trenchers, small tractors and excavators. During the proposed Project construction, noise from construction related activities will contribute to the noise environment in the immediate vicinity. Activities involved in construction will generate maximum noise levels, as indicated in Table 5, ranging from 79 to 91 dBA at a distance of 50 feet, without feasible noise control (e.g., mufflers) and ranging from 75 to 80 dBA at a distance of 50 feet, with feasible noise controls.

Table 5
Typical Construction Noise Levels

Type of Equipment	dBA at 50 ft	
	Without Feasible Noise Control	With Feasible Noise Control
Dozer or Tractor	80	75
Excavator	88	80
Scraper	88	80
Front End Loader	79	75
Backhoe	85	75
Grader	85	75
Truck	91	75

The distinction between short-term construction noise impacts and long-term operational noise impacts is a typical one in both CEQA documents and local noise ordinances, which generally recognize the reality that short-term noise from construction is inevitable and cannot be mitigated beyond a certain level. Thus, local agencies frequently tolerate short-term noise at levels that they would not accept for permanent noise sources. A more severe approach would be impractical and might preclude the kind of construction activities that are to be expected from time to time in urban environments. Most residents of urban areas recognize this reality and expect to hear construction activities on occasion.

Long-term (Operational) Noise Impacts

The primary source of on-going noise from the Project will be from vehicles traveling on internal access roads and from traffic traveling along Randle Road and Road 92. The Project will result in an increase in traffic on some roadways in the Project area. However, the relatively low number of new trips associated with the Project is not likely to increase the ambient noise levels by a significant amount. Given the amount of existing vehicular activity in the Project area, the moderate increase in traffic associated with the new residential development (759 daily trips maximum), is not expected to increase ambient noise levels significantly. The area is active with vehicles, residential housing and commercial businesses and the proposed Project will not introduce a new significant source of noise that isn't already occurring in the area. Therefore, the impact is considered ***less than significant.***

Mitigation Measures: None are required.

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?

No Impact. The Project is not located within an airport land use plan. Therefore, there is ***no impact***.

Mitigation Measures: None are required.

XIV. POPULATION AND HOUSING

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Induce substantial 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 housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

The City of Dinuba's primary industry is agriculture, but there is sufficient labor force in the area to support many other types of industries. Dinuba's population has exhibited major growth since 2000. The population in 2000 was 16,844[21], while the current population is 25,994.[22] This represents an approximate increase of 54%. Estimates for 2020 shows the City has 6,876 housing units with an average of 3.84 people per household.

The current status of the Project site is vacant land. New housing associated with the Project includes 71 single-family homes.

The Project site is located in an area dominated by residential, commercial, and agricultural uses. The nearest residences are adjacent to the Project site to the west.

RESPONSES

a) Induce substantial 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)?

[21] City of Dinuba General Plan Update Background Report, October 2006. Page 4-1.

[22] State of California, Department of Finance, E-5 Population and Housing Estimates for Cities, Counties and the State –2011- 2021 with 2010 Census Benchmark, May 2021. http://www.dof.ca.gov/Forecasting/Demographics/Estimates/E-5/ Accessed October 2021.

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

Less than Significant. There are 71 new homes associated with the proposed Project and there are no residential structures currently on-site. The proposed Project would provide housing to a community that the 2000 Census shows major recent population growth. The average household size was 3.84 persons per dwelling, for 2020 estimates. Using this ratio, the project will accommodate approximately 272 persons. This is a relatively small population and is not expected to affect any regional population, housing or employment projections anticipated by City documents. However; the proposed Project will alleviate some overcrowding in the regional population by contributing reliable housing, and will additionally provide temporary construction jobs to the local work force. In conclusion, the Project implementation will not displace substantial numbers of people and instead provide needed housing. Any impacts are considered ***less than significant***.

Mitigation Measures: None are required.

XV. PUBLIC SERVICES

Would the project:

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

ENVIRONMENTAL SETTING

The proposed Project site is located in the eastern portion of the City of Dinuba. The immediate vicinity is comprised of single-family tract homes to the west, a commercial shopping center to the north, and agricultural land uses and rural residences to the east and south of the site. The existing Project area is protected by the City of Dinuba Police Department, which is headquartered at S. 680 Alta Avenue. The Dinuba Fire Department is located at 496 East Tulare Street in downtown Dinuba. There are no public parks or schools in the immediate vicinity of the proposed Project site.

RESPONSES

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

Fire protection?

Less than Significant Impact. The Dinuba Fire Department offers a full range of services including fire/rescue, emergency medical treatment and transport, fire prevention, and hazardous materials first response within the Dinuba City Limits.

The proposed Project would be served by the Dinuba Fire Department, which is located at 496 East Tulare Street, Dinuba, approximately 0.9 miles west of the Project site.

The Project would be required to comply with all applicable fire and building safety codes (California Building Code and Uniform Fire Code) to ensure fire safety elements are incorporated into final Project design, including the providing designated fire lanes marked as such. Proposed interior streets will be required to provide appropriate widths and turning radii to safely accommodate emergency response and the transport of emergency/public safety vehicles. The Project will also be designed to meet Fire Department requirements regarding water flow, water storage requirements, hydrant spacing, infrastructure sizing, and emergency access. As a result, appropriate fire safety considerations will be included as part of the final design of the Project. As such, any impacts are ***less than significant***.

Police Protection?

Less than Significant Impact. Protection services would be provided to the proposed Project site from the existing Dinuba Police Department, which is approximately 1.4 miles southwest of the Project site at 680 South Alta Avenue, Dinuba. The Dinuba Police Department provides a full range of police services. The Project site is located in an area currently served by the Dinuba Police Department; the Department would not need to expand its existing service area or construct a new facility to serve the Project site. Impacts are ***less than significant.***

Schools?

Less than Significant Impact. Educational services for the proposed Project will be provided by the Dinuba Unified School District (DUSD). Dinuba Unified School District operates eleven schools within the planning area; six elementary schools, two high schools, as well as an adult school, Ronald Reagan Academy, and Washington Intermediate School.

Since the proposed project includes the addition of 71 residential units, the number of students in the school district will increase. Development is required by state law to pay development impact fees to the school districts at the time of building permit issuance. These impact fees are used by the school districts to maintain existing and develop new facilities, as needed.

While development of 71 residential units alone is not expected to require the alteration of existing or construction of new school facilities, the development will contribute to the cumulative need for increased school facilities. The timing of when new school facilities would be required or details about size and location cannot be known until such facilities are planned and proposed, and any attempt to analyze impacts to a potential future facility would be speculative. As the future new school facilities are further planned and developed, they would be subject to their own separate CEQA review in order to identify and mitigate any potential environmental impacts. Therefore, the impact is ***less than significant.***

Parks?

Less than Significant Impact. The proposed Project includes the development of outlots for park purposes within the site design. However, the Project will be required to pay City park facility impact fees to compensate for any service demand increase on existing parks within the Dinuba area. Impacts are ***less than significant.***

Other public facilities?

Less than Significant Impact. The proposed Project is within the land use and growth projections identified in the City's General Plan and other infrastructure studies. The Project, therefore, would not result in increased demand for, or impacts on, other public facilities such as library services. Any impacts would be ***less than significant***.

Mitigation Measures: None are required.

XVI. RECREATION

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
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?	☐	☐	☒	☐

ENVIRONMENTAL SETTING

There are twelve parks within the City of Dinuba; Alice Park, Felix Delgado Park, Gregory Park, K/C Vista Park, Rose Ann Vuich Park, Roosevelt Park, Entertainment Plaza, Luis Ruiz Park, Pamela Lane Ponding Basin, Peachwood Park and Ponding Basin and Rotary Park. These parks are managed by the City of Dinuba's Parks and Community Services Department. This department also supervises and coordinates a wide variety of community programs and activities.

RESPONSES

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?

Less than Significant Impact. The proposed Project includes the development of an outlot for a park within the Project site plan. However, the increase of 272 persons resulting from the Project would have a relatively small impact on existing recreational facilities. In order to implement the goals and objectives of the City's General Plan, and to mitigate the impacts caused by future development in the City, park

facilities must be constructed. The City Council has determined that a Park Facilities Fee is needed in order to finance these public facilities and to pay for each development's fair share of the construction and acquisition costs. The Project Applicant will be required to pay development impact fees as determined by the City of Park Facilities Fees. Therefore, impacts are considered ***less than significant impacts***.

Mitigation Measures: None are required.

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

ENVIRONMENTAL SETTING

The proposed Project lies east of Randle Avenue and Park Way, and west of Road 92 in the City of Dinuba, Tulare County, California. The proposed 71-lot single-family residential subdivision will be located on 15.44 acres of currently vacant land, assigned Assessor's Parcel Number 018-180-031. The City of Dinuba is two miles north of SR 201, five miles west of SR 63 and eight miles northeast of the Golden State Highway/SR 99. The Fresno-Yosemite International Airport is the closest regional airport, approximately 22 miles northwest. There are six main arterials that divide the City.

Important roadways serving the Project are discussed below.

Crawford Avenue is a north-south roadway that extends from Avenue 384 to East American Avenue. In the vicinity of the Project, it exists as a two-lane roadway with curb and gutter. Crawford Avenue provides access to commercial, residential, and agricultural land uses.

El Monte Way is an east-west arterial that connects the City to SR 99 to the west and extends east through the City through the unincorporated community of Orosi. In the vicinity of the Project, it exists as four-

lane roadway with curb and gutter. El Monte Way provides access to commercial, residential, and agricultural land uses.

Park Way is an east-west roadway that currently extends west from Randle Road. It is expected to be built out east of Randle Road with the construction of the project. It provides access to residential land uses.

Randle Road is a north-south roadway that extends south from El Monte Way. In the vicinity of the Project, it exists as a one-lane undivided roadway and provides access to residential, commercial, and agricultural land uses.

Road 92 is a north-south roadway that extends south from Union Drive. In the vicinity of the Project, it exists as a one-lane undivided roadway and provides access to commercial and agricultural land uses. The project will gain access to Road 92.

A Traffic Study was prepared for the Project by Ruettgers & Schuler Civil Engineers on October 2021 (See Appendix C) and is the basis for analysis for the following transportation analysis.

RESPONSES

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

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

Less Significant Impact with Mitigation.

Trip Generation Analysis

At build-out, the Project will generate a maximum of 759 daily trips and is anticipated to have 55 a.m. peak hour trips and 73 p.m. peak hour trips (See Table 6 below).

Table 6
Proposed Project Trip Generation

Project Component	Total Daily Trips	AM Peak Hour In	AM Peak Hour Out	PM Peak Hour In	PM Peak Hour Out
Single Family Detached (210)	759	14	41	46	27

Project Component	Total Daily Trips	AM Peak Hour In	AM Peak Hour Out	PM Peak Hour In	PM Peak Hour Out
		Total: 55		Total: 73	

Level of Service Analysis

Five intersections near the Project site were analyzed in order to determine peak level of service (LOS) for each traffic crossing; Crawford Avenue and El Monte Way, Randle Avenue and El Monte Way, Road 92 and El Monte Way, Randle Avenue and Park Way, and Road 92 and Park Way. All five study intersections currently operate at or above LOS C during peak hours with and without Project traffic in both existing and future year scenarios.

Four roadway segments were analyzed in order to determine a.m. and p.m. LOS for those sections of road; El Monte Way (Crawford Avenue to Randle Avenue), El Monte Way (Randle Avenue to Road 92), Randle Avenue (Park Way to El Monte Way), and Road 92 (Park Way to El Monte Way). All roadway segments within the scope of the study currently operate above LOS C during peak hours prior to, and with the addition of Project traffic, as detailed in Appendix C.

Vehicle Miles Traveled Analysis

Baseline VMT was determined utilizing data from the California Statewide Travel Demand Model (CSTDM). The proposed residential project is located in Traffic Analysis Zone (TAZ) 2775, which has an average VMT/capita of 19.27 miles. The proposed residential project is considered a typical project within the TAZ and therefore the project would be expected to have the same VMT per capita. There are no special considerations with the project to assume the project would produce a VMT/capita lower than the average for the TAZ. The threshold of significance for residential project VMT/capita is if the Project VMT is below the average in the TAZ where the project is located. Since VMT/capita is assumed to be equal to the average for the aforementioned zone, it is anticipated that the proposed project will have a significant transportation impact prior to mitigation.

Project VMT analysis showed a VMT which was equal to the existing local VMT in the area, which indicates a transportation impact under CEQA. With implementation of the mitigation measures identified for reduction of VMT, the project will have a ***less than significant impact with mitigation*** incorporation.

Mitigation Measures:

TRA-1 The Tulare County VMT guidelines include detailed instructions for mitigation if a project has significant impacts. The guidelines state "The preferred method of VMT mitigation in Tulare County is for project applicants to provide transportation improvements that facilitate travel by walking, bicycling, or transit." In accordance with these guidelines, a survey was conducted within a half mile of the Project to determine whether any pedestrian, bicycle or transit facilities deficiencies exist. After review, there were existing curb returns which do not meet current ADA requirements for ramps. The identified improvements include the following:

- Four (4) ADA compliant curb ramps at S Crawford Avenue & E El Monte Way
- One (1) ADA compliant curb ramp at the southeast corner of Randle Road & E El Monte Way
- One (1) ADA compliant curb ramp at the southwest corner of Road 92 & E El Monte Way (see Figure 9 in Traffic Study).

The location of the improvements is shown on Figure 9 in the Traffic Study with circles at the proposed locations. The guidelines include a minimum cost for mitigation of $20 per daily trip generated by the project. As shown in Table 1 in the Traffic Study, the Project is anticipated to generate 759 daily trips, which equates to a target value of improvements of $15,180. The total estimated project cost is approximately $18,000 ($2,500 per ramp with a 20% contingency). Therefore, with the construction of the above identified improvements, the Project will meet the minimum cost requirement for mitigation. Pursuant to the guidelines, if a project provides mitigation which meets the minimum threshold listed above, the project can presume a 1% reduction in VMT. The assumed VMT/capita reduction is 1% of 19.27 or 0.1927. The resulting VMT/capita after mitigation is 19.08 which is below the average VMT/capita in the TAZ which the project is located. Therefore, after mitigation, the project will have a less than significant impact to VMT.

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

Less Than Significant Impact. The proposed Project has been designed for ease of access, adequate circulation/movement, and is typical of residential developments in the City of Dinuba. On-site circulation patterns do not involve high speeds, sharp curves or dangerous intersections and a roundabout will be installed within the internal street system for traffic calming purposes. Although there will be an increase in the volume of vehicles accessing the site and surrounding areas, the proposed Project will not present a substantial increase in hazards. Any impacts are considered ***less than significant.***

Mitigation Measures: None are required.

d) Result in inadequate emergency access?

Less than Significant Impact. The proposed Project does not involve a change to any emergency response plan. Access points to the Project are along the east and west boundaries of the development and the site will remain accessible to emergency vehicles of all sizes. As such, potential impacts are ***less than significant.***

Mitigation Measures: None are required.

XVIII. TRIBAL CULTURAL RESOURCES

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
Would the project:				
a. Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and 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 section 5024.1. In applying the criteria set forth in subdivision (c) of the Public Resources Code section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☐	☒	☐

RESPONSES

a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

   i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or

   ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Less Than Significant Impact. In accordance with Assembly Bill (AB) 52 and Senate Bill (SB) 18, potentially affected Tribes were formally notified of this Project and were given the opportunity to request consultation on the Project. The City contacted the Native American Heritage Commission, requesting a contact list of applicable Native American Tribes, which was provided to the City. The City provided letters to the listed Tribes on September 30, 2021, notifying them of the Project and requesting consultation, if desired. The City did not receive any responses from the tribes contacted. Therefore, any impacts associated with tribal resources are ***less than significant.***

Mitigation Measures: None are required.

XIX. UTILITIES AND SERVICE SYSTEMS

Would the project:

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

ENVIRONMENTAL SETTING

The proposed Project will be required to connect to water, sewer, stormwater and wastewater services provided by the City of Dinuba and may be subject to water use fees and/or development fees to be provided such service. In addition, the Project will require recycling, composting and solid waste disposal services.

The City of Dinuba contracts with Pena's Disposal Services for solid waste collection.

RESPONSES

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

Less than Significant Impact. The proposed Project will not require or result in the relocation or construction of new or expanded water or wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities that will result in environmental impacts that are not analyzed elsewhere in this document. Any impacts are ***less than significant impact.***

Mitigation Measures: None are required.

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

Less than Significant Impact. Water service would be provided to the Project by the City of Dinuba. The City's main water supply comes from seven, active underground water wells distributed throughout the City. The site has been designated as Medium Density Residential and as such, the residential water demand has been accounted for in the City's projections for water supply and infrastructure. In 2020, the City delivered 1,533 MG of water while it's projected that in 2040, the City will demand 2,427 MG to account for the growing population.[23] The Project will be required to pay the City of Dinuba's water system impact fees. Funds accrued under this fee are used to make capital improvements to the City's water system, including conservation improvements. Impacts are ***less than significant impact.***

[23] City of Dinuba. 2020 Urban Water Management Plan. Page 4-3.

Mitigation Measures: None are required.

c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Less Than Significant Impact. The proposed Project will result in wastewater from residential units that will be discharged into the City's existing wastewater treatment system. The wastewater will be typical of other urban/residential developments consisting of bathrooms, kitchen drains and other similar features. The project will not discharge any unusual or atypical wastewater that would violate the City's waste discharge requirements. Therefore, with compliance to applicable standards and payment of required fees and connection charges, the Project would not result in a significant impact related to construction or expansions of existing wastewater treatment facilities. The impact of the Project on wastewater treatment is ***less than significant***.

Mitigation Measures: None are required.

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 statutes and regulations related to solid waste?

Less than Significant Impact. The proposed Project would be required to comply with all federal, State, and local regulations related to solid waste. Furthermore, the proposed Project would be required to comply with all standards related to solid waste diversion, reduction, and recycling during project construction and operation. The Project is not expected to generate an excess of solid waste beyond what is considered typical of residential land uses. The proposed Project will comply with all federal, state and local statutes and regulations related to solid waste. As such, any impacts would be ***less than significant.***

Mitigation Measures: None are required.

XX. WILDFIRE

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☒	☐
c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☒	☐
d. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☒	☐

ENVIRONMENTAL SETTING

The City of Dinuba's planning area is composed of urbanized portions of land and the surrounding agricultural fields. The Project site has ensured fire protection by the Dinuba Fire Department, located at 496 East Tulare Street approximately 0.9 miles to the west. Given the location of the nearest fire station, response time is expected to be extremely quick in the rare event of a fire event.

The proposed Project site's elevation is approximately 340 feet above sea level in an area of intense urban development. The Project site is bounded to the west by Randle Road, to the north by the commercial shopping center's roadway, and to the south and east by agricultural land uses.

RESPONSES

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?

Less Than Significant Impact. The proposed Project is located in an area developed with commercial, agricultural and residential uses, which precludes the risk of wildfire. The area is flat in nature which would limit the risk of downslope flooding and landslides, and limit any wildfire spread. The proposed Project does not require the installation or maintenance of associated infrastructure that would increase wildfire risk or result in impacts to the environment.

To receive building permits, the proposed Project would be required to be in compliance with the adopted emergency response plan. As such, any wildfire risk to the project structures or people would be ***less than significant.***

Mitigation Measures: None are required.

XXI. MANDATORY FINDINGS OF SIGNIFICANCE

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
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?	☐	☒	☐	☐

RESPONSES

a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or

restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

Less Than Significant Impact With Mitigation. The analyses of environmental issues contained in this Initial Study indicate that the proposed Project is not expected to have substantial impact on the environment or on any resources identified in the Initial Study. Mitigation measures have been incorporated in the Project to reduce all potentially significant impacts to ***less than significant***.

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

Less Than Significant Impact. CEQA Guidelines Section 15064(i) states that a Lead Agency shall consider whether the cumulative impact of a project is significant and whether the effects of the project are cumulatively considerable. The assessment of the significance of the cumulative effects of a project must, therefore, be conducted in connection with the effects of past projects, other current projects, and probable future projects. Due to the nature of the Project and consistency with environmental policies, incremental contributions to impacts are considered less than cumulatively considerable. The proposed Project would not contribute substantially to adverse cumulative conditions, or create any substantial indirect impacts (i.e., increase in population could lead to an increase need for housing, increase in traffic, air pollutants, etc.). The impact is ***less than significant***.

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

Less Than Significant Impact With Mitigation. The analyses of environmental issues contained in this Initial Study indicate that the project is not expected to have substantial impact on human beings, either directly or indirectly. Mitigation measures have been incorporated in the Project to reduce all potentially significant impacts to ***less than significant***.

LIST OF PREPARERS

Crawford & Bowen Planning, Inc.

- Emily Bowen, LEED AP, Principal Environmental Planner
- Travis Crawford, AICP, Principal Environmental Planner

Persons and Agencies Consulted

City of Dinuba

- Karl Schoettler, Contract City Planner

Appendix A
CalEEMod Output Files

Castlerock Residential Development

San Joaquin Valley Unified APCD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	71.00	Dwelling Unit	15.44	127,800.00	225

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	45
Climate Zone	7			**Operational Year**	2022
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Anticipated operational year is 2022.

Land Use - Development is on a 15.44-acre parcel.

Table Name	Column Name	Default Value	New Value
tblLandUse	LotAcreage	23.05	15.44
tblWoodstoves	NumberCatalytic	15.44	23.05
tblWoodstoves	NumberNoncatalytic	15.44	23.05

2.0 Emissions Summary

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					
2021	0.1211	1.2602	0.8424	1.6300e-003	0.2254	0.0580	0.2834	0.1049	0.0535	0.1584	0.0000	142.9796	142.9796	0.0430	0.0000	144.0536
2022	0.2371	2.1464	2.2280	4.0400e-003	0.0339	0.1056	0.1396	9.1700e-003	0.0994	0.1086	0.0000	351.3911	351.3911	0.0748	0.0000	353.2603
2023	1.2418	0.3793	0.4648	8.1000e-004	6.1600e-003	0.0181	0.0243	1.6600e-003	0.0170	0.0186	0.0000	70.9797	70.9797	0.0166	0.0000	71.3938
Maximum	**1.2418**	**2.1464**	**2.2280**	**4.0400e-003**	**0.2254**	**0.1056**	**0.2834**	**0.1049**	**0.0994**	**0.1584**	**0.0000**	**351.3911**	**351.3911**	**0.0748**	**0.0000**	**353.2603**

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					
2021	0.1211	1.2602	0.8424	1.6300e-003	0.2254	0.0580	0.2834	0.1049	0.0535	0.1584	0.0000	142.9794	142.9794	0.0430	0.0000	144.0535
2022	0.2371	2.1464	2.2280	4.0400e-003	0.0339	0.1056	0.1396	9.1700e-003	0.0994	0.1086	0.0000	351.3907	351.3907	0.0748	0.0000	353.2600
2023	1.2418	0.3793	0.4648	8.1000e-004	6.1600e-003	0.0181	0.0243	1.6600e-003	0.0170	0.0186	0.0000	70.9796	70.9796	0.0166	0.0000	71.3937
Maximum	**1.2418**	**2.1464**	**2.2280**	**4.0400e-003**	**0.2254**	**0.1056**	**0.2834**	**0.1049**	**0.0994**	**0.1584**	**0.0000**	**351.3907**	**351.3907**	**0.0748**	**0.0000**	**353.2600**

Castlerock Residential Development - San Joaquin Valley Unified APCD Air District, Annual

	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**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**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	**10-3-2021**	**1-2-2022**	1.3824	1.3824
2	**1-3-2022**	**4-2-2022**	0.5896	0.5896
3	**4-3-2022**	**7-2-2022**	0.5958	0.5958
4	**7-3-2022**	**10-2-2022**	0.6024	0.6024
5	**10-3-2022**	**1-2-2023**	0.6016	0.6016
6	**1-3-2023**	**4-2-2023**	1.0827	1.0827
7	**4-3-2023**	**7-2-2023**	0.5206	0.5206
		Highest	1.3824	1.3824

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	1.1079	0.1022	4.8051	0.0141		0.7010	0.7010		0.7010	0.7010	93.1848	31.6189	124.8036	0.4370	5.6000e-004	135.8977
Energy	9.8500e-003	0.0842	0.0358	5.4000e-004		6.8100e-003	6.8100e-003		6.8100e-003	6.8100e-003	0.0000	97.5006	97.5006	1.8700e-003	1.7900e-003	98.0800
Mobile	0.2337	2.5594	2.4030	0.0121	0.7411	0.0103	0.7514	0.1993	9.7000e-003	0.2090	0.0000	1,123.0558	1,123.0558	0.0729	0.0000	1,124.8790
Waste						0.0000	0.0000		0.0000	0.0000	17.1852	0.0000	17.1852	1.0156	0.0000	42.5756
Water						0.0000	0.0000		0.0000	0.0000	1.4676	0.0000	1.4676	0.1507	3.5600e-003	6.2966
Total	**1.3514**	**2.7459**	**7.2439**	**0.0268**	**0.7411**	**0.7181**	**1.4592**	**0.1993**	**0.7175**	**0.9168**	**111.8376**	**1,252.1753**	**1,364.0129**	**1.6782**	**5.9100e-003**	**1,407.7290**

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	1.1079	0.1022	4.8051	0.0141		0.7010	0.7010		0.7010	0.7010	93.1848	31.6189	124.8036	0.4370	5.6000e-004	135.8977
Energy	9.8500e-003	0.0842	0.0358	5.4000e-004		6.8100e-003	6.8100e-003		6.8100e-003	6.8100e-003	0.0000	97.5006	97.5006	1.8700e-003	1.7900e-003	98.0800
Mobile	0.2337	2.5594	2.4030	0.0121	0.7411	0.0103	0.7514	0.1993	9.7000e-003	0.2090	0.0000	1,123.0558	1,123.0558	0.0729	0.0000	1,124.8790
Waste						0.0000	0.0000		0.0000	0.0000	17.1852	0.0000	17.1852	1.0156	0.0000	42.5756
Water						0.0000	0.0000		0.0000	0.0000	1.4676	0.0000	1.4676	0.1507	3.5600e-003	6.2966
Total	**1.3514**	**2.7459**	**7.2439**	**0.0268**	**0.7411**	**0.7181**	**1.4592**	**0.1993**	**0.7175**	**0.9168**	**111.8376**	**1,252.1753**	**1,364.0129**	**1.6782**	**5.9100e-003**	**1,407.7290**

	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**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Castlerock Residential Development - San Joaquin Valley Unified APCD Air District, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	10/3/2021	10/29/2021	5	20	
2	Site Preparation	Site Preparation	10/30/2021	11/12/2021	5	10	
3	Grading	Grading	11/13/2021	12/24/2021	5	30	
4	Building Construction	Building Construction	12/25/2021	2/17/2023	5	300	
5	Paving	Paving	2/18/2023	3/17/2023	5	20	
6	Architectural Coating	Architectural Coating	3/18/2023	4/14/2023	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 75

Acres of Paving: 0

Residential Indoor: 258,795; Residential Outdoor: 86,265; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Castlerock Residential Development - San Joaquin Valley Unified APCD Air District, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Excavators	3	8.00	158	0.38
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Excavators	2	8.00	158	0.38
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
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Welders	1	8.00	46	0.45

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	26.00	8.00	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	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

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	0.0317	0.3144	0.2157	3.9000e-004		0.0155	0.0155		0.0144	0.0144	0.0000	34.0008	34.0008	9.5700e-003	0.0000	34.2400
Total	**0.0317**	**0.3144**	**0.2157**	**3.9000e-004**		**0.0155**	**0.0155**		**0.0144**	**0.0144**	**0.0000**	**34.0008**	**34.0008**	**9.5700e-003**	**0.0000**	**34.2400**

3.2 Demolition - 2021

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	5.8000e-004	3.8000e-004	3.9700e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.0395	1.0395	3.0000e-005	0.0000	1.0402
Total	**5.8000e-004**	**3.8000e-004**	**3.9700e-003**	**1.0000e-005**	**1.2000e-003**	**1.0000e-005**	**1.2100e-003**	**3.2000e-004**	**1.0000e-005**	**3.3000e-004**	**0.0000**	**1.0395**	**1.0395**	**3.0000e-005**	**0.0000**	**1.0402**

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	0.0317	0.3144	0.2157	3.9000e-004		0.0155	0.0155		0.0144	0.0144	0.0000	34.0007	34.0007	9.5700e-003	0.0000	34.2400
Total	**0.0317**	**0.3144**	**0.2157**	**3.9000e-004**		**0.0155**	**0.0155**		**0.0144**	**0.0144**	**0.0000**	**34.0007**	**34.0007**	**9.5700e-003**	**0.0000**	**34.2400**

3.2 Demolition - 2021

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	5.8000e-004	3.8000e-004	3.9700e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.0395	1.0395	3.0000e-005	0.0000	1.0402
Total	**5.8000e-004**	**3.8000e-004**	**3.9700e-003**	**1.0000e-005**	**1.2000e-003**	**1.0000e-005**	**1.2100e-003**	**3.2000e-004**	**1.0000e-005**	**3.3000e-004**	**0.0000**	**1.0395**	**1.0395**	**3.0000e-005**	**0.0000**	**1.0402**

3.3 Site Preparation - 2021

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					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0194	0.2025	0.1058	1.9000e-004		0.0102	0.0102		9.4000e-003	9.4000e-003	0.0000	16.7179	16.7179	5.4100e-003	0.0000	16.8530
Total	**0.0194**	**0.2025**	**0.1058**	**1.9000e-004**	**0.0903**	**0.0102**	**0.1006**	**0.0497**	**9.4000e-003**	**0.0591**	**0.0000**	**16.7179**	**16.7179**	**5.4100e-003**	**0.0000**	**16.8530**

3.3 Site Preparation - 2021

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	3.5000e-004	2.3000e-004	2.3800e-003	1.0000e-005	7.2000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	2.0000e-004	0.0000	0.6237	0.6237	2.0000e-005	0.0000	0.6241
Total	**3.5000e-004**	**2.3000e-004**	**2.3800e-003**	**1.0000e-005**	**7.2000e-004**	**0.0000**	**7.2000e-004**	**1.9000e-004**	**0.0000**	**2.0000e-004**	**0.0000**	**0.6237**	**0.6237**	**2.0000e-005**	**0.0000**	**0.6241**

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					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0194	0.2025	0.1058	1.9000e-004		0.0102	0.0102		9.4000e-003	9.4000e-003	0.0000	16.7178	16.7178	5.4100e-003	0.0000	16.8530
Total	**0.0194**	**0.2025**	**0.1058**	**1.9000e-004**	**0.0903**	**0.0102**	**0.1006**	**0.0497**	**9.4000e-003**	**0.0591**	**0.0000**	**16.7178**	**16.7178**	**5.4100e-003**	**0.0000**	**16.8530**

3.3 Site Preparation - 2021

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	3.5000e-004	2.3000e-004	2.3800e-003	1.0000e-005	7.2000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	2.0000e-004	0.0000	0.6237	0.6237	2.0000e-005	0.0000	0.6241
Total	**3.5000e-004**	**2.3000e-004**	**2.3800e-003**	**1.0000e-005**	**7.2000e-004**	**0.0000**	**7.2000e-004**	**1.9000e-004**	**0.0000**	**2.0000e-004**	**0.0000**	**0.6237**	**0.6237**	**2.0000e-005**	**0.0000**	**0.6241**

3.4 Grading - 2021

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					0.1301	0.0000	0.1301	0.0540	0.0000	0.0540	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0629	0.6960	0.4632	9.3000e-004		0.0298	0.0298		0.0274	0.0274	0.0000	81.7425	81.7425	0.0264	0.0000	82.4034
Total	**0.0629**	**0.6960**	**0.4632**	**9.3000e-004**	**0.1301**	**0.0298**	**0.1599**	**0.0540**	**0.0274**	**0.0814**	**0.0000**	**81.7425**	**81.7425**	**0.0264**	**0.0000**	**82.4034**

3.4 Grading - 2021

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	1.1700e-003	7.7000e-004	7.9300e-003	2.0000e-005	2.4000e-003	2.0000e-005	2.4100e-003	6.4000e-004	2.0000e-005	6.5000e-004	0.0000	2.0789	2.0789	5.0000e-005	0.0000	2.0803
Total	**1.1700e-003**	**7.7000e-004**	**7.9300e-003**	**2.0000e-005**	**2.4000e-003**	**2.0000e-005**	**2.4100e-003**	**6.4000e-004**	**2.0000e-005**	**6.5000e-004**	**0.0000**	**2.0789**	**2.0789**	**5.0000e-005**	**0.0000**	**2.0803**

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					0.1301	0.0000	0.1301	0.0540	0.0000	0.0540	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0629	0.6960	0.4632	9.3000e-004		0.0298	0.0298		0.0274	0.0274	0.0000	81.7424	81.7424	0.0264	0.0000	82.4033
Total	**0.0629**	**0.6960**	**0.4632**	**9.3000e-004**	**0.1301**	**0.0298**	**0.1599**	**0.0540**	**0.0274**	**0.0814**	**0.0000**	**81.7424**	**81.7424**	**0.0264**	**0.0000**	**82.4033**

3.4 Grading - 2021

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	1.1700e-003	7.7000e-004	7.9300e-003	2.0000e-005	2.4000e-003	2.0000e-005	2.4100e-003	6.4000e-004	2.0000e-005	6.5000e-004	0.0000	2.0789	2.0789	5.0000e-005	0.0000	2.0803
Total	**1.1700e-003**	**7.7000e-004**	**7.9300e-003**	**2.0000e-005**	**2.4000e-003**	**2.0000e-005**	**2.4100e-003**	**6.4000e-004**	**2.0000e-005**	**6.5000e-004**	**0.0000**	**2.0789**	**2.0789**	**5.0000e-005**	**0.0000**	**2.0803**

3.5 Building Construction - 2021

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	4.7500e-003	0.0436	0.0414	7.0000e-005		2.4000e-003	2.4000e-003		2.2500e-003	2.2500e-003	0.0000	5.7909	5.7909	1.4000e-003	0.0000	5.8259
Total	**4.7500e-003**	**0.0436**	**0.0414**	**7.0000e-005**		**2.4000e-003**	**2.4000e-003**		**2.2500e-003**	**2.2500e-003**	**0.0000**	**5.7909**	**5.7909**	**1.4000e-003**	**0.0000**	**5.8259**

3.5 Building Construction - 2021

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	6.0000e-005	2.2100e-003	4.0000e-004	1.0000e-005	1.3000e-004	1.0000e-005	1.4000e-004	4.0000e-005	1.0000e-005	4.0000e-005	0.0000	0.5350	0.5350	4.0000e-005	0.0000	0.5360
Worker	2.5000e-004	1.7000e-004	1.7200e-003	0.0000	5.2000e-004	0.0000	5.2000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4504	0.4504	1.0000e-005	0.0000	0.4507
Total	**3.1000e-004**	**2.3800e-003**	**2.1200e-003**	**1.0000e-005**	**6.5000e-004**	**1.0000e-005**	**6.6000e-004**	**1.8000e-004**	**1.0000e-005**	**1.8000e-004**	**0.0000**	**0.9855**	**0.9855**	**5.0000e-005**	**0.0000**	**0.9868**

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	4.7500e-003	0.0436	0.0414	7.0000e-005		2.4000e-003	2.4000e-003		2.2500e-003	2.2500e-003	0.0000	5.7909	5.7909	1.4000e-003	0.0000	5.8259
Total	**4.7500e-003**	**0.0436**	**0.0414**	**7.0000e-005**		**2.4000e-003**	**2.4000e-003**		**2.2500e-003**	**2.2500e-003**	**0.0000**	**5.7909**	**5.7909**	**1.4000e-003**	**0.0000**	**5.8259**

3.5 Building Construction - 2021

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	6.0000e-005	2.2100e-003	4.0000e-004	1.0000e-005	1.3000e-004	1.0000e-005	1.4000e-004	4.0000e-005	1.0000e-005	4.0000e-005	0.0000	0.5350	0.5350	4.0000e-005	0.0000	0.5360
Worker	2.5000e-004	1.7000e-004	1.7200e-003	0.0000	5.2000e-004	0.0000	5.2000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4504	0.4504	1.0000e-005	0.0000	0.4507
Total	**3.1000e-004**	**2.3800e-003**	**2.1200e-003**	**1.0000e-005**	**6.5000e-004**	**1.0000e-005**	**6.6000e-004**	**1.8000e-004**	**1.0000e-005**	**1.8000e-004**	**0.0000**	**0.9855**	**0.9855**	**5.0000e-005**	**0.0000**	**0.9868**

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	0.2218	2.0300	2.1272	3.5000e-003		0.1052	0.1052		0.0990	0.0990	0.0000	301.2428	301.2428	0.0722	0.0000	303.0471
Total	**0.2218**	**2.0300**	**2.1272**	**3.5000e-003**		**0.1052**	**0.1052**		**0.0990**	**0.0990**	**0.0000**	**301.2428**	**301.2428**	**0.0722**	**0.0000**	**303.0471**

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	3.1200e-003	0.1086	0.0193	2.9000e-004	6.8900e-003	2.8000e-004	7.1700e-003	1.9900e-003	2.7000e-004	2.2600e-003	0.0000	27.5628	27.5628	2.0500e-003	0.0000	27.6140
Worker	0.0122	7.7000e-003	0.0815	2.5000e-004	0.0270	1.8000e-004	0.0272	7.1800e-003	1.7000e-004	7.3500e-003	0.0000	22.5855	22.5855	5.5000e-004	0.0000	22.5993
Total	**0.0153**	**0.1163**	**0.1008**	**5.4000e-004**	**0.0339**	**4.6000e-004**	**0.0344**	**9.1700e-003**	**4.4000e-004**	**9.6100e-003**	**0.0000**	**50.1483**	**50.1483**	**2.6000e-003**	**0.0000**	**50.2133**

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	0.2218	2.0300	2.1272	3.5000e-003		0.1052	0.1052		0.0990	0.0990	0.0000	301.2425	301.2425	0.0722	0.0000	303.0467
Total	**0.2218**	**2.0300**	**2.1272**	**3.5000e-003**		**0.1052**	**0.1052**		**0.0990**	**0.0990**	**0.0000**	**301.2425**	**301.2425**	**0.0722**	**0.0000**	**303.0467**

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	3.1200e-003	0.1086	0.0193	2.9000e-004	6.8900e-003	2.8000e-004	7.1700e-003	1.9900e-003	2.7000e-004	2.2600e-003	0.0000	27.5628	27.5628	2.0500e-003	0.0000	27.6140
Worker	0.0122	7.7000e-003	0.0815	2.5000e-004	0.0270	1.8000e-004	0.0272	7.1800e-003	1.7000e-004	7.3500e-003	0.0000	22.5855	22.5855	5.5000e-004	0.0000	22.5993
Total	**0.0153**	**0.1163**	**0.1008**	**5.4000e-004**	**0.0339**	**4.6000e-004**	**0.0344**	**9.1700e-003**	**4.4000e-004**	**9.6100e-003**	**0.0000**	**50.1483**	**50.1483**	**2.6000e-003**	**0.0000**	**50.2133**

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	0.0275	0.2517	0.2843	4.7000e-004		0.0123	0.0123		0.0115	0.0115	0.0000	40.5658	40.5658	9.6500e-003	0.0000	40.8071
Total	**0.0275**	**0.2517**	**0.2843**	**4.7000e-004**		**0.0123**	**0.0123**		**0.0115**	**0.0115**	**0.0000**	**40.5658**	**40.5658**	**9.6500e-003**	**0.0000**	**40.8071**

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	2.9000e-004	0.0113	2.1400e-003	4.0000e-005	9.3000e-004	1.0000e-005	9.4000e-004	2.7000e-004	1.0000e-005	2.8000e-004	0.0000	3.6202	3.6202	1.9000e-004	0.0000	3.6249
Worker	1.5200e-003	9.3000e-004	9.9900e-003	3.0000e-005	3.6400e-003	2.0000e-005	3.6600e-003	9.7000e-004	2.0000e-005	9.9000e-004	0.0000	2.9270	2.9270	7.0000e-005	0.0000	2.9286
Total	**1.8100e-003**	**0.0122**	**0.0121**	**7.0000e-005**	**4.5700e-003**	**3.0000e-005**	**4.6000e-003**	**1.2400e-003**	**3.0000e-005**	**1.2700e-003**	**0.0000**	**6.5471**	**6.5471**	**2.6000e-004**	**0.0000**	**6.5535**

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	0.0275	0.2517	0.2843	4.7000e-004		0.0123	0.0123		0.0115	0.0115	0.0000	40.5658	40.5658	9.6500e-003	0.0000	40.8070
Total	**0.0275**	**0.2517**	**0.2843**	**4.7000e-004**		**0.0123**	**0.0123**		**0.0115**	**0.0115**	**0.0000**	**40.5658**	**40.5658**	**9.6500e-003**	**0.0000**	**40.8070**

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	2.9000e-004	0.0113	2.1400e-003	4.0000e-005	9.3000e-004	1.0000e-005	9.4000e-004	2.7000e-004	1.0000e-005	2.8000e-004	0.0000	3.6202	3.6202	1.9000e-004	0.0000	3.6249
Worker	1.5200e-003	9.3000e-004	9.9900e-003	3.0000e-005	3.6400e-003	2.0000e-005	3.6600e-003	9.7000e-004	2.0000e-005	9.9000e-004	0.0000	2.9270	2.9270	7.0000e-005	0.0000	2.9286
Total	**1.8100e-003**	**0.0122**	**0.0121**	**7.0000e-005**	**4.5700e-003**	**3.0000e-005**	**4.6000e-003**	**1.2400e-003**	**3.0000e-005**	**1.2700e-003**	**0.0000**	**6.5471**	**6.5471**	**2.6000e-004**	**0.0000**	**6.5535**

3.6 Paving - 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	0.0103	0.1019	0.1458	2.3000e-004		5.1000e-003	5.1000e-003		4.6900e-003	4.6900e-003	0.0000	20.0269	20.0269	6.4800e-003	0.0000	20.1888
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0103**	**0.1019**	**0.1458**	**2.3000e-004**		**5.1000e-003**	**5.1000e-003**		**4.6900e-003**	**4.6900e-003**	**0.0000**	**20.0269**	**20.0269**	**6.4800e-003**	**0.0000**	**20.1888**

3.6 Paving - 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-004	3.1000e-004	3.2900e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	0.9649	0.9649	2.0000e-005	0.0000	0.9655
Total	**5.0000e-004**	**3.1000e-004**	**3.2900e-003**	**1.0000e-005**	**1.2000e-003**	**1.0000e-005**	**1.2100e-003**	**3.2000e-004**	**1.0000e-005**	**3.3000e-004**	**0.0000**	**0.9649**	**0.9649**	**2.0000e-005**	**0.0000**	**0.9655**

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	0.0103	0.1019	0.1458	2.3000e-004		5.1000e-003	5.1000e-003		4.6900e-003	4.6900e-003	0.0000	20.0268	20.0268	6.4800e-003	0.0000	20.1888
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0103**	**0.1019**	**0.1458**	**2.3000e-004**		**5.1000e-003**	**5.1000e-003**		**4.6900e-003**	**4.6900e-003**	**0.0000**	**20.0268**	**20.0268**	**6.4800e-003**	**0.0000**	**20.1888**

3.6 Paving - 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-004	3.1000e-004	3.2900e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	0.9649	0.9649	2.0000e-005	0.0000	0.9655
Total	**5.0000e-004**	**3.1000e-004**	**3.2900e-003**	**1.0000e-005**	**1.2000e-003**	**1.0000e-005**	**1.2100e-003**	**3.2000e-004**	**1.0000e-005**	**3.3000e-004**	**0.0000**	**0.9649**	**0.9649**	**2.0000e-005**	**0.0000**	**0.9655**

3.7 Architectural Coating - 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					
Archit. Coating	1.1995					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.9200e-003	0.0130	0.0181	3.0000e-005		7.1000e-004	7.1000e-004		7.1000e-004	7.1000e-004	0.0000	2.5533	2.5533	1.5000e-004	0.0000	2.5571
Total	**1.2014**	**0.0130**	**0.0181**	**3.0000e-005**		**7.1000e-004**	**7.1000e-004**		**7.1000e-004**	**7.1000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.5000e-004**	**0.0000**	**2.5571**

3.7 Architectural Coating - 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	0.0000	0.0000	0.0000	0.0000	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	1.7000e-004	1.0000e-004	1.1000e-003	0.0000	4.0000e-004	0.0000	4.0000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3216	0.3216	1.0000e-005	0.0000	0.3218
Total	**1.7000e-004**	**1.0000e-004**	**1.1000e-003**	**0.0000**	**4.0000e-004**	**0.0000**	**4.0000e-004**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**0.3216**	**0.3216**	**1.0000e-005**	**0.0000**	**0.3218**

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	1.1995					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.9200e-003	0.0130	0.0181	3.0000e-005		7.1000e-004	7.1000e-004		7.1000e-004	7.1000e-004	0.0000	2.5533	2.5533	1.5000e-004	0.0000	2.5571
Total	**1.2014**	**0.0130**	**0.0181**	**3.0000e-005**		**7.1000e-004**	**7.1000e-004**		**7.1000e-004**	**7.1000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.5000e-004**	**0.0000**	**2.5571**

3.7 Architectural Coating - 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	0.0000	0.0000	0.0000	0.0000	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	1.7000e-004	1.0000e-004	1.1000e-003	0.0000	4.0000e-004	0.0000	4.0000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3216	0.3216	1.0000e-005	0.0000	0.3218
Total	**1.7000e-004**	**1.0000e-004**	**1.1000e-003**	**0.0000**	**4.0000e-004**	**0.0000**	**4.0000e-004**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**0.3216**	**0.3216**	**1.0000e-005**	**0.0000**	**0.3218**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	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	0.2337	2.5594	2.4030	0.0121	0.7411	0.0103	0.7514	0.1993	9.7000e-003	0.2090	0.0000	1,123.0558	1,123.0558	0.0729	0.0000	1,124.8790
Unmitigated	0.2337	2.5594	2.4030	0.0121	0.7411	0.0103	0.7514	0.1993	9.7000e-003	0.2090	0.0000	1,123.0558	1,123.0558	0.0729	0.0000	1,124.8790

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	675.92	703.61	612.02	1,943,702	1,943,702
Total	675.92	703.61	612.02	1,943,702	1,943,702

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
Single Family Housing	10.80	7.30	7.50	45.60	19.00	35.40	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Single Family Housing	0.511925	0.031902	0.170344	0.119204	0.018408	0.005097	0.021580	0.111258	0.001794	0.001564	0.005229	0.000954	0.000741

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	9.8500e-003	0.0842	0.0358	5.4000e-004		6.8100e-003	6.8100e-003		6.8100e-003	6.8100e-003	0.0000	97.5006	97.5006	1.8700e-003	1.7900e-003	98.0800
NaturalGas Unmitigated	9.8500e-003	0.0842	0.0358	5.4000e-004		6.8100e-003	6.8100e-003		6.8100e-003	6.8100e-003	0.0000	97.5006	97.5006	1.8700e-003	1.7900e-003	98.0800

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					
Single Family Housing	1.82709e+006	9.8500e-003	0.0842	0.0358	5.4000e-004		6.8100e-003	6.8100e-003		6.8100e-003	6.8100e-003	0.0000	97.5006	97.5006	1.8700e-003	1.7900e-003	98.0800
Total		**9.8500e-003**	**0.0842**	**0.0358**	**5.4000e-004**		**6.8100e-003**	**6.8100e-003**		**6.8100e-003**	**6.8100e-003**	**0.0000**	**97.5006**	**97.5006**	**1.8700e-003**	**1.7900e-003**	**98.0800**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Single Family Housing	1.82709e+006	9.8500e-003	0.0842	0.0358	5.4000e-004		6.8100e-003	6.8100e-003		6.8100e-003	6.8100e-003	0.0000	97.5006	97.5006	1.8700e-003	1.7900e-003	98.0800
Total		**9.8500e-003**	**0.0842**	**0.0358**	**5.4000e-004**		**6.8100e-003**	**6.8100e-003**		**6.8100e-003**	**6.8100e-003**	**0.0000**	**97.5006**	**97.5006**	**1.8700e-003**	**1.7900e-003**	**98.0800**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	610178	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	610178	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.1079	0.1022	4.8051	0.0141		0.7010	0.7010		0.7010	0.7010	93.1848	31.6189	124.8036	0.4370	5.6000e-004	135.8977
Unmitigated	1.1079	0.1022	4.8051	0.0141		0.7010	0.7010		0.7010	0.7010	93.1848	31.6189	124.8036	0.4370	5.6000e-004	135.8977

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	0.1200					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4991					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.4729	0.0962	4.2773	0.0141		0.6981	0.6981		0.6981	0.6981	93.1848	30.7577	123.9425	0.4362	5.6000e-004	135.0158
Landscaping	0.0159	6.0900e-003	0.5278	3.0000e-005		2.9200e-003	2.9200e-003		2.9200e-003	2.9200e-003	0.0000	0.8611	0.8611	8.3000e-004	0.0000	0.8819
Total	**1.1079**	**0.1022**	**4.8051**	**0.0141**		**0.7010**	**0.7010**		**0.7010**	**0.7010**	**93.1848**	**31.6189**	**124.8036**	**0.4370**	**5.6000e-004**	**135.8977**

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	0.1200					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4991					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.4729	0.0962	4.2773	0.0141		0.6981	0.6981		0.6981	0.6981	93.1848	30.7577	123.9425	0.4362	5.6000e-004	135.0158
Landscaping	0.0159	6.0900e-003	0.5278	3.0000e-005		2.9200e-003	2.9200e-003		2.9200e-003	2.9200e-003	0.0000	0.8611	0.8611	8.3000e-004	0.0000	0.8819
Total	**1.1079**	**0.1022**	**4.8051**	**0.0141**		**0.7010**	**0.7010**		**0.7010**	**0.7010**	**93.1848**	**31.6189**	**124.8036**	**0.4370**	**5.6000e-004**	**135.8977**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	1.4676	0.1507	3.5600e-003	6.2966
Unmitigated	1.4676	0.1507	3.5600e-003	6.2966

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	4.62594 / 2.91635	1.4676	0.1507	3.5600e-003	6.2966
Total		**1.4676**	**0.1507**	**3.5600e-003**	**6.2966**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	4.62594 / 2.91635	1.4676	0.1507	3.5600e-003	6.2966
Total		**1.4676**	**0.1507**	**3.5600e-003**	**6.2966**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	17.1852	1.0156	0.0000	42.5756
Unmitigated	17.1852	1.0156	0.0000	42.5756

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	84.66	17.1852	1.0156	0.0000	42.5756
Total		**17.1852**	**1.0156**	**0.0000**	**42.5756**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	84.66	17.1852	1.0156	0.0000	42.5756
Total		**17.1852**	**1.0156**	**0.0000**	**42.5756**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Appendix B
CHRIS Results Letter

A
PHASE I CULTURAL RESOURCE SURVEY
FOR PROPERTY AT RANDLE AVENUE AND EAST FRANZEN WAY,
APN 018-180-031,
CITY OF DINUBA, CALIFORNIA

Submitted to:
Crawford and Bowen Planning
113 N. Church Street #302
Visalia, California 93291

Keywords:
Orange Cove South 7.5' Quadrangle,
City of Dinuba,
National Historic Preservation Act of 1966

Submitted by:
Hudlow Cultural Resource Associates
1405 Sutter Lane
Bakersfield, California 93309

Author:
Scott M. Hudlow

October 2021

Management Summary

At the request of Crawford and Bowen Planning, a Phase I Cultural Resource Survey was conducted on an exact 15.49-acre parcel, located at the northeast corner of Randle Avenue and East Franzen Way, in the City of Dinuba, California. The Phase I Cultural Resource Survey consisted of an archaeological survey and a cultural resource record search.

One cultural resource was identified. CB-1 is an abandoned, remnant agricultural canal. CB-1 dates to 1940, at least in part. The canal is partially concrete lined and partially an earthen canal. The concrete-lined portion is stamped with the date 1940. The earthen portion is probably older. This site is not eligible for nomination to the California Register of Historic Resources under Criteria 1-4. This site is not associated with events that have made a significant contribution to the broad patterns of local or regional history or the cultural heritage of California or the United States (Criterion 1). This site is not associated with the lives of persons important to local, California or national history (Criterion 2). This site does not embody the distinctive characteristics of a type, period, region or method of construction or represents the work of a master or possesses high artistic values (Criterion 3). Lastly, this site will not yield, or have the potential to yield, information important to the prehistory or history of the local area, California or the nation (Criterion 4).

No further work is required. If archaeological resources are encountered during the course of construction, a qualified archaeologist should be consulted for further evaluation.

If human remains or potential human remains are observed during construction, work in the vicinity of the remains will cease, and they will be treated in accordance with the provisions of State Health and Safety Code Section 7050.5. The protection of human remains follows California Public Resources Codes, Sections 5097.94, 5097.98, and 5097.99.

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List of Figures

1.0 Introduction

At the request of Crawford and Bowen Planning, *Hudlow Cultural Resource Associates* conducted a Phase I Cultural Resource Survey in accordance with the National Historic Preservation Act of 1966 for a proposed 15.49-acre multi-family residential development. The property lies at the northeast corner of Randle Avenue and East Franzen Way, in the City of Dinuba, California. The Phase I Cultural Resource Survey consisted of a pedestrian survey and a cultural resource record search.

2.0 Project Location

The project area is in the City of Dinuba, California. It is a portion of the S ½ of the NE ¼ of the NW ¼ of Section 16, T.16S., R.24E., Mount Diablo Baseline and Meridian, as displayed on the United States Geological Survey (USGS) Orange Cove South 7.5-minute quadrangle map (Figure 1). The proposed multi-family residential development is located at the northeast corner of Randle Avenue and East Franzen Way, in the City of Dinuba, California.

3.0 Record Searches

A record search of the project area and the environs within one half-mile was conducted at the Southern San Joaquin Archaeological Information Center. Information Center staff conducted the record search, RS# 21-370, on October 12, 2021. The record search revealed that four cultural resource surveys have been conducted within one half-mile of the project area. One project has previously addressed a portion of the parcel in question (Tibbet and Lloyd 2017). Fourteen historic cultural resources are located within one half-mile of the current project area; each cultural resource is a historic structure. Nine are residences, three are educational structures, one is a commercial center, and the last is horticultural (Appendix II).

4.0 Environmental Background

The project area is located at elevations between 340 and 345 feet above mean sea level in the Great Central Valley, which is composed of two valleys-the Sacramento Valley and the San Joaquin Valley. The parcel is located east of the Kings Rivers. This fallow, former agricultural lot is essentially denuded of vegetative cover. It is a dry lot with powdery soils and Russian Thistle (Figures 2 and 3).

5.0 Prehistoric Archaeological Context

A limited amount of archaeological research has been conducted in the southern San Joaquin Valley. Thus, consensus on a generally agreed upon regional cultural chronology has yet to be developed. Most cultural sequences can be summarized into several distinct time periods: Early, Middle, and Late. Sequences differ in their inclusion of various "horizons," "technologies," or

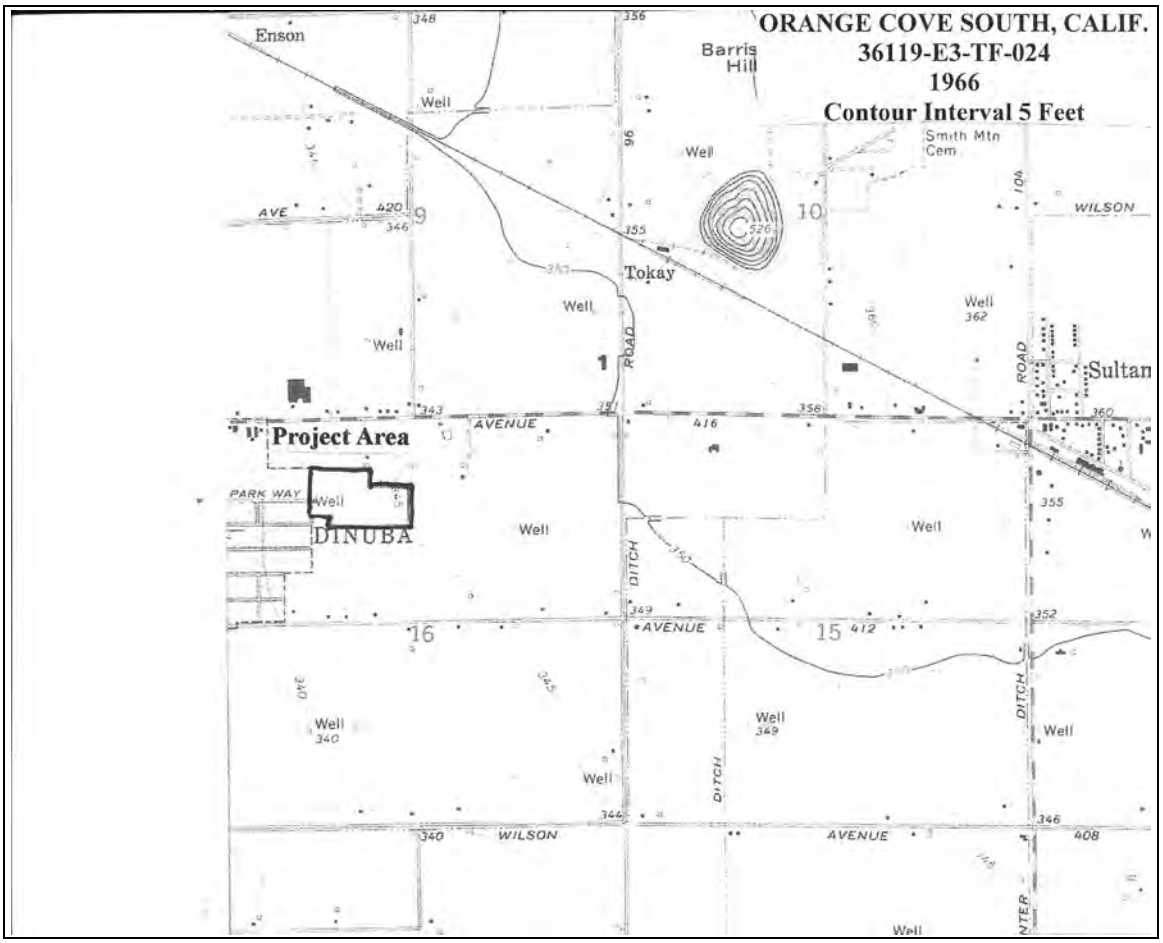

Figure 1
Project Area Location Map

"stages." A prehistoric archaeological summary of the southern San Joaquin Valley is available in Moratto (Moratto 1984).

Despite the preoccupation with chronological issues in most of the previous research, most suggested chronological sequences are borrowed from other regions with minor modifications based on sparse local data.

The following chronology is based on Parr and Osborne's Paleo-Indian, Proto-Archaic, Archaic, Post-Archaic periods (Parr and Osborne 1992:44-47). Most existing chronologies focus on stylistic changes of time-sensitive artifacts such as projectile points and beads rather than addressing the socioeconomic factors, which produced the myriad variations. In doing so, these attempts have encountered similar difficulties. These cultural changes are implied as environmentally determined, rather than economically driven.

Paleo-Indians, whom roamed the region approximately 12,000 years ago, were highly mobile individuals. Their subsistence is assumed to have been primarily big game, which was more plentiful 12,000 years ago than in the late twentieth century. However, in the Great Basin and California, Paleo people were also foragers who exploited a wide range of resources. Berries, seeds, and small game were also consumed. Their technology was portable, including manos (Parr and Osborne 1992:44). The paleo period is characterized by fluted Clovis and Folsom points, which have been identified throughout North America. The Tulare Lake region in Kings County has yielded several Paleo-Indian sites, which have included fluted points, scrapers, chipped crescents, and Lake Mojave-type points (Morratto 1984:81-2).

The Proto-Archaic period, which dates from approximately 11,000 to 8,000 years ago, was characterized by a reduction in mobility and conversely an increase in sedentism. This period is classified as the Western Pluvial Lake Tradition or the Proto-Archaic, of which the San Dieguito complex is a major aspect (Moratto 1984: 90-99; Warren 1967). An archaeological site along Buena Vista Lake in southwestern Kern County displays a similar assemblage to the San Dieguito type site. Claude Warren proposes that a majority of Proto-Archaic southern California could be culturally classified as the San Dieguito Complex (Warren 1967). The Buena Vista Lake site yielded manos, millingstones, large stemmed and foliate points, a mortar, and red ochre. During this period, subsistence patterns began to change. Hunting focused on smaller game and plant collecting became more integral. Large stemmed, lancelote (foliate) projectile points represents lithic technology. Millingstones become more prevalent. The increased sedentism possibly began to create regional stylistic and cultural differences not evident in the paleo period.

The Archaic period persisted in California for the next 4000 years. In 1959, Warren and McKusiak proposed a three-phase chronological sequence based on a small sample of burial data for the Archaic period (Moratto 1984:189; Parr and Osborne 1992:47). It is distinguished by increased sedentism and extensive

seed and plant exploitation. Millingstones, shaped through use, were abundant. Bedrock manos and metates were the most prevalent types of

Figure 2
Project Area, View to the Northeast

Figure 3
Project Area, View to the Northwest

millingstones (Parr and Osborne 1992:45). The central valley began to develop distinct cultural variations, which can be distinguished by different regions throughout the valley, including Tulare County.

In the Post-Archaic period enormous cultural variations began manifesting themselves throughout the entire San Joaquin Valley. This period extends into the contact period in the seventeenth, eighteenth and nineteenth centuries. Sedentary village life was emblematic of the Post-Archaic period, although hunting and gathering continued as the primary subsistence strategy. Agriculture was absent in California, partially due to the dense, predictable, and easily exploitable natural resources. The ancestral Yokuts have possibly been in the valley for the last three thousand years, and by the eighteenth century were the largest pre-contact population, approximately 40,000 individuals, in California (Moratto 1984).

6.0 Ethnographic Background

The Yokuts are a Penutian-speaking, non-political cultural group. Penutian speakers inhabit the San Joaquin Valley, the Bay Area, and the Central Sierra Nevada Mountains. The Yokuts are split into three major groups, the Northern Valley Yokuts, the Southern Valley Yokuts, and the Foothill Yokuts.

The southern San Joaquin Valley in the Dinuba area does not have a named Yokuts tribelet. The tribelet normally have a small population, have a special name for themselves, and speak a unique dialect of the Yokuts language. Land was owned, collectively, and every group member enjoyed the right to utilize food resources (Latta 1999).

The Southern Valley Yokuts had a mixed economy emphasizing fishing, hunting, fowling, and collecting shellfish, roots, and seeds. Fish were the most prevalent resource and was a productive activity throughout the entire year. Fish were caught in many different manners, including nets, conical basket traps, catching with bare hands, shooting with bows and arrows, and stunning fish with mild floral toxins. Geese, ducks, mud hens and other waterfowl were caught in snares, long-handled nets, stuffed decoys, and brushing brush to trick the birds to fly low into waiting hunters. Mussels were gathered and steamed on beds of tule. Turtles and dogs were consumed (Wallace 1978:449-450).

Wild seeds and roots provided a large portion of the Yokuts' diet. Tule seeds, grass seeds, fiddleneck, alfilaria were also consumed. Acorns, the staple crop for many California native cultures, were not common in the San Joaquin Valley. Acorns were traded into the area. Land mammals, such as rabbits, ground squirrels, antelope and tule elk, were not taken often (Wallace 1978:450).

The Yokuts occupied permanent structures in permanent villages for most of the year. During the late and early summer, families left for several months to gather seeds and plant foods, shifting camp locations when changing crops.

Several different types of fiber-covered structures were common in Yokuts settlements. The largest was a communal tule mat-covered, wedge-shaped structure, which could house upward of ten individuals. These structures were established in a row, with the village chief's house in the middle and his messenger's houses were located at the ends of the house row. Dance houses and assembly buildings were located outside the village living area (Nabokov and Easton 1989:301).

The Yokuts also built smaller, oval, single-family tule dwellings. These houses were covered with tall mohya stalks or with sewn tule mats. Bent-pole ribs that met a ridgepole held by two crotched poles framed these small houses. The Yokuts also built a cone-shaped dwelling, which was framed with poles tied together with a hoop and then covered with tule or grass. These cone-shaped dwellings were large enough to contain multiple fireplaces (Nabokov and Easton 1989:301). Other structures included mat-covered granaries for storing food supplies, and a dirt-covered, communally owned sweathouse.

Clothing was minimal, men wore a breechclout or were naked. Women wore a narrow-fringed apron. Cold temperatures brought out rabbitskin or mud hen blankets. Moccasins were worn in certain places; however, most people went barefoot. Men wore no head coverings, but women wore basketry caps when they carried burden baskets on their heads. Hair was worn long. Women wore tattoos from the corners of the mouth to the chin; both men and women had ear and nose piercings. Bone, wood or shell ornaments were inserted (Wallace 1978:450-451).

Tule dominated the Yokut's material culture. It was used for many purposes, including sleeping mats, wall coverings, cradles, and basketry. Ceramics are uncommon to Yokuts culture as is true throughout most California native cultures. Basketry was common to Yokuts culture. Yokuts made cooking containers, conical burden baskets, flat winnowing trays, seed beaters, and necked water bottles. Yokuts also manufactured wooden digging sticks, fire drills, mush stirrers, and sinew-backed bows. Knives, projectile points, and scraping tools were chipped from imported lithic materials including obsidian, chert, and chalcedony. Stone mortars and pestles were secured in trade. Cordage was manufactured from milkweed fibers, animal skins were tanned, and awls were made from bone. Marine shells, particularly olivella shells, were used in the manufacture of money and articles of personal adornment. Shells were acquired from the Chumash along the coast (Wallace 1978:451-453).

The basic social and economic unit was the nuclear family. Lineages were organized along patrilineal lines. Yokuts fathers transmitted totems, particular to each paternal lineage, to each of his children. The totem was an animal or bird that no member would kill or eat and that was dreamed of and prayed to. The mother's totem was not passed to her offspring; but was treated with respect. Families sharing the same totem formed an exogamous lineage. The lineage had no formal leader nor did it own land. The lineage was a

mechanism for transmitting offices and performing ceremonial functions. The lineages formed two moieties, East and West, which consisted of several different lineages. Moieties were customarily exogamous. Children followed the paternal moiety. Certain official positions within the villages were associated with certain totems. The most important was the Eagle lineage from which the village chief was appointed. A member of the Dove lineage acted as the chief's assistant. He supervised food distribution and gave commands during ceremonies. Another hereditary position was common to the Magpie lineage, was that of spokesman or crier.

7.0 Historical Overview

Tulare County was settled in the 1850s, soon after California joined the United States after the passage of the Compromise of 1850. The Compromise of 1850 allowed California to join the Union as a free state even though a major portion of the state lied beneath the Missouri Compromise line; and was potentially subject to southern settlement and slavery. Americans had long been visiting and working in California prior to the admission of California into the Union.

The Spanish moving north from Baja California into Alta California began European settlement of California 1n 1769. Father Junipero Serra, a Franciscan friar founded Mission San Diego de Alcala, beginning California active European settlement. However, Spanish mission efforts were focused on California's coastal regions. Spanish exploration of the San Joaquin Valley region begins in the 1770s. In 1772, Pedro Fages arrived in the San Joaquin Valley searching for army deserters. Father Francisco Garces, a Franciscan priest, soon visited the vicinity in 1776. The Spanish empire collapsed in 1820, all of Spain's former Central and South American colonies became independent nations. As a result, California became Mexican territory. California stayed in Mexican hands until the Mexican-American War. Mexican California remained a coastal society with little interest in settling in California's hot, dry interior valleys.

American exploration of the San Joaquin Valley begins in the 1820s with Jedediah Smith, Kit Carson, and Joseph Walker looking for commercial opportunities. The United States government began exploring California in the 1830s. Soon, the Americans will be searching for intercontinental railroad routes to link the eastern and western halves of the continent.

The defeat of the Mexicans during the Mexican-American War and the subsequent discovery of gold will drastically alter the complicated political realities of the west. The Mexican-American War was ostensible fought to settle a boundary dispute with the Mexicans over the western boundary of the newly-annexed state of Texas, which had fought a successful rebellion against the Mexican Army in the mid 1830s. The Republic of Texas was an independent country for nine years until Texas was annexed by the United States in 1845. One major outcome of the Mexican-American War was that Mexico rescinded

its claims to much of the American southwest. In 1848, these territories were folded into the United States, including California.

In January 1848, the discovery of gold in Coloma, California changed the settlement of California, forever. In the summer of 1848, when the gold strike was publicly announced, the overnight settlement of California began. The Mexican population of California was small and limited to the coasts and a few of southern California's interior valleys. A sizable native population settled the remainder of California; Tulare County was Yokuts territory. The Gold Rush tipped the balance of native communities throughout California, as many of California's natives were decimated.

In 1852, Tulare County was created from the southern half of Mariposa County. The first county seat was at Woodsville; however, Visalia was established that same year, and became the county seat in 1853. Visalia and Tulare County began to grow as the miners, who were attracted to the small gold rush in the Kern River Valley, returned to the San Joaquin valley and began farming after the gold at Keyesville was played out.

While farmers were settling the valley, cattle ranchers, timber mill operators, and resort operators settled the heavily timbered highlands of the southern Sierra Mountains. Road builders, such as John Jordan, opened the mountains, following native (Yokuts) trails into the mountains. By 1865, timber mills were found in the general vicinity, and were responsible for opening areas for settlement and for providing lumber to fuel the local economy. Cattle ranchers and shepherds grazed their animals throughout the region until 1903, when the laws changed.

As access to the San Joaquin Valley was secured via new and better roads, the mountains opened to permanent settlements. Small towns were established, such as Springville. Avon M. Coburn founded Springville in 1890. Coburn established a box factory and sawmill along the Tule River, near where Bear Creek empties into the middle fork of the Tule River. Springville flourished connecting the Tule River valley to the San Joaquin Valley via the wagon road to Porterville, which had been established in 1864.

As the areas to the west grew, the need for steady economical power arose. Albert Wishon, a local real estate agent, convinced the new (1895) San Joaquin Power Company, (later the San Joaquin Light and Power Company), which later merged with Pacific Gas and Electric Company in 1930, to build a hydroelectric dam on the Tule River in 1900. The pack road east of Springville was upgraded to a wagon road, and Camp Wishon was established as a construction camp, located below the Doyle Ranch. Construction on the power plant began in 1904. The power plant not only provided reliable power to the San Joaquin Valley to the west, but also opened areas to the east.

8.0 Field Procedures and Methods

On September 27, 2021, Scott M. Hudlow (for qualifications see Appendix I) conducted a pedestrian archaeological survey of the entire proposed project area. Hudlow surveyed in north/south transects across the entire lot in 15-meter (33 feet) intervals. All archaeological material more than fifty years of age or earlier encountered during the inventory would have been recorded. Site and isolate forms would be completed, artifacts and maps would be drawn.

9.0 Report of Archaeological Findings

One cultural resource was identified, CB-1. CB-1 is an abandoned, remnant agricultural canal. CB-1 dates to 1940, at least in part. The canal is partially concrete lined and partially an earthen canal (Figures 4 and 5). The concrete-lined portion is stamped with the date 1940. The stamp also bears the initials WPA, which stands for the Works Progress Administration, a federal New Deal agency, which existed between 1935 and 1943, which undertook many similar infrastructure projects across the entire country. The earthen portion is probably older. The canal runs along the southern border of the property.

Figure 4
CB-1, 1940 WPA Concrete Stamp, View to the South

Figure 5
CB-1, Earthen section of Canal, View to the West

10.0 Management Recommendations

At the request of Crawford and Bowen Planning, a Phase I Cultural Resource Survey was conducted on an exact 15.49-acre parcel, located at the northeast corner of Randle Avenue and East Franzen Way, in the City of Dinuba, California. The Phase I Cultural Resource Survey consisted of an archaeological survey and a cultural resource record search.

One cultural resource was identified. CB-1 is an abandoned, remnant agricultural canal. CB-1 dates to 1940, at least in part. The canal is partially concrete lined and partially an earthen canal. The concrete-lined portion is stamped with the date 1940. The earthen portion is probably older. This site is not eligible for nomination to the California Register of Historic Resources under Criteria 1-4. This site is not associated with events that have made a significant contribution to the broad patterns of local or regional history or the cultural heritage of California or the United States (Criterion 1). This site is not associated with the lives of persons important to local, California or national history (Criterion 2). This site does not embody the distinctive characteristics of a type, period, region or method of construction or represents the work of a master or possesses high artistic values (Criterion 3). Lastly, this site will not yield, or have the potential to yield, information important to the prehistory or history of the local area, California or the nation (Criterion 4).

No further work is required. If archaeological resources are encountered during the course of construction, a qualified archaeologist should be consulted for further evaluation.

If human remains or potential human remains are observed during construction, work in the vicinity of the remains will cease, and they will be treated in accordance with the provisions of State Health and Safety Code Section 7050.5. The protection of human remains follows California Public Resources Codes, Sections 5097.94, 5097.98, and 5097.99.

11.0 References

Latta, Frank F.
1999 *Handbook of Yokuts Indians*. Coyote Press, Salinas, California.

Moratto, Michael J.
1984 *California Archaeology*. Academic Press, Orlando, Florida.

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Parr, Robert E. and Richard Osborne

1992 *Route Adoption Study for Highway 58, Kern County, California.* Report on file, Southern San Joaquin Archaeological Information Center, California State University, Bakersfield, Bakersfield, California.

Tibbet, Josh and Jay Lloyd
2017 *Cultural Resources Inventory for the City of Dinuba and Infrastructure Project, Tulare County, California.* Report on file, Southern San Joaquin Archaeological Information Center, California State University, Bakersfield, Bakersfield, California.

Wallace, William J.
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Warren, Claude N. and M. B. McKusiak
1959 A Burial Complex from the southern San Joaquin Valley. Los Angeles: *University of California, Los Angeles, Archaeological Survey Annual Report, 1959*: 17-26.

Warren, Claude N.
1967 "The San Dieguito Complex: A Review and Hypothesis" *American Antiquity* 32(2): 168-185.

Appendix I

Scott M. Hudlow
1405 Sutter Lane
Bakersfield, California 93309
(661) 834-9183

Education

The George Washington University
M.A. American Studies, 1993
Specialization in Historical Archaeology
and Architectural History

University of California, Berkeley
B.A. History, 1987
B.A. Anthropology, 1987
Specialization in Historical Archaeology
and Colonial History

Public Service

3/94-12/02 *Historic Preservation Commission.* City of Bakersfield, Bakersfield, California 93305.

7/97-12/01 *Newsletter Editor. California History Action,* newsletter for the California Council for the Promotion of History.

Relevant Work Experience

8/96- *Adjutant Faculty.* Bakersfield College, 1801 Panorama Drive, Bakersfield, California, 93305. Teach History 17A, Introduction to American History and Anthropology 5, Introduction to North American Indians.

Owner, Sole Proprietorship. Hudlow Cultural Resource Associates. 1405 Sutter Lane, Bakersfield California 93309. Operate small cultural resource management business. Manage contracts, respond to RFP's, bill clients, manage temporary employees. Conduct Phase I archaeological and architectural surveys for private and public clients; including the cultural resource survey, documentary photography, measured drawings, mapping of structures, filing of survey forms, historic research, assessing impact and writing reports. Evaluated archaeological and architectural sites and properties in lieu of their eligibility for the National Register of Historic Places in association with Section 106 and 110 requirements of the National Historic Preservation Act of 1966 and CEQA (California Environmental Quality Act).

Full resume available upon request.

Appendix II

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

10/12/2021

Scott M. Hudlow
Hudlow Cultural Resource Associates
1405 Sutter Lane
Bakersfield, CA 93309

Re: Crawford and Bowen 21-10
Records Search File No.: 21-370

The Southern San Joaquin Valley Information Center received your record search request for the project area referenced above, located on the Orange Cove South USGS 7.5' quad. The following reflects the results of the records search for the project area and the 0.5 mile radius:

As indicated on the data request form, the locations of non-archaeological resources and reports are provided in the following format: ☒ custom GIS maps ☐ GIS data

Resources within project area:	None
Non-arch. Resources within 0.5 mile radius:	14 resources, see attached list.
Reports within project area:	TU-01765
Reports within 0.5 mile radius:	TU-00181, 00405, 01684

Resource Database Printout (list):	☒ enclosed	☐ not requested	☐ nothing listed
Resource Database Printout (details):	☐ enclosed	☒ not requested	☐ nothing listed
Resource Digital Database Records:	☐ enclosed	☒ not requested	☐ nothing listed
Report Database Printout (list):	☒ enclosed	☐ not requested	☐ nothing listed
Report Database Printout (details):	☐ enclosed	☒ not requested	☐ nothing listed
Report Digital Database Records:	☐ enclosed	☒ not requested	☐ nothing listed
Resource Record Copies:	☐ enclosed	☐ not requested	☒ nothing listed
Report Copies:	☐ enclosed	☒ not requested	☐ nothing listed
OHP Built Environment Resources Directory:	☐ enclosed	☒ not requested	☐ nothing listed
Archaeological Determinations of Eligibility:	☐ enclosed	☒ not requested	☐ nothing listed
CA Inventory of Historic Resources (1976):	☐ enclosed	☒ not requested	☐ nothing listed

Caltrans Bridge Survey: Not available at SSJVIC; please see https://dot.ca.gov/programs/environmental-analysis/cultural-studies/california-historical-bridges-tunnels

Ethnographic Information: Not available at SSJVIC

Historical Literature: Not available at SSJVIC

Historical Maps: Not available at SSJVIC; please see http://historicalmaps.arcgis.com/usgs/

Local Inventories: Not available at SSJVIC

GLO and/or Rancho Plat Maps: Not available at SSJVIC; please see http://www.glorecords.blm.gov/search/default.aspx#searchTabIndex=0&searchByTypeIndex=1 and/or http://www.oac.cdlib.org/view?docId=hb8489p15p;developer=local;style=oac4;doc.view=items

Shipwreck Inventory: Not available at SSJVIC; please see https://www.slc.ca.gov/shipwrecks/

Soil Survey Maps: Not available at SSJVIC; please see http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx

Please forward a copy of any resulting reports from this project to the office as soon as possible. Due to the sensitive nature of archaeological site location data, we ask that you do not include resource location maps and resource location descriptions in your report if the report is for public distribution. If you have any questions regarding the results presented herein, please contact the office at the phone number listed above.

The provision of CHRIS Data via this records search response does not in any way constitute public disclosure of records otherwise exempt from disclosure under the California Public Records Act or any other law, including, but not limited to, records related to archeological site information maintained by or on behalf of, or in the possession of, the State of California, Department of Parks and Recreation, State Historic Preservation Officer, Office of Historic Preservation, or the State Historical Resources Commission.

Due to processing delays and other factors, not all of the historical resource reports and resource records that have been submitted to the Office of Historic Preservation are available via this records search. Additional information may be available through the federal, state, and local agencies that produced or paid for historical resource management work in the search area. Additionally, Native American tribes have historical resource information not in the CHRIS Inventory, and you should contact the California Native American Heritage Commission for information on local/regional tribal contacts.

Should you require any additional information for the above referenced project, reference the record search number listed above when making inquiries. Invoices for Information Center services will be sent under separate cover from the California State University, Bakersfield Accounting Office.

Thank you for using the California Historical Resources Information System (CHRIS).

Sincerely,

Jeremy E. David
Assistant Coordinator

SSJVIC Record Search 21-370

Reports in PA:	Reports in .5 mile:	Resources in PA:	Resources in .5 mile:
TU-01765	TU-00181	None	P-54-004912
	TU-00405		P-54-004943
	TU-01684		P-54-004944
			P-54-004971
			P-54-004973
			P-54-004974
			P-54-004990
			P-54-005011
			P-54-005012
			P-54-005013
			P-54-005014
			P-54-005015
			P-54-005016
			P-54-005316

Appendix C
Traffic Impact Study

Project No: 524-17

TRAFFIC STUDY

CASTLEROCK RESIDENTIAL SUBDIVISION
LOCATED EAST OF RANDLE AVENUE & SOUTH OF EL MONTE WAY
DINUBA, CA

Prepared for:

CRAWFORD & BOWEN PLANNING, INC.

October 2021

Prepared by:

1800 30TH STREET, SUITE 260
BAKERSFIELD, CA 93301

DRAFT

Ian J. Parks, RCE 51825

TABLE OF CONTENTS

INTRODUCTION

The purpose of this study is to evaluate the potential traffic impacts of a proposed single-family residential development. The project includes 71 single-family units.

The proposed project is bounded by Randle Road to the west, Road 92 to the east and located south of El Monte Way. A vicinity map and location map are presented in Figures 1 and 2, respectively.

A. Land Use, Site and Study Area Boundaries

The existing zoning is R-1-6 (One-Family Residential) and the existing land use is MR (Residential – Medium). No changes to the land use or zoning are planned.

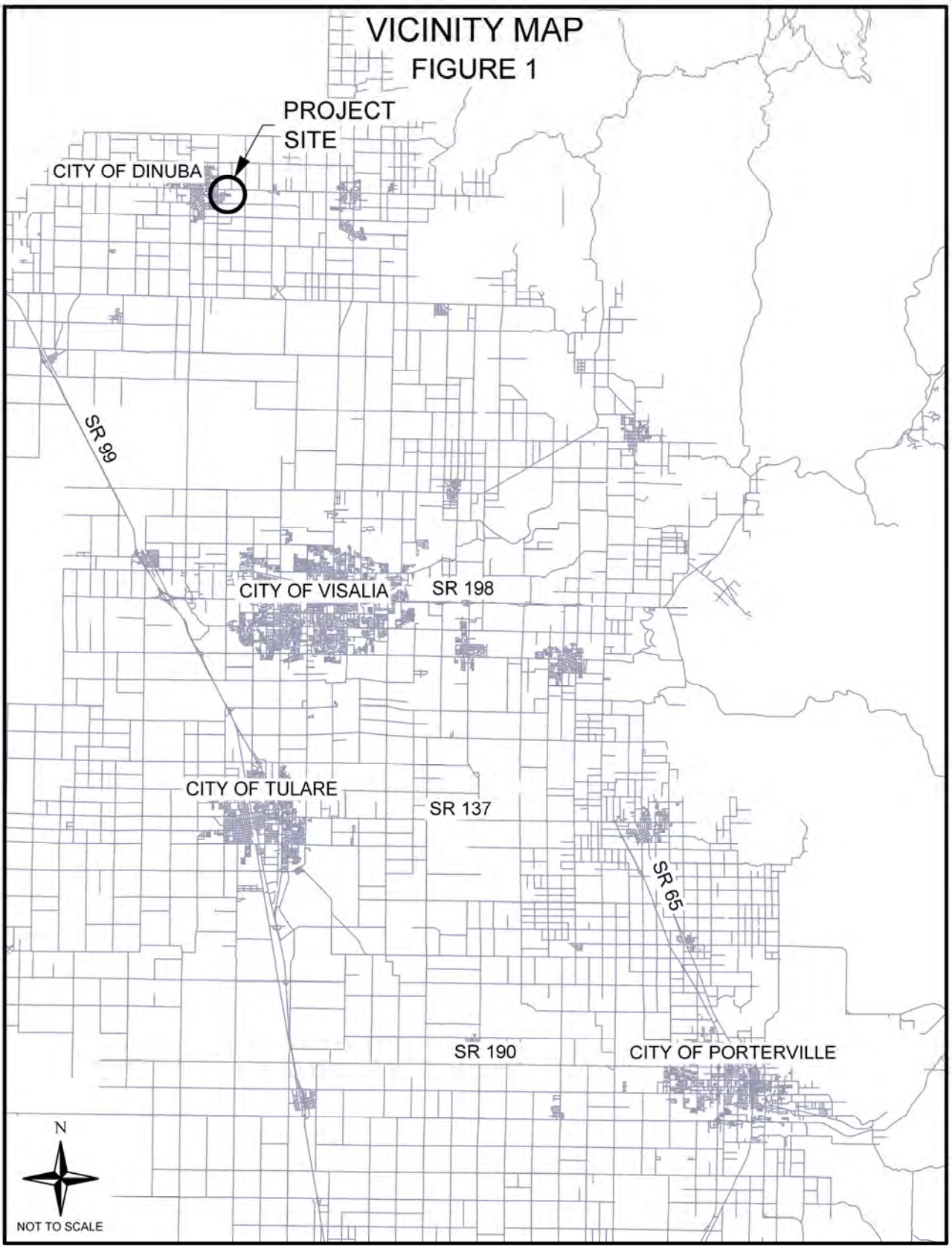
A total of five intersections are included in the study; four of which are stop-controlled and one which is signalized. The scope is based on a threshold of 50 project trips as defined in the Caltrans *Guide for the Preparation of Traffic Impact Studies*. Additionally, intersections were studied that were directly related to or adjacent to the project.

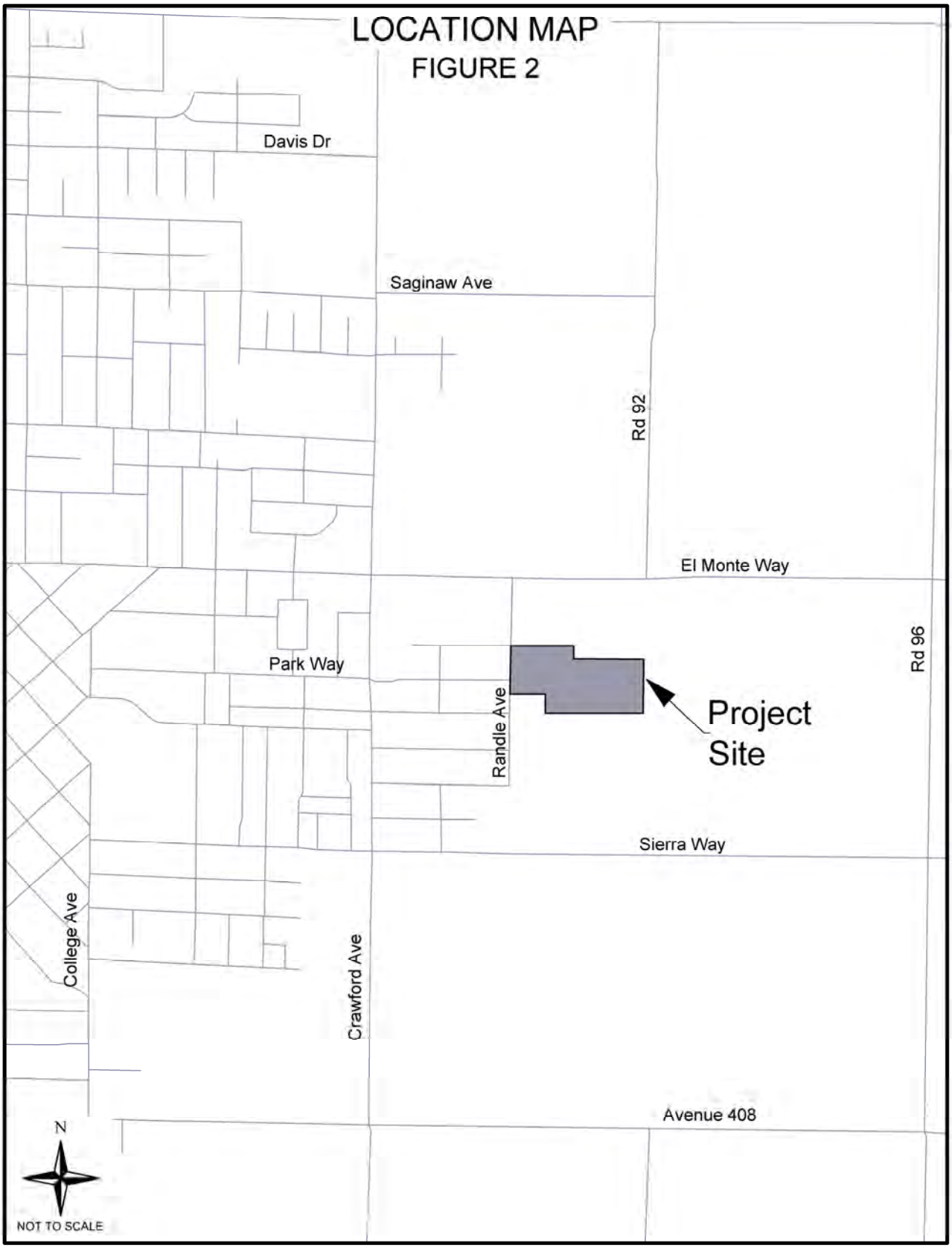
B. Existing Site Uses and Site Access

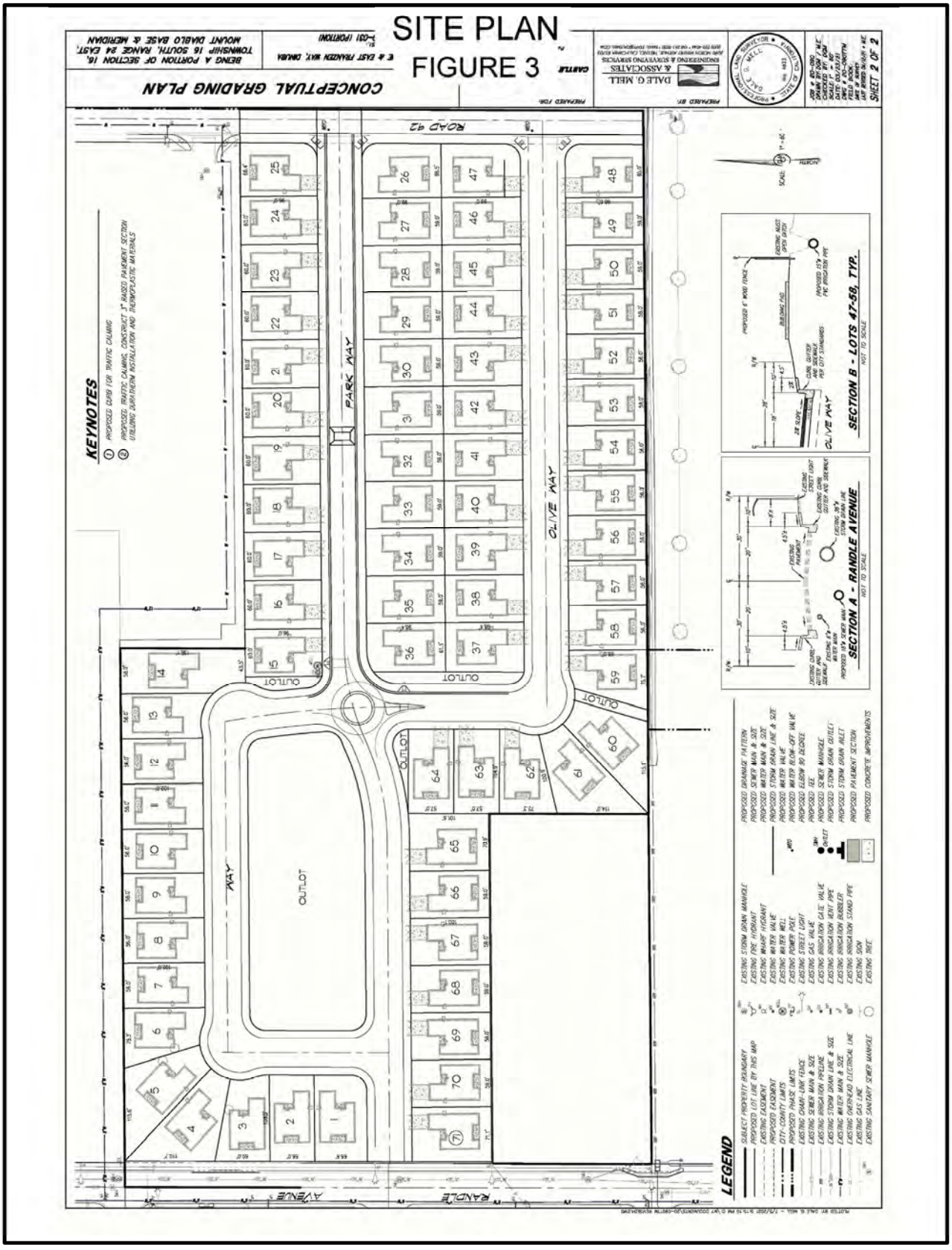
The site is currently vacant land. As currently planned, access to the proposed development would be provided along Randle Road and Road 92. A conceptual site plan is shown in Figure 3.

C. Existing Uses in Vicinity of the Site

Residential land uses exist to the west of the proposed project. There is an existing retail development directly north of the project. Agricultural land uses exist to the south and west of the project.


VICINITY MAP
FIGURE 1
PROJECT SITE
CITY OF DINUBA
SR 99
CITY OF VISALIA
SR 198
CITY OF TULARE
SR 137
SR 65
SR 190
CITY OF PORTERVILLE
N
NOT TO SCALE


LOCATION MAP
FIGURE 2
Davis Dr
Saginaw Ave
Rd 92
El Monte Way
Rd 96
Park Way
Randle Ave
Project Site
Sierra Way
College Ave
Crawford Ave
Avenue 408
N
NOT TO SCALE


SITE PLAN
FIGURE 3
CONCEPTUAL GRADING PLAN
KEYNOTES
1 PROPOSED CURB FOR TRAFFIC CALMING
2 PROPOSED TRAFFIC CALMING, CONSTRUCT 3" RASED PAVEMENT SECTION UTILIZING SURFACE INSTALLATION AND THERMOPLASTIC MATERIALS
PARK WAY
OLIVE WAY
ROAD 42
AVENUE
RANDLE
OUTLOT
SECTION B - LOTS 47-58, TYP.
NOT TO SCALE
SECTION A - RANDLE AVENUE
NOT TO SCALE
LEGEND
SUBJECT PROPERTY BOUNDARY
PROPOSED LOT LINE BY THIS MAP
EXISTING EASEMENT
PROPOSED EASEMENT
CITY-COUNTY LIMITS
PROPOSED PHASE LIMITS
EXISTING CHAIN-LINK FENCE
EXISTING SEWER MAIN & SIZE
EXISTING IRRIGATION PIPELINE
EXISTING STORM DRAIN LINE & SIZE
EXISTING WATER MAIN & SIZE
EXISTING OVERHEAD ELECTRICAL LINE
EXISTING GAS LINE
EXISTING SANITARY SEWER MANHOLE
EXISTING STORM DRAIN MANHOLE
EXISTING CATCH BASIN
EXISTING FIRE HYDRANT
EXISTING WATER VALVE
EXISTING WATER WELL
EXISTING POWER POLE
EXISTING STREET LIGHT
EXISTING GAS VALVE
EXISTING IRRIGATION GATE VALVE
EXISTING IRRIGATION VENT PIPE
EXISTING IRRIGATION BUBBLER
EXISTING IRRIGATION STAND PIPE
EXISTING SIGN
EXISTING TREE
PROPOSED DRAINAGE PATTERN
PROPOSED SEWER MAIN & SIZE
PROPOSED WATER MAIN & SIZE
PROPOSED STORM DRAIN LINE & SIZE
PROPOSED WATER VALVE
PROPOSED WATER BLOW-OFF VALVE
PROPOSED ELBOW 90 DEGREE
PROPOSED TEE
PROPOSED SEWER MANHOLE
PROPOSED STORM DRAIN OUTLET
PROPOSED STORM DRAIN INLET
PROPOSED PAVEMENT SECTION
PROPOSED CONCRETE IMPROVEMENTS
DALE G. MELL & ASSOCIATES
ENGINEERING & SURVEYING SERVICES
SHEET 2 OF 2

D. Roadway Descriptions

Crawford Avenue is a north-south roadway that extends from Avenue 384 to E American Avenue. In the vicinity of the project it exists as a two-lane roadway with curb and gutter. Crawford Avenue provides access to commercial, residential, and agricultural land uses.

El Monte Way is an east-west arterial that extends west from Road 72 through the City of Orosi. In the vicinity of the project it exists as four-lane roadway with curb and gutter. El Monte Way provides access to commercial, residential, and agricultural land uses.

Park Way is an east-west roadway that currently extends west from Randle Road. It is expected to be built out east of Randle Road with the construction of the project. It provides access to residential land uses.

Randle Avenue is a north-south roadway that extends south from El Monte Way. In the vicinity of the project it exists as a one-lane undivided roadway and provides access to residential, commercial, and agricultural land uses.

Road 92 is a north-south roadway that extends south from Union Drive. In the vicinity of the project it exists as a one-lane undivided roadway and provides access to commercial and agricultural land uses. The project will gain access to Road 92.

PROJECT TRIP GENERATION AND DESIGN HOUR VOLUMES

The trip generation and design hour volumes for the residential and medical development were calculated using the Institute of Transportation Engineers (ITE) Trip Generation, 10th Edition. The ADT, AM and PM peak hour rate equations, and peak hour directional splits for ITE Land Use Code 210 (Single-Family Detached Housing) were used to estimate the project traffic.

Table 1
Project Trip Generation

General Information			Daily Trips		AM Peak Hour Trips			PM Peak Hour Trips		
ITE Code	Development Type	Variable	ADT RATE	ADT	Rate	In % Split/ Trips	Out % Split/ Trips	Rate	In % Split/ Trips	Out % Split/ Trips
210	Single-Family detached Housing	71 Dwelling Units	eq	759	eq	25% 14	75% 41	eq	63% 46	37% 27

TRIP DISTRIBUTION AND ASSIGNMENT

The project trip distribution in Table 2 represents the most likely travel routes for traffic accessing the project. Project traffic distribution was estimated based on a review of the potential draw from population centers within the region and the types of land uses involved. These assumptions were used to distribute project traffic as shown in Figure 4.

Table 2
Project Trip Distribution

Direction	Percent
North	22.5
East	2.5
South	20
West	55

EXISTING AND FUTURE TRAFFIC

Weekday peak hour turning movements were counted at the following intersections in September 2021 (see Appendix for count data).

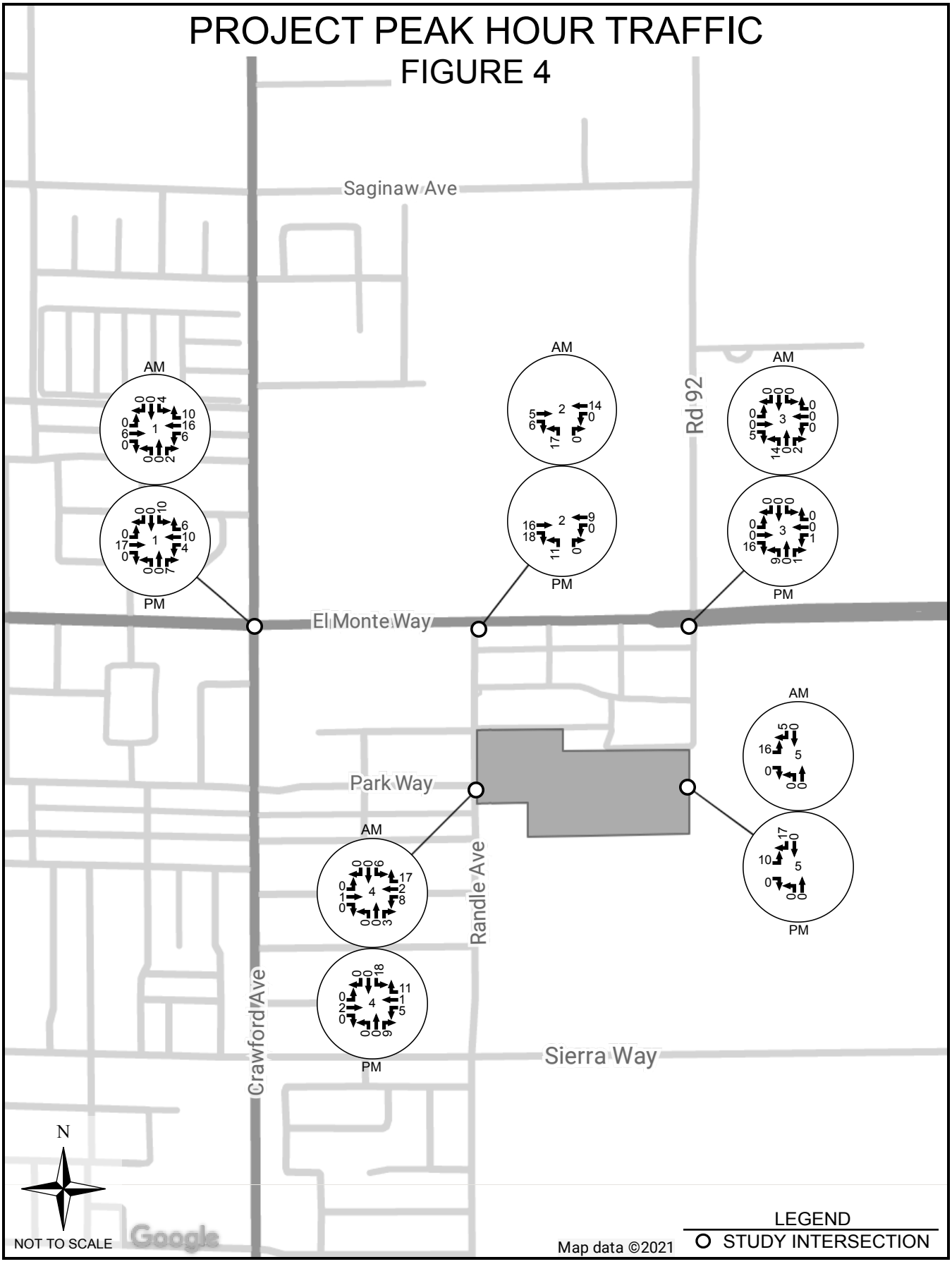
Traffic counts were conducted between the hours 6:00 to 8:00 AM and 4:00 to 6:00 PM and are shown in Figure 5. Traffic counts were compared to pre-COVID 19 count data and found to accurately reflect normal traffic volumes. Existing + Project peak hour volumes are shown in Figure 6.

Annual growth rates ranging between 1.50% and 4.06% were applied to existing traffic volumes to estimate future traffic volumes for the year 2030. These growth rates were estimated based on a review of existing and approved future developments in the vicinity of the project and TCAG traffic model data. Future peak hour volumes are shown in Figures 7 and 8.

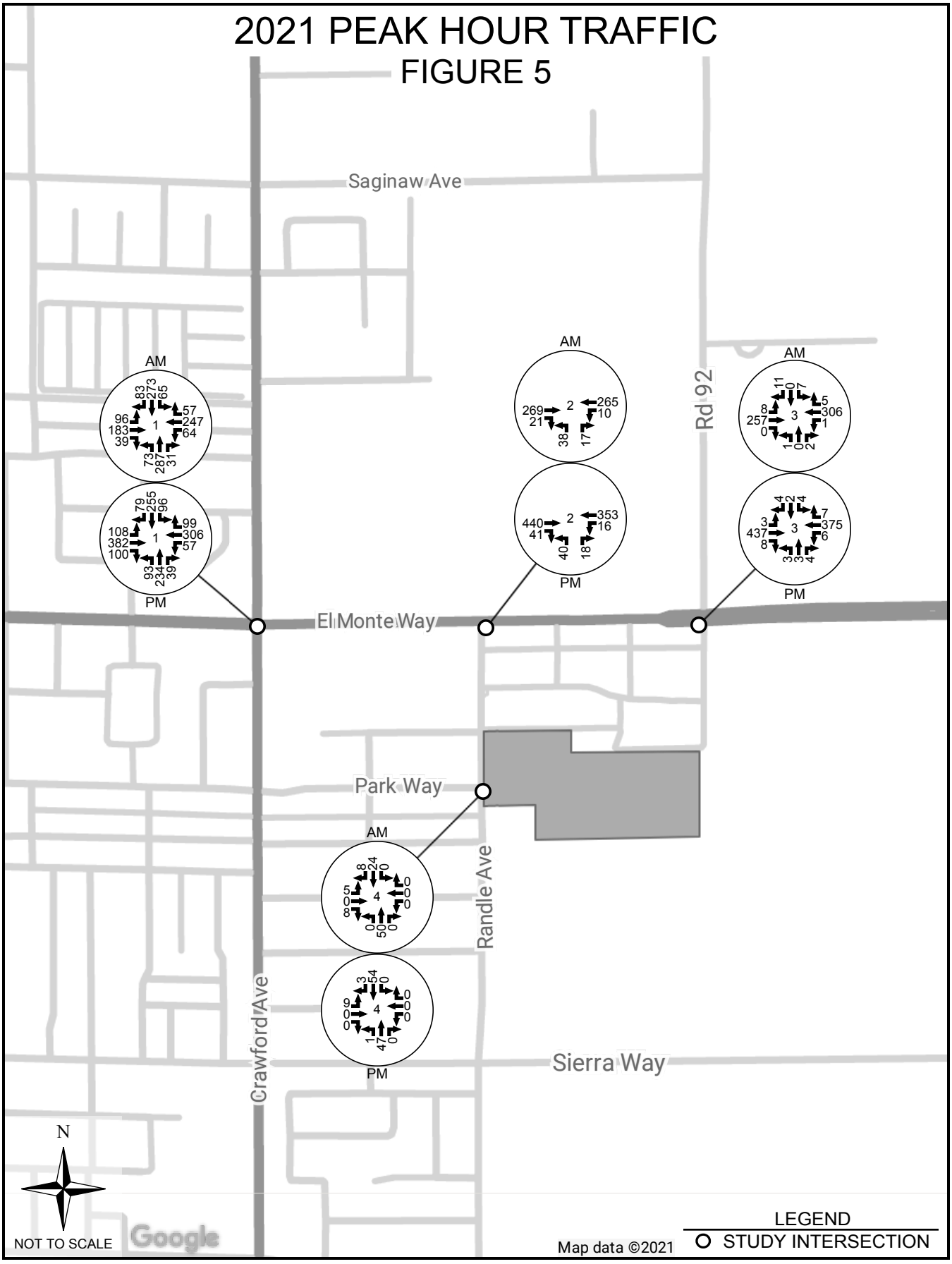
In accordance with the *Caltrans Guide For the Preparation of Traffic Impact Studies*, the existing year and interim year were analyzed since the project does not include a General Plan Amendment.

PROJECT PEAK HOUR TRAFFIC

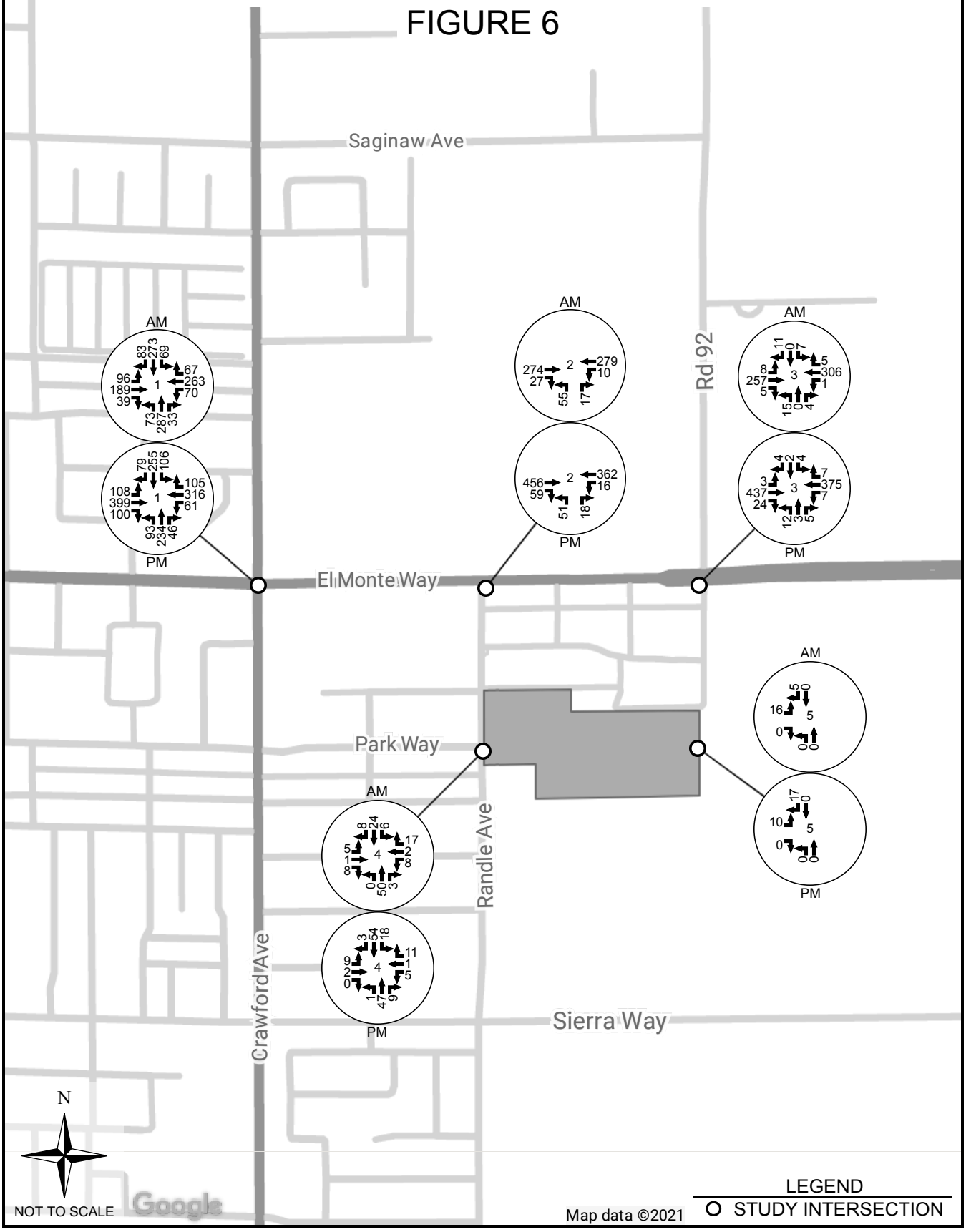
FIGURE 4



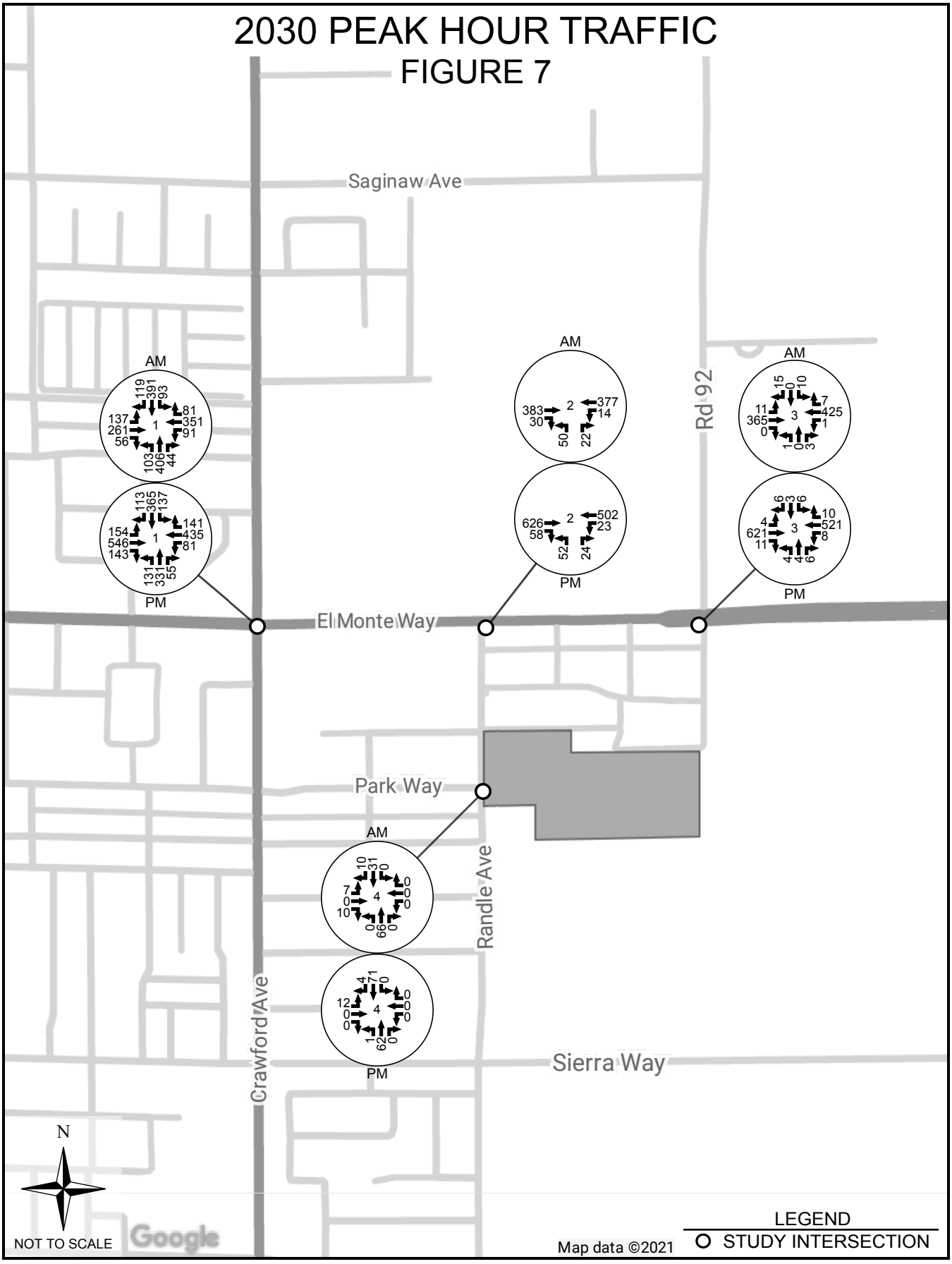
2021 PEAK HOUR TRAFFIC
FIGURE 5



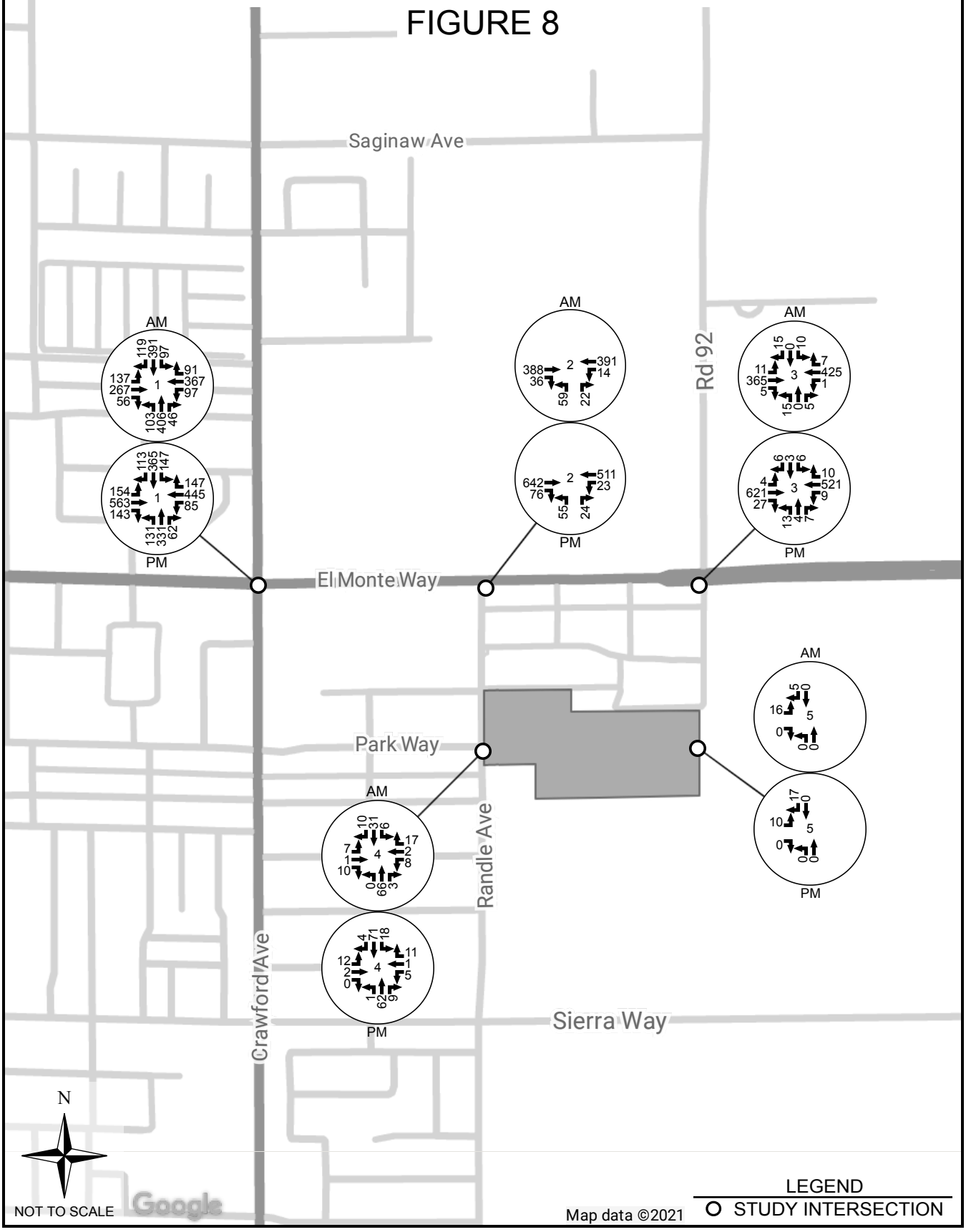
2021+PROJECT PEAK HOUR TRAFFIC
FIGURE 6



2030 PEAK HOUR TRAFFIC
FIGURE 7



2030+PROJECT PEAK HOUR TRAFFIC
FIGURE 8



INTERSECTION ANALYSIS

A capacity analysis of the study intersections was conducted using Synchro 9 software from Trafficware. This software utilizes the capacity analysis methodology in the Transportation Research Board's Highway Capacity Manual 2010 (HCM 2010). The analysis was performed for each of the following traffic scenarios.

- Existing (2021)
- Existing (2021) + Project
- Interim (2030)
- Interim (2030) + Project

Level of service (LOS) criteria for unsignalized and signalized intersections, as defined in HCM 2010, are presented in the tables below. The Tulare County Regional Transportation Plan designates LOS D as the minimum acceptable intersection peak hour level of service.

LEVEL OF SERVICE CRITERIA
UNSIGNALIZED INTERSECTION

Average Control Delay (sec/veh)	Level of Service	Expected Delay to Minor Street Traffic
≤ 10	A	Little or no delay
> 10 and ≤ 15	B	Short traffic delays
> 15 and ≤ 25	C	Average traffic delays
> 25 and ≤ 35	D	Long traffic delays
> 35 and ≤ 50	E	Very long traffic delays
> 50	F	Extreme delays

LEVEL OF SERVICE CRITERIA
SIGNALIZED INTERSECTIONS

Volume/Capacity	Control Delay (sec/veh)	Level of Service
< 0.60	≤ 10	A
0.61 - 0.70	> 10 and ≤ 20	B
0.71 - 0.80	> 20 and ≤ 35	C
0.81 - 0.90	> 35 and ≤ 55	D
0.91 - 1.00	> 55 and ≤ 80	E
> 1.0	> 80	F

Peak hour level of service for the study intersections is presented in Tables 3a and 3b. Intersection delay in seconds per vehicle is shown within parentheses for intersections operating below LOS D.

Table 3a
PM Intersection Level of Service

#	Intersection	Control Type	2021	2021+ Project	2030	2030+ Project	2030+ Project w/ Mitigation[1]
1	Crawford Ave & El Monte Way	Signal	B	C	C	C	-
2	Randle Avenue & El Monte Way	NB	C	C	C	C	-
3	Rd 92 & El Monte Way	NB SB	B C	B C	C C	C C	-
4	Randle Avenue & Park Way	EB WB	A A	A A	A A	B A	-
5	Rd 92 & Park Way	EB	-	A	-	A	-

[1]Mitigation shown in Table 6

Table 3b
AM Intersection Level of Service

#	Intersection	Control Type	2021	2021+ Project	2030	2030+ Project	2030+ Project w/ Mitigation[1]
1	Crawford Ave & El Monte Way	Signal	B	B	C	C	-
2	Randle Avenue & El Monte Way	NB	B	B	B	C	-
3	Rd 92 & El Monte Way	NB SB	B B	B B	B B	B B	-
4	Randle Avenue & Park Way	EB WB	A A	A A	A A	A A	-
5	Rd 92 & Park Way	EB	-	A	-	A	-

[1]Mitigation shown in Table 6

TRAFFIC SIGNAL WARRANT ANALYSIS

Peak hour signal warrants were evaluated for the one unsignalized intersection within the study based on the 2014 California Manual on Uniform Traffic Control Devices (2014 CA MUTCD). Peak hour signal warrants assess delay to traffic on minor street approaches when entering or crossing a major street. Signal warrant analysis results are shown in Tables 4a and 4b.

Table 4a
Traffic Signal Warrants
Weekday PM Peak Hour

		2021			2021+Project			2030			2030+Project		
#	Intersection	Major Street Total Approach Vol	Minor Street High Approach Vol	Warrant Met	Major Street Total Approach Vol	Minor Street High Approach Vol	Warrant Met	Major Street Total Approach Vol	Minor Street High Approach Vol	Warrant Met	Major Street Total Approach Vol	Minor Street High Approach Vol	Warrant Met
2	Randle Avenue at El Monte Way	850	58	NO	893	69	NO	1209	68	YES	1252	79	YES
3	Rd 92 at El Monte Way	836	10	NO	853	20	NO	1175	15	NO	1192	24	NO
4	Randle Avenue at Park Way	105	9	NO	132	17	NO	138	12	NO	165	17	NO
5	Rd 92 at Park Way	-	-	-	17	10	NO	-	-	-	17	10	NO

Table 4b
Traffic Signal Warrants
Weekday AM Peak Hour

		2021			2021+Project			2030			2030+Project		
#	Intersection	Major Street Total Approach Vol	Minor Street High Approach Vol	Warrant Met	Major Street Total Approach Vol	Minor Street High Approach Vol	Warrant Met	Major Street Total Approach Vol	Minor Street High Approach Vol	Warrant Met	Major Street Total Approach Vol	Minor Street High Approach Vol	Warrant Met
2	Randle Avenue at El Monte Way	565	55	NO	590	72	NO	804	64	NO	829	81	NO
3	Rd 92 at El Monte Way	577	18	NO	582	19	NO	809	25	NO	814	25	NO
4	Randle Avenue at Park Way	82	13	NO	91	27	NO	107	17	NO	116	27	NO
5	Rd 92 at Park Way	-	-	-	16	5	NO	-	-	-	16	5	NO

It is important to note that a signal warrant defines the minimum condition under which signalization of an intersection might be warranted. Meeting this threshold does not suggest traffic signals are required, but rather, that other traffic factors and conditions be considered in order to determine whether signals are truly justified.

It is also noted that signal warrants do not necessarily correlate with level of service. An intersection may satisfy a signal warrant condition and operate at or above an acceptable level of service, or operate below an acceptable level of service and not meet signal warrant criteria.

ROADWAY ANALYSIS

A capacity analysis of the study roadways was conducted using Table 4 in the State of Florida Department of Transportation *Quality/Level of Service Handbook* dated June 2020 (see Appendix). The City of Dinuba Circulation Element states that the peak hour level of service for roadways shall be no lower than LOS "C" for urban areas. The analysis was performed for the following AM and PM traffic scenarios:

- Existing (2021)
- Existing (2021) + Project
- Future Cumulative (2030)
- Future Cumulative (2030) + Project

Table 5a
PM ROADWAY LEVEL OF SERVICE

Street	2021 Two-Way LOS		2021+Project Two-Way LOS		2030 Two-Way LOS		2030+Project Two-Way LOS	
	VOL	LOS	VOL	LOS	VOL	LOS	VOL	LOS
El Monte Way: Crawford Ave to Randle Ave	979	C	1033	C	1395	C	1449	C
El Monte Way: Randle Ave to Rd 92	830	C	855	C	1167	C	1200	C
Randle Ave: Park Way to El Monte Way	115	C	144	C	157	C	186	C
Rd 92: Park Way to El Monte Way	26	C	53	C	36	C	63	C

Table 5b
AM ROADWAY LEVEL OF SERVICE

Street	2021 Two-Way LOS		2021+Project Two-Way LOS		2030 Two-Way LOS		2030+Project Two-Way LOS	
	VOL	LOS	VOL	LOS	VOL	LOS	VOL	LOS
El Monte Way: Crawford Ave to Randle Ave	647	C	691	C	921	C	965	C
El Monte Way: Randle Ave to Rd 92	583	C	602	C	817	C	836	C
Randle Ave: Park Way to El Monte Way	87	C	110	C	116	C	139	C
Rd 92: Park Way to El Monte Way	4	C	25	C	5	C	26	C

VMT ANALYSIS

An evaluation of vehicle miles traveled (VMT) for project traffic was conducted in accordance with California Environmental Quality Act (CEQA) requirements. The City of Porterville has adopted the "County of Tulare SB 743 Guidelines", dated June 8, 2020, which contain recommendations regarding VMT assessment, significance thresholds and mitigation measures.

Analysis

Baseline VMT was determined utilizing data from the California Statewide Travel Demand Model (CSTDM). The proposed residential project is located in Traffic Analysis Zone (TAZ) 2775, which has an average VMT/capita of 19.27 miles. The proposed residential project is considered a typical project within the TAZ and therefore the project would be expected to have the same VMT per capita. There are no special considerations with the project to assume the project would produce a VMT/capita lower than the average for the TAZ. The threshold of significance for residential project VMT/capita is if the project VMT is below the average in the TAZ where the project is located. Since VMT/capita is assumed to be equal to the average for the aforementioned zone, it is anticipated that the proposed project will have a significant transportation impact prior to mitigation.

Mitigation

The Tulare County guidelines include detailed instructions for mitigation if a project has significant impacts. The guidelines state "The preferred method of VMT mitigation in Tulare County is for project applicants to provide transportation improvements that facilitate travel by walking, bicycling, or transit." In accordance with these guidelines, a survey was conducted within a half mile of the project to determine any pedestrian, bicycle or transit facilities deficiencies exist. After review, there were existing curb returns which do not meet current ADA requirements for ramps. The identified improvements include the following:

- Four (4) ADA compliant curb ramps at S Crawford Avenue & E El Monte Way
- One (1) ADA compliant curb ramp at the southeast corner of Randle Road & E El Monte Way
- One (1) ADA compliant curb ramp at the southwest corner of Road 92 & E El Monte Way (see Figure 9).

The location of the improvements is shown on Figure 9 with circles at the proposed locations. The guidelines include a minimum cost for mitigation of $20 per daily trip generated by the project. As shown

in Table 1, the project is anticipated to generate 759 daily trips, which equates to a target value of improvements of $15,180. The total estimated project cost is approximately $18,000 ($2,500 per ramp with a 20% contingency). Therefore, with the construction of the above identified improvements, the project will meet the minimum cost requirement for mitigation.

Pursuant to the guidelines, if a project provides mitigation which meets the minimum threshold listed above, the project can presume a 1% reduction in VMT. The assumed VMT/capita reduction is 1% of 19.27 or 0.1927. The resulting VMT/capita after mitigation is 19.08 which is below the average VMT/capita in the TAZ which the project is located. After mitigation, the project will have a less than significant transportation impact.

FIGURE 9
PROPOSED VMT MITIGATION

SUMMARY AND CONCLUSIONS

The purpose of this study is to evaluate the potential traffic impacts of a proposed residential development located on Randle Road south of El Monte Way in Dinuba, CA.

All five study intersections currently operate at or above LOS C during peak hours with and without project traffic in both existing and interim year scenarios.

All roadway segments within the scope of the study currently operate above LOS C during peak hours prior to, and with the addition of project traffic.

Project VMT analysis showed a VMT which was equal to the existing local VMT in the area, which indicates a transportation impact under CEQA. With implementation of the mitigation measures identified above for reduction of VMT, the project will have a less than significant transportation impact.

REFERENCES

1. Highway Capacity Manual, Special Report 209, Transportation Research Board
2. California Manual on Uniform Traffic Control Devices for Streets and Highways, 2012 Edition, Federal Highway Administration (FHA)
3. Caltrans Guide for the Preparation of Traffic Impact Studies, June 2001
4. City of Dinuba General Plan Policies Statement, September 23, 2008
5. Technical Advisory on Evaluating Impacts in CEQA, Governor's Office of Planning and Research, December 2018
6. Trip Generation, 10th Edition, Institute of Transportation Engineers (ITE)

APPENDIX