COUNTY OF TULARE
RESOURCE MANAGEMENT AGENCY

5961 South Mooney Boulevard
Visalia, CA 93277

Initial Study and Mitigated Negative Declaration

Swift Homes Subdivision
(TSM 20-003)

February 2021

Prepared by
County of Tulare Resource Management Agency
Economic Development and Planning Branch
Environmental Planning Division

INITIAL STUDY CHECKLIST

1. **Project Title:** Swift Homes Subdivision, TSM 20-003

2. **Lead Agency:** County of Tulare
Resource Management Agency
5961 S. Mooney Blvd.
Visalia, CA 93277

3. **Contact Persons:** Sandy Roper , Planner IV (Project Planner) – 559-624-7106
Hector Guerra, Chief, Environmental Planning Division – 559-624-7121

4. **Project Location:** Northwest corner of Avenue 310 and Road 72, within the Goshen Community Plan Urban Development Boundary in Tulare County, California. (APN 075-440-002) in the Northern ½ of the Northwestern ¼ of Section 19, Township 18 South, Range 24 East, MDB&M.

5. **Applicant:** Greg Nunley
Swift Homes
1969 Hillman St.
Tulare, CA 93724

6. **Latitude, Longitude:** 36º 21' 09" N / 119 º 24' 44" W (at intersection of Avenue 310 and Road 72)

7. **General Plan Designation:** Goshen Community Plan Urban Development Boundary

8. **Zoning:** C-2-MU (Mixed Use)

9. **Description of Project (Describe the whole action involved, including but not limited to later phases of the project, and any secondary, support, or off-site features necessary for its implementation. Attach additional sheets if necessary.)** The proposal is to develop 206 single-family residences on APN 075-440-002 at the northwest corner of Avenue 310 and Road72 within the Goshen Community Plan Urban Development Boundary area and the Visalia Urban Area Boundary. The approximately 37.0-acre site will have a density of 5.82 units per acre based on the gross residential acreage (i.e. the approximate 35.4-acre area dedicated to lots and roadways with curbs, gutters, and sidewalks). The remaining acreage will be utilized as open space in the form of a stormwater detention basin. Residential parcels will be a minimum of 5,000 square feet. The proposed Project will be developed in four (4) phases: Phase 1 = 34 lots; Phase 2 = 49 lots; Phase 3 = 39 lots; and Phase 4 = 84 lots.

10. **Surrounding land uses and setting (Brief description):**
North: Agriculture (row crops)
South: single-family residential
East: Vacant
West: Park, Medical clinic, and multi-family residential

11. **Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement):** Caltrans, Regional Water Quality Control Board, California Water Service Company, Goshen Community Services District, San Joaquin Valley Unified Air Pollution Control District, other TBD.

12. **Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that include, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?** Pursuant to AB 52, a Sacred Land File (SLF) request was submitted to the Native American Heritage Commission on December 1, 2020, and was returned on January 6, 2021, with "negative" results. On December 27, 2020, tribal consultation notices were sent via email to fourteen (14) tribal contacts representing five (5) Native American tribes. Additional notices were sent via email and certified mail on February 16, 2021, which include two (2) additional Tribes located in Fresno County pursuant to the Tribal contact list provided with the SLF response letter. As of the date of this IS/MND, the County has received only one response from the tribes (indicating that they had no comments on the Project) and is awaiting completion of the 30-day response time to finalize the opportunity to participate in the consultation process. Mitigation measures have been included in the project to reduce potential impacts on tribal cultural resources in the unlikely event that any are unearthed during construction-related activities.

Figure 1 - Aerial Vicinity Map

Figure 2 – Zoning

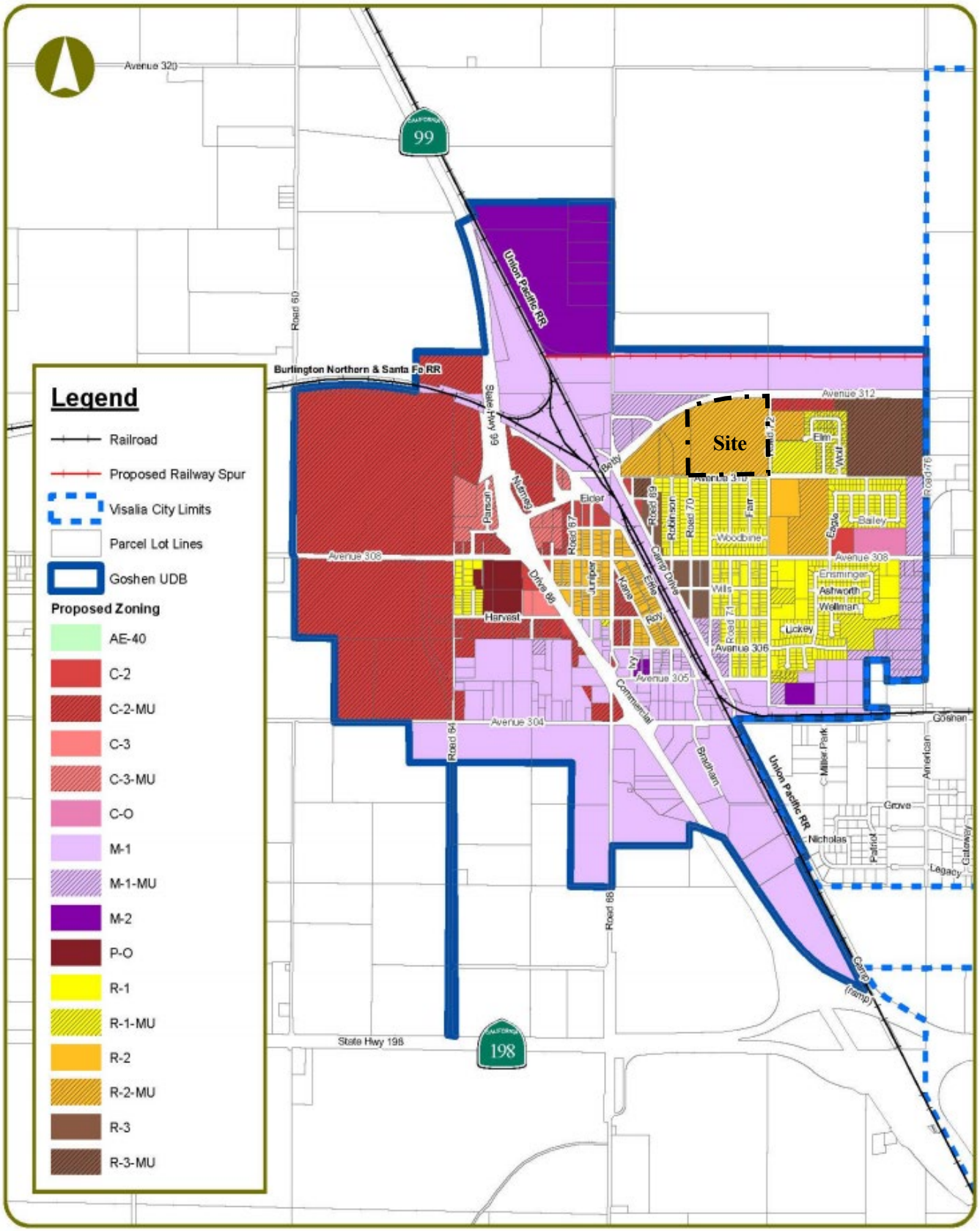

Figure 3 – Tentative Subdivision Map

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

A. 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	☐ 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

B. 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 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.

Signature: _____ Date: _____

Hector Guerra _____ Chief Environmental Planner _____
Printed Name Title

Signature: _____ Date: _____

Reed Schenke, P.E. _____ Environmental Assessment Officer _____
Printed Name Title

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

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

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

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier **EIR** or **NEGATIVE DECLARATION** pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier **EIR** or **NEGATIVE DECLARATION**, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature: _____ Date: 2/24/21

Hector Guerra
Printed Name

Chief Environmental Planner
Title

Signature: _____ Date: 2/24/21

Reed Schenke, P.E.
Printed Name

Environmental Assessment Officer
Title

C. EVALUATION OF ENVIRONMENTAL IMPACTS:

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

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

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

4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analyses," as described in (5) below, may be cross-referenced).

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

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

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

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

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

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

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

9) The explanation of each issue should identify: the significance criteria or threshold, if any, used to evaluate each question; and the mitigation measure identified, if any, to reduce the impact to less than significance.

It is noted that this Project is consistent with the Goshen Community Plan and Adopted/Certified Environmental Impact Report (SCH No. 2014021057) approved by the Tulare County Board of Supervisors on June 5, 2018 and is herein incorporated by reference in its entirety.

1.	AESTHETICS					
	Would the project:					
Would the project:			SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT	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 other regulations governing scenic quality?	☐	☐	☒	☐
	d)	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

The discussions regarding Environmental Setting, CEQA requirements, Regulatory Setting, Chapter 3.1 Aesthetics, Chapters 4 through 9, Appendices "A" through "I", etc., contained in the Goshen Community Plan Update and Environmental Impact Report are incorporated herein in their entirety. Where necessary and if available, additional site specific facts, data, information, etc., are included in this discussion.

Environmental Setting

Tulare County is located in a predominately agricultural region of central California. The terrain in the County varies. The western portion of the County includes a portion of the San Joaquin Valley (Valley), and is generally flat, with large agricultural areas with generally compact towns interspersed. In the eastern portion of the County are foothills and the Sierra Nevada mountain range. The project site is located on the Valley floor, which is very fertile and has been intensively cultivated for many decades. Agriculture and related industries such as agricultural packing and shipping operations and small and medium sized manufacturing plants make up the economic base of the Valley region. Many communities are small and rural, surrounded by agricultural uses such as row crops, orchards, and dairies. From several locations on major roads and highways throughout the County, electric towers and telephone poles are noticeable. Mature trees, residential, commercial, and industrial development, utility structures, and other vertical forms are highly visible in the region because of the flat terrain. Where such vertical elements are absent, views are expansive. Most structures are small; usually one story in height, through occasionally two story structures can be seen commercial or industrial agricultural complexes. The County provides a wide range of views from both mobile and stationary locations… [1] The proposed Project site is located on the San Joaquin Valley floor in the unincorporated community of Goshen, area approximately one (1) miles west of the City of Visalia, Tulare County, California. The aesthetic features of the existing visual environment in the proposed Project area are relatively rural in nature, that is agricultural uses are located north, west, and south of the Project site, and medium density single-family residences are located directly east. uniform, with broad, flat, agricultural setting landscapes. The Project site east of The Coast Range southwest of the Project site, while the transitional rolling hills at the base of the Sierra Nevada Mountain Range are located approximately 20 miles east. Topographically, the Project site is flat (less than 5 percent slope across the site) with an average elevation of approximately 282 feet above mean sea level, and has historically been used for irrigated row crop cultivation. Other than single-family residences directly east of the Project site, nearby scattered rural residences, and predominantly agriculturally productive lands, there are no scenic resources such as rivers, lakes, rock outcroppings, historical structures, etc., within or near the Project area.

[1] Tulare County 2030 General Plan: Recirculated Draft EIR (RDEIR). Page 3.1-11.

Regulatory Setting

Federal

Aesthetic resources are protected by several federal regulations, none of which are relevant to this Project because it will not be located on lands administered by a federal agency nor is the Project applicant requesting federal funding or any federal permits.

State

Nighttime Sky – Title 24 Outdoor Lighting Standards

The California Energy Commission (CEC) adopted changes to Title 24, Parts 1 and 6, Building Energy Efficiency Standards (Standards), on November 5, 2003. These new Standards became effective on October 1, 2005. The most recent edition of the Standards (as of the preparation date of this IS/MND) are contained in the 2019 Building Energy Efficiency Standards. Included in the changes to the Standards are new requirements for outdoor lighting. The requirements vary according to which "Lighting Zone" the lighting equipment is located. The Standards contain lighting power allowances for newly installed equipment and specific alterations that are dependent on which Lighting Zone the project is located. Existing outdoor lighting systems are not required to meet these lighting power allowances. However, alterations that increase the connected load, or replace more than 50% of the existing luminaires (for each outdoor lighting application that is regulated by the Standards) must comply with the lighting power allowances for newly installed equipment.

The Standards base the allowable lighting power on the brightness of the surrounding conditions. The eyes adapt to darker surrounding conditions, and less light is needed to properly see; conversely, when the surrounding conditions are brighter, more light is needed to see. The least lighting power is allowed in Lighting Zone 1 and increasingly more lighting power is allowed in Lighting Zones 2, 3, and 4.

The CEC defines the boundaries of Lighting Zones based on U.S. Census Bureau boundaries for urban and rural areas as well as the legal boundaries of wilderness and park areas (see Standards Table 10-114-A). By default, government designated parks, recreation areas and wildlife preserves are Lighting Zone 1; rural areas are Lighting Zone 2; and urban areas are Lighting Zone 3. Lighting Zone 4 is a special use district that may be adopted by a local government[2]

California Scenic Highway Program

The Scenic Highway Program allows county and city governments to apply to the California Department of Transportation (Caltrans) to establish a scenic corridor protection program which was created by the Legislature in 1963. Its purpose is to protect and enhance the natural scenic beauty of California highways and adjacent corridors through special conservation treatment. The state laws governing the Scenic Highway Program are found in the Streets and Highways Code, Sections 260 through 263. Two Eligible State Scenic Highways occur in Tulare County, SRs 198 and 190; however, they are not Designated State Scenic Highways.

Local

Tulare County General Plan 2030 Update

The Tulare County General Plan 2030 Update: Chapter 7 – Scenic Landscapes, contains the following goals and policies that relate to aesthetics, preservation of scenic vistas and daytime lighting/nighttime glare and which have potential relevance to the Project's CEQA review: *SL-1.1 Natural Landscapes* which requires new development to not significantly impact or block views of Tulare County's natural landscapes*; SL-1.2 Working Landscapes* which requires that new non-agricultural structures and infrastructure located in or adjacent to croplands, orchards, vineyards, and open rangelands be sited so as to not obstruct important viewsheds and to be designed to reflect unique relationships with the landscape; and *SL-2.1 Designated Scenic Routes and Highways* which is intended to protect views of natural and working landscapes along the County's highways and roads by maintaining a designated system of County scenic routes and State scenic highways.

[2] California Department of Energy. Title 24 2019 Building Energy Efficiency Standards. 10-114-Determination of Outdoor Lighting Zone and Administrative Rule for Use. Pages 42 and 43. Accessed December 2020 at: https://ww2.energy.ca.gov/2018publications/CEC-400-2018-020/CEC-400-2018-020-CMF.pdf

Project Impact Analysis

a) Less Than Significant Impact: For the purposes of this Project, a scenic vista is defined as an area that is designated, signed, and accessible to the public for the purpose of viewing and sightseeing. The Project site is located on the floor of the San Joaquin Valley immediately adjacent to the unincorporated community of Goshen in west-central Tulare County. The site is adjacent to agricultural uses to the north, a vacant parcel to the west, residential uses to the south, and a park, medical clinic, and multi-family residential to east. The Project would be low-profile (that is, no building/structure will be greater than 35' feet in height). Zoning height limitations would restrict structures to no greater than a two-story equivalent (i.e., 2-½ stories and not to exceed 35 feet maximum). No parts of the Project would obstruct local scenic views, be visually intrusive or incompatible with the surrounding area. There are no designated scenic vistas within visible distance of the Project site (County of Tulare, 2010). Although the proposed Project will be visible from Avenues 312 (W. Riggin Avenue) and 310, and from Road 72, it is anticipated that design features and adjacent residential uses would minimize visual impacts to those viewing the site. Therefore, the Project would have no impact on a scenic vista.

b) No Impact: There are no rock outcroppings, historic buildings, or other designated scenic resources within or near the Project site. The California Scenic Highway Program allows counties to nominate an eligible scenic highway to be approved by the California Department of Transportation and placed under the scenic corridor protection program. In Tulare County, there is currently one officially designated scenic highway, and two highways that are eligible for designation. Approximately two miles of the officially designated Scenic Highway (State Route) 180 passes through Tulare County, but this segment of SR 180 is greater than 35 miles northeast of the Project site. Additionally, there are two Candidate State Scenic Highways, SR 198, (beginning east of SR 99) approximately two miles southeast of the Project site, and SR 190, (greater than 20 miles south. As such, the Project is not located within the viewshed of any of the listed designated or eligible highway segments.

Additionally, the County of Tulare identified a number of County Scenic Roads in its 2012 General Plan Update; however, none of the roads are near or within the vicinity of the Project site. As a result, the Project would have no impact on existing scenic resources or highways. As noted earlier, the Project is located in a relatively flat area and does not contain scenic resources such as significant trees, rock outcroppings, or historic buildings. Therefore, there would be no impact to an eligible or designated state scenic highway or other scenic resources as a result of the proposed Project.

c) Less Than Significant Impact: As noted earlier, the Project site is located immediately within the unincorporated community of Goshen with existing agricultural uses to the north, a vacant parcel to the west, residential uses to the south, and a park, medical clinic, and multi-family residential to east. On clear days, the Sierra Nevada Mountains' highest peaks are visible despite being located greater than 50 miles east of the Project site. The Project would result in the planned transition of vacant land to residential uses within an unincorporated area as allowed by the Goshen Community Plan Update. It is noted that the Goshen Community Plan Update states, "In terms of siting, medium to high density housing should be located along collector streets and/or arterials. Due to existing Airport safety zones, there are limitations on where higher density housing can be placed within the west side of Goshen. There are fewer restrictions on parcels located to generally to the North and the West." [3] As such, the transition to an urbanized land use would not substantially degrade the existing visual character or quality of the site and its surroundings. Therefore, the project would not conflict with applicable zoning and other regulations governing scenic quality resulting in a less than significant impact to this resource.

d) Less Than Significant Impact: Consistent with Policies LI-2, -15, and -16 (as contained in the Goshen Community Plan Update), lighting should be shielded and point downward, exterior architectural lighting should fully compliment a building's design, and street lighting features should fully compliment a building design and character. Also, Complete Street Policies contained in the Goshen Community Plan Update encourage street lighting to promote safety.[4] Further, Development Standard A-28 (as contained in the Goshen Community Plan Update) requires positioning of lighting sources to prevent glare for pedestrians and vehicles. As such, the Project will create a new source of light; however, it would not adversely affect day or nighttime views in the area resulting in a less than significant impact. Impacts from glare would be minimized through compliance with Development Standard A-28, as such; impacts from glare would result in a less than significant impact.

Cumulative Analysis

[3] Goshen Community Plan Update. Page 177. Accessed December 2020 at: http://generalplan.co.tulare.ca.us/documents/GP/001Adopted%20Tulare%20County%20General%20Plan%20Materials/120Part%20III%20Community%20Plans%201%20of%207/005Goshen/GPA%2014-001%20GOSHEN%20COMMUNITY%20PLAN.

[4] Ibid. See Goal 1. Policy 6. and Goal 3 Policy 1. c). Pages 230 and 231.

The geographic area of this cumulative analysis is Tulare County. This cumulative analysis is based on the information provided in the Tulare County 2030 General Plan, General Plan Background Report, Tulare County 2030 General Plan EIR, and/or Goshen Community Plan Update and EIR.

As the proposed Project will not create significant Project-specific visual impacts, as the proposed Project will result in no significant Project-specific or Cumulative Impacts related to this Checklist Item.

2.	AGRICULTURAL AND FOREST RESOURCES
	In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the Rural Valley Lands Plan point evaluation system prepared by the County of Tulare as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.

Would the project:			SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT	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 agriculture use, or a Williamson Act contract?	☐	☐	☐	☒
	c)	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources code 12220(g), timberland (as defined in Public Resource 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?	☐	☐	☐	☒

The discussions regarding Environmental Setting, CEQA requirements, Regulatory Setting, Chapter 3.2 Agricultural Lands and Forestry, Chapters 4 through 9, Appendices "A" through "I", etc., contained in the Goshen Community Plan Update and Environmental Impact Report are incorporated herein in their entirety. Where necessary and if available, additional site specific facts, data, information, etc., are included in this discussion.

Environmental Setting

The *2019 Tulare County Annual Crop and Livestock Report* stated "Tulare County's total gross production value for 2019 is $7,505,352,100. This represents an increase of $292,048,700 or 4.0% above 2018's value of $7,213,303,400. Milk continues to be the leading agricultural commodity in Tulare County; with a gross value of $1,612,070,000, a decrease of $71,677,000 or 4.3%. Milk represents 21.5% of the total crop and livestock value for 2019. Total milk production decreased by 11%. Livestock and Poultry's gross value of $665,379,000 represents a decrease of 4.2% below 2018, mostly due to a lower per unit value for

cattle. "[5] "Tulare County's agricultural strength is based on the diversity of the crops produced. The 2019 crop report covers more than 120 different commodities, 44 of which have a gross value in excess of $1,000,000. Although individual commodities may experience difficulties from year to year, Tulare County continues to produce high-quality crops that provide food and fiber to more than 96 countries throughout the world."[6]

The most recent statewide California Farmland Conversion Report (CFCR) from the California Department of Conservation Farmland Mapping and Monitoring Program (FMMP) assesses statewide farmlands from the period 2014-2016. However, Tulare County specific data from the period 2014-2016 indicates that agricultural lands in Tulare County in 2014 included 859,171 acres of important farmland (designated as FMMP Prime, Farmland of Statewide Importance, Unique Farmland, or Farmland of Local Importance) and 439,961 acres of grazing land, for a total of 1,299,132 acres of agricultural land.[7]

Farmlands of Statewide Importance are defined as "lands similar to Prime Farmland but with minor shortcomings, such as greater slopes or less ability to store soil moisture. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date."[8]

As presented in **Table 2-1**, the California Land Conservation Act of 1965 2016 Status Report (December 2016) notes that 1,093,126 acres of farmland with Tulare County is under California Land Conservation Act (Williamson Act) contracts; a program designed to prevent premature conversion of farmland to residential or other urban uses. The 1,093,126 acres of farmland under Williamson Act or Farmland Security Zone contracts in Tulare County divided by the following categories: 569,028 acres of Williamson Act prime, 512,946 acres nonprime, and 11,052 acres of Farmland Security Zone lands (The acreage totals also include 175 acres of Williamson Act prime contract land in nonrenewal and 15,731 acres of Williamson Act of nonprime contract land in nonrenewal.)[9]

Table 2-1[10]:
2012 Tulare County Lands under Williamson Act or Farmland Security Zone Contracts

Acres	Category
569,028	Total prime = Prime active + NR Prime
512,946	Total Nonprime = Nonprime active + NR Prime
11,052	Farmland Security Zone
1,093,126	TOTAL ACRES in Williamson Act and Farmland Security Zone contracts

Important Farmland Trends

Using data collected by the FMMP, farmland acreage has been consistently decreasing for each two-year period since 1998[11]. In the 2010 FMMP analysis, Tulare County lost 17,502 acres of important farmland, and 17,748 acres of total farmland between 2008 and 2010; 13,815 acres of important farmland, and 14,216 acres of total farmland between 2010 and 2012; and 17,441 acres of important farmland, and 17,678 acres of total farmland between 2012 and 2014.[12] However, as recent as 2014-2016, Tulare County gained 1,469 acres of important farmland, but also lost 2,513 acres of total farmland.[13]

[5] 2019 Tulare County Annual Crop and Livestock Report, September 2020. Cover letter from Tom Tucker, Agricultural Commissioner. Accessed December 2020 at: https://agcomm.co.tulare.ca.us/ag/index.cfm/standards-and-quarantine/crop-reports1/crop-reports-2011-2020/2019-crop-report/.
[6] Ibid.
[7] California Department of Conservation, Division of Land Resource Protection. Department of Conservation, Farmland Mapping and Monitoring Program, *Table 2012-2014. Table A-44, Part I.* Accessed December 2020 at: http://www.conservation.ca.gov/dlrp/fmmp/Pages/Tulare.aspx. *The California Farmland Conversion Report 2008-2010* Accessed December 2020 at: http://www.conservation.ca.gov/dlrp/fmmp/Documents/fmmp/pubs/2008-2010/fcr/FCR%200810%20complete.pdf.
[8] Ibid.
[9] California Land Conservation Act of 1965 2016 Status Report. December 2016. Pages 38 and 42. Accessed December 2020 at: https://www.conservation.ca.gov/dlrp/Pages/Recent-Publications.aspx
[10] Ibid.
[11] California Department of Conservation, Division of Land Resource Protection, "Williamson Act Status Report (2010)". Page 14. Accessed December 2020 at: https://www.conservation.ca.gov/dlrp/wa/Pages/stats_reports.aspx
[12] Tulare County Land Use Conversion Tables 2008-2010, 2010-2012, 2012-2014, and 2014-2016. Table A-44, Part III. Accessed December 2020 at: http://www.conservation.ca.gov/dlrp/fmmp/Pages/Tulare.aspx.
[13] Tulare County Land Use Conversion Tables 2014-2016. Table A-44, Part I. Accessed December 2020 at: https://www.conservation.ca.gov/dlrp/fmmp/Pages/Tulare.aspx..

"For Tulare County and the surrounding region, the reported major cause of this conversion is the downgrading of important farmlands to other agricultural uses (e.g., such as expanded or new livestock facilities, replacing irrigated farmland with non-irrigated crops, or land that has been fallow for six years or longer)."[14]

Forest Lands

"Timberlands that are available for harvesting are located in the eastern portion of Tulare County in the Sequoia National Forest. Hardwoods found in the Sequoia National Forest are occasionally harvested for fuel wood, in addition to use for timber production. Since most of the timberlands are located in Sequoia National Forest, the U.S. Forest Service has principal jurisdiction, which encompasses over 3 million acres. The U.S. Forest Service leases these federal lands for timber harvests."[15]

As the proposed Project is located on the Valley floor, there is no timberland or forest in the Project vicinity.

Regulatory Setting

Federal

Federal regulations for agriculture and forest resources are not relevant to this project because it is not a federal undertaking (the Project site is not located on lands administered by a federal agency, and the Project applicant is not requesting federal funding or any federal permits).

State

California Environmental Quality Act (CEQA) Definition of Agricultural Lands

Public Resources Code Section 21060.1 defines "agricultural land" for the purposes of assessing environmental impacts using the FMMP. The FMMP was established in 1982 to assess the location, quality, and quantity of agricultural lands and the conversion of these lands. The FMMP serves as a tool to analyze agricultural land use and land use changes throughout California. As such, this Project is being evaluated using the FMMP pursuant to CEQA.

California Department of Conservation, Division of Land Resource Protection Farmland Mapping and Monitoring Program

The California Department of Conservation (DOC) applies the Natural Resources Conservation Service (NRCS) soil classifications to identify agricultural lands. These agricultural designations are used in planning for the present and future of California's agricultural land resources. Pursuant to the DOC's FMMP, these designated agricultural lands are included in the Important Farmland Maps (IFM). As noted earlier the FMMP was established in 1982 to assess the location, quality and quantity of agricultural lands, and the conversion of these lands. The FMMP serves as tool to analyze agricultural land use and land use changes throughout California. The DOC has a minimum mapping unit of 10 acres, with parcels that are smaller than 10 acres being absorbed into the surrounding classifications.

The following list provides a comprehensive description of all the categories mapped by the DOC. Collectively, lands classified as Prime Farmland, Farmland of Statewide Importance, and Unique Farmland are referred to as Farmland.[16]

- Prime Farmland. Farmland that has the best combination of physical and chemical features able to sustain long-term agricultural production. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.
- Farmland of Statewide Importance. Farmland similar to Prime Farmland but with minor shortcomings, such as greater slopes or less ability to store soil moisture. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.

[14] Tulare County General Plan 2030 Update Recirculated Draft EIR (SCH # 2006041162). Page 3.10-6. Accessed December 2019 at: http://generalplan.co.tulare.ca.us/documents.html then locate "Recirculated Draft Environmental Impact Report February 2010 Draft", select "Recirculated DEIR". And, Tulare County General Plan 2030 Update Background Report. Page 4-25. Tulare County. General Plan 2030 Update Background Report. Accessed December 2019 at: http://generalplan.co.tulare.ca.us/documents.html then locate "Background Report February 2010", select "February 2010 Background Report".

[15] Ibid. 4-20.

[16] California Department of Conservation. FMMP – Important Farmland Map Categories. Accessed December 2020 at: ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2016/ ; then select tul16_no. pdf.

- Unique Farmland. Farmland of lesser quality soils used for the production of the State's leading agricultural crops. This land is usually irrigated, but may include non-irrigated groves or vineyards as found in some climatic zones in California. Land must have been cropped at some time during the four years prior to the mapping date.
- Farmland of Local Importance. Land of importance to the local agricultural economy as determined by each county's board of supervisors and a local advisory committee.
- Grazing Land. Land on which the existing vegetation is suited to the grazing of livestock. This category was developed in cooperation with the California Cattlemen's Association, University of California Cooperative Extension, and other groups interested in the extent of grazing activities. The minimum mapping unit for Grazing Land is 40 acres.
- Urban and Builtup Land. Land occupied by structures with a building density of at least 1 unit to 1.5 acres, or approximately 6 structures to a 10-acre parcel. This land is used for residential, industrial, commercial, institutional, public administrative purposes, railroad and other transportation yards, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, water control structures, and other developed purposes.
- Other Land. Land not included in any other mapping category. Common examples include low density rural developments; brush, timber, wetland, and riparian areas not suitable for livestock grazing; confined livestock, poultry or aquaculture facilities; strip mines and borrow pits; and water bodies smaller than 40 acres. Vacant and nonagricultural land surrounded on all sides by urban development and greater than 40 acres is mapped as Other Land.

California Land Conservation Act (Williamson Act)

The Williamson Act, also known as the California Land Conservation Act of 1965, enables local governments to enter into contracts with private landowners for the purpose of restricting specific parcels of land to agricultural or related open space use. In return, landowners receive property tax assessments which are much lower than normal because they are based upon farming and open space uses as opposed to full market value. The Department of Conservation assists all levels of government, and landowners in the interpretation of the Williamson Act related government code. The Department also researches, publishes and disseminates information regarding the policies, purposes, procedures, and administration of the Williamson Act according to government code. Participating counties and cities are required to establish their own rules and regulations regarding implementation of the Act within their jurisdiction. These rules include but are not limited to: enrollment guidelines, acreage minimums, enforcement procedures, allowable uses, and compatible uses.[17]

Williamson Act Contracts are formed between a county or city and a landowner for the purpose of restricting specific parcels of land to agricultural or related open space use. Private land within locally-designated agricultural preserve areas are eligible for enrollment under a contract. The minimum term for contracts is ten years. However, since the contract term automatically renews on each anniversary date of the contract, the actual term is essentially indefinite. Landowners receive substantially reduced property tax assessments in return for enrollment under a Williamson Act contract. Property tax assessments of Williamson Act contracted land are based upon generated income as opposed to potential market value of the property.[18]

Forestry Resources

State regulations regarding forestry resources are not relevant to the proposed project because no forestry resources exist at the Project site.

Local

County of Tulare

The Tulare County General Plan has a number of policies that apply to projects within the County of Tulare.[19] The following General Plan policies apply to the proposed Project: Policies designed to promote future development patterns that focus growth within established community areas and to mitigate loss of agricultural lands include the following: *AG-1.4 Primary Land Use* wherein the County shall support non-renewal or cancellation processes that meet State law for lands within UDBs and HDBs; *AG-1.6 Conservation Easements* wherein the County shall consider developing an Agricultural Conservation Easement Program (ACEP) to help protect and preserve agricultural lands (including "Important Farmlands"), as defined in this Element; *AG-1.8 Agriculture within Urban Boundaries* wherein the County shall not approve applications for preserves or regular Williamson Act contracts on lands located within a UDB and/or HDB unless it is demonstrated that the restriction of such land will not detrimentally affect the growth of the community involved for the succeeding 10 years, that the property in question has special public values for open space, conservation, other comparable uses, or that the contract is consistent with the publicly

[17] California Department of Conservation. Williamson Act Program. Accessed December 2020 at: https://www.conservation.ca.gov/dlrp/wa.
[18] California Department of Conservation. Williamson Act Contracts. Accessed December 2020 at: https://www.conservation.ca.gov/dlrp/wa/Pages/contracts.aspx.
[19] Tulare County General Plan 2030 Update, Part 1 – Goals and Policies Report.

desirable future use and control of the land in question. If proposed within a UDB of an incorporated city, the County shall give written notice to the affected city pursuant to Government Code §51233; *LU-1.1 Smart Growth and Healthy Communities* wherein the County shall promote the principles of smart growth and healthy communities in UDBs and HDBs, including:

1. Creating walkable neighborhoods,
2. Providing a mix of residential densities,
3. Creating a strong sense of place,
4. Mixing land uses,
5. Directing growth toward existing communities,
6. Building compactly,
7. Discouraging sprawl,
8. Encouraging infill,
9. Preserving open space,
10. Creating a range of housing opportunities and choices,
11. Utilizing planned community zoning to provide for the orderly pre-planning and long term development of large tracks of land which may contain a variety of land uses, but are under unified ownership or development control, and
12. Encouraging connectivity between new and existing development;

LU-1.8 Encourage Infill Development wherein the County shall encourage and provide incentives for infill development to occur in communities and hamlets within or adjacent to existing development in order to maximize the use of land within existing urban areas, minimize the conversion of existing agricultural land, and minimize environmental concerns associated with new development;*LU-2. Agricultural Lands* the County shall maintain agriculturally-designated areas for agriculture use and by directing urban development away from valuable agricultural lands to cities, unincorporated communities, hamlets, and planned community areas where public facilities and infrastructure are available; *LU-2.2 Agricultural Parcel Splits* wherein the County shall deny requests to create parcels less than the minimum allowed size in agricultural designated areas, unless specifically provided by Division of Land Exceptions in the Tulare County Zoning Ordinance, as may be adopted by the Board of Supervisors, based on concerns that these parcels are less viable economic farming units and that the resultant increase in residential density increases the potential for conflict with normal agricultural practices on adjacent parcels. Evidence that the affected parcel may be an uneconomic farming unit due to its current size, soil conditions, or other factors shall not alone be considered a sufficient basis to grant an exception. The RVLP shall be the tool to determine the viability of a given agricultural parcel in the valley and its ability to be subdivided, unless specifically provided by Division of Land Exceptions in the Tulare County Zoning Ordinance; *LU-2.5 Agricultural Support Facilities* wherein the County shall encourage beneficial reuse of existing or vacant agricultural support facilities for new businesses (including non-agricultural uses); *PF-1.1 Maintain Urban Edges* wherein the County shall strive to maintain distinct urban edges for all unincorporated communities within the valley region or foothill region, while creating a transition between urban uses and agriculture and open space; *PF-1.2 Location of Urban Development* wherein the County shall ensure that urban development only takes place in the following areas:

1. Within incorporated cities and CACUDBs;
2. Within the UDBs of adjacent cities in other counties, unincorporated communities, planned community areas, and HDBs of hamlets;
3. Within foothill development corridors as determined by procedures set forth in Foothill Growth Management Plan;
4. Within areas set aside for urban use in the Mountain Framework Plan and the mountain sub-area plans; and
5. Within other areas suited for non-agricultural development, as determined by the procedures set forth in the Rural Valley Lands Plan; *PF-1.3 Land Uses in UDBs/HDBs* wherein the County shall encourage those types of urban land uses that benefit from urban services to develop within UDBs and HDBs. Permanent uses which do not benefit from urban services shall be discouraged within these areas. This shall not apply to agricultural or agricultural support uses, including the cultivation of land or other uses accessory to the cultivation of land provided that such accessory uses are time-limited through Special Use Permit procedures;

   PF-1.4 Available Infrastructure wherein the County shall encourage urban development to locate in existing UDBs and HDBs where infrastructure is available or may be established in conjunction with development. The County shall ensure that development does not occur unless adequate infrastructure is available, that sufficient water supplies are available or can be made available, and that there are adequate provisions for long term management and maintenance of infrastructure and identified water supplies; *PF-1.5 Planning Areas* wherein County policies reflect the unique attributes of the various locations and geographic areas in the County. As such, there are policies applicable to one area of the County that are not applicable to others based on natural setting, topography, habitat, existing development, or other attributes which are unique within the planning context of the County; *PF-1.6 Appropriate Land Uses by Location* wherein the County shall utilize the Land Use Element and adopted CAC General Plans, Community Plans, Hamlet Plans, Planned Communities, Corridor Areas, or Area Plans to designate land uses and intensities that reflect and maintain the appropriate level of urbanized development in each CAC General Plan, Community Plan, Hamlet Plan, Planned Community, Corridor Area, or Area Plan; *PF-2.3 UDB and Other Boundaries* wherein the County shall

provide notice and opportunity for special districts, school districts, and other service providers when evaluating the expansion of a Community's UDB; and *PF-2.4 Community Plans* wherein the County shall ensure that community plans are prepared, updated, and maintained for each of the communities. These plans shall include the entire area within the community's UDB and shall address the community's short and long term ability to provide necessary urban services.

Rural Valley Land Plans

For the unincorporated valley portions of Tulare County, growth is guided by the land use policies in the Rural Valley Lands Plan (RVLP)[20] and Planning Framework Element[21] of the Tulare County General Plan 2030 Update.

"Tulare County has identified land for urbanization according to four categories: 1) lands in and around incorporated cities, 2) lands in and around unincorporated communities, 3) lands in foothill development corridors, and 4) lands that qualify under the RVLP. The county is legally responsible for the planning and regulation of all lands that fall outside incorporated city limits, even though cities adopt their own general plans for the incorporated area and a portion of surrounding unincorporated area."[22]

"The RVLP applies to about 773,500 acres of the valley portion of the County, outside the planned Urban Development Boundaries (UDB) and generally below the 600-foot elevation contour line along the foothills of the Sierra Nevada Mountain Range. … The purpose of the RVLP is to protect and maintain the agricultural viability of rural valley areas by establishing requirements for exclusive agricultural zoning (containing minimum parcel sizes) appropriate to sustain agriculture and implementing a policy that utilizes resource information to determine the suitability of rural lands for nonagricultural uses. The goal of the RVLP is to "sustain the viability of Tulare County agriculture by restraining division and use of land which is harmful to continued agricultural use." The RVLP utilizes five exclusive agriculture (AE) zones, each requiring a different minimum parcel size (ranging from five to eighty acres). These zones are as follows: AE, AE-10, AE-20, AE-40, and AE-80. The number designation on each zone generally reflects the minimum acres of land needed to productively farm a certain crop at a commercial level."[23]

"In order to grant an exception for the use of the AE zone on properties that have minimal or no agricultural value, a point system is used to evaluate property suitability. Points are awarded for various factors such as parcel size, available public services, and surrounding land uses. Parcels determined to be more suitable for nonagricultural uses may be zoned (discretionary review required) for urban/suburban uses. Parcels that do not meet the requirements for rezoning are not allowed to rezone and must remain agriculturally zoned. … The RVLP point system [is used] to determine whether a site is suitable to rezone from an agricultural zone on the Valley floor to an urban zone. The county shall not allow re-zoning of parcels that accumulate 17 or more points according to the RVLP Development Criteria. If the number of points accumulated is 11 or less, the parcel may be considered for nonagricultural zoning. A parcel receiving 12 to 16 points shall be determined to have fallen within a "gray" area in which no clear cut decision is readily apparent. In such instances, the Planning Commission and Board of Supervisors shall make a decision based on the unique circumstances pertaining to the particular parcel of land, including factors not covered by this system."[24]

Tulare County Agricultural Conservation Easement Program

The Tulare County Agricultural Conservation Easement Program (ACEP, see Appendix "A") was established to allow the use of agricultural easements to reduce or mitigate any significant impacts resulting from the conversion of certain agricultural land to non-agricultural uses. Resolution 2016-0323, adopted by the Tulare County Board of Supervisors on May 3, 2016, requires the use of farmland conservation easements or other farmland conservation mechanisms for projects requiring County discretionary land use entitlements and the conversion of five (5) or more acres of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural uses.

"CRITERIA FOR AN EASEMENT: A "Farmland conservation easement" means for the purposes of this ACEP, an easement over agricultural land for the purpose of restricting its use for the term set forth in this resolution for primarily agricultural and agricultural-compatible uses. Any easement offered or used under this program shall, at a minimum, meet these criteria:

A) Preferably the easement will be located in Tulare County but other suitable land may be encumbered subject to approval by the Board of Supervisors.

[20] Tulare County General Plan 2030 Update, Part II – Area Plan Policies, Chapter 1 – Rural Valley Lands Plan.
[21] Tulare County General Plan 2030 Update, Part I – Goals and Policies Report, Chapter 2 – Planning Framework.
[22] Tulare County General Plan 2030 Update Background Report. Page 3-6.
[23] Ibid. 3-13.
[24] Op. Cit. 3-14.

B) The easement will include Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency.
C) The land placed under the easement must be of substantially the same quality, have or could acquire access to water, and could otherwise be feasibly cultivated.
D) The land placed under the easement must be at a minimum of a one to one (1:1) ratio or its functional equivalent to the loss of defined agricultural lands mitigated." [25]

Project Impacts Analysis

a) Less Than Significant Impact: As noted earlier, the Project is consistent with the Goshen Community Plan Update wherein the Project is located on land zoned as Mixed Use which allows the proposed Project to be developed. The Goshen Community Plan Update has accounted for the eventual transition of agricultural lands into urban-type uses, including residential uses. The site is ideally suited for conversion as it provides a contiguous, practical expansion of urban uses. As shown in the FMMP Map provided in the Goshen Community Plan Update (**Figure 2-1 FMMP Map** in this document), the site is located on Prime Farmland.[26] It is also noted that the Tulare County General Plan 2030 Update Revised EIR (General Plan Revised EIR or Revised EIR) accounted for the conversion of agricultural lands, both Prime and Statewide Importance, in Goshen.[27] As noted in the General Plan Revised EIR, "A primary impact to County agricultural lands includes the loss of productive agricultural lands due to the conversion of important farmlands (i.e., Prime Farmland, Unique Farmland, and Farmland of Statewide Importance) to other uses. Future growth resulting from implementation of the proposed project would result in both the direct and indirect conversion of additional important farmlands to urban and other non-farming uses. In keeping with the primary objectives of the General Plan 2030 Update, the majority of impacts to important farmlands will occur within the future growth areas (i.e., CACUDBs, HDBs and CACUABs) of the County (see Figure 3-10.3 [in the Revised EIR)."[28]). Also, "County policies will (1) support continued agricultural uses, (2) seek to reduce conflicts between agricultural and urban uses ("right to farm" ordinance); and (3) coordinate regional efforts to preserve farmland within Tulare County. However, while these policies would continue to promote the continued conservation of important farmlands, it would not prevent an overall net loss of important farmlands within the County associated with future development within existing agricultural areas. Therefore, implementation of the General Plan 2030 Update including the adoption of the policies and implementation measures listed above would still result in a significant impact. No additional feasible mitigation is currently available."[29] Lastly, as noted in the Revised EIR, "Outside of the policies included in the General Plan 2030 Update (including policies *AG-1.6 Conservation Easements*, *AG-1.18 Farmland Trust and Funding Sources*, and Agriculture Element Implementation Measure #15), no additional feasible mitigation measures are currently available to reduce this impact to a less than significant level. Consequently, this impact is considered significant and unavoidable."[30]

a) Less Than Significant Impact: The applicant has decided to discontinue agricultural uses on the site and to pursue an allowed use; i.e., residential development. To that end, the proposed Project would result in the conversion of Prime Farmland (as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program (FMMP) of the California Resources Agency[31]), to a non-agricultural use. The Project site is zoned C-2-MU (Community Commercial-Mixed Use) which allows residential uses (among other uses) and is incorporated into the Goshen Community Plan Update to provide an opportunity for residential development where it can be accommodated. Conversion/loss of agricultural lands has been accounted for in the Tulare County General Plan 2030 Update Revised EIR and the Goshen Community Plan Update and accompanying EIR. Therefore, as this Project is consistent with the Goshen Community Plan Update (and accompanying EIR) and the Tulare County General Plan 2030 Update Revised EIR, the Project would result in a less than significant impact.

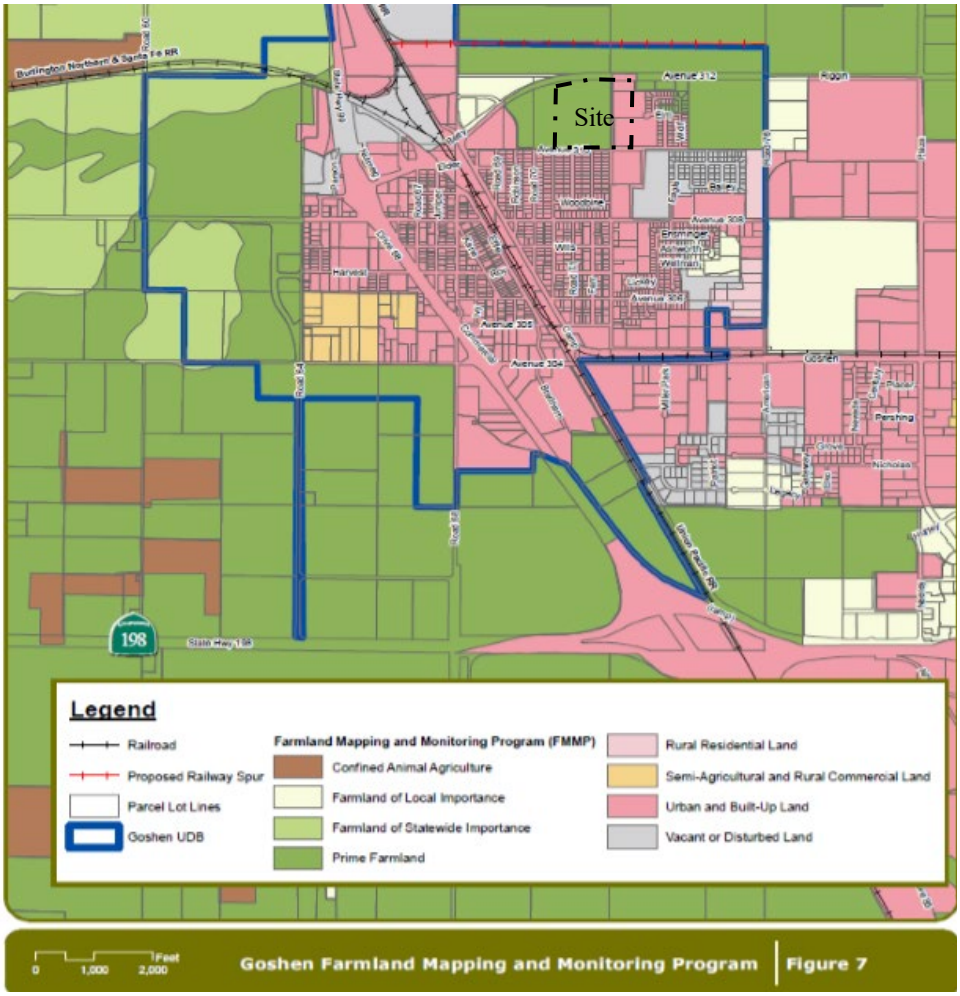
b) No Impact: The Project site is zoned C-2-MU (Community Commercial-Mixed Use) and is not under a Williamson Act Contract. The C-2-MU zone allows residential uses (among other uses) and was incorporated into the Goshen Community Plan Update to provide an opportunity for residential development where it can be accommodated. The Williamson Act enables

[25] Tulare County Agricultural Conservation Easement Program. Pages 6 to 7.
[26] Goshen Community Plan Update. Page 54. Available online at: http://generalplan.co.tulare.ca.us/documents/GP/001Adopted%20Tulare%20County%20General%20Plan%20Materials/120Part%20III%20Community%20Plans%201%20of%207/005Goshen/GPA%2014-001%20GOSHEN%20COMMUNITY%20PLAN.pdf.
[27] Tulare County General Plan 2030 Update Recirculated EIR. Table 3.10-6 Page 3.10-12. Accessed September 2019. http://generalplan.co.tulare.ca.us/documents.html then locate "Recirculated Draft Environmental Impact Report February 2010 Draft", select "Recirculated DEIR
[28] Ibid. 3.10-11.
[29] Op. Cit. 3.10-15.
[30] Op. Cit. 3.10-19.
[31] Goshen Community Plan Update. Page 54. Available online at: http://generalplan.co.tulare.ca.us/documents/GP/001Adopted%20Tulare%20County%20General%20Plan%20Materials/120Part%20III%20Community%20Plans%201%20of%207/005Goshen/GPA%2014-001%20GOSHEN%20COMMUNITY%20PLAN.pdf

local governments to enter into contracts with private landowners that restrict land use to agricultural or related uses in return for lower property tax assessments. Local governments are responsible for the implementation of this program; therefore, the rules that determine compatible uses within a contract vary by jurisdiction. As such, the proposed Project would not conflict with existing zoning or a Williamson Act Contract and no impact would occur.

c) and d) No Impact: The Project will not occur on land zoned as forest land or timberland, or result in a loss of forest land. As such, the Project would not conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources code 12220(g), timberland (as defined in Public Resource Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g)).

Figure 2-1 FMMP Map



e) No Impact: The Project site is not located near land zoned as forest land or timberland and therefore would not result in any changes in the environment that might convert forest land to non-forest land. The proposed Project would result in the use of approximately 69.13 acres of farmland to a non-agricultural for residential uses (on 64.5 acres). Therefore, no other changes to the environment are anticipated that could result in the conversion of farmland to non-farmland. There would be no impact on this item.

Cumulative Impacts Analysis

- The overall cumulative impact to agricultural resources has been accounted for in the Tulare County General Plan 2030 Update Revised EIR and the Goshen Community Plan Update and accompanying EIR. As noted in the General Plan Revised EIR, "As noted previously (see Section 3.10, "Agricultural Resources" [in the Revised EIR]), growth associated with implementation of the proposed project along with development within CACUDBs would result in a loss of some existing agricultural lands within the County. While the proposed project includes policies to minimize this impact, there would still be a project level significant

and unavoidable impact. The loss of agricultural land within the County as a result of urban development is part of an overall trend within the San Joaquin Valley and the County will continue to face development pressure in the foreseeable future. As more fully described in Section 3.10, "Agricultural Resources" [in the Revised EIR], the proposed project does include several policies stating that the County will work at a regional level to control the conversion of agricultural uses. However, since the County is projected to continue to urbanize, the loss of agricultural lands as a result of the proposed project would contribute considerably to a significant and unavoidable cumulative impact to agricultural resources."[32] This Project is consistent with earlier determinations and does not compound nor contribute to exacerbation of an already determined cumulative impact. As such, the Project is consistent with the Tulare County General Plan 2030 Update EIR as it relates to the agricultural resource.

3.	**AIR QUALITY**					
	Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations.					
Would the project:			**SIGNIFICANT IMPACT**	**LESS THAN SIGNIFICANT IMPACT WITH MITIGATION**	**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 is other emissions (such as those leading to odors adversely affecting a substantial number of people?	☐	☐	☐	☒

The discussions regarding Environmental Setting, CEQA requirements, Regulatory Setting, Chapter 3.3 Air Quality, Chapters 4 through 9, Appendices "A" through "I", etc. contained in the Goshen Community Plan Update and Environmental Impact Report are incorporated herein in their entirety. Where necessary and if available, additional site specific facts, data, information, etc., are included in this discussion.

Environmental Setting

The proposed Project is located in the San Joaquin Valley Air Basin (SJVAB), a continuous inter-mountain air basin. The Sierra Nevada Range forms the eastern boundary; the Coast Range forms the western boundary; and the Tehachapi Mountains form the southern boundary. These topographic features restrict air movement through and beyond the SJVAB. The SJVAB is comprised of San Joaquin, Stanislaus, Merced, Madera, Fresno, Kings, and Tulare Counties and the valley portion of Kern County; it is approximately 25,000 square miles in area. Tulare County lies within the southern portion of the SJVAB. Topography and climate in the SJVAB are unusually favorable for the development of air pollution, especially in the southern portion of the air basin where pollutants build up against the Tehachapi Mountains. Due to the SJVAB's light wind patterns, long periods of warm and sunny days, and surrounding mountains, air quality problems can occur at any time of the year. Air resources in the SJVAB are managed by the San Joaquin Valley Unified Air Pollution Control District (Air District or SJVAPCD).

Ambient Air Quality Standards

Both the federal government (through the United State Environmental Protection Agency (EPA)) and the State of California (through the California Air Resources Board (CARB or ARB)) have established health-based ambient air quality standards (AAQS) for six air pollutants, commonly referred to as "criteria pollutants." The six criteria pollutants are: carbon monoxide (CO), ozone (O3), sulfur dioxide (SO2), nitrogen dioxide (NO2), particulate matter (PM10 and PM2.5), and lead (Pb).

National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) have been established for each criteria pollutant to protect the public health and welfare. The federal and state standards were developed

[32] Tulare County General Plan 2030 Update Recirculated EIR. Page 5-12. Accessed December 2020 at: http://generalplan.co.tulare.ca.us/documents.html then locate "Recirculated Draft Environmental Impact Report February 2010 Draft", select "Recirculated DEIR.

independently with differing purposes and methods, although both processes are intended to avoid health-related effects. As a result, the federal and state standards differ in some cases. In general, the California state standards are more stringent. NAAQS and CAAQS are provided in **Table 3-1**.

Table 3-1
State and Federal Ambient Air Quality Standards[33]

Pollutant	Averaging Time	California Standards	National Standards	
			Primary	Secondary
Ozone (O_3)	1-hour	0.09 ppm (180 µg/m^3)	---	Same as Primary
	8-hour	0.070 ppm (137 µg/m^3)	0.070 ppm (137 µg/m^3)	
Respirable Particulate Matter (PM_{10})	24-hour	50 µg/m^3	150 µg/m^3	Same as Primary
	Annual Arithmetic Mean	20 µg/m^3	---	
Fine Particulate Matter ($PM_{2.5}$)	24-hour	---	35 µg/m^3	Same as Primary
	Annual Arithmetic Mean	12 µg/m^3	12 µg/m^3	15 µg/m^3
Carbon Monoxide (CO)	1-hour	20 ppm (23 mg/m^3)	35 ppm (40 mg/m^3)	---
	8-hour	9.0 ppm (10 mg/m^3)	9 ppm (10 mg/m^3)	---
Nitrogen Dioxide (NO_2)	1-hour	0.18 ppm (339 µg/m^3)	100 ppb (188 µg/m^3)	Same as Primary
	Annual Arithmetic Mean	0.030 ppm (57 µg/m^3)	0.053 ppm (100 µg/m^3)	
Sulfur Dioxide (SO_2)	1-hour	0.25 ppm (655 µg/m^3)	75 ppb (196 µg/m^3)	---
	3-hour	---	---	0.5 ppm (1300 µg/m^3)
	24-hour	0.04 ppm (105 µg/m^3)	0.14 ppm (certain areas)	---
	Annual Arithmetic Mean	---	0.030 ppm (certain areas)	---
Lead (Pb)	30-day Average	1.5 µg/m^3	---	---
	Calendar Quarter	---	1.5 µg/m^3 (certain areas)	Same as Primary
	Rolling 3-month Average	---	0.15 µg/m^3	
Visibility Reducing Particles	8-hour	instrumental equivalents "extinction of 0.23 per kilometer"	No National Standards	
Sulfates	24-hour	25 µg/m^3		
Hydrogen Sulfide (H_2S)	1-hour	0.03 ppm (42 µg/m^3)		
Vinyl Chloride	24-hour	0.01 ppm (26 µg/m^3)		

Attainment Status

Air basins are designated as attainment or nonattainment for both federal and state AAQS. Attainment is achieved when monitored ambient air quality data is in compliance with the standards for a specified pollutant. Non-compliance with an established standard will result in a nonattainment designation and an unclassified designation indicates insufficient data is available to determine compliance for that pollutant.

[33] California Air Resources Board. Ambient Air Quality Standards. Accessed December 2020 at: https://ww3.arb.ca.gov/research/aaqs/aaqs2.pdf.

The SJVAB is considered to be in attainment for federal and state air quality standards for carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2); attainment for federal and non-attainment for state air quality standards for respirable particulate matter (PM_{10}); and non-attainment of state and federal air quality standards for ozone (O_3) and fine particulate matter ($PM_{2.5}$). Attainment status for listed federal and state criteria pollutant standards in the SJVAB can be found in **Table 3-2**.

Table 3-2
SJVAB Attainment Status[34]

	Designation/Classification	
Pollutant	**Federal Standards**	**State Standards**
Ozone – one hour	No Federal Standard[1]	Nonattainment/Severe
Ozone – eight hour	Nonattainment/Extreme[2]	Nonattainment
PM_{10}	Attainment[3]	Nonattainment
$PM_{2.5}$	Nonattainment[4]	Nonattainment
CO	Attainment/Unclassified	Attainment/Unclassified
Nitrogen Dioxide	Attainment/Unclassified	Attainment
Sulfur Dioxide	Attainment/Unclassified	Attainment
Lead	No Designation/Classification	Attainment
Hydrogen Sulfide	No Federal Standard	Unclassified
Sulfates	No Federal Standard	Attainment
Vinyl Chloride	No Federal Standard	Attainment
Visibility Reducing Particles	No Federal Standard	Unclassified

1 Effective June 15, 2005, the U.S. EPA revoked the federal 1-hour ozone standard, including associated designations and classifications. However, EPA had previously classified the SJVAB as extreme nonattainment for this standard. Many applicable requirements for extreme 1-hour ozone nonattainment areas continue to apply to the SJVAB.

2 Though the Valley was initially classified as serious nonattainment for the 1997 8-hour ozone standard, EPA approved Valley reclassification to extreme nonattainment in the Federal Register on May 5, 2010 (effective June 4, 2010)

3 On September 25, 2008, EPA redesignated the San Joaquin Valley to attainment for the PM_{10} National Ambient Air Quality Standard (NAAQS) and approved the PM_{10} Maintenance Plan.

4 The Valley is designated nonattainment for the 1997 $PM_{2.5}$ NAAQS. EPA designated the Valley as nonattainment for the 2006 PM2.5 NAAQS on November 13, 2009 (effective December 14, 2009).

Regulatory Setting

As noted previously, both the federal government (through the United State Environmental Protection Agency (EPA)) and the State of California (through the California Air Resources Board (ARB)) have established health-based ambient air quality standards (AAQS) for six air pollutants, commonly referred to as "criteria pollutants." The six criteria pollutants are: carbon monoxide (CO), ozone (O3), sulfur dioxide (SO2), nitrogen dioxide (NO2), particulate matter (PM10 and PM2.5), and lead (Pb).

Federal

Federal Clean Air Act

"The Federal Clean Air Act (CAA), adopted in 1970 and amended twice thereafter (including the 1990 amendments), establishes the framework for modern air pollution control. The act directs the Environmental Protection Agency (EPA) to establish ambient air standards, the National Ambient Air Quality Standards (NAAQS)… for six pollutants: ozone, carbon monoxide, lead, nitrogen dioxide, particulate matter (less than 10 microns in diameter [PM_{10}] and less than 2.5 microns in diameter [$PM_{2.5}$]), and sulfur dioxide. The standards are divided into primary and secondary standards; the former are set to

[34] San Joaquin Valley Unified Air Pollution Control District. Ambient Air Quality Standards & Valley Attainment Status. Accessed December 2020 at: http://www.valleyair.org/aqinfo/attainment.htm.

protect human health with an adequate margin of safety and the latter to protect environmental values, such as plant and animal life.

Areas that do not meet the ambient air quality standards are called "non-attainment areas". The Federal CAA requires each state to submit a State Implementation Plan (SIP) for non-attainment areas. The SIP, which is reviewed and approved by the EPA, must demonstrate how the federal standards will be achieved. Failing to submit a plan or secure approval could lead to the denial of federal funding and permits for such improvements as highway construction and sewage treatment plants. For cases in which the SIP is submitted by the State but fails to demonstrate achievement of the standards, the EPA is directed to prepare a federal implementation plan or EPA can "bump up" the air basin in question to a classification with a later attainment date that allows time for additional reductions needed to demonstrate attainment, as is the case for the San Joaquin Valley.

SIPs are not single documents. They are a compilation of new and previously submitted plans, programs (such as monitoring, modeling, permitting, etc.), district rules, state regulations and federal controls. The California SIP relies on the same core set of control strategies, including emission standards for cars and heavy trucks, fuel regulations and limits on emissions from consumer products. California State law makes the California Air Resources Board (CARB) the lead agency for all purposes related to the SIP. Local Air Districts and other agencies, such as the Bureau of Automotive Repair and the Department of Pesticide Regulation, prepare SIP elements and submit them to CARB for review and approval. The CARB forwards SIP revisions to the EPA for approval and publication in the Federal Register."[35]

The Federal CAA classifies nonattainment areas based on the severity of the nonattainment problem, with marginal, moderate, serious, severe, and extreme nonattainment classifications for ozone. Nonattainment classifications for PM range from marginal to serious. The Federal CAA requires areas with air quality violating the NAAQS to prepare an air quality control plan referred to as the State Implementation Plan (SIP). The SIP contains the strategies and control measures that states will use to attain the NAAQS. The Federal CAA amendments of 1990 require states containing areas that violate the NAAQS to revise their SIP to incorporate additional control measures to reduce air pollution. The SIP is periodically modified to reflect the latest emissions inventories, planning documents, rules, and regulations of Air Basins as reported by the agencies with jurisdiction over them. The EPA reviews SIPs to determine if they conform to the mandates of the Federal CAA amendments and will achieve air quality goals when implemented. If the EPA determines a SIP to be inadequate, it may prepare a Federal Implementation Plan (FIP) for the nonattainment area and impose additional control measures.

State

The California Clean Air Act

"The California CAA of 1988 establishes an air quality management process that generally parallels the federal process. The California CAA, however, focuses on attainment of the State ambient air quality standards (see Table 3.3-1 [of the General Plan RDEIR]), which, for certain pollutants and averaging periods, are more stringent than the comparable federal standards. Responsibility for meeting California's standards is addressed by the CARB and local air pollution control districts (such as the eight county SJVAPCD, which administers air quality regulations for Tulare County). Compliance strategies are presented in district-level air quality attainment plans.

The California CAA requires that Air Districts prepare an air quality attainment plan if the district violates State air quality standards for criteria pollutants including carbon monoxide, sulfur dioxide, nitrogen dioxide, PM2.5, or ozone. Locally prepared attainment plans are not required for areas that violate the State PM10 standards. The California CAA requires that the State air quality standards be met as expeditiously as practicable but does not set precise attainment deadlines. Instead, the act established increasingly stringent requirements for areas that will require more time to achieve the standards."[36]

"The air quality attainment plan requirements established by the California CAA are based on the severity of air pollution caused by locally generated emissions. Upwind air pollution control districts are required to establish and implement emission control programs commensurate with the extent of pollutant transport to downwind districts."[37]

The California Air Resources Board

[35] Tulare County General Plan 2030 Update REIR. Pages 3.3-1 to 3.3-2.
[36] Ibid. 3.3-2 to 3.3-3.
[37] Op. Cit. 3.3-5.

The ARB is the state agency responsible for implementing the federal and state Clean Air Acts. ARB established CAAQS, which include all criteria pollutants established by the NAAQS, but with additional regulations for visibility reducing particles, sulfates, hydrogen sulfide (H_2S), and vinyl chloride.

"The CARB is responsible for establishing and reviewing the State ambient air quality standards, compiling the California State Implementation Plan (SIP) and securing approval of that plan from the U.S. EPA. As noted previously, federal clean air laws require areas with unhealthy levels of ozone, inhalable particulate matter, carbon monoxide, nitrogen dioxide, and sulfur dioxide to develop SIPs. SIPs are comprehensive plans that describe how an area will attain NAAQS. The 1990 amendments to the Federal CAA set deadlines for attainment based on the severity of an area's air pollution problem. State law makes CARB the lead agency for all purposes related to the SIP. The California SIP is periodically modified by the CARB to reflect the latest emission inventories, planning documents, and rules and regulations of various air basins. The CARB produces a major part of the SIP for pollution sources that are statewide in scope; however, it relies on the local Air Districts to provide emissions inventory data and additional strategies for sources under their jurisdiction. The SIP consists of the emission standards for vehicular sources and consumer products set by the CARB, and attainment plans adopted by the local air agencies as approved by CARB. The EPA reviews the air quality SIPs to verify conformity with CAA mandates and to ensure that they will achieve air quality goals when implemented. If EPA determines that a SIP is inadequate, it may prepare a Federal Implementation Plan for the nonattainment area, and may impose additional control measures.

In addition to preparation of the SIP, the CARB also regulates mobile emission sources in California, such as construction equipment, trucks, automobiles, and oversees the activities of air quality management districts and air pollution control districts, which are organized at the county or regional level. The local or regional Air Districts are primarily responsible for regulating stationary emission sources at industrial and commercial facilities within their jurisdiction and for preparing the air quality plans that are required under the Federal CAA and California CAA."[38]

Regional

San Joaquin Valley Unified Air Pollution Control District

The Project is located within the SJVAB, which includes San Joaquin, Stanislaus, Merced, Madera, Fresno, Kings, and Tulare Counties, and the valley portion of Kern County. The Air District is the local agency charged with preparing, adopting, and implementing mobile, stationary, and area air emission control measures and standards. The Air District "The San Joaquin Valley Air District is a public health agency whose mission is to improve the health and quality of life for all Valley residents through efficient, effective and entrepreneurial air quality management strategies. Our Core Values have been designed to ensure that our mission is accomplished through commonsense, feasible measures that are based on sound science."[39] The Air District's 11 core values include: protection of public health; active and effective air pollution control efforts while seeking to improve the Valley's economic prosperity and grow opportunities for all Valley residents; outstanding customer service; ingenuity and innovation; accountability to the public; open and transparent public processes; recognition of the uniqueness of the San Joaquin Valley; continuous improvement; effective and efficient use of public funds; respect for the opinions and interest of all Valley residents; and robust public outreach and education on Valley air quality progress and continuing air quality efforts.[40] To achieve these core values the Air District has adopted air quality plans pursuant to the California CAA and a comprehensive list of rules to limit air quality impacts.

The Air District has adopted the following attainment plans: the *2004 Extreme Ozone Attainment Demonstration Plan* (for the 1-hour standard of 0.12 ppm); the *2007 Ozone Plan* (for the 1997 8-hour standard of 84 ppb); the *2009 RACT SIP*; the *2013 Plan for the Revoked 1-Hour Ozone Standard*; the *2014 RACT SIP*; the *2016 Plan for the 2008 8-Hour Ozone Standard* (for the 2008 8-hour standard of 75 ppb); the *2007 PM10 Maintenance Plan* (for the 1997 annual standard of 50 $\mu g/m^3$ and 24-hour standard 150 $\mu g/m^3$); the *2008 PM2.5 Plan* (for the 1997 annual standard of 15 $\mu g/m^3$); the *2012 PM2.5 Plan* (for the 2006 24-hour standard of 35 $\mu g/m^3$); the *2015 Plan for the 1997 PM2.5 Standard* (for the 1997annual standard of 15 $\mu g/m^3$and 24-hour standard of 65 $\mu g/m^3$); the *2016 Moderate Area Plan for the 2012 PM2.5 Standard* (for the 2012 annual standard of 12 $\mu g/m^3$); the *2018 Plan for the 1997, 2006, and 2012 PM2.5 Standards* (for annual and 24-hour standards); and the *2004 Revision to the California State Implementation Plan for Carbon Monoxide*.[41] The State does not have an attainment deadline for the ozone standards; however, it does require implementation of all feasible measures to achieve attainment at the earliest date possible. State PM_{10} and $PM_{2.5}$ standards have no attainment planning requirements, but must demonstrate that all measures feasible for the area have been adopted.

[38] Op. Cit. 3.3-6 to 3.3-7.
[39] Air District. About the District – The Air District's Mission. Accessed December 2020 at: http://www.valleyair.org/General_info/aboutdist.htm#Mission.
[40] Ibid. About the District – Core Values. Accessed December 2020 at: http://www.valleyair.org/General_info/aboutdist.htm#Mission.
[41] More information on the Air District's Air Quality Plans can be found online at: http://valleyair.org/Air_Quality_Plans/air-quality-plans.htm.

The Air District has several rules and regulations that may apply to the Project; following is a list of those rules/regulations which are likely to apply to this Project:[42]

- Regulation VIII (Fugitive PM10 Prohibitions) – This regulation is a series of eight rules designed to reduce PM_{10} emissions by reducing fugitive dust emissions. Regulation VIII requires implementation of control measures to ensure that visible dust emissions are substantially reduced.
- Rule 3135 (Dust Control Plan Fees) – This rule requires the project applicant to submit a fee in addition to a Dust Control Plan. The purpose of this rule is to recover the Air District's cost for reviewing these plans and conducting compliance inspections.
- Rule 4002 (National Emission Standards for Hazardous Air Pollutants) – Also known as NESHAPs, this rule applies to all sources of hazardous air pollution and requires developers to comply with federal requirements for handling and usage of hazardous air pollutants (HAPs) to protect the health and safety of the public from HAPs such as asbestos.
- Rules 4101 (Visible Emissions) and 4102 (Nuisance) – These rules apply to any source of air contaminants and prohibit the visible emissions of air contaminants or any activity which creates a public nuisance.
- Rule 4601 (Architectural Coatings) – This rule specifies requirements for the storage, cleanup, and labeling of architectural coatings. The rule applies to any person who supplies, sells, offers for sale, applies, or solicits the application of any architectural coating, or who manufactures, blends or repackages any architectural coating for use within the Air District.
- Rule 4641 (Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations) – This rule applies to the manufacture and use of cutback asphalt, slow cure asphalt and emulsified asphalt for paving and maintenance operations.
- Rule 9510 (Indirect Source Review) – Also known as ISR, this rule requires developers to mitigate project emissions through 1) on-site design features that reduce trips and vehicle miles traveled, 2) controls on other emission sources, and 3) with reductions obtained through the payment of a mitigation fee used to fund off-site air quality mitigation projects. Rule 9510 requires construction-related NOx emission reductions of 20 percent and PM_{10} reductions of 45 percent and operation-related NOx reductions of 33 percent and PM_{10} reductions of 50 percent. These reductions are calculated by comparing the unmitigated baseline emissions and mitigated emissions from the first year of project operation. The Air District recommends using the California Emissions Estimator Model (CalEEMOD) to quantify project emissions and emission reductions. Rule 9510 was adopted to reduce the impacts of development on Air District's attainment plans.

Local

Tulare County General Plan 2030 Update

The Tulare County General Plan 2030 Update contains a number of policies that apply to projects within Tulare County that support air pollutant reduction efforts.[43] The following General Plan policies have potential relevance to the Project's CEQA review: *AQ-1.1 Cooperation with Other Agencies* requiring the County to cooperate with other local, regional, Federal, and State agencies (e.g., Air District) in developing and implementing air quality plans to achieve State and federal Ambient Air Quality Standards to achieve better air quality conditions locally and regionally; *AQ-1.2 Cooperation with Local Jurisdictions* requiring the County to coordinate with regional agencies, such as the Air District, to address cross-jurisdictional air quality issues; *AQ-1.3 Cumulative Air Quality Impacts* requiring development to be located, designed, and construction in a manner that minimizes cumulative air quality impacts; *AQ-1.4 Air Quality Land Use Compatibility* requiring the County to evaluate compatibility of proposed land uses; *AQ-1.5 California Environmental Quality Act (CEQA) Compliance* where the County will ensure that air quality impacts identified during the CEQA review process are consistently and reasonable mitigated when feasible*; AQ-2.2 Indirect Source Review* regarding mitigating air quality impacts associated with the Project to Valley Air District's Rule 9510; *AQ-3.2 Infill near Employment* requiring the County of identify opportunities for infill development near employment areas; *AQ-3.3 Street Design* regarding street designed to encourage transit use, biking, and pedestrian movement;*AQ-3.4 Landscape* regarding the use of ecologically based landscape design principles that can improve local air quality by absorbing CO_2, producing oxygen, providing shade that reduces energy required for cooling, and filtering

[42] A full listing of Air District rules and regulation can be found online at http://valleyair.org/rules/1ruleslist.htm.
[43] Tulare County General Plan 2030 Update, Part 1 – Goals and Policies Report.

particulates; and *AQ-4.2 Dust Suppression Measures* regarding implementation of dust suppression measures during excavation, grading, and site preparation activities consistent with Air District Regulation VIII – Fugitive Dust Prohibitions.

Goshen Community Plan Update

The Goshen Community Plan Update and Environmental Impact Report serve as a general guide for both public and private decisions affecting the Community of Goshen, and provides for the overall direction, density, and type of growth consistent with the needs of the community. [44, 45] The Community Plan includes goals and objectives that promote development within planning areas next to regional State Route 99; encourages infill development within the Urban Development Boundary, thereby discouraging leapfrog development; and reduces vehicle miles travelled, thereby reducing exhaust emissions and positively affecting air pollutant emission reductions.[46] The Community Plan also identifies the General Plan policies that are applicable to the Community Plan. The General Plan policies related to air quality that are applicable to this Project are identified in the discussion above.[47]

Project Impact Analysis:

a) Less Than Significant Impact: Air quality plans (also known as AQPs or attainment plans) and subsequent rules are used to bring the applicable air basin into attainment with federal AAQS designed to protect the health and safety of residents within that air basin. In order to show attainment of the standards, the Air District analyzes the growth projections in the SJVAB, contributing factors in the formation and emission of air pollutants, and existing and future emissions controls. The Air District then formulates an AQP which details the Air District's control strategy to reach attainment. The Air District's 2016 Plan for the 2008 8-Hour Ozone Standard, 2013 Plan for the Revoked 1-Hour Ozone Standard, 2007 Ozone Plan, 2007 PM_{10} Maintenance Plan and Request for Redesignation, 2008 $PM_{2.5}$ Plan, 2012 $PM_{2.5}$ Plan, 2015 Plan for the 1997 $PM_{2.5}$ Standard, and the 2016 Moderate Area Plan for the 2012 $PM_{2.5}$ Standard outline a number of control strategies to help the SJVAPCD reach attainment for the revoked federal 1-hour ozone standard, the 24-hour PM_{10} standard, and the federal and state $PM_{2.5}$ standards, respectively. The 2008 $PM_{2.5}$ Plan, 2012 $PM_{2.5}$ Plan, and 2015 Plan for the 1997 $PM_{2.5}$ Standard focus specifically on $PM_{2.5}$, although the control strategies from previous PM10 plans (particularly those related to fugitive dust control) have already improved the SJVAB ambient $PM_{2.5}$ levels. Therefore, because fugitive dust controls continue to be addressed in the PM_{10} plan, the plans contain a comprehensive list of strict regulatory and incentive-based measures to reduce directly-emitted $PM_{2.5}$ and precursor emissions. The San Joaquin Valley Air Basin is in attainment for CO, SO_2, and lead, so there are no attainment plans for those pollutants.[48] The proposed Project will be required to comply with all applicable Air District rules and regulations including, but not limited to, Regulation VIII (Fugitive PM_{10} Prohibitions) requirements and District Rule 9510 (Indirect Source Review).

The Air District's *Guidance for Assessing and Mitigating Air Quality Impacts* (GAMAQI) states, "…the District has established thresholds of significance for criteria pollutant emissions, which are based on District New Source Review (NSR) offset requirements for stationary sources. Stationary sources in the District are subject to some of the toughest regulatory requirements in the nation. Emission reductions achieved through implementation of District offset requirements are a major component of the District's air quality plans. Thus, projects with emissions below the thresholds of significance for criteria pollutants would be determined to 'Not conflict or obstruct implementation of the District's air quality plan'."[49] The Air District's thresholds of significance are provided in **Table 3-3**.

[44] Goshen Community Plan Update. Available online at: http://generalplan.co.tulare.ca.us/documents/GP/001Adopted%20Tulare%20County%20General%20Plan%20Materials/120Part%20III%20Community%20Plans%201%20of%207/005Goshen/GPA%2014-001%20GOSHEN%20COMMUNITY%20PLAN.pdf .

[45] Goshen Community Plan Update EIR and associated documents can be found online at https://tularecounty.ca.gov/rma/index.cfm/projects/planning-projects/environmental-documents/goshen-community-plan-update/.

[46] Goshen Community Plan Update. Planning Framework – Tulare County 2030 General Plan Implementation. Page 97.

[47] Goshen Community Plan Update. General Plan Policies – Air Quality. Pages 139 to 141.

[48] More information on Air District air quality plans can be found online at http://valleyair.org/Air_Quality_Plans/air-quality-plans.htm.

[49] Air District. GAMAQI. Page 65. Available online at www.valleyair.org/transportation/GAMAQI_3-19-15.pdf.

Table 3-3 Air District Thresholds of Significance			
Pollutant / Precursor	Construction Emissions	Operational Emissions	
		Permitted Equipment and Activities	Non-Permitted Equipment and Activities
	Emissions (tpy)	Emissions (tpy)	Emissions (tpy)
CO	100	100	100
NOx	10	10	10
ROG	10	10	10
SOx	27	27	27
PM_{10}	15	15	15
$PM_{2.5}$	15	15	15
Source: San Joaquin Valley Unified Air Pollution Control District. Air Quality Thresholds of Significance – Criteria Pollutants. http://www.valleyair.org/transportation/0714-GAMAQI-Criteria-Pollutant-Thresholds-of-Significance.pdf. Accessed December 2020.			

"Determination of whether a project would exceed the applicable thresholds of significance for criteria pollutants requires quantification of project specific emissions. To streamline the process of assessing significance of criteria pollutant emissions from commonly encountered projects, the District has developed the screening tool, Small Project Analysis Level (SPAL). Using project type and size, the District has pre-quantified emissions and determined a size below which it is reasonable to conclude that a project would not exceed applicable thresholds of significance for criteria pollutants."[50] The applicable SPAL threshold for single-family residential developments is 155 single-family residential units with fewer than 15 heavy-duty truck trips and 800 trips for all other vehicle types.[51] As the Project exceeds the Air District's SPAL threshold, emissions quantification is required.

For the purposes of this analysis, the proposed Project is compared to the Cross Creek Bend Project, a similar project in the community in Goshen, which includes the development of 403 single-family residential units on an approximately 69-acre site.[52] As discussed below, the Air Quality Analysis for the Cross Creek Bend Project concluded that the development would have a less than significant impact on air quality. As such, it is reasonable to conclude that the development of the 206 single-family residential units on the approximately 37-acre site proposed by this Project (approximately 51% of the units and 54% of the acreage as compared to the Cross Creek Bend Project) would also have a less than significant impact on air quality

"Consistent with the Air District guidance, Project-related construction and operation emissions have been estimated using CalEEMod, Version 2016.3.2 (the most recent version of the model). The CalEEMod modeling results can be found in Attachment "A" [of the Cross Creek Bend MND]. Construction phasing was based on information provided by the Project applicant while off-road construction equipment and on-road employee, hauling, and vendor vehicle estimates were based on model default values for construction activities, timeline and equipment usage. Model defaults for operational activities were used, except as project-specific information could be utilized. The following changes to default values were used:

- *Project Characteristics – Operational Year:* Phase 1 default construction timeline indicates that construction would be completed in January 2022. However, a 2021 operational year was used as operations for Phase 1 will begin in 2021. [For this Project, construction of Phase 1 would be completed in January 2023, with an operational year of 2022.]

- *Project Characteristics – Land Use Setting:* Although the Project is located within the Urban Development Boundary, the rural land use was selected as the Project is within a sparsely developed area.

- *Land Use – Lot Acreage:* The Project will be developed with a density greater than the model default. The Project site is ±69.4 acres; as such, the lot acreage per phase (17.5 acres) was applied evenly between the four phases.

[50] Ibid. Page 85
[51] Air District. Small Project Analysis Level (SPAL). http://www.valleyair.org/transportation/CEQA%20Rules/GAMAQI-SPAL.PDF. Accessed February 2021.
[52] Cross Creek Bend (TSM 19-003 , PZV 19-018), Mitigated Negative Declaration, Checklist Item 3, https://tularecounty.ca.gov/rma/index.cfm/planning-building/environmental-planning/mitigated-negative-declarations/cross-creek-bend-tsm-19-003-pzv-19-018/mitigated-negative-declaration-for-cross-creek-bend-subdivision-project/. Accessed February 2021.

[This Project site is ±37.0 acres; as such, the lot acreage per phase are approximately 6.1 acres for Phase 1; 8.8 acres for Phase II; 7.0 acres for Phase III, and 15.1 acres for Phase IV].

- *Construction Phase – Demolition:* Demolition will take place in Phase 1; as such, demolition activities were removed from the other phases and the construction timeline recalculated with a July 1 start date. [This Project does not require demolition of any existing features.]

- *Operational-Mobile – Fleet Mix:* The "District Accepted Fleet Mix for Residential Projects" was used for the operational years of each Phase (2021, 2023, 2025, and 2027). [For this Project operational years would be 2022, 2024, 2026, and 2028.]

- *Operational-Mobile – Water and Wastewater:* As the Goshen Community Services District will provide sewer services for the Project, the percent septic tanks was changed to 0% and the facultative lagoons was changed to 100%.

- *Mitigation – Construction:* Water exposed area 3 times per day and unpaved road vehicle speed of 15 miles per hour were selected to account for compliance with Air District Regulation VIII requirements.

- *Mitigation – Traffic:* As the Project will be located along a development corridor in close proximity to existing residential and employment areas, the following items were selected: low density suburban project setting; increase diversity; improve walkability design with 96 intersections per square mile; improve destination accessibility with the job center at 4 miles from the site; and improve pedestrian network onsite. [For this Project there would be 48 intersections per mile]

- *Mitigation – Area:* The following items were selected: No hearth was chosen to account for compliance with Air District Rule 4901 (Wood Burning Fireplaces and Wood Burning Heaters); and 3% was used for electronic lawnmower, electric leaf blower, and electric chainsaw, consistent with Air District approved changes.

- *Mitigation – Water:* Low-flow bathroom faucets, kitchen faucets, toilets and showers were selected to account for Title 24 requirements; and use of water-efficient irrigation systems was selected to account for the County's Model Water Efficient Landscaping Ordinance (also referred to as MWELO)"[53]

As previously noted, the Air District has determined that projects with emissions below the thresholds of significance for criteria pollutants (see **Table 3-3**) would not conflict or obstruct implementation of the Air District's AQPs. The Air District evaluates significance of short-term (construction) emissions independent of long-term (operational) emissions. By analogy, it is reasonable to conclude that a project with approximately 51% residential units of the approved Cross Creek Bend subdivision (located west of SR 99 in Goshen) would result in approximately 49% overall fewer emissions than the Cross Creek Bend subdivision. **Table 3-4** shows the differences between Cross Creek Bend and the proposed Project (Swift Homes) by each phase of construction.

Table 3-4
Residential Units - Construction by Phase

	Swift Homes	Cross Creek Bend	Swift Homes vs. Cross Creek Bend
Phase 1	34	100	34.0%
Phase 2	49	111	44.1%
Phase 3	39	93	41.9%
Phase 4	84	99	84.8%
Total Units by Project	206	403	51.1%

As such, as demonstrated in **Tables 3-5 and 3-6**, the estimated Project-related emissions during construction and operations will not exceed the Air District's CEQA significance thresholds for any criteria pollutant. The Project would be required to comply with applicable Air District rules and regulations, such as Rule 9510 (Indirect Source Review), further reducing Project-related emissions.

[53] Ibid. Page 28.

Table 3-5 Annual Construction Emissions Estimates (Mitigated)						
Construction Year	Estimated Emissions, tons per year					
	ROG	NOx	CO	SO_2	Total PM_{10}	Total $PM_{2.5}$
Phase 1 – 2021[1]	0.07	0.69	0.51	9.52E-04	0.07	0.05
Phase 1 – 2022[1]	0.46	0.78	0.77	1.40E-04	0.06	0.04
Phases 1 & 2 – 2023[1]	0.59	1.20	1.08	2.91E-04	0.15	0.09
Phase 2 – 2024[1]	0.92	0.76	0.90	1.70E-04	0.06	0.04
Phase 3 – 2025[1]	0.06	0.54	0.55	1.12E-04	0.07	0.04
Phase 3 – 2026	0.73	0.62	0.82	1.54E-04	0.05	0.03
Phase 4 – 2027	0.11	0.98	1.09	2.27E-04	0.14	0.08
Phase 4 – 2028	1.60	1.26	1.65	3.14E-04	0.10	0.06
SJVAPCD Threshold	10	10	100	27	15	15
Threshold Exceeded	***No***	***No***	***No***	***No***	***No***	***No***
Notes: 1. Phase 1 estimated at 34%; combined Phases 1 & 2 conservatively estimated at 78%; Phase 2 estimated at 44%; Phase 3 estimated at 42%, and Phase 4 estimated at 85%. *Source: See Attachment "A" of this document.*						

Table 3-6 Annual Operational Emissions Estimates (Mitigated)						
Operational Year	Estimated Emissions, tons per year					
	ROG	NOx	CO	SO_2	Total PM_{10}	Total $PM_{2.5}$
Phase 1 – 2023[1,2]	0.43	0.48	1.85	3.40E-03	0.41	0.12
Phase 2 – 2024[2]	0.60	0.55	2.29	4.41E-03	0.60	0.17
Phase 3 – 2026[2]	0.46	0.39	1.61	4.19E-03	0.47	0.13
Phase 4 – 2028[2]	0.98	0.77	3.18	8.48E-03	1.04	0.29
Total Emissions at Buildout	2.47	2.19	8.93	0.02	2.53	0.71
SJVAPCD Threshold	10	10	100	27	15	15
Threshold Exceeded	***No***	***No***	***No***	***No***	***No***	***No***
1. Construction default values were used which resulted in emissions over a 19-month period for Phase 1; however, the operational emissions were estimated using 2022 emission factors. *2. Phase 1 estimated at 34%; combined Phases 1 & 2 conservatively estimated at 78%; Phase 2 estimated at 44%, Phase 3 estimated at 42%,; and Phase 4 estimated at 85%.* *Source: See Attachment "A" of this document.*						

The contribution of a project's individual air emissions to regional air quality impacts is, by its nature, a cumulative effect. Emissions from past, present, and future projects in the region also have or will contribute to adverse regional air quality impacts on a cumulative basis. No single project by itself would be sufficient in size to result in non-attainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulative air quality conditions. The project-level thresholds for criteria air pollutants are based on levels by which new sources are not anticipated to contribute to an air quality violation or result in a considerable net increase in criteria air pollutants.

According to the Air District's GAMAQI, a project would be considered to contribute considerably to a significant cumulative impact if it would result in an increase in ROG, NO_x, SO_x, CO, PM10, or $PM_{2.5}$ of more than its respective significance thresholds. As presented in **Tables 3-5 and 3-6**, proposed Project operational-related emissions at full buildout would result in 2.47 tons per year (tpy) ROG, 2.19 tpy NOx, 8.93 tpy CO, 0.02 tpy SOx, 2.53 tpy PM_{10}, and 0.71 tpy $PM_{2.5}$ and as such, would not exceed the Air District thresholds of significance. Therefore, the proposed Project would not conflict or obstruct implementation of the Air District's AQPs and would result in less than significant project-specific and cumulative impacts.

b) Less Than Significant Impact: To result in a less than significant impact, the following three criteria must be true:

1. *Regional analysis*: *emissions of nonattainment pollutants must be below the District's regional significance thresholds.*

As discussed earlier at item a), the SJVAB is currently designated as non-attainment for ozone, PM_{10}, and $PM_{2.5}$. (See **Table 3-2** for designations and classifications of all criteria pollutants.) Therefore, if the Project exceeds the regional thresholds for PM_{10} or $PM_{2.5}$, then it contributes to a cumulatively considerable impact for those pollutants. If the project exceeds the

regional thresholds for NOx or ROG, then it follows that the project would contribute to a cumulatively considerable impact for ozone. As presented in **Tables 3-5** and **3-6**, proposed Project construction- and operational-related emissions would not exceed the Air District's thresholds of significance for any criteria pollutant. Therefore, this Project would not cumulatively contribute to a significant impact.

2. *Summary of projections*: *the project must be consistent with current air quality attainment plans including control measures and regulations.*

As discussed earlier at item a), project-level thresholds for criteria air pollutants are based on levels by which new sources are not anticipated to contribute to an air quality violation or result in a considerable net increase in criteria air pollutants. The Air District has determined that projects with emissions below the thresholds of significance would not conflict or obstruct implementation of the Air District's AQPs. As the Project's construction- and operational-related emissions do not exceed any thresholds of significance, the Project will not conflict with the current AQPs. Furthermore, the Project will comply with all applicable Air District rules, regulations, and control measures, including Regulation VIII (Fugitive PM10 Prohibitions) and Rule 9510 (Indirect Source Review), which will further reduce potential impacts from Project-related emissions. Therefore, the Project is consistent with the AQPs and will have a less than significant impact regarding compliance with applicable rules and regulations.

3. *Cumulative health impacts*: *the project must result in less than significant cumulative health effects from the nonattainment pollutants.*

Since the SJVAB is in nonattainment for PM_{10}, $PM_{2.5}$ and ozone, it is considered to have an existing significant cumulative health impact without the project. When this occurs, the analysis considers whether the project's contribution to the existing violation of air quality standards is cumulatively considerable and the Air District's regional thresholds for NOx, ROG, PM_{10} and $PM_{2.5}$ are applied as cumulative contribution thresholds. As shown in **Tables 3-5** and **3-6**, Project-related criteria pollutant emissions would not exceed any threshold of significance during Project construction or operation, which demonstrates the Project's consistency with the applicable AQPs. Therefore, Project-related emissions would not significantly contribute to the existing violation of air quality standards and will have a less than significant impact regarding cumulative health impacts.

c) Less Than Significant Impact: "Determination of whether project emissions would expose sensitive receptors to substantial pollutant concentrations is a function of assessing potential health risks. Sensitive receptors are facilities that house or attract children, the elderly, people with illnesses, or others who are especially sensitive to the effects of air pollutants. Hospitals, schools, convalescent facilities, and residential areas are examples of sensitive receptors. When evaluating whether a development proposal has the potential to result in localized impacts, Lead Agency staff need to consider the nature of the air pollutant emissions, the proximity between the emitting facility and sensitive receptors, the direction of prevailing winds, and local topography."[54]

Land Use Conflicts

"Lead Agencies are encouraged to use the screening tools for Toxic Air Contaminant presented in section 6.5 (Potential Land Use Conflicts and Exposure of Sensitive Receptors) [of the GAMAQI] to identify potential conflicts between land use and sensitive receptors and include the result of their analysis in the referral document."[55] The Air District recommends using the screening recommendations presented in the California Air Pollution Control Officers Association (CAPCOA) guidance document, *Health Risk Assessment for Proposed Land use Projects*, and ARB guidance document, *Air Quality and Land Use Handbook: A Community Health Perspective*. These two document provide screening distances at which it is expected that toxic air contaminant emission would not pose significant health risks to nearby receptors.

The proposed Project is located in a primarily developed area within the Goshen UDB; as such, it is also considered an in-fill project which is currently zoned for eventual development, in this instance, single-family residential. Agricultural land is located north of the proposed Project site with residential development to the south, and office, residential, and public park uses to the east. A vacant parcel is located west of the proposed Project site. There are no sensitive receptors located near the proposed Project site. The Project is located approximately 3,000 feet east of State Route 99. As such, the Project is not located within the screening distances of any facility listed in the CAPCOA and ARB guidance documents. Therefore, the existing uses are not expected to result in significant health impacts to future residents within the Project boundaries.

[54] Air District. GAMAQI. Page 66. Accessed and available at: www.valleyair.org/transportation/GAMAQI_3-19-15.pdf.
[55] Ibid.

Ambient Air Quality Standards

To evaluate whether Project-related emissions could potentially result in significant adverse health impacts, it must be determined whether daily emissions would exceed the Air District's Ambient Air Quality Analysis (AAQA) screening thresholds. Projects requiring an AAQA would also need to prepare a health risk assessment (HRA) if the AAQA indicates that project emissions exceed any AAQS at the project boundary. Pursuant to the Air District's GAMAQI, an AAQA should be performed when emissions of any criteria pollutant related to construction or operational activities exceed the 100 pounds per days screening level, after compliance with Rule 9510 requirements and implementation of all enforceable mitigation measures.[56] The Air District's *Ambient Air Quality Analysis Project Daily Emissions Assessment* provides guidance on how to evaluate whether a project would require an AAQA.[57]

During construction, criteria pollutants would be emitted primarily from diesel-fueled construction equipment, from motor vehicles and heavy-duty haul vehicles, .paving, and application of architectural coatings (i.e. paints, finishes, external coatings, etc.). Residential development is an insignificant source of criteria pollutants, except for projects that allow wood burning devices that emit PM_{10} and $PM_{2.5}$ in wood smoke. The Project will not include woodburning devices. During Project operations, emissions would be emitted from consumer products (such as aerosol sprays), exhaust from landscaping equipment, and operation of heating/cooling systems; however, the primary source of emissions would be from motor vehicles travelling to and from the development.

By analogy, it is reasonable to conclude that a project with approximately 51% residential units of the approved Cross Creek Bend subdivision (located west of SR 99 in Goshen) would result in approximately 49% overall fewer emissions than Cross Creek Bend subdivision.[58] Pursuant to the Air District's guidance, Project-related average daily emissions were calculated and are provided in **Tables 3-7** and **3-8**. As shown in the tables, the average daily emissions are all below the Air District's 100 pound per day (lbs./day) threshold for requiring an AAQA.

As presented in **Tables 3-7** and **3-8,** the daily criteria pollutant emissions would not exceed the 100 lbs./day screening threshold and does not warrant a health risk assessment. As such, the Project would not expose sensitive receptors to substantial criteria air pollutant concentrations during Project construction- or operation-related activities. Impacts related to potential health risks are less than significant.

Table 3-7
Daily Construction Emissions Estimates [1]

Construction Year[1]	Estimated Emissions, pounds per day					
	ROG	NOx	CO	SO_2	Total PM_{10}	Total $PM_{2.5}$
Phase 1 – 2021	1.08	10.53	7.76	0.01	1.09	0.73
Phase 1 – 2022	3.50	5.87	5.80	0.01	0.46	0.33
Phases 1 & 2 – 2023	4.46	9.04	8.17	0.02	1.11	0.67
Phase 2 – 2024	6.95	5.80	6.79	0.01	0.47	0.30
Phase 3 – 2025	0.44	4.07	4.19	0.01	0.53	0.31
Phase 3 – 2026	5.54	4.72	6.21	0.01	0.35	0.22
Phase 4 – 2027	0.82	7.48	8.26	0.02	1.04	0.59
Phase 4 – 2028	12.54	9.96	13.03	0.03	0.77	0.48
AAQA Threshold	100	100	100	100	100	100
Threshold Exceeded	***No***	***No***	***No***	***No***	***No***	***No***

1. Daily emissions are derived by converting the total emissions at buildout in tons per year (see Table 3-5) to annual emissions at buildout in pounds per day, and then dividing the annual emissions by 264 work days per year, with the exception of Phase 1 (2022) which uses 132 days.
2. Phase 1 estimated at 34%; combined Phases 1 & 2 conservatively estimated at 78%; Phase 2 estimated at 44%; Phase 3 estimated at 42%, and Phase 4 estimated at 85%.

[56] Op. Cit. 96 to 97.

[57] Air District. Ambient Air Quality Analysis Project Daily Emissions Assessment. Accessed December 2019 at: http://www.valleyair.org/transportation/CEQA%20Rules/GAMAQI_AAQA_05-24-2013.pdf.

[58] Cross Creek Bend (TSM 19-003 , PZV 19-018), Mitigated Negative Declaration, Checklist Item 3, https://tularecounty.ca.gov/rma/index.cfm/planning-building/environmental-planning/mitigated-negative-declarations/cross-creek-bend-tsm-19-003-pzv-19-018/mitigated-negative-declaration-for-cross-creek-bend-subdivision-project/. Accessed February 2021.

Table 3-8 Daily Operational Emissions Estimates [1]						
Operational Year	Estimated Emissions, pounds per day					
	ROG	NOx	CO	SO_2	Total PM_{10}	Total $PM_{2.5}$
Total Emissions at Buildout	13.64	12.61	50.99	0.14	13.80	3.87
AAQA Threshold (pound/day)	100	100	100	100	100	100
Threshold Exceeded	No	No	No	No	No	No

1 Daily emissions are derived by converting the total emissions at buildout in tons per year (see Table 3-5) to annual emissions at buildout in pounds per day, and then dividing the annual emissions by 365 days per year. As noted earlier, the proposed Project is approximately 514% residential units of the approved Cross Creek Bend subdivision and; therefore, would result in approximately 49% overall fewers emissions than Cross Creek Bend subdivision,

2 Phase 1 estimated at 34%; combined Phases 1 & 2 conservatively estimated at 78%; Phase 2 estimated at 44%; Phase 3 estimated at 42%, and Phase 4 estimated at 85%.

d) Less Than Significant Impact: Operation of the proposed Project would not create odorous emissions. However, proposed Project construction-related activities would include fuels and other odor sources (such as diesel-fueled equipment) that could result in the creation of objectionable odors. Since construction-related activities would be short-term, temporary, and spatially dispersed (i.e., intermittent), and occur in a predominantly rural area, these activities would not affect a substantial number of people. Therefore, odors generated by construction-related activities of the Project would result in a less than significant impact.

Cumulative Impact Analysis:

The Project is consistent with the Tulare County General Plan 2030 Update. The proposed Project site is within the Goshen UDB and has a designation of C-2-MU which allows residential growth at the site. The Goshen Community Plan Update indicates that of the 1,748 acres of UDB land uses, approximately 209 acres of medium density residential are needed to accommodate Goshen's population growth over time.[59] The proposed Project consists of approximately 37 acres of residential land use which is consistent with the objectives contained in the Goshen Community Plan. As presented in **Tables 3-5** and **3-6**, proposed Project construction- and operational-related activities emissions would not exceed the annual Air District thresholds of significance for ROG, NO_x, SO_x, CO, PM_{10}, and $PM_{2.5}$. The proposed Project will not result in exposure of substantial pollutant concentrations or odors to sensitive receptors as the construction-related activities will occur in phases and would be intermittent, short-term, and temporary. Lastly, consultation with the Air District, and implementation of County policies and compliance with applicable Air District rules and regulations (including identification/mitigation of potential health risks where applicable) would reduce potential impacts of the proposed Project. Therefore, less than significant project-specific and cumulative impacts related to this Checklist Item will occur.

4. BIOLOGICAL RESOURCES

Would the project:			SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	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	☐	☒	☐	☐

[59] County of Tulare. Goshen Community Plan Update. Page 198.

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

The discussions regarding Environmental Setting, CEQA requirements, Regulatory Setting, Chapter 3.4 Biological Resources, Chapters 4 through 9, Appendices "A" through "I", etc., contained in the Goshen Community Plan Update and Environmental Impact Report are incorporated herein in their entirety. Where necessary and if available, additional site specific facts, data, information, etc., are included in this discussion.

Environmental Setting

The Goshen Community Plan Update area is located in the central San Joaquin Valley north, east, and west of the community of Goshen. The valley is bordered by the Sierra Nevada to the east, the Tehachapi Mountains to the south, the California coastal ranges to the west, and the Sacramento-San Joaquin Delta to the north. "Like most of California, the central San Joaquin Valley experiences a Mediterranean climate. Warm dry summers are followed by cool moist winters. Summer temperatures commonly exceed 90 degrees Fahrenheit, and the relative humidity is generally very low. Winter temperatures rarely exceed 70 degrees Fahrenheit, with daytime highs often below 60 degrees Fahrenheit. Annual precipitation in the vicinity of the PPSA is about 11 inches, almost 90% of which falls between the months of November and April. Nearly all precipitation falls in the form of rain."[60]

A Biological Evaluation was conducted by consultants Live Oak Associates, Inc. (LOA) during preparation of the Goshen Community Plan Update Proposed Planning Study Area (PPSA) in August 2014. The Planning Department records search of building permits and other types of entitlements within the PPSA (by RMA staff) indicates that no new projects (i.e., construction-related developments which involves new structures or any clearing or earthmoving) have occurred since the Biological Evaluation (BE) was completed by LOA. As such, the landscape remains as described in the Biological Evaluation with one exception.[61] "In May 2017, Caltrans initiated work on the new SR 99/Betty Drive interchange and overcrossing and removed a stand of eucalyptus trees northeast of SR99/Betty Drive. Although the Biological Evaluation identified this location as suitable for nesting, it does not indicate the presence of special status birds (i.e., Swainson's hawk) in this or any stand within the PPSA. If special status species were found within this particular stand; avoidance, minimization or other form of mitigation would fall under the purview of Caltrans. Regardless of any action(s) which Caltrans may have taken, the stand is no longer present and potential habitat has been permanently removed from this location within the PPSA."[62] It is noted that formerly vacant land outside of the PPSA, south of Avenue 312 (W. Riggin Avenue), is has been developed to multi-family and single-family residences. The proposed Project is also located south of the northern PPSA as shown in **Figure 4-1**.

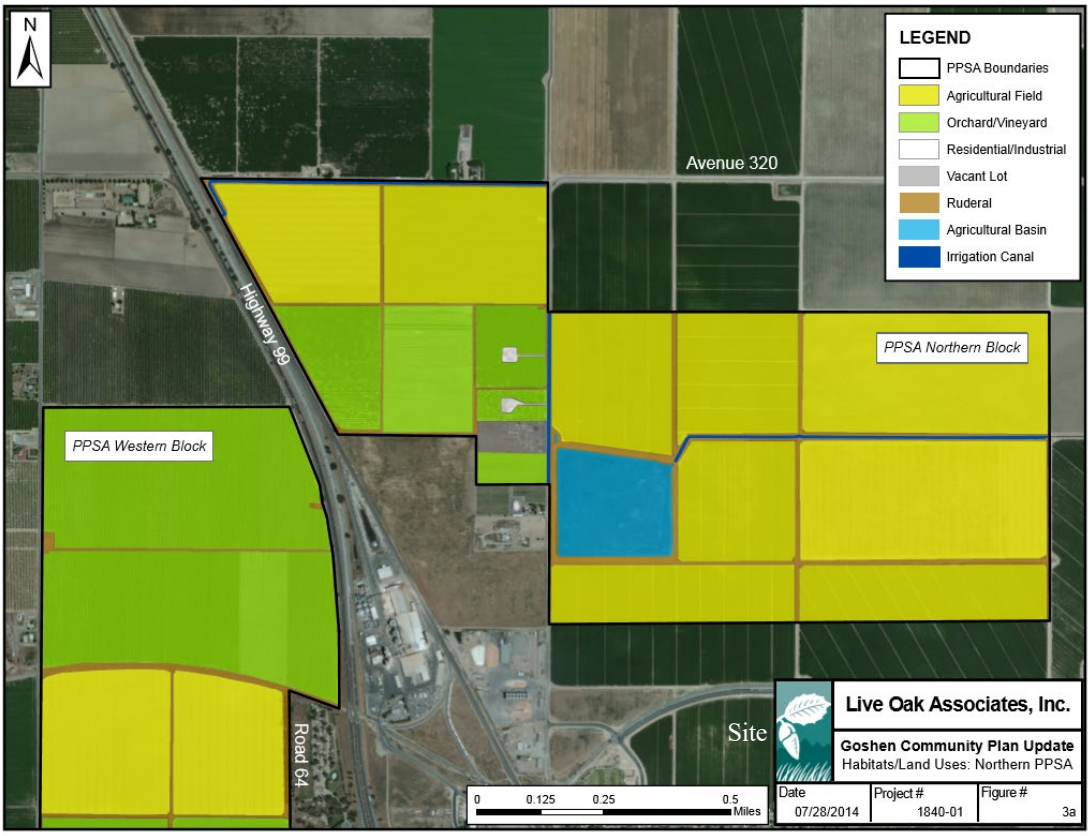
[60] *"Goshen Community Plan Update Biological Evaluation Tulare County, California"* (BE). Page 5. August 2014. Prepared by Live Oak Associates, Inc. and included in Appendix B of Goshen Community Plan Update EIR. The EIR can be accessed at: https://tularecounty.ca.gov/rma/index.cfm/projects/planning-projects/environmental-documents/goshen-community-plan-update/goshen-community-plan-update-final-eir/final-environmental-impact-report/

[61] County of Tulare. Goshen Community Plan Update. Draft Environmental Impact Report. 3.4 Biological Resources. Page 3.4-21.

[62] Ibid.

"The PPSA is situated within a matrix of agricultural lands, industrial complexes, and residential/commercial development associated with the community of Goshen."[63] "The northern block of the PPSA is bounded by Avenue 320 on the north, Road 76 on the east, agricultural fields on the south, and State Highway 99 and Road 68 on the west, and comprises approximately 570 acres. "[64] As noted earlier, as shown in **Figure 4-1**, the proposed Project site is outside of the Northern (or any) PPSA.

Figure 4-1
PPSA Northern Block



"The principal drainage of the PPSA vicinity is the St. John's River, a distributary channel of the Kaweah River. The St. John's River emerges from the Kaweah River approximately 20 miles east of the PPSA, and flows from east to west approximately 3 miles north of the PPSA before merging with Cottonwood Creek to form Cross Creek Bend. Cross Creek Bend follows a meandering course south and is ultimately constrained to a set of engineered channels before joining the Tule River approximately 18 miles south of the PPSA. The drainages in the vicinity of the PPSA historically contained large areas of riparian, wetland, and aquatic ecosystems that supported a diversity of native plants and animals. Presently, these drainages support only a fraction of the riparian habitat they once supported and the aquatic habitat has been greatly degraded from agricultural runoff and irregular flows. In essence, the drainages have been reduced to a series of distributary channels supplying water to farmland in the region."[65]

As shown in **Figure 4-2** Soils, the Project site consists of two soil mapping units: Grangeville sandy loam, drained, 0-2 percent slopes; and Akers-Akers, saline-sodic, complex, 0-2 percent slopes. The Grangeville and Akers-Akers soil mapping units are considered hydric. Hydric soils are defined as saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions such that under sufficiently wet conditions hydrophytic vegetation is supported.[66]

[63] *"Goshen Community Plan Update Biological Evaluation Tulare County, California"* (BE). Page 5. August 2014. Prepared by Live Oak Associates, Inc. and included in Appendix "B" of Goshen Community Plan Update EIR.
[64] Ibid. 1.
[65] Op. Cit. 5.
[66] United States Department of Agriculture. Natural Resource Conservation Service. Soil Survey. Accessed December 2020 at: https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx.

Figure 4-1 Soils

Biotic Habitats/Land Uses

As shown in **Figure 4-1** PPSA Northern Block, six land use/habitat types were observed within the PPSA during the April 2014 biological field survey: agricultural field, orchard/vineyard, residential/industrial, ruderal, irrigation canal, and irrigation. A list of the vascular plant species observed within the PPSA and the terrestrial vertebrates using, or potentially using, the PPSA are provided in Appendix the Biological Evaluation (BE) included in Appendix "B" of the Goshen Community Plan Update 2030 Draft Environmental Impact Report (see Appendices A and B of the Biological Evaluation, respectively). Selected photographs of the PPSA are presented in Appendix C [of the Biological Evaluation]. As noted earlier, as shown in **Figure 4-1**, the proposed Project site is outside of the Northern (or any) PPSA.

Biological Species Evaluation

A Biological Evaluation (BE) was conducted by consultants Live Oak Associates, Inc. (LOA) during preparation of the Goshen Community Plan Update in August 2014 (see Attachment "B" of the Goshen Community Plan Update 2030 Draft Environmental Impact Report). The BE included evaluation of potential impacts on biological species within the Proposed Planning Study Area (PPSA), which included the area within the Goshen Urban Development Boundary.

The Technical Memorandum *"Biological Resources Evaluation for Swift Homes Subdivision (TSM 20-003)*" (BRE Memo) was completed by RMA Staff (Jessica Willis, Planner IV) in February 2021 to analyze potential Project-specific impacts on biological species in the Project vicinity (See Attachment "B" of the MND). The most recent California Department of Fish and Wildlife's (CDFW) California Natural Diversity Database (CNDDB), RareFind 5 and Biogeographic Information and Observation System (BIOS) mapping applications were accessed on February 17, 2021.[67]

Special Status Plants and Animals

"The Biological Evaluation identified potential special status species which might occur onsite or in the project vicinity. "Sources of information for this table included *California's Wildlife, Volumes I, II, and III* (Zeiner et. al 1988-1990), *California Natural Diversity Data Base* (CDFW 2014), *Endangered and Threatened Wildlife and Plants* (USFWS 2011), *Annual Report on the Status of California State Listed Threatened and Endangered Animals and Plants* (CDFW 2014), and *The California Native Plant Society's Inventory of Rare and Endangered Vascular Plants of California (CNPS 2014). It is important to note that the California Natural Diversity Data Base (CNDDB) is a volunteer database; therefore, it may not contain all known literature records."*[68]

[67] CDFW. Accessed December 2020 at: https://www.wildlife.ca.gov/Data/CNDDB/Maps-and-Data#43018407-rarefind-5
[68] County of Tulare. Goshen Community Plan Update. Draft Environmental Impact Report. 3.4 Biological Resources. Page 3.4-9 and -10.

Table 3.4.1 [Table 1 of the Biological Evaluation, Appendix "B" of the Goshen Community Plan Update DEIR] provides a summary of Project-related biological impacts to the PPSA as contained in the Biological Evaluation (Appendix "B" [of the Goshen Community Plan Update EIR]). Table 3.4.1 shows "Eleven special status vascular plant species are known to occur in the vicinity of the PPSA: California jewelflower (*Caulanthus californicus*), Hoover's spurge (*Chamaesyce hooveri*), San Joaquin Valley orcutt grass (*Orcuttia inaequalis*), San Joaquin adobe sunburst (*Pseudobahia peirsonii*), heartscale (*Atriplex cordulata* var. *cordulata*), Earlimart orache (*Atriplex cordulata* var. *erecticaulis*), brittlescale (*Atriplex depressa*), lesser saltscale (*Atriplex minuscula*), subtle orache (*Atriplex subtilis*), recurved larkspur (*Delphinium recurvatum*), and spiny sepaled button-celery (*Eryngium spinosepalum*). Because of many decades of disturbance, habitat for these eleven plant species is absent from the PPSA. Moreover, none of these plants were observed in April 2014, at a time when most of these species are in bloom and their probability of detection is maximized. Future development of the PPSA would not affect regional populations of these species and impacts would be less than significant."[69] As the site is continuously plowed to prevent noxious weeds and to reduce fuel for urban wildfire threats, the proposed Project site remains unsuitable as habitat for special status species.

"The historic range of certain endangered animals including the Swainson's hawk, San Joaquin kit fox, burrowing owl, American badger, nesting raptors and migratory birds including the white-tailed kite, loggerhead shrike, and tricolored blackbird, and colonially roosting bats found in the Goshen area. However, few if any of these species are found-in Goshen today due to the extensive, built-up character of the area, and the fact that most surrounding lands are under cultivation. According to the California National Diversity Data Base (CNDDB), 11 Special Status plant species and 18 Special Status animal species (see Figure 9 [in the Goshen Community Plan, **Figure 4-1** herein])"[70]

"18 special status animal species potentially occurring in the region, seven species would be absent or unlikely to occur on within the PPSA (See Table 1 [of the Biological Evaluation, Appendix "B" of this DEIR]). These include the vernal pool fairy shrimp (*Branchinects lynchi*), vernal pool tadpole shrimp (*Lepidurus packardi*), valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*), blunt-nosed leopard lizard (*Gamelia sila*), California tiger salamander (*Ambystoma californiesense*), western pond turtle (Emys marmorata), and the western spadefoot (*Speahammondii*). These species are not at risk of injury or mortality from future development activities within the PPSA because of the extreme unlikelihood of their occurring within the PPSA. Similarly, future development of the PPSA will not result in loss of habitat for these species, because there is little or no likelihood that they utilize habitats of the PPSA."[71]

"As summarized in Table 3.4.1 (Table 1 of the Biological Evaluation, Appendix "B" of this DEIR [i.e.,]) and described in the narrative on page 48 of the Biological Evaluation; "Of the 18 special status animal species potentially occurring in the region, eleven species have the potential to occur within the PPSA. These species include the Swainson's hawk, San Joaquin kit fox, white-tailed kite (*Elanus leucurus*), northern harrier (*Circus cyaneus*), lesser sandhill crane (*Grus canadensis canadensis*), burrowing owl, loggerhead shrike (*Lanius ludovicianus*), tricolored blackbird (*Agelaius tricolor*), pallid bat (*Antrozous pallidus*), western mastiff bat (*Eumops perotis* spp. *californicus*), and American badger. The northern harrier and lesser sandhill crane would be expected to use the PPSA for foraging only, while the remaining species have the potential to breed or forage within the PPSA.""[72]

The BE provides Figures 4 and 5 (in the BE), Special Status Species and San Joaquin Kit Fox; respectively, which shows the historical observations of these topics, neither of which occur in or near the proposed Project site.[73]

There are two habitat conservation plans that apply in Tulare County: 1) Recovery Plan for Upland Species of the San Joaquin Valley; and 2) the Kern Water Bank Habitat Conservation Plan. The Kern Water Bank Habitat Conservation Plan also applies to Tulare County. The Kern Water Bank Habitat Conservation is Plan; however, only applies to an area in Allensworth. As the proposed Project is approximately 34 miles north of Allensworth, the Plan would not apply to this Project.

To ensure the Project will have a less than significant impact on biological species within the Project area, mitigations measures will be implemented as contained in the Mitigation Monitoring and Reporting Program and as summarized in Item a) of this discussion.

[69] Op. Cit. 3.4-10.

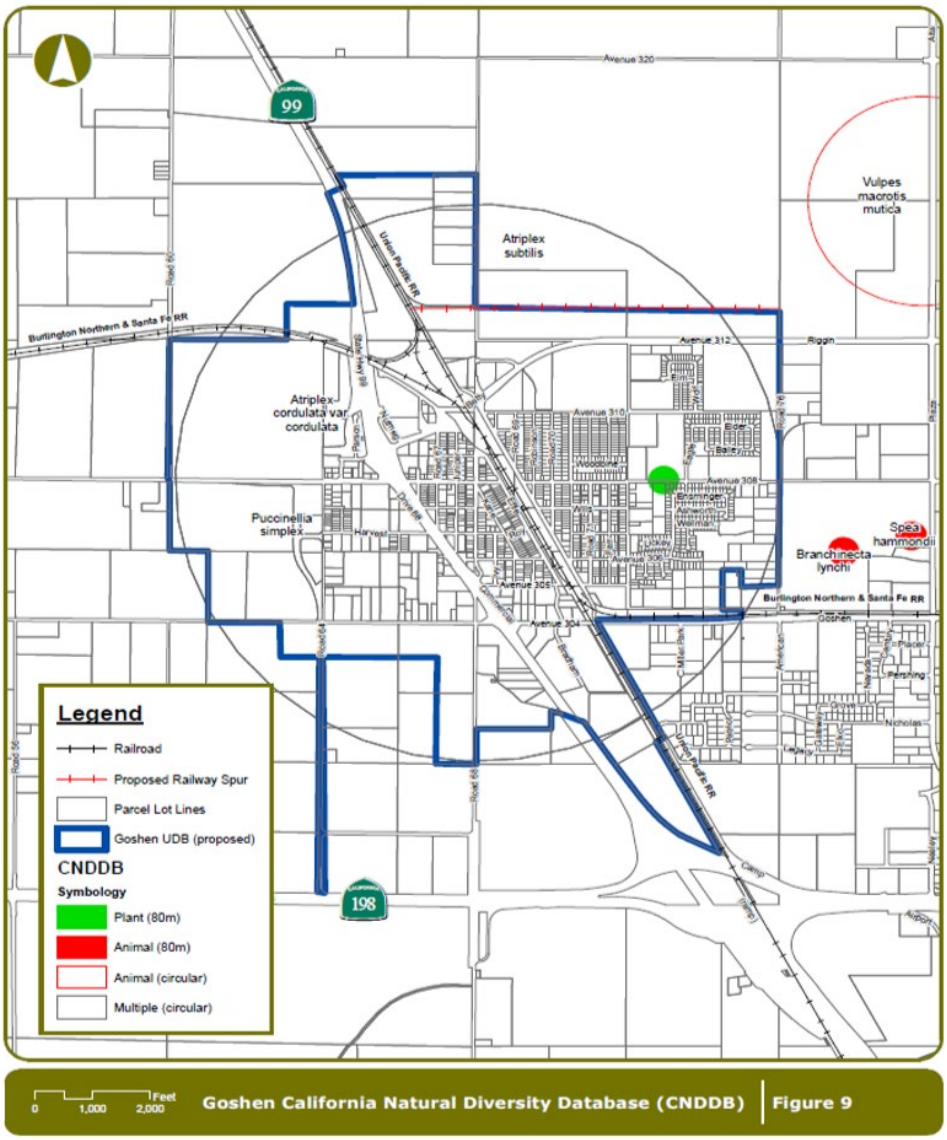
[70] County of Tulare. Goshen Community Plan Update. Page 57.

[71] County of Tulare. Goshen Community Plan Update. Draft Environmental Impact Report. 3.4 Biological Resources. Page. 3.4-10.

[72] Ibid.

[73] *"Goshen Community Plan Update Biological Evaluation Tulare County, California"* (BE). Pages 17 and 18. August 2014. Prepared by Live Oak Associates, Inc. and included in Appendix "B" of Goshen Community Plan Update EIR.

Figure 4-1 California National Diversity Data Base Map[74]



Regulatory Setting

Federal

Federal Endangered Species Act

"The U.S. Fish and Wildlife Service (USFWS) administers the Federal Endangered Species Act (16 USC Section 153 et seq.) and thereby has jurisdiction over federally listed threatened, endangered, and proposed species. Projects that may result in a "take" of a listed species or critical habitat must consult with the USFWS. "Take" is broadly defined as harassment, harm, pursuing, hunting, shooting, wounding, killing, trapping, capturing, or collection; any attempt to engage in such conduct; or destruction of habitat that prevents an endangered species from recovering (16 USC 1532, 50 CFR 17.3). Federal agencies that propose, fund, or must issue a permit for a project that may affect a listed species or critical habitat are required to consult with the USFWS under Section 7 of the Federal Endangered Species Act. If it is determined that a federally listed species or critical habitat may be adversely affected by the federal action, the USFWS will issue a "Biological Opinion" to the federal agency that describes minimization and avoidance measures that must be implemented as part of the federal action. Projects that do not

[74] Ibid. 58.

have a federal nexus must apply for a take permit under Section 10 of the Act. Section 10 of the Act requires that the project applicant prepare a habitat conservation plan as part of the permit application (16 USC 1539)."[75]

"Under Section 4 of the Federal Endangered Species Act, a species can be removed, or delisted, from the list of threatened and endangered species. Delisting is a formal action made by the USFWS and is the result of a determined successful recovery of a species. This action requires posts in the federal registry and a public comment period before a final determination is made by the USFWS."[76]

Habitat Conservation Plans

"Habitat Conservation Plans (HCPs) are required for a non-federal entity that has requested a take permit of a federal listed species or critical habitat under Section 10 of the Endangered Species Act. HCPs are designed to offset harmful effects of a proposed project on federally listed species. These plans are utilized to achieve long-term biological and regulatory goals. Implementation of HCPs allows development and projects to occur while providing conservation measures that protect federally listed species or their critical habitat and offset the incidental take of a proposed project. HCPs substantially reduce the burden of the Endangered Species Act on small landowners by providing efficient mechanisms for compliance with the ESA, thereby distributing the economic and logistic effects of compliance. A broad range of landowner activities can be legally protected under these plans (County of Tulare, 2010 Background Report, pages 9-6 and 9-7, 2010a). There are generally two types of HCPs, project-specific HCPs which typically protect a few species and have a short duration and multi-species HCPs which typically cover the development of a larger area and have a longer duration."[77]

As noted earlier, there are two habitat conservation plans that apply in Tulare County: The Kern Water Habitat Conservation Plan, which applies to an area in Allensworth; and the U.S. Fish and Wildlife's "The Recovery Plan for Upland Species in the San Joaquin Valley," which includes sensitive species in the San Joaquin Valley, several of which may be found in Tulare County. . As indicated in the BE, "Individual projects will be implemented in accordance with the goals and policies of the Tulare County General Plan. No known HCPs or NCCPs are in effect for the area. Therefore, the projects [within the Goshen Community Plan's PPSA] are not expected to conflict with local policies or habitat conservation plans."[78]. Also as noted earlier, the proposed Project is approximately 34 miles north of Allensworth, thus the Kern Water Habitat Conservation Plan would not apply to this Project.

Migratory Bird Treaty Act

"The Migratory Bird Treaty Act (MBTA, 16 USC Section 703-711) and the Bald and Golden Eagle Protection Act (16 USC Section 668) protect certain species of birds from direct "take". The MBTA protects migrant bird species from take by setting hunting limits and seasons and protecting occupied nests and eggs. The Bald and Golden Eagle Protection Act (16 USC Sections 668-668d) prohibits the take or commerce of any part of Bald and Golden Eagles. The USFWS administers both acts, and reviews federal agency actions that may affect species protected by the acts."[79] The MBTA implements international treaties devised to protect migratory birds and any of their parts, eggs, and nests from activities such as hunting, pursuing, capturing, killing, selling, and shipping, unless expressly authorized in the regulations or by permit. As authorized by the MBTA, the USFWS issues permits to qualified applicants for the following types of activities: falconry, raptor propagation, scientific collecting, special purposes (rehabilitation, education, migratory game bird propagation, and salvage), take of depredating birds, taxidermy, and waterfowl sale and disposal. The regulations governing migratory bird permits are in 50 CFR part 13 General Permit Procedures and 50 CFR part 21 Migratory Bird Permits. The State of California has incorporated the protection of birds of prey in Sections 3800, 3513, and 3503.5 of the CDFG Code.

Federal Clean Water Act (CWA)

"Wetlands and other waters of the U.S. are subject to the jurisdiction of the U.S. Army Corp of Engineers (USACE) and U.S. Environmental Protection Agency (U.S. EPA) under Section 404 of the Clean Water Act (33 U.S.C. 1251 et seq., 1972). Together, the EPA and the USACE determine whether they have jurisdiction over the non-navigable tributaries that are not relatively permanent based on a fact-specific analysis to determine if there is a significant nexus. These non-navigable tributaries include wetlands adjacent to non-navigable tributaries that are not relatively permanent and wetlands adjacent to but that does

[75] Tulare County 2030 General Plan RDEIR. Page 3.11-1.
[76] Ibid.
[77] Op. Cit. 3.11-2.
[78] *"Goshen Community Plan Update Biological Evaluation Tulare County, California"* (BE). Page 52. August 2014. Prepared by Live Oak Associates, Inc. and included in Appendix "B" of Goshen Community Plan Update EIR.
[79] Tulare County 2030 General Plan RDEIR. Page 3.11-2.

not directly abut a relatively permanent non-navigable tributary."[80] The definition of waters of the United States includes rivers, streams, estuaries, the territorial seas, ponds, lakes, and wetlands. Wetlands are defined as those areas "that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions (33 CFR 328.3 7b)." The U.S. EPA also has authority over wetlands and may override an USACE permit. Substantial impacts to wetlands may require an individual permit. Projects that only minimally affect wetlands may meet the conditions of one of the existing Nationwide Permits. A Water Quality Certification or Waiver pursuant to Section 401 of the CWA is required for Section 404 permit actions; this certification or waiver is issued by the Regional Water Quality Control Board.

State of California

California Department of Fish and Wildlife (formerly Dept. of Fish and Game)

The California Department of Fish and Wildlife (DFW) regulates the modification of the bed, bank, or channel of a waterway under Sections 1601-1607 of the California Fish and Game Code. Also included are modifications that divert, obstruct, or change the natural flow of a waterway. Any party who proposes an activity that may modify a feature regulated by the Fish and Game Code must notify DFW before project construction. DFW will then decide whether to enter into a Streambed Alteration Agreement with the project applicant either under Section 1601 (for public entities) or Section 1603 (for private entities) of the Fish and Game Code.

California Endangered Species Act

The California Department of Fish and Wildlife (CDFE or DFW) administers the California Endangered Species Act 9 (CESA OR ESA) of 1984 (Fish and Game Code Section 2080), which regulates the listing and "take" of endangered and threatened State-listed species. A "take" may be permitted by California Department of Fish and Game [Wildlife] through implementing a management agreement. "Take" is defined by the California Endangered Species Act as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill" a State-listed species (Fish and Game Code Sec. 86). Under State laws, DFW is empowered to review projects for their potential impacts to State-listed species and their habitats.

The DFW maintains lists for Candidate-Endangered Species (SCE) and Candidate-Threatened Species (SCT). California candidate species are afforded the same level of protection as State-listed species. California also designates Species of Special Concern (CSC) that are species of limited distribution, declining populations, diminishing habitat, or unusual scientific, recreational, or educational value. These species do not have the same legal protection as listed species, but may be added to official lists in the future. The CSC list is intended by DFW as a management tool for consideration in future land use decisions (Fish and Game Code Section 2080).[81]

All State lead agencies must consult with DFW under the California Endangered Species Act when a proposed project may affect State-listed species. DFW would determine if a project under review would jeopardize or result in taking of a State-listed species, or destroy or adversely modify its essential habitat, also known as a "jeopardy finding" (Fish and Game Code Sec. 2090). For projects where DFW has made a jeopardy finding, DFW must specify reasonable and prudent alternatives to the proposed project to the State lead agency (Fish and Game Code Sec. 2090 et seq.).[82]

Fully Protected Species

The State of California first began to designate species as fully protected prior to the creation of the CESA and FESA. Lists of fully protected species were initially developed to provide protection to those animals that were rare or faced possible extinction, and included fish, amphibians, reptiles, birds, and mammals. Most fully protected species have since been listed as threatened or endangered pursuant to the CESA and/or FESA. The regulations that implement the Fully Protected Species Statute (CDFG Code Section 4700) provide that fully protected species may not be taken or possessed at any time. Furthermore, the CDFG prohibits any state agency from issuing incidental take permits for fully protected species, except for necessary scientific research.

[80] Ibid. 3.11-1 and -2.
[81] General Plan Background Report. Pages 9-7 and 9-8.
[82] Ibid. 9-8.

Native Plant Protection Act

Regarding listed rare and endangered plant species, the CESA defers to the California Native Plant Protection Act (NPPA) of 1977 (CDFG Code Sections 1900 to 1913), which prohibits importing of rare and endangered plants into California, and the taking and selling of rare and endangered plants. The CESA includes an additional listing category for threatened plants that are not protected pursuant to NPPA. In this case, plants listed as rare or endangered pursuant to the NPPA are not protected pursuant to CESA, but can be protected pursuant to the CEQA. In addition, plants that are not state listed, but that meet the standards for listing, are also protected pursuant to CEQA (Guidelines, Section 15380). In practice, this is generally interpreted to mean that all species on lists 1B and 2 of the CNPS Inventory potentially qualify for protection pursuant to CEQA, and some species on lists 3 and 4 of the CNPS Inventory may qualify for protection pursuant to CEQA. List 3 includes plants for which more information is needed on taxonomy or distribution. Some of these are rare and endangered enough to qualify for protection pursuant to CEQA. List 4 includes plants of limited distribution that may qualify for protection if their abundance and distribution characteristics are found to meet the standards for listing.

Natural Communities Conservation Planning Act

The Natural Communities Conservation Planning Act allows a process for developing natural community conservation plans (NCCPs) under DFW direction. NCCPs allow for regional protection of wildlife diversity, while allowing compatible development. DFW may permit takings of State-listed species whose conservation and management are provided in a NCCP, once a NCCP is prepared (Fish and Game Code Secs. 2800 et seq.).[83]

Federally and State-Protected Lands

Ownership of California's wildlands is divided primarily between federal, state, and private entities. State-owned land is managed under the leadership of the Departments of Fish and Game (DFW), Parks and Recreation, and Forestry and Fire Protection (CDF). Tulare County has protected lands in the form of wildlife refuges, national parks, and other lands that have large limitations on appropriate land uses. Some areas are created to protect special status species and their ecosystems.[84]

California Wetlands Conservation Policy

The California Wetlands Conservation Policy's goal is to establish a policy framework and strategy that will ensure no overall net loss and achieve a long-term net gain in the quantity, quality, and permanence of wetlands acreage and values in California. Additionally, the policy aims to reduce procedural complexity in the administration of State and federal wetlands conservation programs and to encourage partnerships with a primary focus on landowner incentive programs and cooperative planning efforts. These objectives are achieved through three policy means: statewide policy initiatives, three geographically based regional strategies in which wetland programs can be implemented, and creation of interagency wetlands task force to direct and coordinate administration and implementation of the policy. Leading agencies include the Resources Agency and the California Environmental Protection Agency (Cal/EPA) in cooperation with Business, Transportation and Housing Agency, Department of Flood and Agriculture, Trade and Commerce Agency, Governor's Office of Planning and Research, Department of Fish and Game, Department of Water Resources, and the State Water Resources Control Board.[85]

Birds of Prey

Birds of Prey are protected under the California Fish and Game Code Section 3503.5, which states:

"It is unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds-of-prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto."

This includes any construction disturbance which could lead to nest abandonment, which is considered a "taking" by the DFW.

CEQA and Oak Woodland Protection

CEQA Statute Section 21083.4, "Counties; Conversion of Oak Woodlands; Mitigation Alternatives," requires that counties determine whether a development will have potential impacts on oak woodlands:

[83] Op. Cit.
[84] Op. Cit. 9-9.
[85] Op. Cit.

21083.4(a): "For purposes of this section, "oak" means a native tree species in the genus Quercus, not designated as Group A or Group B commercial species pursuant to regulations adopted by the State Board of Forestry and Fire Protection pursuant to Section 4526, and that is 5 inches or more in diameter at breast height."

21083.4(b): " …a county shall determine whether a project within its jurisdiction may result in a conversion of oak woodlands that will have a significant effect on the environment. If a county determines that there may be a significant effect to oak woodlands, the county shall require one or more of the…[listed] oak woodlands mitigation alternatives…"

Local

Tulare County General Plan 2030 Update

The following Tulare County General Plan 2030 Update policies for this resource apply to this Project such as: *ERM-1.1 Protection of Rare and Endangered Species* which protects environmentally sensitive wildlife and plant life, including those species designated as rare, threatened, and/or endangered by State and/or Federal government, through compatible land use development; *ERM-1.2 Development in Environmentally Sensitive Areas* where the County shall limit or modify proposed development within areas that contain sensitive habitat for special status species and direct development into less significant habitat areas. Development in natural habitats shall be controlled so as to minimize erosion and maximize beneficial vegetative growth; *ERM-1.4 Protect Riparian Areas* where the County shall protect riparian areas through habitat preservation, designation as open space or recreational land uses, bank stabilization, and development controls; *ERM-1.6 Management of Wetlands* where the County shall support the preservation and management of wetland and riparian plant communities for passive recreation, groundwater recharge, and wildlife habitats; *ERM-1.7 Planting of Native Vegetation* where the County shall encourage the planting of native trees, shrubs, and grasslands in order to preserve the visual integrity of the landscape, provide habitat conditions suitable for native vegetation and wildlife, and ensure that a maximum number and variety of well-adapted plants are maintained; *ERM-1.16 Cooperate with Wildlife Agencies* which states that the County shall cooperate with State and federal wildlife agencies to address linkages between habitat areas; and *ERM-2.7 Minimize Adverse Impacts* where the County will minimize the adverse effects on environmental features such as water quality and quantity, air quality, flood plains, geophysical characteristics, biotic, archaeological, and aesthetic factors

Project Impact Analysis

a - c) Less Than Significant Impact With Mitigation: As noted earlier, the proposed Project is to develop 206 single-family residences at the northwest of the intersection of Avenue 310 and Road 72 within the Goshen Community Plan Urban Development Boundary area. The approximately 37.0 (gross) acres site will have a density of 5.82 units per acre constructed on approximately 35.39 acres of the site based on the gross area dedicated to residential development (i.e. lots and roadways with curbs, gutters, and sidewalks). The remaining acreage will be utilized as open space in the form of a stormwater detention basin. The Project will not require removal of any native valley oaks or other trees. However, there is a possibility that migratory birds and raptors may be present within the vicinity of the Project site, or due to the transient nature of some species, the Project site could provide habitat or foraging areas for special status species such as kit fox and Swainson's hawk.

As noted earlier, consultants Live Oak Associates, Inc. (LOA) conducted an investigation of the biological resources of the Goshen Community Plan Proposed Planning Study Area (PPSA) in the outskirts of the community of Goshen and evaluated likely impacts to such resources resulting from development of the PPSA. The PPSA consists primarily of agricultural fields, orchard, residential areas, an auto salvage yard, and disturbed grassland. As indicated in Figure 4 of the Biological Evaluation (see Appendix "B" of this Goshen Community Plan 2030 Update RDEIR), only two special status species have been recorded within the PPSA. It is also noted that in May 2017, Caltrans initiated work on the new SR 99/Betty Drive interchange and overcrossing and removed a stand of eucalyptus trees northeast of SR99/Betty Drive. Although the Biological Evaluation identified this location as suitable for nesting,[86] it does not indicate the presence of special status birds (i.e., Swainson's hawk) in this or any stand within the PPSA. If special status species were found within this particular stand; avoidance, minimization or other form of mitigation would fall under the purview of Caltrans. Regardless of any action(s) which Caltrans may have taken. The SR 99/Betty Drive interchange and overcrossing has been completed and the stand has been removed. As such, this site's potential habitat has been permanently removed from this location within the PPSA.

As indicated in the Biological Evaluation (BE); "Swainson's hawks have consistently been documented nesting in the vicinity of the PPSA. The CNDDB lists 12 nesting occurrences of Swainson's hawk within four miles of the PPSA. One such

[86] *"Goshen Community Plan Update Biological Evaluation Tulare County, California."* Page 26. Prepared by Live Oak Associates, Inc. and included as "Appendix "B" of the Goshen Community Plan Update DEIR.

occurrence, documented in 2012, is just 0.8 mile south of the western block of the PPSA, while the remaining 11 occurrences are more than one mile from the PPSA. The PPSA contains 220 acres of alfalfa fields, which represent high-quality foraging habitat for the Swainson's hawk throughout the breeding season, and 340 acres of wheat fields, which are generally used by Swainson's hawks at harvest time. Together, these crop types account for 560 acres of the PPSA. Although wheat and alfalfa fields are regionally abundant, the loss of 560 acres of these crop types may have a significant effect on Swainson's hawks nesting in the near vicinity of the PPSA."[87]

"Swainson's hawks nesting on or in the near vicinity of an individual project site may also be at risk of construction-related mortality or disturbance. Project activities that adversely affect the nesting success of Swainson's hawks or result in the mortality of individual hawks constitute a violation of state and federal laws (see Sections 3.2.4 to 3.2.6) and are considered a potentially significant impact under CEQA."[88]

As discussed in the BE; **"**The San Joaquin kit fox is known from the vicinity of the PPSA, and individuals may occasionally pass through or forage within the PPSA. If a kit fox were present at the time of future construction activities in the PPSA, then it would be at risk of project-related injury or mortality. Kit fox mortality as a result of future development of the PPSA would violate the state and federal Endangered Species Acts, and is considered a potentially significant impact under CEQA."[89]

"As discussed in Section 2.5.5. [of the BE], burrowing owls have the potential to nest or roost in those portions of the PPSA in which suitable rodent burrows are present, which at the time of the April 2014 survey consisted of certain ruderal areas and vacant lots. If one or more owls were present in an individual project area at the time of construction, then construction activities would have the potential to injure or kill these individuals. Mortality of individual burrowing owls would violate California Fish and Game Code and the federal Migratory Bird Treaty Act, and is considered a potentially significant impact under CEQA."[90]

"Although habitats of the PPSA are primarily marginal to unsuitable for the American badger, badgers may occasionally pass through the PPSA, foraging in agricultural fields and possibly denning in ruderal areas. In the event that one or more badgers were denning in an individual project area at the time of construction, these individuals would be at risk of construction-related injury or mortality. Construction mortality of American badgers is a potentially significant impact of future development of the PPSA."[91]

In regards to Project-Related mortality/disturbance of nest raptor and migratory birds; "The majority of the PPSA consists of habitat that could be used for nesting by one or more avian species protected by the federal Migratory Bird Treaty Act and related state laws. Tree-nesting songbirds and raptors may nest in the PPSA's orchards or residential areas, in the various trees located along ruderal roadsides, or in the eucalyptus stand in the vacant lot. Red-winged or tricolored blackbirds may nest in the PPSA's wheat fields. Killdeers may nest on bare ground or gravel surfaces in ruderal or industrial areas of the PPSA, and the house finch may nest in the PPSA's buildings. Raptors and migratory birds nesting within the PPSA at the time that individual projects are implemented have the potential to be injured or killed by project activities. In addition to direct "take" of nesting birds, project activities could disturb birds nesting within or adjacent to work areas such that they would abandon their nests. Project activities that adversely affect the nesting success of raptors and migratory birds or result in the mortality of individual birds constitute a violation of state and federal laws and are considered a potentially significant impact under CEQA."[92]

"In regards to Project-Related mortality of roosting bats, the BE indicates that; "Development of the PPSA may result in the removal of buildings and mature trees that provide potential roosting habitat for bats. If trees or buildings removed by construction activities contain colonial roosts, many individual bats could be killed. Such a mortality event is considered a potentially significant impact of the project under CEQA."[93]

Based on this analysis, implementation of **Mitigation Measures 4-1** through **4-21** (which can be found in their entirety in Attachment "G" of this IS/MND), as applicable, would reduce potential Project-specific impacts related to this Checklist Item to less than significant.

[87] Op. Cit. 37-38.
[88] Op. Cit. 38.
[89] Op. Cit. 39.
[90] Op. Cit. 41.
[91] Op. Cit. 42.
[92] Op. Cit. 43.
[93] Op. Cit. 45.

Summary of Mitigation Measures:

Swainson's hawk:	**4-1** Nesting Surveys; **4-2** Avoidance; **4-3** Establish Buffers; and **4-4** Compensatory Mitigation.
San Joaquin kit fox:	**4-5** Pre-construction Surveys; **4-6** Avoidance; **4-7** Minimization; **4-8** Employee Education Program; and **4-9** Mortality Reporting
Burrowing owl:	**4-10** Pre-construction Surveys; **4-11** Avoidance of Active Nests; and **4-12** Passive Relocation of Resident Owls.
American Badger:	**4-13** Pre-construction Surveys and **4-14** Avoidance.

Nesting Raptors and Migratory Birds: **4-16** Pre-construction Surveys; **4-15** Avoidance; and **4-17** Establish Buffers.

Roosting Bats:	**4-19** Pre-construction Surveys; **4-18** Avoidance; **4-20** Minimization; and **4-21** Avoidance of Maternity Roosts.

"It should be noted that projects involving the grading of more than one acre of land must be in compliance with provisions of a General Construction permit (a type of NPDES permit) available from the RWQCB."[94]

Based on this analysis, implementation of **Mitigation Measures 4-22** through **4-24** (which can be found in their entirety in Attachment "G" of this IS/MND), as applicable, would reduce potential Project-specific impacts related to this Checklist Item to less than significant."[95]

Summary of Mitigation Measures:

Waters of the United States:	**4-22** Avoidance and/ or Minimization; **4-23** Compliance with Terms of the Permits; and **4-24** Compensatory Mitigation.

As noted earlier, RMA Staff prepared a Biological Resources Evaluation Technical Memorandum (BRE Memo) to evaluate potential Project-specific impacts on biological species (See Attachment "B"). The BRE Memo indicates that the Project site itself is within the historic range of one (1) special status plant species and that it is within five miles of the historic range of seven (7) special status animal species, five (5) special status plant species, and two (2) natural communities. As the Project site is within the Goshen Urban Development Boundary the proposed Project is subject to the mitigation measures included in the Environmental Impact Report (EIR) and Mitigation and Monitoring Program (MMRP) prepared for the Goshen Community Plan Update. The BRE Memo notes that the Goshen Community Plan MMRP does not include mitigation measures for all the special status plant and animal species identified in Table 1 (of the BRE) and recommended incorporation of the following mitigation measures, which can be seen in their entirety in Attachment "G" of this IS/MND.

Summary of Mitigation Measures:

Special Status Plant Species: **4-25** Pre-construction Surveys.

Special Status Animal Species: **4-256** Pre-construction Surveys.

Based on this analysis, implementation of **Mitigation Measures 4-25** through **4-26** (which can be found in their entirety in Attachment "G" of this IS/MND), would require pre-construction surveys for any special status species and subsequent action in event of discovery. As such, these measures would reduce potential Project-specific impacts related to this Checklist Item to less than significant."[96]

d) Less Than Significant Impact: The Biological Evaluation contained in Appendix "B" of the Goshen Community Plan 2030 Update DEIR notes, "The PPSA consists of and is surrounded by developed and/or highly disturbed lands that do not support important movement corridors for native wildlife. As discussed, there are three ditches that pass through the PPSA. However, they are devoid of riparian vegetation and are bisected by numerous roads throughout their length, making them unsuitable for movement corridors. Birds using the Pacific flyway will continue to do so following project development."[97] As such, a less than significant impact related to this Checklist Item will occur.

[94] Op. Cit.
[95] Op. Cit.
[96] Op. Cit.
[97] Op. Cit. 50.

e) **No Impact:** LOA noted in the Biological Evaluation that "individual projects will be implemented in accordance with the goals and policies of the Tulare County General Plan."[98] As the site does not contain any trees, no impact related to this Checklist Item will occur.

f) **No Impact:** The proposed Project will not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinances. Moreover, the proposed Project is not expected to conflict with the goals or policies of the Tulare County General Plan that protect biological resources. Also, as the Project is not within or in the vicinity of any approved habitat conservation plans, natural community conservation plans, or regional or state habitat conservation plans in effect, the Project would result in no impact to these resources.

Cumulative Impact Analysis

The geographic area of this cumulative analysis is the San Joaquin Valley. While the study area is limited to Tulare County, sensitive species with similar habitat requirements may exist in other portions of the San Joaquin Valley, and therefore cumulative impacts would extend beyond Tulare County political boundaries. The proposed Project would only contribute to cumulative impacts related to this Checklist Item if Project-specific impacts were to occur.

As the proposed Project does not result in significant loss of habitat or direct impact to these special status species, implementation of **Mitigation Measures 4-1** through **4-21**, and **4-25** through **4-26** (which can be found in their entirety in Attachment "G" of this IS/MND), as applicable, would result in a less than significant impact to this resource. The proposed Project does not result in significant loss of habitat or direct impact to these special status species, a less than significant cumulative impact will occur. The proposed Project does not result in significant impacts to potential waters of the U.S., a less than significant cumulative impact with mitigation would occur through implementation of **Mitigation Measures 4-22** through **4-24**, (which can be found in their entirety in Attachment "G" of this IS/MND), as applicable, would result in a less than significant impact to this resource. The PPSA consists of and is surrounded by developed and/or highly disturbed lands that do not support important movement corridors for native wildlife. Birds using the Pacific flyway will continue to do so following project development. As such, a less than significant cumulative impact related to this Checklist Item will occur. As the site does not contain any trees, is not within or in the vicinity of any approved habitat conservation plans, natural community conservation plans, or regional or state habitat conservation plans in effect, will not conflict with any local policies or ordinances protecting biological resources (such as a tree preservation policy or ordinances), and is not expected to conflict with the goals or policies of the Tulare County General Plan that protect biological resources; as such, there will be no Project-specific or Cumulative Impacts to these resources.

5.	**CULTURAL RESOURCES**					
	Would the project:		**SIGNIFICANT IMPACT**	**LESS THAN SIGNIFICANT IMPACT WITH MITIGATION**	**LESS THAN SIGNIFICANT IMPACT**	**NO IMPACT**
	a)	Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	☐	☒	☐	☐
	b)	Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	☐	☒	☐	☐
	c)	Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐

The discussions regarding Environmental Setting, CEQA requirements, Regulatory Setting, Chapter 3.5 Cultural Resources, Chapters 4 through 9, Appendices "A" through "I", etc., contained in the Goshen Community Plan Update and Environmental Impact Report are incorporated herein in their entirety. Where necessary and if available, additional site specific facts, data, information, etc., are included in this discussion.

Environmental Setting

"As indicated in the Cultural Resources Assessment ([CRA], Appendix "C" [of the Goshen Community Plan Update Draft EIR and incorporated by reference in its entirety]), the Proposed Planning Study Area is located in the central San Joaquin Valley

[98] Op. Cit. 51.

north, east, and west of the community of Goshen. The valley is bordered by the Sierra Nevada to the east, the Tehachapi Mountains to the south, the California coastal ranges to the west, and the Sacramento-San Joaquin Delta to the north."

Background

"Prior to Euro American exploration and settlement in the region, the central San Joaquin Valley was extensive grassland covered with spring-flowering herbs. Stands of trees -- sycamore, cottonwoods, box elders and willows -- lined the stream and river courses with groves of valley oaks in well-watered localities with rich soil. Rivers yielded fish, mussels, and pond turtles; migratory waterfowl nested in the dense tules along the river sloughs downstream. When the Spanish first set foot in the area, they found the deer and tule elk trails to be so broad and extensive that they first supposed that the area was occupied by cattle. Grizzly bears occupied the open grassland and riparian corridors on the valley floor and adjacent foothills. Smaller mammals and birds, including jackrabbits, ground squirrels, and quail were abundant. Native Americans occupants of the region describe abundant sedge beds, along with rich areas of deer grass, plants that figure prominently in the construction of Native American basketry Items."[99]

"Prehistoric Period Summary

The San Joaquin Valley and adjacent Sierran foothills and Coast Range have a long and complex cultural history with distinct regional patterns that extend back more than 11,000 years (McGuire 1995). The first generally agreed-upon evidence for the presence of prehistoric peoples in the region is represented by the distinctive basally-thinned and fluted projectile points, found on the margins of extinct lakes in the San Joaquin Valley. These projectiles, often compared to Clovis points, have been found at three localities in the San Joaquin Valley including along the Pleistocene shorelines of former Tulare Lake. Based on evidence from these sites and other well dated contexts elsewhere, these Paleo-Indian hunters who used these spear points existed during a narrow time range of 11550 cal B.C. to 8550 cal B.C. (Rosenthal et al. 2007).

As a result of climate change at the end of the Pleistocene, a period of extensive deposition occurred throughout the lowlands of central California, burying many older landforms and providing a distinct break between Pleistocene and subsequent occupations during the Holocene. Another period of deposition, also a product of climate change, had similar results around 7550 cal B.C., burying some of the oldest archaeological deposits discovered in California (Rosenthal and Meyer 2004).

The Lower Archaic (8550-5550 cal B.C.) is characterized by an apparent contrast in economies, although it is possible they may be seasonal expressions of the same economy. Archaeological deposits which date to this period on the valley floor frequently include only large stemmed spear points, suggesting an emphasis on large game such as artiodactyls (Wallace 1991). Recent discoveries in the adjacent Sierra Nevada have yielded distinct milling assemblages which clearly indicate a reliance on plant foods. Investigations at Copperopolis (LaJeunesse and Pryor 1996) argue that nut crops were the primary target of seasonal plant exploitation. Assemblages at these foothill sites include dense accumulations of handstones, millingslabs, and various cobble-core tools, representing "frequently visited camps in a seasonally structured settlement system" (Rosenthal et al. 2007:152). During the Lower Archaic, regional interaction spheres were well established. Marine shell from the central California coast has been found in early Holocene contexts in the Great Basin east of the Sierra Nevada, and eastern Sierra obsidian comprises a large percentage of flaked stone debitage and tools recovered from sites on both sides of the Sierra (Rosenthal et al. 2007:152).

About 8,000 years ago, many California cultures shifted the main focus of their subsistence strategies from hunting to nut and seed gathering, as evidenced by the increase in food-grinding implements found in archeological sites dating to this period. This cultural pattern is best known for southern California, where it has been termed the Milling Stone Horizon (Wallace 1954, 1978a), but recent studies suggest that the horizon may be more widespread than originally described and is found throughout the central region during the Middle Archaic Period. Dates associated with this period vary between 9,000 and 2,000 cal BP, although most cluster in the 6,800 to 4,500 cal BP range (Basgall and True 1985).

On the valley floor, early Middle Archaic sites are relatively rare; this changes significantly toward the end of the Middle Archaic. In central California late Middle Archaic settlement focused on river courses on the valley floor. "Extended residential settlement at these sites is indicated by refined and specialized tool assemblages and features, a wide range of nonutilitarian artifacts, abundant trade objects, and plant and animal remains indicative of year-round occupation" (Rosenthal et al. 2007:154). Again, climate change apparently influence this shift, with warmer, drier conditions prevailing throughout California. The shorelines of many lakes, including Tulare Lake, contracted substantially, while at the same time rising sea levels favored the

[99] *"Goshen Community Plan Update Cultural Resources Assessment Tulare County, California"* August 2014. Page 4. Prepared by Sierra Valley Cultural Planning Inc. and included in Appendix "C" of the Goshen Community Plan Update Draft EIR.

expansion of the San Joaquin/Sacramento Delta region, with newly formed wetlands extending eastward from the San Francisco Bay.

In contrast with rare early Middle Archaic sites on the valley floor, early Middle Archaic sites are relatively common in the Sierran foothills, and their recovered, mainly utilitarian assemblages show relatively little change from the preceding period with a continued emphasis on acorns and pine nuts. Few bone or shell artifacts, beads, or ornaments have been recovered from these localities. Projectile points from this period reflect a high degree of regional morphological variability, with an emphasis on local toolstone material supplemented with a small amount of obsidian from eastern sources. In contrast with the more elaborate mortuary assemblages and extended burial mode documented at Valley sites, burials sites documented at some foothill sites such as CA-FRE-61 on Wahtoke Creek are reminiscent of "re-burial" features reported from Milling Stone Horizon sites in southern California. These re-burials are characterized by re-interment of incomplete skeletons often capped with inverted millingstones (McGuire 1995:57).

A return to colder and wetter conditions marked the Upper Archaic in Central California (550 cal B.C. to cal A.D. 1100). Previously desiccated lakes returned to spill levels and increased freshwater flowed in the San Joaquin and Sacramento watershed. Cultural patterns as reflected in the archeological record, particularly specialized subsistence practices, emerged during this period. The archeological record becomes more complex, as specialized adaptations to locally available resources were developed and valley populations expanded into the lower Sierran foothills. New and specialized technologies expanded and distinct shell bead types occurred across the region. The range of subsistence resources utilized and exchange systems expanded significantly from the previous period. In the Central Valley, archaeological evidence of social stratification and craft specialization is indicated by well-made artifacts such as charmstones and beads, often found as mortuary Items. The period between approximately cal A.D. 1000 and Euro-American contact is referred to as the Emergent Period.

The Emergent Period is marked by the introduction of bow and arrow technology which replaced the dart and atlatl at about cal A.D. 1000 and 1300. In the San Joaquin region, villages and small residential sites developed along the many stream courses in the lower foothills and along the river channels and sloughs of the valley floor. A local form of pottery was developed in the southern Sierran foothills along the Kaweah River. While many sites with rich archaeological assemblages have been documented in the northern Central Valley, relatively few sites have been documented from this period in the southern Sierran foothills and adjacent valley floor, despite the fact that the ethnographic record suggests dense populations for this region."[100]

"Ethnographic Summary

Prior to EuroAmerican settlement, most of the San Joaquin Valley and the bordering foothills of the Sierra Nevada and Coast Range were inhabited by speakers of Yokutsan languages. The southern San Joaquin Valley, from the lower Kings River to the Tehachapi Mountains, formed the nucleus of the Southern Valley Yokuts homeland (Wallace 1978b:448). Population densities were highest in this area, with as many as 10+ people per square mile living along a narrow strip bordering the San Joaquin and its tributaries (Baumhoff 1963: map 7[of the Cultural Resource Assessment]). The present project area falls within *Telamni* Yokuts territory (Figure 1 [of the Cultural Resource Assessment]). "Cross, Mill, and Packwood Creeks were occupied by the *Talumne* [*Telamni]*. This tribe had a large rancheria [*Watot Shulul*], the site of which now probably is within the present southeastern Visalia city limits" (Latta 1999:175, 670).

Due to the abundance and diversity of wildlife habitats and plant communities within the Sierran foothills and nearby San Joaquin Valley and higher elevations of the Sierra Nevada, Native American population densities in the region were quite high (Baumhoff 1963). While the acorn was the dietary staple, the diversity of accessible natural resources provided an omnivorous diet. The reader is referred to Gayton (1948), Kroeber (1925), Latta (1999) and Wallace (1978b) for additional information on precontact Yokuts subsistence and culture. (Figure 1 [of the Cultural Resource Assessment]). Depicts the territory of the location of *Telamni* Yokuts relative to the study area."[101]

"Historic Period Summary

The San Joaquin Valley was visited in the early 1800s by Spanish expeditions exploring the interior in search of potential mission sites. One of the earliest Americans to explore the Tulare area was Jedediah Strong Smith in 1826-27. In 1832-33 Colonel Jose J. Warner, a member of the Ewing-Young trapping expedition, passed through the San Joaquin Valley. Warner described Native villages densely packed along the valley waterways, from the foothills down into the slough area. The next year he revisited the area following a devastating malaria epidemic. Whereas the previous year the region had been densely

[100] Ibid. 4-5.
[101] Op. Cit. 5-6.

occupied by Native peoples, during this trip not more than five Indians were observed between the head of the Sacramento Valley and the Kings River (Cook 1955).

EuroAmerican appreciation for the land did not include acceptance of its indigenous human populations, and pressure was exerted upon the US military to remove the Native population from the region, leaving the region open for American settlement and resource development. EuroAmerican settlement of the region began in 1851 with the establishment of Fort Miller on the San Joaquin River. Hostilities between Native inhabitants and American settlers initially prevented widespread settlement of the region; however, by 1860 such threats had been reduced and settlers began taking up large tracts in the region.

In late 1849 or early 1850, a party under the leadership of John Wood settled on the south bank of the Kaweah River, about seven miles east of the present city of Visalia (Hoover et al. 1990:508). In April, 1852, Tulare County was created, with the county seat initially located at Woodsville. In 1853 the county seat was removed to Fort Visalia, located in the area bounded by Oak, Center, Garden and Bridge streets.

Many of the early EuroAmerican settlers in the region were successful gold miners, eager to settle in this new land and reinvest their profits. The earliest economic development of the area focused on cattle. Miller and Lux, the cattle kings, claimed ownership to hundreds of thousands of acres in the San Joaquin Valley. Agriculture, particularly winter wheat cultivation, gained importance following passage of the "No Fence" law of 1874 (Clough 1996:29). Crop production later shifted to orchard and vineyard crops, particularly oranges.

Conflicts between ranchers and farmers over water rights led to the passage of the Wright Act in 1887 (JRP 2000). The Wright Act enabled the creation of irrigation districts within the state. These districts were often controlled by large land owners and provided little relief to small farm owners. Later in the 1930s, state and federal government took on a much larger role in providing reliable water conveyance. In 1933 California voters approved the Central Valley Project, which called for construction of a huge system of canals and dams/reservoirs throughout the state. In 1935 the Federal government released funds for construction of the project, and two years later the U.S. Bureau of Reclamation was given authority to take over the project (JRP 2000:74). The Friant-Kern Canal was authorized for construction by Congress in the Central Valley Project Act of 1937, and the canal was built between 1945 and 1951. The Friant-Kern Canal conveys water from Lake Millerton to Bakersfield, covering a distance of 152 miles.

The community of Goshen was initially called Goshen Junction. The Central Pacific Railroad built a line from Lathrop to Goshen in 1872, and named the place after the biblical "Land of Plenty." From that junction, in 1874 construction began on a line connecting Goshen to Visalia on the east, and in 1876 the Southern Pacific began the Goshen Division which bypassed Grangeville and created Hanford, Lemoore, Huron, and Coalinga, ultimately ending at Alcalde in the Coast Range in 1778. A post office was opened on April 1, 1880, followed by establishment of the first school in 1885 (Mitchell 1976:126), which was located immediately west of Road 68 just north its junction with the Southern Pacific tracks in the northeast corner of Section 24 (Figure 2 [of the Cultural Resource Assessment]).

Writing in 1892, anonymous author(s) of The Lewis Publishing Company (1892:224) described the community of Goshen:

> *Goshen, geographically speaking, occupies a very important position. She is on the main line of the Southern Pacific Railroad. The Visalia road branches off here toward the east, and the Mussel Slough road to the west, giving the town the appearance of a railroad center. From some unknown cause the town has never grown much. The country surrounding nearby is good. An artesian well has been sunk there and a considerable flow of water obtained. The town has a good general merchandise establishment, two hotels, a lumber yard, grain warehouse, large and convenient depot, stock-yards, etc. Recently there is an air of activity apparent, and Goshen will yet be an important town.*

In 2010 the population of Goshen was noted as 3,006. The majority of residences are single family homes. A few buildings date to the early/middle 1900s, although the vast majority of constructions appears to date to post 1960. Little above-ground evidence remains of the boom period of the late 1880s."[102]

Existing Resources

"Records Search Results

[102] Op. Cit. 6-9.

Prior to a windshield survey of the study area, a records search was conducted by the author at the Southern San Joaquin Valley Information Center of the California Historical Resources Information System at CSU Bakersfield to identify areas previously surveyed and 10 identify known cultural resources present within or in close proximity to the study area. Three previously recorded historic-period sites have been recorded within the study area; five additional historic-period sites have been identified within one-half mile of the study area (Map 3 [of the Cultural Resource Assessment]).

There are no other resources within or in the immediate vicinity of the study area that are listed on the National Register of Historic Places, the California Register of Historic Resources, California Points of Historical Interest, State Historic Landmarks, or the California Inventory of Historic Resources. Thirteen cultural resources surveys have been completed within the study area; an additional eight studies have been completed within one-mile of the study area (Map 4 [of the Cultural Resource Assessment]). All records search materials are included as (Attachment A [of the Cultural Resource Assessment]).[103]"

"Cultural Resource Identification within the Goshen Planning Study Area

Based on current information, there are three known cultural resource sites within or immediately adjacent to the study area. These include three non-Native American historic-era sites (Map 3 [of the Cultural Resource Assessment]). No Native American resources have been identified within or in close proximity to the study.

- *P-54-002173* This resource includes a small earthen canal flowing in an east/west direction. A wooden railroad trestle supports the railroad crossing over the canal. The canal feature delivers water from the St. Johns River. The resource was recorded in 1995 as part of the Santa Fe Pacific Pipeline Concord to Colton Project by William Self Associates.

- *P-54- 002174* This resource includes an earthen canal flowing in an east/west direction; it is identified on the USGS topographic quadrangle map as the Mill Creek Ditch. Two galvanized culvert pipes support the railroad over the ditch. In 1995 the Mill Creek Ditch was described as flowing through agricultural areas planted with barley and wheat. The resource was recorded in 1995 as part of the Santa Fe Pacific Pipeline Concord to Colton Project by William Self Associates. In 2000 Mill Creek Ditch was evaluated and determined not to appear to meet the criteria for listing in the National Register of Historic Places, nor did it appear to be a historical resource per CEQA guidelines (Jones & Stokes 2000).

- *P-54-004795/4995* This resource is a water tower built in 1957 and located at 7533 W. Goshen Avenue in a business park. The tower was initially documented in 2010 by URS Corp. It was further documented and evaluated for listing on the National Register in 2012 by Dana Supernowicz, and found to be ineligible for listing as an individual structure due to the ubiquitous nature and standard design if this form of elevated water tank constructed throughout much of California. The tank site was mistakenly identified as the Avenue 304 Water Tower and Tank on the 2012 site record headings and map. Inspection of the alleged Avenue 304 tank site during the present assessment identified no such resource."[104]

Based on the information contained in the CRA, none of the resources is near or on the proposed Project site.

"Cultural Resources Identified Near the Goshen Planning Study Area

- *P-54-003602* This site includes a segment of the Modoc Ditch located on Road 80 east of the study area. The Modoc Ditch collects water from the St. Johns River north of the City of Visalia and conveys it westwards to a reservoir located within the study area. The ditch is earthen and approximately 17 feet across and right feet in depth. Portions of Modoc Ditch were originally constructed in 1875; however, from an engineering standpoint the ditch has been considerable altered since that early date (period of significance), and was judged to be ineligible for listing on the National Register of Historic Places (Jones & Stokes 2000).

- *P-54-003619* The house at 30264 Road 80 is 877 square feet in size, constructed in 1946. The house is a wood frame structure with a side gabled roof over a simple rectangular plan. A 432 square foot garage, constructed at the same time as the residence, stands on the south side of the property and is a wood structure with board and batten walls and a suspended sliding garage door. The house now stands in a setting surrounded by modern industrial buildings. The property was recorded and evaluated in 2000 by Jones & Stokes as part of the Road 80 Widening Project and found to be ineligible for listing on the National Register of Historic Places (Jones & Stokes 2000).

[103] Op. Cit. 6-10.
[104] Op. Cit. 10

- *P-54-003893* This Craftsman cottage is located west of the study area at 5904 Highway 198 and at the time of recording was described as unaltered and in good condition. The property was recorded as part of the State Route 198 – Freeway Gap Closure Project by David Chavez & Associates (1989).

- *P-54-002175* This resource includes a segment of the North Fork of the Persian Ditch, located south of SR 198; portions of the ditch have been undergrounded through the Visalia Airport. The earthen ditch flows under railroad tracks supported on a wooden trestle. The resource was recorded in 1995 as part of the Santa Fe Pacific Pipeline Concord to Colton Project by William Self Associates. In 1990 the Persian Ditch was evaluated as eligible for listing on the National Register of Historic Places, having significance both through its association with the earliest irrigation efforts in California as well as an example of early ditch construction (JRP Historic Consulting Services and the California Department of Transportation 2000: Appendix A:29).

- *P-54-004623* The site marks a row of California black walnut trees that runs parallel to SR 198 from the Tulare County line to slightly west of the intersection of SR 198 and West Avenue. The trees may have been planted by the Department of Public Works in 1933 as part of the statewide highway beautification process. The row is situated on the south side of the highway, six feet from the edge. The resource was documented by JRP Historical Consulting, Inc., as part of the Caltrans District 6/9 Rural Conventional Highways Cultural Resources Inventory project (Leach-Palm et al. 2009)."[105]

Based on the information contained in the CRA, none of the resources is near or on the proposed Project site.

"Previous Cultural Resource Investigations within the Study Area [See **Figure 5-1** in this MND]

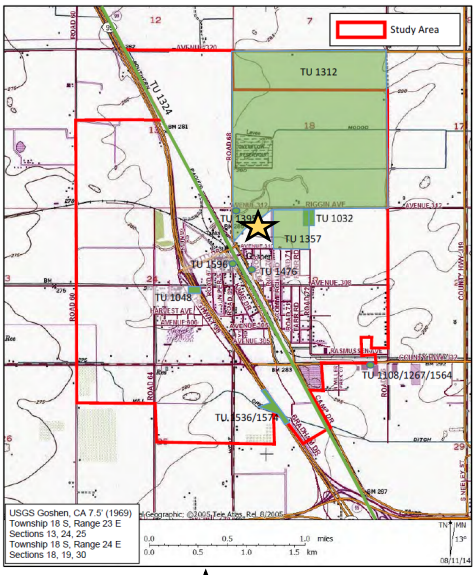
Thirteen cultural resources surveys have been completed within the study area (Map 4 [of the CRA, **Figure 5-1** in this MND]); an additional eight studies have been completed within one-mile of the study area."

In 1977 an archaeological survey was completed of the proposed railroad crossing at Road 68 and Avenue 309 by Consulting Archaeologist R. J. Cantwell (TU 187). No resources were identified.

In 2000 Dudley Varner of Varner Associates completed an archaeological survey of seven acres for the proposed Goshen Village Housing Project (TU 1032). No resources were identified.

In 2001 Caltrans District 6 Archaeologist Steven Ptomey completed an archaeological survey adjacent to SR 99 as part of the proposed pedestrian overcrossing of Route 99 (TU 1048). No resources were identified.

Figure 5-1
Cultural Resource Studies completed with Goshen Planning Study Area Vicinity



= Site

[105] Op. Cit. 10-12.

Between 2001 and 2010 three separate surveys were completed for cellular communications site installations on an existing water tower, identified above as P-54- 004795/4995 (TU 1108, TU 1267, and TU 1564). As discussed above, the water tower has been evaluated as not having qualities which would make it eligible for listing in the National Register of Historic Places. No other resources were identified during these three surveys.

In 2006 SWCA Environmental Consultants completed a linear cultural resources survey parallel to the Southern Pacific Railroad which extend southern from Madera County to Kern County. No resources were identified in that portion of the survey area that crosses through the present study area (TU 1324).

A survey of a 640-acre parcel was completed by Basin Research Associates in 2006 (TU 1312). The survey was completed as part of an environmental review for the proposed low density housing, park, and neighborhood commercial area on the northwest portion of Riggin Avenue/Avenue 312 and Road 72. A heavy industrial component was included in the triangular corner of the project area bounded by Road 70 to Road 68/Camp Drive. The previously discussed Modoc Ditch runs through the parcel, which at the time of survey was under cultivation and no structures were present. No other resources were identified during the survey.

In 2008 Dudley Varner of Varner Associates completed an archaeological survey of 39 acres for a proposed 60-unit multi-family and 77 single-family housing project (TU 1357). No resources were identified during the survey.

In 2008 Dudley Varner of Varner Associates completed an archaeological survey of 39 acres for a proposed 60-unit multifamily and 77 single-family housing project (TU 1357), No resources were identified.

In 2009 Compass Rose Archaeological, Inc., completed a Phase 1 cultural resource investigation for the proposed replacement of 15 deteriorated wood poles along 13 distribution line circuits on private property in Tulare County (TU 1395). The investigation included one location within the present study area. In 2010 a survey was completed for another deteriorated power pole replacement project which include a pole in the study area (TU 1476). No resources were identified as a result of either survey.

In 2011 a supplemental Archaeological Survey Report and Historic Property Survey Report were completed for the northern segment of the Tulare/Goshen Six-Lane Project on State Route 99 (TU 1136 and TU 1574). No resources were identified as a result of these investigations."[106]

As such, based on the information contained in the CRA, two surveys (TU 1312 and TU 1357) were completed on the proposed Project site; however, no resources were identified during the survey.

RMA received results dated December 14, 2020 from the California Historical Resources Information System at CSU, Bakersfield, Southern San Joaquin Valley Information Center (see Attachment "C") noting there has been one previous cultural resource study conducted within the eastern portion of the project area (TU-01357). Further, there have been ten additional studies conducted within the one-half mile radius of the project site (TU-00102, -00187, -01032, -01158, -01312, -01324, -01395, -01476, -01676, and -01789. "There are no recorded cultural resources within the project area, and it is not known if any exist in most of this area. There is one recorded resource within the on-half mile radius, P-54-004626, an historic era railroad. There are no recorded cultural resources within the project area or radius that are listed in the National Register of Historic Places, the California Register of Historical Resources, the California Points of Historical Interest, California Inventory of Historic Resources, or the California State Historic Landmarks" [107]

Regulatory Setting:

Federal

Cultural resources are protected by several federal regulations, none of which are relevant to this project because it will not be located on lands administered by a federal agency and the project applicant is not requesting federal funding and does not require any permits from any federal agencies.

State

[106] Op. Cit. 10-12

[107] California Historical Resources Information System at CSU, Bakersfield, Southern San Joaquin Valley Information Center. Record Search 20-435. December 14, 2020.

California State Office of Historic Preservation (OHP)

"The California State Office of Historic Preservation (OHP) is responsible for administering federally and state mandated historic preservation programs to further the identification, evaluation, registration and protection of California's irreplaceable archaeological and historical resources under the direction of the State Historic Preservation Officer (SHPO), a gubernatorial appointee, and the State Historical Resources Commission.

OHP's responsibilities include:

- Identifying, evaluating, and registering historic properties;
- Ensuring compliance with federal and state regulatory obligations;
- Encouraging the adoption of economic incentives programs designed to benefit property owners;
- Encouraging economic revitalization by promoting a historic preservation ethic through preservation education and public awareness and, most significantly, by demonstrating leadership and stewardship for historic preservation in California.

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Architectural Review and Incentives

OHP administers the Federal Historic Preservation Tax Incentives Program and provides architectural review and technical assistance to other government agencies and the general public in the following areas:

- Interpretation and application of the Secretary of the Interior's Standards and Guidelines for the Treatment of Historic Properties;
- General assistance with and interpretation of the California Historical Building Code and provisions for qualified historic properties under the Americans with Disabilities Act;
- Developing and implementing design guidelines;
- Preservation incentives available for historic properties;
- Sustainability and adaptive reuse of historic properties."[108]

Information Management

The California Historical Resources Information System (CHRIS) consists of the California Office of Historic Preservation (OHP), nine Information Centers (ICs), and the State Historical Resources Commission (SHRC). The OHP administers and coordinates the CHRIS and presents proposed CHRIS policies to the SHRC, which approves these polices in public meetings. The CHRIS Inventory includes the State Historic Resources Inventory maintained by the OHP as defined in California Public Resources Code § 5020.1(p), and the larger number of resource records and research reports managed under contract by the nine ICs."[109] "The CHRIS Information Centers (ICs) are located on California State University and University of California campuses in regions throughout the state. The nine ICs provide historical resources information, generally on a fee-for-service basis, to local governments, state and federal agencies, Native American tribes, and individuals with responsibilities under the

[108] California State Parks. Office of Historic Preservation. Mission and Responsibilities. Accessed December 2020 at: http://ohp.parks.ca.gov/?page_id=1066:
[109] California State Parks. Office of Historic Preservation December 2020 at: http://ohp.parks.ca.gov/?page_id=1068.

National Environmental Policy Act, the National Historic Preservation Act, and the California Environmental Quality Act (CEQA), as well as to the general public."[110] Tulare, Fresno, Kern, Kings and Madera counties are served by the Southern San Joaquin Valley Historical Resources Information Center (Center), located at California Statue University, Bakersfield in Bakersfield, CA. The Center provides information on known historic and cultural resources to governments, institutions and individuals.

"Local Government Assistance

OHP works with California's city and county governments to aid them in integrating historic preservation into the broader context of overall community planning and development activities by adopting a comprehensive approach to preservation planning which combines identification, evaluation, and registration of historical resources with strong local planning powers, economic incentives, and informed public participation.

OHP provides guidance and technical assistance to city and county governments in the following areas:

- Drafting or updating preservation plans and ordinances;
- Planning for and conducting architectural, historical, and archeological surveys;
- Developing criteria for local designation programs, historic districts, historic preservation overlay zones (HPOZs), and conservation districts;
- Developing design guidelines using the Secretary of the Interior's Standards;
- Developing economic incentives for historic preservation;
- Training local commissions and review boards;
- Meeting CEQA responsibilities with regard to historical resources.

OHP also administers the Certified Local Government (CLG) Program and distributes at least 10% of its annual federal Historic Preservation Fund allocation to CLGs through a competitive grant program to them in achieving their historic preservation goals.

Environmental Compliance: Section 106, PRC 5024, and CEQA

OHP reviews and comments on thousands of federally sponsored projects annually pursuant to Section 106 of the National Historic Preservation Act and state programs and projects pursuant to Sections 5024 and 5024.5 of the Public Resources Code. OHP also reviews and comments on local government and state projects pursuant to the California Environmental Quality Act (CEQA).

The purpose of OHP's project review program is to promote the preservation of California's heritage resources by ensuring that projects and programs carried out or sponsored by federal and state agencies comply with federal and state historic preservation laws and that projects are planned in ways that avoid any adverse effects to heritage resources. If adverse effects cannot be avoided, the OHP assists project sponsors in developing measures to minimize or mitigate such effects.

State and Federal Registration Programs

OHP administers the National Register of Historic Places, the California Register of Historical Resources, the California Historical Landmarks, and the California Points of Historical Interest programs. Each program has different eligibility criteria and procedural requirements; all register nominations must be submitted to the Commission for review and approval.

Eligible and listed resources may be eligible for tax benefits and are recognized as part of the environment under the California Environmental Quality Act (CEQA).[111]

A historical resource may be eligible for inclusion in the California Register of Historical Resources (CRHR) if it meets the following Criteria for Designation:

- 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).
- Associated with the lives of persons important to local, California or national history (Criterion 2).
- Embodies 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).

[110] California State Parks. Office of Historic Preservation. About the CHRIS Information Centers. Accessed December 2020at: http://ohp.parks.ca.gov/?page_id=28730.
[111] Ibid.

- Has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California or the nation (Criterion 4).[112]

Native American Heritage Commission (NAHC)

"In 1976, the California State Government passed AB 4239, establishing the Native American Heritage Commission (NAHC) as the primary government agency responsible for identifying and cataloging Native American cultural resources. Up until this point, there had been little government participation in the protection of California's cultural resources. As such, one of the NAHC's primary duties, as stated in AB 4239, was to prevent irreparable damage to designated sacred sites, as well as to prevent interference with the expression of Native American religion in California. Furthermore, the bill authorized the Commission to act in order to prevent damage to and insure Native American access to sacred sites. Moreover, the Commission could request that the court issue an injunction for the site, unless it found evidence that public interest and necessity required otherwise. In addition, the bill authorized the commission to prepare an inventory of Native American sacred sites located on public lands and required the commission to review current administrative and statutory protections accorded to such sites. In 1982, legislation was passed authorizing the Commission to identify a Most Likely Descendant (MLD) when Native American human remains were discovered any place other than a dedicated cemetery. MLDs were granted the legal authority to make recommendations regarding the treatment and disposition of the discovered remains. These recommendations, although they cannot halt work on the project site, give MLDs a means by which to ensure that the Native American human remains are treated in the appropriate manner. Today, the NAHC provides protection to Native American human burials and skeletal remains from vandalism and inadvertent destruction. It also provides a legal means by which Native American descendants can make known their concerns regarding the need for sensitive treatment and disposition of Native American burials, skeletal remains, and items associated with Native American burials."[113]

As noted in their website, "The California Native American Heritage Commission (NAHC or Commission), created in statute in 1976 (Chapter 1332, Statutes of 1976), is a nine-member body whose members are appointed by the Governor. The NAHC identifies, catalogs, and protects Native American cultural resources -- ancient places of special religious or social significance to Native Americans and known ancient graves and cemeteries of Native Americans on private and public lands in California. The NAHC is also charged with ensuring California Native American tribes' accessibility to ancient Native American cultural resources on public lands, overseeing the treatment and disposition of inadvertently discovered Native American human remains and burial items, and administering the California Native American Graves Protection and Repatriation Act (CalNAGPRA), among many other powers and duties."[114]

Additional State regulatory requirements regarding tribal cultural resources (such as AB 52 and SB 18 Tribal Consultation Guidelines) can be found at Item XVIII Tribal Cultural Resources.

CEQA Guidelines: Historical Resources Definition

CEQA Guidelines Section 15064.5(a) defines a historical resource as:

"(1) A resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical Resources (Pub. Res. Code §5024.1, Title 14 CCR, Section 4850 et seq.).

(2) A resource included in a local register of historical resources, as defined in section 5020.1(k) of the Public Resources Code or identified as significant in an historical resource survey meeting the requirements section 5024.1(g) of the Public Resources Code, shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.

(3) Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be an historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing on the California Register of Historical Resources (Pub. Res. Code §5024.1, Title 14 CCR, Section 4852) including the following:

[112] California Register: Criteria for Designation. Accessed December 2020 at: https://ohp.parks.ca.gov/?page_id=21238
[113] California Native American Heritage Commission. About The Native American Heritage Commission. Accessed December 2020 at: http://nahc.ca.gov/about/.
[114] Ibid. Welcome. Accessed December 2020 at: http://nahc.ca.gov/.

(A) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;

(B) Is associated with the lives of persons important in our past;

(C) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or

(D) Has yielded, or may be likely to yield, information important in prehistory or history.

(4) The fact that a resource is not listed in, or determined to be eligible for listing in the California Register of Historical Resources, not included in a local register of historical resources (pursuant to section 5020.1(k) of the Public Resources Code), or identified in an historical resources survey (meeting the criteria in section 5024.1(g) of the Public Resources Code) does not preclude a lead agency from determining that the resource may be an historical resource as defined in Public Resources Code sections 5020.1(j) or 5024.1."[115]

CEQA Guidelines: Archaeological Resources

Section 15064.5(c) of CEQA Guidelines provides specific guidance on the treatment of archaeological resources as noted below.

"(1) When a Project will impact an archaeological site, a lead agency shall first determine whether the site is an historical resource, as defined in subdivision (a).

(2) If a lead agency determines that the archaeological site is an historical resource, it shall refer to the provisions of Section 21084.1 of the Public Resources Code, and this section, Section 15126.4 of the Guidelines, and the limits contained in Section 21083.2 of the Public Resources Code do not apply.

(3) If an archaeological site does not meet the criteria defined in subdivision (a), but does meet the definition of a unique archeological resource in Section 21083.2 of the Public Resources Code, the site shall be treated in accordance with the provisions of section 21083.2. The time and cost limitations described in Public Resources Code Section 21083.2 (c–f) do not apply to surveys and site evaluation activities intended to determine whether the Project location contains unique archaeological resources.

(4) If an archaeological resource is neither a unique archaeological nor an historical resource, the effects of the Project on those resources shall not be considered a significant effect on the environment. It shall be sufficient that both the resource and the effect on it are noted in the Initial Study or EIR, if one is prepared to address impacts on other resources, but they need not be considered further in the CEQA process."[116]

CEQA Guidelines: Human Remains

Public Resources Code Sections 5097.94 and 5097.98 provide guidance on the disposition of Native American burials (human remains), and fall within the jurisdiction of the Native American Heritage Commission:

"(d) When an initial study identifies the existence of, or the probable likelihood, of Native American human remains within the Project, a lead agency shall work with the appropriate Native Americans as identified by the Native American Heritage Commission as provided in Public Resources Code Section 5097.98. The applicant may develop an agreement for treating or disposing of, with appropriate dignity, the human remains and any Items associated with Native American burials with the appropriate Native Americans as identified by the Native American Heritage Commission. Action implementing such an agreement is exempt from:

(1) The general prohibition on disinterring, disturbing, or removing human remains from any location other than a dedicated cemetery (Health and Safety Code Section 7050.5).

(2) The requirements of CEQA and the Coastal Act.[117]

[115] CEQA Guidelines, Section 15064.5(a).
[116] Ibid. Section 15064.5(c).
[117] Ibid. Section 15064.5(d).

"(e) In the event of the accidental discovery or recognition of any human remains in any location other than a dedicated cemetery, the following steps should be taken:

(1) There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until:

(A) The coroner of the county in which the remains are discovered must be contacted to determine that no investigation of the cause of death is required, and

(B) If the coroner determines the remains to be Native American:

1. The coroner shall contact the Native American Heritage Commission within 24 hours.

2. The Native American Heritage Commission shall identify the person or persons it believes to be the most likely descended from the deceased Native American.

3. The most likely descendent may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code Section 5097.98, or

(2) Where the following conditions occur, the landowner or his authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance.

(A) The Native American Heritage Commission is unable to identify a most likely descendent or the most likely descendent failed to make a recommendation within 24 hours after being notified by the commission.

(B) The descendant identified fails to make a recommendation; or

(C) The landowner or his authorized representative rejects the recommendation of the descendant, and the mediation by the Native American Heritage Commission fails to provide measures acceptable to the landowner.[118]

"(f) As part of the objectives, criteria, and procedures required by Section 21082 of the Public Resources Code, a lead agency should make provisions for historical or unique archaeological resources accidentally discovered during construction. These provisions should include an immediate evaluation of the find by a qualified archaeologist. If the find is determined to be an historical or unique archaeological resource, contingency funding and a time allotment sufficient to allow for implementation of avoidance measures or appropriate mitigation should be available. Work could continue on other parts of the building site while historical or unique archaeological resource mitigation takes place."[119]

CEQA Guidelines: Paleontological Resources

Public Resources Code Section 5097.5 prohibits excavation or removal of any "vertebrate paleontological site… or any other archaeological, paleontological or historical feature, situated on public lands, except with express permission of the public agency having jurisdiction over such lands."

CEQA Guidelines Section 15126.4(b)

"(b) Mitigation Measures Related to Impacts on Historical Resources.

(1) Where maintenance, repair, stabilization, rehabilitation, restoration, preservation, conservation or reconstruction of the historical resource will be conducted in a manner consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings (1995), Weeks and Grimmer, the project's impact on the historical resource shall generally be considered mitigated below a level of significance and thus is not significant.

[118] Ibid. Section 15064.5 (e).
[119] Ibid. Section 15064.5(f).

(2) In some circumstances, documentation of an historical resource, by way of historic narrative, photographs or architectural drawings, as mitigation for the effects of demolition of the resource will not mitigate the effects to a point where clearly no significant effect on the environment would occur.

(3) Public agencies should, whenever feasible, seek to avoid damaging effects on any historical resource of an archaeological nature. The following factors shall be considered and discussed in an EIR for a project involving such an archaeological site:

(A) Preservation in place is the preferred manner of mitigating impacts to archaeological sites. Preservation in place maintains the relationship between artifacts and the archaeological context. Preservation may also avoid conflict with religious or cultural values of groups associated with the site.

(B) Preservation in place may be accomplished by, but is not limited to, the following:

1. Planning construction to avoid archaeological sites;
2. Incorporation of sites within parks, greenspace, or other open space;
3. Covering the archaeological sites with a layer of chemically stable soil before building tennis courts, parking lots, or similar facilities on the site.
4. Deeding the site into a permanent conservation easement.

(C) When data recovery through excavation is the only feasible mitigation, a data recovery plan, which makes provisions for adequately recovering the scientifically consequential information from and about the historical resource, shall be prepared and adopted prior to any excavation being undertaken. Such studies shall be deposited with the California Historical Resources Regional Information Center. Archeological sites known to contain human remains shall be treated in accordance with the provisions of Section 7050.5 Health and Safety Code. If an artifact must be removed during project excavation or testing, curation may be an appropriate mitigation.

(D) Data recovery shall not be required for an historical resource if the lead agency determines that testing or studies already completed have adequately recovered the scientifically consequential information from and about the archaeological or historical resource, provided that the determination is documented in the EIR and that the studies are deposited with the California Historical Resources Regional Information Center."[120]

Public Resources Code §5097.5

California Public Resources Code §5097.5 prohibits excavation or removal of any "vertebrate paleontological site…or any other archaeological, paleontological or historical feature, situated on public lands, except with express permission of the public agency having jurisdiction over such lands." Public lands are defined to include lands owned by or under the jurisdiction of the state or any city, county, district, authority or public corporation, or any agency thereof. Section 5097.5 states that any unauthorized disturbance or removal of archaeological, historical, or paleontological materials or sites located on public lands is a misdemeanor.

Human Remains

Section 7050.5 of the California Health and Safety Code states that in the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the remains are discovered has determined whether or not the remains are subject to the coroner's authority. If the human remains are of Native American origin, the coroner must notify the Native American Heritage Commission within 24 hours of this identification. The Native American Heritage Commission will identify a Native American Most Likely Descendant (MLD) to inspect the site and provide recommendations for the proper treatment of the remains and associated grave goods.

Local

Tulare County General Plan 2030 Update

The following Tulare County General Plan 2030 Update policies for this resource apply to this Project: *ERM-6.1 Evaluation of Cultural and Archaeological Resources* which states that the County shall participate in and support efforts to identify its significant cultural and archaeological resources using appropriate State and Federal standards; *ERM-6.2 Protection of Resources with Potential State or Federal Designations* wherein the County shall protect cultural and archaeological sites with demonstrated potential for placement on the National Register of Historic Places and/or inclusion in the California State Office of Historic Preservation's California Points of Interest and California Inventory of Historic Resources. Such sites may be of Statewide or local significance and have anthropological, cultural, military, political, architectural, economic, scientific, religious, or other values as

[120] California Environmental Quality Act (CEQA) Statute and Guidelines. 2019.

determined by a qualified archaeological professional; *ERM-6.3 Alteration of Sites with Identified Cultural Resources* which states that when planning any development or alteration of a site with identified cultural or archaeological resources, consideration should be given to ways of protecting the resources. Development can be permitted in these areas only after a site specific investigation has been conducted pursuant to CEQA to define the extent and value of resource, and mitigation measures proposed for any impacts the development may have on the resource; *ERM-6.4 Mitigation* – which states that if preservation of cultural resources is not feasible, every effort shall be made to mitigate impacts, including relocation of structures, adaptive reuse, preservation of facades, and thorough documentation and archival of records; *ERM-6.7 Cooperation of Property Owners* where the County should encourage the cooperation of property owners to treat cultural resources as assets rather than liabilities, and encourage public support for the preservation of these resources; *ERM-6.8 Solicit Input from Local Native Americans* (which is consistent with AB 52 in regards to Tribal Consultation) wherein the County shall continue to solicit input from the local Native American communities in cases where development may result in disturbance to sites containing evidence of Native American activity and/or to sites of cultural importance; *ERM-6.9 Confidentiality of Archaeological Sites* which is also consistent with AB 52) where the County shall, within its power, maintain confidentiality regarding the locations of archaeological sites in order to preserve and protect these resources from vandalism and the unauthorized removal of artifacts; and *ERM-6.10 Grading Cultural Resources Sites* wherein the County shall ensure all grading activities conform to the County's Grading Ordinance and California Code of Regulations, Title 20, § 2501 et. seq.

Project Impact Analysis

a) and b) Less Than Significant Impact With Mitigation: Consultants Sierra Valley Cultural Planning (SVCP) prepared the *"Goshen Community Plan Update Cultural Resources Assessment"* (CRA) which is included as Appendix "C" of the Goshen Community Plan Update and Draft EIR. The CRA also included a Windshield Survey of the Goshen Community Planning Area conducted by SVCP on June 18, 2014. As noted in the Draft EIR, "Numerous structures appear to date to the period prior to 1960, although many of these have been modified. A number of structures (older than 50 years in age) were identified as historic resources, but have not been formally recorded. Canal features are present within the study area including the Modoc Ditch and Mill Creek Ditch."[121] "The Southern San Joaquin Valley Information Center, Bakersfield (Center) conducted a cultural resources record search. The Center records search in August 2014 identified three non-Native American historic-era resource sites located within the Goshen Planning study area, and five additional historic-period sites within one-half mile of the study area. Thirteen previous cultural resources surveys have been completed within the study area; and eight previous studies have been completed within one-mile of the study area. The records search included historic sites listed on the National Register of Historic Places, California Register of Historic Resources, California Points of Historical Interest, State Historic Landmarks, and California Inventory of Historic Resources. The Center staff noted "No Native American Resources have been identified within or in close proximity to the study area."[122] The Center recommended that the Goshen Community Plan include i) the identification and management of potentially sensitive prehistoric and historic-period resources, ii) the local Native American communities in all planning and development activities, and iii) a requirement to conduct intensive cultural resources field inventory prior to development of specific projects that could disturb or destroy sensitive and significant cultural resources."[123]

As noted in the Goshen Community Plan Draft EIR, "Very little of the area within the Goshen Planning Area has been surveyed, and documented resources likely exist. Utilization of the available data is integral to planning for future uses and activities and to determine the best management strategy for such resources at this phase of the planning process. All actions taken pursuant to the Goshen Community Plan shall be planned and implemented in coordination with provisions and implementing guidelines of the California Environmental Quality Act (CEQA), as amended March 18, 2010, which states that identification and evaluation of historical resources is required for any action that may result in a potential adverse effect on the significance of such resources, which includes archaeological resources. Once specific projects are planned, targeted studies can be conducted to avoid or minimize impacts to significant cultural resources."[124] Although there are no recorded cultural resources within the project area, it remains unknown if any exist in most of this area. There are no recorded resource within the one-half mile radius. Although only one cultural resource (P-54-004626, an historic era railroad) was identified in the records search completed on December 14, 2020 by the Southern San Joaquin Valley Information Center, a potentially significant impact could occur if historical or archaeological resources were uncovered during proposed Project construction. As noted earlier, based on the information contained in the CRA and shown in **Figure 5-1**, two of these resource investigations occurred near or on the proposed Project site. However, in the unlikely event of encountering a historical or archaeological resource, implementation of the **Mitigation Measures 5-1** and **5-2** (which are

[121] County of Tulare. Goshen Community Plan Update. Draft Environmental Impact Report. 3.5 Cultural Resources. Page 3.5-18.
[122] Goshen Community Plan Update Cultural Resources Assessment Tulare County, California, prepared by Sierra Valley Cultural Planning Inc. August 2014. Page 10.
[123] Ibid.
[124] Op Cit. 5.5-18 and -19.

incorporated herein in their entirety from the Goshen Community Plan Draft EIR[125]) will reduce potential impacts to less than significant with mitigation. **Mitigation Measures 5-1** and **5-2** (which can be found in their entirety in Attachment "G" of this IS/MND), as applicable, would reduce potential Project-specific impacts related to this Checklist Item to less than significant.

As noted in the CRA, "A survey of a 640-acre parcel was completed by Basin Research Associates in 2006 (TU 1312). The survey was completed as part of an environmental review for the proposed low density housing, park, and neighborhood commercial area on the northwest portion of Riggin Avenue/Avenue 312 and Road 72. A heavy industrial component was included in the triangular corner of the project area bounded by Road 70 to Road 68/Camp Drive. The previously discussed Modoc Ditch runs through the parcel, which at the time of survey was under cultivation and no structures were present. No other resources were identified during the survey.

In 2008 Dudley Varner of Varner Associates completed an archaeological survey of 39 acres for a proposed 60-unit multi-family and 77 single-family housing project (TU 1357). No resources were identified during the survey."[126]

Although cultural resources were identified within the Goshen Planning Area as contained in the CRA, none are within or proximate to the proposed Project site. "Based on current information, there are three known cultural resource sites within or immediately adjacent to the [Goshen Community Planning] study area. These include three non-Native American historic-era sites (see Map 3 [of the CRA]). No Native American resources have been identified within or in close proximity to the study. P-54-002173 [approximately 2.51 miles northeast of the proposed Project site]. This resource includes a small earthen canal flowing in an east/west direction. A wooden railroad trestle supports the railroad crossing over the canal. The canal feature delivers water from the St. Johns River. The resource was recorded in 1995 as part of the Santa Fe Pacific Pipeline Concord to Colton Project by William Self Associates. P-54-002174 [approximately 1.18 miles southeast of the proposed Project site]. This resource includes an earthen canal flowing in an east/west direction; it is identified on the USGS topographic quadrangle map as the Mill Creek Ditch. Two galvanized culvert pipes support the railroad over the ditch. In 1995 the Mill Creek Ditch was described as flowing through agricultural areas planted with barley and wheat. The resource was recorded in 1995 as part of the Santa Fe Pacific Pipeline Concord to Colton Project by William Self Associates. In 2000 Mill Creek Ditch was evaluated and determined not to appear to meet the criteria for listing in the National Register of Historic Places, nor did it appear to be a historical resource per CEQA guidelines (Jones & Stokes 2000). P-54-004795/4995 [approximately 1.15 miles southeast of the proposed Project site]. This resource is a water tower built in 1957 and located at 7533 W. Goshen Avenue in a business park. The tower was initially documented in 2010 by URS Corp. It was further documented and evaluated for listing on the National Register in 2012 by Dana Supernowicz, and found to be ineligible for listing as an individual structure due to the ubiquitous nature and standard design if this form of elevated water tank constructed throughout much of California. The tank site was mistakenly identified as the Avenue 304 Water Tower and Tank on the 2012 site record headings and map. Inspection of the alleged Avenue 304 tank site during the present assessment identified no such resource."[127]

Summary of Mitigation Measures:

5-1. Discovery of resources during excavation, suspension of work, retention of qualified archaeologist/paleontologist, implementation of measures to protect resources.

5-2. Cessation of work activities, County notification, determination of significance, actions to be taken as determined by a qualified archaeologist/paleontologist, treatment plan, collaboration with affected Native American Tribe.

Therefore, implementation of **Mitigation Measures 5-1** and **5-2** would result in a less than significant impact to these resource Items.

c) Less Than Significant Impact With Mitigation: Referencing the Goshen Community Plan Draft EIR, the CRA, and as noted in Response to Items a) and b), a cultural resources records search was conducted of the area and no resources are known to occur on the Project site. **Figure 5-1** provides a map of cultural resource within surveys in the Goshen Community Plan's study area (which includes the proposed Project site) which clearly indicates the absence of cultural resources near or on the Project site. Although it cannot conclusively be demonstrated that no subsurface human remains are present, it is possible to mitigate potentially significant impacts with **Mitigation Measure 5-3**. As such, in the unlikely event of encountering or

[125] County of Tulare. Goshen Community Plan Update. Draft Environmental Impact Report. 3.5 Cultural Resources. Page 3.5-20 and -22.
[126] Goshen Community Plan Update Cultural Resources Assessment Tulare County, California, prepared by Sierra Valley Cultural Planning Inc. August 2014. Page 14. Appendix "C" of the Goshen Community Plan Update. Draft Environmental Impact Report.
[127] Ibid. Page 10.

disturbing any human remains (including those of Native Americans), implementation of the **Mitigation Measures 5-3** (which is incorporated herein in its entirety from the Goshen Community Plan Draft EIR[128]) will reduce potential impacts to a less than significant with mitigation. **Mitigation Measures 5-3** (which can be found in its entirety in Attachment "G" of this IS/MND), as applicable, would reduce potential Project-specific impacts related to this Checklist Item to less than significant.

Summary of **Mitigation Measure(s)**:

5-3. Inadvertent discovery of human remains during excavation, cessation of excavation or disturbance, contact of Coroner/Sheriff, contact NAHC, and dignified reburial.

Therefore, implementation of **Mitigation Measure 5-3** would result in a less than significant impact to this item.

Cumulative Impact Analysis

The geographic area of this cumulative analysis is Tulare County. This cumulative analysis is based on the information provided in the Tulare County 2030 General Plan, General Plan background Report, Tulare County 2030 General Plan EIR, and/or Goshen Community Plan Update and EIR.

It is not anticipated that Native American remains or other cultural will be found at the proposed Project site. However, consistent with CEQA requirements, **Mitigation Measures 5-1** through **5-3** are included in the unlikely event that if Native American remains are unearthed during any ground disturbance activities, or if any cultural resources are discovered, such finds will be mitigated to less than significant Project-specific and Cumulative Impacts.

Mitigation Measure(s)

See **Mitigation Measures 5-1** through **5-3** in Attachment "G" (in their entirety).

6. ENERGY

Would the project:			SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	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?	☐	☐	☐	☒

The discussions regarding Environmental Setting, CEQA requirements, Regulatory Setting, Chapters 4 through 9, Appendices "A" through "I", etc. contained in the Goshen Community Plan Update and Environmental Impact Report are incorporated herein in their entirety. Where necessary and if available, additional site specific facts, data, information, etc., are included in this discussion.

Environmental Setting

Natural Gas and Electric Service

"Southern California Edison provides electric service to the majority of Tulare County, including the majority of the San Joaquin Valley and the foothills. Natural gas service is primarily provided by The Gas Company (formerly Southern California Gas Company). Pacific Gas & Electric also serves northern Tulare County's electric needs on limited basis. The electrical facilities network includes both overhead and underground lines, with new development required to install underground service lines. All

[128] County of Tulare. Goshen Community Plan Update. Draft Environmental Impact Report. 3.5 Cultural Resources. Pages 3.5-23 and -24.

utility providers indicate that additional service should be available to new development, depending on the necessary load of the services requested."[129]

Existing Energy Consumption

As described in Checklist Item 19, Utilities, electrical and natural gas services for the Project are provided by Southern California Edison (SCE) and Southern California Gas Company (SoCal Gas), respectively. In 2019, SCE provided 105,161.702 gigawatt-hours (GWh) of electricity to approximately 15 million customers across a service area of 15 counties in a 50,000 square mile area within Central, Coastal and Southern California.[130] In the same year, SoCal Gas provided a total of 7,497.60 million therms of natural gas to nearly 21.8 million customers across a service area of 12 counties in a 24,000 square mile area within Central and Southern California.[131] Within the County, total demand for electrical services was 4,162.20 GWh, and total demand for natural gas services was 155.38 million therms in 2019. Total state and countywide energy demands, including per capita calculations of energy demands based on 2019 populations, are provided in **Tables 6-1** and **6-2**.

Table 6-1
2019 County and State Energy Demands (All Users)

	2019 Population [1]	Total 2019 Energy Demand		2019 Energy Demand Per Capita	
		Electricity (MWh)[2]	Natural Gas (therms)[3]	Electricity (MWh)	Natural Gas (therms)
State	39,782,870	279,401,880	13,158,207,490	7.02	330.75
Service Area	---	105,161,702	7,497,600,251	---	---
Tulare County	479,997	4,162,198	155,379,677	8.67	323.72

Notes:1 US Census population estimates as of July 1, 2018.
2 Converted to MWh as CEC Energy Reports expresses in Millions of kWh (GWh).
3 Converted to Therms as CEC Energy Reports expresses in Millions of Therms.

Sources: California Energy Commission. Energy Consumption Database. Accessed February 2021 at: http://ecdms.energy.ca.gov/; and State of California Department of Finance. Accessed February 2021 at https://www.dof.ca.gov/forecasting/demographics/estimates/e-1/ (clilink labeled "E-1 Cities, Counties, and the State Population Estimates with Annual Percent Change – January 1, 2019 and 2020"

Table 6-2
2019 County and State Energy Demands (Residential Only)

	2019 Population[1]	Total 2019 Energy Demand		2019 Energy Demand Per Capita	
		Electricity (MWh)[2]	Natural Gas (therms)[3]	Electricity (MWh)	Natural Gas (therms)
State of California	39,782,870	91,203,065	4,792,844,902	2.29	120.48
Service Area	---	32,479,846	2,467,266,449	---	---
Tulare County	479,997	1,261,684	50,596,380	2.63	105.41

Notes: 1 US Census population estimates as of July 1, 2018.
2 Converted to MWh as CEC Energy Reports expresses in Millions of kWh (GWh).
3 Converted to Therms as CEC Energy Reports expresses in Millions of Therms.

Sources: California Energy Commission. Energy Consumption Database. Accessed February 2021 at: http://www.ecdms.energy.ca.gov/; and State of California Department of Finance. Accessed February 2021 at https://www.dof.ca.gov/forecasting/demographics/estimates/e-1/ (clilink labeled "E-1 Cities, Counties, and the State Population Estimates with Annual Percent Change – January 1, 2019 and 2020".

[129] Tulare County General Plan 2030 Update Recirculated Draft EIR. 3.4 Energy and Global Climate Change. February 2010. Page 3.4-14.
[130] Southern California Edison. Accessed February 2021 at: https://newsroom.edison.com/internal_redirect/cms.ipressroom.com.s3.amazonaws.com/166/files/20193/SCE%20Service%20Area%20Fact%20Sheet_Ver2_04252019.pdf.
California Energy Commission. Energy Consumption Database. Accessed February 2021 at: http://ecdms.energy.ca.gov/
[131] SoCalGas. Company Profile. Accessed October 2019 at: https://www.socalgas.com/about-us/company-profile.
California Energy Commission. Energy Consumption Database. Accessed February 2021 at: http://ecdms.energy.ca.gov/

The California Department of Transportation (Caltrans) reports that approximately 25.65 million automobiles, 8.01 million trucks, 434,671 trailer coaches (motor home/RV), 857,677 motorcycles, and 755,976 other vehicles (miscellaneous and fee exempt vehicles) were registered in the state in as of January 1, 2019, resulting in a total estimated 344.3 billion vehicles miles traveled (VMT).[132] Caltrans also indicated that the total number of vehicle in the state increased to 36.42 million vehicles with annual VMT increasing to estimated 347.2 billion miles.[133] Within Tulare County, an estimated 3.67 million vehicle miles were traveled in 2016[134].

The State of California strongly supports production and use of renewable energy sources, including solar photovoltaic, wind, hydrologic, and biomass. An estimated 34% of California's electricity came from renewable sources in 2018.[135] The estimated 2019 total renewable generation, including out-of-state generation delivered to California and BTM solar generation, is 105,559 gigawatt-hours (GWh), including an estimated 16,306 GWh of BTM solar. In the past five years, solar generation has increased over 350 percent, and BTM solar resources have increased by nearly 120 percent.[136] In 2019, California is estimated to have more than 24,600 MW of wholesale renewable capacity16 of which more than 1,000 MW of capacity came on-line in 2019. Nearly all of the new renewable capacity is large scale solar. [137] The state's renewable energy portfolio primarily includes wind (5,973.1 MW)[138] and solar photovoltaic (11,089.2 MW)[139] sources, with the balance of renewable sources coming geothermal, small hydrologic, solar thermal, and biomass.

Regulatory Setting

Federal

Energy Policy Act of 2005

The Energy Policy Act of 2005 seeks to reduce reliance on non-renewable energy resources and provide incentives to reduce current demand on these resources. For example, under the Act, consumers and businesses can obtain federal tax credits for purchasing fuel-efficient appliances and products, including buying hybrid vehicles, building energy-efficient buildings, and improving the energy efficiency of commercial buildings. Additionally, tax credits are available for the installation of qualified fuel cells, stationary microturbine power plants, and solar power equipment.

State

California Energy Commission

The California Energy Commission (CEC) was created in 1974 to serve as the state's primary energy policy and planning agency. The CEC is tasked with reducing energy costs and environmental impacts of energy use - such as greenhouse gas emissions - while ensuring a safe, resilient, and reliable supply of energy.

State of California Integrated Energy Policy (SB 1389)

In 2002, the Legislature passed Senate Bill 1389, which required the CEC to develop an integrated energy plan every two years for electricity, natural gas, and transportation fuels, for the California Energy Policy Report. The plan calls for the state to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least environmental and energy costs. To further this policy, the plan identifies a number of strategies, including assistance to public agencies and fleet operators in implementing incentive programs for Zero Emission Vehicles and their infrastructure needs, and encouragement of urban designs that reduce vehicles miles traveled and accommodate pedestrian and bicycle access.

[132] Caltrans. Caltrans Fact Booklet. June 2019. Pages 16 – 17. Accessed February 2021 at: https://dot.ca.gov/-/media/dot-media/programs/research-innovation-system-information/documents/caltrans-fact-booklets/2019-cfb-a11y.pdf.
[133] Caltrans. Caltrans Facts Booklet. June 2020. Pages 18-20. Accessed February 2021 at: https://dot.ca.gov/-/media/dot-media/programs/research-innovation-system-information/documents/caltrans-fact-booklets/2020-cfb-v2-a11y.pdf.
[134] Caltrans. 2017. Tulare County Transportation Quick Facts. Accessed August 2019 http://www.caltrans.ca.gov/drisi/library/qfco/tul/tul2017.pdf.
[135] California Energy Commission. California Power Generation and Power Sources. Page 9. Accessed December 2020 at: https://www.energy.ca.gov/data-reports/california-power-generation-and-power-sources.
[136] California Energy Commission – Tracking Progress Page 5. Accessed December 2020. https://www.energy.ca.gov/sites/default/files/2019-12/renewable_ada.pdf.
[137] California Energy Commission – Tracking Progress. Updated December 2018. Accessed December 2020. https://www.energy.ca.gov/sites/default/files/2019-05/renewable.pdf.
[138] California Energy Commission Electricity from Wind Energy Statistics and Data. Wind Production (instate). Accessed December 2020 at: https://ww2.energy.ca.gov/almanac/renewables_data/wind/index_cms.php.
[139] California Energy Commission California Solar Energy Statistics and Data. Solar PV and Solar Thermal electricity Production. Accessed December 2020 at: https://ww2.energy.ca.gov/almanac/renewables_data/solar/index_cms.php#pvThermal.

The CEC adopted the 2013 Integrated Energy Policy Report on February 20, 2014. The 2013 Integrated Energy Policy Report provides the results of the CEC's assessment of a variety of issues, including:

- Ensuring that the state has sufficient, reliable, and sage energy infrastructure to meet current and future energy demands;
- Monitoring publicly-owned utilities' progress towards achieving 10-year energy efficiency targets; defining and including zero-net-energy goals in state building standards;
- Overcoming challenges to increased use of geothermal heat pump/ground loop technologies and procurement of biomethane;
- Using demand response to meet California's energy needs and integrate renewable technologies;
- Removing barriers to bioenergy development; planning for California's electricity infrastructure needs given potential retirement of power plants and the closure of the San Onofre Nuclear Generating Station;
- Estimating new generation costs for utility-scale renewable and fossil-fueled generation;
- Planning for new or upgraded transmission infrastructure;
- Monitoring utilities' progress in implementing past recommendations related to nuclear power plants;
- Tracking natural gas market trends;
- Implementing the Alternative and Renewable Fuel and Vehicle Technology Program;
- Addressing the vulnerability of California's energy supply and demand infrastructure to the effects of climate change; and
- Planning for potential electricity system needs in 2030.

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 adopted 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 (ARB), under Executive Order S-21-09, was required to adopt regulations consistent with these 33 percent renewable energy targets.

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 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 (2013) went into effect on January 1, 2014. 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 2013 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.

California Global Warming Solutions Act of 2006 (Assembly Bill 32)

Assembly Bill 32 (Health and Safety Code Sections 38500–38599; AB 32), also known as the California Global Warming Solutions Act of 2006, commits the state to achieving year 2000 GHG emission levels by 2010 and year 1990 levels by 2020. To achieve these goals, AB 32 tasked the CPUC and CEC with providing information, analysis, and recommendations to the ARB regarding ways to reduce GHG emissions in the electricity and natural gas utility sectors.

"In 2006, the Legislature passed the California Global Warming Solutions Act of 2006 [Assembly Bill 32 (AB 32)], which created a comprehensive, multi-year program to reduce greenhouse gas (GHG) emissions in California. AB 32 required the California Air Resources Board (ARB or Board) to develop a Scoping Plan that describes the approach California will take to reduce GHGs to achieve the goal of reducing emissions to 1990 levels by 2020. The Scoping Plan was first approved by the Board in 2008 and must be updated every five years. The First Update to the Climate Change Scoping Plan was approved by the Board on May 22, 2014. In 2016, the Legislature passed SB 32, which codifies a 2030 GHG emissions reduction target of 40 percent below 1990 levels. With SB 32, the Legislature passed companion legislation AB 197, which provides additional direction for developing the Scoping Plan."[140] California's 2017 Climate Change Scoping Plan was adopted in December 2018. The plan identifies the State's strategy for achieving the 2030 emission reduction targets.

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 GHG reduction goals for the year 2030 and beyond. SB 350 establishes a GHG 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 GHG emissions by 80 percent below 1990 levels by the year 2050.

Local

Tulare County General Plan 2030 Update

The following Tulare County General Plan 2030 Update policies for this resource apply to this Project: *ERM-4.1 Energy Conservation and Efficiency Measures* wherein the County encourages the use of solar energy, solar hot water panels, and other energy conservation and efficiency features; *ERM-4.3 Local and State Programs* wherein the County shall participate, to the extent feasible, in local and State programs that strive to reduce the consumption of natural or man-made energy sources; *ERM-4.3 Local and State Programs* wherein the County shall participate, to the extent feasible, in local and State programs that strive to reduce the consumption of natural or man-made energy sources; and *ERM-4.6 Renewable Energy* wherein the County shall support efforts, when appropriately sited, for the development and use of alternative energy resources, including renewable energy such as wind and solar, biofuels and co-generation

Project Impact Analysis

a) Less Than Significant Impact: As discussed below, the Project will not result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources.

Project Specific Energy Usage

Electricity and Natural Gas

Electricity and Natural Gas Implementation of the proposed Project would result in the commitment of additional energy resources, including consumption of natural gas and electricity through operation of the Project. By analogy, it is reasonable to conclude that a project with approximately 51% of the approved Cross Creek Bend Subdivision (located west of SR 99 in Goshen) would result in 50% demands of both electricity and natural gas. As provided in **Table 6-3**, operation of the Cross Creek Bend subdivision is estimated to result in the demand for 104,221 therms per year (therms/yr.) of natural gas, and 3,481 megawatt-hours per year (MWh/yr.) of electricity based on CalEEMod modeling results (see Attachment "A" of Cross Creek Bend MND).[141] As such, it is estimated that this Project would result in approximately 589 persons; 1,770.4 MWh/yr. demand of electricity; and 53,011.2 therms/yr. demand of natural gas as is approximately 51% of Cross Creek Bend subdivision.

[140] Air Resources Board. AB 32 Scoping Plan. Accessed December 2020 at: https://ww3.arb.ca.gov/cc/scopingplan/scopingplan.htm.
[141] Cross Creek Bend (TSM 19-003 , PZV 19-018), Mitigated Negative Declaration, Checklist Item 3, https://tularecounty.ca.gov/rma/index.cfm/planning-building/environmental-planning/mitigated-negative-declarations/cross-creek-bend-tsm-19-003-pzv-19-018/mitigated-negative-declaration-for-cross-creek-bend-subdivision-project/. Accessed February 2021.

Table 6-3
Estimated (mitigated) Project Electricity and Natural Gas Demands (Residential Only)

	Cross Creek Bend				Swift Homes Subdivision			
Phase	**SFR Units**	**Population**	**Electricity (MWh/yr)**	**Nat. Gas (Therm/yr)**	**SFR Units**	**Population**	**Electricity (MWh/yr)**	**Nat. Gas (Therm/yr)**
Phase 1	100	286	859.406	25,734.000	34	97	292.198	8,749.560
Phase 2	111	317	953.941	28,564.000	49	140	421.109	12,609.333
Phase 3	93	266	799.248	23,932.000	39	112	335.169	10,036.000
Phase 4	101	289	868.000	25,991.000	84	240	721.901	21,616.277
Total	405	1,158	3,480.595	104,221.000	206	589	1,770.377	53,011.171

Notes: 1 Proposed Project demand includes design features proposed by the Project and characterized as 'mitigation measures' in the CalEEMod runs.
2 1,000 megawatt-hours (MWh) = 1 gigawatt-hours (GWh)
3 1 therm = 100 thousand British Thermal Units (BTU)

Source: CalEEMod output files provided in Attachment A of the Cross Creek Bend MND.

Comparison of **Tables 6-2** and **6-3** indicate that electricity demand per capita for the Project (3.00 MWh/yr.; similar to Cross Creek Bend Subdivision) is higher than Tulare County (2.63 MWh/yr.) and State (2.29 MWh/yr.) demands per capita. The natural gas demand per capita for the Project (89.98 therms/yr. similar to Cross Creek Bend Subdivision) is lower than both the Tulare County (105.41 therms/yr.) and State (120.48 therms/yr.) demands per capita. Energy efficiency and conservation measures will be implemented in conjunction with Project design and operation, including measures resulting from federal, State, and local mandates, as well as voluntary measures proposed by the project applicant. Compliance with the California Building Standards Code and CALGreen are considered demonstrable evidence of efficient use of energy. In addition, the progressive enhancements in building energy efficiency mandates resulting from regular updates to the California building codes will result in lower electrical and natural gas consumption from the totals shown in **Table 6-3**. Energy would also be indirectly conserved through water efficient landscaping requirements. Solid waste recycling requirements applicable to both project construction and operation would reduce energy consumed in solid waste disposal. As such, it is anticipated that the Project would not result in the wasteful, inefficient, or unnecessary consumption of energy resources during construction and operation.

Vehicle Fuel Consumption

Operation of the Project would result in the daily consumption of vehicle fuel as residents and visitors would travel to and from the Project site. In order to estimate fuel consumption, it is necessary to estimate vehicle type(s), daily distance(s) travelled (in vehicle miles travelled (VMT)), and average fuel economy by vehicle type(s). According to the Tulare County Association of Governments (TCAG), all of Tulare County averaged 10,650,825 million VMT/day. [142]

Table 6-4 provides a comparison of State, County, and Project annual VMT (based on available 2017 data). As provided in **Table 6-4**, Project operation is anticipated to result in the generation of 6,475,304 VMT annually, or approximately 0.176 percent of the County's and 0.00187 percent of the State's annual VMT.

Table 6-4
Vehicle Miles Traveled

	Population	Total Annual VMT	Daily VMT (365 days/year)	Daily VMT per Capita
State of California	39,782,870[1]	347,200,000,000[2]	951,232,877	23.91
Tulare County	479,977[1]	3,686,282,000[3]	10,099,403	21.04
Proposed Project[4]	589	6,475,304	17,741	30.12

Sources: 1 Source:State of California Department of Finance. Accessed February 2021 at https://www.dof.ca.gov/forecasting/demographics/estimates/e-1/
2 Source: Caltrans Fact Booklet, June 2020. The report provided data for year 2018.
3 Source: Caltrans. Tulare County Transportation Quick Facts (2017)
4 Source: Project population and VMT see CalEEMod reports (see Attachment "A" of this MND)

Table 6-5 shows the number of vehicles, VMT, and fuel consumption from the proposed Project. Using vehicle fleet mix data provided in Attachment "A" and average fuel economy information provided by the Bureau of Transportation Statistics, the

[142] Tulare County Association of Government. E-mail received from Roberto Brady, Principal Regional Planner. August 6, 2019.

Project-generated annual VMT would result in the consumption of approximately 292,002 gallons of fuel per year.

Table 6-5
Estimated Operational Fuel Consumption[1]

Vehicle Type	Percent of Vehicle Trips[2]	Mitigated Annual VMT[3]	National Average Fuel Economy (miles/gallon)[4]	Total Annual Fuel Consumption (gallons)
Passenger Car	51.85	3,266,018	23.96	136,311
Light-Duty Vehicle	44.29	2,789,816	22.04	12,762
Light-Duty Truck/Van	0.92	57,951	17.40	3,330
Heavy-Duty Truck	1.95	122,830	6.64	18,498
Motorcycles	0.25	15,747	43.89	359
Buses	0.49	30,865	6.33	4,876
Other Vehicles	0.25	15,747	7.69	2,048
Total	**100%**	**6,298,974**	**--**	**292,002**

Source: 1 U.S. Department of Energy. Alternative Fuels Date Center. Average Fuel Economy of Major Vehicle Categories https://afdc.energy.gov/data/10310. Accessed October 2019.
2 Percentage of Vehicle Trips and Fleet Mix information provided by Attachment A. Passenger Cars is the LDA fleet mix trip percentage column; Light Duty Vehicles is the sum of the LDT1, LDT2, and MDV fleet mix trip percentage columns; Light Duty Truck is the sum of LHD1, LHD2, and MHD fleet mix trip percentage columns; Heavy Duty Truck is the HHD fleet mix trip percentage columns, Buses is the sum of OBUS, SBUS and UBUS fleet mix trip percentage columns, Other MH fleet mix trip percentage column.
3 Annual VMT calculated from total mitigated VMT, which incorporates Project design features; See CalEEMod reports in Attachment A.
4 Average fuel economy based on average 2016 U.S. vehicle fuel efficiency (mpg) from Table 4-11: Light Duty Vehicle, Short Wheel Base and Motorcycle Fuel Consumption and Travel; Table 4-12: Average Light Duty Vehicle, Long Wheel Base Fuel Consumption and Travel, and Table 4-13: Single-Unit 2-Axle 6-Tire or More Truck Fuel Consumption and Travel of the National Transportation Statistics.

VMT for the Project is slightly higher than Tulare County and State averages. VMT is used as an important indicator of the impact on the local circulation system and of a project's air quality impacts. Air quality impacts as described in the Air Quality section of this MND showed the impacts to be less than significant, and that Greenhouse Gas impacts comply with the County's Climate Action Plan. Project design features have been added for compliance with federal, State, and County regulations, which ultimately reduce VMT. The Project is consistent with the Tulare County Blueprint as the overall Project density is 5.82 units per acre (206 lots / 35.4 acres); which exceeds the Blueprint's 5.3 units per acre goal by 8.9%. The Project includes sidewalks, curbs, and gutters and will connect to the nearby existing uses. With the implementation of mandatory and voluntary VMT-reducing measures, the Project would not result in the wasteful, inefficient, or unnecessary consumption of energy resources. Impacts are less than significant.

Energy Conservation Standards

Operation of the proposed Project would result in the demand for approximately 52,110.5 therms/yr. of natural gas and 1,740.295 MWh/yr. of electricity (see **Table 6-3**), and 292,002 gallons/yr. of vehicle fuel (see **Table 6-5**). Based on existing energy demands and capacity of service providers, the Project's estimated operational demand for electricity represents 0.135 percent of SCE's and 0.125 percent of SoCal Gas' total 2018 energy demands for the County. Further, additional vehicle fuel demand under operation of the Project would result in an increase in statewide fuel demand by less than 0.002 percent.[143]

Based on comparisons of the Project's energy demands with statewide and regional demand and service capacity in total and per capita (**Tables 6-2** and **6-3**), the proposed Project is not expected to result in the use of a large amount of energy in an unnecessary, wasteful, or inefficient manner, nor would it affect regional supplies or peak/base periods of demand as the estimated energy demand is typical for a Project of this size, and would result in a negligible increase in regional energy demands. As such, the proposed Project would not necessitate the expansion of existing facilities or construction of new energy generation or transmission facilities. Furthermore, the 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.

[143] Based on State of California 2016 annual consumption of 15,507,693,865 gallons of gasoline. See Federal Highway Administration Table MF-33GA. https://www.fhwa.dot.gov/policyinformation/motorfuel/jun17/jun17.pdf. Accessed December 2020.

When considering the potential for the Project to result in greater conservation of electricity, natural gas, and transportation fuel through the implementation of proposed Project design features and required mitigation measures not quantified above, the proposed Project has a low potential to result in adverse impacts on energy resources and conservation. Therefore, the direct impacts to energy resources and conservation are less than significant.

b) No Impact: Energy efficiency and conservation measures would be implemented in conjunction with project design and operation, including measures resulting from federal, State, and local mandates, as well as voluntary measures proposed by the Project applicant. Government-mandated measures include increasingly stringent state and federal regulatory actions addressing vehicle fuel economies and vehicle emissions standards. Compliance with the California Building Standards Code and CALGreen are considered demonstrable evidence of efficient use of energy. In addition, the progressive enhancements in building energy efficiency mandates resulting from regular updates to the California building codes will result in lower electrical and natural gas consumption from those identified in Checklist Item a) above. Energy would also be indirectly conserved through water efficient landscaping requirements consistent with the Tulare County Water Efficient Landscaping Ordinance. Stringent solid waste recycling requirements applicable to both project construction and operation would reduce energy consumed in solid waste disposal. In summary, the Project will implement all mandatory federal, State, and local conservation measures and, project design features and voluntary energy conservation measures will further reduce energy demands. Therefore, the Project will not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Project-related impacts are less than significant.

Cumulative Impact Analysis

The geographic area of this cumulative analysis is Tulare County. This cumulative analysis is based on the information provided in the Tulare County 2030 General Plan, General Plan background Report, Tulare County 2030 General Plan EIR, and/or Goshen Community Plan Update and EIR.

The proposed Project would incrementally contribute to adverse impacts on energy resource demand and conservation when considering the cumulative impact of concurrently planned projects; however, like the proposed Project, discretionary actions requiring agency approval are required to comply with local, regional, state, and federal policies designed to reduce wasteful energy consumption, and improve overall energy conservation and sustainability. For instance, all local projects involving the development of new buildings must be designed to conform to CALGreen and the current California Energy Code (for this Project it will be the 2019 Code). Therefore, it is anticipated that the Project's contribution to cumulative impacts would not result in a significantly considerable wasteful use of energy resources, such that the Project, and other cumulative projects, would not have a cumulative effect on energy conservation. The proposed Project will not have a direct or cumulative impact, or create wasteful, inefficient, or unnecessary consumption of energy resources during project construction-related activities or operations, nor will it conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Therefore, Project-specific and Cumulative Impacts as of a result of the Project would be less than significant.

7. GEOLOGY/SOILS

Would the project:			SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
	a)	Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
	i)	Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication No. 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 Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐
	e)	Have soils incapable of adequately supporting the use of septic tanks or alternative 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?	☐	☐	☒	☐

The discussions regarding Environmental Setting, CEQA requirements, Regulatory Setting, Chapter 3.6 Geology and Soils, Chapters 4 through 9, Appendices "A" through "I", etc., contained in the Goshen Community Plan Update and Environmental Impact Report are incorporated herein in their entirety. Where necessary and if available, additional site specific facts, data, information, etc., are included in this discussion.

Environmental Setting

"Tulare County is divided into two major physiographic and geologic provinces: the Sierra Nevada Mountains and the Central Valley. The Sierra Nevada Physiographic Province, in the eastern portion of the county, is underlain by metamorphic and igneous rock. It consists mainly of homogeneous granitic rocks, with several islands of older metamorphic rock. The central and western parts of the county are part of the Central Valley Province, underlain by marine and non-marine sedimentary rocks. It is basically a flat, alluvial plain, with soil consisting of material deposited by the uplifting of the mountains. The foothill area of the county is essentially a transition zone, containing old alluvial soils that have been dissected by the west-flowing rivers and streams that carry runoff from the Sierra Nevada Mountains. This gently rolling topography is punctured in many areas by outcropping soft bedrock. The native mountain soils are generally quite dense and compact"[144]

"The Central Valley is an asymmetrical structural trough filled with marine and continental sediments up to 15-kilometers (km) thick covering an area of more than 50,000 square kilometers (km2), bounded by the Cascade Range to the north, the Sierra Nevada ranges to the east, the Klamath Mountains and Coast Ranges to the west, and the Tehachapi Mountains to the south (fig. 1). The aquifer system in the Central Valley comprises unconfined, semi-confined, and confined aquifers, which are primarily contained within the upper 300 meters (m; though some wells exceed that depth) of alluvial sediments deposited by streams draining the surrounding Sierra Nevada and Coast Ranges (Page, 1986; California Department of Water Resources, 2003; Faunt, 2009). The [Sacramento] SAC occupies the northern third of the Central Valley and the [San Joaquin Valley] SJV occupies the southern two-thirds of the Central Valley (Fig. 1[in the Scientific Investigations Report 2019-506]). The SJV is often further divided into the San Joaquin River Basin, which occupies the northern half of the SJV, and the Tulare Basin, which occupies the southern half of SJV. The Tulare Basin is, hydrologically, a closed basin, but it receives imported water from the San Joaquin and Sacramento Rivers. These will collectively be referred to as the SJV. In much of the western side of the SJV, the aquifer system is divided into an upper and lower zone by the Corcoran Clay Member of the Tulare Formation, a regionally extensive clay layer that limits vertical movement of groundwater (Page, 1986; Williamson and others, 1989; Belitz and Heimes, 1990; Burow and others, 2004). Both zones of the aquifer in the area of the Corcoran Clay generally are tapped for groundwater withdrawals (Shelton and others, 2013; Fram, 2017)."[145]

Geology & Seismic Hazards

[144] Tulare County 2030 General Plan 2030 Update Background Report. Page 8-4 through 8-5.
[145] United States Department of the Interior United States Geologic Survey. "Delineation of Spatial Extent, Depth, Thickness, and Potential Volume of Aquifers Used for Domestic and Public Water-Supply in the Central Valley, California. Scientific Investigations Report 2019-5076 (SIR). Prepared by Page 2. Accessed December 2020 at: https://pubs.usgs.gov/sir/2019/5076/sir20195076.pdf.

Seismic hazards, such as earthquakes, can cause loss of human life and property damage, disrupt the local economy, and undermine the fiscal condition of a community. Secondary seismic hazards, including subsidence and liquefaction, can cause building and infrastructure damage.

Seismicity

"Seismicity varies greatly between the two major geologic provinces represented in Tulare County. The Central Valley is an area of relatively low tectonic activity bordered by mountain ranges on either side. The Sierra Nevada Mountains, partially located within Tulare County, are the result of movement of tectonic plates which resulted in the creation of the mountain range. The Coast Range on the west side of the Central Valley is also a result of these forces, and the continued uplifting of Pacific and North American tectonic plates continues to elevate these ranges. The remaining seismic hazards in Tulare County generally result from movement along faults associated with the creation of these ranges.

Earthquakes are typically measured in terms of magnitude and intensity. The most commonly known measurement is the Richter Scale, a logarithmic scale which measures the strength of a quake. The Modified Mercalli Intensity Scale measures the intensity of an earthquake as a function of the following factors:

- Magnitude and location of the epicenter;
- Geologic characteristics;
- Groundwater characteristics;
- Duration and characteristic of the ground motion;
- Structural characteristics of a building."[146]

Faults

"Faults are the indications of past seismic activity. It is assumed that those that have been active most recently are the most likely to be active in the future. Recent seismic activity is measured in a geologic timescale. Geologically recent is defined as having occurred within the last two million years (the Quaternary Period). All faults believed to have been active during Quaternary time are considered "potentially active."[147]. "In 1973, five counties within the Southern San Joaquin Valley undertook the preparation of the Five County Seismic Safety Element to assess seismic hazards… In general, zones C1, S1, and V1 are safer than zones C2, S2, and V2. Hazards due to groundshaking are considered to be "minimal" in the S1 Zone and "minimal" to "moderate" in the S2 and S2S Zones. Development occurring within the S1 Seismic Zone must conform to the Uniform Building Code-Zone II; while development within the S2 Zone must conform to Uniform Building Code-Zone III. There are three faults within the region that have been, and will be, principal sources of potential seismic activity within Tulare County. These faults are described below:

- **San Andreas Fault** is located approximately 40 miles west of the Tulare County boundary and [approximately] 60 miles west of the project area. This fault has a long history of activity, and is thus the primary focus in determining seismic activity within the County. Seismic activity along the fault varies along its span from the Gulf of California to Cape Mendocino. Just west of Tulare County lays the "Central California Active Area," section of the San Andreas Fault where many earthquakes have originated.

- **Owens Valley Fault Group** is a complex system containing both active and potentially active faults, located on the eastern base of the Sierra Nevada Mountains approximately [approximately] 60 miles east of the project area. The Group is located within Tulare and Inyo Counties and has historically been the source of seismic activity within Tulare County.

- **Clovis Fault** is considered to be active within the Quaternary Period, although there is no historic evidence of its activity, and is therefore classified as "potentially active." This fault lies approximately six miles south of the Madera County boundary in Fresno County and [approximately] 70 miles north of the project area. Activity along this fault could potentially generate more seismic activity in Tulare County than the San Andreas or Owens Valley fault systems. In particular, a strong earthquake on the Fault could affect northern Tulare County. However, because of the lack of historic activity along the Clovis Fault, inadequate evidence exists for assessing maximum earthquake impacts." [148]

There are other unnamed faults north of Bakersfield and near Tulare Buttes about 30 miles north of Porterville. These faults are

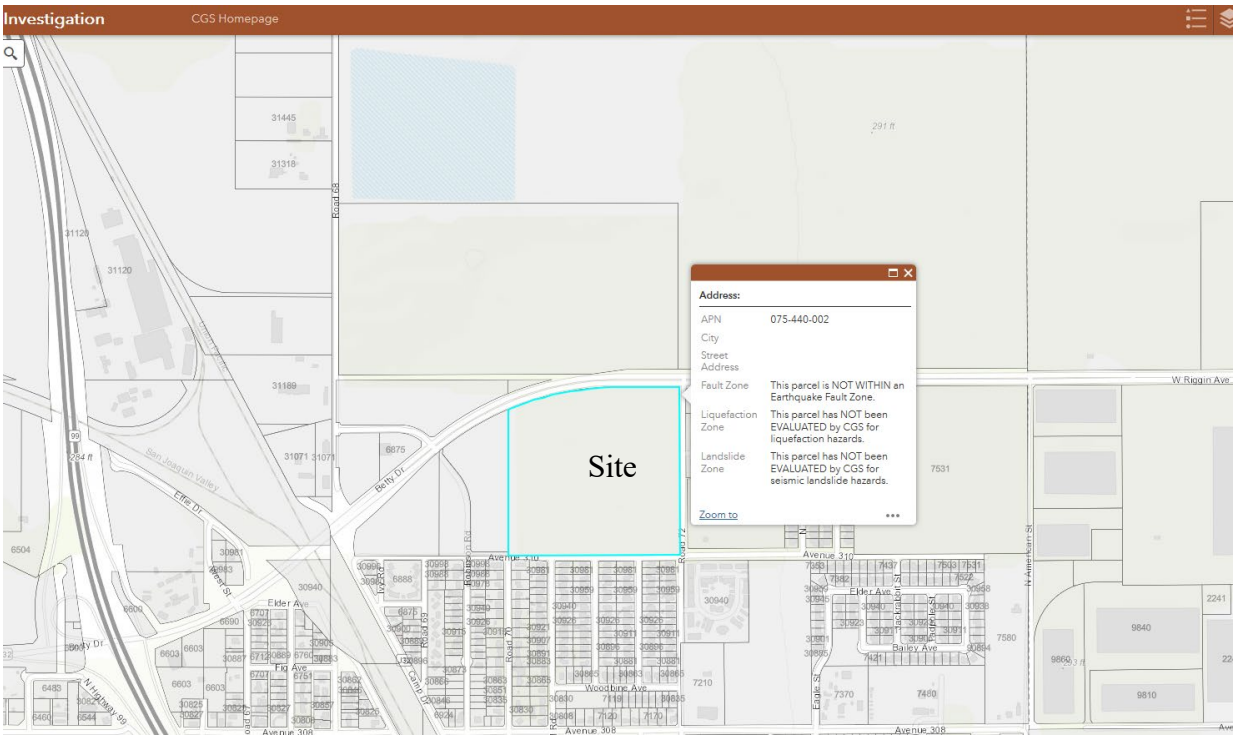
[146] Tulare County General Plan 2030 Update. General Plan Background Report. Page 8-5. Accessed December 2019 at: http://generalplan.co.tulare.ca.us/documents.html, locate "Recirculated Draft Environmental Impact Report (February 2010 Draft)" then click on "Appendix B-Background Report."
[147] Ibid.
[148] Op. Cit. 8-5 through 8-7.

small and have exhibited activity in the last 1.6 million years, but not in the last 200 years. It is also possible, but unlikely, that previously unknown faults could become active in the area. [149] As shown in **Figure 7-1**, the proposed Project parcel site is not within an earthquake fault zone.[150]

Groundshaking

"Ground-shaking is the primary seismic hazard in Tulare County because of the county's seismic setting and its record of historical activity. Thus, emphasis focuses on the analysis of expected levels of ground-shaking, which is directly related to the magnitude of a quake and the distance from a quake's epicenter. Magnitude is a measure of the amount of energy released in an earthquake, with higher magnitudes causing increased ground-shaking over longer periods of time, thereby affecting a larger area. Ground-shaking intensity, which is often a more useful measure of earthquake effects than magnitude, is a qualitative measure of the effects felt by population."[151] "The San Joaquin Valley portion of Tulare County is located on alluvial deposits, which tend to experience greater ground-shaking intensities than areas located on hard rock. Therefore, structures located in the valley will tend to suffer greater damage from ground-shaking than those located in the foothill and mountain areas. However, existing alluvium valleys and weathered or decomposed zones are scattered throughout the mountainous portions of the county which could also experience stronger intensities than the surrounding solid rock areas. The geologic characteristics of an area can therefore be a greater hazard than its distance to the epicenter of the quake."[152] "Older buildings constructed before current building codes were in effect, and even newer buildings constructed before earthquake resistance provisions were included in the current building codes, are most likely to suffer damage in an earthquake. Most of Tulare County's buildings are no more than one or two stories in height and are of wood frame construction, which is considered the most structurally resistant to earthquake damage. Older masonry buildings (without earthquake resistance reinforcement) are the most susceptible to structural failure, which causes the greatest loss of life. The State of California has identified unreinforced masonry buildings (URMs) as a safety issue during earthquakes. In high risk areas (Bay Area), inventories and programs to mitigate this issue are required. Because Tulare County is not a high risk area, state law only recommends that programs to retrofit URMs are adopted by jurisdictions."[153]

Figure 7-1



[149] California Geological Survey, h ttp://www.quake.ca.gov/gmaps/WH/regulatorymaps.htm.
[150] California Department of Conservation. EQ Zapp: California Earthquake Hazards Zone Application. Earthquake Zones of Required Investigation. Accessed October 2019. See: https://maps.conservation.ca.gov/cgs/EQZApp/app/
[151] Tulare County General Plan 2030 Update. General Plan Background Report. Page 8-7.
[152] Ibid.
[153] Op. Cit.8-8.

Liquefaction

"Liquefaction is a process whereby soil is temporarily transformed to a fluid form during intense and prolonged groundshaking. Areas most prone to liquefaction are those that are water saturated (e.g., where the water table is less than 30 feet below the surface) and consist of relatively uniform sands that are low to medium density. In addition to necessary soil conditions, the ground acceleration and duration of the earthquake must be of sufficient energy to induce liquefaction. Scientific studies have shown that the ground acceleration must approach 0.3g before liquefaction occurs in a sandy soil with relative densities typical of the San Joaquin alluvial deposits."

"Liquefaction during major earthquakes has caused severe damage to structures on level ground as a result of settling, tilting, or floating. Such damage occurred in San Francisco on bay-filled areas during the 1989 Loma Prieta earthquake, even though the epicenter was several miles away. If liquefaction occurs in or under a sloping soil mass, the entire mass may flow toward a lower elevation, such as that which occurred along the coastline near Seward, Alaska during the 1964 earthquake. Also of particular concern in terms of developed and newly developing areas are fill areas that have been poorly compacted. No specific countywide assessments to identify liquefaction hazards have been performed in Tulare County. Areas where groundwater is less than 30 feet below the surface occur primarily in the valley. However, soil types in the area are not conducive to liquefaction because they are either too coarse or too high in clay content. Areas subject to 0.3g acceleration or greater are located in a small section of the Sierra Nevada Mountains along the Tulare-Inyo County boundary. However, the depth to groundwater in such areas is greater than in the valley, which would minimize liquefaction potential as well. Detailed geotechnical engineering investigations would be necessary to more accurately evaluate liquefaction potential in specific areas and to identify and map the areal extent of locations subject to liquefaction."

Settlement

"Settlement can occur in poorly consolidated soils during ground-shaking. During settlement, the soil materials are physically rearranged by the shaking and result in reduced stabling alignment of the individual minerals. Settlement of sufficient magnitude to cause significant structural damage is normally associated with rapidly deposited alluvial soils, or improperly founded or poorly compacted fill. These areas are known to undergo extensive settling with the addition of irrigation water, but evidence due to ground-shaking is not available. Fluctuating groundwater levels also may have changed the local soil characteristics. Sufficient subsurface data is lacking to conclude that settlement would occur during a large earthquake; however, the data is sufficient to indicate that the potential exists in Tulare County."

Other Geologic Hazards

Landslides

"Landslides are a primary geologic hazard and are influenced by four factors:

- Strength of rock and resistance to failure, which is a function of rock type (or geologic formation);
- Geologic structure or orientation of a surface along which slippage could occur;
- Water (can add weight to a potentially unstable mass or influence strength of a potential failure surface); and,
- Topography (amount of slope in combination with gravitation forces).

"As of June 2009, the California Geological Survey had not developed landslide hazard identification maps for Tulare County. However, it is reasonable to assume that certain areas in Tulare County are more prone to landslides than other areas… [As such,] There is no risk of large landslides in the valley area of the county due to its relatively flat topography."[154]

Subsidence

"Subsidence occurs when a large portion of land is displaced vertically, usually due to the withdrawal of groundwater, oil, or natural
gas. Soils that are particularly subject to subsidence include those with high silt or clay content. Subsidence caused by groundwater withdrawal generally presents a more serious problem, since it can affect large areas. Oil and gas withdrawal, on the other hand, tends to affect smaller, localized areas. Some areas of the Central Valley have subsided more than 20 feet during the past 50 years." [155]

Seiche

[154] Op. Cit. 8-10.
[155] Op. Cit. 8-10 through 8-11.

"A seiche is a standing wave produced in a body of water such as a reservoir, lake, or harbor, by wind, atmospheric changes, or earthquakes. Seiches have the potential to damage shoreline structures, dams, and levees…Since this is less than wave heights that could be expected from wind induced waves, earthquake-induced seiches are not considered a risk in Tulare County. In addition, the effects from a seiche would be similar to the flood hazard for a particular area, and the risk of occurrence is perceived as considerably less than the risk of flooding."[156]

Volcanic Hazard

"The nearest volcanoes lie to the northeast of Tulare County in Mono County, in the Mammoth Lakes/Long Valley area. The most serious effect on Tulare County of an eruption in the Mammoth Lakes, area according to the California Geological Survey, would be ash deposition."[157] "A volcanic eruption during the winter could result in snowmelt and lead to flooding. The state has formulated a contingency plan, the "Long Valley Caldera Response Plan," designed to notify the public in the event of an earthquake in the Long Valley area (outside of Tulare County)."[158]

Paleontology

"Paleontological resources are any fossilized remains, traces, or imprints of organisms, preserved in or on the earth's crust, that are of paleontological interest and that provide information about the history of life on earth, with the exception of materials associated with an archaeological resource (as defined in Section 3(1) of the Archaeological Resources Protection Act of 1979 (16 U.S.C. 470bb[1]), or any cultural item as defined in Section 2 of the Native American Graves Protection and Repatriation Act (25 U.S.C. 3001)."[159] " According to the University of California Museum of Paleontology (UCMP), 12 paleontological resources have been recorded in Tulare County, generally within the valley portion of the County. These resources primarily consist of invertebrates, vertebrate, and plant fossils (UCMP, 2009)."[160] CEQA requires that a determination be made as to whether a project would directly or indirectly destroy a unique paleontological resource or site or unique geological feature (CEQA Appendix G(v)(c)). If an impact is significant, CEQA requires feasible measures to minimize the impact (CCR Title 14(3) §15126.4 (a)(1)). California Public Resources Code §5097.5 also applies to paleontological resources.

Soil Characteristics

"The Goshen area soils are typical of those found in semi-arid regions and are referred to as transported soils, indicating that they have been deposited some distance from their parent rock. The soils which characterize the Goshen area originated from granitic rocks of the Sierra Nevada and contain quantities of mica, quartz, feldspars and granitic sand."[161]

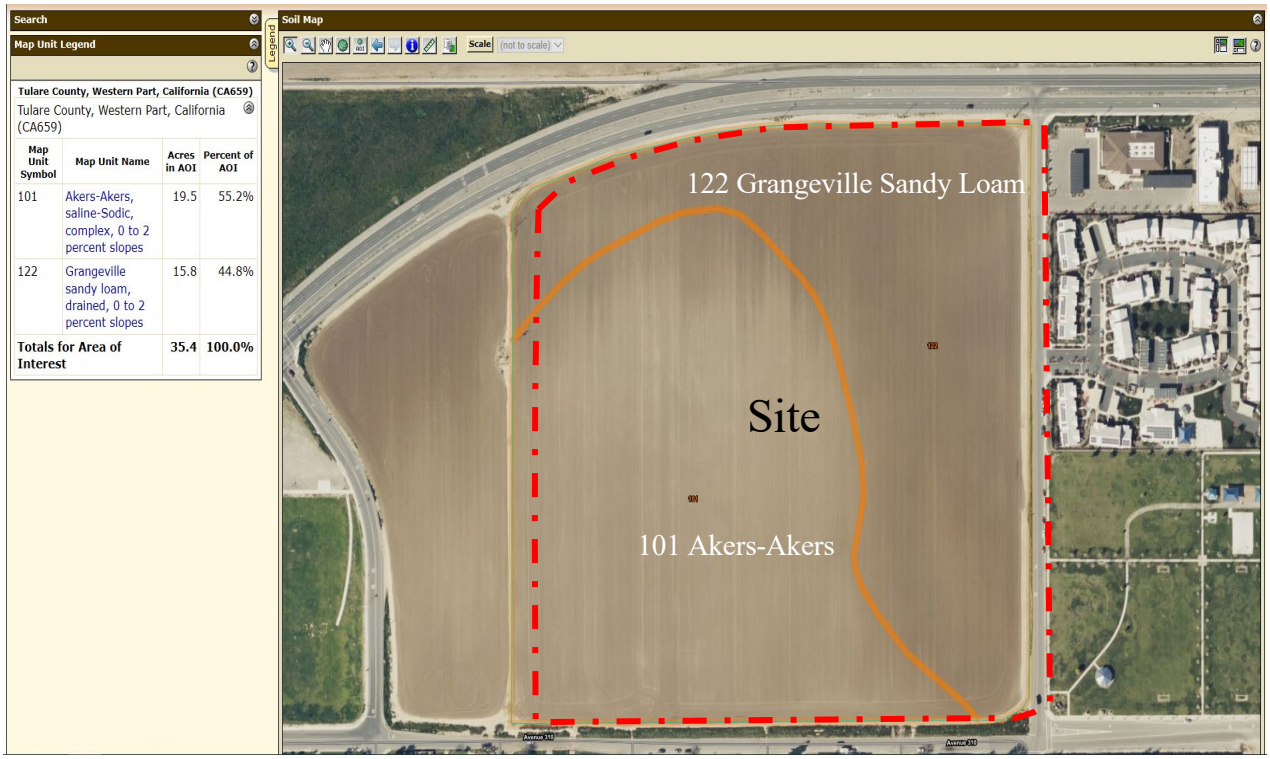
Grangeville sandy loam soils consists of very deep, somewhat poorly drained soils that formed in moderate coarse textured alluvium dominantly from granitic rock sources. Grangeville soils are on alluvial fans and floodplains and have slopes ranging from 0 to 2 percent. Somewhat poorly drained; this soil has altered drainage because of the dams and reservoirs in the Sierra Nevada, pumping from the water table, tile and interceptor drains, and filling and leveling of sloughs in the vicinity. Negligible to very low runoff; moderately rapid permeability and moderate permeability in saline-sodic phases.[162]

Akers Akers soils consists of very deep, well drained soils formed in alluvium derived from granitic rock. Akers soils are on terraces. Slopes are 0 to 2 percent. Well drained; negligible runoff; moderate permeability. Saline-sodic phases have moderately slow permeability. Salinity and sodicity have been modified by farming practices. Gypsum, where present, was added to the soil by farmers. This soil is used for irrigated cropland to grow cotton, corn, wheat, table grapes, walnuts, plums, and alfalfa. It is also used for dairy and cattle production and building site development.[163]

As shown in **Figure 7-2**, the Project site contains Grangeville Sandy Loam and Akers-Akers soils.

[156] Op. Cit. 8-11.
[157] Op. Cit.
[158] Op. Cit.
[159] Op. Cit. 9-43.
[160] Op. Cit. 9-53.
[161] Goshen Community Plan Draft EIR. Pages 3.6-5 and 3.6-6.
[162] United States Department of Agriculture. Accessed December 2020 at: https://soilseries.sc.egov.usda.gov/OSD_Docs/G/GRANGEVILLE.html
[163] United States Department of Agriculture. Accessed December 2020 at: https://soilseries.sc.egov.usda.gov/OSD_Docs/A/AKERS.html

Figure 7-2
Project Site's Soils Map[164]



REGULATORY SETTING:

Federal

None that apply to the Project.

State

Seismic Hazards Mapping Act

"Under the Seismic Hazards Mapping Act, the State Geologist is responsible for identifying and mapping seismic hazards zones as part of the California Geologic Survey (CGS). The CGS provides zoning maps of non-surface rupture earthquake hazards (including liquefaction and seismically induced landslides) to local governments for planning purposes. These maps are intended to protect the public from the risks associated with strong ground shaking, liquefaction, landslides or other ground failure, and other hazards caused by earthquakes. For projects within seismic hazard zones, the Seismic Hazards Mapping Act requires developers to conduct geological investigations and incorporate appropriate mitigation measures into project designs before building permits are issued."[165]

California Building Code

"The California Building Code is another name for the body of regulations known as the California Code of Regulations (C.C.R.), Title 24, Part 2, which is a portion of the California Building Standards Code. Title 24 is assigned to the California Building Standards Commission, which, by law, is responsible for coordinating all building standards."[166]

[164] United States Department of Agriculture. Natural Resource Conservation Service. Web Soil Survey. Accessed December 2020 at: https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx
[165] Op. Cit. 3.6-9.
[166] Op. Cit.

Alquist-Priolo Earthquake Fault Zoning Act

"The Alquist- Priolo Earthquake Fault Zoning Act (formerly the Alquist- Priolo Special Studies Zone Act), signed into law December 1972, requires the delineation of zones along active faults in California. The purpose of the Alquist-Priolo Act is to regulate development on or near active fault traces to reduce the hazards associated with fault rupture and to prohibit the location of most structures for human occupancy across these traces."[167]

State Water Resources Control Board and Regional Water Quality Control Board

National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction Activity- Water Quality Order 99-08 DWQ.

Typically, General Construction Storm Water NPDES permits are issued by the RWQCB for grading and earth-moving activities. The General Permit is required for construction activities that disturb one or more acres. The General Permit requires development and implementation of a Storm Water Pollution Prevention Plan (SWPPP), which specifies practices that include prevention of all construction pollutants from contacting stormwater with the intent of keeping all products of erosion form moving off site into receiving waters. The NPDES permits are issued for a five-year term. NPDES general permits require adherence to the Best Management Practices (BMPs) including:

- Site Planning Consideration- such as preservation of existing vegetation.
- Vegetation Stabilization- through methods such as seeding and planting.
- Physical Stabilization- through use of dust control and stabilization measures.
- Diversion of Runoff – by utilizing earth dikes and temporary drains and swales.
- Velocity Reduction – through measures such as slope roughening/terracing.
- Sediment Trapping/Filtering – through use of silt fences, straw bale and sand bag filters, and sediment traps and basins.

Local

Tulare County General Plan Policies

The General Plan has a number of policies that apply to projects within Tulare County. General Plan policies that relate to the Project include: *HS-1.11 Site Investigations* wherein the County shall conduct site investigations in areas planned for new development to determine susceptibility to landslides, subsidence/settlement, contamination, and/or flooding; *HS-2.1 Continued Evaluation of Earthquake Risks* wherein the County shall continue to evaluate areas to determine levels of earthquake risk; *HS-2.4 Structure Siting* The wherein the County shall permit development on soils sensitive to seismic activity permitted only after adequate site analysis, including appropriate siting, design of structure, and foundation integrity; *HS-2.7 Subsidence* wherein the County shall confirm that development is not located in any known areas of active subsidence; *HS-2.8 Alquist-Priolo Act Compliance* wherein The County shall not permit any structure for human occupancy to be placed within designated Earthquake Fault Zones; *WR-2.2 NPDES Enforcement* wherein the County shall continue to support the State in monitoring and enforcing provisions to control non-point source water pollution contained in the U.S. EPA NPDES program as implemented by the Water Quality Control Board; *WR-2.3 Best Management Practices* wherein the County shall continue to require the use of feasible BMPs and other mitigation measures designed to protect surface water and groundwater from the adverse effects of construction activities, agricultural operations requiring a County Permit and urban runoff in coordination with the Water Quality Control Board; and *WR-2.4 Construction Site Sediment Control* wherein the County shall continue to enforce provisions to control erosion and sediment from construction sites.

Five County Seismic Safety Element (FCSSE)

The FCSSE report represents a cooperative effort between the governmental entities within Fresno, Kings, Madera, Mariposa and Tulare Counties to develop an adoptable Seismic Safety Element as required by State law. Part I, the Technical Report, is designed to be used when necessary to provide background for the Summary document. Part II, the Summary Report, establishes the framework and rationale for evaluation of seismic risks and hazards in the region. Part II of the Seismic Safety Element, the Policy Report, has been prepared as a "model" report designed to address seismic hazards as delineated in the Technical Report. The intent has been to develop a planning tool for use by county and city governments in implementing their seismic safety elements. The planning process utilized to develop the Element was developed through the efforts of Technical

[167] Op. Cit.

and Policy Committees, composed of both staff and elected representatives from Cities, Counties, and Special Districts or Areawide Planning Organizations in cooperation with the consulting firms of Envicom Corporation and Quinton-Redgate.[168]

Project Impact Analysis

a) No Impact/Less Than Significant Impact: According to the Tulare County General Plan, the planning area lies in the V1 seismic study area, characterized by a relatively thin section of sedimentary rock overlying a granitic basement.

The V-1 seismic zone, which is characterized by a relatively thick section of sedimentary rock overlying a granitic basement, has "low" risks for shaking hazards, "minimal" risk for landslides, "low to moderate" risk for subsidence, "low" risks for liquefaction and "minimal" risk for seiching.[169]

The distance to area faults i.e. the Clovis Group, Pond-Poso, and San Andreas, expected sources of significant shaking, is sufficiently great that shaking effects should be minimal.

i) *Fault Rupture:* No substantial faults are known to traverse Tulare County according to the Alquist-Priolo Earthquake Fault Zoning Maps and the State of California Department of Conservation (also, see **Figure 7-1**)[170]. The nearest major fault line, which lies outside of Tulare County, is the San Andreas fault zones; approximately 56 miles southwest of the proposed Project site. According to the Five County Seismic Safety Element (FCSSE), Tulare County is located in the V-1 zone. This zone includes most of the eastern San Joaquin Valley, and is characterized by a relatively thin section of sedimentary rock overlying a granitic basement. Amplification of shaking that would affect low to medium-rise structures is relatively high, but the distance of the faults that are expected sources of the shaking is sufficiently great that the effects should be minimal. The requirements of Zone II of the Uniform Building Code should be adequate for normal facilities.[171]

Therefore, as noted earlier, no Alquist-Priolo Earthquake Fault Zones or known active faults are in or near the Project area. As such, the risk of rupture of a known earthquake fault will be less than significant.

ii) *Ground Shaking:* As noted in the Goshen Community Plan Update Draft EIR, "Groundshaking is the primary seismic hazard in Tulare County because of the county's seismic setting and its record of historical activity."[172] "Groundshaking intensity, which is often a more useful measure of earthquake effects than magnitude, is a qualitative measure of the effects felt by population." [173] "The Tulare County General Plan states there are no known active faults in Tulare County, with the San Andreas Fault being the nearest major fault line."[174] As such, the Project area is located in a seismic zone which is sufficiently far from known faults and consists primarily of a stable geological formation. Therefore, the impact due to ground shaking would be less than significant.

iii) *Ground Failure and Liquefaction:* As noted earlier, the proposed Project site is located in the Five County Seismic Safety Element's V-2 zone, and therefore has a low risk of liquefaction. No subsidence-prone soils or oil or gas production is involved with the proposed Project. As noted in the Goshen Community Plan Update Draft EIR, "The proposed Project area is not located within an area mapped to have a potential for soil liquefaction. Liquefaction in soils and sediments occurs during earthquake events, when soil material is transformed from a solid state to a liquid state, generated by an increase in pressure between pore space and soil particles. Earthquake induced liquefaction typically occurs in low-lying areas with soils or sediments composed of unconsolidated, saturated, clay-free sands and silts, but it can also occur in dry, granular soils or saturated soils with partial clay content. Based on available subsurface data, the proposed Project site is underlain by shallow rock that would not liquefy. As such, there would be no impact caused by seismic-related ground failure, including liquefaction."[175]

iv) *Landslides:* The proposed Project is located in the Five County Seismic Safety Element's V-2 zone and therefore will have a minimal risk of landslides. As the proposed Project is located on the Valley floor, is situated on relatively flat

[168] Five County Seismic Safety Element. Fresno, Kings, Madera, Mariposa, & Tulare Counties. 1974. Pages 4-7. Prepared by Envicom Corporation.
[169] 1974. Summary of Seismic Hazards & Safety Recommendations. Five County Seismic Safety Element Fresno, Kings, Madera, Mariposa & Tulare Counties. 1974. Prepared by Envicom Corporation.
[170] Goshen Community Plan Draft EIR. Excerpted from Figure 3.6-.1 Page. 3.6-8.
[171] Five County Seismic Safety Element, Summary & Policy Recommendations II. 1974. Pages 3 and 15. Prepared by Envicom Corporation.
[172] Tulare County. Goshen Community Plan. Page 60.
[173] Ibid.
[174] Op. Cit. 61.
[175] Goshen Community Plan Draft EIR. Pages 3.6-11 and -12.

topography, and there are no geologic landforms on or near the site that could result in a landslide event. Therefore, there is no risk of landslides within or near the Project area.

The existing Project area is not located within a published Earthquake Fault Zone and the potential for ground rupture is low. As earthquakes are possible throughout the State of California, the Project will be required to comply with the Tulare County General Plan and Zone II of the Uniform Building Code. In addition, the existing Project area is not located within an area mapped to have a potential for soil liquefaction. As the Project area is relatively flat, there is no potential for landslides. Less than significant project specific impacts related to this Checklist Item would occur.

a) Less Than Significant Impact: "Soils can be rated based on their susceptibility to degradation in the "Fragile Soil Index" interpretation. Fragile soils are those that are most vulnerable to degradation. In other words, they can be easily degraded—they have a low resistance to degradation processes. They tend to be highly susceptible to erosion and can have a low capacity to recover after degradation has occurred (low resilience). Fragile soils are generally characterized by a low content of organic matter, low aggregate stability, and weak soil structure. They are generally located on sloping ground, have sparse plant cover, and tend to be in arid or semiarid regions. The index can be used for conservation and watershed planning to assist in identifying soils and areas highly vulnerable to degradation."[176]

As noted earlier, the Project area is composed of two primary soil types, Grangeville sandy loam and Akers-Akers soils. Grangeville sandy loan soils consists of very deep, somewhat poorly drained soils that formed in moderate coarse textured alluvium dominantly from granitic rock sources. Grangeville soils are on alluvial fans and floodplains and have slopes ranging from 0 to 2 percent. Somewhat poorly drained; this soil has altered drainage because of the dams and reservoirs in the Sierra Nevada, pumping from the water table, tile and interceptor drains, and filling and leveling of sloughs in the vicinity. Negligible to very low runoff; moderately rapid permeability and moderate permeability in saline-sodic phases. Akers-Akers soils consists of very deep, well drained soils formed in alluvium derived from granitic rock. Akers soils are on terraces. Slopes are 0 to 2 percent. Well drained; negligible runoff; moderate permeability. Saline-sodic phases have moderately slow permeability. Salinity and sodicity have been modified by farming practices. Gypsum, where present, was added to the soil by farmers. This soil is used for irrigated cropland to grow cotton, corn, wheat, table grapes, walnuts, plums, and alfalfa. It is also used for dairy and cattle production and building site development. According to the NRCS rating system, both soils carry "very limited" ratings (for agricultural purposes).

The proposed Project area is primarily flat and as such, soil erosion is not anticipated. As required by the Clean Water Act (CWA) and the Central Valley Regional Water Quality Control Board (CVRWQCB), a Stormwater Pollution Prevention Plan (SWPPP) will be developed by a qualified engineer or erosion control specialist and implemented before construction begins.[177]

The construction of upwards of the 206 proposed housing units (and coincidental infrastructure) will disturb native soils but the residential units, in nature, will ultimately serve to anchor native soils in place through the laying of foundations, lawns, etc. Prior to initiation of construction-related activities, a Stormwater Pollution Prevention Plan (SWPPP) will be developed and kept on site during construction-related activities and will be made available upon request to representatives of the CVRWQCB. The objectives of the SWPPP will be to identify pollutant sources that may affect the quality of stormwater associated with construction activity and to identify, construct, and implement stormwater pollution prevention measures to reduce pollutants in stormwater discharges during and after construction. To meet these objectives, the SWPPP will include a description of potential pollutants, a description of methods of management for dredged sediments, and hazardous materials present on site during construction (including vehicle and equipment fuels).

The SWPPP will also include details for best management practices (BMPs) for the implementation of sediment and erosion control practices. Implementation of the SWPPP will comply with state and federal water quality regulations and will reduce this impact to a less-than-significant level. Compliance with local grading and erosion control ordinances will also help minimize adverse effects associated with erosion and sedimentation.

Any stockpiled soils will be watered and/or covered to prevent loss due to wind erosion as part of the SWPPP during construction and reclamation. As a result of these efforts, loss of topsoil and substantial soil erosion during the construction and reclamation periods are not anticipated.

[176] United States Department of Agriculture. Natural Resources Conservation Service. Web Soil Survey. Map – Fragile Soil Index. Accessed December 2020 at: https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx

[177] California Environmental Protection Agency. State Water Resources Control Board. Construction Storm Water Program. Construction General Permit Order 2009-0009-DWQ. https://www.waterboards.ca.gov/water_issues/programs/stormwater/construction.shtml

In addition, depending upon activity, the Project would be subject to Air District Rules Rule 8021 (construction, Demolition, Excavation, Extraction, and Other Earthmoving Activities) for construction and earthmoving activities; 8031 (Bulk Materials) which limits fugitive dust emissions from the outdoor handling, storage, and transport of bulk materials (such a topsoil); 8041 (Carryout and Trackout) which requires prevention and/or cleanup of soil that is tracked out by vehicle tires exiting the site or carried out by vehicles exiting the site; 8051 (Open Areas) requiring stabilization of areas cleared of vegetation in anticipation of construction-related activities; and 8071 (Unpaved Vehicle/Equipment Traffic Areas) to limit fugitive dust emissions from unpaved vehicle and equipment traffic areas within the Project's construction-related areas. As a result of these efforts, loss of topsoil and substantial soil erosion during the construction period are not anticipated.

As such, the Project would not result in substantial soil erosion or loss of thereby the impact by this Project would be a less than significant impact.

b) Less Than Significant Impact: Substantial grade change will not occur in the topography to the point where the proposed Project will expose people or structures to potential substantial adverse effects on, or offsite, such as landslides, lateral spreading, liquefaction or collapse. As noted earlier, this Project is located in the Five County Seismic Safety Element's V-2 zone, as such, the Project site has a low to moderate risk of subsidence or liquefaction. Therefore, the Project would result in a less than significant impact.

c) No Impact: According to the USDA, NRCS, and the Soil Survey of Tulare County, the proposed Project site Grangeville sandy loam and Akers-Akers, saline-sodic soils. They are located on a site with a 0-2% slope and are moderately well drained. Generally, these soils are alluvium derived mainly from granitic rock and have a clay content ranging from 18-31% while highly expansive soils have clay contents in excess of 60% allowing for higher potential water absorption. Therefore, the native soils identified on the site do not contain the characteristics of an expansive soil. As such, the Project would result in no impact and would not create substantial direct or indirect risks to life or property.

d) No Impact: The proposed Project does not include the installation or use of septic tanks or other alternative waste water disposal systems. As such, the Project would result in no impact

e) Less Than Significant Impact: There are no known paleontological resources within the Project area, nor are there any known geologic features in the proposed Project area. Project construction will not be anticipated to disturb any paleontological resources not previously disturbed; however, **Mitigation Measure(s) CUL-1** thru **CUL-3**, as specified in Item V Cultural Resources (as applicable), will ensure that any impact will be less than significant.

Cumulative Impact Analysis

The geographic area of this cumulative analysis is Tulare County. This cumulative analysis is based on the information provided in the Tulare County 2030 General Plan, Tulare County General Plan Background Report, Tulare County 2030 General Plan EIR, and/or Goshen Community Plan Update and EIR. The proposed Project will not increase geotechnical related impacts off-site. Therefore, no Project-specific or Cumulative Impacts related to this Checklist Item will occur.

8.	GREENHOUSE GAS EMISSIONS					
Would the project:			SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	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 any applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☐	☒

The discussions regarding Environmental Setting, CEQA requirements, Regulatory Setting, Chapter 3.7 Greenhouse Gases, Chapters 4 through 9, Appendices "A" through "I", etc., contained in the Goshen Community Plan Update and Environmental Impact Report are incorporated herein in their entirety. Where necessary and if available, additional site specific facts, data, information, etc., are included in this discussion.

Environmental Setting

"Gases that trap heat in the atmosphere are called greenhouse gases (GHGs). The major concern is that increases in GHGs are causing global climate change. Global climate change is a change in the average weather on earth that can be measured by wind patterns, storms, precipitation and temperature. The gases believed to be most responsible for global warming are water vapor, carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6)."[178] Nitrogen trifluoride was not listed initially in AB 32 but was subsequently added to the list via legislation. [179]

"In 2007, Tulare County generated approximately 5.2 million tonnes of CO_2e [carbon dioxide equivalents]. The largest portion of these emissions (63 percent) is attributed to dairies/feedlots, while the second largest portion (16 percent) is from mobile sources."[180] **Table 8-1** below, identifies Tulare County's emissions by sector in 2007.

Table 8-1
GHG Emissions by Sector in 2007

Sector	C02e (tons/year)	% of Total
Electricity	542,690	11%
Natural Gas	321,020	6%
Mobile Sources	822,230	16%
Dairy/Feedlots	3,294,870	63%
Solid Waste	227,250	4%
Total	5,208,060	100%
Per Capita	36.1	

Source: Tulare County General Plan 2030 Update Background Report, Table 6-7, Page 6-38.

"In 2030, Tulare County is forecast to generate approximately 6.1 million tonnes of CO_2e. The largest portion of these emissions (59 percent) is attributed to dairies/feedlots, while the second largest portion (20 percent) is from mobile sources. … Per capita emissions in 2030 are projected to be approximately 27 tonnes of CO_2e per resident."[181] **Table 8-2** below, identifies Tulare County's emissions by sector in 2007.

Table 8-2
GHG Emissions by Sector in 2030

Sector	$C0_{2e}$ (tons/year)	% of Total
Electricity	660,560	11%
Natural Gas	384,410	6%
Mobile Sources	1,212,370	20%
Dairy/Feedlots	3,601,390	59%
Solid Waste	246,750	4%
Total	6,105,480	100%
Per Capita	27.4	

Source: Tulare County General Plan 2030 Update Background Report, Table 6-8, Page 6-38

The Tulare County General Plan 2030 Update Background Report contains the following: "Enhancement of the greenhouse effect can occur when concentrations of GHGs exceed the natural concentrations in the atmosphere. Of these gases, CO_2 and methane are emitted in the greatest quantities from human activities. Emissions of CO_2 are largely by-products of fossil fuel combustion, whereas methane primarily results from off-gassing associated with agricultural practices and landfills. SF_6 is a GHG commonly used in the utility industry as an insulating gas in transformers and other electronic equipment. There is widespread international scientific agreement that human-caused increases in GHGs has and will continue to contribute to global warming, although there is much uncertainty concerning the magnitude and rate of the warming.

Some of the potential resulting effects in California of global warming may include loss in snow pack, sea level rise, more extreme heat days per year, more high ozone days, more large forest fires, and more drought years (CARB, 2006). Globally, climate change has the potential to impact numerous environmental resources through potential, though uncertain, impacts related to future air temperatures and precipitation patterns. The projected effects of global warming on weather and climate are likely to vary regionally, but are expected to include the following direct effects (IPCC, 2001):

[178] Tulare County. General Plan 2030 Update Background Report. Pages 6-19 to 6-20. http://generalplan.co.tulare.ca.us/documents/GeneralPlan2010/BackgroundReport.pdf
[179] California Air Resources Board. Assembly Bill 32 Overview. Accessed December 2020 at: http://www.arb.ca.gov/cc/ab32/ab32.htm.
[180] General Plan 2030 Update Background Report. Page 6-36.
[181] Ibid. 6-38

- Higher maximum temperatures and more hot days over nearly all land areas;
- Higher minimum temperatures, fewer cold days and frost days over nearly all land areas;
- Reduced diurnal temperature range over most land areas;
- Increase of heat index over land areas; and
- More intense precipitation events.

Also, there are many secondary effects that are projected to result from global warming, including global rise in sea level, impacts to agriculture, changes in disease vectors, and changes in habitat and biodiversity. While the possible outcomes and the feedback mechanisms involved are not fully understood, and much research remains to be done, the potential for substantial environmental, social, and economic consequences over the long term may be great."[182]

Regulatory Setting

Applicable Federal, State, Regional, and local regulations specific to greenhouse gas resources are described below. The following environmental regulatory settings were summarized, in part, from information contained in the Tulare County 2030 General Plan Update Background Report, Tulare County 2030 General Plan Update Recirculated Draft Environmental Impact Report (RDEIR), the California Air Resources Board (ARB) website, and the United States Environmental Protection Agency (US EPA) website.

Federal

While climate change has been a concern since at least 1988, as evidenced by the establishment of the United Nations and World Meteorological Organization's Intergovernmental Panel on Climate Change (IPCC), the efforts devoted to greenhouse gas (GHG) emissions reduction and climate change research and policy have increased dramatically in recent years.

The USEPA Mandatory Reporting Rule (40 CFR Part 98), which became effective December 29, 2009, requires that all facilities that emit more than 25,000 metric tons CO2-equivalent per year beginning in 2010, report their emissions on an annual basis. On May 13, 2010, the USEPA issued a final rule that established an approach to addressing GHG emissions from stationary sources under the CAA permitting programs. The final rule set thresholds for GHG emissions that define when permits under the New Source Review Prevention of Significant Deterioration and Title V Operating Permit programs are required for new and existing industrial facilities.

In addition, the Supreme Court decision in Massachusetts v. EPA (Supreme Court Case 05-1120) found that the USEPA has the authority to list GHGs as pollutants and to regulate emissions of GHGs under the CAA. On April 17, 2009, the USEPA found that CO2, CH4, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride may contribute to air pollution and may endanger public health and welfare. This finding may result in the USEPA regulating GHG emissions; however, to date the USEPA has not proposed regulations based on this finding.

State

In 2002, with the passage of Assembly Bill 1493 (AB 1493), California launched an innovative and pro-active approach to dealing with GHG emissions and climate change at the state level. AB 1493 requires the Air Resources Board (ARB) to develop and implement regulations to reduce automobile and light truck GHG emissions; these regulations applied to automobiles and light trucks beginning with the 2009 model year.

California has taken action to reduce GHG emissions. In June 2005, Governor Schwarzenegger signed Executive Order S-3-05 to address climate change and GHG emissions in California. This Order sets the following goals for statewide GHG emissions:
- Reduce to 2000 levels by 2010
- Reduce to 1990 levels by 2020
- Reduce to 80 percent below 1990 levels by 2050

"In 2006, the Legislature passed the California Global Warming Solutions Act of 2006 [Assembly Bill 32 (AB 32 Opens in New Window)], which created a comprehensive, multi-year program to reduce greenhouse gas (GHG) emissions in California. AB 32 required the California Air Resources Board (ARB or Board) to develop a Scoping Plan that describes the approach California will take to reduce GHGs to achieve the goal of reducing emissions to 1990 levels by 2020. The Scoping Plan was

[182] Op. Cit. Page 6-31.

first approved by the Board in 2008 and must be updated every five years. Since 2008, there have been two updates to the Scoping Plan. Each of the Scoping Plans have included a suite of policies to help the State achieve its GHG targets, in large part leveraging existing programs whose primary goal is to reduce harmful air pollution."[183]

"The First Update to the Scoping Plan was approved by the Board on May 22, 2014, and builds upon the initial Scoping Plan with new strategies and recommendations. The First Update identifies opportunities to leverage existing and new funds to further drive GHG emission reductions through strategic planning and targeted low carbon investments. The First Update defines ARB's climate change priorities for the next five years, and also sets the groundwork to reach long-term goals set forth in Executive Orders S-3-05 and B-16-2012. The Update highlights California's progress toward meeting the "near-term" 2020 GHG emission reduction goals defined in the initial Scoping Plan. It also evaluates how to align the State's "longer-term" GHG reduction strategies with other State policy priorities for water, waste, natural resources, clean energy, transportation, and land use."[184]

"On April 29, 2015, the Governor issued Executive Order B-30-15 establishing a mid-term GHG reduction target for California of 40 percent below 1990 levels by 2030. All state agencies with jurisdiction over sources of GHG emissions were directed to implement measures to achieve reductions of GHG emissions to meet the 2030 and 2050 targets. ARB was directed to update the AB 32 Scoping Plan to reflect the 2030 target, and therefore, is moving forward with the update process. The mid-term target is critical to help frame the suite of policy measures, regulations, planning efforts, and investments in clean technologies and infrastructure needed to continue driving down emissions."[185]

"This Scoping Plan for Achieving California's 2030 Greenhouse Gas Target (Scoping Plan or 2017 Scoping Plan) identifies how the State can reach our 2030 climate target to reduce greenhouse gas (GHG) emissions by 40 percent from 1990 levels, and substantially advance toward our 2050 climate goal to reduce GHG emissions by 80 percent below 1990 levels. By selecting and pursuing a sustainable and clean economy path for 2030, the State will continue to successfully execute existing programs, demonstrate the coupling of economic growth and environmental progress, and enhance new opportunities for engagement within the State to address and prepare for climate change."[186]

"This Scoping Plan builds on and integrates efforts already underway to reduce the State's GHG, criteria pollutant, and toxic air contaminant emissions. Successful implementation of existing programs has put California on track to achieve the 2020 target. Programs such as the Low Carbon Fuel Standard and Renewables Portfolio Standard are delivering cleaner fuels and energy, the Advanced Clean Cars Program has put more than a quarter million clean vehicles on the road, and the Sustainable Freight Action Plan will result in efficient and cleaner systems to move goods throughout the State. Enhancing and implementing these ongoing efforts puts California on the path to achieving the 2030 target. This Scoping Plan relies on these, and other, foundational programs paired with an extended, more stringent Cap-and-Trade Program, to deliver climate, air quality, and other benefits."[187]

California Environmental Quality Act (CEQA) Requirements

Section 15064.4 Determining the Significance of Impacts from Greenhouse Gas Emissions

(a) The determination of the significance of greenhouse gas emissions calls for a careful judgment by the lead agency consistent with the provisions in section 15064. A lead agency should make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate the amount of greenhouse gas emissions resulting from a project. A lead agency shall have discretion to determine, in the context of a particular project, whether to:

    (1) Use a model or methodology to quantify greenhouse gas emissions resulting from a project, and which model or methodology to use. The lead agency has discretion to select the model or methodology it considers most appropriate provided it supports its decision with substantial evidence. The lead agency should explain the limitations of the particular model or methodology selected for use; and/or

    (2) Rely on a qualitative analysis or performance based standards.

(b) A lead agency should consider the following factors, among others, when assessing the significance of impacts from greenhouse gas emissions on the environment:

[183] ARB.AB 32 Scoping Plan. Accessed December 2020 at: https://www.arb.ca.gov/cc/scopingplan/scopingplan.htm.
[184] ARB. First Update to the AB 32 Scoping Plan. Accessed December 2020 at: https://www.arb.ca.gov/cc/scopingplan/document/updatedscopingplan2013.htm.
[185] ARB. Scoping Plan Update to Reflect 2030 Target. Accessed December 2020 at: https://www.arb.ca.gov/cc/scopingplan/scopingplan.htm.
[186] ARB. California's 2017 Climate Change Scoping Plan. Page 1. Accessed December 2020 at: https://ww3.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf.
[187] Ibid.

(1) The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting;

(2) Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.

(3) The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions. Such requirements must be adopted by the relevant public agency through a public review process and must reduce or mitigate the project's incremental contribution of greenhouse gas emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project.[188]

Regional

California Air Pollution Control Officers Association (CAPCOA)

"In January 2008, the California Air Pollution Control Officers Association (CAPCOA) issued a "white paper" on evaluating GHG emissions under CEQA (CAPCOA, 2008). The CAPCOA white paper strategies are not guidelines and have not been adopted by any regulatory agency; rather, the paper is offered as a resource to assist lead agencies in considering climate change in environmental documents."[189]

The California Association of Air Pollution Control Officers (CAPCOA) represents all thirty-five local air quality agencies throughout California. CAPCOA, which has been in existence since 1975, is dedicated to protecting the public health and providing clean air for all our residents and visitors to breathe, and initiated the Greenhouse Gas Reduction Exchange.[190]

"The Greenhouse Gas Reduction Exchange (GHG Rx) is a registry and information exchange for greenhouse gas emissions reduction credits designed specifically to benefit the state of California. The GHG Rx is a trusted source of locally generated credits from projects within California, and facilitates communication between those who create the credits, potential buyers, and funding organizations."[191] Four public workshops were held throughout the state including in the SJVAPCD. The mission is to provide a trusted source of high quality California-based greenhouse gas credits to keep investments, jobs, and benefits in-state, through an Exchange with integrity, transparency, low transaction costs and exceptional customer service.[192]

San Joaquin Valley Unified Air Pollution Control District (Air District)

The Air District is made up of eight counties in California's Central Valley: San Joaquin, Stanislaus, Merced, Madera, Fresno, Kings, Tulare and the San Joaquin Valley Air Basin portion of Kern. "The San Joaquin Valley Air District is a public health agency whose mission is to improve the health and quality of life for all Valley residents through efficient, effective and entrepreneurial air quality-management strategies."[193]

The Air District adopted the *Climate Change Action Plan* (CCAP) in August 2008. "The CCAP directed the District Air Pollution Control Officer to develop guidance to assist Lead Agencies, project proponents, permit applicants, and interested parties in assessing and reducing the impacts of project specific greenhouse gas (GHG) emissions on global climate change.

On December 17, 2009, the San Joaquin Valley Air Pollution Control District (District) adopted the guidance: Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA, and the policy: District Policy – Addressing GHG Emission Impacts for Stationary Source Projects Under CEQA When Serving as the Lead Agency. The guidance and policy rely on the use of performance based standards, otherwise known as Best Performance Standards (BPS), to assess significance of project specific greenhouse gas emissions on global climate change during the environmental review process, as required by CEQA.

[188].California Environmental Quality Act (CEQA). Section 15064.4 Determining the Significance of Impacts from Greenhouse Gas Emissions
[189] Op. Cit. Page 6-28. Background Report citation: CEQA and Climate Change: Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act. January 2008.
[190] California Air Pollution Control Officers Association. Accessed December 2020 at: http://www.capcoa.org/.
[191] Ibid. See "CAPCOA GHG RX" tab
[192] California Air Pollution Control Officers Association. CAPCOA Greenhouse Gas Reduction Exchange. Accessed December 2020 at: http://www.ghgrx.org/.
[193] Air District. About the District. Accessed December 2020 at: Website: http://www.valleyair.org/General_info/aboutdist.htm#Mission.

Use of BPS is a method of streamlining the CEQA process of determining significance and is not a required emission reduction measure. Projects implementing BPS would be determined to have a less than cumulatively significant impact. Otherwise, demonstration of a 29 percent reduction in GHG emissions, from business-as-usual, is required to determine that a project would have a less than cumulatively significant impact. The guidance does not limit a lead agency's authority in establishing its own process and guidance for determining significance of project related impacts on global climate change."[194]

The Air District's *Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Project under CEQA* document provides guidance to lead agencies for evaluating the significance of project-specific and cumulative impacts related to GHG emissions.[195] This guidance established the following process for evaluating the significance of project-specific GHG emissions on global climate change:

- "Projects determined to be exempt from the requirements of CEQA would be determined to have a less than significant individual and cumulative impact for GHG emissions and would not require further environmental review, including analysis of project specific GHG emissions. Projects exempt under CEQA would be evaluated consistent with established rules and regulations governing project approval and would not be required to implement [Best Performance Practices] BPS.

- Projects complying with an approved GHG emission reduction plan or GHG mitigation program which avoids or substantially reduces GHG emissions within the geographic area in which the project is located would be determined to have a less than significant individual and cumulative impact for GHG emissions. Such plans or programs must be specified in law or approved by the lead agency with jurisdiction over the affected resource and supported by a CEQA compliant environmental review document adopted by the lead agency. Projects complying with an approved GHG emission reduction plan or GHG mitigation program would not be required to implement BPS.

- Projects implementing Best Performance Standards would not require quantification of project specific GHG emissions. Consistent with CEQA Guideline, such projects would be determined to have a less than significant individual and cumulative impact for GHG emissions.

- Projects not implementing Best Performance Standards would require quantification of project specific GHG emissions and demonstration that project specific GHG emissions would be reduced or mitigated by at least 29%, compared to Business-As-Usual (BAU), including GHG emission reductions achieved since the 2002-2004 baseline period. Projects achieving at least a 29% GHG emission reduction compared to BAU would be determined to have a less than significant individual and cumulative impact for GHG.

- Notwithstanding any of the above provisions, projects requiring preparation of an Environmental Impact Report for any other reason would require quantification of project specific GHG emissions. Projects implementing BPS or achieving at least a 29% GHG emission reduction compared to BAU would be determined to have a less than significant individual and cumulative impact for GHG."[196]

Local

Tulare County General Plan 2030 Update

The Tulare County General Plan 2030 Update contains a number of policies that apply to projects within Tulare County that support GHG reduction efforts.[197] The following General Plan policies have potential relevance to the Project's CEQA review: *AQ-1.3 Cumulative Air Quality Impacts* wherein the County shall require development to be located, designed, and constructed in a manner that would minimize cumulative air quality impacts; *AQ-1.5 California Environmental Quality Act (CEQA) Compliance* wherein the County shall ensure that air quality impacts identified during the CEQA review process are consistently and reasonably mitigated when feasible; *AQ-1.7 Support Statewide Climate Change Solutions* wherein the County shall monitor and support the efforts of Cal/EPA, CARB, and the SJVAPCD, under AB 32 (Health and Safety Code §38501 et seq.), to develop a recommended list of emission reduction strategies, as appropriate, the County will evaluate each new project under the updated General Plan to determine its consistency with the emission reduction strategies; *AQ-1.8 Greenhouse Gas Emissions Reduction Plan/Climate Action Plan* wherein the County will develop a Greenhouse Gas Emissions Reduction Plan (Plan) that

[194] Air District. Accessed December 2020 at: http://www.valleyair.org/Programs/CCAP/CCAP_menu.htm
[195] Air District. Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Project under CEQA. Accessed December 2020 at: http://www.valleyair.org/Programs/CCAP/12-17-09/3%20CCAP%20-%20FINAL%20LU%20Guidance%20-%20Dec%2017%202009.pdf.
[196] Ibid. Pages 4 to 5.
[197] Tulare County General Plan 2030 Update. Part 1 – Goals and Policies Report.

identifies greenhouse gas emissions within the County as well as ways to reduce those emissions. The Plan will incorporate the requirements adopted by the California Air Resources Board specific to this issue. In addition, the County will work with the Tulare County Association of Governments and other applicable agencies to include the following key items in the regional planning efforts; *AQ-3.2 Infill near Employment* requiring the County of identify opportunities for infill development near employment areas; *AQ-3.3 Street Design* regarding street designed to encourage transit use, biking, and pedestrian movement; *AQ-3.4 Landscape* regarding the use of ecologically based landscape design principles that can improve local air quality by absorbing CO_2, producing oxygen, providing shade that reduces energy required for cooling, and filtering particulates; *AQ-3.5 Alternative Energy Design* wherein the County shall encourage all new development to incorporate energy conservation and green building practices to maximum extent feasible; *ERM-4.1 Energy Conservation and Efficiency Measures* wherein the County shall encourage energy conservation and efficiency features in new construction in accordance with State law; and *ERM-4.8 Energy Efficiency Standards* wherein the County shall encourage new developments to incorporate energy efficiency and conservation measures that exceed State Title 24 standards.

Tulare County Climate Action Plan

"The CAP serves as a guiding document for County of Tulare ("County") actions to reduce greenhouse gas emissions and adapt to the potential effects of climate change. The CAP is an implementation measure of the 2030 General Plan Update. The General Plan provides the supporting framework for development in the County to produce fewer greenhouse gas emissions during Plan buildout. The CAP builds on the General Plan's framework with more specific actions that will be applied to achieve emission reduction targets consistent with California legislation."[198]

"The County of Tulare (County) adopted the Tulare County Climate Action Plan (CAP) in August 2012. The CAP includes provisions for an update when the State of California Air Resources Board (CARB) adopts a Scoping Plan Update that provides post-2020 targets for the State and an updated strategy for achieving a 2030 target. Governor Brown signed Senate Bill (SB) 32 on September 8, 2016 which contains the new 2030 target. The CARB 2017 Scoping Plan Update for the Senate Bill (SB) 32 2030 targets was adopted by the CARB on December 14, 2017 which provided new emission inventories and a comprehensive strategy for achieving the 2030 target (CARB 2017a). With the adoption of the 2017 Scoping Plan, the County proceeded with the 2018 CAP Update that is provided in this document.

The 2018 CAP Update incorporates new baseline and future year inventories to reflect the latest information and updates the County's strategy to address the SB 32 2030 target. The 2030 target requires the State to reduce emissions by 40 percent below 1990 levels from the 2017 Scoping Plan and County data. The CAP identifies the County's fair share of reductions required to maintain consistency with the State target."[199]

Project Impact Analysis

a) Less Than Significant Impact: The analysis below relies on the guidance and expertise of the Air District in addressing GHG emissions and follows the Air District's recommendation for evaluation of potential impacts on GHG emissions as provided in their guidance documents: *Guidance for Assessing and Mitigating Air Quality Impacts* (GAMAQI) and *Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Project under CEQA*. As previously noted, the Air District has determined that projects complying with an approved GHG emission reduction plan or GHG mitigation program, which avoids or substantially reduces GHG emissions within the geographic area in which the project is located, would be determined to have a less than significant individual and cumulative impact for GHG emissions.

The Tulare County CAP was initially adopted in August 2012 and serves as a guiding document for County actions to reduce GHG emissions and adapt to the potential effects of climate change. The CAP is an implementation measure of the Tulare County General Plan 2030 Update (General Plan) which provides the supporting framework for development in the County. The CAP builds on the General Plan's framework with more specific actions that will be applied to achieve emission reduction targets required by State of California legislation. The General Plan fulfills many sustainability and GHG reduction objectives at the program level. The CAP identifies the policies from the various General Plan elements that promote more efficient development, and reduce travel and energy consumption. The CAP requires projects achieve reductions in excess of the reduction identified in the Scoping Plan. The CAP identifies General Plan policies in place to assist the County in reducing GHG emissions. The 2018 CAP Update incorporates new baseline and future year inventories

[198] Tulare County Climate Action Plan, December 2018 Update. Page 1. Accessed December 2020 at: http://generalplan.co.tulare.ca.us/documents/GP/001Adopted%20Tulare%20County%20General%20Plan%20Materials/220Climate%20Action%20Plan/CLIMATE%20ACTION%20PLAN%202018%20UPDATE.pdf.

[199] Ibid.

to reflect the latest information and updates the County's strategy to address the SB 32 2030 target. The CAP identifies the County's fair share of reductions required to maintain consistency with the State's target.

The CAP thresholds for determining consistency with the CAP are 500 dwelling units, 100,000 square feet of retail, or equivalent intensity for other uses. These thresholds are the amounts currently required from development related sources within the County to demonstrate consistency with SB 32 2030 targets. Projects exceeding the consistency thresholds must comply with the requirements of the CAP, which requires a GHG analysis report demonstrating emission reductions of at least 31% below 2015 levels by 2030 or a 9% reduction from 2030 BAU emissions. As the CAP implements the County's strategy to achieve the State's 2030 reduction targets, projects below the consistency thresholds have been determined to be consistent with the State's targets and do not require GHG emissions quantification. Projects below the consistency thresholds would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.

The Project consists of the development of 206 single-family residential lots; as such, the Project does not require a consistency determination or GHG analysis report. As the Project falls below the CAP consistency thresholds, the Project would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment. However, the air quality emissions reports include quantification of GHG emissions (see Attachment "A" of the Cross Creek Bend MND). Project-related emissions were estimated using the California Emissions Estimator Model (CalEEMod), Version 2016.3.2, and are summarized and provided below for informational purposes only. By analogy, it is reasonable to conclude that a project with less than 50% residential units of the approved Cross Creek Bend subdivision (located west of SR 99 in Goshen) would result in approximately 50% overall less emissions than Cross Creek Bend subdivision. **Table 8-3** provides the Project's construction-related GHG emission while **Table 8-4** provides the operations-related GHG emissions. The analysis assumed compliance with existing state and local regulations and implementation of project design features (see Checklist Item 3 a) of Air Quality for a list of regulations and design features utilized in the model).

Table 8-3
Construction-Related GHG Emissions[1]
(metric tons per year)

Construction Phase / Year	CO_{2e} Emissions (mitigated)
Phase 1 – 2021	81.566
Phase 1 – 2022	119.562
Phase 1 – 2023	0.376
Phase 2 – 2023	178.917
Phase 2 – 2024	251.576
Phase 3 – 2025	174.728
Phase 3 – 2026	239.389
Construction Total	*1,049.11*
Amortized Annual Emissions	**20.92**

Notes: Amortized emissions are based on a 50-year life for residential units.
1. Phase 1 estimated at 33%; combined Phases 1 & 2 conservatively estimated at 74.4%; Phase 2 estimated at 74.4%; and Phase 3 estimated at 87.1%.
Source: See Attachment "A".

Table 8-4
Operation-Related GHG Emissions[1]
(metric tons per year)

Construction Phase / Year	CO_{2e} Emissions (unmitigated)	CO_{2e} Emissions (mitigated)	% Reduction
Phase 1 – 2022	629.90	561.33	10.88
Phase 2 – 2023	1,509.84	1,348.23	10.70
Phase 3 – 2025	1,427.25	1,261.25	11.63
Total Operations	*3,566.99*	*3,170.81*	*11.09*
Amortized Construction	20.92	20.92	0.00
Project Total Annual Emissions	***3,546.07***	***3,149.89***	***11.02***

Note: 1. Phase 1 estimated at 33%; combined Phases 1 & 2 conservatively estimated at 74.4%; Phase 2 estimated at 74.4%; and Phase 3 estimated at 87.1%.
Source: See Attachment "A".

The Air District does not have a recommendation for lead agencies in assessing the significance of construction related GHG emissions. Emissions from construction would be temporary; however, to account for the construction emissions, the

emissions were amortized based on the life of the development (50 years) and added to the operational emissions. As presented in **Table 8-4**, the Project achieves an approximately 11% reduction in GHG emissions through compliance with existing regulation and implementation of project design features. As such, the Project is consistent with the GHG reduction requirements of the County's CAP and demonstrates continued progress towards the County achieving the 2017 Scoping Plan Update 2030 reduction requirements with an overall GHG reduction. Furthermore, the State anticipates increases in the number of zero emission vehicles operated in the State under the Advanced Clean Car Program. Compliance with SB 375 reduction targets for light duty vehicles will provide continued reductions in emissions from that source through SB 375's 2035 milestone year. Since the Project will continue to comply with existing and future regulations, and the General Plan and CAP will continue to be implemented through 2030, the Project would not generate greenhouse gas emissions, either directly or indirectly that may have a significant impact on the environment. Impacts are less than significant..

b) No Impact: Since the proposed Project is located in an unincorporated area of Tulare County, the most applicable GHG plans are the Tulare County *Climate Action Plan* and ARB's *2017 Climate Change Scoping Plan*. As previously noted, the CAP, initially adopted in August 2012, serves as a guiding document for County actions to reduce GHG emissions and adapt to the potential effects of climate change. The CAP is an implementation measure of the Tulare County General Plan which provides the supporting framework for development in the County. The CAP builds on the General Plan's framework with more specific actions that will be applied to achieve emission reduction targets required by State of California legislation. The General Plan fulfills many sustainability and GHG reduction objectives at the program level. The CAP identifies the policies from the various General Plan elements that promote more efficient development, and reduce travel and energy consumption. The CAP requires projects achieve reductions in excess of the reduction identified in the Scoping Plan. The CAP identifies General Plan policies in place to assist the County in reducing GHG emissions. The 2018 CAP Update incorporates new baseline and future year inventories to reflect the latest information and updates the County's strategy to address the SB 32 2030 target. The CAP identifies the County's fair share of reductions required to maintain consistency with the State's target.

"The 2018 CAP Update includes an additional method of determining project consistency with the CAP and 2030 targets. Projects subject to CEQA review could use a checklist containing design features and measures that are needed to determine consistency. Large projects (500-unit subdivisions and 100,000 square feet of retail or equivalent intensity for other uses) and new specific plans should provide a greenhouse gas analysis report quantifying GHG emissions to demonstrate that the project emissions are at least 31 percent below 2015 levels by 2030 or 9 percent below BAU emissions in 2030. These are the amounts currently required from development related sources to demonstrate consistency with SB 32 2030 targets. Smaller projects may also prepare a GHG analysis report if the checklist is not appropriate for a particular project or is deemed necessary by the project proponent or County staff. The GHG analysis should incorporate as many measures as possible from the CalEEMod mitigation component as described in Table 15 and can take credit for 2017 Scoping Plan measures that have not been incorporated into CalEEMod but that will be adopted prior to 2030 such as 50 percent RPS.

Table 17 [**Table 8-5** of this MND] lists the overarching consistency requirements for all projects based on consistency with County land use plans that apply to the project location. Reviews for consistency with land use plans require planning staff to review projects to determine if they comply with applicable plan policies and implementation measures."[200]

Table 8-5
CEQA Project Requirements for Consistency with CAP

Item	Required
Project helps to meet the density goals from the Tulare Blueprint	Yes
Consistency with General Plan policies	Yes
Consistency with Rural Valley Lands Plan or Foothill Growth Management Plan development criteria	Yes
Consistency with Urban Growth Boundary expansion criteria	Yes
Consistency for development within Rural Community Urban Development Boundaries (UDB) and Hamlet Development Boundaries (HDB), and Legacy Development Boundaries (LDB)	Yes

Note: Criteria as identified in the General Plan Planning Framework
Source: 2018 CAP Update. Table 17. Page 73.

[200] Op. Cit. Page 73.

"A more detailed review for compliance with CAP measures is required to ensure that a project is doing its part in reducing emissions. Table 18 [**Table 8-6** of this MND] provides a checklist containing measures that will provide reductions necessary to achieve CAP consistency. A project checklist that can be used by staff is provided as Appendix C."[201]

Table 8-6
CAP Consistency Checklist

CAP Measure	Compliance
Land Use: Project is consistent with the Tulare County General Plan policies listed in the CAP applicable to GHG emissions and sustainability.	Review for compliance during project review process.
Land Use—Residential: Subdivisions and multifamily projects propose densities consistent with County commitments for the Tulare Blueprint. Densities in subdivisions within the boundaries of Valley rural communities must be at least 5.0 units per acre. (County R-1 zoning has a 6,000 square foot minimum lot size or 7.26 units per gross acre). Overall residential density is 5.3 units per acre for the entire County including the cities. Mountain subdivisions over 50 lots require review to determine if they are consistent with the Blueprint.	Review development plans during project review to determine if densities are consistent with Blueprint.
Land Use—Non-Residential: Retail and office projects should be constructed within the boundaries of Rural Communities, HDB, UDB, LDB, and in designated transportation corridors to provide needed local goods services to residents and the traveling public. Agricultural industrial projects may be constructed in rural locations as long as consistent with the General Plan.	Review development plans to ensure locations are appropriate for type of project that is proposed and consistent with County plans.
Land Use Design: Projects that require construction of new roads or major intersection improvements provide a fair share of improvements such as sidewalks and pedestrian friendly crossings, and bike lanes/paths connecting to schools, shopping, and other uses consistent with County development standards.	Include roadway improvements as conditions of approval of subdivision or commercial site plan
Energy Efficiency: Project complies with current version of Title 24. (Current version is 2016 Title 24)	Provide copy of the Title 24 Report demonstrating compliance with the applicable standards with Building Permit application.
Renewable Energy: Project includes solar panels or other alternative energy source meeting County Solar Ordinance or new Title 24 standards whichever is more stringent.	Include solar on building plans and provide Title 24 compliance reports with Building Permit applications.
EV Charging: Project meets charging installation/charging ready requirements of the CalGreen Code.	Include charging in building plans
CalGreen Building Code Water: Project complies with indoor and outdoor water conservation measures.	Provide copy of report showing code compliance.
Water Conservation Landscaping:	Project complies with County water conservation ordinance requirements for landscaping.
Solid Waste: Project has access to recycling service for homes and businesses meeting CalRecycle requirements.	County verify that providers are in compliance with CalRecycle regulations regarding recycling and diversion of solid waste.
Large Employment Projects: Projects that will have large numbers of employees (over 100) are required to comply with Rule 9410 Employee Trip Reduction Plans (ETRIP). Provide a copy of the ETRIP plan to the County after approval of the plan by the SJVAPCD.	Employer is responsible for compliance with Rule 9410
Industrial Projects: Industrial projects that are large employers will comply with Rule 9410. Industrial process related GHG emissions are not under the County's regulatory authority but will require permits from the SJVAPCD and may be subject to Cap-and-Trade.	Employer is responsible for compliance with Rule 9410
Note: Criteria as identified in the General Plan Planning Framework *Source: 2018 CAP Update. Table 18. Pages 73-74.*	

As the County CAP requires projects to achieve reductions in excess of the reductions required in the Scoping Plan and by State legislation, projects that are consistent with the County CAP would not conflict with any applicable plan, policy or regulation adopted for reducing GHG emissions. The Project consists of the development of 206 single-family residential lots; as such, the Project does not require a consistency determination and therefore, does not conflict with the reduction strategies included in the Scoping Plan. Furthermore, although not required, the Project demonstrates consistency with the CAP as follows:

- The Project will comply with all applicable General Plan policies.

[201] Op. Cit.

- The overall Project density is 5.82 units per gross acre (206 lots ÷ 35.4acres).
- The Project will include sidewalks, curbs, and gutters, and the elementary school is located directly east of the Project site.
- The Project will comply with the most recent version of Title 24 as required by building permits.
- The Project will comply with the County's Solar Ordinance.
- The Project will comply with the CalGreen Code for EV charging and indoor/outdoor water conservation measures.
- The Project will comply with the County's Model Water Efficient Landscaping Ordinance (MWELO).
- Solid waste providers supplying services for the Project are in compliance with CalRecycle regulations.

As demonstrated above, the Project is consistent with the CAP, and thereby consistent with the emission reduction strategies included in the Scoping Plan. Therefore the Project will not conflict with any applicable plan, policy or regulation adopted for reducing GHG emissions. There are no impacts related to this Checklist Item.

Cumulative Impact Analysis:

The Project is consistent with the Tulare County General Plan 2030 Update. The proposed Project site is within the Goshen UDB and has a designation of C-2-MU which allows residential growth at the site. The Goshen Community Plan Update indicates that of the 1,748 acres of UDB land uses, approximately 209 acres of medium density residential are needed to accommodate Goshen's population growth over time.[202] The proposed Project consists of approximately 37 acres of residential land use which is consistent with the objectives contained in the Goshen Community Plan. As previously discussed, implementation of the Project is consistent with the Tulare County CAP and applicable AB 32 Scoping Plan reductions measures. The Project will implement applicable Tulare County General Plan and Tulare County CAP policies. As such, implementation of the Project will not conflict with applicable state, regional, and local plans, policies or regulation adopted for the purpose of reducing the emissions of greenhouse gases. Less Than Significant Cumulative Impacts related to this Checklist Item will occur. Therefore, less than significant project-specific and cumulative impacts related to this Checklist Item will occur.

9.	HAZARDS AND HAZARDOUS MATERIALS					
Would the project:			SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	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	☐	☐	☐	☒

[202] County of Tulare. Goshen Community Plan Update. Page 198.

		airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?				
	f)	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evaluation plan?	☐	☐	☐	☒
	g)	Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☐	☒

The discussions regarding Environmental Setting, CEQA requirements, Regulatory Setting, Chapter 3.8 Hazards and Hazardous Materials, Chapters 4 through 9, Appendices "A" through "I", etc., contained in the Goshen Community Plan Update and Environmental Impact Report are incorporated herein in their entirety. Where necessary and if available, additional site specific facts, data, information, etc., are included in this discussion.

Environmental Setting

The proposed Project site is located in east of SR 99 and northwest of Avenue 310 and Road 72 in the unincorporated community of Goshen in Tulare County, California, approximately 0.5 mile west of nearest city, the City of Visalia (the County Seat), Visalia,.

The nearest airport, Visalia Municipal Airport (City of Visalia) is approximately two (2) miles southeast of the proposed Project site. The nearest operational landfill is Visalia Landfill, approximately 2.25 miles northeast of the proposed Project site.

The nearest elementary (Goshen Elementary School) is located (approximately 0.60 miles west of the Project site), while the nearest high school (El Diamante High School) is approximately 4.5 miles southeast of the Project site in the City of Visalia.

Regulatory Setting

Federal

The NFPA 70®: National Electrical Code® is adopted in all 50 states. It includes requirements for electrical wiring and equipment. Article 705 covers interconnecting generators, windmills, and solar and fuel cells with other power supplies.[203] The federal Resource Conservation and Recovery Act (RCRA) and California Hazardous Waste Control Law regulate the disposal of solar PV cells. The local hazardous waste regulatory authority is the County of Tulare.

State

The California Department of Industrial Relations, Division of Occupational Safety and Health, is the administering agency designed to protect worker health and general facility safety. The California Department of Forestry and Fire Protection (CalFire) has designated the area that includes the project site as a Local Responsibility Area which is defined as an area where the local fire jurisdiction is responsible for emergency fire response. The project area is also defined as "Unzoned," which means that the fire hazard severity of the site has not been determined.[204]

Local

Tulare County General Plan 2030 Update

The Tulare County General Plan 2030 Update (at Chapter 10 – Health and Safety) contains the following goals and policies that relate to hazards and hazardous materials, and which have potential relevance to the Project's CEQA review: *HS-4.1 Hazardous Materials* wherein the County shall strive to ensure hazardous materials are used, stored, transported, and disposed of in a safe manner, in compliance with local, State, and Federal safety standards, including the Hazardous Waste Management Plan, Emergency Operations Plan, and Area Plan; *HS-4.2 Establishment of Procedures to Transport Hazardous Wastes* wherein

[203] National Fire Protection Association. 2010. NFPA 70: National Fire Code.
[204] California Department of Forestry and Fire Protection. 2007. Draft Fire Severity Zones in LRA Map. Accessed December 2020 at: https://osfm.fire.ca.gov/media/6832/fhszl06_1_map54.pdf.

the County shall continue to cooperate with the California Highway Patrol (CHP) to establish procedures for the movement of hazardous wastes and explosives within the County; *HS-4.3 Incompatible Land Uses* wherein the County shall prevent incompatible land uses near properties that produce or store hazardous waste; and *HS-4.4 Contamination Prevention* wherein the County shall review new development proposals to protect soils, air quality, surface water, and groundwater from hazardous materials contamination.

Project Impact Analysis

a) and b) Less Than Significant Impact: Proposed Project construction will require the transport and use of small quantities of hazardous materials in the form of, for example, gasoline, diesel, and oil during construction-related activities. As noted earlier, the Project will be developed over four (4) phases and may require approximately 4-5 years to build-out. As such, construction-related activities will be intermittent, temporary, and short-term as they occur. If refueling occurs on site, there is the potential for small leaks due to refueling of the construction-related equipment; however, standard construction Best Management Practices (BMPs) included in the SWPPP will reduce the potential for accidental release of construction-related fuels and other hazardous materials. These BMPs will prevent, minimize, or remedy storm water contamination from spills or leaks, control the amount of runoff from the site, and require proper disposal or recycling of hazardous materials.

When fully buildout, it is likely that the residence will store small amounts of typical hazardous materials, such as fuel (e.g., gasoline for lawn care equipment) and lubricants. The storage, transport, and use of these materials will comply with Local, State, and Federal regulatory requirements.

Therefore, the proposed Project will not result in a significant hazard to the public or the environment and impacts will be less than significant.

c) No Impact: The nearest school, Goshen Elementary School, is approximately 0.60 miles west of the proposed Project site. As noted earlier, the Project will be developed over four (4) phases and may require approximately 4-5 years to build-out. As such, construction-related activities will be intermittent, temporary, and short-term as they occur Other than construction-related activities (which will be intermittent, temporary, and short-term), it is not anticipated that the Project would result in the release of hazardous emissions, involve hazardous materials, or create a hazard to the school. There will be no impact.

d) No Impact: According to the State of California Department of Toxic Substances Control (DTSC) – Envirostor Search, no hazardous materials sites exist within an approximate two-mile radius of the proposed Project site.[205] The proposed Project site is not listed as hazardous materials sites pursuant to Government Code Section 65962.5 and are not included on a list compiled by the Department of Toxic Substances Control per a review of "Identified Hazardous Waste Sites" (conducted on May, 2019), by RMA staff. Therefore, as the proposed Project site is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 it would not create a significant hazard to the public or the environment

e) No Impact: The nearest airport, Visalia Municipal Airport, is approximately two miles southeast of the proposed Project site; There are no private airports within the Project vicinity. The Project would not result in the placement of any structures sufficiently tall enough to interfere with the flight path of either airport. The proposed Project will not conflict with Tulare County Airport Land Use Plan (ALUP) policy and it is not within any airport's safety zone. The proposed Project will not result in a safety hazard for people working in the area. As such, the Project would result in no impact to this resource.

f) No Impact: The proposed Project is not located in the vicinity of a principal route of assistance, as described by the Safety Element of the Tulare County General Plan. The Project site does cross a publicly accessed route. The Project will result in two access/egress points to Avenue 310 (from/to future Road 70 and future Farr Road; respectively) on the south and one access/egress point to Road 72 on the east. From Avenue 310, Robinson Road (approximately 300 feet west of the proposed Project) can be used to reach Avenue 310, while Road 72 can be utilized to reach Avenue 312/W. Riggin Avenue, to ultimately access/egress SR 99 west of the Project site. Avenue 3120/W. Riggin Avenue is the most convenient and direct routes to or from the next nearest community (Visalia), SR 99, and ultimately other Tulare County communities. As such, the proposed Project will not interfere with implementation of an emergency response plan or evacuation.

g) No Impact: The surrounding land is predominantly agricultural to the north, a vacant parcel to the west; residential, office uses medical clinic), and a park uses to the east; and residential uses to the south; as such, it is not subject or vulnerable to

[205] California Dept. of Toxic and Substances Control Accessed May 2019 at: https://www.envirostor.dtsc.ca.gov/public/map/?myaddress=Tulare+County%2C+CA.

wildland fires. As the proposed Project is not within a wildland area, it is not susceptible to wildland fire. As such, the proposed Project would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires and would result in no impact to this resource.

Cumulative Impact Analysis

The geographic area of this cumulative analysis is Tulare County. This cumulative analysis based on the information provided in the Tulare County 2030 General Plan, General Plan background Report, Tulare County 2030 General Plan EIR, and/or Goshen Community Plan Update and EIR. Cumulative development throughout the Project area and its vicinity, under Year 2030 build out conditions will cumulatively increase the potential for exposure to existing hazards associated with State Route 99. However, as discussed earlier, the transportation of hazardous materials will continue to be regulated by federal, state, and regional agencies, and all new development will be subject to independent environmental review and all applicable regulations to minimize any potential health risks associated with freeways. Therefore, through appropriate regulations, potential cumulative health impacts associated with the build out of the Project area (including the proposed Project) would result in less than significant Project-specific and Cumulative Impacts related to this Checklist Item.

10.	**HYDROLOGY AND WATER QUALITY**					
Would the project:			**SIGNIFICANT IMPACT**	**LESS THAN SIGNIFICANT IMPACT WITH MITIGATION**	**LESS THAN SIGNIFICANT IMPACT**	**NO IMPACT**
	a)	Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	☐	☐	☒	☐
	b)	Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
	c)	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner 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?	☐	☐	☐	☒
	iv)	Impede or redirect flood flows?	☐	☐	☐	☒
	d)	In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒
	e)	Conflict with or obstruct implementation of water quality control plan or sustainable groundwater management plan?	☐	☐	☐	☒

The discussions regarding Environmental Setting, CEQA requirements, Regulatory Setting, Chapter 3.9 Hydrology and Water Quality, Chapters 4 through 9, Appendices "A" through "I", etc., contained in the Goshen Community Plan Update and Environmental Impact Report are incorporated herein in their entirety. Where necessary and if available, additional site specific facts, data, information, etc., are included in this discussion.

Environmental Setting

Tulare County has a dry climate with evaporation rates that exceeds rainfall. The local climate is considered warm desert with annual precipitation approximately 7 to 9 inches, and variable rainfall rates. The majority of precipitation (roughly 84%) falls during the months of November through April.

Hydrology in the Project vicinity is associated with the Tulare Lake Basin, one of three main water subareas in the county. The Tulare Lake Basin is in the northern alluvial fan and basin subarea which is characterized by southwest-to-south flowing rivers, creeks, and irrigation canal systems that convey water from the Sierra Nevada to the west toward the Tulare Lake Bed. The southern portion of the basin is internally drained by the Kings, Kaweah, Tule, and Kern Rivers.[206] The Tulare Lake Basin comprises the drainage area of the San Joaquin Valley south of the San Joaquin River, and is essentially a closed basin because surface water drains north into the San Joaquin River only in years of extreme rainfall. Watershed (surface water), surface water quality, surface water supply, groundwater sub basin, ground water quality, ground water supply are extensive discussed in the Goshen Community Plan Update Draft EIR (see pages 3.9-2 through 3.9-16)[207]. **Figure 10-1** shows the Goshen Community Plan Update Watershed Map.

Goshen Community Information

"The following discusses the Community of Goshen's recorded water usage, assumed current water usage, projected water usage and current water quality issues.

Information for the community of Goshen is somewhat limited because water service is provided by the PUC-regulated California Water Services Company (Cal Water), a private corporation, which has not been willing to disclose specific water use and quality information for this report. Certain water quality information is in the public domain in the form of Consumer Confidence Reports, and the company did release annual water use totals for Goshen but not for West Goshen. From that information and using information from other communities as guideline, monthly and future water use for the community has been calculated.

Cal Water states that they have 1,021 water services in Goshen, and another 80 or so residential services in West Goshen for a total of 1,101 services. Of the Goshen services, approximately 95% (or 970) are residential while the others (51) are small businesses, either commercial or industrial land uses. Applying the County's standard household formation rate of 3.1 persons per household (pph) to the 1,050 residential services in both Goshen and West Goshen combined implies a population of 3,255 in the current year.

Assuming the current 3.1 pph remains constant, and using the 2010 General Plan Background Report population growth rate of 1.3% annually to project to 2030, Goshen (including West Goshen) could reach 4,613 persons in Year 2030, an increase of 1,358 persons (42%) from 2013. This population would imply a need for a total of 1,318 residential services at that time.

Recorded Water Usage

Cal Water supplied P&P with total water usage data for Goshen for only the year 2013. No monthly data nor water use data for West Goshen was supplied. As a result, data from nearby Traver was used to estimate monthly demands and peak flows for Goshen. In order to estimate Goshen's current water demand and create future projections, a monthly demand curve was estimated using the shape of the demand curve observed in Traver, and overall water use was pro-rated up to include the 80 additional residences in West Goshen. Since no peaking factors for Goshen are available, peaking factors observed in the community of Traver were used to produce the following table.[208]" (See Appendix "G", Goshen Water Usage Memo [of the Goshen Community Plan Update the Draft EIR]).

Flooding

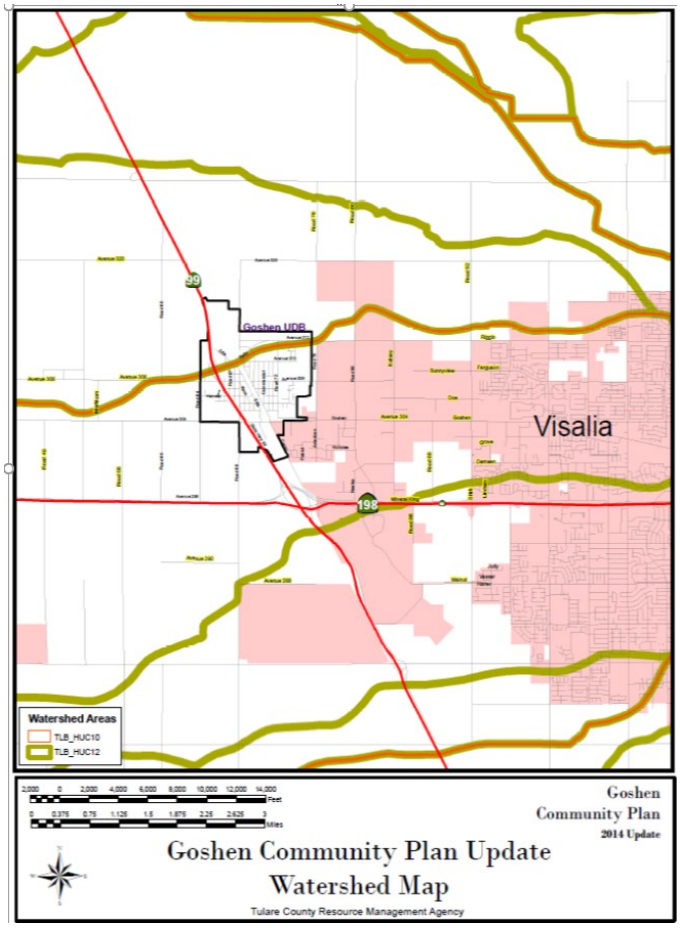
[206] California Department of Water Resources. California's Groundwater Bulletin 118. 2004. Tulare Lake Hydrologic Region, San Joaquin Valley Groundwater Basin. Site accessed December 2020 at: http://www.water.ca.gov/pubs/groundwater/bulletin_118/basindescriptions/5-22.11.pdf.
[207] Goshen Community Plan Update. Draft Environmental Impact Report. Chapter 3.9 Hydrology and Water Quality.
[208] Ibid. 3.9-16 and 3.9-17.

"Flooding is a natural occurrence in the Central Valley because it is a natural drainage basin for thousands of watershed acres of Sierra Nevada and Coast Range foothills and mountains. Two kinds of flooding can occur in the Central Valley: general rainfall floods occurring in the late fall and winter in the foothills and on the valley floor; and snowmelt floods occurring in the late spring and early summer. Most floods are produced by extended periods of precipitation during the winter months. Floods can also occur when large amounts of water (due to snowmelt) enter storage reservoirs, causing an increase in the amount of water that is released."[209]

"Official floodplain maps are maintained by the Federal Emergency Management Agency (FEMA). FEMA determines areas subject to flood hazards and designates these areas by relative risk of flooding on a map for each community, known as the Flood Insurance Rate Map (FIRM). A 100-year flood is considered for purposes of land use planning and protection of property and human safety. The boundaries of the 100-year floodplain are delineated by FEMA on the basis of hydrology, topography, and modeling of flow during predicted rainstorms."[210]

"The flood carrying capacity in rivers and streams has decreased as trees, vegetation, and structures (e.g., bridges, trestles, buildings) have increased along the Kaweah, Kings, and Tule Rivers. Unsecured and uprooted material can be carried down a river, clogging channels and piling up against trestles and bridge abutments that can, in turn, give way or collapse, increasing blockage and flooding potential. Flooding can force waters out of the river channel and above its ordinary floodplain. Confined floodplains can result in significantly higher water elevations and higher flow rates during high runoff and flood events."[211]

Figure 10-1
Goshen Community Plan Update Watershed Map[212]



[209] Op. Cit. 3.9-17 and 3.9-18.
[210] Op. Cit. 3.9-18.
[211] Op. Cit.
[212] Ibid. Figure 3.9-2. Page 3.9-5.

"Dam failure can result from numerous natural or human activities, such as earthquakes, erosion, improper siting, rapidly rising flood waters, and structural and design flaws. Flooding due to dam failure can cause loss of life, damage to property, and other ensuing hazards. Damage to electric-generating facilities and transmission lines associated with hydro-electric dams could also affect life support systems in communities outside the immediate hazard area."[213]

Storm Drainage

"The entire County of Tulare is under the jurisdiction of the Tulare County Flood Control District which has the authority to address local drainage, flooding, and related issues. According to the Tulare County General Plan Update, localized drainage issues do occur throughout the County but they are generally in proximity to floodplains. Two (2) levees are constructed Goshen; however, the Goshen Community Plan Area is not located within the levee districts.

Most of the storm drainage is directed via surface flow. There are a number of inlets and pipes on either side of the railroad that carry runoff to the drainage basin nick-named the "Goshen Ocean" (APN 073-160-001) by locals. The area west of SR 99 has very little drainage improvements."[214]

Regulatory Framework

Federal

Clean Water Act

The Clean Water Act (CWA) is intended to restore and maintain the chemical, physical, and biological integrity of the nation's waters (33 CFR 1251). The regulations implementing the CWA protect waters of the U.S. including streams and wetlands (33 CFR 328.3). The CWA requires states to set standards to protect, maintain, and restore water quality by regulating point source and some non-point source discharges. Under Section 402 of the CWA, the National Pollutant Discharge Elimination System (NPDES) permit process was established to regulate these discharges.

Safe Drinking Water Act

"The Safe Drinking Water Act (SDWA) is the main federal law that ensures the quality of Americans' drinking water. Under SDWA, EPA sets standards for drinking water quality and oversees the states, localities, and water suppliers who implement those standards… SDWA was originally passed by Congress in 1974 to protect public health by regulating the nation's public drinking water supply. The law was amended in 1986 and 1996 and requires many actions to protect drinking water and its sources: rivers, lakes, reservoirs, springs, and ground water wells. (SDWA does not regulate private wells which serve fewer than 25 individuals.)"[215]

The National Flood Insurance Act (1968) makes available federally subsidized flood insurance to owners of flood-prone properties. To facilitate identifying areas with flood potential, Federal Emergency Management Agency (FEMA) has developed Flood Insurance Rate Maps (FIRM) that can be used for planning purposes.

Environmental Protection Agency

The mission of EPA is to protect human health and the environment.
EPA's purpose is to ensure that:

- all Americans are protected from significant risks to human health and the environment where they live, learn and work;
- national efforts to reduce environmental risk are based on the best available scientific information;
- federal laws protecting human health and the environment are enforced fairly and effectively;
- environmental protection is an integral consideration in U.S. policies concerning natural resources, human health, economic growth, energy, transportation, agriculture, industry, and international trade, and these factors are similarly considered in establishing environmental policy;
- all parts of society -- communities, individuals, businesses, and state, local and tribal governments -- have access to accurate information sufficient to effectively participate in managing human health and environmental risks;

[213] Op. Cit.
[214] Op. Cit.
[215] EPA summary of the Safe Drinking Water Act. Accessed December 2020 at: http://water.epa.gov/lawsregs/rulesregs/sdwa/index.cfm.

- environmental protection contributes to making our communities and ecosystems diverse, sustainable and economically productive; and
- the United States plays a leadership role in working with other nations to protect the global environment."[216]

United States Army Corps of Engineers

"The Department of the Army Regulatory Program is one of the oldest in the Federal Government. Initially it served a fairly simple, straightforward purpose: to protect and maintain the navigable capacity of the nation's waters. Time, changing public needs, evolving policy, case law, and new statutory mandates have changed the complexion of the program, adding to its breadth, complexity, and authority.

The Regulatory Program is committed to protecting the Nation's aquatic resources, while allowing reasonable development through fair, flexible and balanced permit decisions. The Corps evaluates permit applications for essentially all construction activities that occur in the Nation's waters, including wetlands."[217]

State

The Porter-Cologne Water Quality Control Act

"The Porter-Cologne Act is the principal law governing water quality regulation in California. It establishes a comprehensive program to protect water quality and the beneficial uses of water. The Porter-Cologne Act applies to surface waters, wetlands, and ground water and to both point and nonpoint sources of pollution. Pursuant to the Porter-Cologne Act (California Water Code section 13000 et seq.), the policy of the State is as follows:

- That the quality of all the waters of the State shall be protected,
- That all activities and factors affecting the quality of water shall be regulated to attain the highest water quality within reason, and
- That the State must be prepared to exercise its full power and jurisdiction to protect the quality of water in the State from degradation.

The Porter-Cologne Act established nine Regional Water Boards (based on hydrogeologic barriers) and the State Water Board, which are charged with implementing its provisions and which have primary responsibility for protecting water quality in California. The State Water Board provides program guidance and oversight, allocates funds, and reviews Regional Water Boards decisions. In addition, the State Water Board allocates rights to the use of surface water. The Regional Water Boards have primary responsibility for individual permitting, inspection, and enforcement actions within each of nine hydrologic regions."[218]

State Water Resources Control Board

The State Water Resources Control Board (the State Water Board) was created by the Legislature in 1967. The mission of the Water Board is to ensure the highest reasonable quality for waters of the State, while allocating those waters to achieve the optimum balance of beneficial uses. The joint authority of water allocation and water quality protection enables the Water Board to provide comprehensive protection for California's waters.

The Water Board consists of five full-time salaried Members, each filling a different specialty position. Each board member is appointed to a four-year term by the Governor and confirmed by the Senate.

There are nine Regional Water Quality Control Boards (Regional Boards). The mission of the Regional Boards is to develop and enforce water quality objectives and implementation plans that will best protect the beneficial uses of the State's waters, recognizing local differences in climate, topography, geology and hydrology.

Each Regional Board has seven part-time Members also appointed by the Governor and confirmed by the Senate. Regional Boards develop "basin plans" for their hydrologic areas, govern requirements/issue waste discharge permits, take enforcement action against violators, and monitor water quality. The task of protecting and enforcing the many uses of water, including the

[216] EPA Website. Accessed December 2020 at: https://www.epa.gov/aboutepa/our-mission-and-what-we-do
[217] U.S. Army Corps of Engineers. Accessed December 2020 at: http://www.usace.army.mil/Missions/CivilWorks/RegulatoryProgramandPermits.aspx.
[218] California Water Boards. State Laws Porter-Cologne Act. Accessed December 2020 at: https://www.waterboards.ca.gov/water_issues/programs/nps/encyclopedia/0a_laws_policy.html.

needs of industry, agriculture, municipal districts, and the environment is an ongoing challenge for the Water Board and Regional Boards.[219]

California Department of Water Resources

"This Department's primary mission is to manage the water resources of California in cooperation with other agencies, to benefit the State's people, and to protect, restore, and enhance the natural and human environments." Other goals contained in the Update 2018 California Water Plan include:

Goal 1 - Improve Integrated Watershed Management: California's vision of sustainable water management relies on the continued support of innovative and inclusive integrated water management strategies. Healthy watersheds, headwaters, aquifers, and working landscapes provide critical water supply and ecosystem services.

Goal 2 - Strengthen Resiliency and Operational Flexibility of Existing and Future Infrastructure: Water managers must make plans to address aging infrastructure and impacts associated with climate change, population growth, ecosystem stressors, and funding constraints.

Goal 3 - Restore Critical Ecosystem Functions California is one of the world's great biodiversity hotspots. Anthropogenic influence — water management included — has impacts on natural resources; and environmental protections for many species has impacts on water management.

Goal 4 - Empower California's Under-Represented or Vulnerable Communities: Equitable water management means reliable, affordable, and safe water supplies and management for all Californians.

Goal 5 - Improve Inter-Agency Alignment and Address Persistent Regulatory Challenges: Improved alignment and communication will more effectively deliver public benefits. Strengthening links between regulation and strategic planning, as well as utilizing restoration management on an ecosystem scale, will help balance environmental needs and human activities over the long term.

Goal 6 - Support Real-Time Decision-Making, Adaptive Management, and Long-Term Planning Effective water management requires access to data and information necessary to understand current conditions, historic challenges, and future challenges. It also requires stable funding sufficient to support State and local sustainability goals.[220]

Regional Water Quality Board

The Central Valley Regional Water Quality Control Board (RWQCB) administers the NPDES storm water-permitting program in the Central Valley region. Construction activities on one acre or more are subject to the permitting requirements of the NPDES General Permit for Discharges of Storm Water Runoff Associated with Construction Activity (General Construction Permit). The General Construction Permit requires preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP). The plan will include specifications for Best Management Practices (BMPs) that will be implemented during proposed Project construction to control degradation of surface water by preventing the potential erosion of sediments or discharge of pollutants from the construction area. The General Construction Permit program was established by the RWQCB for the specific purpose of reducing impacts to surface waters that may occur due to construction activities. BMPs have been established by the RWQCB in the California Storm Water Best Management Practice Handbook (2003), and are recognized as effectively reducing degradation of surface waters to an acceptable level. Additionally, the SWPPP will describe measures to prevent or control runoff degradation after construction is complete, and identify a plan to inspect and maintain these facilities or project elements.

Local

Lower Tule River & Pixley Irrigation Districts

"As one of the largest irrigation districts in the State of California, the Lower Tule River Irrigation District (LTRID) supplies supplemental water for district-wide crop irrigation to 104,000 acres in the Valley – 30,000 being permanent plantings.

Both districts have been [i]n operation for more than 50 years[.] [These two irrigation districts strive] to provide an affordable and reliable water supply for many more years to come, dedicated to service and excellence in water resource management."[221]

[219] State of California Water Boards. Water Boards' Structure. https://www.waterboards.ca.gov/about_us/water_boards_structure/mission.html

[220] California Department of Water Resources: California Water Plan Update 2018. Managing Water Resources for Sustainability. June 2019. Pages 3-2 through 3-6. Accessed December 2020 at: https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/California-Water-Plan/Docs/Update2018/Final/California-Water-Plan-Update-2018.pdf#page=4.

[221] Lower Tule River and Pixley Irrigation Districts. Accessed December 2020 at: http://www.ltrid.org/

Tulare County Environmental Health Services

"The mission of the Division of Environmental Health is to enhance the quality of life in Tulare County through implementation of environmental health programs that protect public health and safety as well as the environment. We accomplish this goal by overseeing and enforcing numerous programs, from food facility inspections to hazardous waste. All of our inspectors are licensed and/or certified in their field of practice and participate in continuing education to maintain licensure"[222] This division requires water quality testing of public water systems.

Any project that involves septic tanks and water wells within Tulare County is subject to approval by this agency. All recommendations provided by this division will be added as mitigation measures to ensure reduction of environmental impacts.

Tulare County General Plan Policies

The General Plan has a number of policies that apply to projects within Tulare County. General Plan policies that relate to the proposed Project are listed below.

Tulare County Land Development Regulations

The Tulare County Resource Management Agency (RMA) is responsible for review, approval, and enforcement of planning and land development throughout the unincorporated portions of Tulare County. County of Tulare regulations that direct planning and land development (and related water and wastewater utilities) include the Tulare County General Plan, Zoning Ordinance, Subdivision Ordinance, and CEQA procedures. These responsibilities are divided between Planning Branch, Public Works Branch, and other divisions or departments of RMA, and in coordination with the Environmental Health Division of the Tulare County Health and Human Services Agency, and the Tulare County Fire Department.

The County's flood damage prevention code is intended to promote public health, safety, and general welfare in addition to minimizing public and private losses due to flood conditions. The County code provisions to protect against flooding include requiring uses vulnerable to floods be protected against flood damage at the time of initial construction; controlling the alteration of natural flood plains; and preventing or regulating the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards in other areas. The County flood damage prevention code, most recently amended by Ord. No. 3212 and effective October 29, 1998, is modeled based upon FEMA guidance.

Tulare County General Plan 2030 Update

The Tulare County General Plan 2030 Update has a number of policies that apply to projects within Tulare County. General Plan policies that relate to the proposed Project are listed: *PF-4.14 Compatible Project Design* wherein the County may ensure proposed development within CACUABs is compatible with future sewer and water systems, and circulation networks as shown in city plans; *AG-1.17 Agricultural Water Resources* wherein the County shall seek to protect and enhance surface water and groundwater resources critical to agriculture; *HS-4.4 Contamination Prevention* wherein the County shall review new development proposals to protect soils, air quality, surface water, and groundwater from hazardous materials contamination; *HS-5.1 Development Compliance with Federal, State, and Local Regulations* wherein the County shall ensure that all development within the designated floodway or floodplain zones conforms to FEMA regulations and the Tulare County Flood Damage Prevention Ordinance. New development and divisions of land, especially residential subdivisions, shall be developed to minimize flood risk to structures, infrastructure, and ensure safe access and evacuation during flood conditions*; HS-5.2 Development in Floodplain Zones* wherein the County shall regulate development in the 100-year floodplain zones as designated on maps prepared by FEMA in accordance with the following:

1. Critical facilities (those facilities which should be open and accessible during emergencies) shall not be permitted.
2. Passive recreational activities (those requiring non-intensive development, such as hiking, horseback riding, picnicking) are permissible.
3. New development and divisions of land, especially residential subdivisions, shall be developed to minimize flood risk to structures, infrastructure, and ensure safe access and evacuation during flood conditions;

HS-5.4 Multi-Purpose Flood Control Measures wherein the County shall encourage multipurpose flood control projects that incorporate recreation, resource conservation, preservation of natural riparian habitat, and scenic values of the County's streams, creeks, and lakes. Where appropriate, the County shall also encourage the use of flood and/or stormwater retention facilities for use as groundwater recharge facilities; *HS-5.6 Impacts to Downstream Properties* wherein the County shall ensure that new County flood control projects will not adversely impact downstream properties or contribute to flooding hazards; *HS-5.9 Floodplain Development Restrictions* wherein the County shall ensure that riparian areas and drainage areas within 100-year

[222] Tulare County Environmental Health Division. Accessed December 2020 at: https://tularecountyeh.org/eh/about-us/career-guide-brochure/.

floodplains are free from development that may adversely impact floodway capacity or characteristics of natural/riparian areas or natural groundwater recharge areas; *HS-5.10 Flood Control Design* wherein the County shall evaluate flood control project involving further channeling, straightening, or lining of waterways until alternative multipurpose modes of treatment, such as wider berm and landscaped levees, in combination with recreation amenities, are studied; *HS-5.11 Natural Design* wherein the County shall encourage flood control designs that respect natural curves and vegetation of natural waterways while retaining dynamic flow and functional integrity; *WR-1.1 Groundwater Withdrawal* wherein the County shall cooperate with water agencies and management agencies during land development processes to help promote an adequate, safe, and economically viable groundwater supply for existing and future development within the County. These actions shall be intended to help the County mitigate the potential impact on ground water resources identified during planning and approval processes*; WR-1.5 Expand Use of Reclaimed Wastewater* to augment groundwater supplies and to conserve potable water for domestic purposes, the County shall seek opportunities to expand groundwater recharge efforts; *WR-1.6 Expand Use of Reclaimed Water* wherein the County shall encourage the use of tertiary treated wastewater and household gray water for irrigation of agricultural lands, recreation and open space areas, and large landscaped areas as a means of reducing demand for groundwater resources*; WR-2.1 Protect Water Quality* wherein the all major land use and development plans shall be evaluated as to their potential to create surface and groundwater contamination hazards from point and non-point sources. The County shall confer with other appropriate agencies, as necessary, to assure adequate water quality review to prevent soil erosion; direct discharge of potentially harmful substances; ground leaching from storage of raw materials, petroleum products, or wastes; floating debris; and runoff from the site*; WR-2.2 National Pollutant Discharge Elimination System (NPDES) Enforcement* wherein the County shall continue to support the State in monitoring and enforcing provisions to control non-point source water pollution contained in the U.S. EPA NPDES program as implemented by the Water Quality Control Board*; WR-2.3 Best Management Practices (BMPs);* wherein the County shall continue to require the use of feasible BMPs and other mitigation measures designed to protect surface water and groundwater from the adverse effects of construction activities, agricultural operations requiring a County Permit and urban runoff in coordination with the Water Quality Control Board*; WR-2.4 Construction Site Sediment Control;* wherein the County shall continue to enforce provisions to control erosion and sediment from construction sites; *WR-2.5 Major Drainage Management* wherein the County shall continue to promote protection of each individual drainage basin within the County based on the basins unique hydrologic and use characteristics*; WR-2.6 Degraded Water Resources* wherein the County shall encourage and support the identification of degraded surface water and groundwater resources and promote restoration where appropriate*; WR-2.8 Point Source Control* wherein the County shall work with the Regional Water Quality Control Board to ensure that all point source pollutants are adequately mitigated (as part of the California Environmental Quality Act review and project approval process) and monitored to ensure long-term compliance*; WR-3.3 Adequate Water Availability* wherein the County shall review new development proposals to ensure the intensity and timing of growth will be consistent with the availability of adequate water supplies. Projects must submit a Will-Serve letter as part of the application process, and provide evidence of adequate and sustainable water availability prior to approval of the tentative map or other urban development entitlement; *WR-3.5 Use of Native and Drought Tolerant Landscaping* wherein the County shall encourage the use of low water consuming, drought-tolerant and native landscaping and emphasize the importance of utilizing water conserving techniques, such as night watering, mulching, and drip irrigation; *WR-3.6 Water Use Efficiency* wherein the County shall support educational programs targeted at reducing water consumption and enhancing groundwater recharge; and *WR-3.10 Diversion of Surface Water* wherein the diversions of surface water or runoff from precipitation should be prevented where such diversions may cause a reduction in water available for groundwater recharge.

Project Impact Analysis

a) Less Than Significant Impact With Mitigation: The State Water Resources Control Board requires any new construction project greater than one acre to complete a Stormwater Pollution Prevention Plan (SWPPP). A SWPPP would be prepared for the Project by a qualified engineer or erosion control specialist as a condition of approval and would be submitted to the County for review and approval before being implemented during construction. The SWPPP would be designed to reduce potential impacts related to erosion and surface water quality during construction activities and throughout the life of the Project. It would include Project information and best management practices (BMP). The BMPs would include dewatering procedures, stormwater runoff quality control measures, concrete waste management, watering for dust control, and construction of perimeter silt fences, as needed. Implementation of the SWPPP will minimize the potential for the Project to substantially alter the existing drainage pattern in a manner that will result in substantial erosion or siltation onsite or offsite. There will be no discharge to any surface or groundwater sources which may impact water quality standards. As such, the Project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality. Therefore, the Project would result in a less than significant impact to this resource with implementation of **Mitigation Measures 10-1** through **10-4** which will be implemented as project design features by the Project proponent.

b) Less Than Significant Impact: The proposed Project site is located in the Tulare Lake Basin, an area significantly affected by overdraft. The Department of Water Resources (DWR) has estimated the groundwater by hydrologic region and for the

Tulare Lake Basin. DWR estimates a total overdraft of 820,000 acre-feet per year (which is the largest overdraft projected in the state, and approximately 56 percent of the statewide total overdraft). The Project site is located within the Tule Sub-basin portion of the regional area.

As contained in the Goshen Community Plan Update Draft EIR, "As indicated by a Memorandum prepared by Mr. David McGlasson and Mr. Jan Bowen consultants for Provost & Pritchard (See Appendix "G" [in the DEIR]) The Goshen Community Plan will be utilizing California Water Company Systems (that is the equivalent to or greater than 500 dwelling units, or approximately 175,000 gallons per day) (See California Water Code Section 10912). The Water for the County was studied in the Tulare County General Plan and does meet the requirement of SB 610/ SB 220 (2001) Water Supply Assessment under California Water Code Section 10912 or Section 10910. The existing baseline annual usage of water for this site based on Goshen Community's 1,101 connections used 253.2 million gallons of water in 2013, or about 229,000 gallons per year per connection. This is approximately 0.70 AF/year, which is modest usage in the Central Valley. Projecting this usage to the future 1,318 connection results in a projected annual water demand of (1,318 x 229,000 = 301,822,000 gallons) in 2030. See Table 3.9-4 [in the DEIR]."[223]

"System Infrastructure Capacity

Cal Water was not willing to release information with respect to current water production, treatment, storage and distribution facilities, so no evaluation of remaining service live or future capital needs can be made. Cal Water is subject to regulation of all these subjects by the P.U.C., and is responsible to create and seek out funding to implement the necessary operations, maintenance and capital facilities plan.

The immediate impact to groundwater will not substantially impact the immediate groundwater resource. Over time, this amount will be recaptured and the amount of water generated from rainfall for the Study Area will be greater than the amount of water used. However, the projected growth rate suggests that there may be impacts that may exceed the recapture rate in extreme conditions. These impacts will be significant in that the purveyor may not be able to supply adequate water in those severe drought conditions based on projected growth rates. Therefore, the Project will require mitigation measures related to conservation Project-specific impacts related to this Checklist item will be Less Than Significant with Mitigation."[224] It is noted that **Mitigation Measures 10-1** through **10-4** will be implemented as project design features by the project proponent.

c) Less Than Significant Impact: The proposed Project would result in the alteration of the existing agricultural use to single-family residential uses. As such, the proposed Project would add a significant amount of impervious areas that could cause significant impacts related to drainage unless otherwise mitigated. The Project proponent will be required to evaluate the Project in its entirety as it will developed in four (4) phases; therefore, the entire Project will be required to prepare and implement a Stormwater Pollution Prevention Plan (SWPPP) as part of their National Pollutant Discharge Elimination System (NPDES) permit. This SWPPP will ensure that potential construction erosion and siltation will not affect offsite drainages. This will inhibit any erosion or siltation from occurring onsite or offsite. As such, Project-specific impacts related to this Checklist item will be less than significant.

i) Erosion and Siltation; Less Than Significant Impact: The extent of potential erosion will vary depending on slope steepness/stability, vegetation/cover, concentration of runoff, and weather conditions. The relatively flat nature of the site reduces the need for substantial grading. Any soils removed from these areas would be redistributed around and retained elsewhere on the Project site. The site is and will continue to have a relatively-flat topography after site construction. Also, as noted earlier, a SWPPP will be in place during construction, as described in Impact 10-a. Therefore, construction-related activities will minimally disturb the ground surface resulting in a less than significant impact from erosion and siltation.

ii) Runoff resulting in Flooding On- or Off-site; Less Than Significant Impact: The site will not resulting in waters capable of flooding either on- or off-site. The site is not subject to flooding and lies within Flood Zone X (area of minimal flooding) per the Federal Emergency Management Agency FIRM map.[225] Also, the site will not generate substantial amounts of runoff that would result in on- or off-site flooding as the Project includes an onsite stormwater retention basin. As such, the Project would result in a less than significant impact to or from this resource Item.

[223] Goshen Community Plan Update. Draft Environmental Impact Report. Chapter 3.9 Hydrology and Water Quality. Page 3.9-27.
[224] Ibid. 3.9-28 through 3.9-29.
[225] Federal Emergency Management Agency FIRM Panel 06107CL300E June 16, 2009. Accessed December 2020 at: https://hazards-fema.maps.arcgis.com/apps/webappviewer/index.html?id=8b0adb51996444d4879338b5529aa9cd&extent=-119.24027126756349,36.137670866489145,-119.15718716111826,36.17232174266695

iii) Runoff affecting Drainage Systems and Polluted Runoff; No Impact. See Items 10 c) i) and ii) .Also, the Project will not connect to any existing or planned stormwater drainage system, as such it will not provide any additional sources of polluted runoff. As noted earlier, the very nature of the Project does not lend itself as a contributor of polluted runoff. Therefore, the Project would result in no impact to this resource. 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, and as such, would result in no impact.

d) No Impact: The Project area is relatively flat and is not located near a large body of water, the coast or hillsides. As such, the proposed Project is not subject to inundation by seiche, tsunami, or mudflow.

e) Less Than Significant Impact: The Project will not conflict with or obstruct implementation of water quality control plan or sustainable groundwater management plan as the applicant is required to secure a Will Serve Letter prior to receiving water service from the Goshen Community Services District .[226]

Cumulative Impact Analysis

The geographic area of this cumulative analysis is Tulare County. This cumulative analysis is based on the requirements of the Central Valley Regional Water Quality Control Board, California Water Service Company, Goshen Community Service District, and Tulare County Environmental Health Division. As such, the proposed Project will result in less than significant Project-specific and Cumulative Impacts related to this Checklist Item with implementation of **Mitigation Measures 10-1** through **10-4** as project design features.

Mitigation Measures

The following are mitigation measures that are seen as feasible in Goshen and could allow the impact to be reduced to less than significance. Each of these is currently in use in one or more California communities. The first five of these measures could reduce per-unit water consumption by 25-30 percent. The sixth measure would have to be designed to offset the balance of the increased use. If the County or the community water purveyor were to put an agreement like that in place, it would reduce groundwater impacts to less than significance.

10-1 Install water meters and adopt a use-weighted rate schedule to encourage reduced usage by the rate-payers

10-2 Limit permissible landscape area for each residence to 2,500 square feet or less.

10-3 Adopt limited outdoor watering days and hours (now in force statewide, as of August 1, 2014, by order of the Department of Water Resources).

10-4 Mandate use of native and drought-tolerant species for all landscaping.

11.	**LAND USE AND PLANNING**					
Would the project:			**SIGNIFICANT IMPACT**	**LESS THAN SIGNIFICANT IMPACT WITH MITIGATION**	**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?	☐	☐	☐	☒

The discussions regarding Environmental Setting, CEQA requirements, Regulatory Setting, Chapter 3.10 Land Use and Planning, Chapters 4 through 9, Appendices "A" through "I", etc., contained in the Goshen Community Plan Update and Environmental Impact Report are incorporated herein in their entirety. Where necessary and if available, additional site specific facts, data, information, etc., are included in this discussion.

[226] Goshen Community Services District. Will Serve Letter Proposed Subdivision. Mr. Marvin R. Lindorf, District Engineer. July 21, 2019.

Environmental Setting

The Project site is located in the western-central part of Tulare County. Tulare County is located in the San Joaquin Valley portion of the Great Central Valley of California that lies south of the Sacramento-San Joaquin Delta, and is comprised of 4,863 square miles. Tulare County is bordered by Fresno County to the north, Kings County to the west; Kern County to the south; and Inyo County to the east. The community of Goshen is located approximately 31 miles south of Fresno on State Route 99 on the western edge of Tulare County. Goshen is very proximate to the City of Visalia which is the County seat of Tulare County. Goshen is approximately one-tenth of a mile north-west of the city limits and 6-½ miles from the downtown shopping area of Visalia, and immediately west of the Visalia industrial park area. It is also approximately two (2) miles north of the Visalia Municipal Airport, with portions of the community situated within the airport's approach and departure areas. The Project site is located east of SR 99 northwest of Avenue 310 and Road 72.

Existing land uses in Tulare County have been organized into generalized categories that are summarized on **Table 11-1**. These lands total 3,930 square miles or approximately 81 percent of Tulare County. Open space, which includes wilderness, national forests, monuments and parks, and county parks, encompass 1,230 square miles, or approximately 25 percent of the County. Agricultural uses total over 2,150 square miles or about 44 percent of the entire county. Incorporated cities in Tulare County capture less than three percent of the entire County.

The proposed Project site has been historically used for row crops. The site is surrounded by agricultural-related land uses such as row crops, orchards, and agricultural-related outbuildings to the north, west, and south; residential uses are east of the Project site. As noted earlier, the proposed Project site is zoned as C-2-MU (Mixed Use) by the Goshen Community Plan Update. The C-2 MU zone establishes areas appropriate for the planned integration of some combination of retail; office; single and multi-family residential; hotel; recreation; limited industrial; public facilities or other compatible use.

Table 11-1
County of Tulare Summary of Assessed Land by Generalized Use Categories[227]

Generalized Land Use Category	**Square Miles[1]**	**Percentage[2]**
Residential	110	2
Commercial	10	Less than 1%
Industrial	10	Less than 1%
Agriculture	2,150	44
Public (including airports, charitable organizations, churches, fraternal organizations, government owned land, hospitals and rest homes, institutional facilities, rehab facilities and schools)	420	9
Open Space (including national forests and parks, timber preserves)	1,230	25
Classified Subtotal	**3,930**	**81**
Unclassified (includes streets and highways, rivers, canals, etc.)	780	16
Unincorporated County Subtotal	**4,710**	**97**
Incorporated Cities	130	3
Total County	**4,840**	**100**

1 One square mile = 640 acres.
2 Percent reflect those estimated for the total land area of the County and may not equal 100 due to rounding.

Regulatory Setting

Federal

Federal regulations for land use are not relevant to the Project because it is not a federal undertaking (the Project site is not located on lands administered by a federal agency, and the project applicant is not requesting federal funding or a federal permit).

State

[227] Tulare County General Plan 2030 Update Background Report. Page 3-53.

The Project is being evaluated pursuant to CEQA; however, there are no state regulations, plans, programs, or guidelines associated with land use and planning that are applicable to the proposed Project.

Local

Tulare County Association of Governments (TCAG)

"The Tulare County Association of Governments (TCAG) is responsible for overseeing and planning projects with the county and each of its cities, helping to bring tax money back home to fund bus service, road improvements, projects that will improve our air quality, and more. TCAG's 2009 Regional Blueprint includes a goal for a 25% increase in land use densities, facilitated urban growth, and expansion of transportation facilities."[228]

Regional Housing Needs Assessment (RHNA) – "State housing element law assigns the responsibility for preparing the Regional Housing Needs Assessment (RHNA) for the Tulare County region to the Tulare County Association of Governments (TCAG). The RHNA is updated prior to each housing element cycle. The current RHNA, adopted on June 30, 2014, is for the fifth housing element cycle and covers a 9.75-year projection period (January 1, 2014 – September 30, 2023).

The growth projections applied in the Tulare County Housing Element Update are based upon growth projections developed by the State of California. A "Regional Housing Needs Assessment Plan" provides a general measure of each local jurisdiction's responsibility in the provision of housing to meet those needs. The TCAG was responsible for allocating the State's projections to each local jurisdiction within Tulare County including the County unincorporated area, which is reflected in the Housing Element."[229]

"The Tulare County RHNA Plan recommends that the County provide land use and zoning for approximately 7,081 units in the unincorporated portions of the County. The County administratively agreed to a housing share of 7,081 units (726 units per year over the 9.75-year RHNA planning period). The RTP allocates 30% of population to the County. The RHNA bases the housing needs assessment on this percentage."[230]

Existing County Land Uses

"The proposed Project site is located in the northwestern portion of Tulare County. Tulare County is 4,863 square miles in area and is located in the San Joaquin Valley portion of California's Great Central Valley. It lies south of the Sacramento-San Joaquin Delta and is bordered by Fresno County to the north, Kings County to the west, Kern County to the south, and Inyo County to the east. The valley land portion is approximately 3,930 square miles or approximately 81 percent of Tulare County. Open space, which includes wilderness, national forests, monuments and parks, and county parks, encompass approximately 1,230 square miles, or approximately 25 percent of the County. Agricultural uses total approximately 2,150 square miles or approximately 44 percent of the entire County. Incorporated cities in the Tulare County account for less than three percent of the entire County area.

Tulare County's first zoning ordinance was adopted in 1947 as Ordinance 352. The current Tulare County Zoning Ordinance and related State and Local Land Use Regulations was revised in September 2005 and covers the entire unincorporated county. The Zoning Ordinance has been amended many times since 2005, but has not undergone a comprehensive update. The zoning regulations regulate the extent and type of development that can occur in the unincorporated areas, therefore the outdated ordinance is limiting the County's holding capacity and build out potential. A major difference between the general plan and zoning is that the General Plan provides guidance on the location, type, density, and timing of new growth and development over the long-term, while zoning determines what development can occur on a site specific basis. The land general plan use designations, and the zoning classifications and development standards of the zoning ordinance, determine the County's holding capacity and buildout potential.

The Zoning Ordinance establishes three residential zones, four commercial zones, three industrial zones, and seven other zones related to agriculture, timber, and resource-related uses. The purpose of the zones is to translate the broad land use categories established by the Tulare County General Plan into detailed land use classifications that are applied to properties with much greater precision than the General Plan. The zoning classifications follow specific property lines and road alignments and

[228] Goshen Community Plan Update. Draft Environmental Impact Report. Chapter 3.10 Land Use and Planning. Pages 3.10-11 and -12.
[229] TCAG, Final Regional Housing Needs Plan for Tulare County 2014-2023, Page 5. Accessed at: http://www.tularecog.org/wp-content/uploads/2015/07/Final-Regional-HousingNeeds-Plan-for-Tulare-County-2014-2023.pdf.
[230] Ibid.

correspond to the applicable General Plan categories. Working with the zoning classifications, the text of the Zoning Ordinance provides detailed regulations for the development and use of land."[231]

Tulare County General Plan 2030 Update

The Tulare County General Plan 2030 Update (Chapter 4 – Land Use, Chapter 8 – Environmental Resources Management and Part II Chapter 1 - Rural Valley Lands Plan) contains the following goals and policies that relate to land use and which have potential relevance to the Project's California Environmental Quality Act (CEQA) review for this Project:
PF-1.2 Location of Urban Development wherein the County shall ensure that urban development only takes place in the following areas:

1. Within incorporated cities and CACUDBs;
2. Within the UDBs of adjacent cities in other counties, unincorporated communities, planned community areas, and HDBs of hamlets;
3. Within foothill development corridors as determined by procedures set forth in Foothill Growth Management Plan;
4. Within areas set aside for urban use in the Mountain Framework Plan and the mountain sub-area plans; and
5. Within other areas suited for non-agricultural development, as determined by the procedures set forth in the Rural Valley Lands Plan;

PF-1.3 Land Uses in UDBs/HDBs wherein the County shall encourage those types of urban land uses that benefit from urban services to develop within UDBs and HDBs; *PF-1.4 Available Infrastructure* wherein the County shall encourage urban development to locate in existing UDBs and HDBs where infrastructure is available or may be established in conjunction with development. The County shall ensure that development does not occur unless adequate infrastructure is available, that sufficient water supplies are available or can be made available and that there are adequate provisions for long term management and maintenance of infrastructure and identified water supplies; *PF-2.1 Urban Development Boundaries – Communities* wherein the County shall limit urban development to the area within the designated UDB for each community; *PF-2.4 Community Plans* wherein the County shall ensure that community plans are prepared, updated, and maintained for each of the communities. These plans shall include the entire area within the community's UDB and shall address the community's short and long term ability to provide necessary urban services; *PF-2.7 Improvement Standards in Communities* wherein the County shall require development within the designated UDBs to meet an urban standard for improvements. Typical improvements shall include curbs, gutters, sidewalks, and community sewer and water systems; *PF-2.8 Inappropriate Land Use* wherein areas within UDBs are hereby set aside for those types of urban land uses which benefit from urban services. Permanent uses which do not benefit from such urban services shall be discouraged within the UDBs; *LU-1.2 Innovative Development* wherein the County shall promote flexibility and innovation through the use of planned unit developments, development agreements, specific plans, Mixed Use projects, and other innovative development and planning techniques; *LU-3.1 Residential Developments* wherein the County shall encourage new major residential development to locate near existing infrastructure for employment centers, services, and recreation; *LU-3.2 Cluster Development* wherein the County shall encourage proposed residential development to be clustered onto portions of the site that are more suitable to accommodating the development, and shall require access either directly onto a public road or via a privately-maintained road designed to meet County road standards; *LU-3.3 High-Density Residential Locations* wherein the County shall encourage high-density residential development (greater than 14 dwelling units per gross acre) to locate along collector roadways and transit routes, and near public facilities (e.g., schools, parks), shopping, recreation, and entertainment; *LU-6.2 Buffers* wherein the County shall ensure that residential and other non-compatible land uses are separated and buffered from major public facilities such as landfills, airports, and sewage treatment plants; *LU-7.2 Integrate Natural Features* wherein the County shall emphasize each community's natural features as the visual framework for new development and redevelopment; and *HS-3.1 Airport Land Use Compatibility Plan* wherein the County shall require that development around airports is consistent with the safety policies and land use compatibility guidelines contained in the adopted Tulare County Comprehensive Airport Land Use Plan (CALUP).

Goshen Community Plan Update

The proposed Project is consistent with the Goshen Community Plan Update's Mixed Use designation, to wit:

"Mixed Use (MU)

This designation establishes areas appropriate for the planned integration of some combination of retail; office; single and multi-family residential; hotel; recreation; limited industrial; public facilities or other compatible use. Mixed Use areas allow for higher density and intensity development, redevelopment, or a broad spectrum of compatible land uses ranging from a single use on one parcel to a cluster of uses. These areas are intended to provide flexibility in design and use for contiguous parcels having multiple owners, to protect and enhance the character of the area. The consideration of development proposals in Mixed

[231] Goshen Community Plan Update. Draft Environmental Impact Report. Chapter 3.10 Land Use and Planning. Pages 3.10-11 and -12.

Use areas should focus on compatibility between land uses, and the development potential of a given area compared to the existing and proposed mix of land uses and their development impacts. Density bonuses for residential units of 25 % to 35% may be granted, according to the Density Bonus Ordinance or State law, to Mixed Use areas to encourage the development of affordable housing units, compact development in the implementation of development strategies that support the use of mass transit, reduction of air impacts, and implementation of measures that contribute to the reduction of global warming. Specific plans may be required to assist in the consideration of Mixed Use development proposals. This designation is found within UDBs, HDBs, PCAs, and MSCs and pursuant to regional growth corridor plans and policies.

Maximum Density: 1-30.0 Dwelling Units/Acre
Maximum Intensity: 0.5 FAR [Floor-to-Area Ratio]"[232]

a) and b) No Impact: The Project is located in an agricultural area in southwestern Tulare County, approximately six miles southeast of the City of Tulare and four miles north of the unincorporated community of Woodville. The Project will not physically divide any established community or 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. Therefore, the Project would result in no impact to these resources.

Cumulative Impact Analysis

The geographic area of this cumulative analysis is Tulare County. This cumulative analysis is based on the information provided in the Tulare County 2030 General Plan, General Plan background Report, Tulare County 2030 General Plan EIR, and/or Goshen Community Plan Update and EIR. As this Project is consistent with and represents implementation of the aforementioned planning documents, no Project-specific or Cumulative Impacts would occur to this resource.

12. MINERAL RESOURCES

Would the project:			SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	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?	☐	☐	☐	☒

The discussions regarding Environmental Setting, CEQA requirements, Regulatory Setting, Chapters 4 through 9, Appendices "A" through "I", etc. contained in the Goshen Community Plan Update and Environmental Impact Report are incorporated herein in their entirety. Where necessary and if available, additional site specific facts, data, information, etc., are included in this discussion.

Environmental Setting

Per the Tulare County General Plan Background Report, Tulare County is divided into two major physiographic and geologic provinces: the Sierra Nevada Mountains and the Central Valley. The Sierra Nevada Physiographic Province, in the eastern portion of the Tulare County, is underlain by metamorphic and igneous rock. It consists mainly of homogeneous granitic rocks, with several islands of older metamorphic rock. The central and western parts of the County are part of the Central Valley Province, underlain by marine and non-marine sedimentary rocks. It is basically a flat, alluvial plain, with soil consisting of material deposited by the uplifting of the mountains.

Economically, the most important minerals that are extracted in Tulare County are sand, gravel, crushed rock, and natural gas. Other minerals that could be mined commercially include tungsten, which has been mined to some extent, and relatively small amounts of chromite, copper, gold, lead, manganese, silver, zinc, barite, feldspar, limestone, and silica. Minerals that are present but do not exist in the quantities desired for commercial mining include antimony, asbestos, graphite, iron, molybdenum, nickel, radioactive minerals, phosphate, construction rock, and sulfur.

[232] Goshen Community Plan Update Page 116. https://tularecounty.ca.gov/rma/index.cfm/planning-building/general-plan/ then click on "Goshen".

Aggregate resources are the most valuable mineral resource in Tulare County because it is a major component of the Portland cement concrete (PCC) and asphaltic concrete (AC). PCC and AC are essential to constructing roads, buildings, and providing for other infrastructure needs. There are four streams that have provided the main source of high quality sand and gravel in Tulare County: Kaweah River, Lewis Creek, Deer Creek and the Tule River. The highest quality deposits are located at the Kaweah and Tule Rivers. Lewis Creek deposits are considerably inferior to those of the other two rivers.

Regulatory Setting

Federal

There are no federal or local regulations pertaining to mineral resources relevant to the proposed project.

State

California Surface Mining and Reclamation Act of 1975

Enacted by the State Legislature in 1975, the Surface Mining and Reclamation Act (SMARA), Public Resources Code Section 2710 et seq., insures a continuing supply of mineral resources for the State. The act also creates surface mining and reclamation policy to assure that:

- Production and conservation of minerals is encouraged;
- Environmental effects are prevented or minimized;
- Consideration is given to recreational activities, watersheds, wildlife, range and forage, and aesthetic enjoyment;
- Mined lands are reclaimed to a useable condition once mining is completed; and
- Hazards to public safety both now and in the future are eliminated.

Areas in the State (city or county) that do not have their own regulations for mining and reclamation activities rely on the Department of Conservation, Division of Mines and Geology, Office of Mine Reclamation to enforce this law. SMARA contains provisions for the inventory of mineral lands in the State of California. The State Geologist, in accordance with the State Board's Guidelines for Classification and Designation of Mineral Lands, must classify Mineral Resource Zones (MRZ) as designated below:

- MRZ-1. Areas where available geologic information indicates that there is minimal likelihood of significant resources.
- MRZ-2. Areas underlain by mineral deposits where geologic data indicate that significant mineral deposits are located or likely to be located.
- MRZ-3. Areas where mineral deposits are found but the significance of the deposits cannot be evaluated without further exploration.
- MRZ-4. Areas where there is not enough information to assess the zone. These are areas that have unknown mineral resource significance.

SMARA only covers mining activities that impact or disturb the surface of the land. Deep mining (tunnel) or petroleum and gas production is not covered by SMARA.

As the proposed Project does not involve any mineral extraction or mining-related activities, State laws do not apply.

Local

Tulare County General Plan 2030 Update

The Tulare County General Plan 2030 Update: Chapter 8 – Environmental Resources Management contains the following goals and policies that relate to mineral resources and which have potential relevance to the Project's California Environmental Quality Act (CEQA) review: *ERM-2.1 Conserve Mineral Deposits* wherein the County will encourage the conservation of identified and/or potential mineral deposits, recognizing the need for identifying, permitting, and maintaining a 50 year supply of locally available PCC grade aggregate; and *ERM-4.6 Renewable Energy* wherein the County shall support efforts, when appropriately sited, for the development and use of alternative energy resources, including renewable energy such as wind, solar, bio-fuels and co-generation.

Project Impact Analysis

a) No Impact: Mineral resources located within Tulare County are predominately sand and gravel resources primarily provided by four streams: Kaweah River, Lewis Creek, Deer Creek, and the Tule River. The Kaweah River is the nearest of these four streams to the proposed Project site and is located approximately 20 miles to the east. Due to the distance from these streams, the Project will not result in the loss of an available known mineral resource. The Tulare County General Plan Update (see Figure 8.1 Mineral Resource Zone in the General Plan) indicates the locations of State-designated Mineral Resource Zones. According to the map, the Project site is not located in or within 10 miles of a Mineral Resource Zone. The California Department of Conservation indicates that the nearest, active mining operation (Kaweah River Rock), mining sand and gravel) is located approximately 21 miles east of the Project site.[233] As such, the Project would not 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) No Impact: The proposed Project site is not delineated on a local land use plan as a locally important mineral resource recovery site. Therefore, the Project would not 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.

Cumulative Impact Analysis:

The geographic area of this cumulative analysis is Tulare County. This cumulative analysis is based on the information provided in the Tulare County 2030 General Plan, General Plan background Report, Tulare County 2030 General Plan EIR, and/or Goshen Community Plan Update and EIR. As this Project would not occur on lands containing mineral resources, no Project-specific or Cumulative Impacts would occur to the Mineral resource.

13.	**NOISE**					
	Would the project result in:					
Would the project:			**SIGNIFICANT IMPACT**	**LESS THAN SIGNIFICANT IMPACT WITH MITIGATION**	**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 ground-borne vibration or ground-borne 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?	☐	☐	☐	☒

The discussions regarding Environmental Setting, CEQA requirements, Regulatory Setting, Chapter 3.12 Noise, Chapters 4 through 9, Appendices "A" through "I", etc. contained in the Goshen Community Plan Update and Environmental Impact Report are incorporated herein in their entirety. Where necessary and if available, additional site specific facts, data, information, etc., are included in this discussion.

Environmental Setting

The proposed Project site is designated as Community Commercial in the Goshen Community Plan Land Use Map and C-2-MU in the Goshen Community Plan Zoning Map; and has historically been used for agricultural uses. The proposed Project site

[233] State of California Department Of Conservation Division of Mine Reclamation, Maps: Mines and Mineral Resources. Accessed December 2020 at: https://maps.conservation.ca.gov/mol/index.html.

is currently (and has historically been) used for rotating row crops (e.g., wheat, alfalfa and barley). The site is surrounded by, predominantly agricultural land to the north, west, and south, and single-family residences to the east. Typically sensitive receptors on noise-sensitive lands include residences, hospitals, places of worship, libraries and schools, nature and wildlife preserves, and parks. Noise sensitive land uses located in the proposed Project vicinity are single-family residences that are located within 100-feet of the Project site. Goshen Elementary School (within 0.25 of the proposed Project site) will be shielded from direct noise impacts by the residences immediately east of the Project site (i.e., west of the school).

Within the Tulare County General Plan Background Report, existing noise levels were recorded within unincorporated areas of County. Noise level data collected during continuous monitoring included the hourly Leq and Lmax and the statistical distribution of noise levels over each hour of the sample period. The community noise survey results indicate that typical noise levels in noise-sensitive areas of the unincorporated areas of Tulare County are in the range of 29-65 dB Ldn. As would be anticipated, the quietest areas are those that are removed from major transportation-related noise sources and industrial or stationary noise sources.[234]

Noise levels around the Project site are associated with farm equipment and associated agricultural activities, typical noise that emanates from residential uses, and pass-by vehicular noise. Maximum noise levels generated by farm-related tractors typically range from 77 to 85 dB at a distance of 50 feet from the tractor, depending on the horsepower of the tractor and the operating conditions. Due to the seasonal nature of the agricultural industry, there are often extended periods of time when no noise is generated at the proposed Project site, followed by short-term periods of intensive mechanical equipment usage and corresponding noise generation. During periods without noise generated by agricultural production, noise levels would be typical of other noise-sensitive areas in unincorporated Tulare County, as discussed above.

The Tulare County General Plan Background Report Safety section and the Tulare County General Plan 2030 Update serve as the primary policy statement by the County for implementing policies to maintain and improve the noise environment in Tulare County. The General Plan presents Goals and Objectives relative to planning for the noise environment within the County. Future noise/land use incompatibilities can be avoided or reduced with implementation of the Tulare County noise criteria and standards. Tulare County realizes that it may not always be possible to avoid constructing noise sensitive developments in existing noisy areas and therefore provides noise reduction strategies to be implemented in situations with potential noise/land use conflicts.[235]

Regulatory Setting

Federal

Federal Vibration Policies

The Federal Railway Administration (FRA) and the Federal Transit Administration (FTA) have published guidance relative to vibration impacts. According to the FRA, fragile buildings can be exposed to ground-borne vibration levels of 0.5 PPV without experiencing structural damage. The FTA has identified the human annoyance response to vibration levels as 80 RMS (Root Mean Square = The square root of the arithmetic average of the squared amplitude of the signal).[236]

State

The California Noise Control Act was enacted in 1973 (Health and Safety Code § 46010 et seq.), and states that the Office of Noise Control (ONC) should provide assistance to local communities in developing local noise control programs. It also indicates that ONC staff will work with the OPR to provide guidance for the preparation of the required noise elements in city and county General Plans, pursuant to Government Code § 65302(f). California Government Code § 65302(f) requires city and county general plans to include a noise element. The purpose of a noise element is to guide future development to enhance future land use compatibility.

Local

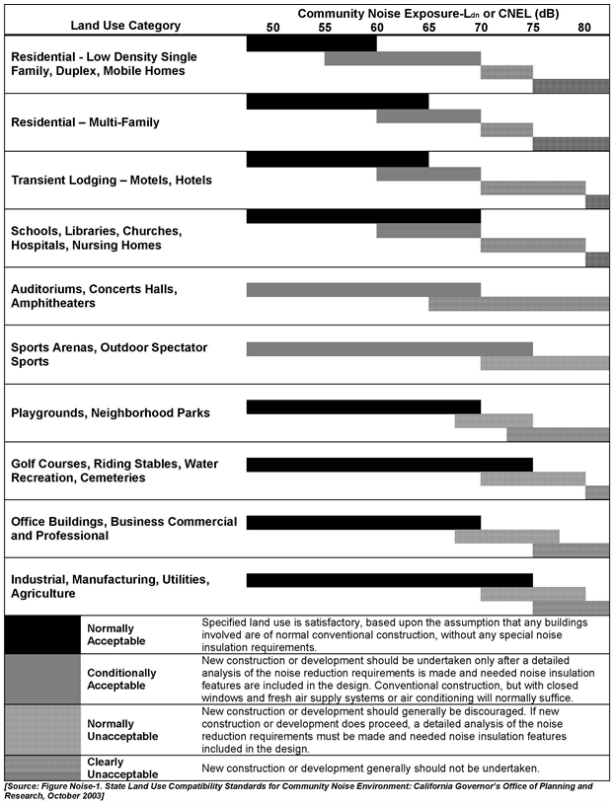
[234] County of Tulare General Plan 2030 Background Report. Page 8-77.
[235] Ibid.
[236] U.S. Department of Transportation, "The Noise and Vibration Impact Assessment Manual". September 2018. FTA Report No. 0123 Federal Transit Administration Page 113. https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf

Analytical noise modeling techniques, in conjunction with actual field noise level measurements, were used to develop generalized Ldn or Community Noise Equivalent Level (CNEL) contours for traffic noise sources within Tulare County for existing conditions. Traffic data representing annual average daily traffic volumes, truck mix, and the day/night distribution of traffic for existing conditions (1986) and future were obtained from the Tulare County Public Works Department and used in the Tulare County Noise Element. The Tulare County General Plan 2030 Update Health & Safety Element (2012) includes noise and land use compatibility standards for various land uses. These are shown in **Table 13-1** Land Use Compatibility for Community Noise Environments[237]:

Tulare County General Plan 2030 Update

The Tulare County General Plan 2030 Update: Chapter 10 – Health and Safety contains the following goals and policies that relate to noise and which have potential relevance to the Project's California Environmental Quality Act (CEQA) review: *HS-8.4 Airport Noise Contours* wherein the County shall ensure new noise sensitive land uses are located outside the 60 CNEL contours of all public use airports; *HS-8.6 Noise Level Criteria* wherein the County shall ensure noise level criteria applied to land uses other than residential or other noise-sensitive uses are consistent with the recommendations of the California Office of Noise Control (CONC); *HS-8.8 Adjacent Uses* wherein the County shall not permit development of new industrial, commercial, or other noise-generating land uses if resulting noise levels will exceed 60 dB Ldn (or CNEL) at the boundary of areas designated and zoned for residential or other noise-sensitive uses, unless it is determined to be necessary to promote the public health, safety and welfare of the County; *HS-8.11 Peak Noise Generators* wherein the County shall limit noise generating activities, such as construction, to hours of normal business operation (7 a.m. to 7 p.m.). No peak noise generating activities shall be allowed to occur outside of normal business hours without County approval; *HS-8.18 Construction Noise* wherein the County shall seek to limit the potential noise impacts of construction activities by limiting construction activities to the hours of 7 a.m. to 7 p.m., Monday through Saturday when construction activities are located near sensitive receptors. No construction shall occur on Sundays or national holidays without a permit from the County to minimize noise impacts associated with development near sensitive receptors; *HS-8.19* Construction Noise Control wherein the County shall ensure that construction contractors implement best practices guidelines (i.e. berms, screens, etc.) as appropriate and feasible to reduce construction-related noise-impacts on surrounding land uses.

Table 13-1 Land Use Compatibility for Community Noise Environments



[Source: Figure Noise-1. State Land Use Compatibility Standards for Community Noise Environment: California Governor's Office of Planning and Research, October 2003]

[237] Tulare County General Plan 2030 Update. Goals and Policies Report. Page 10-25.

Project Impact Analysis

a) **Less Than Significant Impact With Mitigation:** The proposed Project site is zoned for Commercial/Mixed Use (which allows residential uses) and is currently non- productive agricultural land. There are no other uses on the site. The Tulare County General Plan Background Report indicates that typical noise levels in noise-sensitive areas of the unincorporated areas of Tulare County are in the range of 29-65 dB Ldn. The proposed Project will increase ambient noise levels, temporarily, intermittently, and on the short-term, during construction-related activities; however, the increase in noise levels will not be permanent in nature or exceed Tulare County's Maximum Acceptable Ambient Noise Exposure for Various Land Uses. The ambient noise environment in the proposed Project vicinity is dominated by agricultural-related uses, including tractor-intensive work. The magnitude and frequency of the existing ambient noise levels may vary considerably over the course of the day and throughout the week. The variation is caused by different reasons, for example, changing weather conditions, the effects of rotation of agricultural crops, and other human activities. The Noise Study Report (NSR) contained in Appendix "E" of the Goshen Community Plan Update Draft EIR contains noise level readings along Road 64 between Harvest Avenue and Avenue 304 directly east of the Project site. The proposed Project will not result in noise increases above County noise thresholds. The projected increase to noise levels are attributed to the increase of traffic associated with the changes in the local circulation pattern. As noted in the DEIR for the Goshen Community Plan Update, "The noise impacts to the Goshen community were analyzed considering future traffic conditions in the year 2032. The levels of traffic expected in 2032 relate to the cumulative effect of traffic increases resulting from the implementation of the General Plan of local agencies. Traffic conditions in the Year 2032 were estimated using the Tulare County Association of Governments (TCAG) regional travel model. Traffic volumes, truck mix, and vehicle speeds were used as inputs to the model for the Future Year 2032 scenario. Traffic volumes and truck mix were determined by the Circulation Element prepared for the Goshen Community Plan. Table 5 [Table 3.12-54 of the DEIR] shows the predicted noise levels at the 15 sensitive receptors evaluated in this noise element. Results of the analysis show that Receptors 1, 4, and 7 will exceed Tulare County's Land Use Compatibility for Community Noise Environments for the Future Year 2032 scenario."[238] Also as shown in Table 5 of the NSR [Table 3.12-54 of the DEIR] Receptors 2 and 9, which are immediately east of the proposed Project site, are not anticipated to exceed the Tulare County Noise Standard.

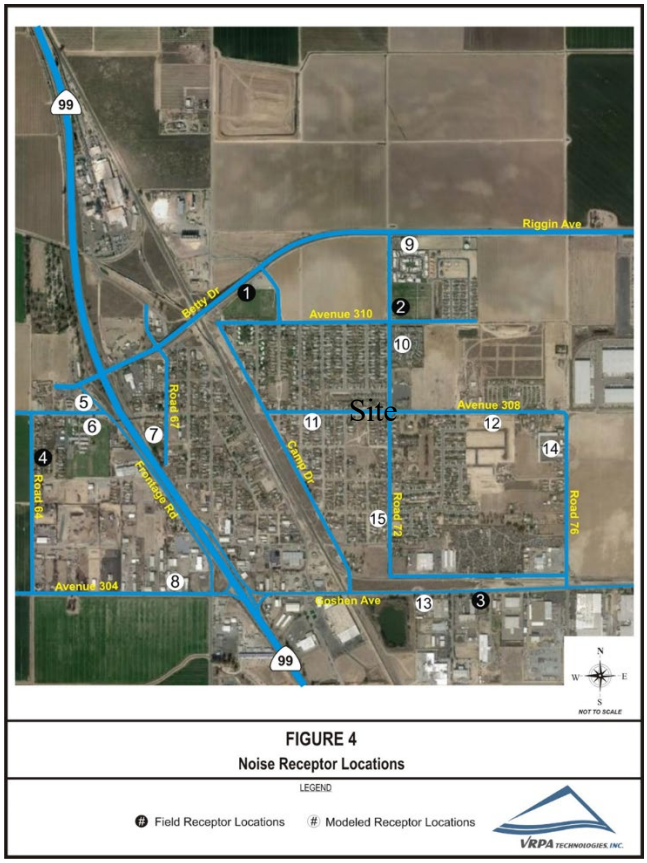


FIGURE 4
Noise Receptor Locations

LEGEND
Field Receptor Locations # Modeled Receptor Locations

VRPA TECHNOLOGIES, INC.

[238] Goshen Community Plan Update Draft EIR. Page 3.12-10.

b) "Table 3.12-2 of the DEIR shows the existing traffic noise exposure levels at a setback of 60 feet from the roadway centerline and the approximate distances from the roadway centerline necessary to achieve 60 Ldn dB in the absence of any noise attenuating barriers."[239] Table 3.12-2 (in the DEIR) showed existing Leq(h) dBA and LdndB levels of 55.5 and 56.2; respectively, which are below the County's dBA Ldn Standard of 60.[240] However, as noted in the DEIR, "The traffic volumes along Harvest Avenue and Road 64, which are nearest to Receptor 4, are projected to increase by 273% and 1,920% respectively."[241] "Table 5 [Table 3.12-2 of this DEIR] also provides a comparison of existing noise levels to the estimated future year noise levels. Results show that the greatest increase between existing conditions and future conditions is 8.0 dB's, which occurs at Receptor 4. The significant increase in traffic volumes near the SR 99 at Betty Drive interchange is the reason for the substantial increase in noise levels at Receptors 1 and 4. A change in level of at least 5 dB is required before any noticeable change in community response would be expected and a 10 dB change is subjectively heard as approximately a doubling in loudness. Therefore, the increase in traffic volumes as a result of population and employment increase in the Tulare County General Plan will cause potentially significant impacts at Receptors 1 and 4."[242] To reiterate, the Project would contribute to a cumulative increase in noise, but the Project by itself would not result in noise impacts that would exceed the County's noise thresholds.

Project Operational Noise Impacts: The Project will largely result in typical residential use-related noise. Typical noise will likely result from vehicles accessing and egressing the subdivision, lawn equipment usage, children at play, etc. The County of Tulare's General Plan 2030 Update Health and Safety Element (2012) sets the standard noise threshold of 60 dB Ldn at the exterior of nearby residences. Exterior noise levels in the range of 45-60 dB Ldn or Community Noise Equivalent Level (CNEL) or below are generally considered acceptable for residential land uses and 45-75 dB Ldn (or CNEL) or below are considered acceptable for industrial, manufacturing utilities, and agriculture land uses. There are predominantly agricultural uses surrounding the Project site and single-family use east of the site. The distance to the existing sensitive receptors from the edge of the Project is approximately 60-70 feet east of the site. As discussed earlier, operational noise is anticipated to be below Tulare County General Plan noise standards of 60 dB Ldn (or CNEL) or less at the exterior of nearby residences and 45 dB Ldn (or CNEL) or less within interior living spaces. Lastly, but importantly, project design features that provide noise insulation (e.g. sound barrier walls, sound proofing insulation, heavy or double layers of sheetrock, etc.) will be required to effectively reduce noise to a maximum interior level of 45 dB Ldn (or CNEL) or less within interior living spaces, for all new residences along the length of the Project adjacent to Avenue 312/W. Riggin Avenue. Implementing noise reduction techniques as project design features will reduce noise impacts to less than significant.

Project Construction Noise Impacts: Project construction will include site preparation, grading, trenching, and other earthmoving/earth-shaping activities, and typical construction-related noise (such as sawing, drilling, hammering, etc.). Construction-related short-term, temporary, and intermittent noise levels will be higher than existing ambient noise levels in the Project area today, but will no longer occur after construction is completed in four (4) phases as proposed by the Applicant.

These various sequential phases will change the character of the noise generated on the Project site. Therefore, the noise levels vary as construction progresses. Despite the variety in the type and size of construction equipment, there are similarities in the dominant noise sources and their anticipated noise levels. **Table 13-2** indicates the anticipated noise levels of the typical construction-related equipment (i.e., graders, trenchers, tractors) based on a distance of 50-feet between the equipment and the sensitive noise receptor.

The General Plan 2030 Update Health and Safety Element (2012) does not identify short-term, construction-noise-level thresholds. It limits noise generating activities (such as construction) to hours of normal business operation unless specific County approval is given. General Plan Policy HS-8.18 Construction Noise states that "The County shall seek to limit the potential noise impacts of construction activities by limiting construction activities to the hours of 7 a.m. to 7 p.m., Monday through Saturday when construction activities are located near sensitive receptors. No construction shall occur on Sundays or national holidays without a permit from the County to minimize noise impacts associated with development near sensitive receptors."

Construction noise will be similar in character to existing noise in the area resulting from agricultural operations. Construction will occur throughout the Project site, will not be concentrated or confined in the area directly adjacent to sensitive receptors and will result in intermittent, temporary, and short-term periodic increases in noise. Normally, construction-related activities occur in small construction zones with noise emanating from the various points in the area.

[239] Ibid. Table 3.12-2. Page 3.12-8.
[240] Op. Cit. 3.12-10.
[241] Op. Cit. 3.12-21.
[242] Op. Cit.

In several instances, the sensitive receptors located in the Project area are shielded from the construction areas by residential structures, distance, existing roadways, agricultural vegetation, and agricultural-related structures.

Table 13-2
Construction Equipment Noise Levels[243]

Equipment	Typical Noise Level (dBA) 50 ft from Source
Air Compressor	80
Backhoe	80
Ballast Equalizer	82
Ballast Tamper	83
Compactor	82
Concrete Mixer	85
Concrete Pump	82
Concrete Vibrator	76
Crane, Derrick	88
Crane, Mobile	83
Dozer	85
Generator	82
Grader	85
Impact Wrench	85
Jack Hammer	88
Loader	85
Paver	85
Pile-driver (Impact)	101
Pile-driver (Sonic)	95
Pneumatic Tool	85
Pump	77
Rail Saw	90
Rock Drill	95
Roller	85
Saw	76
Scarifier	83
Scraper	85
Shovel	82
Spike Driver	77
Tie Cutter	84
Tie Handler	80
Tie Inserter	85
Truck	84

Construction-related activities will adhere to the Tulare County General Plan goals and policies, the Tulare County Zoning Ordinance, and **Mitigation Measure 13-1**. Due to the nature of the Project (i.e., development of a residential subdivision) there will be no long-term, on-going, operational noise. **Mitigation Measures 13-1** would reduce the intermittent, temporary, and short-term noise from construction-related activities. Therefore, implementation of **Mitigation Measures 13-1** would reduce the impacts from construction-related activities noise to a less than significant impact with mitigation.

b) Less Than Significant Impact: "Vibration is an oscillatory motion that can be described in terms of the displacement, velocity, or acceleration. Because the motion is oscillatory, there is no net movement of the vibration element and the average of any of the motion metrics is zero. Displacement is the most intuitive metric. For a vibrating floor, the displacement is simply the distance that a point on the floor moves away from its static position. The velocity represents the instantaneous speed of the floor movement and acceleration is the rate of change of the speed. Although displacement is easier to understand than velocity or acceleration, it is rarely used for describing ground-borne vibration. Most transducers used for measuring ground-borne vibration use either velocity or acceleration. Furthermore, the response of humans, buildings, and equipment to vibration is more accurately described using velocity or acceleration."[244]

[243] U.S. Department of Transportation. "The Noise and Vibration Impact Assessment Manual". September 2018. FTA Report No. 0123 Federal Transit Administration Page 175. https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf

[244] U.S. Department of Transportation. Federal Transit Administration. Transit Noise & Vibration Impact Assessment. September 2018. Page 108.

"The effects of ground-borne vibration can include perceptible movement of floors in buildings, rattling of windows, shaking of items on shelves or hanging on walls, and low-frequency noise (ground-borne noise). Building damage is not a factor for typical transportation projects, but in extreme cases, such as during blasting or pile-driving during construction, vibration could cause damage to buildings. Although the perceptibility threshold is approximately 65 VdB, human response to vibration is not usually substantial unless the vibration exceeds 70 VdB. A vibration level that causes annoyance is well below the damage risk threshold for typical buildings (100 VdB)."[245] "Ground-borne vibration is almost never a problem outdoors. Although the motion of the ground may be perceived, without the effects associated with the shaking of a building, the motion does not provoke the same adverse human reaction."[246] **Table 13-3** presents the human response to different levels of ground-borne vibration and noise. "The vibration level (VdB) is presented with the corresponding frequency assuming that the vibration spectrum peaks at 30 Hz or 60 Hz.(xi) The groundborne noise levels (dBA) are estimated for the specified vibration velocity with a peak vibration spectrum of 30 Hz (Low Freq) and 60 Hz (Mid Freq). Note that the human response differs for vibration velocity level based on frequency. For example, the noise caused by vibrating structural components may cause annoyance even though the vibration cannot be felt. Alternatively, a low frequency vibration can cause annoyance while the ground-borne noise level it generates does not."[247]

Table 13-3
Human Response to Different levels of Ground-Bourne Vibration and Noise[248]

Vibration Velocity Level	Noise Level		Human Response
	Low Freq*	Mid Freq**	
65 VdB	25 dBA	40dBA	Approximate threshold of perception for many humans. Low frequency sound: usually inaudible. Mid-frequency sound: excessive for quiet sleeping areas.
75 VdB	35 dBA	50dBA	Approximate dividing line between barely perceptible and distinctly perceptible. Many people find transit vibration at this level annoying. Low-frequency noise: tolerable for sleeping areas. Mid-frequency noise: excessive in most quiet occupied
85 VdB	45 dBA	60dBA	Vibration tolerable only if there are an infrequent number of events per day. Low-frequency noise: excessive for sleeping areas. Mid-frequency noise: excessive even for infrequent events for some activities.

**Approximate noise level when vibration spectrum peak is near 30 Hz.*
***Approximate noise level when vibration spectrum peak is near 60 Hz.*

Table 13-4 presents average source levels in terms of velocity for various types of construction equipment measured under a wide variety of construction activities.

Table 13-4
Vibration Source Levels for Construction Equipment[249]

Equipment		PPV at 25 ft. in/sec	Approximate Lv * at 25 ft
Pile Driver (impact)	upper range	1.518	112
	Typical	0.544	104
Pile Driver (sonic)	upper range	0.734	105
	typical	0.17	93
Clam shovel drop (slurry wall)		0.202	94
Hydromilll (slurry wall)	in soil	0.008	66
	in rock	0.017	75
Vibratory Roller		0.21	94
Hoe Ram		0.089	87
Large bulldozer		0.089	87
Caisson drilling		0.089	87
Loaded trucks		0.076	86
Jackhammer		0.035	79
Small bulldozer		0.003	58

**RMS velocity in decibels, VDB re 1 micro-in/sec*

[245] Ibid. 118
[246] Op. Cit.
[247] Op. Cit. 119.
[248] Op. Cit. 120.
[249] Op. Cit. 184.

Typical outdoor sources of perceptible ground borne vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. Construction vibrations can be transient, random, or continuous. The approximate threshold of vibration perception is 65 VdB, while 85 VdB is the vibration acceptable only if there are an infrequent number of events per day.

As indicated in the Goshen Community Plan Update Draft EIR, "Ambient vibration levels in residential areas are typically 50 VdB, which is well below human perception. The operation of heating/air conditioning systems and slamming of doors produce typical indoor vibrations that are noticeable to humans. Construction activity can result in ground vibration, depending upon the types of equipment used. Operation of construction equipment causes ground vibrations which spread through the ground and diminish in strength with distance from the source generating the vibration. Building structures that are founded on the soil in the vicinity of the construction site respond to these vibrations, with varied results. Ground vibrations as a result of construction activities very rarely reach vibration levels that will damage structures, but can cause low rumbling sounds and feelable vibrations for buildings very close to the site. Construction activities that generally create the most severe vibrations are blasting and impact pile driving.

Vibration levels from various types of construction equipment are shown in Table 9 [in the NSR]. The primary concern with construction vibration is building damage. Therefore, construction vibration is generally assessed in terms of peak particle velocity (PPV). Using the highest vibration level shown in Table 9 (Lv 87), the anticipated vibration level at 100 feet, 150 feet, and 200 feet is 75, 71, and 69 VdB, respectively. Construction activities associated with the build-out of the Tulare County General Plan would likely require the use of various tractors, trucks, and jackhammers. Based on the vibration levels provided in Table 9, ground vibration generated by common construction equipment would be 75 VdB or less at a distance of 100 feet or more. Given that much of the construction activities would occur on vacant parcels in sparsely to moderately developed areas, the nearest offsite structures to a particular project site would likely be located in excess of 100 feet from construction activities. As a result, predicted vibration levels at the nearest offsite structures would not exceed vibration levels greater than 75 VdB."[250]

Construction Related Vibration Impacts: While construction-related activities will result in minor amounts of groundbourne vibration, such groundbourne noise or vibration will attenuate rapidly from the source and will not be generally perceptible outside of the construction areas. As such, impacts to the neighboring sensitive receptors will be less than significant.

Project Operational Vibration Impacts: As described in Impact 13 a), The Project will largely result in typical residential use-related noise. Typical noise will likely result from vehicles accessing and egressing the subdivision, lawn equipment usage, children at play, etc. Other than these sources there will be no vibrational impacts from Project operation. As such, there will be no exposure of persons to or generation of excessive groundborne vibration.

Therefore, the Project would result in a less than significant impact and would not generate excessive groundbourne vibration or groundbourne noise.

c) No Impact: The nearest public airport or public use airport, Visalia Municipal Airport (in the City of Visalia) is located approximately two (2) miles southeast of the proposed Project site. As such, the Project site is located outside of the 55 dB CNEL noise contour. The proposed Project is not within an airport land use plan or within two miles of a public airport or public use airport. The proposed Project will not conflict with Tulare County Airport Land Use Plan policy. The Project would not expose people residing or working in the Project area to excessive noise levels. Therefore, there will be no impact.

Cumulative Impact Analysis:

The geographic area of this cumulative analysis is Tulare County. This cumulative analysis is based on the information provided in the Tulare County 2030 General Plan, General Plan background Report, Tulare County 2030 General Plan EIR and/or Goshen Community Plan Update and EIR. The normal operations of the proposed Project will have a minimal impact on the overall ambient noise levels of the area. However, as shown in Table 3.12-1 of the Goshen Community Plan Update Draft EIR, the proposed Project is located near Receptor sites 2 (a neighborhood park to the east) and 9 (an office/health clinic to the east) will not exceed Tulare County's Land Use Compatibility for Community Noise Environments noise thresholds. The Project will contribute to the cumulative impacts on the noise resource, the Project in and of itself will result in a minimal impact. Construction-activity related noise will be mitigated to a less than significant level through implementation of **Mitigation Measure 13-1**. Vibration impacts, both construction- and Project operational-related would not generate excessive groundbourne vibration or noise resulting in a less than significant impact. Lastly, as the Project is located outside of the 55 dB CNEL noise contour of Visalia Municipal Airport, the Project would not expose people residing or working in the Project area to excessive

[250] Goshen Community Plan Update Draft EIR. Pages 3.12-23 and -24.

noise levels resulting in no impact to this resource. Therefore, Project-specific and Cumulative Impacts will be less than significant with implementation of mitigation measures and project design features.

Mitigation Measures

13-1 The hours of future construction shall be limited to 7:00 a.m. to 7:00 p.m. Monday through Friday or weekends (if allowed by the County) where residential uses are within 200 feet of where the activity is taking place. If residential uses are beyond 300 feet limited work hours are not required.

14. POPULATION AND HOUSING

Would the project:			SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
	a)	Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
	b)	Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

The discussions regarding Environmental Setting, CEQA requirements, Regulatory Setting, Chapter 3.13 Population and Housing, Chapters 4 through 9, Appendices "A" through "I", etc. contained in the Goshen Community Plan Update and Environmental Impact Report are incorporated herein in their entirety. Where necessary and if available, additional site specific facts, data, information, etc., are included in this discussion.

Environmental Setting

Goshen, located approximately 31 miles south of Fresno, is bisected by SR 99 on the valley floor at the western edge of Tulare County. It is bisected in a northwest-southeasterly direction by SR 99 and the Union Pacific Railroad which divides the community into approximately three similar sized areas. Goshen (generally square in shape), is an agricultural services community and is surrounded by agriculturally productive lands and scattered rural residences the north, south, and west; agricultural, commercial, light industrial, urban density residential, and vacant lands are located to the east. Goshen lies approximately one-tenth of a mile north-west of the city limits of Visalia (the County seat of Tulare County), 6-½ miles west of downtown Visalia, and immediately west of the Visalia industrial park area.

The Goshen Community Plan Update EIR provides many details regarding Goshen's historical perspective, population growth and trends, and other demographic information showing that Goshen continues to grow.[251] As indicated in the Goshen Community Plan, "Today, Goshen has four major characteristics that could potentially, and uniquely amongst Tulare County Communities, meet the Community Plan's Updated Goals for Economic Development: two State Routes, a main railroad corridor, proximity to a municipal airport, and basic infrastructure (e.g. water and sewer system) in place."[252]

The Goshen Community Plan Update indicates that of the 1,748 acre Urban Development Boundary land uses, approximately 209 acres of medium density residential are needed to accommodate Goshen's population growth over time.[253] The proposed Project consists of approximately 69 acres of residential land use which is consistent with the objectives contained in the Goshen Community Plan.

"Finally, based on the Department of Finance (CDF) population estimates and the County General Plan, in the truest sense of the forecasted increase in population from 2016 to 2030 of 741 persons times an average 3.39 (CDF) person per household indicates that approximately and realistically 218 new residential units are required to meet the forecasted population demand (See ~~Figure 49~~[Table 47] - housing forecast suggests as much as 249 units). As County Policies require contiguous development and an orderly

[251] Goshen Community Plan Update Draft EIR. Pages 3.13-2 through 3.13-7.
[252] County of Tulare. Goshen Community Plan Update. Page 27.
[253] Ibid. 198.

extension of services, the recommendation of the proposed UDB not only satisfies development demand requirements, but also provides the requisite area needed to meet forecast commercial lands of 43,000 square feet and industrial land demands of 174,000 square feet in the Goshen Community. (See Tables 48-49). The remaining acreages to the north and west of SR 99 is to accommodate the potential for highway commercial development in increased pass by commercial traffic, and the State Regional Housing Needs Assessment (RHNA - 7,000 units) requirements for the County."[254]

Regulatory Setting

Federal

U.S. Department of Housing and Urban Development (HUD)

"HUD's mission is to create strong, sustainable, inclusive communities and quality affordable homes for all. HUD is working to strengthen the housing market to bolster the economy and protect consumers; meet the need for quality affordable rental homes: utilize housing as a platform for improving quality of life; build inclusive and sustainable communities free from discrimination; and transform the way HUD does business."[255]

State

California Department of Housing and Community Development (HCD)

HCD's mission is to ""[p]rovide leadership, policies and programs to preserve and expand safe and affordable housing opportunities and promote strong communities for all Californians." "In 1977, the State Department of Housing and Community Development (HCD) adopted regulations under the California Administrative Code, known as the Housing Element Guidelines, which are to be followed by local governments in the preparation of local housing elements. AB 2853, enacted in 1980, further codified housing element requirements. Since that time, new amendments to State Housing Law have been enacted. Each of these amendments has been considered during development of this Housing Element."[256]

California Relocation Assistance Act

The State of California adopted the California Relocation Assistance Act (California Government Code §7260 et seq.) in 1970. This State law, which follows the federal Uniform Relocation Assistance and Real Property Acquisition Act, requires public agencies to provide procedural protections and benefits when they displace businesses, homeowners, and tenants in the process of implementing public programs and projects. This State law calls for fair, uniform, and equitable treatment of all affected persons through the provision of relocation benefits and assistance to minimize the hardship of displacement on the affected persons.

Local

Tulare County Regional Housing Needs Assessment Plan 2014-2023

"State Housing Element law assigns the responsibility for preparing the Regional Housing Needs Assessment (RHNA) for the Tulare County region to the Tulare County Association of Governments (TCAG). The RHNA is updated prior to each Housing Element cycle. The current RHNA, adopted on June 30, 2014, covers a 9.75-year projection period (January 1, 2014 to September 30, 2023). The growth projections applied in the Housing Element Update are based upon growth projections developed by the State of California."[257] "The RHNA housing results are summarized in Table 1-1, below [of the Housing Element]. The Tulare County RHNA Plan recommends that the County provide land use and zoning for approximately 7,081 units in the unincorporated portions of the County (726 units per year over the 9.75-year RHNA planning period). The RTP allocates 30% of population to the County. The RHNA bases the housing needs assessment on this percentage, but it is important to indicate that the RHNA allocation to the County is higher than the historical and anticipated levels of building permit activities through the planning period to 2023."[258]

[254] Op. Cit. 174.
[255] U.S. Department of Housing and Urban Development, Mission. Accessed December 2020 at: https://www.hud.gov/about/mission.
[256] Goshen Community Plan Update Draft EIR. Page 3.13-16.
[257] Tulare County Housing Element 2015 Update. Page 1-17. Accessed December 2020 at: http://generalplan.co.tulare.ca.us/, then locate "Part I Voluntary Elements Chapter 6, 12 and 15, then click on "CHP 6 TULARE COUNTY HOUSING ELEMENT UPDATE 2015.pdf."
[258].Ibid. 1-18.

"In 2014 the Regional Housing Needs Assessment Plan (RHNA) allocated a disproportionate amount of low and very low housing to the unincorporated area of Tulare County. In 2014, the RHNA plan provides a more equitable distribution of the regional housing needs allocation, as required by Section 65584 of the government Code, thereby providing greater affordable housing opportunities through the entire County including unincorporated areas as well as within the cities'."[259]

"As such, as noted earlier, the Tulare County RHNA Plan recommends that the County provide land use and zoning for approximately 7,081 units per year in the unincorporated portions of the County. The County administratively agreed to a housing share of 7,081 units (726 units per year over the 9.75-year RHNA planning period). The RTP allocates 30% of population to the County. The RHNA bases the housing needs assessment on this percentage."[260]

Tulare County Regional Blueprint 2009

This Blueprint includes the following preferred growth scenario principals:[261]

- Increase densities county-wide by 25% over the status quo densities;
- Establish light rail between cities;
- Extend Highway 65 north to Fresno County;
- Expand transit throughout the county;
- Maintain urban separators around cities; and
- Growth will be directed toward incorporated cities and communities where urban development exists and where comprehensive services and infrastructure are or will be provided.

Tulare County Housing Authority

"The Housing Authority of the County of Tulare (HATC) has been officially designated as the local public housing agency for the County of Tulare by the Board of Supervisors and was created pursuant to federal and state laws. …HATC is a unique hybrid: a public sector agency with private sector business practices. Their major source of income is the rents from residents. The HATC mission is "to provide affordable, well-maintained rental housing to qualified low- and very low-income families. Priority shall be given to working families, seniors and the disabled. Tenant self-sufficiency and responsibility shall be encouraged. Programs shall be self-supporting to the maximum extent feasible." [262]

"HATC provides rental assistance to very low and moderate-income families, seniors and the handicapped throughout the county. HATC offers many different programs, including the conventional public housing program, the housing choice voucher program (Section 8), the farm labor program for families with farm labor income, senior housing programs, and other programs. They also own or manage some individual subsidized rental complexes that do not fall under the previous categories, and can provide information about other affordable housing that is available in Tulare County. All programs are handicap accessible. Almost all of the complexes have 55-year recorded affordability covenants."[263]

Tulare County General Plan/Housing Element Policies

There are several policies from the Tulare County General Plan/Housing Element that would apply to this Project. General Plan policies that relate to the proposed Project are listed as follows: *Housing Guiding Principle 1.1* wherein the County will endeavor to improve opportunities for affordable housing in a wide range of housing types in the communities throughout the unincorporated area of the County; *Housing Policy 1.11* wherein the County will encourage the development of a broad range of housing types to provide an opportunity of choice in the local housing market; *Housing Policy 1.13* wherein the County will encourage the utilization of modular units, prefabricated units, and manufactured homes; *Housing Policy 1.14* wherein the County will pursue an equitable distribution of future regional housing needs allocations, thereby providing a greater likelihood of assuring a balance between housing development and the location of employment opportunities; *Housing Policy 1.15* wherein the County will encourage housing counseling programs for low income homebuyers and homeowners; *Housing Policy 1.16* wherein the County will review community plans and zoning to ensure they provide for adequate affordable residential development; *Housing Guiding Principle*

[259] Op. Cit. 3-74.
[260] Op. Cit. 1-18.
[261] TCAG 2014 Regional Transportation Plan. Appendix O 2009 Regional Blueprint. Tulare County Regional Blueprint. May 2009. Page O-17. Accessed December 2020 at: https://tularecog.org/tcag/planning/regional-transportation-plan-rtp/rtp-2014/2014-rtp-scs/
[262] Tulare County Housing Element 2015 Update. Page 5-12. http://generalplan.co.tulare.ca.us/documents/GP/001Adopted%20Tulare%20County%20General%20Plan%20Materials/110Part%20I%20Voluntary%20Elements%20Chapters%206,%2012%20and%2015/001CHP%206%20Tulare%20County%20Housing%20Element%20Update%202015/CHP%206%20TULARE%20COUNTY%20HOUSING%20ELEMENT%20UPDATE%202015.pdf
[263] Ibid.

1.2 wherein the County will promote equal housing opportunities for all persons regardless of race, religion, sex, marital status, ancestry, national origin, color, family status, disability, or any other arbitrary basis; *Housing Guiding Principle 1.3* wherein the County will strive to meet the housing needs of migrant and non-migrant farmworkers and their families with a suitable, affordable and satisfactory living environment; *Housing Policy 1.31* wherein the County will encourage the provision of farmworker housing opportunities in conformance with the Employee Housing Act; *Housing Policy 1.33* wherein the County will encourage and support a balance between housing and agricultural needs; *Housing Policy 1.51* wherein the County will encourage the construction of new housing units for "special needs" groups, including senior citizens, large families, single heads of households, households of persons with physical and/or mental disabilities, minorities, farmworkers, and the homeless in close proximity to transit, services, and jobs; *Housing Policy 1.52* wherein the County will support and encourage the development and improvement of senior citizen group housing, convalescent homes and other continuous care facilities; *Housing Policy 1.55* wherein the County will encourage development of rental housing for large families, as well as providing for other housing needs and types; *Housing Guiding Principle 1.6* wherein the County will assess and amend County ordinances, standards, practices and procedures considered necessary to carry out the County's essential housing goal of the attainment of a suitable, affordable and satisfactory living environment for every present and future resident in unincorporated areas; *Housing Policy 2.14* wherein the County will create and maintain a matrix of Infrastructure Development Priorities for Disadvantaged Unincorporated Communities in Tulare County thorough analysis and investigation of public infrastructure needs and deficits, pursuant to Action Program 9; *Housing Guiding Principle 2.2* wherein the county will Require proposed new housing developments located within the development boundaries of unincorporated communities to have the necessary infrastructure and capacity to support the development; *Housing Policy 2.21* wherein the County will require all proposed housing within the development boundaries of unincorporated communities is either (1) served by community water and sewer, or (2) that physical conditions permit safe treatment of liquid waste by septic tank systems and the use of private wells; *Housing Guiding Principle 3.1* wherein the County will encourage "smart growth" designed development that serves the unincorporated communities, the environment, and the economy of Tulare County; *Housing Policy 3.11* wherein the County will support and coordinate with local economic development programs to encourage a "jobs to housing balance" throughout the unincorporated area; *Housing Policy 3.12* wherein the County will support locally initiated programs to provide neighborhood parks and recreational facilities for residential areas within unincorporated communities; *Housing Policy 3.13* wherein the County will encourage subdivision and housing unit design, which provides for a reasonable level of safety and security; *Housing Policy 3.16* wherein the County will actively seek federal, state, and private foundation grant funds for park and recreation facilities in unincorporated areas, including dual-use storm drainage ponding basins/recreation parks; *Housing Policy 3.23* wherein the County will prepare new and/or updated community plans that provide adequate sites for a variety of types of housing within the development boundaries of community; *Guiding Principle 4.1* wherein the County will support and encourage County ordinances, standards, practices and procedures that promote residential energy conservation; *Housing Policy 4.11* wherein the County will review residential projects for environmental impacts and impose conditions to reduce those impacts; *Housing Policy 4.12* wherein the County will facilitate land use policies and programs that meet housing and conservation objectives; *Housing Policy 4.13* wherein the County will promote energy efficiency and water conservation; *Housing Policy 4.14* wherein the County will enforce the requirements of County Ordinances regarding the disposal of construction and demolition debris; *Housing Policy 4.15* wherein the County will enforce energy Efficiency Standards for Residential and Non-Residential properties (Title 24); *Housing Policy 4.21* wherein the County will promote energy conservation opportunities in new residential development; *Housing Policy 4.22* wherein the County will enforce provisions of the Subdivision Map Act regulating energy-efficient subdivision design; *Housing Policy 5.21* wherein the County will administer and enforce the relevant portions of the Health and Safety Code; *Housing Policy 5.26* wherein the County will prohibit concentrations of dwelling units near potentially incompatible agricultural uses as defined in the Animal Confinement Facilities Plan; *Action Program, Program 14.1* To ensure adequate sites are available throughout the planning period to meet the County RHNA, the County will annually update the sites inventory that details the amount, type, and size of vacant and underutilized parcels to assist developers in identifying land suitable for residential development and that also details the number of extremely low-, very low-, low-, and moderate-income units constructed annually"; and *Program 14.2* To ensure sufficient residential capacity is maintained to accommodate the RHNA, the County will develop and implement a formal ongoing, project-by-project evaluation procedure

As such, as noted earlier, the Tulare County RHNA Plan recommends that the County provide land use and zoning for approximately 7,081 units per year in the unincorporated portions of the County. The County administratively agreed to a housing share of 7,081 units (726 units per year over the 9.75-year RHNA planning period). The RTP allocates approximately 30% of the housing share to the County. The RHNA bases the housing needs assessment on this percentage. Also as noted earlier, the RHNA housing results are summarized in Table 3 Total RHNA Allocation by Jurisdiction found in the 2014 RHNA[264].

a) Less Than Significant Impact: The proposed Project consists of 206 single-family residences which not only meets the Goshen Community Plan Update objectives, but represents approximately 2.91 percent of the County's RHNA allocation of 7,081 overall housing units. Based on Goshen's 3.89 persons per household average, the 206 units could result in a

[264] TCAG Final RHNA - Adopted June 30, 2014. Table 3: Total RHNA Allocation by Jurisdiction. Page 9. Accessed December 2020 at: https://tularecog.org/tcag/studies/regional-housing-needs-assessment-rhna/

population increase of approximately 801 persons. As noted earlier, the proposed Project site is within the Goshen Urban Development Boundary and has a designation of C-2-MU which allows residential growth at the site. The Goshen Community Service District has provided a Will Serve Letter to provide sewer service and water will be provided by the California Water Service Company. As such, the proposed Project is not growth inducing, rather, it is growth accommodating to not only meeting the growing demand for housing in general, but for affordable housing in particular; thereby allowing the County to meet the RHNA housing allocation for Tulare County. Therefore, a less than significant Project-specific impact related to this Checklist Item will occur.

b) No Impact: The proposed Project would result in a supply of new residential development to accommodate anticipated population growth in Tulare County in general, and in Goshen in particular. As such, the Project would not displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere; rather, it would increase housing availability in Tulare County in general, but particularly in Goshen.

Cumulative Impact Analysis

The geographic area of this cumulative analysis is Tulare County. This cumulative analysis is based on the information provided in the Tulare County 2030 General Plan, General Plan background Report, Tulare County 2030 General Plan EIR, and/or Goshen Community Plan and EIR. As there will be a less than significant Project-specific impact, the cumulative will be also be less than significant. As noted in Item a), above, the Project would result in a beneficial impact as it will result in new housing opportunities in Tulare County in general, but particularly in Goshen.

15. PUBLIC SERVICES

Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:			SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
	a)	Fire protection?	☐	☐	☒	☐
	b)	Police protection?	☐	☐	☒	☐
	c)	Schools?	☐	☐	☒	☐
	d)	Parks?	☐	☐	☒	☐
	e)	Other public facilities?	☐	☐	☐	☒

The discussions regarding Environmental Setting, CEQA requirements, Regulatory Setting, Chapter 3.14 Public Services, Chapters 4 through 9, Appendices "A" through "I", etc. contained in the Goshen Community Plan Update and Environmental Impact Report are incorporated herein in their entirety. Where necessary and if available, additional site specific facts, data, information, etc., are included in this discussion.

Environmental Setting

The Main Tulare County Sheriff's Office is the nearest law enforcement agency resource to the Project site and is located approximately 6.5 miles east of the proposed site.

Tulare County Fire Department has 28 stations that are situated throughout the County within its most densely populated areas. Tulare County Fire Department Station 25 (located in the City of Tulare) is the nearest station located in Goshen is Fire Station No. 7 (located at 30901 Road 67) less than 0.5 miles east of the proposed Project site.

The nearest school to the Project site is Goshen Elementary School, located approximately 0.25 miles west of the Project site. The nearest high school (El Diamante High School) is approximately 5.25 miles southeast of the Project site in the City of Visalia.

See discussion at Item 15 Recreation regarding parks.

Regulatory Setting

Federal

None that are applicable to this Project.

State

California Fire Code and Building Code

The purpose of the California Fire Code (Title 24, Part 9 of the California Code of Regulations) is to establish the minimum requirements consistent with nationally recognized good practices to safeguard the public health, safety and general welfare from the hazards of fire, explosion or dangerous conditions in new and existing buildings, structures and premises, and to provide safety and assistance to fire fighters and emergency responders during emergency operations.[265]

Local

Tulare County General Plan 2030 Update

The following Tulare County General Plan 2030 Update, Chapter 14 – Public Facilities and Services, contains the following policies that relate to public services and may apply to this Project: *PFS-7.2 Fire Protection Standards* wherein the County shall require all new development to be adequately served by water supplies, storage, and conveyance facilities supplying adequate volume, pressure, and capacity for fire protection*; PFS-7.5 Fire Staffing and Response Time Standards* wherein the County shall strive to maintain fire department staffing and response time goals consistent with National Fire Protection Association (NFPA) standards; *PFS-7.6 Provision of Station Facilities and Equipment* wherein the County shall strive to provide sheriff and fire station facilities, equipment (engines and other apparatus), and staffing necessary to maintain the County's service goals. The County shall continue to cooperate with mutual aid providers to provide coverage throughout the County*; PFS-7.12 Design Features for Crime Prevention and Reduction* wherein the County shall promote the use of building and site design features as means for crime prevention and reduction; and *PFS-7.9 Sheriff Response Time* wherein the County shall work with the Sheriff's Department to achieve and maintain a response time of:

1. Less than 10 minutes for 90 percent of the calls in the valley region; and
2. 15 minutes for 75 percent of the calls in the foothill and mountain regions.

Project Impact Analysis

The proposed Project will rely on existing public services, and/or pay its fair share for additional or alteration of any public services. The subject site is within the Goshen Community Plan Update Urban Development boundary and will utilize existing services provided by the County of Tulare, California Water Service Company (water), and Goshen Community Service District (sewer). There will be a less than significant impact.

a) Fire Protection – Less Than Significant Impact: The County of Tulare will continue to provide fire protection services to the proposed Project site upon development. The residential Project can be accommodated with existing fire protection capabilities.

"Fire protection in the Goshen Plan Area is provided by Tulare County which provides countywide fire services. The Betty Drive Interchange Project studies identify one (1) fire station in Goshen on Road 67 which includes two (2) fire engines, one (1) full time fireman, and ten (10) volunteers. Response time is approximately five (5) minutes and is affected by the railroad, SR 99, and the roadway network.

There are no specific federal or State regulations pertaining to fire or ambulance protection that would reduce environmental impacts associated with the proposed Project. The General Plan policies cited above are sufficient to ensure that new developments are not implemented or constructed until adequate fire protection services are available."[266]

Any calls for service will result in temporary impacts to fire service capabilities and impacts will not result in a noticeable increase in fire risk and service demand for the area. Therefore, impacts to fire protection services will be less than significant.

[265] 2016 California Fire Code (Title 24, Part 9 of the California Code of Regulations). Page 3. Accessed December 2020. https://www.citymb.info/Home/ShowDocument?id=28089.
[266] Goshen Community Plan Update Draft EIR. Pages 3.14-7.

b) Police Protection - Less than Significant: The County of Tulare will continue to provide police protection services to the Project site upon development. Emergency response is adequate to the Project site. The residential Project can be accommodated with existing fire protection capabilities. "Police protection in the Goshen Plan Area is provided by the Tulare County Sheriff's Department (patrol service only) which serves the unincorporated areas of Tulare County. Response time is approximately nine (9) to twelve (12) minutes. There is a community liaison office staffed part-time at the Goshen Community Service District Office.

As indicated earlier in the fire protection services section, new development during the planning period will cumulatively increase the demand for Tulare County to hire additional Sheriff Personnel and purchase more equipment. Adherence to the general Plan policies and local regulations would ensure that adequate sheriff protection is provided to serve residents in the unincorporated areas of Tulare County."[267]

Therefore, impacts related to police services will be less than significant.

c) Schools – Less Than Significant Impact: The nearest school, Goshen Elementary School, is located approximately 0.5 miles west of the proposed Project site in the unincorporated community of Goshen. As the Project will result in construction of 206 single-family residential units, the Project will likely result in an increase of population that may require additional school facilities. However, the final determination on impact and potential school fees will rest with the Visalia Unified School District. Therefore, the applicant will be required to pay school fees as determined by the Visalia Unified School district resulting in a less than significant impact.

d) Parks – Less Than Significant Impact: See discussion at Item 15 Recreation.

e) Other public facilities – Less Than Significant Impact: The proposed Project involves proposed development of a 405-lot residential subdivision which proposals that would contribute to the need for gas, electricity, and telephone services. Also, see discussion at Item 6 Energy. All future residential and non-residential development within the Project area would be subject to the latest adopted edition of the Title 24 energy efficiency standards, which are among the most stringent in the U.S. As such, proposed Project would not result in the unnecessary, wasteful, or inefficient use of energy. Therefore, a less than significant impact related to this Checklist Item will occur.

Cumulative Impact Analysis

The geographic area of this cumulative analysis is Tulare County. This cumulative analysis is based on the information provided in the Tulare County 2030 General Plan, General Plan background Report, Tulare County 2030 General Plan EIR, and/or Goshen Community Plan Update and EIR.

The proposed Project will not significantly impact the fire or police response times, schools, parks, or other facilities. Therefore, less than significant Project-specific or Cumulative Impacts related to this Checklist Item will occur.

16.	**RECREATION**					
Would the project:			**SIGNIFICANT IMPACT**	**LESS THAN SIGNIFICANT IMPACT WITH MITIGATION**	**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?	☐	☐	☐	☒

[267] Ibid. 3.14-8.

The discussions regarding Environmental Setting, CEQA requirements, Regulatory Setting, Chapter 3.15 Recreation, Chapters 4 through 9, Appendices "A" through "I", etc. contained in the Goshen Community Plan Update and Environmental Impact Report are incorporated herein in their entirety. Where necessary and if available, additional site specific facts, data, information, etc., are included in this discussion.

Environmental Setting

"Tulare County contains several county, state, and federal parks. Aside from parks in the county, there are many open space areas as well. This section will highlight these various parks and open space areas and identify recreational opportunities within them."[268] Two new parks were completed and became operational in the unincorporated communities of Plainview (Plainview Community Park) in 2016 and Earlimart (Earlimart Community Park) in 2017. In addition to the 15 parks and recreation facilities that are owned and operated by Tulare County, there are State Parks and Forests, National Parks and National Forests, trails, and recreational areas.
Peter Mulloch Park (an approximately 9-acre site) is the nearest park (and also serves as a storm water detention facility) and is located directly east of the proposed Project site at the northeast intersection of Avenue 310 and Road 72. Goshen Community Park (an 11.0 acre park/sports field) is located southwest of the intersection of Robinson Road and Betty Drive within a stormwater detention basin approximately 375 feet from the proposed Project site. The recently developed Goshen Village East project includes a 0.56-acre park. The next nearest County park is Mooney Grove approximately 7.75 miles southeast of the Project site; it is a 143-acre day use park, reservations for picnic areas area available, and there is no entrance fee. Lastly, each incorporated city in the County maintains and operates municipal park and recreation facilities which can also be accessed by the County's total population; the nearest City park is the City of Visalia's Plaza park located approximately 3.5 miles southeast of the Project site.

Federal

Lakes Kaweah and Success

"Lake Kaweah was formed after the construction of the Terminus Dam on the Kaweah River in 1962. The lake offers many recreational opportunities including fishing, camping, and boating. Lake Kaweah is located 20 miles east of Visalia on Highway 198 and was constructed by the U.S. Army Corps of Engineers for flood control and water conservation purposes. The lake has a maximum capacity to store 143,000 acre-feet of water. There are a total of 80 campsites at the lake's Horse Creek Campground, which contains toilets, showers and a playground. Campfire programs are also available. Aside from camping, boat ramps are provided at the Lemon Hill and Kaweah Recreation Areas. Both Kaweah and Horse Creek provide picnic areas, barbecue grills and piped water. Swimming is allowed in designated areas. In addition, there is a one-mile hiking trail between Slick Rock and Cobble Knoll, which is ideal for bird watching.

Lake Success was formed by construction of the Success Dam on the Tule River in 1961. The lake offers many recreational activities including fishing, boating, waterskiing, and picnicking. The U.S. Army Corps of Engineers (USACOE) constructed this reservoir for both flood control and irrigation purposes. The lake has a capacity of 85,000 acre-feet of water. The lake is located eight miles east of Porterville in the Sierra Nevada foothills area. Recreational opportunities include ranger programs, camping at the Tule campground, which provides 104 sites, boating, fishing, picnic sites, playgrounds and a softball field. Seasonal hunting is also permitted in the 1,400-acre Wildlife Management Area."[269]

National Parks and National Forests

"Most of the recreational opportunities in the county are located in Sequoia National Forest, Giant Sequoia National Monument, and in Sequoia and Kings Canyon National Parks (SEKI). Although these parks span adjacent counties, they make a significant contribution to the recreational opportunities that Tulare County has to offer."[270]

Sequoia National Forest

"Sequoia National Forest takes its name from the Giant Sequoia, which is the world's largest tree. There are more than 30 groves of sequoias in the lower slopes of the park. The park includes over 1,500 miles of maintained roads, 1,000 miles of abandoned roads and 850 miles of trails for hikers, off-highway vehicle users and horseback riders. The Pacific Crest Trail

[268] Tulare County General Plan 2030 Update Background Report. February 2010. Page 4-1. Access http://generalplan.co.tulare.ca.us/documents.html then scroll to Recirculated Draft EIR, the click on *"Appendix B-Background Report"*
[269] Ibid. 4-7
[270] Op. Cit. 4-8.

connecting Canada and Mexico, crosses a portion of the forest, 78 miles of the total 2,600 miles of the entire trail. It is estimated that 10 to 13 million people visit the forest each year. "[271]

Giant Sequoia National Monument

"The Giant Sequoia National Monument was created in 2000 by President Clinton in an effort to preserve 34 groves of ancient sequoias located in the Sequoia National Forest. The Monument includes a total of 327,769 acres of federal land, and provides various recreational opportunities, including camping, picnicking, fishing, and whitewater rafting. According to the Giant Sequoia National Monument Management Plan EIS, the Monument includes a total of 21 family campgrounds with 502 campsites and seven group campgrounds. In addition, there are approximately 160 miles of system trails, including 12 miles of the Summit National Recreation Trail."[272]

Sequoia and Kings Canyon National Parks (SEKI)

"The U.S. Congress created the Kings Canyon National Park in 1940 and Sequoia National Park in 1890. Because they share many miles of common boundaries, they are managed as one park. The extreme large elevation ranges in the parks (from 1,500 to 14,491 feet above sea level), provide for a wide range of vegetative and wildlife habitats. This is witnessed from exploring Mt. Whitney, which rises to an elevation of 14,491 feet, and is the tallest mountain in the contiguous United States. During the summer months, park rangers lead walks through the parks, and tours of Crystal and Boyden Caves. During the winter, visitors explore the higher elevations of the parks via cross country skis or snowshoes, or hike the trails in the foothills. The SEKI also contains visitor lodges, the majority of which are open year round. According to the National Parks Conservation Association, a combined total of approximately 1.5 million people visit the two parks on an annual basis."[273]

State

"The Mountain Home State Forest is a State Forest managed by the California Department of Forestry and Fire Protection (CDF). The Forest consists of 4,807 acres of parkland containing a number of Giant Sequoias, and is located just east of Porterville. The Forest is a Demonstration Forest, which is considered timberland that is managed for forestry education, research, and recreation. Fishing ponds, hiking trails, and campsites are some of the amenities that can be found in the Forest."[274] Colonel Allensworth State Historic Park (approximately 3,715 acres in area)is located in the unincorporated community of Allensworth in southwestern Tulare County.

Other Recreational Facilities

Other recreational resources available in Tulare County include portions of the Pacific Crest Trail, South Sierra Wilderness Area, Dome Land Wilderness Area, Golden Trout Wilderness Area, International Agri-Center, and the Tulare County Fairgrounds.[275]

In addition, there are several nature preserves open to the public which are owned and operated by non-profit organizations, including the Kaweah Oaks Preserve and Dry Creek- Homer Ranch preserves, both owned and operated by Sequoia Riverlands Trust

Local

Parks

As noted earlier, Peter Mulloch Park (an approximately 9-acre site) is the nearest park (and also serves as a storm water detention facility) and is located directly east of the proposed Project site at the northeast intersection of Avenue 310 and Road 72. Goshen Community park contains a park/sports field and is located within the stormwater detention basin southeast of the intersection of Robinson Road and Betty Drive. The Goshen Village East subdivision (located east of the proposed Project) includes a 0.56-acre park. The next nearest County park is Mooney Grove approximately 7.75 miles southeast of the Project site; it is an approximately 143-acre day use park; reservations for picnic areas area available and there is no entrance fee. Lastly, each

[271] Op. Cit. 4-9.
[272] Op. Cit.
[273] Op. Cit.
[274] Op. Cit. 4-7.
[275] Op. Cit. 4-10 to 4-11.

incorporated city in the County maintains and operates municipal park and recreation facilities which can also be accessed by the County's total population; the City of Visalia's Plaza park is located approximately 3.5 miles southeast of the Project site.

Schools

"A total of 48 school districts provide education throughout Tulare County... Of the 48 school districts, seven are unified districts providing educational services for kindergarten through 12th grade. The remaining 41 districts consist of 36 elementary school districts and four high school districts. Many districts only have one school."[276] The nearest school is Goshen Elementary located in Goshen, approximately 0.25 miles east of the Project site. The Visalia Unified School District operates Goshen Elementary School which serves grades K-6 and has approximately 700 students (located east of Road 64 and south of Avenue 308).[277] Junior high and high school students attend Visalia Unified schools.

Regulatory Setting

Federal

None that apply to this Project.

State

None that apply to this Project.

Local

Tulare County General Plan Policies

The Tulare County General Plan has a number of policies that apply to projects within County of Tulare. General Plan policies that relate to the proposed Project include: *ERM-5.2 Park Amenities* wherein the County shall provide a broad range of active and passive recreational opportunities within community parks. When possible, this should include active sports fields and facilities, community center/recreation buildings, children's play areas, multi-use areas and trails, sitting areas, and other specialized uses as appropriate; *ERM-5.3 Park Dedication Requirements* wherein the County shall require the dedication of land and/or payment of fees, in accordance with local authority and State law (for example the Quimby Act), to ensure funding for the acquisition and development of public recreation facilities; *ERM-5.5 Collocated Facilities* wherein the County shall encourage the development of parks near public facilities such as schools, community halls, libraries, museums, prehistoric sites, and open space areas and shall encourage joint-use agreements whenever possible; and *ERM-5.6 Location and Size Criteria for Parks* regarding Park types used in Tulare County and the County's overall policy of a minimum of five acres per 1,000 population for locating County parks.
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Project Impact Analysis

a) Less Than Significant Impact: It is noted that the U.S. Census' American Fact Finder estimates Goshen's 2017 population at 3,561. Based on the County's park-to-population ratio, the Project would normally require approximately 7.5 acres of parkland for this Project (estimated using the 2010 U.S. Census' 3.89 persons per household figure multiplied by the proposed 405 single-family residences resulting in 1,575 persons). However, in a conversation between RMA staff and County Parks and Recreation Director (Mr. Neil Pilegard), Mr. Pilegard indicated that the existing 20.56 acres of County parklands in Goshen would suffice in meeting the Project's parks-to-population demand.[278] Further, the relative proximity of 143-acre Mooney Grove Park (approximately7.75 southeast of the Project site) is factored into consideration in meeting the County's overall goal of five acres to 1,000 population, including the additional population from this Project. The County does not have the resources to properly maintain additional parkland; as such, the applicant will contribute an amount determined by RMA to assist in costs associated with park maintenance as it is anticipated that the proximity to the park would likely result in residents from the proposed Project using the park for recreation-related activities. The park maintenance contribution will be enforced as a condition of approval. Although the proposed Project would result in some

[276] Tulare County General Plan 2030 Update Background Report. Pages 7-75 and 7-76. http://generalplan.co.tulare.ca.us/documents.html then scroll to Recirculated Draft EIR, the click on "Appendix B-Background Report"

[277] Visalia Unified School District website accessed at: Goshen elementary School. About our School. Accessed December 2020 at: https://www.vusd.org/domain/342.

[278] County of Tulare. Telephone conversation between Mr. Neil Pilegard (Parks and Recreation Director) and Mr. Hector Guerra (Chief Environmental Planner). October 14, 2019.

increase in the use of existing neighborhood (and regional parks or other recreational facilities), the Applicant will provide his/her share of the maintenance costs contribution which would mitigate substantial physical deterioration of the facility. Therefore, there will be a less than significant impact to this resource.

b) Less Than Significant Impact: The Project does not include recreational facilities, As noted in Item a), above, there will be no need to construct or expand any recreational facilities, and, as a condition of approval, the Applicant will provide his/her share of the maintenance costs contribution. As such, there would be no adverse physical effect on the environment. Therefore, there would be a less than significant impact to this resource.

Cumulative Impact Analysis

The geographic area of this cumulative analysis is Tulare County. This cumulative analysis is based on the information provided in the Tulare County 2030 General Plan, General Plan background Report, the Tulare County 2030 General Plan EIR, and/or the Goshen Community Plan Update and EIR.

As such, a less than significant Cumulative Impact related to this Checklist Item will occur.

17. TRANSPORTATION

Would the project:			SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	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?	☐	☐	☐	☒

The discussions regarding Environmental Setting, CEQA requirements, Regulatory Setting, Chapter 3.13 Transportation and Traffic, Chapters 4 through 9, Appendices "A" through "I", etc., contained in the Goshen Community Plan Update and Environmental Impact Report are incorporated herein in their entirety. Where necessary and if available, additional site specific facts, data, information, etc., are included in this discussion.

Environmental Setting

"Tulare County has two major regional highways, State Highway 99 and 198. State Highway 99 connects Tulare County to Fresno and Sacramento to the north and Bakersfield to the south. SR 198 connects from U.S. Highway 101 on the west and continues eastward to Tulare County, passing through the City of Visalia and into Sequoia National Park. The highway system in the County also includes State highways, County-maintained roads, and local streets within each of the eight cities."[279] "Travel within Tulare County is a function of the size and spatial distribution of its population, economic activity, and the relationship to other major activity centers within the Central Valley (such as Fresno and Bakersfield) as well as more distant urban centers such as Los Angeles, Sacramento, and the Bay Area. In addition, there is considerable travel between the northwest portions of Tulare County and southern Fresno County and travel to/from Kings County to the west. Due to the interrelationship between urban and rural activities (employment, housing, services, etc.) and the low average density/ intensity of land uses, the private automobile is the dominant mode of travel for residents in Tulare County."[280] " While the private automobile is the dominant mode of travel within Goshen, as it is throughout Tulare County, other modes of transportation are important. The latest available Census survey data for Goshen indicates that about two-third of commuters drive alone to work, while one-third use other means: 14 percent carpool or vanpool, 9 percent walked, 6 percent used public transportation and 5

[279] Goshen Community Plan Update Draft EIR. Pages 3.16-2 and -3.
[280] Ibid. 3.16-3.

percent worked at home. The Census bureau does not collect data on non-work trips, which represent a greater share of travel than work trips, but tend to be less concentrated"[281]

The Project site is located in central-western Tulare County, California, northwest of Avenue 310 and Road 72. As classified in the Goshen Community Plan Update Circulation Map), Avenue 310 is a local street; Road 72 is a local street that provides direct access to Avenue 312 /W. Riggin Avenue.[282]

The Goshen Community Plan Update EIR includes lengthy discussions on Uninterrupted and Interrupted Traffic Flow Facilities Levels of Service (LOS), existing circulation and traffic conditions, roadway classifications, etc. that are incorporated herein by reference (see pages 13.16-4 to 3.16-8. As indicated in the Goshen Community Plan Update EIR, "To project future traffic roadway conditions to the horizon year of the plan (2032), a variety of sources were used. In the Betty Drive/Riggin Avenue Corridor, Caltrans traffic forecasts for the new Betty Drive/SR 99 interchange (as well as TCAG model forecasts) were used to develop an annual traffic increase factor that was then applied to study intersections and roadway segments. Additionally, the County reviewed Visalia's Traffic Studies for their General Plan EIR and the Traffic Studies for the CMI Inc. (formerly Papich Construction) project at Road 68 and State Route 198 and Road 68/Avenue 308. These forecasts were adjusted as appropriate for new and realigned roadways, and to reflect potential industrial development along Robinson Road north of Betty Drive and for a specific development proposal in the southwest quadrant of Riggin Avenue and Road 76. In addition to roadway changes in conjunction with the Betty Drive Interchange reconstruction, Road 76 is assumed to be extended from Avenue 308 north to Riggin Avenue. For the remainder of the study area, an overall rate of traffic growth of one percent per year was determined to be a reasonable forecast assumption. This rate of growth was applied outside of the Betty Drive/Riggin Avenue corridor to existing traffic count data to create future year (2032) traffic levels. This annual rate results in an overall growth in peak hour traffic of approximately 20% for the period 2014-2032."[283]

"Public transportation provides an economical and efficient alternative for getting people to work, school and other chosen destinations. In Tulare County, buses are the primary mode of public transportation. Public transportation also takes the form of shared ride taxi, automobile and vanpools; dial-a-ride, and specialized handicapped accessible services. In Tulare County, social service transportation is provided by the following: local transit agencies, demand responsive operators and city/county special programs for senior citizens, mental health organizations and disabled citizens programs. These programs are funded and subsidized through State and federal grants, Local Transportation Funds (LTF), State Transit Assistance Funds (STAF), and local transportation sales tax revenues.

Within Goshen, Visalia Transit (VT) provides a supplemental service to Fixed-Route service called Dial a Ride; a curb-to-curb para-transit service on a shared-ride / demand-response basis to locations within the city limits of Visalia, Goshen, Farmersville and to/from Exeter. Visalia Transit's Dial-A-Ride service designed to provide paratransit service for ADA (Americans with Disabilities Act) certified individuals with disabilities that prevent them from riding the VT fixed-route buses. In addition the Dial-A-Ride provides same day service to the general public (i.e., non-ADA-certified) passengers based on space availability. Services are operated on weekdays from 6:00 a.m. - 9:30 p.m. and on weekends from 8:00 a.m. 6:30 p.m."[284]

Airports

"There are nine public use airports in Tulare County (see Figure 3.16-2 [in the EIR]). These include six publicly owned and operated facilities (Porterville Municipal, Sequoia Field, Tulare Municipal [Mefford Field], Visalia Municipal, Woodlake, and Harmon Field [currently closed])…Badger Field is under consideration for Federal Aviation Administration (FAA) recertification as a restricted private airfield (as of August 2006). Fresno Yosemite International Airport (FAT), 37 miles northwest of Goshen, is the principal passenger airfreight airport in the central San Joaquin Valley. Visalia Municipal Airport, [approximately] two (2) miles southeast, offers passenger service to Los Angeles."[285]

Transit

"TCAT has been providing rural route service between various cities and towns in Tulare County since 1981. TCAT retains MV Transportation to provide all of its transit services, which includes fixed route and demand responsive services for inter-city and intra-city service in many small communities throughout the County. TCAT is the most extensive transit system in Tulare County and connects with Dinuba Area Regional Transit (DART), Visalia City Coach (VCC), Tulare InterModal Express

[281] Ibid. 3.16-3.
[282] Goshen Community Plan Update. Page 226.
[283] Goshen Community Plan Update EIR. Pages 3.16-7 and -8.
[284] Ibid. 3.16-8
[285] Op. Cit. 3.16-8 and -9.

(TIME), Porterville City Operated Local Transit (COLT), Kings Area Rural Transit (KART), Kern Regional Transit, Orange Belt and Greyhound bus."[286] Visalia Transit Route 6 operates between Goshen Elementary School and the Visalia Transit Center in downtown Visalia. Route 6 provides 20 roundtrips to the Visalia Transit Center on weekdays and 14 roundtrips on Saturdays, all at 45-minute intervals. Transfers can be made to connect to the remainder of Visalia, as well as the City of Tulare, and the smaller cities and communities in the County served by the TCaT fixed route transit system. Visalia transit vehicles are wheelchair accessible and all full size buses include bike racks. Paratransit services are transportation services such as carpooling, vanpooling, taxi service, and dial-a-ride programs. The County supports reliable and efficient paratransit service by encouraging development of service systems that satisfy the transit needs of the elderly and physically handicapped. Within Goshen, Visalia Transit (VT) provides a supplemental service to Fixed-Route service called Dial-A-Ride; a curb-to-curb para-transit service on a shared-ride / demand-response basis to locations within the city limits of Visalia, Goshen, Farmersville and to/from Exeter. Visalia Transit's Dial-A-Ride service designed to provide paratransit service for ADA (Americans with Disabilities Act) certified individuals with disabilities that prevent them from riding the VT fixed route buses. In addition, the Dial-A-Ride provides same day service to the general public (i.e., non-ADA-certified) passengers based on space availability. Services are operated on weekdays from 6:00 am - 9:30 pm and on weekends from 8:00 a.m. - 6:30 p.m. Goshen is also served by Greyhound intercity bus lines. Three northbound buses and three southbound buses serving destinations along SR 99 stop at the Goshen Arco Travel Center on the westside SR 99 frontage road, just north of Avenue 308. Orange Belt Stages also serves this location with one daily service eastbound to Las Vegas, and one westbound service to Hanford where connections can be made to San Luis Obispo."[287]

Bicycle and Pedestrian Facilities

"Investment in bikeways provides an inexpensive environment-friendly transportation opportunity. Bicycling is considered an effective alternative mode of transportation that can help to improve air quality and reduce the number of vehicles traveling along existing highways, especially within the cities and [288]unincorporated communities. While the numbers of cyclists are small in comparison to the amount of auto traffic, the size of the community of Goshen means that most trips within the community can be as fast by bicycle as by car. Pedestrian facilities include sidewalks, walkways, crosswalks, signals, lighting, and benches, among other items. Where such facilities exist, people will be much more likely to make shorter trips by walking rather than by vehicle. Pedestrian facilities serving the school and recreational facilities enhance the safety of those who choose to walk to and from these destinations."

Designated Truck Routes

Designated truck routes are intended to be used for long-distance truck movement. Truck movements for local deliveries within a community may use the most direct route to the particular delivery location, including local streets. Designate truck routes for use by heavy commercial and industrial traffic. According to the Goshen Complete Streets Program and Circulation Element, initially, the designated truck routes shall be:

- Betty Avenue
- Riggin Avenue
- West Goshen Avenue
- Camp Drive

When Road 76 is complete, this also will become a designated truck route.

AMTRAK

"The Hanford AMTRAK station, located 15 miles west in Kings County, is the closest station to Goshen providing passenger rail service; the Fresno Amtrak station is 37 miles to the northwest. The San Joaquin Joint Powers Authority (SJJPA) is comprised of ten agencies including TCAG. They currently oversee the operation of six trains daily serving each of these stations. Service is provided to points north including San Francisco and Sacramento and to points south including Bakersfield and Los Angeles."[289]

High Speed Rail

[286] Op. Cit. 3.16-9.
[287] Op. Cit. 3.16-12.
[288] Op. Cit.
[289] Goshen Community Plan Update Traffic Impact Study. Page 33. February 2018. Prepared by VRPA Technologies, Inc. and included in Appendix "F" of the Goshen Community Plan Update Draft EIR.

"The California High-Speed Rail Authority (HSRA) has determined that high-speed rail is technically, environmentally and economically feasible once constructed, and would be operationally self-sufficient. The Authority's purpose is to fund and construct the high-speed rail system throughout California. The proposed service would serve new stations in Kings County near the Tulare line and in Fresno."[290]

Regulatory Setting:

Federal

"Federal Aviation Regulations

Sec. 77.17 — Form and time of notice

(a) Each person who is required to notify the Administrator under §77.13(a) shall send one executed form set (four copies) of FAA Form 7460–1, Notice of Proposed Construction or Alteration, to the Manager, Air Traffic Division, FAA Regional Office having jurisdiction over the area within which the construction or alteration will be located. Copies of FAA Form 7460–1 may be obtained from the headquarters of the Federal Aviation Administration and the regional offices.

(b) The notice required under §77.13(a) (1) through (4) must be submitted at least 30 days before the earlier of the following dates:
   (1) The date the proposed construction or alteration is to begin.
   (2) The date an application for a construction permit is to be filed.
   However, a notice relating to proposed construction or alteration that is subject to the licensing requirements of the Federal Communications Act may be sent to FAA at the same time the application for construction is filed with the Federal Communications Commission, or at any time before that filing.

(c) A proposed structure or an alteration to an existing structure that exceeds 2,000 feet in height above the ground will be presumed to be a hazard to air navigation and to result in an inefficient utilization of airspace and the applicant has the burden of overcoming that presumption. Each notice submitted under the pertinent provisions of this part 77 proposing a structure in excess of 2,000 feet above ground, or an alteration that will make an existing structure exceed that height, must contain a detailed showing, directed to meeting this burden. Only in exceptional cases, where the FAA concludes that a clear and compelling showing has been made that it would not result in an inefficient utilization of the airspace and would not result in a hazard to air navigation, will a determination of no hazard be issued.

(d) In the case of an emergency involving essential public services, public health, or public safety that requires immediate construction or alteration, the 30-day requirement in paragraph (b) of this section does not apply and the notice may be sent by telephone, telegraph, or other expeditious means, with an executed FAA Form 7460–1 submitted within 5 days thereafter. Outside normal business hours, emergency notices by telephone or telegraph may be submitted to the nearest FAA Flight Service Station.

(e) Each person who is required to notify the Administrator by paragraph (b) or (c) of §77.13, or both, shall send an executed copy of FAA Form 117–1, Notice of Progress of Construction or Alteration, to the Manager, Air Traffic Division, FAA Regional Office having jurisdiction over the area involved."[291]

State

"Caltrans: Transportation Concept Reports

Each District of the State of California Transportation Department (Caltrans) prepares a Transportation Concept Report (TCP) for every state highway or portion thereof in its jurisdiction. The TCR usually represents the first step in Caltrans' long-range corridor planning process. The purpose of the TCR is to determine how a highway will be developed and managed so that it delivers the targeted LOS and quality of operations that are feasible to attain over a 20-year period, otherwise known as the "route concept" or beyond 20 years, for what is known as the "ultimate concept". However, the Project site is not adjacent to or near any Concept Report facilities. The nearest facility is SR 137 approximately 4.5 north of the Project.

Caltrans Guide for the Preparation of Traffic Impact Studies

"The California Department of Transportation (Caltrans) has developed this "Guide for the Preparation of Traffic Impact Studies" in response to a survey of cities and counties in California. The purpose of that survey was to improve the Caltrans local development review process (also known as the Intergovernmental Review/California Environmental Quality Act or

[290] Ibid.
[291] Goshen Community Plan Update EIR. Pages 3.16-14 and -15.

IGR/CEQA process). The survey indicated that approximately 30 percent of the respondents were not aware of what Caltrans required in a traffic impact study (TIS)."[292]

Local

Tulare County General Plan 2030 Update

The following Tulare County General Plan 2030 Update policies for this resource apply to this Project: *TC-1.16 County Level Of Service (LOS) Standards* wherein the County shall strive to develop and manage its roadway system (both segments and intersections) to meet a LOS of "D" or better in accordance with the LOS definitions established by the Highway Capacity Manual; and *HS-1.9 Emergency Access* wherein the County shall require, where feasible, road networks (public and private) to provide for safe and ready access for emergency equipment and provide alternate routes for evacuation.

Tulare County Transportation Control Measures (TCM)

"Transportation Control Measures (TCM) are designed to reduce vehicle miles traveled, vehicle idling, and/or traffic congestion in order to reduce vehicle emissions. Currently, Tulare County is a nonattainment region under the Federal Clean Air Act (CAA) and the California Clean Air Act (CCAA). Both of these acts require implementation of TCMs. These TCMs for Tulare County are as follows:

- Rideshare Programs;
- Park and Ride Lots;
- Alternate Work Schedules;
- Bicycle Facilities;
- Public Transit;
- Traffic Flow Improvement; and
- Passenger Rail and Support Facilities.

Tulare County Association of Governments (TCAG)

… [W]ith the passage of Assembly Bill (AB) 69 State law has required the preparation of Regional Transportation Plans (RTPs) to address transportation issues and assist local and state decision makers in shaping California's transportation infrastructure. The Tulare County Association of Government has prepared the 2011 Regional Transportation Plan. Specific policies that apply to the proposed Project are listed as follows:

TRANSPORTATION SYSTEM MANAGEMENT (TSM) Policy 5

Support installation of adequate left and right turning pockets to allow increased storage, as necessary.

TRANSPORTATION SYSTEM MANAGEMENT (TSM) Policy 6

Encourage improvements in design of signalized intersections to improve turning for large vehicles and circulation flow."[293]

"Tulare County Comprehensive Airport Land Use Plan

The Tulare County Comprehensive Airport Land Use Plan (CALUP) has a number of policies that apply to projects within the County. The Visalia Municipal Airport is located approximately two (2) miles southeast of the project site. The applicable CALUP policies specific to safety, noise, and airspace protection surfaces are listed below.

5.2.2.1 Safety Compatibility Zones

The proposed safety compatibility zones are illustrated on Figure 3.16-4 and are based upon existing Runway 12-30 being lengthened from 6,559 feet to 8,000 feet, as noted in the previous section. The safety compatibility zone dimensions are based on those for a long general aviation runway length of over 6,000 feet shown on Figure 3A of the 2011 Caltrans *Handbook*. The additional runway length will elongate the 1995 ALUC safety zones, airspace protection surfaces and aircraft overflight policies

[292] Ibid. 3.16-15.
[293] Op. Cit. 3.16-15 and -16.

into agricultural areas further southeast of the Airport. The fee title and aviation easement land acquisitions recommended in the Airport Master Plan support the runway extension, but are not sufficient to protect public health and safety throughout the Airport Influence Area.

5.2.2.2 Noise Compatibility

Aircraft operations at the Airport, estimated to total 26,000 annual aircraft operations in 2001, are forecast to increase to 33,000 annual aircraft operations by 2019. Almost 80 percent of these aircraft operations are estimated to be itinerant operations and the mix of aircraft types forecast suggests an increasing percentage of small business jet and turboprop aircraft. In combination with the runway length extension additional aircraft operations will extend the influence of aircraft noise further from the Airport. The 55, 60, and 65 CNEL aircraft noise exposure contours for 2019 for Visalia Municipal Airport are illustrated on Figure 3.16-5 [in the EIR] and are based upon extending Runway 12-30 as noted above. The forecast 65 dB CNEL aircraft noise exposure contour extends beyond the northwestern boundary of the Airport over the State Highway [SR] 99/State Highway [SR] 198 interchange. The forecast 65 dB CNEL aircraft noise exposure contour extends over adjacent City Park property to the east and agricultural land to the south. No sensitive noise receptors (e.g., residences, schools, hospitals) are located within the 65 dB CNEL aircraft noise exposure contour. The forecast 60 dB CNEL aircraft noise exposure contour also does not extend over any sensitive noise receptors.

5.2.2.3 Airspace Protection Surfaces

The Airport Master Plan identifies a 50 to 1 approach surface to the end of Runway 30 for existing precision instrument approach procedures (ILS RWY 30) and a 34 to 1 approach surface to the end of Runway 12 for existing non-precision instrument approach procedures (RNAV GPS RWY 12). The FAR Part 77 imaginary surfaces at the Visalia Municipal Airport, based on the Airport Master Plan, are illustrated on Figure 3.16-6. Both the conical surface and the horizontal surface will extend further to the south than in the previous CALUP due to the proposed runway extension. The FAR Part 77 conical surface, which the Tulare County ALUC uses to define the Airport Influence Area, extends out 14,000 feet from the primary surface. The horizontal surface extends out 10,000 feet from the primary surface."[294]

Project Impact Analysis

a) Less Than Significant Impact: As noted earlier, the proposed Project is to develop 206 single-family residences at the northwest of Avenue 310 and Road 72 within the Goshen Community Plan Urban Development Boundary area. The 37-acre site will have a density of 5.82 units per gross residential acre (i.e. the area dedicated to residential development, including lots, roadways, curbs, gutters, and sidewalks). The remaining acreage will be utilized as open space in the form of a stormwater detention basin and streets with curbs, gutters, and sidewalks. Residential parcels will average greater than 5,000 square feet. The proposed Project will be developed in four (4) phases: Phase 1 - 34 lots; Phase 2 - 49 lots; Phase 3 - 39 lots; and Phase 4 - 84 lots; with anticipated buildout of the Project within 4-5 years.

Development of the Project's location was included in the TIS completed for the Goshen Community Plan Update and is included as Appendix "F" of the EIR. As noted in the EIR, "The Goshen Community Plan Traffic Impact Assessment (Goshen TIA) and Circulation Plan was prepared by VRPA Technologies initially in June 2014 and updated in February 2018, is included as Appendix "F" of this DEIR. An important component of the Goshen TIA was to assess existing traffic conditions, future traffic conditions, and cumulative traffic impacts as a result of the Project. The first step toward assessing Project traffic impacts is to assess existing traffic conditions. To identify current traffic conditions, AM and PM peak hour turning movement counts in the previous Goshen Community Plan Update (2014) were utilized. The traffic volumes were adjusted as necessary to reflect year 2017 conditions. Based upon these data and methodologies, traffic levels of service (LOS) were determined and the adequacy of the community's road network for serving current and future traffic demand was assessed."[295] Among the intersections and adjoining roadway segments included in the TIA (which were determined in consultation with RMA staff) are the intersections of Avenue 312/W. Riggin Avenue and Road 72 and Avenue 310 and Road 72; and roadway segments on Betty Drive-Avenue 312/W. Riggin Avenue between Robinson Road and Road 72, and Road 72 between Avenue 312/W. Riggin Avenue and Avenue 310.[296] In addition, consultants C2 Consult (C2) prepared the *"Traffic Impact Study and Vehicle Miles Travelled Assessment for the Goshen Residential Development Project, Goshen, California"* (TIS/VMTA) used as the basis to determine the proposed Project's impacts and is included in Attachment "D" of the Draft MND.

[294] Op. Cit. 3.16-16 through -19.
[295] Op. Cit. 3.16-23.
[296] Op. Cit. 3.16-24.

Existing Conditions Analysis

As noted in the TIS/VMTA consultants C2 Consult (C2), functional classification is the process by which streets and highways are grouped into classes according to the type of service they provide. Streets and highways are classified according to their primary function and may be assigned into several basic classifications; however, the proposed Project will not contain high-speed roads such as highways, and will include or is adjacent to segments of arterial, collector, and local roads. "Betty Drive is an arterial road that traverses SR 99 via an overcrossing, connecting parcels west of SR 99 with Riggin Avenue east of SR 99. It has two travel lanes west of SR 99 and at this overcrossing, widens to four lanes at Road 67. Riggin Avenue (also designated as Avenue 312) is the continuation of Betty Drive. In the study area it is a four-lane arterial. Avenue 304/Goshen Avenue is an east-west arterial street that is bifurcated into two segments by SR99; the segment east of SR 99 is called Goshen Avenue."[297] "Within Goshen, Avenue 308 is an east-west collector level street that, like Avenue 304, is bifurcated into two segments by SR99. Its western segment, serves the Goshen Elementary School with approximately 530 students, which is part of the Visalia Unified School District. Road 67 is a two-lane north-south collector street providing access to mainly industrial parcels just east of SR 99. Robinson Road is a two-lane north-south collector street that provides access to industrial parcels north of Betty Drive and to a residential area south of Betty Drive. Road 72 is a two-lane north-south collector street serving primarily residential areas of Goshen; it connects Riggin Avenue in the north with Rasmussen Avenue in the south. Road 76 is also a two-lane north-south collector street. It currently runs from West Goshen Avenue to Avenue 308. There are near-term plans to extend Road 76 north to Riggin Avenue."[298] All roads within the proposed Project will be "local" streets which then intersect collector streets at Road 72 and Avenue 310; there will be no direct access to arterial Betty Drive/Riggin Avenue. "Existing traffic control measures are summarized in Table 1 [in the TIS/VMTA, **Table 17-1** in the Draft MND] for each intersection considered in this study."[299]

Table 17-1
Existing Intersection Traffic Control and Lanes

Location No.	Intersection	Control Type
7.	Betty Drive / SR 99 SB Ramps	Traffic signal
8.	Betty Drive / SR 99 NB Ramps	Traffic signal
9.	Betty Drive / Road 67	Traffic signal
12.	Betty Drive / Robinson Road	Traffic signal
13.	Betty Drive / Road 72	One-Way Stop Sign
14.	Avenue 310 / Road 72	All-Way Stop Sign
15.	Avenue 308 / Road 72	Two-Way Stop Sign
17.	Riggin Avenue / Road 76	Traffic signal
18.	Goshen Avenue / Road 76	Two-Way Stop Sign
Segment No	**Roadway**	**Lanes**
1	Betty Drive	4 lane divided
3	Avenue 304 / Goshen Avenue	4 lane divided
6	State Highway (Route) 99	6 lane freeway
8	Robinson Road	2 lane undivided
9	Road 72	2 lane undivided

Source: TIS/VMTA Page 8.

Level of Service Standards

"The County of Tulare General Plan currently calls for all intersections and roadway segments to be maintained at LOS "D" or better; this objective would be obtained given implementation of the Community Plan and the specific roadway improvements (mitigation measures) noted below. The Caltrans' level of service uses the transition between C/D as the acceptable level of service criteria in for this area."[300]

[297] *"Traffic Impact Study and Vehicle Miles Travelled Assessment for the Goshen Residential Development Project, Goshen, California"* (TIS/VMTA). January 2021. Pages 7-8. Prepared by C2 and included in Attachment "D" of the Draft MND.
[298] Ibid. 8
[299] Op. Cit.
[300] Op. Cit. 9.

Existing Conditions Analysis

"The intersection existing lane configurations (shown in Figure 3 [in the TIS/VMTA]) were analyzed using existing weekday traffic volumes (shown in Figure 4 [in the TIS/VMTA]) in order to determine level of service for existing year (2020) conditions. Level of service for existing conditions at intersections is summarized in Table 2 [in the TIS/VMTA, **Table 17-2** in the MND] and for segments is shown in Table 3 [in the TIS/VMTA, **Table 17-3** in the MND]. Calculations for existing weekday conditions are included in Appendix B [in the TIS/VMTA]."[301]

"The intersections were found to currently be operating above the County of Tulare's level of service standard and above the Caltrans the level of service "C/D" threshold. All road segments are currently operating above the County of Tulare's level of service standard. It should be noted that based on the Goshen Community Plan level of service segment criteria, level of service below "C" is deemed to be in determinant. Therefore, the segment assessment shown above is well above the level of service "C/D" threshold.

Also, this study was unable to collect data on State Highway 99 and therefore, no assessment of the segments north or south of Betty Drive were completed. It should be noted that as part of the Goshen Community Plan, State Highway 99 was evaluated (1997/98) and it was determined by that Study it was operating at a level of service "B". It is presumed that for the timeframe of this evaluation and in light of the travel restrictions as a result of COVID, the existing traffic volumes will be lower."[302]

Table 17-2
Existing Level of Service - Intersections

Intersection	AM	PM
7. Betty Drive / SR 99 SB Ramps	A	A
8. Betty Drive / SR 99 NB Ramps	B	B
9. Betty Drive / Road 67	A	B
12. Betty Drive / Robinson Road	A	A
13. Betty Drive / Road 72	B	B
14. Avenue 310 / Road 72	A	A
15. Avenue 308 / Road 72	A	A
17. Riggin Avenue / Road 76	A	A
18. Goshen Avenue / Road 76 (critical approach)	B	B
Source: TIS/VMTA Page 10.		

Table 17-3
Existing Level of Service - Intersections

Roadway Segment	LOS D Capacity	2020 Daily Volume	LOS
1. Betty Drive :/			<C
SR 99 to Robinson Road	35,820	14,808	<C
Robinson Road to Road 72	35,820	14,635	<C
Road 72 to Road 76	35,820	14,568	<C
East to Road 76	35,820	14,30	
3. Avenue 304 / Goshen Avenue			<C
East of Road 76	15,930	6,953	
6. SR 99			
North of Betty Drive		N/A	
Betty Drive to Avenue 304		N/A	
8. Robinson Road			
North of Betty Drive	15,930	760	<C
South of Betty Drive	15,930	2,339	<C
9. Road 72			
Avenue 312 / Riggin Ave to Ave 310	15,930	3,300	<C

[301] Op. Cit. 10.
[302] Op. Cit. 15.

Avenue 310 to Avenue 308	15,930	1,771	<C
South of Avenue 308	15,930	657	<C

Note: the intersection numbers and the roadway numbers correspond to the reference number contained in the Goshen Community Plan and its accompanying technical study. They are included to assist in the cross referencing of results.

Source: TIS/VMTA Page 10.

Project Description

"The Goshen Residential Project is located on the southwest corner of the intersection of Riggin Avenue/Betty Drive at Road 72. The Project proposes to build 197 single family homes within the community of Goshen, which is adjacent to the City of Visalia. This project was included in the Goshen Community Plan when that study was adopted by the County of Tulare in February 2018. As such the Project is consistent with that plan. Figure 5 shows the layout and overall configuration of the subdivision as well as access streets into and out of the Project. Access will be provided via one street connecting to Road 72 and two streets connecting to Avenue 308. No access is to be provided to the Project along it's frontage with Riggin Avenue/Betty Drive."[303]

Project Trip Generation

"New trips generated by the Goshen Residential Project were estimated using the Institute of Transportation Engineer's *Trip Generation Manual.* This publication provides average rates of trip generation for different building uses, and relates these rates to building size (retail) of dwelling units (residential) whether measured in square feet or other metrics such as number of employees. Trip generation rates are provided for weekdays along with the proportion of trips that are inbound or outbound from the development. The resulting Project trip generation is shown in Table 4 [in the TIS/VMTA, **Table 17-4** in the MND]and a project summary sheet is included in Appendix C [in the TIS/VMTA].

The estimated Goshen Project's vehicle trips yields 148 trips in the AM peak hour and 193 trips in the PM peak hour. It should be noted that these estimated Project trips represent pre-Covid trip generation estimates. Post-Covid trip generation profiles for all land uses will need to be recalibrated to account for reduced trip making at homes, offices, retail and other land uses. These estimated trips for the Goshen Project may not reflect the actual trips generated by this Project."[304]

Table 17-4
Goshen Project - Trip Generation

Average Weekday 2- Way Volume	1.940
AM Peak Hour	
7a-9a Entering	37
7a-9a Exiting	111
7a-9a TOTAL	148
PM Peak Hour	
4p-6p Entering	122
4p-6p Exiting	72
4p-6p TOTAL	193

Source: TIS/VMTA Page 16.

The Goshen Residential Project's Vehicle Trip Distribution

"The Goshen Residential Project is expected to distribute project related trips matching the current travel pattern at the study intersections. Therefore, existing turning movements were used as guidelines for the distribution of vehicular trips to the surrounding streets. Based on this methodology, the Goshen Project's trips were distributed as shown in Figure 6. Again, post-Covid trip distribution for this Project will need to be re-calibrated to reflect changes in travel patterns."[305]

Existing Plus the Goshen Projects Level of Service

New trips generated by the residential project were combined with existing weekday traffic volumes and then analyzed to determine level of service with the Project. Traffic volumes under these existing plus Project traffic volumes are shown in

[303] Op. Cit.16.
[304] Op. Cit.
[305] Op. Cit.

Figure 7 [in the TIS/VMTA], while level of service under these conditions are shown in Tables 5 and 6 [in the TIS/VMTA, **Tables 17-5** and **17-6** in the MND] for each intersection. Calculations for existing plus project conditions are included in Appendix D [in the TIS/VMTA]."[306]

"With the addition of the Goshen Residential Project's traffic to the existing traffic volumes, all intersections are projected to operate above the County's former level of service standard. The two intersections subject to the Caltrans jurisdictions are also projected to continue to operate above their level of service standard. Again, it should be noted that based on the Goshen Community Plan level of service segment criteria, level of service above "C" is deemed to be in determinant. Therefore, the segment assessment shown above is well above the level of service "C/D" threshold."[307]

Table 17-5
Existing Plus the Goshen Project

Intersection	AM	PM
7. Betty Drive / SR 99 SB Ramps	A	A
8. Betty Drive / SR 99 NB Ramps	B	B
9. Betty Drive / Road 67	A	B
12. Betty Drive / Robinson Road 72	A	A
13. Betty Drive / Road 72 (critical approach	C	C
14. Avenue 310 / Road 72	A	A
15. Avenue 308 / Road 72	A	A
17. Riggin Avenue / Road 76	A	A
18. Goshen Avenue / Road 76 (critical approach)	B	B
Source: TIS/VMTA Page 10.		

Table 17-6
Existing Plus the Goshen Project

Roadway Segment	LOS D Capacity	2020 Daily Volume	LOS
1. Betty Drive :/			
SR 99 to Robinson Road	35,820	15,266	<C
Robinson Road to Road 72	35,820	14,965	<C
Road 72 to Road 76	35,820	14,898	<C
East to Road 76	35,820	14,631	
3. Avenue 304 / Goshen Avenue			<C
East of Road 76	15,930	8,105	
6. SR 99			
North of Betty Drive		N/A	
Betty Drive to Avenue 304		N/A	
8. Robinson Road			
North of Betty Drive	15,930	760	<C
South of Betty Drive	15,930	2,467	<C
9. Road 72			
Avenue 312 / Riggin Ave to Ave 310	15,930	3,960	<C
Avenue 310 to Avenue 308	15,930	2,347	<C
South of Avenue 308	15,930	1,233	<C

Note: the intersection numbers and the roadway numbers correspond to the reference number contained in the Goshen Community Plan and its accompanying technical study. They are included to assist in the cross referencing of results.
Source: TIS/VMTA Page 21.

[306] Goshen Community Plan Update EIR. Page 3.16-36.
[307] Op. Cit. 22.

Future Year 2040 with Goshen Residential Project - Level of Service

"Traffic generated by the Goshen Residential Project was included in the Goshen Community Plan prepared and adopted by the County of Tulare in 2018. As such this Project has been assessed as part of that master planning process. Reference is made to the Goshen Community Plan and it's supporting technical studies and Environmental Impact Report for specifics. Traffic volumes for the year 2040 with the Community Plan are shown in Figure 8 [in the TIS/VMTA]. These were taken directly from the technical report prepared for the Community Plan. The resulting levels of service under these conditions are shown in Table 7 [in the TIS/VMTA, **Table 17-7** in the MND] for each intersection and Table 8 for each segment. Calculations for these levels of service can be found in the Community Plan technical report.

Table 17-7
Future Year (2040) with the Goshen Project
Level Of Service

Intersection	AM	PM
7. Betty Drive / SR 99 SB Ramps	A	B
8. Betty Drive / SR 99 NB Ramps	**D**	**E**
9. Betty Drive / Road 67	D	F
12. Betty Drive / Robinson Road 72	**F**	**F**
13. Betty Drive / Road 72 (critical approach	**F+**	**F+**
14. Avenue 310 / Road 72	B	B
15. Avenue 308 / Road 72	B	B
17. Riggin Avenue / Road 76	**F+**	**F+**
18. Goshen Avenue / Road 76 (critical approach)	C	C
Source: TIS/VMTA Page 10.		

Table 17-8
Future Year (2040) with the Goshen Project
Level of Service

Roadway Segment	LOS D Capacity	2020 Daily Volume	LOS
1. Betty Drive :/			
SR 99 to Robinson Road	35,820	15,266	<C
Robinson Road to Road 72	35,820	14,965	<C
Road 72 to Road 76	35,820	14,898	<C
East to Road 76	35,820	14,631	
3. Avenue 304 / Goshen Avenue			<C
East of Road 76	15,930	8,105	
6. SR 99			
North of Betty Drive		N/A	
Betty Drive to Avenue 304		N/A	
8. Robinson Road			
North of Betty Drive	15,930	760	<C
South of Betty Drive	15,930	2,467	<C
9. Road 72			
Avenue 312 / Riggin Ave to Ave 310	15,930	3,960	<C
Avenue 310 to Avenue 308	15,930	2,347	<C
South of Avenue 308	15,930	1,233	<C

Note: the intersection numbers and the roadway numbers correspond to the reference number contained in the Goshen Community Plan and its accompanying technical study. They are included to assist in the cross referencing of results. Source: TIS/VMTA Page 21.

As indicated in the TIS/VMTA, "The Goshen Community Plan concluded that several intersections and three segments would be projected to operate below the appropriate level of service standard. These are as follows:

Intersections
8. Betty Drive / SR 99 NB Ramps
9. Betty Drive / Road 67
12. Betty Drive / Robinson Road
13. Avenue 312-Riggin Avenue / Road 72
17. Avenue 312-Riggin Avenue / Road 76

Segments
1. Betty Drive:
SR 99 to Robinson Road
Road 72 to Road 76
East of Road 76"[308]

Mitigation Measures from the Community Plan

The TIS/VMTA provides evidence that mitigation measures specified in the Draft EIR for the Goshen Community 2014 Plan Update have already been considered and determined for the entire Goshen Urban Development Boundary planning area. As such, it was anticipated that residential growth would occur over time. The proposed Project, and the approved Cross Creek Bend residential subdivision project, merely reflect anticipated growth during the Future Year 2040 timeframe.

As noted in the TIS/VMTA, "Described below are mitigation measures at study area intersections and segments for the Future Year 2040 scenarios that address future transportation and circulation issues in the Goshen community. The improvements identified would result in acceptable levels of service. Improvements labeled with a double asterisk (**) were identified in the Goshen Transportation and Community Plan that was approved February 4, 2014.

Intersection Mitigation Measures

Future Year 2040 No Build Scenario
- MM TR - 1. Betty Drive / Robinson Road
  - o Widen the eastbound approach to 1 left turn lane, 2 through lanes, and 1 right turn lane (adding 1 right turn lane)
- MM TR - 2. Avenue 312-Riggin Avenue / Road 72
  - o Install Traffic Signal **
- MM TR - 3. Avenue 312-Riggin Avenue / Road 76
  - o Install Traffic Signal**

Future Year 2040 Build Scenario
- MM TR - 4. Avenue 308 / Road 60
  - o Install Traffic Signal
  - o Widen all approaches to 1 left turn lane and 1 through lane with a shared right (adding 1 left turn lane)
- MM TR - 5. Betty Drive / Road 64
  - o Install northbound right overlap phasing
- MM TR - 6. Avenue 308 / Road 64
  - o Widen the westbound approach to 1 left turn lane, 2 through lanes, and 1 right turn lane with overlap phasing (adding 1 right turn lane)
- MM TR - 7. Betty Drive / SR 99 NB Ramps
  - o Widen the northbound approach to 2 left turn lanes and 2 right turn lanes (adding 1 right turn lane)
  - o Widen the westbound approach to 3 through lanes and 2 right turn lanes (adding 1 through lane and 1 right turn lane)
- MM TR - 8. Betty Drive / Road 67
  - o Widen the northbound approach to 1 left turn lane and 1 through lane with a shared right (adding 1 left turn lane)
  - o Widen the southbound approach to 1 left-through lane and 1 right turn lane with overlap phasing (adding 1 right turn lane)
  - o Widen the eastbound approach to 1 left turn lane, 2 through lanes, and 1 right turn lane (adding 1 right turn lane)
  - o Widen the westbound approach to 1 left turn lane, 2 through lanes, and 1 right turn lane (adding 1 right turn lane)
- MM TR - 9. Betty Drive / Robinson Road
  - o Widen the northbound approach to 2 left turn lanes and 1 through lane with a shared right (adding 1 left turn lane)
  - o Widen the eastbound approach to 1 left turn lane, 2 through lanes, and 1 right turn lane with

[308] Op. Cit. 23.

overlap phasing (adding 1 right turn lane)
- o Widen the westbound approach to 1 left turn lane, 2 through lanes, and 1 right turn lane (adding 1 right turn lane)

MM TR - 10. Avenue 312-Riggin Avenue / Road 72
- o Install Traffic Signal**
- o Widen the northbound approach to 1 left turn lane and 1 right turn lane (adding 1 right turn lane)

MM TR - 11. Avenue 312-Riggin Avenue / Road 76
- o Install Traffic Signal**
- o Widen the northbound approach to 2 left turn lanes and 1 right turn lane with overlap phasing (adding 1 left turn lane and 1 right turn lane)
- o Widen the eastbound approach to 1 left turn lane, 2 through lanes, and 1 right turn lane with overlap phasing (adding 1 right turn lane)
- o Widen the westbound approach to 2 left turn lanes and 2 through lanes 61 Goshen Community Plan Update with a shared right (adding 1 left turn lane)

Future Year 2040 Build – Alternative 1 Scenario Mitigation Measures

MM TR - 12. Avenue 308 / Road 60
- o Install Traffic Signal
- o Widen all approaches to 1 left turn lane and 1 through lane with a shared right (adding 1 left turn lane)

MM TR - 13. Avenue 308 / Road 64
- o Widen the westbound approach to 1 left turn lane, 2 through lanes, and 1 right turn lane with overlap phasing (adding 1 right turn lane)

MM TR - 14. Avenue 304 / Road 64
- o Install Four-Way Stop

MM TR - 15. Betty Drive / SR 99 NB Ramps
- o Widen the northbound approach to 2 left turn lanes and 2 right turn lanes (adding 1 right turn lane)
- o Widen the westbound approach to 3 through lanes and 2 right turn lanes (adding 1 through lane and 1 right turn lane)

MM TR - 16. Betty Drive / Road 67
- o Widen the northbound approach to 1 left turn lane and 1 through lane with a shared right (adding 1 left turn lane)
- o Widen the southbound approach to 1 left-through lane and 1 right turn lane with overlap phasing (adding 1 right turn lane)

MM TR - 17. Betty Drive / Robinson Road
- o Widen the northbound approach to 2 left turn lanes and 1 through lane with a shared right (adding 1 left turn lane)
- o Widen the eastbound approach to 1 left turn lane, 2 through lanes, and 1 right turn lane with overlap phasing (adding 1 right turn lane)

MM TR - 18. Avenue 312-Riggin Avenue / Road 72
- o Install Traffic Signal**
- o Widen the northbound approach to 1 left turn lane and 1 right turn lane (adding 1 right turn lane)

MM TR - 19. Goshen Avenue / Camp Drive
- o Install Traffic Signal

MM TR - 20. Avenue 312-Riggin Avenue / Road 76
- o Install Traffic Signal**
- o Widen the northbound approach to 2 left turn lanes and 1 right turn lane (adding 1 left turn lane and 1 right turn lane)
- o Widen the eastbound approach to 1 left turn lane, 2 through lanes, and 1 right turn lane (adding 1 right turn lane)

MM TR - 21. Goshen Avenue / Road 76 from 1 to 2 travel lanes in both directions (adding 1 travel lane in each direction)**

Roadway Segments Mitigation Measures

Future Year 2040 Build Scenario

MM TR - 22. Betty Drive between SR 99 and Robinson Road:
- o Widen from 2 to 3 travel lanes in both directions (adding 1 travel lane in each direction)**

MM TR - 23. Betty Drive between Road 72 and Road76:
- o Widen from 2 to 3 travel lanes in both directions (adding 1 travel lane in each direction)**

MM TR - 24. Betty Drive East of Road76:
- o Widen from 2 to 3 travel lanes in both directions (adding 1 travel lane in each direction)**

MM TR - 25. Avenue 308 between Road 60 and Road64:
- o Widen from 1 to 2 travel lanes in both directions (adding 1 travel lane in each direction)**

Future Year 2040 Build – Alternative 1 Scenario

MM TR - 26. Betty Drive between SR 99 and Robinson Road:
- o Widen from 2 to 3 travel lanes in both directions (adding 1 travel lane in each direction)**

MM TR - 27. Betty Drive between Road 72 and Road 76:
- o Widen from 2 to 3 travel lanes in both directions (adding 1 travel lane in each direction)**

MM TR - 28. Betty Drive East of Road 76:
- o Widen from 2 to 3 travel lanes in both directions (adding 1 travel lane in each direction)**

MM TR - 29. Avenue 308 between Road 60 and Road 64:
- o Widen from 1 to 2 travel lanes in both directions (adding 1 travel lane in each direction)

With implementation of the mitigation measures described above, the study area intersections and segments for the Future Year 2040 scenario will operate at acceptable levels of service. Improvements labeled with a double asterisk (**) were identified in the Goshen Transportation and Community Plan that was approved February 4, 2014. The following tables taken from the Goshen Community Plan show the level of service results with these improvements at critical intersections and road segments."[309]

As contained in the Goshen Community Plan Update EIR; "The proposed Goshen Community Plan Update traffic analysis provides a policy framework to address potential traffic impacts encountered in the planning process. Results of the traffic analysis shows that the Goshen Community Plan Update is in harmony with both the Tulare County General Plan and the TCAG Regional Transportation Plan. The General Plan currently calls for all intersections and roadway segments to be maintained at LOS "D" or better; this objective would be obtained given implementation of the Community Plan and the specific roadway improvements (mitigation measures) noted below. The Goshen Community Plan also meets Caltrans' acceptable level of service criteria in the study area with the development of specific roadway improvements noted below [in the EIR].[310]"

As shown in the Goshen Bicycle & Pedestrian Plan of the Goshen Community Plan[311], the proposed Project is adjacent to Visalia Coach Route 6 along Robinson Road, a planned Class II Bike along Betty Drive/ Riggin Avenue, and a planned Class III Bike Route along Road 72. As such, the proposed Project would not be inconsistent with the Goshen Bicycle & Pedestrian Plan. Further, the tentative design of the subdivision is a typical rectangular-patterned grid system containing two access/egress points along Avenue 310 and one access/egress point along Road 72. As such, the Project design minimizes roadway hazards and optimizes safety by restricting potential vehicular conflicts by limiting access/egress points along Avenue 310 and Road 72. Therefore, the Project would result in a less than significant impact to this resource. Also, publicly accessible mass transit is available in the form of Visalia City Transit (Route 15) which currently has a bus stop near the intersection of Avenue 310 at Road 72 and also provides demand responsive service to Goshen to accommodate the general public and Americans Disability Act (ADA)-eligible riders.[312]

As contained in the Goshen Community Plan Update and EIR, "The existing roadway system has been designed in accordance with County of Tulare roadway standards to avoid roadway hazards and other traffic-related hazardous features. As future development occurs, Tulare County policies such as *LU-7.3 Friendly Streets*, *TC-1.14 Roadway Facilities*, and Tulare County General Plan Update (2030) compliance with AB 1358 which calls for four Complete Streets-related Principles including: Principle 1: County-wide Collaboration; Principle 2: Connectivity; Principle 3: Community Circulation ; and Principle 4: Pedestrian and Bicycle Facilities, will be implemented. Further, as indicated in the TIS, "The Goshen Community Plan Update would not result in hazards due to design features, since all proposed improvements would be built to County design standards. The proposed Community Plan land uses would not increase the use of farm equipment on streets and roads in the Goshen Community. As a result, the Project will not substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment). Therefore, no mitigation is needed."[313].

Based on the analysis provided by expert consultant C2, the RMA agrees with and supports the conclusions contained in the TIA/VMTA that the proposed Project would result in a less than significant impact. As such, the proposed Project would not conflict with conflict with a program, plan, ordinance, or policy addressing the circulation system including transit, roadway, bicycle and pedestrian facilities. Therefore, the proposed Project would result in a less than significant impact.

[309] Op. Cit. 31-33.
[310] Goshen Community Plan Update EIR. Page3.16-58
[311] Goshen Community Plan Update. Figure 49 - Goshen Bicycle & Pedestrian Plan map. Page 237. Accessed in February 2021 at: http://generalplan.co.tulare.ca.us/documents/GP/001Adopted%20Tulare%20County%20General%20Plan%20Materials/120Part%20III%20Community%20Plans%201%20of%207/005Goshen/GPA%2014-001%20GOSHEN%20COMMUNITY%20PLAN.pdf
[312] Visalia Transit. Accessed February 2021 at: https://www.visalia.city/depts/transportation_services/transit/
[313] Op. Cit. 3.16-63.

b) Less Than Significant Impact:

In 2020 the County of Tulare prepared the County of Tulare Draft SB 743 Guidelines for the implementation of Senate Bill 743 in the unincorporated area of Tulare County. SB 743 was passed by the legislature and signed into law in the fall of 2013. This legislation led to a change in the way that transportation impacts will be measured under the California Environmental Quality Act (CEQA). Starting on July 1, 2020, automobile delay and level of service (LOS) may no longer be used as the performance measure to determine the transportation impacts of land development projects under CEQA and the new performance measure will be vehicle miles traveled (VMT). The TIA/VMTA prepared by expert consultant C2 (included in Attachment "D" of this MND) provides a comprehensive introduction and overview of SB 743, and an analysis of the proposed Project's impact to VMT.

As summarized in the TIA/VMTA, "Although statewide guidance for the implementation of SB 743 has been written by the Governor's Office of Planning and Research (OPR), CEQA allows lead agencies (including Tulare County) the latitude to determine their own methodologies and significance thresholds for CEQA technical studies. The SB 743 Guidelines provided in this report are based on the statewide guidance provided by OPR, but they include clarifications and details tailored for and specific to local conditions in Tulare County SB 743 applies to both land development and transportation projects. The VMT analysis methodology for land development projects was developed in order to accomplish the following:

- Meet the requirements of CEQA, including the new SB 743 regulations that were adopted into CEQA in December 2018 and go into effect on July 1, 2020.
- Provide for transportation improvements to be built that benefit Tulare County residents and facilitate travel by walking, bicycling, and transit.
- Provide for analysis and mitigation of VMT impacts in a way that is feasible and within the scale of land development projects in Tulare County."[314]

"Building on the OPR guidance, these Guidelines provide a refined VMT analysis specifically tailored to the unincorporated areas within the County of Tulare's jurisdiction. These Guidelines extend OPR's concept of determining significance thresholds for rural areas on a case-by-case basis to Tulare County based on the concept that travel behavior in the small town and rural areas of Tulare County is similar to travel behavior in the rural portions of non-MPO counties. Project VMT/capita and VMT/employee can be most easily determined using a travel demand model, either by running the model for each specific project VMT analysis or by creating maps and tables showing average VMT/capita and VMT/employee values for the area of interest. Many types of transportation analyses in Tulare County should be conducted using the TCAG regional travel demand model and this model can potentially be used for VMT analysis if a model run is conducted for each project. However, TCAG does not provide map or table based VMT/capita and VMT/employee values. Instead VMT analysis can be conducted using the California Statewide Travel Demand Model (CSTDM), developed and maintained by Caltrans. Caltrans has provided baseyear (2010) and horizon year (2040) VMT/capita and VMT/employee values for the entire state broken down by county and by geographical units known as traffic analysis zones (TAZ's) within each county. In its Technical Advisory, OPR refers to the process described earlier for small projects as "map based screening". OPR recommends this methodology for determining which projects are located in VMT-efficient areas and can therefore be "screened out" from requiring a VMT analysis. For Tulare County, this process is extended to allow for the map-based analysis of VMT/capita and VMT/employee values.

Thresholds of significance for VMT analysis are also based on OPR's recommendations, but some refinements have been made to reflect the predominantly rural character of Tulare County; following are refinements applicable to Tulare County:

- OPR recommends that residential and office projects compare project VMT/capita or VMT/employee to regional or city-wide average. For Tulare County, due to its predominantly rural character, these comparisons are made between project VMT and the average VMT/capita or between project VMT/employee for the average VMT/employee in the TAZ in which the project is located.

- OPR recommends a significance threshold of 15% below average. For Tulare County, the significance threshold is below the TAZ average. Therefore, projects that have a VMT/capita or VMT/employee equal to or above the average VMT/capita or VMT/employee in the TAZ in which the project is located would be presumed to have a significant transportation impact.

[314] TIA/VMTA Page. 36.

- PR recommends that local-serving retail projects can be presumed to have a less than significant transportation impact. This is because local-serving retail typically reduces trip lengths by providing additional destinations that tend to replace trips to more distant retail locations. For Tulare County, this concept is also used and it is extended to other types of local-serving projects such as schools, public facilities, parks, and local-serving medical offices.

- OPR recommends that a regional retail project may have a significant impact if results in a net increase in total VMT. This threshold is also used by Tulare County.

- OPR does not recommend a specific threshold for industrial projects. For Tulare County, an industrial project has a significant impact if its VMT/employee equals or exceeds average VMT/employee for the TAZ in which the project is located. It should be noted that goods movement is not subject to VMT analysis. Therefore, goods movement trips associated with an industrial project would not be included when determining VMT/employee.

While many projects will go through the process described above to analyze VMT, some projects will be determined to be "screened out" due to project size or project type. These projects are described in Section 3.2. Figure 3-1 shows a flow chart that summarizes the VMT analysis process. Tulare County Traffic Zone Analysis Maps are shown in Figure 3-2. These maps provide a general indication of the location of TAZ's within Tulare County. At the time of preparation of this report, more detailed TAZ maps were available on the website of the Northern California Section of the Institute of Transportation Engineers (www.norcalite.org). In the future these maps may be available from Tulare County staff or the Caltrans SB 743 website (https://dot.ca.gov/programs/transportationplanning/office-of-smart-mobility-climate-change/sb-743). VMT/capita and VMT/employee values for base year conditions based on the CSTDM are shown in Table 3-1 [in the TIA/VMTA]."[315]

The TIA/VMTA also contains discussions regarding Screening Criteria, Significance Thresholds, Mitigation, Step-by-Step Summary of VMT Analysis for Land Development Projects, and Additional VMT Methodologies for Unique Situations, as such, the reader is encouraged to read these discussion on pages 39-41 of the TIA/VMTA included in Attachment "D' of the MND.

Goshen Project Vehicle Miles Travelled Analysis and Mitigation

As contained in the TIA/VMTA, "Following is a step by step summary of the process for VMT analysis of land development projects.

- *Determine whether the project is relieved of the requirements to conduct a VMT analysis using the screening criteria described in Section 3.2.*
  - Small Projects – **"NO"**
  - Local-Serving Retail and Similar Land Uses – **"NO"**
  - Local-Serving Public Facilities – **"NO"**
  - Affordable and Farmworker Housing Projects – **"NO"**
  - Redevelopment Projects That Result in a Net Reduction of VMT – **"NO"**
  - Mixed-Use Projects That Result in a Net Reduction of VMT – **"NO"**

- *If the project is not relieved, determine the TAZ where the project is located based on the maps shown in Figure 3-2 or the more detailed maps available from the ITE or Caltrans sources noted at the end of Section 3.1.*

  "Traffic Analysis Zone #2700, Community of Goshen"

- *Determine the average VMT/capita or VMT/employee for the TAZ in which the project is located based on Table 3-1.*

  "Traffic Analysis Zone #2700, Community of Goshen, Daily VMT Per Capita = 14.55, Daily VMT Per Employee= 30.92"

- *Unless the project has unique characteristics that would result in less VMT generation than a typical project, assume the project VMT/capita or VMT/employee is the same as the average for the TAZ in which the project is located. This would typically result in a significant VMT impact.*

  This does not apply to this Project

[315] Ibid.

- *Provide VMT mitigation as described in Section 3.4* [of the TIS/VMTA].

PAYMENT OF FEES IN LIEU
$20 per trip x 1,940 Goshen Project daily trips =
$38,800 VMT mitigation fee to be paid to the County

The[sp.] [Thus,] based on the County Policy, the Project would be eligible for credit against this in lieu fee for the cost of construction of items such as sidewalks, transit stop, etc. Those credits, if any, will be determined by the County at the time of construction."[316]

It is noted that the County has not determined the actual form and timing of credit or payment to be applied to the proposed Project. As such, the timing may occur prior to commencement of construction or at another time determined in consultation with the proposed Project applicant. It is further noted that the mitigation measure (fee) will be included as a Condition of Approval of the proposed Project.

Mitigation Measure(s) **See Below.**

Therefore, based on the analysis provided by expert consultant C2, the RMA agrees with and supports the conclusions contained in the TIA/VMTA that the proposed Project would result in a less than significant impact with mitigation. Implementation of **Mitigation Measures 17-1**, as applicable, would reduce potential Project-specific impacts related to this Checklist Item to less than significant and shall be implemented as a Condition of Approval of the proposed Project.

c) No Impact: As contained in the Goshen Community Plan Update and EIR, "The existing roadway system has been designed in accordance with County of Tulare roadway standards to avoid roadway hazards and other traffic-related hazardous features. As future development occurs, Tulare County policies such as LU-7.3 Friendly Streets, TC-1.14 Roadway Facilities, and Tulare County General Plan Update (2030) compliance with AB 1358 which calls for four Complete Streets-related Principles including: Principle 1: County-wide Collaboration; Principle 2: Connectivity; Principle 3: Community Circulation; and Principle 4: Pedestrian and Bicycle Facilities, will be implemented."[317] Further, as indicated in the TIS contained in the Goshen Community Plan Update EIR, "The Goshen Community Plan Update would not result in hazards due to design features, since all proposed improvements would be built to County design standards. The proposed Community Plan land uses would not increase the use of farm equipment on streets and roads in the Goshen Community. As a result, the Project will not substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment) and will result in no impact to this resource Item. Therefore, no mitigation is needed."[318] As such, as the proposed Project is consistent with the Goshen Community Plan Update, the proposed Project would result in no impact to this resource Item.

e) No Impact: As contained in the Goshen Community Plan Update and EIR, "The Goshen Community Plan Update would not result in any degradation of emergency access within the community. Congestion at an intersection or along a roadway can adversely impact emergency access. Results of the traffic analysis shows that all of the study intersections and roadway segments will meet acceptable levels of service with the development of specific roadway improvements."[319] As Project is consistent with and implements the Goshen Community Plan Update, the Project will not result in inadequate emergency access. As noted in Item d), above, the tentative design of the subdivision contains two access/egress points along Avenue 310 and one access/egress point along Road 72 thereby providing adequate emergency access, and egress, to/from the Project site. Therefore, there will be no impact to this resource.

Cumulative Impact Analysis

The geographic area of this cumulative analysis is Tulare County. This cumulative analysis is based on the information provided in the Tulare County 2030 General Plan, Tulare County General Plan Background Report, Tulare County 2030 General Plan EIR, City of Visalia General Plan EIR, Caltrans Betty Drive Interchange MND, the CMI (formerly Papich) Project Traffic Impact Study, and/or Goshen Community Plan Update and EIR.

[316] Op. Cit. 42-43.
[317] Goshen Community Plan Update EIR. Page 3.16-62.
[318] Ibid. 3.16-63.
[319] Op. Cit. 3.16-64.

The Project is consistent the Tulare County 2030 General Plan and/or Goshen Community Plan Update and EIR. As such, the Project will not conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit. Further, it will not conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways. The Project will not result in a change in air traffic patterns, including either increase in traffic levels or a change in location that results in substantial safety risks. The tentative design of the subdivision is a typical rectangular-patterned grid system containing two access/egress points along Avenue 310 and one access/egress point along Road 72; as such, it will not substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses, (e.g., farm equipment) and it will include adequate emergency access. Lastly, the Project will not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities. Implementation of **Mitigation Measures 17-1** (as a Condition of Approval) would reduce the Project's impact to less than significant.

Mitigation Measure(s): To be implemented as a Condition of Approval.

17-1 Applicant shall provide VMT mitigation as described in Section 3.4 [of the TIS/VMTA].

PAYMENT OF FEES IN LIEU

$20 per trip x 1,940 Goshen Project daily trips = $38,800 VMT mitigation fee to be paid to the County

18. TRIBAL CULTURAL RESOURCES

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			SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
	a)	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)?	☐	☒	☐	☐
	b)	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, the lead agency shall consider the significance of the resource to a California Native American tribe?	☐	☒	☐	☐

The discussions regarding Environmental Setting, CEQA requirements, Regulatory Setting, Chapter 3.5 Cultural Resources, Chapters 4 through 9, Appendices "A" through "I", etc. contained in the Goshen Community Plan Update and Environmental Impact Report are incorporated herein in their entirety. Where necessary and if available, additional site specific facts, data, information, etc., are included in this discussion.

Environmental Setting

"Tulare County lies within a culturally rich province of the San Joaquin Valley. Studies of the prehistory of the area show inhabitants of the San Joaquin Valley maintained fairly dense populations situated along the banks of major waterways, wetlands, and streams. Tulare County was inhabited by aboriginal California Native American groups consisting of the Southern

Valley Yokuts, Foothill Yokuts, Monache, and Tubatulabal. Of the main groups inhabiting the Tulare County area, the Southern Valley Yokuts occupied the largest territory."[320]

Also, please see discussion at Item 5 Cultural Resources.

Records Search Results

A search by the Southern San Joaquin Valley Information Center (SSJVIC) of the California Historical Resources Information System (CHRIS) to identify areas previously surveyed and identify known cultural resources present within or in close proximity to the Project Study Area was conducted on October 7, 2019 (see Attachment "C"). One recorded cultural resource study was conducted within the eastern portion of the Project area (TU-06176) and eight additional studies conducted within the one-half mile radius, TU-00102, -00146, -01008, -01081, -01082, -01083, and -01158. There are no recorded cultural resources within the project area, and it is not known if any exist in most of the area. There is one recorded resource within the one-half mile radius, P-54-004626, an historic railroad.[321]

Native American Consultation

The Native American Heritage Commission (NAHC) maintains a contact list of Native American Tribes as having traditional lands located within the County's jurisdiction. A search of the Sacred Lands Inventory on file with the Native American Heritage Commission (NAHC) was also requested on December1, 2020, and was returned on January 6, 2021, with "negative" results (see Attachment "E"). Pursuant to AB 52 Tulare County RMA staff contacted five Native American Tribes (see Attachment "E") by e-mail on December 27, 2020 regarding the Project. Additional notices were sent via email and certified mail on February 16, 2021, which included two additional Tribes located in Fresno County per the Tribal contact list provided with the Sacred Lands File search response letter. As of February 23, 2020, the County has received one verbal response, from the Dunlap Band of Mono Indians indicating that they had no comments on the Project and would defer to the Santa Rosa Rancheria and Tule River Indian Tribes. As such, the County is awaiting completion of the 30-day response time to finalize the opportunity to participate in the consultation process.

During preparation of the Goshen Community Plan Update Draft EIR, Native American consultation was also conducted. " The Native American Heritage Commission (NAHC) was contacted on 1 June 2014 in order to determine whether Native American sacred sites have been identified either within or in close proximity to the study area. The request was resent on June 16, 2014. The NAHC responded in a letter dated June 30, 2014, stating that a records search of the NAHC Sacred Lands Inventory failed to indicate the presence of Native American traditional sites/places within the project study area. The NAHC notes that the absence of surface visible archaeological features does not preclude their presence below surface. The NAHC advised that when specific projects become public, that the County or appropriate jurisdiction inform the Native American contacts provided by the NAHC as to the nature of the proposed project. As part of the consultation process, the NAHC recommends that local government and project developers contact tribal governments and Native American individuals on the list provided in order to determine of the proposed action might impact any cultural places or sacred sites. If a response is not received in two weeks of notification, the NAHC recommends that a follow-up telephone call be made to ensure the project information has been received. NAHC correspondence and the Native American contact list is included in Attachment "B" [of the Cultural Resource Assessment]."[322]

Regulatory Setting

Federal

<u>The National Historic Preservation Act</u>

The National Historic Preservation Act of 1966 (NHPA) established federal regulations for the purpose of protecting significant cultural resources.[323] The legislation established the National Register of Historic Places and the National Historic Landmarks Program.[324] It mandated the establishment of the State Historic Preservation Office (SHPO), responsible for implementing

[320] Tulare County General Plan 2030 Update. August 2012. Page 8-5. http://generalplan.co.tulare.ca.us/documents.html, then scroll to Recirculated Draft EIR, the click on *"Appendix B-Background Report"*
[321] California Historical Resources Information System. California State University, Bakersfield. December 14, 2020.
[322] Goshen Community Plan Update EIR. Pages 3.5-19.
[323] Advisory Council on Historic Preservation. The National Historic Preservation Program. Accessed December 2020 at: http://www.achp.gov/overview.html
[324] Ibid.

statewide historic preservation programs in each state.[325] A key aspect of SHPO responsibilities include surveying, evaluating and nominating significant historic buildings, sites, structures, districts and objects to the National Register. The NHPA also established requirements for federal agencies to consider the effects of proposed federal Projects on historic properties (Section 106, NHPA).[326] Federal agencies and recipients of federal funding are required to initiate consultation with the State Historic Preservation Officer (SHPO) as part of the Section 106 review process.[327]

State

California State Office of Historic Preservation (OHP)

"The California State Office of Historic Preservation (OHP) is responsible for administering federally and state mandated historic preservation programs to further the identification, evaluation, registration and protection of California's irreplaceable archaeological and historical resources under the direction of the State Historic Preservation Officer (SHPO), a gubernatorial appointee, and the State Historical Resources Commission."[328]

"OHP's responsibilities include identifying, evaluating, and registering historic properties; ensuring compliance with federal and state regulatory obligations; encouraging the adoption of economic incentives programs designed to benefit property owners; encouraging economic revitalization by promoting a historic preservation ethic through preservation education and public awareness and, most significantly, by demonstrating leadership and stewardship for historic preservation in California."[329]

A historical resource may be eligible for inclusion in the California Register of Historical Resources (CRHR) if it:

- Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
- Is associated with the lives of persons important to our past;
- Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
- Has yielded, or may be likely to yield, information important in prehistory or history.[330]

Native American Heritage Commission

"The Native American Heritage Commission (NAHC), created in statute in 1976, is a nine-member body, appointed by the Governor, to identify and catalog cultural resources -- ancient places of special religious or social significance to Native Americans and known ancient graves and cemeteries of Native Americans on private and public lands in California. The NAHC is also charged with ensuring California Native American tribes' accessibility to ancient Native American cultural resources on public lands, overseeing the treatment and disposition of inadvertently discovered Native American human remains and burial items, and administering the California Native American Graves Protection and Repatriation Act (CalNAGPRA), among many other powers and duties."[331]

Tribal Consultation Requirements: AB 52 (Gatto, 2014)

The Public Resources Code has established that "[a] project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment." (Pub. Resources Code, § 21084.2.) To help determine whether a project may have such an effect, the Public Resources Code requires a lead agency to consult with any California Native American tribe that requests consultation and is traditionally and culturally affiliated with the geographic area of a proposed project. That consultation must take place prior to the release of a negative declaration, mitigated negative declaration, or environmental impact report for a project. (Pub. Resources Code, § 21080.3.1.) If a lead agency determines that a project may cause a substantial adverse change to tribal cultural resources, the lead agency must consider measures to mitigate that impact.[332]

[325] Op. Cit.
[326] Op. Cit.
[327] Op. Cit.
[328] Office of Historic Preservation. Mission and Responsibilities. Accessed December 2020 at: http://ohp.parks.ca.gov/?page_id=1066.
[329] Ibid.
[330] Office of Historic Preservation. California Register of Historic Places. Accessed December 2020 at: http://www.ohp.parks.ca.gov/?page_id=21238.
[331] Native American Heritage Commission. Welcome. Accessed December 2020 at: http://nahc.ca.gov/.
[332] Office of Planning and Research. Discussion Draft Technical Advisory: AB 52 and Tribal Cultural Resources in CEQA (May 2015). Page 3. Accessed December 2020 at: http://opr.ca.gov/docs/DRAFT_AB_52_Technical_Advisory.pdf.

CEQA Guidelines: Archaeological Resources

Section 15064.5(c) of CEQA Guidelines provides specific guidance on the treatment of archaeological resources as noted below.[333]

(1) When a Project will impact an archaeological site, a lead agency shall first determine whether the site is an historical resource, as defined in subdivision (a).
(2) If a lead agency determines that the archaeological site is an historical resource, it shall refer to the provisions of Section 21084.1 of the Public Resources Code, and this section, Section 15126.4 of the Guidelines, and the limits contained in Section 21083.2 of the Public Resources Code do not apply.
(3) If an archaeological site does not meet the criteria defined in subdivision (a), but does meet the definition of a unique archeological resource in Section 21083.2 of the Public Resources Code, the site shall be treated in accordance with the provisions of section 21083.2. The time and cost limitations described in Public Resources Code Section 21083.2 (c–f) do not apply to surveys and site evaluation activities intended to determine whether the Project location contains unique archaeological resources.
(4) If an archaeological resource is neither a unique archaeological nor an historical resource, the effects of the Project on those resources shall not be considered a significant effect on the environment. It shall be sufficient that both the resource and the effect on it are noted in the Initial Study or EIR, if one is prepared to address impacts on other resources, but they need not be considered further in the CEQA process.

CEQA Guidelines: Human Remains

Public Resources Code Sections 5097.94 and 5097.98 provide guidance on the disposition of Native American burials (human remains), and fall within the jurisdiction of the Native American Heritage Commission:[334]

(d) When an initial study identifies the existence of, or the probable likelihood, of Native American human remains within the Project, a lead agency shall work with the appropriate Native Americans as identified by the Native American Heritage Commission as provided in Public Resources Code Section 5097.98. The applicant may develop an agreement for treating or disposing of, with appropriate dignity, the human remains and any Items associated with Native American burials with the appropriate Native Americans as identified by the Native American Heritage Commission. Action implementing such an agreement is exempt from:
    (3) The general prohibition on disinterring, disturbing, or removing human remains from any location other than a dedicated cemetery (Health and Safety Code Section 7050.5).
    (4) The requirements of CEQA and the Coastal Act.
(e) In the event of the accidental discovery or recognition of any human remains in any location other than a dedicated cemetery, the following steps should be taken:
    (1) There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until:
        (C) The coroner of the county in which the remains are discovered must be contacted to determine that no investigation of the cause of death is required, and
        (D) If the coroner determines the remains to be Native American:
            4. The coroner shall contact the Native American Heritage Commission within 24 hours.
            5. The Native American Heritage Commission shall identify the person or persons it believes to be the most likely descended from the deceased Native American.
            6. The most likely descendent may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code Section 5097.98, or
    (2) Where the following conditions occur, the landowner or his authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance.
        (C) The Native American Heritage Commission is unable to identify a most likely descendent or the most likely descendent failed to make a recommendation within 24 hours after being notified by the commission.
        (D) The descendant identified fails to make a recommendation; or
        (C) The landowner or his authorized representative rejects the recommendation of the descendant, and the mediation by the Native American Heritage Commission fails to provide measures acceptable to the landowner.

[333] California Natural Resources Agency. 15064.5. Determining the Significance of Impacts to Archeological and Historical Resources, Section 15064.5(c). Accessed December 2020 at: http://resources.ca.gov/ceqa/guidelines/art5.html.
[334] Ibid.

(f) As part of the objectives, criteria, and procedures required by Section 21082 of the Public Resources Code, a lead agency should make provisions for historical or unique archaeological resources accidentally discovered during construction. These provisions should include an immediate evaluation of the find by a qualified archaeologist. If the find is determined to be an historical or unique archaeological resource, contingency funding and a time allotment sufficient to allow for implementation of avoidance measures or appropriate mitigation should be available. Work could continue on other parts of the building site while historical or unique archaeological resource mitigation takes place

Local

Tulare County General Plan 2030 Update

The General Plan has a number of policies that apply to Projects within Tulare County. General Plan policies that relate to the proposed Project are listed as follows:

The following Tulare County General Plan 2030 Update policies for this resource apply to this Project: *ERM-6.1 Evaluation of Cultural and Archaeological Resources* wherein the County shall participate in and support efforts to identify its significant cultural and archaeological resources using appropriate State and Federal standards; *ERM-6.2 Protection of Resources with Potential State or Federal Designations* wherein the County shall protect cultural and archaeological sites with demonstrated potential for placement on the National Register of Historic Places and/or inclusion in the California State Office of Historic Preservation's California Points of Interest and California Inventory of Historic Resources; *ERM-6.3 Alteration of Sites with Identified Cultural Resources* which states that when planning any development or alteration of a site with identified cultural or archaeological resources, consideration should be given to ways of protecting the resources. Development can be permitted in these areas only after a site specific investigation has been conducted pursuant to CEQA to define the extent and value of resource, and Mitigation Measures proposed for any impacts the development may have on the resource; *ERM-6.4 Mitigation* which states that if preservation of cultural resources is not feasible, every effort shall be made to mitigate impacts, including relocation of structures, adaptive reuse, preservation of facades, and thorough documentation and archival of records; *ERM-6.9 Confidentiality of Archaeological Sites* wherein the County shall, within its power, maintain confidentiality regarding the locations of archaeological sites in order to preserve and protect these resources from vandalism and the unauthorized removal of artifacts; and *ERM-6.10 Grading Cultural Resources Sites* wherein the County shall ensure all grading activities conform to the County's Grading Ordinance and California Code of Regulations, Title 20, § 2501 et. seq.

Project Impact Analysis

a) and b) Less Than Significant Impact With Mitigation: As noted earlier, a search of records by the Southern San Joaquin Valley Information Center of the California Historical Resources Information System identified one recorded resources (P-54-004626, an historic era railroad); a non-Native American resource. A request to the Native American Heritage Commission (NAHC) to conduct a search of the Sacred Lands Inventory on file with the NAHC occurred on December 1, 2020; results of the request came back as "negative" on January 6, 2021. Lastly, seven Native American Tribes were notified consistent with AB 52 requirements; no written responses were received and one verbal "no comment" response was received as of February 23, 2021. However, as an abundance of caution, in the unlikely event that subsurface resources are located, **Mitigation Measures 5-1** through **5-3** as specified at Item 5 Cultural Resources would be implemented thereby reducing the potential level of impact to this resource as less than significant for resources 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 to a resource consider significant to a California Native American tribe.

As noted in the Goshen Community Plan Draft EIR, "Very little of the area within the Goshen Planning Area has been surveyed, and documented resources likely exist. Utilization of the available data is integral to planning for future uses and activities and to determine the best management strategy for such resources at this phase of the planning process. All actions taken pursuant to the Goshen Community Plan shall be planned and implemented in coordination with provisions and implementing guidelines of the California Environmental Quality Act (CEQA), as amended March 18, 2010, which states that identification and evaluation of historical resources is required for any action that may result in a potential adverse effect on the significance of such resources, which includes archaeological resources. Once specific projects are planned, targeted studies can be conducted to avoid or minimize impacts to significant cultural resources."[335] As noted earlier at Item 5 Cultural Resources, based on the information contained in the CRA and shown in **Figure 5-1**, none of these resource investigations occurred near or on the proposed Project site. However, in the unlikely event of encountering a historical or archaeological resource, implementation of the **Mitigation Measures 5-1** through **5-3** (which are incorporated herein in their entirety from

[335] County of Tulare. Goshen Community Plan Update. Draft Environmental Impact Report. 3.5 Cultural Resources. Page 3.5-18 and -19.

the Goshen Community Plan Draft EIR) will reduce potential impacts to less than significant with mitigation. **Mitigation Measures 5-1** through **5-3** (which can be found in their entirety in Attachment "G" of this IS/MND), as applicable, would reduce potential Project-specific impacts related to this Checklist Item to less than significant.

Summary of Mitigation Measures:

5-1. Discovery of resources during excavation, suspension of work, retention of qualified archaeologist/paleontologist, implementation of measures to protect resources.

5-2. Cessation of work activities, County notification, determination of significance, actions to be taken as determined by a qualified archaeologist/paleontologist, treatment plan, collaboration with affected Native American Tribe.

5-3. Inadvertent discovery of human remains during excavation, cessation of excavation or disturbance, contact of Coroner/Sheriff, contact NAHC, and dignified reburial.

Therefore, implementation of Mitigation Measure 5-1 through 5-3 would result in a less than significant impact to this item.

Cumulative Impact Analysis

The geographic area of this cumulative analysis is Tulare County. This cumulative analysis is based on the information provided in the Tulare County 2030 General Plan, General Plan background Report, Tulare County 2030 General Plan EIR, and/or Goshen Community Plan Update and EIR.

It is not anticipated that Native American remains or other cultural will be found at the proposed Project site. However, consistent with CEQA requirements, **Mitigation Measures 5-1** through **5-3** are included in the unlikely event that if Native American remains are unearthed during any ground disturbance activities, or if any cultural resources are discovered, such finds will be mitigated to less than significant Project-specific and Cumulative Impacts.

Mitigation Measure(s) See **Mitigation Measures 5-1** through **5-3** in their entirety in Attachment "G".

19.	**UTILITIES AND SERVICE SYSTEMS**					
Would the project:			**SIGNIFICANT IMPACT**	**LESS THAN SIGNIFICANT IMPACT WITH MITIGATION**	**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?	☐	☐	☐	☒

The discussions regarding Environmental Setting, CEQA requirements, Regulatory Setting, Chapter 3.17 Utilities and Service Systems, Chapters 4 through 9, Appendices "A" through "I", etc. contained in the Goshen Community Plan Update and Environmental Impact Report are incorporated herein in their entirety. Where necessary and if available, additional site specific facts, data, information, etc., are included in this discussion.

Environmental Setting

"Tulare County and special districts provide many important services to County residents and businesses in unincorporated communities and hamlets such as water, wastewater, storm drainage, solid waste removal, utilities, communications, fire protection, law enforcement, and a number of other community facilities and services (schools, community centers, etc.)."[336]

"The Goshen CSD is responsible for the planning and construction of a sewage collection system. The main sewer system for the Goshen community is comprised of a collection system that was constructed in the mid to late 1990s. The construction of the District's sewer system was funded through a United States Department of Agriculture Rural Economic and Community Development Grant and a Small Community Grant. Pursuant to obtaining funding for the Goshen Sewer Project, the Goshen CSD entered into a Wastewater Service Agreement with the City of Visalia for treatment of the District's wastewater.

Connection from the District's sewer system to the City of Visalia's sewer system is through a 24-inch gravity sewer under Camp Drive. The 24-inch line connects to the existing City SR198-Airport lift station. The District constructed the 24-inch line as a part of the Goshen Sewer Project, although the line is part of the City's Master Planned Sewer System. After the line was placed in operation, the City assumed responsibility for maintenance of the line as a part of the City conveyance system. The City is responsible for improvements to its lift station and conveyance facilities downstream of the point of connection. The 24-inch line is planned to provide full capacity for the ultimate build-out of the Goshen CSD SOI. The District is responsible for the costs of construction and installation of any and all sewer line(s) from the District's collection system, and for any flow meters, automated sampling, or odor control devices. Other key issues identified in the Wastewater Service Agreement, between the Goshen CSD and the City of Visalia, are identified below.

- The District agrees to make a good faith effort to notify the City of any potential increases in effluent flow, biochemical oxygen demand, suspended solids and other potential pollutant levels indicated by any commercial and/or industrial development inquiries that would significantly affect the quantity and/or quality of the District's discharge to the City system as soon as such potential impacts are made known to the District.
- The City shall not contract, agree or otherwise create wastewater collection treatment and disposal service with any entity, corporation or individual which resides, does business within or requests service for any parcel, building, street or property within the boundary of the District.
- The Goshen Sewer Project included several 18-inch lines and the 24-inch line that are part of the City's Master Planned Sewer System. The City credited the District with the estimated cost of the lines as set forth in the City Master Plan.
- The City has identified areas of the City that sewer services may be provided by connection to the District facilities. The District agrees to consider such connections on a case by case basis. Such requests by the City shall be submitted in writing and shall indicate the point of proposed connection and the anticipated flows and pollutant loadings. Approval of such connections shall be at the sole discretion and decision of the District. The City shall make no connections to the District facilities without the prior written approval of the District.
- The District shall have the right to an amount of reclaimed water not to exceed the yearly total flow the District conveys to the City for treatment and disposal. The District shall be entitled to the reclaimed water without payment to the City other than the pro-rata share of the expense of transmission facilities and related operation and maintenance costs of the City facilities used to convey the reclaimed water. The District shall be responsible for the cost of the connection to the City reclaimed water system and conveyance facilities from the City system to the District point of use.

The District's wastewater collection system dumps into a lift station (owned and operated by the District) near the intersection of Avenue 305 and Effie Drive, which in turn pumps the wastewater into the 24-inch line in Camp Drive. The sewer lift station operates with two pumps, and has a design capacity of 500,000 gallons per day (GPD). The Wastewater Service Agreement between City of Visalia and the Goshen Community Services District allows for a current contracted average daily discharge to the City's treatment plant of 335,000 GPD. The Wastewater Service Agreement does provide for the purchase of additional capacity to be charged on a percentage increase basis.

[336] Tulare County General Plan Update 2030. Page 14-3.

Based upon the information in Table 3.17-1 [in the Draft EIR], "the District contributed an average daily flow of approximately 264,000 gallons per day of raw sewage to the wastewater treatment plant maintained and operated by the City of Visalia in 2003. Service data provided by the Goshen CSD included the following information:

- Current (2004) Demands: 270,000 gallons per day
- 2025 Demands: Study in Progress
- Current Facility Capacity: Estimated 500,000 gallons per day
- Maximum Service without Expansion: 500,000 gallons per day
- Maximum Facility Capacity at Master Plan Build-out: Study in Progress

As of November 2005, the District was contributing an average daily flow of approximately 315,000 GPD of raw sewage to the City's WWTF. Assuming the District can accommodate up to 500,000 GPD based upon the limitations of the lift station, it can be concluded that the District's sewer system is operating at approximately 65% of its capacity

Written Determinations

1. "The main sewer system for the Goshen community is comprised of a collection system which was constructed in the mid to late 1990s. The construction of the District's sewer system was funded through a United States Department of Agriculture, Rural Economic and Community Development Grant, and Small Community Grant.
2. Pursuant to obtaining funding for the Goshen Sewer Project, the Goshen CSD entered into a Wastewater Service Agreement with the City of Visalia for treatment of the District's wastewater.
3. The District's wastewater collection system dumps into a lift station (owned and operated by the District) near the intersection of Avenue 305 and Effie Drive, which in turn, pumps the wastewater into a 24-inch line in Camp Drive (that is owned and maintained by the City of Visalia). The sewer lift station operates with two pumps, and has a design capacity of 500,000 GPD.
4. The Wastewater Service Agreement between City of Visalia and the Goshen CSD allows for a current contracted average daily discharge to the City's treatment plant of 335,000 GPD. The Wastewater Service Agreement does provide for the purchase of additional capacity which would be charged on a percentage increase basis.
5. As of November 2005, the District was contributing an average daily flow of approximately 315,000 GPD of raw sewage to the City's WWTF. Assuming the District can accommodate up to 500,000 GPD based upon the limitations of the lift station, it can be concluded that the District's sewer system is operating at approximately 65% of its capacity.
6. The District is currently working towards the adoption of a Sewer System Master Plan, which will assist the District in expanding its collection system in line with development trends and the needs of the community. The Sewer System Master Plan should be consistent with and coordinated with the *Tulare County General Plan Update* and the *Goshen Community Plan* update to provide for a sound connection between land zoned for development and the sanitary sewer infrastructure that will serve such development. The Master Plan should also identify funding sources to construct future capital improvements"[337]

Goshen Water Supply

"Tulare County, including the Goshen Community Plan Area is located within the Tulare Lake Basin. The County also has four (4) river watersheds providing water to the county. Goshen lies within the Kaweah Watershed and receives its local water supply primarily from the Kaweah River and operations of Terminus Reservoir/Lake Kaweah. The Tulare County General Plan states the groundwater quality is generally satisfactory for crop irrigation and urban uses. The domestic water service provider for the Goshen Community Plan Area is Cal Water with the source being groundwater.

Goshen's water supply system is owned, operated, and maintained by California Water Service Company (Cal Water). Cal Water operates and maintains the overall Visalia District (Visalia Water System), which included the City of Visalia, community of Goshen, and other private water systems that have been annexed to the Visalia District in recent years.

In 2000, depth to water ranged from 35 feet to 100 feet. The general trend was for water levels to be deeper to the west and to the south, with increasing distance from the St. John River. Depth to water was greater than 80 feet beneath the west part of Visalia and beneath Goshen.

Yields of Cal Water system wells in the Goshen area range from about 400 to 800 gpm. These wells are generally about 400 feet deep and generally have perforation below a depth of about 200 feet. These wells are perforated below the confining bed in the area, and most do not have annular seals extending opposite all of the strata above the confining bed.

[337] County of Tulare. Goshen Community Plan Update. Draft Environmental Impact Report. Pages 3.17-2 through -4.

In 2005, the yearly water consumption was approximately 279 million gallons or 856 Acre-feet.

A water supply needs forecast/analysis was prepared in a memorandum prepared by consultants for Provost & Pritchard (by Mr. D. McGlasson and Mr. J. Bowen, see Appendix "G" of this DEIR) Cal Water supplied "1,021 water services in Goshen, and another 80 or so residential services in West Goshen for a total of 1,101 services. Of the Goshen services, approximately 95% (or 970) are residential while the others (51) are small businesses, either commercial or industrial land uses. Applying the County's standard household formation rate of 3.1 persons per household (pph) to the 1,050 residential services in both Goshen and West Goshen combined implies a population of 3,255 in the current year.

Assuming the current 3.1 pph remains constant, and using the 2010 General Plan Background Report population growth rate of 1.3% annually to project to 2030, Goshen (including West Goshen) could reach 4,613 persons in Year 2030, an increase of 1,358 persons (42%) from 2013. This population would imply a need for a total of 1,318 residential services at that time.

Recorded Water Usage

In order to estimate Goshen's current water demand and create future projections, a monthly demand curve was estimated using the shape of the Goshen demand curve, and overall water use was pro-rated up to include the 80 additional residences in West Goshen. Peaking factors observed in the community of Goshen were used to produce the following table [Table 3.17-3 in the Draft EIR]

Projected Water Usage

The community's 1,101 connections used 253.2 million gallons of water in 2013, or about 229,000 gallons per year per connection. This is approximately 0.70 AF/year, which is modest usage in the Central Valley. Projecting this usage to the future 1,318 connection results in a projected annual water demand of (1,318 x 229,000 = 301,822,000 gallons) in 2030. (see Table 3.17-4 [in the Draft EIR]). Between 2013 and 2030, water consumption is projected to increase by 48.6 mg/y, an increase of 42% in accordance with the projected population increase.

Mr. McGlasson further indicated that mitigation measures can be implemented to off-set the potential growth of water consumption as summarized below:

The following are feasible mitigation measures that could allow the impact to be reduced to less than significance. Each of these is currently in use in one or more California communities:

1. Install water meters and adopt a use-weighted rate schedule to encourage reduced usage by the rate-payers.
2. Retrofit homes with water-efficient faucets, showers and toilets.
3. Limit permissible landscape area for each residence to 2,500 square feet or less.
4. Adopt limited outdoor watering days and hours (now in force statewide, as of August 1, 2014, by order of the Department of Water Resources).
5. Mandate use of native and drought-tolerant species for all landscaping.
6. Acquire a new surface water supply that could be shown to benefit the basin and offset the pumping that comes with growth.

The first five of these measures could reduce per-unit water consumption by 25-30 percent, which is good but not enough to offset 30 years of 1.3-percent growth."[338]

"Goshen Community Services District

"The Goshen CSD is responsible for the planning and construction of a sewage collection system. The main sewer system for the Goshen community is comprised of a collection system that was constructed in the mid to late 1990s. The construction of the District's sewer system was funded through a United States Department of Agriculture Rural Economic and Community Development Grant and a Small Community Grant. Pursuant to obtaining funding for the Goshen Sewer Project, the Goshen CSD entered into a Wastewater Service Agreement with the City of Visalia for treatment of the District's wastewater.

Connection from the District's sewer system to the City of Visalia's sewer system is through a 24-inch gravity sewer under Camp Drive. The 24-inch line connects to the existing City SR198-Airport lift station. The District constructed the 24-inch line

[338] Ibid. 3.17-6 through -8.

as a part of the Goshen Sewer Project, although the line is part of the City's Master Planned Sewer System. After the line was placed in operation, the City assumed responsibility for maintenance of the line as a part of the City conveyance system. The City is responsible for improvements to its lift station and conveyance facilities downstream of the point of connection. The 24-inch line is planned to provide full capacity for the ultimate build-out of the Goshen CSD SOI. The District is responsible for the costs of construction and installation of any and all sewer line(s) from the District's collection system, and for any flow meters, automated sampling, or odor control devices. Other key issues identified in the Wastewater Service Agreement, between the Goshen CSD and the City of Visalia, are identified below.

- The District agrees to make a good faith effort to notify the City of any potential increases in effluent flow, biochemical oxygen demand, suspended solids and other potential pollutant levels indicated by any commercial and/or industrial development inquiries that would significantly affect the quantity and/or quality of the District's discharge to the City system as soon as such potential impacts are made known to the District.
- The City shall not contract, agree or otherwise create wastewater collection treatment and disposal service with any entity, corporation or individual which resides, does business within or requests service for any parcel, building, street or property within the boundary of the District.
- The Goshen Sewer Project included several 18-inch lines and the 24-inch line that are part of the City's Master Planned Sewer System. The City credited the District with the estimated cost of the lines as set forth in the City Master Plan.
- The City has identified areas of the City that sewer services may be provided by connection to the District facilities. The District agrees to consider such connections on a case by case basis. Such requests by the City shall be submitted in writing and shall indicate the point of proposed connection and the anticipated flows and pollutant loadings. Approval of such connections shall be at the sole discretion and decision of the District. The City shall make no connections to the District facilities without the prior written approval of the District.
- The District shall have the right to an amount of reclaimed water not to exceed the yearly total flow the District conveys to the City for treatment and disposal. The District shall be entitled to the reclaimed water without payment to the City other than the pro-rata share of the expense of transmission facilities and related operation and maintenance costs of the City facilities used to convey the reclaimed water. The District shall be responsible for the cost of the connection to the City reclaimed water system and conveyance facilities from the City system to the District point of use.

The District's wastewater collection system dumps into a lift station (owned and operated by the District) near the intersection of Avenue 305 and Effie Drive, which in turn pumps the wastewater into the 24-inch line in Camp Drive. The sewer lift station operates with two pumps, and has a design capacity of 500,000 gallons per day (GPD). The Wastewater Service Agreement between City of Visalia and the Goshen Community Services District allows for a current contracted average daily discharge to the City's treatment plant of 335,000 GPD. The Wastewater Service Agreement does provide for the purchase of additional capacity to be charged on a percentage increase basis. Also, see earlier discussion regarding wastewater and the information in Table 3.17-1 [in the Draft EIR]**.**

The District is currently working towards the adoption of a Sewer System Master Plan, which will assist the District in expanding its collection system in line with development trends and the needs of the community. The Sewer System Master Plan should be consistent with and coordinated with the *Tulare County General Plan Update* and the *Goshen Community Plan* update to provide for a sound connection between land zoned for development and the sanitary sewer infrastructure that will serve such development. The Master Plan should also identify funding sources to construct future capital improvements. See Table 3.17-2. [in the Draft EIR]"[339]

Drainage

"The entire County of Tulare is under the jurisdiction of the Tulare County Flood Control District which has the authority to address local drainage, flooding, and related issues. According to the Tulare County General Plan Update, localized drainage issues do occur throughout the County but they are generally in proximity to floodplains. There are two (2) levees built near Goshen, but the Goshen Community Plan Area is not located within the levee districts.

Most of the Drainage is directed via surface flow. There are a number of inlets and pipes on either side of the railroad that carry runoff to the drainage basin commonly referred to by locals as "the Goshen Ocean" (APN 073-160-001). The area west of SR 99 has very little drainage improvements."[340] It is noted that the Project will include a storm water detention basin to accommodate local drainage/storm water resulting from development of the Project.

[339] Op. Cit. 3.17-8 through -10.
[340] Op. Cit. 3.17-10.

County of Tulare Solid Waste Services

"Solid waste disposal is provided privately by the Mid Valley Disposal for weekly solid waste collection. Solid waste collected in Goshen is deposited at the Visalia Land Fill. The Tulare County Solid Waste Department (communication with Mr. Scott Pfanstiel), states aerial usage rate shows 140 years remaining landfill capacity. No constraints to growth have been identified.

Tulare County Environmental Health Agency holds two biannual hazardous material drop off events in which residents of Tulare County can drop off their household recyclable and disposable hazardous materials."[341]

Regulatory Setting

Federal

U.S. Environmental Protection Agency (U.S. EPA) - Federal Regulation Tile 40, Part 503

In 1993, the U.S. Environmental Protection Agency (U.S. EPA) promulgated Standards for the Use or Disposal of Sewage Sludge (Code of Federal Regulations Title 40, Part 503), which establish pollutant limitations, operational standards for pathogen and vector attraction reduction, management practices, and other provisions intended to protect public health and the environment from any reasonably anticipated adverse conditions from potential waste constituents and pathogenic organisms.

This part establishes standards, which consist of general requirements, pollutant limits, management practices, and operational standards, for the final use or disposal of sewage sludge generated during the treatment of domestic sewage in a treatment works. Standards are included in this part for sewage sludge applied to the land, placed on a surface disposal site, or fired in a sewage sludge incinerator. Also included in this part are pathogen and alternative vector attraction reduction requirements for sewage sludge applied to the land or placed on a surface disposal site.

In addition, the standards in this part include the frequency of monitoring and recordkeeping requirements when sewage sludge is applied to the land, placed on a surface disposal site, or fired in a sewage sludge incinerator. Also included in this part are reporting requirements for Class I sludge management facilities, publicly owned treatment works (POTWs) with a design flow rate equal to or greater than one million gallons per day, and POTWs that serve 10,000 people or more.[342]

Resource Conservation and Recovery Act (RCRA)[343]

Congress passed RCRA on October 21, 1976 to address the increasing problems the nation faced from our growing volume of municipal and industrial waste. RCRA, which amended the Solid Waste Disposal Act of 1965, set national goals for:

- Protecting human health and the environment from the potential hazards of waste disposal.
- Conserving energy and natural resources.
- Reducing the amount of waste generated.
- Ensuring that wastes are managed in an environmentally-sound manner
- To achieve these goals, RCRA established three distinct, yet interrelated, programs:
  - ✓ The solid waste program, under RCRA Subtitle D, encourages states to develop comprehensive plans to manage nonhazardous industrial solid waste and municipal solid waste, sets criteria for municipal solid waste landfills and other solid waste disposal facilities, and prohibits the open dumping of solid waste.
  - ✓ The hazardous waste program, under RCRA Subtitle C, establishes a system for controlling hazardous waste from the time it is generated until its ultimate disposal — in effect, from "cradle to grave."
  - ✓ The underground storage tank (UST) program, under RCRA Subtitle I, regulates underground storage tanks containing hazardous substances and petroleum products. RCRA banned all open dumping of waste, encouraged source reduction and recycling, and promoted the safe disposal of municipal waste. RCRA also mandated strict controls over the treatment, storage, and disposal of hazardous waste.

State

[341] Op. Cit.
[342] Title 40: Protection of Environment Part 503: Standards for the Use of Disposal of Sewage Sludge. Accessed December 2020 at: http://www.ecfr.gov/cgi-bin/text-idx?SID=faac2040ebd49d57cc2786437545c8cf&node=40:30.0.1.2.42.1.13.1&rgn=div8.
[343] United States Environmental Protection Agency. Accessed December 2020 at: https://www.epa.gov/laws-regulations/summary-resource-conservation-and-recovery-act ; then click on "EPA History: RCRA".

The Integrated Waste Management Act (Assembly Bill 939)

In 1989 the California legislature passed the Integrated Waste Management Act of 1989, known as AB 939. The bill mandates a reduction of waste being disposed: jurisdictions were required to meet diversion goals of 25% by 1995 and 50% by the year 2000. AB 939 also established an integrated framework for program implementation, solid waste planning, and solid waste facility and landfill compliance.

State Water Quality Control Board

"The State Water Resources Control Board (State Water Board) was created by the Legislature in 1967. The joint authority of water allocation and water quality protection enables the State Water Board to provide comprehensive protection for California's waters. The State Water Board consists of five full-time salaried members, each filling a different specialty position. Board members are appointed to four-year terms by the Governor and confirmed by the Senate. There are nine Regional Water Quality Control Boards (Regional Boards). The mission of the Regional Boards is to develop and enforce water quality objectives and implementation plans that will best protect the State's waters, recognizing local differences in climate, topography, geology and hydrology. Each Regional Board has seven part-time members appointed by the Governor and confirmed by the Senate. Regional Boards develop "basin plans" for their hydrologic areas, issue waste discharge requirements, take enforcement action against violators, and monitor water quality. The task of protecting and enforcing the many uses of water, including the needs of industry, agriculture, municipal districts, and the environment is an ongoing challenge for the State and Regional Water Quality Control Boards."[344]

Regional Water Quality Control Board (RWQCB)

"There are nine Regional Water Quality Control Boards (Regional Boards). The mission of the Regional Boards is to develop and enforce water quality objectives and implementation plans that will best protect the State's waters, recognizing local differences in climate, topography, geology and hydrology. Each Regional Board has seven part-time members appointed by the Governor and confirmed by the Senate. Regional Boards develop "basin plans" for their hydrologic areas, issue waste discharge requirements, take enforcement action against violators, and monitor water quality."[345]

The Regional Water Quality Control Board – Biosolids

In California, the beneficial reuse of treated municipal sewage sludge *(a.k.a.,* biosolids*)* generally must comply with the California Water Code in addition to meeting the requirements specified in Part 503 in Title 40 of the Code of Federal Regulations.

In July 2004, the State Water Resources Control Board adopted Water Quality Order No. 2004-12-DWQ (General Order), and certified a supporting statewide Programmatic Environmental Impact Report (PEIR)

The General Order incorporates the minimum standards established by the Part 503 Rule and expands upon them to fulfill obligations to the California Water Code. However, since California does not have delegated authority to implement the Part 503 Rule, the General Order does not replace the Part 503 Rule. The General Order also does not preempt or supersede the authority of local agencies to prohibit, restrict, or control the use of biosolids subject to their jurisdiction, as allowed by law.

Persons interested in seeking coverage under the General Order should contact the appropriate Regional Water Quality Control Board. Only applicants who submit a complete *Notice of Intent* (NOI), appropriate application fee, and are issued a Notice of Applicability by the executive officer of the appropriate Regional Water Quality Control Board are authorized to land apply biosolids at an agricultural, horticultural, silvicultural, or land reclamation site as a soil amendment under the General Order.

State Water Resources Control Board, Divisions of Drinking Water and Clean Water

Recycled water regulations are administered by both Central RWQCB and the California State Water Resources Control Board (SWRCB). The regulations governing recycled water are found in a combination of sources, including the Health and Safety Code, Water Code, and Titles 22 and 17 of the California Code of Regulations (CCR). Issues related to the treatment and distribution of recycled water are generally under the permitting authority of RWQCB and the Clean Water Division of the SWRCB. .

[344] State Water Board Website. Accessed December 2020 at: http://www.waterboards.ca.gov/about_us/water_boards_structure/mission.shtml.
[345] Ibid.

State NPDES General Construction Permit

The State NPDES General Construction Permit requires development and implementation of a Storm Water Pollution Prevention Plan (SWPPP) that uses storm water "Best Management Practices" to control runoff, erosion and sedimentation from the site both during and after construction. The SWPPP has two major objectives: (1) to help identify the sources of sediments and other pollutants that affect the quality of storm water discharges; and (2) to describe and ensure the implementation of practices to reduce sediment and other pollutants in storm water discharges.

CalRecycle

CalRecycle (formerly the California Integrated Waste Management Board) governs solid waste regulations on the state level, delegating local permitting, enforcement, and inspection responsibilities to Local Enforcement Agencies (LEA). Regulations authored by CalRecycle (Title 14) were integrated with related regulations adopted by the State Water Resources Control Board (SWRCB) pertaining to landfills (Title 23, Chapter 15) to form CCR Title 27.

California Public Utilities Commission

The California Public Utilities Commission (CPUC) regulates privately owned electric, natural gas, telecommunications, water, railroad, rail transit, and passenger transportation companies, in addition to authorizing video franchises. In 1911, the CPUC was established by Constitutional Amendment as the Railroad Commission. In 1912, the Legislature passed the Public Utilities Act, expanding the Commission's regulatory authority to include natural gas, electric, telephone, and water companies as well as railroads and marine transportation companies. In 1946, the Commission was renamed the California Public Utilities Commission. It is tasked with ensuring safe, reliable utility service is available to consumers, setting retail energy rates, and protecting against fraud.

Local

County of Tulare Solid Waste Services

Solid waste collection in the Goshen area is provided by Mid-Valley Disposal (a private vendor), which has a license with County of Tulare. Tulare County operates two active landfills: Visalia and Teapot Dome. The Visalia landfill has enough capacity to provide at least 140 years (2014- 2154) of disposal capacity (Scott Pfanstiel (retired), Solid Waste Department).

Assembly Bill 939 requires cities and counties to reduce their solid waste volumes by 25 percent by 1995 and 50 percent by the year 2000. To achieve this reduction in volume, AB 939 requires local entities to devise a materials recovery facility by composting organic materials; recycling paper, metal, glass, and plastic; and by diverting household hazardous waste to the Kettlemen Hills waste facility.

Tulare County General Plan 2030 Update

As the Project will not utilize any new or expanded water, wastewater treatment or storm water drainage, natural gas, or telecommunications facilities, the applicable Tulare County General Plan 2030 Update policies for this resource are limited to the following for this resource item: *PFS-2.1 Water Supply* where in the County shall work with agencies providing water service to ensure that there is an adequate quantity and quality of water for all uses, including water for fire protection, by, at a minimum, requiring a demonstration by the agency providing water service of sufficient and reliable water supplies and water management measures for proposed urban development; *PFS-2.3 Well Testing* where in the County shall require new development that includes the use of water wells to be accompanied by evidence that the site can produce the required volume of water without impacting the ability of existing wells to meet their needs; *PFS-2.4 Water Connections* where in the County shall require all new development in UDBs, UABs, Community Plans, Hamlet Plans, Planned Communities, Corridor Areas, Area Plans, existing water district service areas, or zones of benefit, to connect to the community water system, where such system exists. The County may grant exceptions in extraordinary circumstances, but in these cases, the new development shall be required to connect to the water system when service becomes readily available; *PFS-2.5 New Systems or Individual Wells* where connection to a community water system is not feasible per PFS-2.4: Water Connections, service by individual wells or new community systems may be allowed if the water source meets standards for quality and quantity; *PFS-3.1 Private Sewage Disposal Standards* where in the County shall maintain adequate standards for private sewage disposal systems (e.g., septic tanks) to protect water quality and public health; *PFS-3.2 Adequate Capacity* where in the County shall require development proposals to ensure the intensity and timing of growth is consistent with the availability of adequate wastewater treatment and disposal capacity; *PFS-3.4 Alternative Rural Wastewater Systems* where in the County shall consider alternative rural wastewater systems for areas outside of community UDBs and HDBs that do not have current systems or system capacity. For individual users, such systems include elevated leach fields, sand filtration

systems, evapotranspiration beds, osmosis units, and holding tanks. For larger generators or groups of users, alternative systems, including communal septic tank/leach field systems, package treatment plants, lagoon systems, and land treatment, can be considered; *PFS-4.1 Stormwater Management Plans* where in the County shall oversee, as per Community Plan Content Table PF-2.1 and Specific Plan Content, Hamlet Plans Policy PF-3.3, and Table LU-4.3, the preparation and adoption of stormwater management plans for communities and hamlets to reduce flood risk, protect soils from erosion, control stormwater, and minimize impacts on existing drainage facilities, and develop funding mechanisms as a part of the Community Plan and Hamlet Plan process; *PFS-4.2 Site Improvements* where in the County shall ensure that new development in UDBs, UABs, Community Plans, Hamlet Plans, Planned Communities, Corridor Areas, and Area Plans includes adequate stormwater drainage systems. This includes adequate capture, transport, and detention/retention of stormwater; *PFS-4.3 Development Requirements* where in the County shall encourage project designs that minimize drainage concentrations and impervious coverage, avoid floodplain areas, and where feasible, provide a natural watercourse appearance; *PFS-4.4 Stormwater Retention Facilities* where in the County shall require on-site detention/retention facilities and velocity reducers when necessary to maintain existing (pre-development) storm flows and velocities in natural drainage systems. The County shall encourage the multi-purpose design of these facilities to aid in active groundwater recharge; *PFS-4.5 Detention/Retention Basins Design* where in the County shall require that stormwater detention/retention basins be visually unobtrusive and provide a secondary use, such as recreation, when feasible; *PFS-4.6 Agency Coordination* where in the County shall work with the Army Corps of Engineers and other appropriate agencies to develop stormwater detention/retention facilities and recharge facilities that enhance flood protection and improve groundwater recharge; *PFS-4.7 NPDES Enforcement* where in the County shall continue to monitor and enforce provisions to control non-point source water pollution contained in the U.S. Environmental Protection Agency National Pollution Discharge Elimination System (NPDES) program; *PFS-5.1 Land Use Compatibility with Solid Waste Facilities* where in the County shall ensure that solid waste facility sites (for example, landfills) are protected from the encroachment by sensitive and/or incompatible land uses; *PFS-5.3 Solid Waste Reduction* wherein the County shall promote the maximum feasible use of solid waste reduction, recycling, and composting of waste, strive to reduce commercial and industrial waste on an annual basis, and pursue financing mechanisms for solid waste reduction programs; *PFS-5.4 County Usage of Recycled Materials and Products* wherein the County shall encourage all industries and government agencies in the County to use recycled materials and products where economically feasible*;PFS-5.8 Hazardous Waste Disposal Capabilities* wherein the County shall require the proper disposal and recycling of hazardous materials in accordance with the County's Hazardous Waste Management Plan; and *PFS-5.9 Agricultural Waste* wherein the County shall investigate waste disposal and reuse needs for agricultural wastes for energy and other beneficial uses and shall change County plans accordingly.

Project Impact Analysis

a) Less Than Significant Impact With Mitigation: The Project would not require or result in the relocation or construction of new or expanded water facilities as Cal Water will provide water. The applicant will be required to receive a Will Serve letter from the Goshen Community Service District (CSD) indicating that it can accommodate the proposed Project's wastewater needs. A Stormwater detention will be provided on site, as such, there is no need to construct or expand storm water drainage facilities. Electric power will be provided by Southern California Edison, natural gas by the Gas Company (Southern California Gas), and telecommunications facilities are available from both wire and wireless providers in the area (e.g., AT&T, T-Mobile, Sprint, etc.) as needed. As such, the construction or relocation of these utilities can either be through existing facilities thereby avoiding significant environmental effects. As noted earlier, Cal Water will provide potable water. The ability to provide a reliable water supply is documented in the Goshen Community Plan Update EIR for the entire Goshen Urban Development boundary area, which includes this Project. As such, the Project is consistent with and implements the Goshen Community Plan Update thereby resulting in a less than significant impact to this resource.

Mitigation Measure(s): None Required.

b) Less Than Significant: As indicated in the Goshen Community Plan Draft EIR Chapter 3.17 Utilities and Service Systems, Goshen Water Supply discussion, total usage of water at buildout of the community plan would result in an increase of a total of approximately 0.76-acre feet from Year 2014 to Year 2030. Based on this projected increase, there are sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years. As such, the Project is consistent with and implements the Goshen Community Plan Update thereby resulting in a less than significant impact to this resource.

c) Less Than Significant With Mitigation: As noted in Item a), earlier, the CSD has the capacity to accommodate the proposed Project's sanitary sewer needs. As such, the proposed Project would result in a less than significant impact to this resource.

d) and e) Less Than Significant Impact: The Tulare County Solid Waste Department has verified that the nearest landfill (Visalia landfill) has sufficient capacity to accommodate solid waste generated by the Project (see earlier citation of

conversation with Mr. Scott Pfanstiel indicating that Visalia Landfill has the capacity to accommodate additional solid waste to the Year 2154). As such, the Project would not 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 and it will comply with federal, state, and local management and reduction statutes and regulations related to solid waste as applicable.

Cumulative Impact Analysis:

The geographic area of this cumulative analysis is Tulare County. This cumulative analysis is based on the information provided in the Tulare County 2030 General Plan, General Plan Background Report, Tulare County 2030 General Plan EIR, and/or Goshen Community Plan Update and EIR.

The Project would not require or result in the relocation or construction of new or expanded water facilities there are sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years. The Project will require mitigation to the wastewater conveyance system in the form of a wastewater lift station(s), as determined by the CSD, which will be implemented as a project design feature. A Stormwater detention will be provided on site, as such, there is no need to construct or expand storm water drainage facilities. Electric power will be provided by Southern California Edison, natural gas by the Gas Company (Southern California Gas), and telecommunications facilities are available from both wire and wireless providers in the area (e.g., AT&T, T-Mobile, Sprint, etc.) as needed. Lastly, the Project would not 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 and it will comply with federal, state, and local management and reduction statutes and regulations related to solid waste. As such, after implementing the project design feature in regards to wastewater conveyance, the Project would result in a less than significant impact.

Mitigation Measure(s): None Required.

The proposed Project will result in less than significant Project-specific impact with mitigation and thus will result in less than significant Cumulative impact with mitigation.

20. WILDFIRES

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:			SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	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?	☐	☐	☐	☒

The discussions regarding Environmental Setting, CEQA requirements, Regulatory Setting, Chapters 4 through 9, Appendices "A" through "I", etc. contained in the Goshen Community Plan Update and Environmental Impact Report are incorporated herein in their entirety. Where necessary and if available, additional site specific facts, data, information, etc., are included in this discussion.

Environmental Setting

"A wildfire is an uncontrolled fire spreading through vegetative fuels. Wildfires can be caused by human activities (such as arson or campfires) or by natural events (such as lightning). Wildfires often occur in forests or other areas with ample vegetation. Wildfires differ from other fires due to their large size, the speed at which the fires can spread, and the ability of the fire to change direction unexpectedly and to jump gaps, such as roads, rivers, and fire breaks. In areas where structures and other human development meet or intermingle with wildland or vegetative fuels (referred to as the wildland urban interface or WUI), wildfires can cause significant property damage and present extreme threats to public health and safety. The following three factors contribute significantly to wildfire behavior and can be used to identify wildfire hazard areas.

Topography: As slope increases, the rate of wildfire spread increases. South-facing slopes are also subject to more solar radiation, making them drier and thereby intensifying wildfire behavior. However, ridgetops may mark the end of wildfire spread because fire spreads more slowly or may even be unable to spread downhill.

Fuel: The type and condition of vegetation plays a significant role in the occurrence and spread of wildfires. Certain types of plants are more susceptible to burning or will burn with greater intensity, and non-native plants may be more susceptible to burning than native species. Dense or overgrown vegetation increases the amount of fuel load. The ratio of living to dead plant matter is also important. The risk of fire increases significantly during periods of prolonged drought, as the moisture content of both living and dead plant matter decreases; or when a disease or infestation has caused widespread damage. The fuel's continuity, both horizontally and vertically, is also an important factor.

Weather: The most variable factor affecting the behavior of wildfires is weather. Temperature, humidity, wind, and lightning can affect chances for ignition and spread of fire. Extreme weather, such as high temperatures and low humidity, can lead to extreme wildfire activity. By contrast, cooling and higher humidity often signal reduced wildfire occurrence and easier containment. Years of precipitation followed by warmer years tend to encourage more widespread fires and longer burn periods. Also, since the mid-1980s, earlier snowmelt and associated warming due to global climate change has been associated with longer and more severe wildfire seasons in the western U.S.

Wildfires can have serious effects on the local environment, beyond the removal of vegetation. Soil exposed to intense heat may lose its capability to absorb moisture and support life. Exposed soils erode quickly and enhance siltation of rivers and streams, thereby enhancing flood potential, harming aquatic life, and degrading water quality. Lands stripped of vegetation are also subject to increased debris flow hazards, as described above. Wildfires can also greatly affect the air quality of the surrounding area.

History: Historical information between 1910 and 2014 indicates that 610 wildfires occurred in the County which burned approximately 1,328,000 acres during this 104-year time period. The following causes represent approximately 95% of the 610 recorded wildfires (approximately 1.3 million acres), and are included as follows: miscellaneous 36% (532,800 acres); lightning 27% (309,000 acres); unknown or unidentified 14% (97,000 acres); arson 8% (63,300 acres); equipment use 5% (43,500 acres); smoking 3% (53,400 acres); and campfires 2% (184,600 acres). The remaining causes which include escaped prescribed burns, debris, vehicles, structures, power-lines, railroads and playing with fire account for the remaining 5% (44,400 acres) of the recorded wildfires. Appendix C [of the Tulare County 2017 Multi-Jurisdictional Local Hazard Mitigation Plan (MJLHMP)] lists documented fires over 1000 acres that have burned in the County since 1985.

Location: Public Resources Code 4201-4204 and Government Code 51175-89 directed CAL FIRE to map areas of significant fire hazards based on fuels, terrain, weather, and other relevant factors. These zones are referred to as fire hazard severity zones and represented as very high, high and moderate. Specifically, the maps were created using data and models describing development patterns, potential fuels over a 30- to 50-year time horizon, expected fire behavior and expected burn probabilities. The maps are divided into local responsibility areas and State responsibility areas.

Local responsibility areas generally include incorporated cities, cultivated agriculture lands and portions of the desert. Local responsibility area fire protection is typically provided by city fire departments, fire protection districts, counties, and by CAL FIRE under contract to the local government. The fire hazard severity zones for the area of local responsibility in the County are shown on Figure B-4 (Appendix B, Hazard Figures [in the MJLHMP). Fire severity zones are depicted for the Cities of Porterville and Woodlake in Figures B-13 and B-20 (Appendix B, Hazard Figures MJLHMP).

State responsibility area is a legal term defining the area where the State has financial responsibility for wildfire protection. Incorporated cities and Federal ownership are not included. The prevention and suppression of fires in all areas that are not State responsibility areas are primarily the responsibility of local or Federal agencies.

The portion of the County that transitions from the valley floor into the foothills and mountains is characterized by high to very high threat of wildfire; this includes the cities of Porterville and Woodlake, the jurisdiction of Tulare County Office of Education (TCOE), the Tule River Tribe Reservation and areas of the County unincorporated. Steeper terrain in these areas increases the threat of wildfire. The western portion of the County has little or no threat of wildfire. The risk of wildfire increases where human access exists in high fire hazard severity zones, such as the Sierra Nevada Mountains and foothills, because of a greater chance for human carelessness and because of historic and current fire management practices.

Impact of Climate Change: Climate and weather have long been acknowledged as playing key roles in wildfire activity, and global warming is expected to exacerbate fire impacts on natural and urban ecosystems. Predicting future fire regimes requires an understanding of how temperature and precipitation interact to control fire activity.[7] Since 2012, record drought and record temperatures, have weakened trees throughout California, resulting in millions of acres of failing forestland that then become vulnerable to disease and infestation. Infestations, such as those caused by native bark beetles, have caused tree mortality of epidemic proportions. The scale of tree mortality in California contributes to significantly increased wildfire risks, and presents life safety risks due to falling trees that can injure or kill people. The immediate consequence of tree mortality on California forestlands increases the potential for wildfires, further spread of forest insect tree damage, threats to critical public safety infrastructure from falling trees, reduced forest carbon stocks, loss of commercial timber values to landowners, and diminished wildlife habitat. Due to these increased risks, the County proclaimed states of emergency for tree mortality.

In addition, and in response to the millions of dead trees, a State of Emergency Proclamation was issued by the Governor. A Tree Mortality Task Force, comprised of State and Federal agencies led by CAL FIRE, Cal OES and the Governor's office has identified six counties as high hazard zones due to dead and dying trees and the hazards, this tree mortality presents. The 10 counties include: Amadore, Calaveras, El Dorado, Fresno, Kern, Madera, Mariposa, Placer, Tulare, and Tuolumne. Both the State's and the County's Tree Mortality Task Forces are structured as a Multi-Agency Coordination Group and meet monthly to exchange information and updates among stakeholders. Participants are encouraged to discuss needs and concerns, and leverage each other's subject matter expertise and resources to further response efforts.

Extent: CAL FIRE has classified 22% of the County as high wildfire hazard areas and an additional 27% as very high wildfire hazard areas. These areas are primarily in the foothills and mountain regions in the eastern portion of the County and to a large extent on National Forest or National Park land. Figure B- [in the MJLHMP] depicts the fire severity rating for areas of the County.

Probability of Future Events: Based on historical events, on average, slightly more than on wildfire of over 1000 acres burns within the County each year. Therefore, it is highly likely that a wildfire event will occur within the calendar year impacting the County. Wildfire events have a greater than 1 in 1-year (100%) chance of occurring."[346]

The Project's location does not lend itself to wildfire risk as it is not within a fire hazard severity zone (as identified by CalFire), lacks slope/terrain conducive to wildfire spread, lacks vegetation which would fuel wildfire (i.e., dense vegetation consisting of shrubs and bushes, dead or dying trees caused by drought or pest infestation (i.e., bark beetle), is surrounded by predominantly agriculturally productive lands, and, as noted earlier, is in the western portion of the County which has little or no threat of wildfire.

Regulatory Setting

Federal

None that apply to the Project.

State

Senate Bill 1241 (Kehoe, 2012)

"Wildfire: Senate Bill 1241 (Kehoe, 2012) required the Office of Planning and Research, the Natural Resources Agency, and CalFire to develop "amendments to the initial study checklist of the [CEQA Guidelines] for the inclusion of questions related to fire hazard impacts for projects located on lands classified as state responsibility areas, as defined in section 4102, and on lands classified as very high fire hazard severity zones, as defined in subdivision (i) of section 51177 of the Government Code."

[346] Tulare County 2017 Multi-Jurisdictional Local Hazard Mitigation Plan (MJLHMP). March 2018. Pages 69-73. Accessed December 2020 at: http://oes.tularecounty.ca.gov/oes/index.cfm/mitigation/tulare-county-mjlhmp/.

(Pub. Resources Code, § 21083.01 (emphasis added).) The Agency added several questions addressing this issue. Notably, while SB 1241 required the questions to address specific locations, it did not necessarily limit the analysis to those locations, and so the Agency posed the questions for projects located within "or near" those zones. Lead agencies will be best placed to determine precisely where such analysis is needed outside of the specified zones."

"The safety elements of local general plans will also describe potential hazards, including: "any unreasonable risks associated with the effects of seismically induced surface rupture, ground shaking, ground failure, tsunami, seiche, and dam failure; slope instability leading to mudslides and landslides; subsidence; liquefaction; and other seismic hazards …, and other geologic hazards known to the legislative body; flooding; and wildland and urban fires." (Gov. Code § 65302(g)(1).) Hazards associated with flooding, wildfire and climate change require special consideration. (Id. at subd. (g)(2)-(g)(4).) Lead agencies must "discuss any inconsistencies between the proposed project and applicable general plans" related to a project's potential environmental impacts in a project's environmental review. (State CEQA Guidelines § 15125(d).) Local governments may regulate land use to protect public health and welfare pursuant to their police power. (Cal. Const., art. XI, § 7; California Building Industry Assn. v. City of San Jose (2015) 61 Cal. 4th 435, 455 ("so long as a land use restriction or regulation bears a reasonable relationship to the public welfare, the restriction or regulation is constitutionally permissible").)"

CAL FIRE - Tulare Unit Strategic Fire Plan

As summarized in the 2017 Tulare Multi-Jurisdictional Local Hazard Mitigation Plan (MJLHMP), "The Plan is a local road map to create and maintain defensible landscapes in order to protect vital assets. It seeks to reduce firefighting cost and property loss, increase public and firefighter safety, minimize wildfire risk to communities and contribute to ecosystem health. The Plan identifies pre-suppression projects including opportunities for reducing structural ignitability, and the identification of potential fuel reduction projects and techniques for minimizing those risks. The central goals that are critical to reducing and preventing the impacts of fire revolve around both suppression efforts and fire prevention efforts. The MJLHMP fire hazard analysis and fire related mitigation measures will be provided to Cal Fire to support the Tulare Unit Strategic Fire Plan."

Cal Fire publishes Fire Hazard Severity Zone Maps for all regions in California, which can be viewed here. The fire hazard measurement used as the basis for these maps includes the speed at which a wildfire moves, the amount of heat the fire produces, and most importantly, the burning fire brands that the fire sends ahead of the flaming front. Lead agencies and project proponents can review the Cal Fire maps to determine whether a given project site will be subject to the new CEQA wildfire impacts analysis.

Local

Tulare County General Plan

The Project is not located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project: The following Tulare County General Plan 2030 Update policies could apply to this Project if it were located on sloped areas, fire hazards areas, lands susceptible to landslides, subsidence/settlement, contamination, and/or flooding; potential for wildland fires; etc.: *HS-6.1 New Building Fire Hazards* wherein the County shall ensure that all building permits in urban areas, as well as areas with potential for wildland fires, are reviewed by the County Fire Chief; *HS-6.5 Fire Risk Recommendations* wherein the County shall encourage the County Fire Chief to make recommendations to property owners regarding hazards associated with the use of materials, types of structures, location of structures and subdivisions, road widths, location of fire hydrants, water supply, and other important considerations regarding fire hazard that may be technically feasible but not included in present ordinances or policies; *HS-6.7 Water Supply System* wherein the County 8hall require that water supply systems be adequate to serve the size and configuration of land developments, including satisfying fire flow requirements. Standards as set forth in the subdivision ordinance shall be maintained and improved as necessary; *HS-7.1 Coordinate Emergency Response – Service with Government Agencies* wherein the County shall coordinate emergency response with local, State, and Federal governmental agencies, community organizations, volunteer agencies, and other response partners during emergencies or disasters utilizing SEMS and NIMS; and *HS-7.2 Mutual Aid Agreement* wherein the County shall participate in established local, State, and Federal mutual aid systems. Where necessary and appropriate, the County shall enter into agreements to ensure the effective provision of emergency services, such as mass care, heavy rescue, hazardous materials, or other specialized function.

Project Impact Analysis

a) – d) ***No Impact:*** The Project site is not in a State Responsibility Area. The Project does not impair the implementation of any adopted emergency response plan or evacuation plan. The proposed Project would allow development of a lot residential subdivision northwest of Avenue 310 and Road 72 within the Urban Development Boundary of Goshen. The proposed

Project does not propose any other new developments or any changes to the existing surrounding land uses. According to the State Responsibility Area (SRA) Viewer, the proposed Project site is not located in the SRA[347]. The Project does not impair the implementation of any adopted emergency response plan or evacuation plan. The Project will not exacerbate wildfire risks or expose Project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire, due to slope, prevailing winds, and other factors. The Project will not require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment. The Project will not 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. Therefore, the proposed Project will result in no impact related to this resource. As it is not located in or near state responsibility areas or lands classified as very high fire hazard severity zones high fire, the Project will not exacerbate wildfire risks or expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire, due to slope, prevailing winds, and other factors. The Project will not require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment. The Project will not expose people or structures to significant risks, including downslope or downstream flooding, or landslides, as a result of runoff, post-fire slope instability, or drainage changes. The facility shall comply with all applicable 2016 California Building Code and CFC standards (such as lighting, fire extinguishers, access/egress, etc.). All new construction would require the submittal of plans for fire department review, and would be required to meet construction methods in accordance with Chapter 7A of the 2016 California Building Code. Therefore, there will be no impact to the Wildfires resource.

Cumulative Impact Analysis

The geographic area of this cumulative analysis is Tulare County. This cumulative analysis is based on the information provided in the Tulare County 2030 General Plan, Tulare County General Plan Background Report, the Tulare County 2030 General Plan EIR, and/or Goshen Community Plan Update and EIR. For the reasons stated above, Items 20 a) through d) do not apply to the Project as it is not located in or near state responsibility areas or lands classified as very high fire hazard severity zones. As such, no Project-specific Impact or Cumulative Impacts will occur.

21.	MANDATORY FINDINGS OF SIGNIFICANCE					
			SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
	a)	Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal species, 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)?	☐	☐	☒	☐

[347] CalFire. Accessed December 2020 at: http://www.fire.ca.gov/firepreventionfee/sraviewer.

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

The discussions regarding Environmental Setting, CEQA requirements, Regulatory Setting, Chapters 3.3-1 through 3.3-18, Chapters 4 through 9, Appendices "A" through "I", etc. contained in the Goshen Community Plan Update and Environmental Impact Report are incorporated herein in their entirety. Where necessary and if available, additional site specific facts, data, information, etc., are included in this discussion.

Analysis:

The analysis conducted in this Initial Study/Mitigated Negative Declaration results in a determination that the Project will have a less than significant effect on the local environment. As noted earlier, the proposed Project is to develop 206 single-family residences in four (4) phases at the northwest of Avenue 310 and Road 72 within the Goshen Community Plan Urban Development Boundary area. The approximately 37-acre site will have a density of 5.82 units per gross residential acre.

a) Less Than Significant Impact With Mitigation: As the proposed Project does not result in significant loss of habitat or direct impact to these special status species, implementation of **Mitigation Measures 4-1** through **4-21**, (which can be found in their entirety in Attachment "G" of this IS/MND), as applicable, would result in a less than significant impact to this resource. The proposed Project does not result in significant loss of habitat or direct impact to these special status species, a less than significant cumulative impact will occur. Also as noted earlier, the PPSA consists of and is surrounded by developed and/or highly disturbed lands that do not support important movement corridors for native wildlife. Birds using the Pacific flyway will continue to do so following project development. The potential for impacts to biological and cultural resources from the construction and operation of the proposed Project will be less than significant with the incorporation of the **Mitigation Measures 4-1** through **4-21** as contained in Item Biological Resources. It is not anticipated that Native American remains or other cultural will be found at the proposed Project site. However, consistent with CEQA requirements, **Mitigation Measures 5-1** through **5-3** are included in the unlikely event that if Native American remains are unearthed during any ground disturbance activities, or if any cultural resources are discovered, such finds will be mitigated to less than significant. The analysis contained in Item 5 Cultural Resources and Item 18 Tribal Cultural Resources conclude that these resources have the potential to be impacted and have included **Mitigation Measures 5-1 through 5-3**. Accordingly, the proposed Project will involve no potential for significant impacts due to degradation of the quality of the environment, substantial reductions in the habitat of a fish or wildlife species, causing a fish or wildlife population to drop below self-sustaining levels, threatening to eliminate a plant or animal community, reduction in the number or restriction of the range of a rare or endangered plant or animal or elimination of important examples of the major periods of California history or prehistory. As such, the impact will be less than significant for biological resources and less than significant with mitigation for cultural and tribal cultural resources.

b) Less Than Significant Impact: Projects considered in a cumulative analysis include those that would be constructed concurrently with the Project and those that would be in operation at the same time as the Project. The cumulative projects considered in this analysis are limited to projects that would result in similar impacts to the Project due to their potential to collectively contribute to significant cumulative impacts, as well as other development projects that would be located in the vicinity of the Project. There is one similar project under construction located in and around a 10-mile radius of the Project site (Goshen Village, an 89 single-family and up to 140 multiple family unit project located on an approximately 29-acre site located northwest of Avenue 310 and Road 72 and another approved 405 single-family residential development (Cross Creek Bend) approximately one mile west of the proposed Project (west of SR 99). However, this proposed Project, Goshen Village, and Cross Creek Bend projects are consistent with the Goshen community Plan Update and have been accounted for as necessary to accommodate planed growth, as such they do not contribute to a unanticipated cumulative impact.

Tulare County staff have determined that there are no projects that could have the potential to contribute to cumulative impacts. The Project was determined to have less than to no impacts to all resources with the exception of the biological resources, cultural resources (including Tribal Cultural Resources), hydrology, noise, wastewater, and traffic, with incorporation/implementation of mitigation measures and project design features identified earlier.

The majority of the potential impacts resulting from the Project will be short term, temporary, and intermittent occurring during Project construction-related activities; and with negligible impacts resulting from Project operation as discussed in the earlier environmental analysis. Because construction-related impacts are of a short duration, temporary, intermittent, and localized, they would have to occur concurrently and in proximity of other projects in order to have a cumulative impact. Construction-related impacts (which are primarily associated with air quality, biological resources, noise, and traffic) are not likely to act cumulatively with any other projects in a manner that would result in significant impacts.

This Project (as described in Items 3 and 8) will have short-term impacts with regard to air quality and greenhouse gases during construction-related activities. However, the emissions associated with this Project are minor as compared to baseline emissions levels as quantified in Items 3 and 8, and are not considered cumulatively considerable pursuant to guidelines from the Air District. (See Impact 3(c) for a complete discussion of the Project's cumulative air quality impacts.) The proposed Project would implement the applicable SJVAPCD Best Performance Standards; therefore, reducing the Project specific and cumulative impacts to a less than significant level. In addition, the Project would lead to cumulatively beneficial reductions in GHG emissions.

As discussed in Item 4, the Project site consists of disturbed, vacant, undeveloped land. As the Project site is not suitable habitat or known to host any special status species, when combined cumulatively with other projects, the Project would not result in impacts to biological resources that are cumulatively considerable. As indicated at Item 5, the Project site does not contain any known cultural or tribal cultural resources. However, as an abundance of caution, **Mitigation Measures 4-1** through **4-26** and **5-1** through **5-3** have been incorporated into this IS/MND.

Impacts to aesthetics from the proposed Project would be minimal as the project would be developed adjacent to existing single-family land use and it is consistent with well-planned urban design for an area planned for urban uses. Although the Project may contribute to visual impacts on the area due to the addition of urban-type uses adjacent to an agricultural area, the contribution of the Project would not be cumulatively considerable because the visual quality of the overall area as the area is transitioning from a rural setting to an urban setting consistent with the Goshen Community Plan Update. Thus, the proposed Project would result in less than significant cumulative impact to Aesthetics.

No archaeological or historic resources were located on the project site. With implementation of the cultural resource mitigation measures called for in Impact 5, the Project would not cause cumulatively considerable cultural resource impacts because impacts to unknown cultural resources would be minimized.

The Project also will not cause cumulatively considerable geology and soils impacts, as Project-specific impacts will be less than significant and will not be anticipated to combine with impacts caused by the cumulative projects identified by the County.

The Project will not cause cumulatively considerable impacts related to hazards and hazardous materials. While small amounts of hazardous materials may be used or transported as a result of construction-related activities as the Project develops, these activities will occur in compliance with applicable laws and regulations, and any impacts resulting from use, transport, disposal, or accident or upset conditions will be localized in nature. As a result, any Project-level impacts will not have the potential to contribute to hazards associated with other projects because these impacts would only occur intermittently, if at all. When fully buildout, it is likely that the residence will store small amounts of typical hazardous materials, such as fuel (e.g., gasoline for lawn care equipment) and lubricants. The storage, transport, and use of these materials will comply with Local, State, and Federal regulatory requirements.

The Project will not cause cumulatively considerable hydrology and water quality-related impacts. The Project applicant will be required to implement a SWPPP to reduce impacts and will not cause discharge to any surface or groundwater sources or alter the course of any stream or river. Nor will the Project change runoff patterns in the area. Also, implementation of **Mitigation Measures 10-1** through **10-4** as project design features, would mitigate potential impacts to the hydrology resource.

The Project will not cause cumulatively considerable land use and planning impacts. The Project is consistent with all applicable land use planning policies (that is Tulare County 2030 General Plan and Goshen Community Plan Update). As a result, the Project's impacts will not be cumulatively significant.

The Project also will not combine noise-related impacts with that of other projects to cause cumulatively considerable impacts. Construction-related activities will cause short-term, temporary, and intermittent increases in noise in the area, and could occur at the same time as other noise-causing events in the area. However, no other concurrent construction project are anticipated to occur adjacent to or near the Project site, and operational noise will be minimal. Also, implementation of **Mitigation Measure 13-1** would mitigate potential impacts to the noise resource. As a result, the Project is not anticipated to considerably contribute to cumulative noise impacts during construction or operation.

As noted in the discussion at Item14 a) the Project would result in a beneficial impact as it will result in new housing opportunities in Tulare County in general, but particularly in Goshen. As such, the proposed Project is not growth inducing, rather, it is growth accommodating to not only meeting the growing demand for housing in general, thereby allowing the County to meet the RHNA housing allocation for Tulare County. Therefore, a less than significant Project-specific impact related to this Checklist Item will occur.

As indicated in the discussion of Item 15 a) through f), earlier, the proposed Project will not significantly impact the fire or police response times, schools, parks, or other facilities. Therefore, less than significant Project-specific or Cumulative Impacts related to this Checklist Item will occur. As discussed in Item 16 a) and b there will be no need to construct or expand any recreational facilities, as such, there would be no adverse physical effect on the environment. Therefore, there would be a less than significant impact to this resource..

As indicated at the discussion of Item 17 Transportation, the proposed Project is consistent the Tulare County 2030 General Plan and/or Goshen Community Plan Update and EIR. As such, the Project will not conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit. Further, it will not conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways. As discussed in Item 17 b), at **Mitigation 17-1**, the proposed Project applicant will be required to pay a VMT mitigation fee of $38,800 to the County. Also, the Project will not result in a change in air traffic patterns, including either increase in traffic levels or a change in location that results in substantial safety risks; it will not substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses, (e.g., farm equipment) and it will include adequate emergency access; and it will not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

The Project would not require or result in the relocation or construction of new or expanded water facilities there are sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years. The Project will require mitigation to the wastewater conveyance system in the form of a wastewater lift station(s), as determined by the CSD, which will be implemented as a project design feature. A Stormwater detention will be provided on site, as such, there is no need to construct or expand storm water drainage facilities. Electric power will be provided by Southern California Edison, natural gas by the Gas Company (Southern California Gas), and telecommunications facilities are available from both wire and wireless providers in the area (e.g., AT&T, T-Mobile, Sprint, etc.) as needed. Lastly, the Project would not 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 and it will comply with federal, state, and local management and reduction statutes and regulations related to solid waste. As such, the Project would result in a less than significant impact

Finally, regarding the Wildfires resource, as noted earlier (at Items 20 a) through d)) does not apply to the Project as it is not located in or near state responsibility areas or lands classified as very high fire hazard severity zones. As such, no Project-specific Impact or Cumulative Impacts will occur.

Each of the cumulative projects considered in this section would be required to comply with project-specific mitigation measures, project design features, and/or conditions of approval, as well as applicable General Plans, zoning ordinances, laws and policies. The implementation of the identified Project-specific mitigation measures and compliance with applicable codes, compliance with the Tulare County General Plan, identified Best Management Practices, ordinances, laws and other required regulations will reduce the magnitude of any contribution to cumulative impacts to a less than significant level. Lastly, projects are also required to comply with other entities'/agencies' (e.g., San Valley Air Pollution Control District, Regional Water Quality Control Board, etc.) applicable rules, regulations, standards, orders, permits, thresholds, etc., which would then also contribute to minimizing or entirely avoiding adverse impacts.

c) **Less Than Significant Impact:** The proposed Project will not result in substantial adverse effect on human beings, either directly or indirectly. Mitigation Measures (see **Mitigation Measures 4-1** through **4-26**, **5-1** through **5-3**, **10-1** through **10-4**, **13-1**, and **17-1**) are provided to reduce the Project's potential effects on Biological Resources, Cultural/Tribal Cultural Resources, Hydrology, Noise, and Traffic to less than significant. No additional mitigation measures will be required. Therefore, implementation of the proposed Project would result in a less than significant impact.

ATTACHMENT "A"

Air Quality / Greenhouse Gases / Energy

TABLE 1. PROJECT COMPARISON

	Cross Creek Bend		Swift Homes		Project %	
Phase	**SFR units**	**acres**	**SFR units**	**acres**	**SFR units**	**acres**
Phase 1	100	17.28	34	6.11	34%	35%
Phase 2	111	17.28	49	8.81	44%	51%
Phase 3	93	17.28	39	6.99	42%	40%
Phase 4	101	17.28	84	15.10	83%	87%
Total	**405**	**69.1**	**206**	**37.0**	**51%**	**54%**

1. For the Cross Creek Bend Project, there are a total of 405 lots; however, 2 lots are not planned for development at this time.
2. For the Cross Creek Bend Project, the stormwater basin is included in Phase 2 of project construction.

TABLE 2. PROJECT UNITS PER ACRE

		SFR Units	Acres	Unit/Acre
Cottonwood Creek	All Lots / Gross Acres	405	69.13	5.86
	All Lots / Gross Residential Acres	405	64.50	6.28
	Developed Lots / Gross Residential Acres	403	64.50	6.25
Swift Homes	All Lots / Gross Acres	206	36.98	5.57
	Developed Lots / Gross Residential Acres	206	35.39	5.82

1. Residential Acres excludes the area dedicated to the ponding basin and undeveloped lots.

TABLE 3a. CROSS CREEK BEND ANNUAL CONSTRUCTION

Cross Creek Bend Construction Annual Emissions (tons/year)						
Phase & Year	**ROG**	**NOx**	**CO**	**SO2**	**PM10**	**PM2.5**
Phase 1 – 2020	0.21	2.04	1.51	2.80E-03	0.21	0.14
Phase 1 – 2021	1.36	2.28	2.25	4.13E-03	0.18	0.13
Phases 1 & 2 – 2022	0.75	1.53	1.38	3.73E-03	0.19	0.11
Phase 2 – 2023	2.08	1.73	2.03	3.85E-03	0.14	0.09
Phase 3 – 2024	0.14	1.28	1.32	2.67E-03	0.17	0.1
Phase 3 – 2025	1.74	1.49	1.96	3.67E-03	0.11	0.07
Phase 4 – 2026	0.13	1.16	1.29	2.67E-03	0.16	0.09
Phase 4 – 2027	1.88	1.49	1.95	3.70E-03	0.12	0.07

TABLE 3b. SWIFT HOMES ANNUAL CONSTRUCTION

Swift Homes Annual Construction Emissions (tons/year)						
Phase & Year	**ROG**	**NOx**	**CO**	**SO2**	**PM10**	**PM2.5**
Phase 1 – 2021	0.07	0.69	0.51	9.52E-04	0.07	0.05
Phase 1 – 2022	0.46	0.78	0.77	1.40E-03	0.06	0.04
Phases 1 & 2 – 2023	0.59	1.20	1.08	2.91E-03	0.15	0.09
Phase 2 – 2024	0.92	0.76	0.90	1.70E-03	0.06	0.04
Phase 3 – 2025	0.06	0.54	0.55	1.12E-03	0.07	0.04
Phase 3 – 2026	0.73	0.62	0.82	1.54E-03	0.05	0.03
Phase 4 – 2027	0.11	0.96	1.07	2.22E-03	0.13	0.07
Phase 4 – 2028	1.56	1.24	1.62	3.08E-03	0.10	0.06

TABLE 4a. CROSS CREEK BEND ANNUAL OPERATION

Cross Creek Bend Annual Operational Emissions (tons/year)						
Phase & Year	**ROG**	**NOx**	**CO**	**SO2**	**PM10**	**PM2.5**
Phase 1 – 2022	1.27	1.42	5.45	0.01	1.22	0.34
Phase 2 – 2023	1.35	1.24	5.18	0.01	1.35	0.38
Phase 3 – 2025	1.09	0.93	3.84	0.01	1.13	0.32
Phase 4 – 2027	1.16	0.91	3.75	0.01	1.23	0.34
Total at Buildout	**4.87**	**4.5**	**18.22**	**0.04**	**4.93**	**1.38**

TABLE 4b. SWIFT HOMES ANNUAL OPERATION

Swift Homes Annual Operational Emissions (tons/year)						
Phase & Year	**ROG**	**NOx**	**CO**	**SO2**	**PM10**	**PM2.5**
Phase 1 – 2023	0.43	0.48	1.85	3.40E-03	0.41	0.12
Phase 2 – 2024	0.60	0.55	2.29	4.41E-03	0.60	0.17
Phase 3 – 2026	0.46	0.39	1.61	4.19E-03	0.47	0.13
Phase 4 – 2028	0.96	0.76	3.12	8.32E-03	1.02	0.28
Total at Buildout	**2.45**	**2.18**	**8.87**	**0.02**	**2.51**	**0.70**

TABLE 5a. CROSS CREEK BEND DAILY CONSTRUCTION

Cross Creek Bend Construction Daily Emissions (lbs/day)						
Phase & Year	**ROG**	**NOx**	**CO**	**SO2**	**PM10**	**PM2.5**
Phase 1 – 2020	3.18	30.98	22.81	0.04	3.22	2.14
Phase 1 – 2021	10.29	17.26	17.06	0.03	1.35	0.96
Phases 1 & 2 – 2022	5.71	11.57	10.45	0.03	1.42	0.86
Phase 2 – 2023	15.74	13.13	15.39	0.03	1.07	0.69
Phase 3 – 2024	1.06	9.71	9.98	0.02	1.26	0.74
Phase 3 – 2025	13.2	11.25	14.82	0.03	0.84	0.53
Phase 4 – 2026	0.97	8.81	9.74	0.02	1.22	0.69
Phase 4 – 2027	14.78	11.74	15.36	0.03	0.91	0.56

TABLE 5b. SWIFT HOMES DAILY CONSTRUCTION

Swift Homes Daily Construction Emissions (lb/day)						
Phase & Year	**ROG**	**NOx**	**CO**	**SO2**	**PM10**	**PM2.5**
Phase 1 – 2021	1.08	10.53	7.76	0.01	1.09	0.73
Phase 1 – 2022	3.50	5.87	5.80	0.01	0.46	0.33
Phases 1 & 2 – 2023	4.46	9.04	8.17	0.02	1.11	0.67
Phase 2 – 2024	6.95	5.80	6.79	0.01	0.47	0.30
Phase 3 – 2025	0.44	4.07	4.19	0.01	0.53	0.31
Phase 3 – 2026	5.54	4.72	6.21	0.01	0.35	0.22
Phase 4 – 2027	0.81	7.33	8.10	0.02	1.01	0.57
Phase 4 – 2028	12.29	9.76	12.77	0.02	0.76	0.47

TABLE 6a. CROSS CREEK BEND DAILY OPERATION

Cross Creek Bend Daily Operational Emissions (lb/day)						
Phase & Year	**ROG**	**NOx**	**CO**	**SO2**	**PM10**	**PM2.5**
Total at Buildout	26.69	24.66	99.75	0.28	26.99	7.57

TABLE 6b. SWIFT HOMES DAILY OPERATION

Swift Homes Daily Operational Emissions (lb/day)						
Phase & Year	**ROG**	**NOx**	**CO**	**SO2**	**PM10**	**PM2.5**
Total at Buildout	13.58	12.54	50.74	0.14	13.73	3.85

TABLE 1. Energy Demands - All Users

		Electricity			Natural Gas	
	Population	GWh	MWh	Demand per Capita	Therms	Demand per Capita
State of California	39,782,870	279,402	279,401,880	7.02	13,158,207,490	330.75
Service Provider Area	---	105,162	105,161,702	---	7,497,600,251	---
Tulare County	479,977	4,162	4,162,198	8.67	155,379,677	323.72

TABLE 2. Energy Demands - Residential Only

		Electricity			Natural Gas	
	Population	GWh	MWh	Demand per Capita	Therms	Demand per Capita
State of California	39,782,870	91,203	91,203,065	2.29	4,792,844,902	120.48
Service Provider Area	---	32,480	32,479,846	---	2,467,266,449	---
Tulare County	479,977	1,262	1,261,684	2.63	50,596,380	105.41

TABLE 3. Energy Demands - Project Specific

	Cross Creek Bend				Swift Homes			
Phase	SFR Units	Population	Electricity (MWh/yr)	Natural Gas (Therms/yr)	SFR Units	Population	Electricity (MWh/yr)	Natural Gas (Therms/yr)
Phase 1	100	286	859.406	25,734.000	34	97	292.198	8,749.560
Phase 2	111	317	953.941	28,564.000	49	140	421.109	12,609.333
Phase 3	93	266	799.248	23,932.000	39	112	335.169	10,036.000
Phase 4	101	289	868.000	25,991.000	84	240	721.901	21,616.277
Total	**405**	**1,158**	**3,480.595**	**104,221.000**	**206**	**589**	**1,770.377**	**53,011.171**
Project Demand Per Capita			3.00	89.98			3.00	89.98

TABLE 4. Project VMT

	Population	Total VMT	Daily VMT	VMT/Capita
State of California	39,782,870	347,200,000,000	951,232,877	23.91
Tulare County	479,977	3,686,282,000	10,099,403	21.04
Proposed Project	589	6,475,304	17,741	30.12

Project % of County	Project % of State
0.1757	0.00186501

Cross Creek Bend Phase 1

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1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	100.00	Dwelling Unit	17.50	180,000.00	286

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	51
Climate Zone	7			**Operational Year**	2021
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - site will be developed evenly over the 4 phases

Demolition - demolition of one residence and one shop building

Fleet Mix - fleet per "District Accepted Fleet Mix for Residential Projects" accessed online 10/8/19

Woodstoves -

Construction Off-road Equipment Mitigation - compliance with Regulation VIII

Mobile Land Use Mitigation -

Area Mitigation -

Water Mitigation - compliance with Title 24 & County ordinance

Water And Wastewater - all lots will be connected to Goshen Community Services District facility

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblFleetMix	HHD	0.08	0.02
tblFleetMix	LDA	0.52	0.54
tblFleetMix	LDT1	0.03	0.20
tblFleetMix	LDT2	0.17	0.17
tblFleetMix	LHD1	0.02	1.4000e-003
tblFleetMix	LHD2	5.4340e-003	9.0000e-004
tblFleetMix	MCY	4.3270e-003	2.6000e-003
tblFleetMix	MDV	0.14	0.05
tblFleetMix	MH	7.6100e-004	1.6000e-003
tblFleetMix	MHD	0.02	9.0000e-003
tblFleetMix	OBUS	1.8220e-003	0.00
tblFleetMix	SBUS	1.1320e-003	9.0000e-004
tblFleetMix	UBUS	1.3110e-003	4.4000e-003
tblLandUse	LotAcreage	32.47	17.50
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblWater	AerobicPercent	87.46	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	100.00
tblWater	SepticTankPercent	10.33	0.00

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					
2020	0.2101	2.0448	1.5056	2.8000e-003	0.2475	0.1008	0.3483	0.1106	0.0937	0.2044	0.0000	245.6008	245.6008	0.0629	0.0000	247.1725
2021	1.3585	2.2777	2.2523	4.1300e-003	0.0608	0.1174	0.1781	0.0163	0.1103	0.1266	0.0000	360.4894	360.4894	0.0730	0.0000	362.3135
2022	0.5922	5.0200e-003	7.2700e-003	1.0000e-005	3.0000e-004	2.9000e-004	5.9000e-004	8.0000e-005	2.9000e-004	3.7000e-004	0.0000	1.1347	1.1347	6.0000e-005	0.0000	1.1363
Maximum	**1.3585**	**2.2777**	**2.2523**	**4.1300e-003**	**0.2475**	**0.1174**	**0.3483**	**0.1106**	**0.1103**	**0.2044**	**0.0000**	**360.4894**	**360.4894**	**0.0730**	**0.0000**	**362.3135**

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					
2020	0.2101	2.0448	1.5056	2.8000e-003	0.1119	0.1008	0.2127	0.0473	0.0937	0.1410	0.0000	245.6006	245.6006	0.0629	0.0000	247.1722
2021	1.3585	2.2777	2.2523	4.1300e-003	0.0608	0.1174	0.1781	0.0163	0.1103	0.1266	0.0000	360.4891	360.4891	0.0730	0.0000	362.3131
2022	0.5922	5.0200e-003	7.2700e-003	1.0000e-005	3.0000e-004	2.9000e-004	5.9000e-004	8.0000e-005	2.9000e-004	3.7000e-004	0.0000	1.1347	1.1347	6.0000e-005	0.0000	1.1363
Maximum	**1.3585**	**2.2777**	**2.2523**	**4.1300e-003**	**0.1119**	**0.1174**	**0.2127**	**0.0473**	**0.1103**	**0.1410**	**0.0000**	**360.4891**	**360.4891**	**0.0730**	**0.0000**	**362.3131**

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	ROG	NOx	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**	**43.94**	**0.00**	**25.72**	**49.87**	**0.00**	**19.12**	**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	**7-1-2020**	**9-30-2020**	1.4916	1.4916
2	**10-1-2020**	**12-31-2020**	0.7580	0.7580
3	**1-1-2021**	**3-31-2021**	0.6728	0.6728
4	**4-1-2021**	**6-30-2021**	0.6793	0.6793
5	**7-1-2021**	**9-30-2021**	0.6868	0.6868
6	**10-1-2021**	**12-31-2021**	1.5316	1.5316
7	**1-1-2022**	**3-31-2022**	0.6703	0.6703
		Highest	1.5316	1.5316

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	1.2555	0.0988	3.9989	0.0109		0.5355	0.5355		0.5355	0.5355	70.7477	44.5336	115.2813	0.3327	7.9000e-004	123.8364
Energy	0.0139	0.1186	0.0505	7.6000e-004		9.5900e-003	9.5900e-003		9.5900e-003	9.5900e-003	0.0000	411.1500	411.1500	0.0139	4.8600e-003	412.9457
Mobile	0.3732	1.3461	4.8906	0.0135	1.2705	0.0116	1.2821	0.3401	0.0109	0.3510	0.0000	1,239.5161	1,239.5161	0.0666	0.0000	1,241.1803
Waste						0.0000	0.0000		0.0000	0.0000	20.9000	0.0000	20.9000	1.2352	0.0000	51.7787
Water						0.0000	0.0000		0.0000	0.0000	2.3052	15.8136	18.1187	2.3763	5.1500e-003	79.0598
Total	**1.6425**	**1.5635**	**8.9400**	**0.0251**	**1.2705**	**0.5567**	**1.8272**	**0.3401**	**0.5559**	**0.8961**	**93.9528**	**1,711.0132**	**1,804.9660**	**4.0247**	**0.0108**	**1,908.8008**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.8942	8.5400e-003	0.7388	4.0000e-005		4.0700e-003	4.0700e-003		4.0700e-003	4.0700e-003	0.0000	1.2020	1.2020	1.1600e-003	0.0000	1.2309
Energy	0.0139	0.1186	0.0505	7.6000e-004		9.5900e-003	9.5900e-003		9.5900e-003	9.5900e-003	0.0000	411.1500	411.1500	0.0139	4.8600e-003	412.9457
Mobile	0.3662	1.2949	4.6562	0.0128	1.1949	0.0110	1.2059	0.3199	0.0103	0.3302	0.0000	1,169.5950	1,169.5950	0.0633	0.0000	1,171.1771
Waste						0.0000	0.0000		0.0000	0.0000	20.9000	0.0000	20.9000	1.2352	0.0000	51.7787
Water						0.0000	0.0000		0.0000	0.0000	1.8441	13.2876	15.1317	1.9011	4.1200e-003	63.8868
Total	**1.2743**	**1.4221**	**5.4454**	**0.0136**	**1.1949**	**0.0247**	**1.2196**	**0.3199**	**0.0239**	**0.3438**	**22.7441**	**1,595.2345**	**1,617.9786**	**3.2146**	**8.9800e-003**	**1,701.0193**

	ROG	NOx	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	**22.42**	**9.05**	**39.09**	**46.06**	**5.95**	**95.57**	**33.25**	**5.95**	**95.69**	**61.63**	**75.79**	**6.77**	**10.36**	**20.13**	**16.85**	**10.89**

3.0 Construction Detail

Construction Phase

Cross Creek Bend Phase 1 - Tulare County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	7/1/2020	7/28/2020	5	20	
2	Site Preparation	Site Preparation	7/29/2020	8/11/2020	5	10	
3	Grading	Grading	8/12/2020	9/22/2020	5	30	
4	Building Construction	Building Construction	9/23/2020	11/16/2021	5	300	
5	Paving	Paving	11/17/2021	12/14/2021	5	20	
6	Architectural Coating	Architectural Coating	12/15/2021	1/11/2022	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 75

Acres of Paving: 0

Residential Indoor: 364,500; Residential Outdoor: 121,500; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Cross Creek Bend Phase 1 - Tulare County, 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	16.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	36.00	11.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	7.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2020

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					1.7700e-003	0.0000	1.7700e-003	2.7000e-004	0.0000	2.7000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0331	0.3320	0.2175	3.9000e-004		0.0166	0.0166		0.0154	0.0154	0.0000	33.9986	33.9986	9.6000e-003	0.0000	34.2386
Total	**0.0331**	**0.3320**	**0.2175**	**3.9000e-004**	**1.7700e-003**	**0.0166**	**0.0184**	**2.7000e-004**	**0.0154**	**0.0157**	**0.0000**	**33.9986**	**33.9986**	**9.6000e-003**	**0.0000**	**34.2386**

3.2 Demolition - 2020

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	6.0000e-005	2.2400e-003	3.7000e-004	1.0000e-005	1.4000e-004	1.0000e-005	1.4000e-004	4.0000e-005	1.0000e-005	4.0000e-005	0.0000	0.6075	0.6075	2.0000e-005	0.0000	0.6080
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	9.8000e-004	7.0000e-004	6.9500e-003	2.0000e-005	1.8600e-003	1.0000e-005	1.8700e-003	4.9000e-004	1.0000e-005	5.1000e-004	0.0000	1.5797	1.5797	5.0000e-005	0.0000	1.5809
Total	**1.0400e-003**	**2.9400e-003**	**7.3200e-003**	**3.0000e-005**	**2.0000e-003**	**2.0000e-005**	**2.0100e-003**	**5.3000e-004**	**2.0000e-005**	**5.5000e-004**	**0.0000**	**2.1871**	**2.1871**	**7.0000e-005**	**0.0000**	**2.1889**

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					6.9000e-004	0.0000	6.9000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0331	0.3320	0.2175	3.9000e-004		0.0166	0.0166		0.0154	0.0154	0.0000	33.9986	33.9986	9.6000e-003	0.0000	34.2385
Total	**0.0331**	**0.3320**	**0.2175**	**3.9000e-004**	**6.9000e-004**	**0.0166**	**0.0173**	**1.0000e-004**	**0.0154**	**0.0155**	**0.0000**	**33.9986**	**33.9986**	**9.6000e-003**	**0.0000**	**34.2385**

3.2 Demolition - 2020

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	6.0000e-005	2.2400e-003	3.7000e-004	1.0000e-005	1.4000e-004	1.0000e-005	1.4000e-004	4.0000e-005	1.0000e-005	4.0000e-005	0.0000	0.6075	0.6075	2.0000e-005	0.0000	0.6080
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	9.8000e-004	7.0000e-004	6.9500e-003	2.0000e-005	1.8600e-003	1.0000e-005	1.8700e-003	4.9000e-004	1.0000e-005	5.1000e-004	0.0000	1.5797	1.5797	5.0000e-005	0.0000	1.5809
Total	**1.0400e-003**	**2.9400e-003**	**7.3200e-003**	**3.0000e-005**	**2.0000e-003**	**2.0000e-005**	**2.0100e-003**	**5.3000e-004**	**2.0000e-005**	**5.5000e-004**	**0.0000**	**2.1871**	**2.1871**	**7.0000e-005**	**0.0000**	**2.1889**

3.3 Site Preparation - 2020

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	0.0204	0.2121	0.1076	1.9000e-004		0.0110	0.0110		0.0101	0.0101	0.0000	16.7153	16.7153	5.4100e-003	0.0000	16.8505
Total	**0.0204**	**0.2121**	**0.1076**	**1.9000e-004**	**0.0903**	**0.0110**	**0.1013**	**0.0497**	**0.0101**	**0.0598**	**0.0000**	**16.7153**	**16.7153**	**5.4100e-003**	**0.0000**	**16.8505**

3.3 Site Preparation - 2020

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	5.9000e-004	4.2000e-004	4.1700e-003	1.0000e-005	1.1100e-003	1.0000e-005	1.1200e-003	3.0000e-004	1.0000e-005	3.0000e-004	0.0000	0.9478	0.9478	3.0000e-005	0.0000	0.9485
Total	**5.9000e-004**	**4.2000e-004**	**4.1700e-003**	**1.0000e-005**	**1.1100e-003**	**1.0000e-005**	**1.1200e-003**	**3.0000e-004**	**1.0000e-005**	**3.0000e-004**	**0.0000**	**0.9478**	**0.9478**	**3.0000e-005**	**0.0000**	**0.9485**

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					0.0352	0.0000	0.0352	0.0194	0.0000	0.0194	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0204	0.2121	0.1076	1.9000e-004		0.0110	0.0110		0.0101	0.0101	0.0000	16.7153	16.7153	5.4100e-003	0.0000	16.8505
Total	**0.0204**	**0.2121**	**0.1076**	**1.9000e-004**	**0.0352**	**0.0110**	**0.0462**	**0.0194**	**0.0101**	**0.0295**	**0.0000**	**16.7153**	**16.7153**	**5.4100e-003**	**0.0000**	**16.8505**

3.3 Site Preparation - 2020

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	5.9000e-004	4.2000e-004	4.1700e-003	1.0000e-005	1.1100e-003	1.0000e-005	1.1200e-003	3.0000e-004	1.0000e-005	3.0000e-004	0.0000	0.9478	0.9478	3.0000e-005	0.0000	0.9485
Total	**5.9000e-004**	**4.2000e-004**	**4.1700e-003**	**1.0000e-005**	**1.1100e-003**	**1.0000e-005**	**1.1200e-003**	**3.0000e-004**	**1.0000e-005**	**3.0000e-004**	**0.0000**	**0.9478**	**0.9478**	**3.0000e-005**	**0.0000**	**0.9485**

3.4 Grading - 2020

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	0.0668	0.7530	0.4794	9.3000e-004		0.0326	0.0326		0.0300	0.0300	0.0000	81.7264	81.7264	0.0264	0.0000	82.3872
Total	**0.0668**	**0.7530**	**0.4794**	**9.3000e-004**	**0.1301**	**0.0326**	**0.1627**	**0.0540**	**0.0300**	**0.0840**	**0.0000**	**81.7264**	**81.7264**	**0.0264**	**0.0000**	**82.3872**

3.4 Grading - 2020

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	1.9600e-003	1.4000e-003	0.0139	3.0000e-005	3.7200e-003	2.0000e-005	3.7400e-003	9.9000e-004	2.0000e-005	1.0100e-003	0.0000	3.1593	3.1593	1.0000e-004	0.0000	3.1617
Total	**1.9600e-003**	**1.4000e-003**	**0.0139**	**3.0000e-005**	**3.7200e-003**	**2.0000e-005**	**3.7400e-003**	**9.9000e-004**	**2.0000e-005**	**1.0100e-003**	**0.0000**	**3.1593**	**3.1593**	**1.0000e-004**	**0.0000**	**3.1617**

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					0.0507	0.0000	0.0507	0.0210	0.0000	0.0210	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0668	0.7530	0.4794	9.3000e-004		0.0326	0.0326		0.0300	0.0300	0.0000	81.7263	81.7263	0.0264	0.0000	82.3871
Total	**0.0668**	**0.7530**	**0.4794**	**9.3000e-004**	**0.0507**	**0.0326**	**0.0834**	**0.0210**	**0.0300**	**0.0510**	**0.0000**	**81.7263**	**81.7263**	**0.0264**	**0.0000**	**82.3871**

3.4 Grading - 2020

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	1.9600e-003	1.4000e-003	0.0139	3.0000e-005	3.7200e-003	2.0000e-005	3.7400e-003	9.9000e-004	2.0000e-005	1.0100e-003	0.0000	3.1593	3.1593	1.0000e-004	0.0000	3.1617
Total	**1.9600e-003**	**1.4000e-003**	**0.0139**	**3.0000e-005**	**3.7200e-003**	**2.0000e-005**	**3.7400e-003**	**9.9000e-004**	**2.0000e-005**	**1.0100e-003**	**0.0000**	**3.1593**	**3.1593**	**1.0000e-004**	**0.0000**	**3.1617**

3.5 Building Construction - 2020

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	0.0763	0.6907	0.6066	9.7000e-004		0.0402	0.0402		0.0378	0.0378	0.0000	83.3796	83.3796	0.0203	0.0000	83.8881
Total	**0.0763**	**0.6907**	**0.6066**	**9.7000e-004**		**0.0402**	**0.0402**		**0.0378**	**0.0378**	**0.0000**	**83.3796**	**83.3796**	**0.0203**	**0.0000**	**83.8881**

3.5 Building Construction - 2020

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	1.4800e-003	0.0463	9.1600e-003	1.0000e-004	2.3700e-003	2.5000e-004	2.6200e-003	6.8000e-004	2.4000e-004	9.2000e-004	0.0000	9.8383	9.8383	4.8000e-004	0.0000	9.8504
Worker	8.4800e-003	6.0400e-003	0.0601	1.5000e-004	0.0161	1.1000e-004	0.0162	4.2700e-003	1.0000e-004	4.3700e-003	0.0000	13.6483	13.6483	4.1000e-004	0.0000	13.6586
Total	**9.9600e-003**	**0.0523**	**0.0692**	**2.5000e-004**	**0.0184**	**3.6000e-004**	**0.0188**	**4.9500e-003**	**3.4000e-004**	**5.2900e-003**	**0.0000**	**23.4866**	**23.4866**	**8.9000e-004**	**0.0000**	**23.5090**

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	0.0763	0.6907	0.6066	9.7000e-004		0.0402	0.0402		0.0378	0.0378	0.0000	83.3795	83.3795	0.0203	0.0000	83.8880
Total	**0.0763**	**0.6907**	**0.6066**	**9.7000e-004**		**0.0402**	**0.0402**		**0.0378**	**0.0378**	**0.0000**	**83.3795**	**83.3795**	**0.0203**	**0.0000**	**83.8880**

3.5 Building Construction - 2020

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	1.4800e-003	0.0463	9.1600e-003	1.0000e-004	2.3700e-003	2.5000e-004	2.6200e-003	6.8000e-004	2.4000e-004	9.2000e-004	0.0000	9.8383	9.8383	4.8000e-004	0.0000	9.8504
Worker	8.4800e-003	6.0400e-003	0.0601	1.5000e-004	0.0161	1.1000e-004	0.0162	4.2700e-003	1.0000e-004	4.3700e-003	0.0000	13.6483	13.6483	4.1000e-004	0.0000	13.6586
Total	**9.9600e-003**	**0.0523**	**0.0692**	**2.5000e-004**	**0.0184**	**3.6000e-004**	**0.0188**	**4.9500e-003**	**3.4000e-004**	**5.2900e-003**	**0.0000**	**23.4866**	**23.4866**	**8.9000e-004**	**0.0000**	**23.5090**

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	0.2167	1.9873	1.8896	3.0700e-003		0.1093	0.1093		0.1028	0.1028	0.0000	264.0665	264.0665	0.0637	0.0000	265.6592
Total	**0.2167**	**1.9873**	**1.8896**	**3.0700e-003**		**0.1093**	**0.1093**		**0.1028**	**0.1028**	**0.0000**	**264.0665**	**264.0665**	**0.0637**	**0.0000**	**265.6592**

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	3.8100e-003	0.1335	0.0253	3.2000e-004	7.5000e-003	3.7000e-004	7.8700e-003	2.1700e-003	3.6000e-004	2.5200e-003	0.0000	30.8780	30.8780	1.4500e-003	0.0000	30.9143
Worker	0.0247	0.0170	0.1709	4.6000e-004	0.0508	3.3000e-004	0.0512	0.0135	3.0000e-004	0.0138	0.0000	41.8675	41.8675	1.1500e-003	0.0000	41.8963
Total	**0.0285**	**0.1505**	**0.1963**	**7.8000e-004**	**0.0583**	**7.0000e-004**	**0.0590**	**0.0157**	**6.6000e-004**	**0.0163**	**0.0000**	**72.7454**	**72.7454**	**2.6000e-003**	**0.0000**	**72.8106**

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	0.2167	1.9873	1.8896	3.0700e-003		0.1093	0.1093		0.1028	0.1028	0.0000	264.0662	264.0662	0.0637	0.0000	265.6589
Total	**0.2167**	**1.9873**	**1.8896**	**3.0700e-003**		**0.1093**	**0.1093**		**0.1028**	**0.1028**	**0.0000**	**264.0662**	**264.0662**	**0.0637**	**0.0000**	**265.6589**

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	3.8100e-003	0.1335	0.0253	3.2000e-004	7.5000e-003	3.7000e-004	7.8700e-003	2.1700e-003	3.6000e-004	2.5200e-003	0.0000	30.8780	30.8780	1.4500e-003	0.0000	30.9143
Worker	0.0247	0.0170	0.1709	4.6000e-004	0.0508	3.3000e-004	0.0512	0.0135	3.0000e-004	0.0138	0.0000	41.8675	41.8675	1.1500e-003	0.0000	41.8963
Total	**0.0285**	**0.1505**	**0.1963**	**7.8000e-004**	**0.0583**	**7.0000e-004**	**0.0590**	**0.0157**	**6.6000e-004**	**0.0163**	**0.0000**	**72.7454**	**72.7454**	**2.6000e-003**	**0.0000**	**72.8106**

3.6 Paving - 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	0.0126	0.1292	0.1465	2.3000e-004		6.7800e-003	6.7800e-003		6.2400e-003	6.2400e-003	0.0000	20.0235	20.0235	6.4800e-003	0.0000	20.1854
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0126**	**0.1292**	**0.1465**	**2.3000e-004**		**6.7800e-003**	**6.7800e-003**		**6.2400e-003**	**6.2400e-003**	**0.0000**	**20.0235**	**20.0235**	**6.4800e-003**	**0.0000**	**20.1854**

3.6 Paving - 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	9.0000e-004	6.2000e-004	6.2500e-003	2.0000e-005	1.8600e-003	1.0000e-005	1.8700e-003	4.9000e-004	1.0000e-005	5.0000e-004	0.0000	1.5302	1.5302	4.0000e-005	0.0000	1.5313
Total	**9.0000e-004**	**6.2000e-004**	**6.2500e-003**	**2.0000e-005**	**1.8600e-003**	**1.0000e-005**	**1.8700e-003**	**4.9000e-004**	**1.0000e-005**	**5.0000e-004**	**0.0000**	**1.5302**	**1.5302**	**4.0000e-005**	**0.0000**	**1.5313**

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	0.0126	0.1292	0.1465	2.3000e-004		6.7800e-003	6.7800e-003		6.2400e-003	6.2400e-003	0.0000	20.0235	20.0235	6.4800e-003	0.0000	20.1854
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0126**	**0.1292**	**0.1465**	**2.3000e-004**		**6.7800e-003**	**6.7800e-003**		**6.2400e-003**	**6.2400e-003**	**0.0000**	**20.0235**	**20.0235**	**6.4800e-003**	**0.0000**	**20.1854**

3.6 Paving - 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	9.0000e-004	6.2000e-004	6.2500e-003	2.0000e-005	1.8600e-003	1.0000e-005	1.8700e-003	4.9000e-004	1.0000e-005	5.0000e-004	0.0000	1.5302	1.5302	4.0000e-005	0.0000	1.5313
Total	**9.0000e-004**	**6.2000e-004**	**6.2500e-003**	**2.0000e-005**	**1.8600e-003**	**1.0000e-005**	**1.8700e-003**	**4.9000e-004**	**1.0000e-005**	**5.0000e-004**	**0.0000**	**1.5302**	**1.5302**	**4.0000e-005**	**0.0000**	**1.5313**

3.7 Architectural Coating - 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					
Archit. Coating	1.0982					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.4200e-003	9.9200e-003	0.0118	2.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	1.6596	1.6596	1.1000e-004	0.0000	1.6625
Total	**1.0996**	**9.9200e-003**	**0.0118**	**2.0000e-005**		**6.1000e-004**	**6.1000e-004**		**6.1000e-004**	**6.1000e-004**	**0.0000**	**1.6596**	**1.6596**	**1.1000e-004**	**0.0000**	**1.6625**

3.7 Architectural Coating - 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	2.7000e-004	1.9000e-004	1.8900e-003	1.0000e-005	5.6000e-004	0.0000	5.7000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.4642	0.4642	1.0000e-005	0.0000	0.4645
Total	**2.7000e-004**	**1.9000e-004**	**1.8900e-003**	**1.0000e-005**	**5.6000e-004**	**0.0000**	**5.7000e-004**	**1.5000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**0.4642**	**0.4642**	**1.0000e-005**	**0.0000**	**0.4645**

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	1.0982					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.4200e-003	9.9200e-003	0.0118	2.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	1.6596	1.6596	1.1000e-004	0.0000	1.6625
Total	**1.0996**	**9.9200e-003**	**0.0118**	**2.0000e-005**		**6.1000e-004**	**6.1000e-004**		**6.1000e-004**	**6.1000e-004**	**0.0000**	**1.6596**	**1.6596**	**1.1000e-004**	**0.0000**	**1.6625**

3.7 Architectural Coating - 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	2.7000e-004	1.9000e-004	1.8900e-003	1.0000e-005	5.6000e-004	0.0000	5.7000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.4642	0.4642	1.0000e-005	0.0000	0.4645
Total	**2.7000e-004**	**1.9000e-004**	**1.8900e-003**	**1.0000e-005**	**5.6000e-004**	**0.0000**	**5.7000e-004**	**1.5000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**0.4642**	**0.4642**	**1.0000e-005**	**0.0000**	**0.4645**

3.7 Architectural Coating - 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					
Archit. Coating	0.5913					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.2000e-004	4.9300e-003	6.3500e-003	1.0000e-005		2.9000e-004	2.9000e-004		2.9000e-004	2.9000e-004	0.0000	0.8936	0.8936	6.0000e-005	0.0000	0.8951
Total	**0.5920**	**4.9300e-003**	**6.3500e-003**	**1.0000e-005**		**2.9000e-004**	**2.9000e-004**		**2.9000e-004**	**2.9000e-004**	**0.0000**	**0.8936**	**0.8936**	**6.0000e-005**	**0.0000**	**0.8951**

3.7 Architectural Coating - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4000e-004	9.0000e-005	9.3000e-004	0.0000	3.0000e-004	0.0000	3.1000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.2411	0.2411	1.0000e-005	0.0000	0.2412
Total	**1.4000e-004**	**9.0000e-005**	**9.3000e-004**	**0.0000**	**3.0000e-004**	**0.0000**	**3.1000e-004**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**0.0000**	**0.2411**	**0.2411**	**1.0000e-005**	**0.0000**	**0.2412**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.5913					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.2000e-004	4.9300e-003	6.3500e-003	1.0000e-005		2.9000e-004	2.9000e-004		2.9000e-004	2.9000e-004	0.0000	0.8936	0.8936	6.0000e-005	0.0000	0.8951
Total	**0.5920**	**4.9300e-003**	**6.3500e-003**	**1.0000e-005**		**2.9000e-004**	**2.9000e-004**		**2.9000e-004**	**2.9000e-004**	**0.0000**	**0.8936**	**0.8936**	**6.0000e-005**	**0.0000**	**0.8951**

3.7 Architectural Coating - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4000e-004	9.0000e-005	9.3000e-004	0.0000	3.0000e-004	0.0000	3.1000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.2411	0.2411	1.0000e-005	0.0000	0.2412
Total	**1.4000e-004**	**9.0000e-005**	**9.3000e-004**	**0.0000**	**3.0000e-004**	**0.0000**	**3.1000e-004**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**0.0000**	**0.2411**	**0.2411**	**1.0000e-005**	**0.0000**	**0.2412**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Diversity

Improve Walkability Design

Improve Destination Accessibility

Improve Pedestrian Network

	ROG	NOx	CO	SO2	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	0.3662	1.2949	4.6562	0.0128	1.1949	0.0110	1.2059	0.3199	0.0103	0.3302	0.0000	1,169.5950	1,169.5950	0.0633	0.0000	1,171.1771
Unmitigated	0.3732	1.3461	4.8906	0.0135	1.2705	0.0116	1.2821	0.3401	0.0109	0.3510	0.0000	1,239.5161	1,239.5161	0.0666	0.0000	1,241.1803

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	952.00	991.00	862.00	3,399,871	3,197,579
Total	952.00	991.00	862.00	3,399,871	3,197,579

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	16.80	7.10	7.90	38.40	22.60	39.00	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	0.537300	0.200000	0.167100	0.054200	0.001400	0.000900	0.009000	0.020600	0.000000	0.004400	0.002600	0.000900	0.001600

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	273.8252	273.8252	0.0113	2.3400e-003	274.8048
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	273.8252	273.8252	0.0113	2.3400e-003	274.8048
NaturalGas Mitigated	0.0139	0.1186	0.0505	7.6000e-004		9.5900e-003	9.5900e-003		9.5900e-003	9.5900e-003	0.0000	137.3248	137.3248	2.6300e-003	2.5200e-003	138.1409
NaturalGas Unmitigated	0.0139	0.1186	0.0505	7.6000e-004		9.5900e-003	9.5900e-003		9.5900e-003	9.5900e-003	0.0000	137.3248	137.3248	2.6300e-003	2.5200e-003	138.1409

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	2.57337e+006	0.0139	0.1186	0.0505	7.6000e-004		9.5900e-003	9.5900e-003		9.5900e-003	9.5900e-003	0.0000	137.3248	137.3248	2.6300e-003	2.5200e-003	138.1409
Total		**0.0139**	**0.1186**	**0.0505**	**7.6000e-004**		**9.5900e-003**	**9.5900e-003**		**9.5900e-003**	**9.5900e-003**	**0.0000**	**137.3248**	**137.3248**	**2.6300e-003**	**2.5200e-003**	**138.1409**

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	2.57337e+006	0.0139	0.1186	0.0505	7.6000e-004		9.5900e-003	9.5900e-003		9.5900e-003	9.5900e-003	0.0000	137.3248	137.3248	2.6300e-003	2.5200e-003	138.1409
Total		**0.0139**	**0.1186**	**0.0505**	**7.6000e-004**		**9.5900e-003**	**9.5900e-003**		**9.5900e-003**	**9.5900e-003**	**0.0000**	**137.3248**	**137.3248**	**2.6300e-003**	**2.5200e-003**	**138.1409**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	859406	273.8252	0.0113	2.3400e-003	274.8048
Total		**273.8252**	**0.0113**	**2.3400e-003**	**274.8048**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	859406	273.8252	0.0113	2.3400e-003	274.8048
Total		**273.8252**	**0.0113**	**2.3400e-003**	**274.8048**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

No Hearths Installed

	ROG	NOx	CO	SO2	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	0.8942	8.5400e-003	0.7388	4.0000e-005		4.0700e-003	4.0700e-003		4.0700e-003	4.0700e-003	0.0000	1.2020	1.2020	1.1600e-003	0.0000	1.2309
Unmitigated	1.2555	0.0988	3.9989	0.0109		0.5355	0.5355		0.5355	0.5355	70.7477	44.5336	115.2813	0.3327	7.9000e-004	123.8364

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	0.1690					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.7030					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.3610	0.0902	3.2548	0.0108		0.5314	0.5314		0.5314	0.5314	70.7477	43.3207	114.0684	0.3316	7.9000e-004	122.5941
Landscaping	0.0226	8.5900e-003	0.7441	4.0000e-005		4.1000e-003	4.1000e-003		4.1000e-003	4.1000e-003	0.0000	1.2129	1.2129	1.1800e-003	0.0000	1.2423
Total	**1.2555**	**0.0988**	**3.9989**	**0.0109**		**0.5355**	**0.5355**		**0.5355**	**0.5355**	**70.7477**	**44.5336**	**115.2813**	**0.3327**	**7.9000e-004**	**123.8364**

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	0.1690					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.7030					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0222	8.5400e-003	0.7388	4.0000e-005		4.0700e-003	4.0700e-003		4.0700e-003	4.0700e-003	0.0000	1.2020	1.2020	1.1600e-003	0.0000	1.2309
Total	**0.8942**	**8.5400e-003**	**0.7388**	**4.0000e-005**		**4.0700e-003**	**4.0700e-003**		**4.0700e-003**	**4.0700e-003**	**0.0000**	**1.2020**	**1.2020**	**1.1600e-003**	**0.0000**	**1.2309**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	15.1317	1.9011	4.1200e-003	63.8868
Unmitigated	18.1187	2.3763	5.1500e-003	79.0598

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	6.5154 / 4.10754	18.1187	2.3763	5.1500e-003	79.0598
Total		**18.1187**	**2.3763**	**5.1500e-003**	**79.0598**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	5.21232 / 3.85698	15.1317	1.9011	4.1200e-003	63.8868
Total		**15.1317**	**1.9011**	**4.1200e-003**	**63.8868**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	20.9000	1.2352	0.0000	51.7787
Unmitigated	20.9000	1.2352	0.0000	51.7787

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	102.96	20.9000	1.2352	0.0000	51.7787
Total		**20.9000**	**1.2352**	**0.0000**	**51.7787**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	102.96	20.9000	1.2352	0.0000	51.7787
Total		**20.9000**	**1.2352**	**0.0000**	**51.7787**

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

Cross Creek Bend Phase 2

Tulare County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	111.00	Dwelling Unit	17.50	199,800.00	317

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	51
Climate Zone	7			**Operational Year**	2023
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Cross Creek Bend Phase 2 - Tulare County, Annual

Project Characteristics -

Land Use - The project area will be developed evenly between the four phases

Construction Phase -

Fleet Mix - per "District Accepted Fleet Mix for Residential Projects" obtained online 10/8/19

Woodstoves -

Water And Wastewater - all lots will be connected to Goshen Community Services District

Construction Off-road Equipment Mitigation - compliance with Regulation VIII

Mobile Land Use Mitigation -

Area Mitigation -

Water Mitigation - Title 24 requirements and County Ordinance

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	PhaseEndDate	1/11/2024	12/14/2023
tblConstructionPhase	PhaseEndDate	11/16/2023	10/19/2023
tblConstructionPhase	PhaseEndDate	9/22/2022	8/25/2022
tblConstructionPhase	PhaseEndDate	12/14/2023	11/16/2023
tblConstructionPhase	PhaseEndDate	8/11/2022	7/14/2022
tblConstructionPhase	PhaseStartDate	12/15/2023	11/17/2023
tblConstructionPhase	PhaseStartDate	9/23/2022	8/26/2022
tblConstructionPhase	PhaseStartDate	8/12/2022	7/15/2022
tblConstructionPhase	PhaseStartDate	11/17/2023	10/20/2023
tblConstructionPhase	PhaseStartDate	7/29/2022	7/1/2022
tblFleetMix	HHD	0.08	0.02
tblFleetMix	LDA	0.53	0.53
tblFleetMix	LDT1	0.03	0.21
tblFleetMix	LDT2	0.17	0.17

tblFleetMix	LHD1	0.02	1.1000e-003
tblFleetMix	LHD2	4.8110e-003	9.0000e-004
tblFleetMix	MCY	4.1860e-003	2.5000e-003
tblFleetMix	MDV	0.13	0.06
tblFleetMix	MH	6.6300e-004	1.9000e-003
tblFleetMix	MHD	0.02	8.5000e-003
tblFleetMix	OBUS	1.8260e-003	0.00
tblFleetMix	SBUS	1.0920e-003	4.0000e-004
tblFleetMix	UBUS	1.2170e-003	4.3000e-003
tblLandUse	LotAcreage	36.04	17.50
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblWater	AerobicPercent	87.46	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	100.00
tblWater	SepticTankPercent	10.33	0.00

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					
2022	0.1617	1.5220	1.3724	2.7300e-003	0.2511	0.0697	0.3208	0.1118	0.0649	0.1767	0.0000	239.0275	239.0275	0.0583	0.0000	240.4847
2023	2.0771	1.7327	2.0320	3.8500e-003	0.0621	0.0794	0.1415	0.0167	0.0746	0.0913	0.0000	336.4804	336.4804	0.0663	0.0000	338.1368
Maximum	**2.0771**	**1.7327**	**2.0320**	**3.8500e-003**	**0.2511**	**0.0794**	**0.3208**	**0.1118**	**0.0746**	**0.1767**	**0.0000**	**336.4804**	**336.4804**	**0.0663**	**0.0000**	**338.1368**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.1617	1.5220	1.3724	2.7300e-003	0.1166	0.0697	0.1863	0.0486	0.0649	0.1135	0.0000	239.0273	239.0273	0.0583	0.0000	240.4844
2023	2.0771	1.7327	2.0320	3.8500e-003	0.0621	0.0794	0.1415	0.0167	0.0746	0.0913	0.0000	336.4801	336.4801	0.0663	0.0000	338.1365
Maximum	**2.0771**	**1.7327**	**2.0320**	**3.8500e-003**	**0.1166**	**0.0794**	**0.1863**	**0.0486**	**0.0746**	**0.1135**	**0.0000**	**336.4801**	**336.4801**	**0.0663**	**0.0000**	**338.1365**

	ROG	NOx	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**	**42.94**	**0.00**	**29.09**	**49.18**	**0.00**	**23.58**	**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	7-1-2022	9-30-2022	1.0655	1.0655
2	10-1-2022	12-31-2022	0.6233	0.6233
3	1-1-2023	3-31-2023	0.5562	0.5562
4	4-1-2023	6-30-2023	0.5616	0.5616
5	7-1-2023	9-30-2023	0.5678	0.5678
		Highest	1.0655	1.0655

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	1.3542	0.1039	4.0809	0.0109		0.5363	0.5363		0.5363	0.5363	70.7477	49.4323	120.1800	0.3330	8.8000e-004	128.7664
Energy	0.0154	0.1316	0.0560	8.4000e-004		0.0106	0.0106		0.0106	0.0106	0.0000	456.3765	456.3765	0.0155	5.3900e-003	458.3697
Mobile	0.3470	1.1361	4.5201	0.0141	1.4086	0.0104	1.4190	0.3768	9.6100e-003	0.3864	0.0000	1,295.5476	1,295.5476	0.0613	0.0000	1,297.0794
Waste						0.0000	0.0000		0.0000	0.0000	23.1653	0.0000	23.1653	1.3690	0.0000	57.3911
Water						0.0000	0.0000		0.0000	0.0000	2.5587	17.5531	20.1118	2.6377	5.7100e-003	87.7564
Total	**1.7166**	**1.3715**	**8.6570**	**0.0258**	**1.4086**	**0.5573**	**1.9659**	**0.3768**	**0.5565**	**0.9334**	**96.4717**	**1,818.9094**	**1,915.3811**	**4.4164**	**0.0120**	**2,029.3629**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.9923	9.4400e-003	0.8184	4.0000e-005		4.5300e-003	4.5300e-003		4.5300e-003	4.5300e-003	0.0000	1.3342	1.3342	1.2800e-003	0.0000	1.3661
Energy	0.0154	0.1316	0.0560	8.4000e-004		0.0106	0.0106		0.0106	0.0106	0.0000	456.3765	456.3765	0.0155	5.3900e-003	458.3697
Mobile	0.3409	1.0961	4.3021	0.0133	1.3248	9.8100e-003	1.3346	0.3544	9.1000e-003	0.3635	0.0000	1,222.6570	1,222.6570	0.0582	0.0000	1,224.1118
Waste						0.0000	0.0000		0.0000	0.0000	23.1653	0.0000	23.1653	1.3690	0.0000	57.3911
Water						0.0000	0.0000		0.0000	0.0000	2.0470	14.7492	16.7962	2.1102	4.5800e-003	70.9144
Total	**1.3486**	**1.2372**	**5.1765**	**0.0142**	**1.3248**	**0.0250**	**1.3498**	**0.3544**	**0.0243**	**0.3787**	**25.2123**	**1,695.1169**	**1,720.3292**	**3.5541**	**9.9700e-003**	**1,812.1530**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**21.44**	**9.79**	**40.20**	**45.04**	**5.95**	**95.52**	**31.34**	**5.95**	**95.64**	**59.43**	**73.87**	**6.81**	**10.18**	**19.52**	**16.78**	**10.70**

3.0 Construction Detail

Construction Phase

Cross Creek Bend Phase 2 - Tulare County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	7/1/2022	7/14/2022	5	10	
2	Grading	Grading	7/15/2022	8/25/2022	5	30	
3	Building Construction	Building Construction	8/26/2022	10/19/2023	5	300	
4	Paving	Paving	10/20/2023	11/16/2023	5	20	
5	Architectural Coating	Architectural Coating	11/17/2023	12/14/2023	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 75

Acres of Paving: 0

Residential Indoor: 404,595; Residential Outdoor: 134,865; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Cross Creek Bend Phase 2 - Tulare County, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
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
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
Architectural Coating	1	8.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	40.00	12.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0159	0.1654	0.0985	1.9000e-004		8.0600e-003	8.0600e-003		7.4200e-003	7.4200e-003	0.0000	16.7197	16.7197	5.4100e-003	0.0000	16.8549
Total	**0.0159**	**0.1654**	**0.0985**	**1.9000e-004**	**0.0903**	**8.0600e-003**	**0.0984**	**0.0497**	**7.4200e-003**	**0.0571**	**0.0000**	**16.7197**	**16.7197**	**5.4100e-003**	**0.0000**	**16.8549**

3.2 Site Preparation - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-004	3.3000e-004	3.4000e-003	1.0000e-005	1.1100e-003	1.0000e-005	1.1200e-003	3.0000e-004	1.0000e-005	3.0000e-004	0.0000	0.8856	0.8856	2.0000e-005	0.0000	0.8861
Total	**5.0000e-004**	**3.3000e-004**	**3.4000e-003**	**1.0000e-005**	**1.1100e-003**	**1.0000e-005**	**1.1200e-003**	**3.0000e-004**	**1.0000e-005**	**3.0000e-004**	**0.0000**	**0.8856**	**0.8856**	**2.0000e-005**	**0.0000**	**0.8861**

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					0.0352	0.0000	0.0352	0.0194	0.0000	0.0194	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0159	0.1654	0.0985	1.9000e-004		8.0600e-003	8.0600e-003		7.4200e-003	7.4200e-003	0.0000	16.7197	16.7197	5.4100e-003	0.0000	16.8549
Total	**0.0159**	**0.1654**	**0.0985**	**1.9000e-004**	**0.0352**	**8.0600e-003**	**0.0433**	**0.0194**	**7.4200e-003**	**0.0268**	**0.0000**	**16.7197**	**16.7197**	**5.4100e-003**	**0.0000**	**16.8549**

3.2 Site Preparation - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-004	3.3000e-004	3.4000e-003	1.0000e-005	1.1100e-003	1.0000e-005	1.1200e-003	3.0000e-004	1.0000e-005	3.0000e-004	0.0000	0.8856	0.8856	2.0000e-005	0.0000	0.8861
Total	**5.0000e-004**	**3.3000e-004**	**3.4000e-003**	**1.0000e-005**	**1.1100e-003**	**1.0000e-005**	**1.1200e-003**	**3.0000e-004**	**1.0000e-005**	**3.0000e-004**	**0.0000**	**0.8856**	**0.8856**	**2.0000e-005**	**0.0000**	**0.8861**

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1301	0.0000	0.1301	0.0540	0.0000	0.0540	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0544	0.5827	0.4356	9.3000e-004		0.0245	0.0245		0.0226	0.0226	0.0000	81.8019	81.8019	0.0265	0.0000	82.4633
Total	**0.0544**	**0.5827**	**0.4356**	**9.3000e-004**	**0.1301**	**0.0245**	**0.1546**	**0.0540**	**0.0226**	**0.0765**	**0.0000**	**81.8019**	**81.8019**	**0.0265**	**0.0000**	**82.4633**

3.3 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6700e-003	1.1100e-003	0.0113	3.0000e-005	3.7200e-003	2.0000e-005	3.7400e-003	9.9000e-004	2.0000e-005	1.0100e-003	0.0000	2.9519	2.9519	7.0000e-005	0.0000	2.9538
Total	**1.6700e-003**	**1.1100e-003**	**0.0113**	**3.0000e-005**	**3.7200e-003**	**2.0000e-005**	**3.7400e-003**	**9.9000e-004**	**2.0000e-005**	**1.0100e-003**	**0.0000**	**2.9519**	**2.9519**	**7.0000e-005**	**0.0000**	**2.9538**

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					0.0507	0.0000	0.0507	0.0210	0.0000	0.0210	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0544	0.5827	0.4356	9.3000e-004		0.0245	0.0245		0.0226	0.0226	0.0000	81.8018	81.8018	0.0265	0.0000	82.4632
Total	**0.0544**	**0.5827**	**0.4356**	**9.3000e-004**	**0.0507**	**0.0245**	**0.0753**	**0.0210**	**0.0226**	**0.0436**	**0.0000**	**81.8018**	**81.8018**	**0.0265**	**0.0000**	**82.4632**

3.3 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6700e-003	1.1100e-003	0.0113	3.0000e-005	3.7200e-003	2.0000e-005	3.7400e-003	9.9000e-004	2.0000e-005	1.0100e-003	0.0000	2.9519	2.9519	7.0000e-005	0.0000	2.9538
Total	**1.6700e-003**	**1.1100e-003**	**0.0113**	**3.0000e-005**	**3.7200e-003**	**2.0000e-005**	**3.7400e-003**	**9.9000e-004**	**2.0000e-005**	**1.0100e-003**	**0.0000**	**2.9519**	**2.9519**	**7.0000e-005**	**0.0000**	**2.9538**

3.4 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	0.0776	0.7105	0.7445	1.2300e-003		0.0368	0.0368		0.0346	0.0346	0.0000	105.4350	105.4350	0.0253	0.0000	106.0665
Total	**0.0776**	**0.7105**	**0.7445**	**1.2300e-003**		**0.0368**	**0.0368**		**0.0346**	**0.0346**	**0.0000**	**105.4350**	**105.4350**	**0.0253**	**0.0000**	**106.0665**

3.4 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	1.5400e-003	0.0553	0.0102	1.4000e-004	3.2600e-003	1.4000e-004	3.4100e-003	9.4000e-004	1.3000e-004	1.0800e-003	0.0000	13.3255	13.3255	6.1000e-004	0.0000	13.3407
Worker	0.0101	6.7100e-003	0.0688	2.0000e-004	0.0225	1.4000e-004	0.0227	5.9900e-003	1.3000e-004	6.1200e-003	0.0000	17.9080	17.9080	4.5000e-004	0.0000	17.9194
Total	**0.0117**	**0.0620**	**0.0790**	**3.4000e-004**	**0.0258**	**2.8000e-004**	**0.0261**	**6.9300e-003**	**2.6000e-004**	**7.2000e-003**	**0.0000**	**31.2335**	**31.2335**	**1.0600e-003**	**0.0000**	**31.2601**

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	0.0776	0.7105	0.7445	1.2300e-003		0.0368	0.0368		0.0346	0.0346	0.0000	105.4349	105.4349	0.0253	0.0000	106.0663
Total	**0.0776**	**0.7105**	**0.7445**	**1.2300e-003**		**0.0368**	**0.0368**		**0.0346**	**0.0346**	**0.0000**	**105.4349**	**105.4349**	**0.0253**	**0.0000**	**106.0663**

3.4 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	1.5400e-003	0.0553	0.0102	1.4000e-004	3.2600e-003	1.4000e-004	3.4100e-003	9.4000e-004	1.3000e-004	1.0800e-003	0.0000	13.3255	13.3255	6.1000e-004	0.0000	13.3407
Worker	0.0101	6.7100e-003	0.0688	2.0000e-004	0.0225	1.4000e-004	0.0227	5.9900e-003	1.3000e-004	6.1200e-003	0.0000	17.9080	17.9080	4.5000e-004	0.0000	17.9194
Total	**0.0117**	**0.0620**	**0.0790**	**3.4000e-004**	**0.0258**	**2.8000e-004**	**0.0261**	**6.9300e-003**	**2.6000e-004**	**7.2000e-003**	**0.0000**	**31.2335**	**31.2335**	**1.0600e-003**	**0.0000**	**31.2601**

3.4 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	0.1644	1.5032	1.6975	2.8200e-003		0.0731	0.0731		0.0688	0.0688	0.0000	242.2360	242.2360	0.0576	0.0000	243.6766
Total	**0.1644**	**1.5032**	**1.6975**	**2.8200e-003**		**0.0731**	**0.0731**		**0.0688**	**0.0688**	**0.0000**	**242.2360**	**242.2360**	**0.0576**	**0.0000**	**243.6766**

3.4 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	2.4600e-003	0.1000	0.0195	3.1000e-004	7.5000e-003	1.0000e-004	7.6000e-003	2.1700e-003	9.0000e-005	2.2600e-003	0.0000	29.8809	29.8809	1.0300e-003	0.0000	29.9065
Worker	0.0216	0.0137	0.1431	4.4000e-004	0.0518	3.1000e-004	0.0521	0.0138	2.9000e-004	0.0141	0.0000	39.6043	39.6043	9.3000e-004	0.0000	39.6274
Total	**0.0241**	**0.1137**	**0.1626**	**7.5000e-004**	**0.0593**	**4.1000e-004**	**0.0597**	**0.0159**	**3.8000e-004**	**0.0163**	**0.0000**	**69.4852**	**69.4852**	**1.9600e-003**	**0.0000**	**69.5340**

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	0.1644	1.5032	1.6975	2.8200e-003		0.0731	0.0731		0.0688	0.0688	0.0000	242.2357	242.2357	0.0576	0.0000	243.6763
Total	**0.1644**	**1.5032**	**1.6975**	**2.8200e-003**		**0.0731**	**0.0731**		**0.0688**	**0.0688**	**0.0000**	**242.2357**	**242.2357**	**0.0576**	**0.0000**	**243.6763**

3.4 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	2.4600e-003	0.1000	0.0195	3.1000e-004	7.5000e-003	1.0000e-004	7.6000e-003	2.1700e-003	9.0000e-005	2.2600e-003	0.0000	29.8809	29.8809	1.0300e-003	0.0000	29.9065
Worker	0.0216	0.0137	0.1431	4.4000e-004	0.0518	3.1000e-004	0.0521	0.0138	2.9000e-004	0.0141	0.0000	39.6043	39.6043	9.3000e-004	0.0000	39.6274
Total	**0.0241**	**0.1137**	**0.1626**	**7.5000e-004**	**0.0593**	**4.1000e-004**	**0.0597**	**0.0159**	**3.8000e-004**	**0.0163**	**0.0000**	**69.4852**	**69.4852**	**1.9600e-003**	**0.0000**	**69.5340**

3.5 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**

3.5 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	7.7000e-004	4.9000e-004	5.1400e-003	2.0000e-005	1.8600e-003	1.0000e-005	1.8700e-003	4.9000e-004	1.0000e-005	5.0000e-004	0.0000	1.4212	1.4212	3.0000e-005	0.0000	1.4220
Total	**7.7000e-004**	**4.9000e-004**	**5.1400e-003**	**2.0000e-005**	**1.8600e-003**	**1.0000e-005**	**1.8700e-003**	**4.9000e-004**	**1.0000e-005**	**5.0000e-004**	**0.0000**	**1.4212**	**1.4212**	**3.0000e-005**	**0.0000**	**1.4220**

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**

3.5 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	7.7000e-004	4.9000e-004	5.1400e-003	2.0000e-005	1.8600e-003	1.0000e-005	1.8700e-003	4.9000e-004	1.0000e-005	5.0000e-004	0.0000	1.4212	1.4212	3.0000e-005	0.0000	1.4220
Total	**7.7000e-004**	**4.9000e-004**	**5.1400e-003**	**2.0000e-005**	**1.8600e-003**	**1.0000e-005**	**1.8700e-003**	**4.9000e-004**	**1.0000e-005**	**5.0000e-004**	**0.0000**	**1.4212**	**1.4212**	**3.0000e-005**	**0.0000**	**1.4220**

3.6 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	1.8753					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	**1.8772**	**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**

3.6 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	4.1000e-004	2.6000e-004	2.7400e-003	1.0000e-005	9.9000e-004	1.0000e-005	1.0000e-003	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	0.7580	0.7580	2.0000e-005	0.0000	0.7584
Total	**4.1000e-004**	**2.6000e-004**	**2.7400e-003**	**1.0000e-005**	**9.9000e-004**	**1.0000e-005**	**1.0000e-003**	**2.6000e-004**	**1.0000e-005**	**2.7000e-004**	**0.0000**	**0.7580**	**0.7580**	**2.0000e-005**	**0.0000**	**0.7584**

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	1.8753					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	**1.8772**	**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**

3.6 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	4.1000e-004	2.6000e-004	2.7400e-003	1.0000e-005	9.9000e-004	1.0000e-005	1.0000e-003	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	0.7580	0.7580	2.0000e-005	0.0000	0.7584
Total	**4.1000e-004**	**2.6000e-004**	**2.7400e-003**	**1.0000e-005**	**9.9000e-004**	**1.0000e-005**	**1.0000e-003**	**2.6000e-004**	**1.0000e-005**	**2.7000e-004**	**0.0000**	**0.7580**	**0.7580**	**2.0000e-005**	**0.0000**	**0.7584**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Diversity

Improve Walkability Design

Improve Destination Accessibility

Improve Pedestrian Network

	ROG	NOx	CO	SO2	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	0.3409	1.0961	4.3021	0.0133	1.3248	9.8100e-003	1.3346	0.3544	9.1000e-003	0.3635	0.0000	1,222.6570	1,222.6570	0.0582	0.0000	1,224.1118
Unmitigated	0.3470	1.1361	4.5201	0.0141	1.4086	0.0104	1.4190	0.3768	9.6100e-003	0.3864	0.0000	1,295.5476	1,295.5476	0.0613	0.0000	1,297.0794

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	1,056.72	1,100.01	956.82	3,773,857	3,549,312
Total	1,056.72	1,100.01	956.82	3,773,857	3,549,312

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	16.80	7.10	7.90	38.40	22.60	39.00	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	0.530500	0.205800	0.167300	0.055000	0.001100	0.000900	0.008500	0.021800	0.000000	0.004300	0.002500	0.000400	0.001900

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	303.9459	303.9459	0.0126	2.6000e-003	305.0333
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	303.9459	303.9459	0.0126	2.6000e-003	305.0333
NaturalGas Mitigated	0.0154	0.1316	0.0560	8.4000e-004		0.0106	0.0106		0.0106	0.0106	0.0000	152.4306	152.4306	2.9200e-003	2.7900e-003	153.3364
NaturalGas Unmitigated	0.0154	0.1316	0.0560	8.4000e-004		0.0106	0.0106		0.0106	0.0106	0.0000	152.4306	152.4306	2.9200e-003	2.7900e-003	153.3364

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	2.85644e+006	0.0154	0.1316	0.0560	8.4000e-004		0.0106	0.0106		0.0106	0.0106	0.0000	152.4306	152.4306	2.9200e-003	2.7900e-003	153.3364
Total		**0.0154**	**0.1316**	**0.0560**	**8.4000e-004**		**0.0106**	**0.0106**		**0.0106**	**0.0106**	**0.0000**	**152.4306**	**152.4306**	**2.9200e-003**	**2.7900e-003**	**153.3364**

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	2.85644e+006	0.0154	0.1316	0.0560	8.4000e-004		0.0106	0.0106		0.0106	0.0106	0.0000	152.4306	152.4306	2.9200e-003	2.7900e-003	153.3364
Total		**0.0154**	**0.1316**	**0.0560**	**8.4000e-004**		**0.0106**	**0.0106**		**0.0106**	**0.0106**	**0.0000**	**152.4306**	**152.4306**	**2.9200e-003**	**2.7900e-003**	**153.3364**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	953941	303.9459	0.0126	2.6000e-003	305.0333
Total		**303.9459**	**0.0126**	**2.6000e-003**	**305.0333**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	953941	303.9459	0.0126	2.6000e-003	305.0333
Total		**303.9459**	**0.0126**	**2.6000e-003**	**305.0333**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

No Hearths Installed

	ROG	NOx	CO	SO2	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	0.9923	9.4400e-003	0.8184	4.0000e-005		4.5300e-003	4.5300e-003		4.5300e-003	4.5300e-003	0.0000	1.3342	1.3342	1.2800e-003	0.0000	1.3661
Unmitigated	1.3542	0.1039	4.0809	0.0109		0.5363	0.5363		0.5363	0.5363	70.7477	49.4323	120.1800	0.3330	8.8000e-004	128.7664

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	0.1875					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.7803					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.3615	0.0944	3.2565	0.0108		0.5317	0.5317		0.5317	0.5317	70.7477	48.0860	118.8337	0.3317	8.8000e-004	127.3877
Landscaping	0.0248	9.5000e-003	0.8244	4.0000e-005		4.5600e-003	4.5600e-003		4.5600e-003	4.5600e-003	0.0000	1.3463	1.3463	1.2900e-003	0.0000	1.3787
Total	**1.3542**	**0.1039**	**4.0809**	**0.0109**		**0.5363**	**0.5363**		**0.5363**	**0.5363**	**70.7477**	**49.4323**	**120.1800**	**0.3329**	**8.8000e-004**	**128.7664**

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	0.1875					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.7803					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0245	9.4400e-003	0.8184	4.0000e-005		4.5300e-003	4.5300e-003		4.5300e-003	4.5300e-003	0.0000	1.3342	1.3342	1.2800e-003	0.0000	1.3661
Total	**0.9923**	**9.4400e-003**	**0.8184**	**4.0000e-005**		**4.5300e-003**	**4.5300e-003**		**4.5300e-003**	**4.5300e-003**	**0.0000**	**1.3342**	**1.3342**	**1.2800e-003**	**0.0000**	**1.3661**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	16.7962	2.1102	4.5800e-003	70.9144
Unmitigated	20.1118	2.6377	5.7100e-003	87.7564

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	7.2321 / 4.55937	20.1118	2.6377	5.7100e-003	87.7564
Total		**20.1118**	**2.6377**	**5.7100e-003**	**87.7564**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	5.78568 / 4.28124	16.7962	2.1102	4.5800e-003	70.9144
Total		**16.7962**	**2.1102**	**4.5800e-003**	**70.9144**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	23.1653	1.3690	0.0000	57.3911
Unmitigated	23.1653	1.3690	0.0000	57.3911

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	114.12	23.1653	1.3690	0.0000	57.3911
Total		**23.1653**	**1.3690**	**0.0000**	**57.3911**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	114.12	23.1653	1.3690	0.0000	57.3911
Total		**23.1653**	**1.3690**	**0.0000**	**57.3911**

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

Cross Creek Bend Phase 3

Tulare County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	93.00	Dwelling Unit	17.50	167,400.00	266

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	51
Climate Zone	7			**Operational Year**	2025
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - The project area will be developed evenly between the four phases

Construction Phase -

Fleet Mix - per "District Accepted Fleet Mix for Residential Projects" obtained online 10/8/19

Woodstoves -

Water And Wastewater - all lots will be connected to Goshen Community Services District

Construction Off-road Equipment Mitigation - compliance with Regulation VIII

Mobile Land Use Mitigation -

Area Mitigation -

Water Mitigation - Title 24 requirements and County Ordinance

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblFleetMix	HHD	0.08	0.02
tblFleetMix	LDA	0.55	0.52
tblFleetMix	LDT1	0.03	0.21
tblFleetMix	LDT2	0.18	0.17
tblFleetMix	LHD1	0.02	8.0000e-004
tblFleetMix	LHD2	4.3040e-003	9.0000e-004
tblFleetMix	MCY	4.0600e-003	2.5000e-003
tblFleetMix	MDV	0.12	0.06
tblFleetMix	MH	5.8700e-004	2.2000e-003
tblFleetMix	MHD	0.02	7.6000e-003
tblFleetMix	OBUS	1.8020e-003	0.00
tblFleetMix	SBUS	1.0580e-003	1.0000e-004
tblFleetMix	UBUS	1.1360e-003	4.3000e-003
tblLandUse	LotAcreage	30.19	17.50
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblWater	AerobicPercent	87.46	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	100.00
tblWater	SepticTankPercent	10.33	0.00

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					
2024	0.1393	1.2820	1.3180	2.6700e-003	0.2468	0.0546	0.3014	0.1107	0.0508	0.1615	0.0000	233.4038	233.4038	0.0578	0.0000	234.8498
2025	1.7427	1.4854	1.9568	3.6700e-003	0.0515	0.0599	0.1114	0.0138	0.0563	0.0701	0.0000	320.1403	320.1403	0.0648	0.0000	321.7613
Maximum	**1.7427**	**1.4854**	**1.9568**	**3.6700e-003**	**0.2468**	**0.0599**	**0.3014**	**0.1107**	**0.0563**	**0.1615**	**0.0000**	**320.1403**	**320.1403**	**0.0648**	**0.0000**	**321.7613**

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					
2024	0.1393	1.2820	1.3180	2.6700e-003	0.1124	0.0546	0.1669	0.0475	0.0508	0.0983	0.0000	233.4036	233.4036	0.0578	0.0000	234.8495
2025	1.7427	1.4854	1.9568	3.6700e-003	0.0515	0.0599	0.1114	0.0138	0.0563	0.0701	0.0000	320.1400	320.1400	0.0648	0.0000	321.7610
Maximum	**1.7427**	**1.4854**	**1.9568**	**3.6700e-003**	**0.1124**	**0.0599**	**0.1669**	**0.0475**	**0.0563**	**0.0983**	**0.0000**	**320.1400**	**320.1400**	**0.0648**	**0.0000**	**321.7610**

	ROG	NOx	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**	**45.08**	**0.00**	**32.58**	**50.76**	**0.00**	**27.29**	**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	7-1-2024	9-30-2024	0.8818	0.8818
2	10-1-2024	12-31-2024	0.5258	0.5258
3	1-1-2025	3-31-2025	0.4788	0.4788
4	4-1-2025	6-30-2025	0.4836	0.4836
5	7-1-2025	9-30-2025	0.4889	0.4889
		Highest	0.8818	0.8818

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	1.1923	0.0956	3.9435	0.0108		0.5350	0.5350		0.5350	0.5350	70.7477	41.4163	112.1639	0.3326	7.4000e-004	120.6986
Energy	0.0129	0.1103	0.0469	7.0000e-004		8.9200e-003	8.9200e-003		8.9200e-003	8.9200e-003	0.0000	382.3695	382.3695	0.0130	4.5200e-003	384.0395
Mobile	0.2535	0.8365	3.2618	0.0110	1.1790	8.0600e-003	1.1871	0.3152	7.4800e-003	0.3227	0.0000	1,011.0825	1,011.0825	0.0453	0.0000	1,012.2137
Waste						0.0000	0.0000		0.0000	0.0000	19.4384	0.0000	19.4384	1.1488	0.0000	48.1579
Water						0.0000	0.0000		0.0000	0.0000	2.1438	14.7066	16.8504	2.2099	4.7900e-003	73.5256
Total	**1.4588**	**1.0423**	**7.2522**	**0.0225**	**1.1790**	**0.5520**	**1.7310**	**0.3152**	**0.5514**	**0.8666**	**92.3299**	**1,449.5749**	**1,541.9048**	**3.7495**	**0.0101**	**1,638.6352**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.8313	7.9000e-003	0.6849	4.0000e-005		3.8000e-003	3.8000e-003		3.8000e-003	3.8000e-003	0.0000	1.1178	1.1178	1.0600e-003	0.0000	1.1444
Energy	0.0129	0.1103	0.0469	7.0000e-004		8.9200e-003	8.9200e-003		8.9200e-003	8.9200e-003	0.0000	382.3695	382.3695	0.0130	4.5200e-003	384.0395
Mobile	0.2490	0.8083	3.1034	0.0104	1.1089	7.6400e-003	1.1165	0.2965	7.0800e-003	0.3036	0.0000	954.2228	954.2228	0.0430	0.0000	955.2976
Waste						0.0000	0.0000		0.0000	0.0000	19.4384	0.0000	19.4384	1.1488	0.0000	48.1579
Water						0.0000	0.0000		0.0000	0.0000	1.7150	12.3574	14.0725	1.7680	3.8400e-003	59.4147
Total	**1.0933**	**0.9264**	**3.8352**	**0.0111**	**1.1089**	**0.0204**	**1.1292**	**0.2965**	**0.0198**	**0.3163**	**21.1535**	**1,350.0675**	**1,371.2210**	**2.9738**	**8.3600e-003**	**1,448.0541**

	ROG	NOx	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	**25.06**	**11.12**	**47.12**	**50.67**	**5.95**	**96.31**	**34.76**	**5.95**	**96.41**	**63.51**	**77.09**	**6.86**	**11.07**	**20.69**	**16.82**	**11.63**

3.0 Construction Detail

Construction Phase

Cross Creek Bend Phase 3 - Tulare County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	7/1/2024	7/12/2024	5	10	
2	Grading	Grading	7/13/2024	8/23/2024	5	30	
3	Building Construction	Building Construction	8/24/2024	10/17/2025	5	300	
4	Paving	Paving	10/18/2025	11/14/2025	5	20	
5	Architectural Coating	Architectural Coating	11/15/2025	12/12/2025	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 75

Acres of Paving: 0

Residential Indoor: 338,985; Residential Outdoor: 112,995; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Cross Creek Bend Phase 3 - Tulare County, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
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
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
Architectural Coating	1	7.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	33.00	10.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
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	0.0133	0.1359	0.0917	1.9000e-004		6.1500e-003	6.1500e-003		5.6600e-003	5.6600e-003	0.0000	16.7285	16.7285	5.4100e-003	0.0000	16.8638
Total	**0.0133**	**0.1359**	**0.0917**	**1.9000e-004**	**0.0903**	**6.1500e-003**	**0.0965**	**0.0497**	**5.6600e-003**	**0.0553**	**0.0000**	**16.7285**	**16.7285**	**5.4100e-003**	**0.0000**	**16.8638**

3.2 Site Preparation - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.3000e-004	2.6000e-004	2.8400e-003	1.0000e-005	1.1100e-003	1.0000e-005	1.1200e-003	3.0000e-004	1.0000e-005	3.0000e-004	0.0000	0.8189	0.8189	2.0000e-005	0.0000	0.8194
Total	**4.3000e-004**	**2.6000e-004**	**2.8400e-003**	**1.0000e-005**	**1.1100e-003**	**1.0000e-005**	**1.1200e-003**	**3.0000e-004**	**1.0000e-005**	**3.0000e-004**	**0.0000**	**0.8189**	**0.8189**	**2.0000e-005**	**0.0000**	**0.8194**

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					0.0352	0.0000	0.0352	0.0194	0.0000	0.0194	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0133	0.1359	0.0917	1.9000e-004		6.1500e-003	6.1500e-003		5.6500e-003	5.6500e-003	0.0000	16.7285	16.7285	5.4100e-003	0.0000	16.8638
Total	**0.0133**	**0.1359**	**0.0917**	**1.9000e-004**	**0.0352**	**6.1500e-003**	**0.0414**	**0.0194**	**5.6500e-003**	**0.0250**	**0.0000**	**16.7285**	**16.7285**	**5.4100e-003**	**0.0000**	**16.8638**

3.2 Site Preparation - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.3000e-004	2.6000e-004	2.8400e-003	1.0000e-005	1.1100e-003	1.0000e-005	1.1200e-003	3.0000e-004	1.0000e-005	3.0000e-004	0.0000	0.8189	0.8189	2.0000e-005	0.0000	0.8194
Total	**4.3000e-004**	**2.6000e-004**	**2.8400e-003**	**1.0000e-005**	**1.1100e-003**	**1.0000e-005**	**1.1200e-003**	**3.0000e-004**	**1.0000e-005**	**3.0000e-004**	**0.0000**	**0.8189**	**0.8189**	**2.0000e-005**	**0.0000**	**0.8194**

3.3 Grading - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
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	0.0483	0.4857	0.4158	9.3000e-004		0.0200	0.0200		0.0184	0.0184	0.0000	81.7793	81.7793	0.0265	0.0000	82.4405
Total	**0.0483**	**0.4857**	**0.4158**	**9.3000e-004**	**0.1301**	**0.0200**	**0.1501**	**0.0540**	**0.0184**	**0.0724**	**0.0000**	**81.7793**	**81.7793**	**0.0265**	**0.0000**	**82.4405**

3.3 Grading - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4500e-003	8.8000e-004	9.4500e-003	3.0000e-005	3.7200e-003	2.0000e-005	3.7400e-003	9.9000e-004	2.0000e-005	1.0100e-003	0.0000	2.7298	2.7298	6.0000e-005	0.0000	2.7313
Total	**1.4500e-003**	**8.8000e-004**	**9.4500e-003**	**3.0000e-005**	**3.7200e-003**	**2.0000e-005**	**3.7400e-003**	**9.9000e-004**	**2.0000e-005**	**1.0100e-003**	**0.0000**	**2.7298**	**2.7298**	**6.0000e-005**	**0.0000**	**2.7313**

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					0.0507	0.0000	0.0507	0.0210	0.0000	0.0210	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0483	0.4857	0.4158	9.3000e-004		0.0200	0.0200		0.0184	0.0184	0.0000	81.7792	81.7792	0.0265	0.0000	82.4404
Total	**0.0483**	**0.4857**	**0.4158**	**9.3000e-004**	**0.0507**	**0.0200**	**0.0708**	**0.0210**	**0.0184**	**0.0395**	**0.0000**	**81.7792**	**81.7792**	**0.0265**	**0.0000**	**82.4404**

3.3 Grading - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4500e-003	8.8000e-004	9.4500e-003	3.0000e-005	3.7200e-003	2.0000e-005	3.7400e-003	9.9000e-004	2.0000e-005	1.0100e-003	0.0000	2.7298	2.7298	6.0000e-005	0.0000	2.7313
Total	**1.4500e-003**	**8.8000e-004**	**9.4500e-003**	**3.0000e-005**	**3.7200e-003**	**2.0000e-005**	**3.7400e-003**	**9.9000e-004**	**2.0000e-005**	**1.0100e-003**	**0.0000**	**2.7298**	**2.7298**	**6.0000e-005**	**0.0000**	**2.7313**

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0677	0.6184	0.7437	1.2400e-003		0.0282	0.0282		0.0265	0.0265	0.0000	106.6506	106.6506	0.0252	0.0000	107.2811
Total	**0.0677**	**0.6184**	**0.7437**	**1.2400e-003**		**0.0282**	**0.0282**		**0.0265**	**0.0265**	**0.0000**	**106.6506**	**106.6506**	**0.0252**	**0.0000**	**107.2811**

3.4 Building Construction - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.7000e-004	0.0364	6.7200e-003	1.1000e-004	2.7500e-003	4.0000e-005	2.7900e-003	8.0000e-004	3.0000e-005	8.3000e-004	0.0000	10.8840	10.8840	3.8000e-004	0.0000	10.8936
Worker	7.3100e-003	4.4700e-003	0.0478	1.5000e-004	0.0188	1.1000e-004	0.0189	5.0000e-003	1.0000e-004	5.1000e-003	0.0000	13.8127	13.8127	3.0000e-004	0.0000	13.8202
Total	**8.1800e-003**	**0.0409**	**0.0546**	**2.6000e-004**	**0.0216**	**1.5000e-004**	**0.0217**	**5.8000e-003**	**1.3000e-004**	**5.9300e-003**	**0.0000**	**24.6967**	**24.6967**	**6.8000e-004**	**0.0000**	**24.7138**

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	0.0677	0.6184	0.7437	1.2400e-003		0.0282	0.0282		0.0265	0.0265	0.0000	106.6505	106.6505	0.0252	0.0000	107.2810
Total	**0.0677**	**0.6184**	**0.7437**	**1.2400e-003**		**0.0282**	**0.0282**		**0.0265**	**0.0265**	**0.0000**	**106.6505**	**106.6505**	**0.0252**	**0.0000**	**107.2810**

3.4 Building Construction - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.7000e-004	0.0364	6.7200e-003	1.1000e-004	2.7500e-003	4.0000e-005	2.7900e-003	8.0000e-004	3.0000e-005	8.3000e-004	0.0000	10.8840	10.8840	3.8000e-004	0.0000	10.8936
Worker	7.3100e-003	4.4700e-003	0.0478	1.5000e-004	0.0188	1.1000e-004	0.0189	5.0000e-003	1.0000e-004	5.1000e-003	0.0000	13.8127	13.8127	3.0000e-004	0.0000	13.8202
Total	**8.1800e-003**	**0.0409**	**0.0546**	**2.6000e-004**	**0.0216**	**1.5000e-004**	**0.0217**	**5.8000e-003**	**1.3000e-004**	**5.9300e-003**	**0.0000**	**24.6967**	**24.6967**	**6.8000e-004**	**0.0000**	**24.7138**

3.4 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1422	1.2969	1.6728	2.8000e-003		0.0549	0.0549		0.0516	0.0516	0.0000	241.1962	241.1962	0.0567	0.0000	242.6137
Total	**0.1422**	**1.2969**	**1.6728**	**2.8000e-003**		**0.0549**	**0.0549**		**0.0516**	**0.0516**	**0.0000**	**241.1962**	**241.1962**	**0.0567**	**0.0000**	**242.6137**

3.4 Building Construction - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.9200e-003	0.0816	0.0144	2.6000e-004	6.2200e-003	8.0000e-005	6.3000e-003	1.8000e-003	7.0000e-005	1.8700e-003	0.0000	24.4452	24.4452	8.8000e-004	0.0000	24.4673
Worker	0.0155	9.1100e-003	0.0994	3.3000e-004	0.0425	2.4000e-004	0.0428	0.0113	2.2000e-004	0.0115	0.0000	30.0030	30.0030	6.1000e-004	0.0000	30.0183
Total	**0.0174**	**0.0907**	**0.1138**	**5.9000e-004**	**0.0487**	**3.2000e-004**	**0.0491**	**0.0131**	**2.9000e-004**	**0.0134**	**0.0000**	**54.4483**	**54.4483**	**1.4900e-003**	**0.0000**	**54.4855**

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	0.1422	1.2969	1.6728	2.8000e-003		0.0549	0.0549		0.0516	0.0516	0.0000	241.1959	241.1959	0.0567	0.0000	242.6134
Total	**0.1422**	**1.2969**	**1.6728**	**2.8000e-003**		**0.0549**	**0.0549**		**0.0516**	**0.0516**	**0.0000**	**241.1959**	**241.1959**	**0.0567**	**0.0000**	**242.6134**

3.4 Building Construction - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.9200e-003	0.0816	0.0144	2.6000e-004	6.2200e-003	8.0000e-005	6.3000e-003	1.8000e-003	7.0000e-005	1.8700e-003	0.0000	24.4452	24.4452	8.8000e-004	0.0000	24.4673
Worker	0.0155	9.1100e-003	0.0994	3.3000e-004	0.0425	2.4000e-004	0.0428	0.0113	2.2000e-004	0.0115	0.0000	30.0030	30.0030	6.1000e-004	0.0000	30.0183
Total	**0.0174**	**0.0907**	**0.1138**	**5.9000e-004**	**0.0487**	**3.2000e-004**	**0.0491**	**0.0131**	**2.9000e-004**	**0.0134**	**0.0000**	**54.4483**	**54.4483**	**1.4900e-003**	**0.0000**	**54.4855**

3.5 Paving - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.1500e-003	0.0858	0.1458	2.3000e-004		4.1900e-003	4.1900e-003		3.8500e-003	3.8500e-003	0.0000	20.0193	20.0193	6.4700e-003	0.0000	20.1811
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**9.1500e-003**	**0.0858**	**0.1458**	**2.3000e-004**		**4.1900e-003**	**4.1900e-003**		**3.8500e-003**	**3.8500e-003**	**0.0000**	**20.0193**	**20.0193**	**6.4700e-003**	**0.0000**	**20.1811**

3.5 Paving - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.8000e-004	4.0000e-004	4.3400e-003	1.0000e-005	1.8600e-003	1.0000e-005	1.8700e-003	4.9000e-004	1.0000e-005	5.0000e-004	0.0000	1.3113	1.3113	3.0000e-005	0.0000	1.3120
Total	**6.8000e-004**	**4.0000e-004**	**4.3400e-003**	**1.0000e-005**	**1.8600e-003**	**1.0000e-005**	**1.8700e-003**	**4.9000e-004**	**1.0000e-005**	**5.0000e-004**	**0.0000**	**1.3113**	**1.3113**	**3.0000e-005**	**0.0000**	**1.3120**

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	9.1500e-003	0.0858	0.1458	2.3000e-004		4.1900e-003	4.1900e-003		3.8500e-003	3.8500e-003	0.0000	20.0192	20.0192	6.4700e-003	0.0000	20.1811
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**9.1500e-003**	**0.0858**	**0.1458**	**2.3000e-004**		**4.1900e-003**	**4.1900e-003**		**3.8500e-003**	**3.8500e-003**	**0.0000**	**20.0192**	**20.0192**	**6.4700e-003**	**0.0000**	**20.1811**

3.5 Paving - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.8000e-004	4.0000e-004	4.3400e-003	1.0000e-005	1.8600e-003	1.0000e-005	1.8700e-003	4.9000e-004	1.0000e-005	5.0000e-004	0.0000	1.3113	1.3113	3.0000e-005	0.0000	1.3120
Total	**6.8000e-004**	**4.0000e-004**	**4.3400e-003**	**1.0000e-005**	**1.8600e-003**	**1.0000e-005**	**1.8700e-003**	**4.9000e-004**	**1.0000e-005**	**5.0000e-004**	**0.0000**	**1.3113**	**1.3113**	**3.0000e-005**	**0.0000**	**1.3120**

3.6 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.5712					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.7100e-003	0.0115	0.0181	3.0000e-005		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	2.5533	2.5533	1.4000e-004	0.0000	2.5567
Total	**1.5729**	**0.0115**	**0.0181**	**3.0000e-005**		**5.2000e-004**	**5.2000e-004**		**5.2000e-004**	**5.2000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.4000e-004**	**0.0000**	**2.5567**

3.6 Architectural Coating - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.2000e-004	1.9000e-004	2.0300e-003	1.0000e-005	8.7000e-004	0.0000	8.7000e-004	2.3000e-004	0.0000	2.3000e-004	0.0000	0.6120	0.6120	1.0000e-005	0.0000	0.6123
Total	**3.2000e-004**	**1.9000e-004**	**2.0300e-003**	**1.0000e-005**	**8.7000e-004**	**0.0000**	**8.7000e-004**	**2.3000e-004**	**0.0000**	**2.3000e-004**	**0.0000**	**0.6120**	**0.6120**	**1.0000e-005**	**0.0000**	**0.6123**

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	1.5712					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.7100e-003	0.0115	0.0181	3.0000e-005		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	2.5533	2.5533	1.4000e-004	0.0000	2.5567
Total	**1.5729**	**0.0115**	**0.0181**	**3.0000e-005**		**5.2000e-004**	**5.2000e-004**		**5.2000e-004**	**5.2000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.4000e-004**	**0.0000**	**2.5567**

3.6 Architectural Coating - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.2000e-004	1.9000e-004	2.0300e-003	1.0000e-005	8.7000e-004	0.0000	8.7000e-004	2.3000e-004	0.0000	2.3000e-004	0.0000	0.6120	0.6120	1.0000e-005	0.0000	0.6123
Total	**3.2000e-004**	**1.9000e-004**	**2.0300e-003**	**1.0000e-005**	**8.7000e-004**	**0.0000**	**8.7000e-004**	**2.3000e-004**	**0.0000**	**2.3000e-004**	**0.0000**	**0.6120**	**0.6120**	**1.0000e-005**	**0.0000**	**0.6123**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Diversity

Improve Walkability Design

Improve Destination Accessibility

Improve Pedestrian Network

	ROG	NOx	CO	SO2	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	0.2490	0.8083	3.1034	0.0104	1.1089	7.6400e-003	1.1165	0.2965	7.0800e-003	0.3036	0.0000	954.2228	954.2228	0.0430	0.0000	955.2976
Unmitigated	0.2535	0.8365	3.2618	0.0110	1.1790	8.0600e-003	1.1871	0.3152	7.4800e-003	0.3227	0.0000	1,011.0825	1,011.0825	0.0453	0.0000	1,012.2137

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	885.36	921.63	801.66	3,161,880	2,973,748
Total	885.36	921.63	801.66	3,161,880	2,973,748

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	16.80	7.10	7.90	38.40	22.60	39.00	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	0.524400	0.212000	0.167700	0.056300	0.000800	0.000900	0.007600	0.021200	0.000000	0.004300	0.002500	0.000100	0.002200

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	254.6574	254.6574	0.0105	2.1800e-003	255.5685
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	254.6574	254.6574	0.0105	2.1800e-003	255.5685
NaturalGas Mitigated	0.0129	0.1103	0.0469	7.0000e-004		8.9200e-003	8.9200e-003		8.9200e-003	8.9200e-003	0.0000	127.7121	127.7121	2.4500e-003	2.3400e-003	128.4710
NaturalGas Unmitigated	0.0129	0.1103	0.0469	7.0000e-004		8.9200e-003	8.9200e-003		8.9200e-003	8.9200e-003	0.0000	127.7121	127.7121	2.4500e-003	2.3400e-003	128.4710

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	2.39323e+006	0.0129	0.1103	0.0469	7.0000e-004		8.9200e-003	8.9200e-003		8.9200e-003	8.9200e-003	0.0000	127.7121	127.7121	2.4500e-003	2.3400e-003	128.4710
Total		**0.0129**	**0.1103**	**0.0469**	**7.0000e-004**		**8.9200e-003**	**8.9200e-003**		**8.9200e-003**	**8.9200e-003**	**0.0000**	**127.7121**	**127.7121**	**2.4500e-003**	**2.3400e-003**	**128.4710**

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	2.39323e+006	0.0129	0.1103	0.0469	7.0000e-004		8.9200e-003	8.9200e-003		8.9200e-003	8.9200e-003	0.0000	127.7121	127.7121	2.4500e-003	2.3400e-003	128.4710
Total		**0.0129**	**0.1103**	**0.0469**	**7.0000e-004**		**8.9200e-003**	**8.9200e-003**		**8.9200e-003**	**8.9200e-003**	**0.0000**	**127.7121**	**127.7121**	**2.4500e-003**	**2.3400e-003**	**128.4710**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	799248	254.6574	0.0105	2.1800e-003	255.5685
Total		**254.6574**	**0.0105**	**2.1800e-003**	**255.5685**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	799248	254.6574	0.0105	2.1800e-003	255.5685
Total		**254.6574**	**0.0105**	**2.1800e-003**	**255.5685**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

No Hearths Installed

	ROG	NOx	CO	SO2	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	0.8313	7.9000e-003	0.6849	4.0000e-005		3.8000e-003	3.8000e-003		3.8000e-003	3.8000e-003	0.0000	1.1178	1.1178	1.0600e-003	0.0000	1.1444
Unmitigated	1.1923	0.0956	3.9435	0.0108		0.5350	0.5350		0.5350	0.5350	70.7477	41.4163	112.1639	0.3326	7.4000e-004	120.6986

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	0.1571					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.6538					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.3607	0.0876	3.2537	0.0108		0.5312	0.5312		0.5312	0.5312	70.7477	40.2883	111.0359	0.3315	7.4000e-004	119.5436
Landscaping	0.0207	7.9500e-003	0.6899	4.0000e-005		3.8300e-003	3.8300e-003		3.8300e-003	3.8300e-003	0.0000	1.1280	1.1280	1.0800e-003	0.0000	1.1550
Total	**1.1923**	**0.0956**	**3.9435**	**0.0108**		**0.5350**	**0.5350**		**0.5350**	**0.5350**	**70.7477**	**41.4163**	**112.1639**	**0.3326**	**7.4000e-004**	**120.6986**

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	0.1571					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.6538					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0204	7.9000e-003	0.6849	4.0000e-005		3.8000e-003	3.8000e-003		3.8000e-003	3.8000e-003	0.0000	1.1178	1.1178	1.0600e-003	0.0000	1.1444
Total	**0.8313**	**7.9000e-003**	**0.6849**	**4.0000e-005**		**3.8000e-003**	**3.8000e-003**		**3.8000e-003**	**3.8000e-003**	**0.0000**	**1.1178**	**1.1178**	**1.0600e-003**	**0.0000**	**1.1444**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	14.0725	1.7680	3.8400e-003	59.4147
Unmitigated	16.8504	2.2099	4.7900e-003	73.5256

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	6.05932 / 3.82001	16.8504	2.2099	4.7900e-003	73.5256
Total		**16.8504**	**2.2099**	**4.7900e-003**	**73.5256**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	4.84746 / 3.58699	14.0725	1.7680	3.8400e-003	59.4147
Total		**14.0725**	**1.7680**	**3.8400e-003**	**59.4147**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	19.4384	1.1488	0.0000	48.1579
Unmitigated	19.4384	1.1488	0.0000	48.1579

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	95.76	19.4384	1.1488	0.0000	48.1579
Total		**19.4384**	**1.1488**	**0.0000**	**48.1579**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	95.76	19.4384	1.1488	0.0000	48.1579
Total		**19.4384**	**1.1488**	**0.0000**	**48.1579**

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

Cross Creek Bend Phase 4

Tulare County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	101.00	Dwelling Unit	17.50	181,800.00	289

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	51
Climate Zone	7			**Operational Year**	2027
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - The project area will be developed evenly between the four phases

Construction Phase -

Fleet Mix - per "District Accepted Fleet Mix for Residential Projects" obtained online 10/8/19

Woodstoves -

Water And Wastewater - all lots will be connected to Goshen Community Services District

Construction Off-road Equipment Mitigation - compliance with Regulation VIII

Mobile Land Use Mitigation -

Area Mitigation -

Water Mitigation - Title 24 requirements and County Ordinance

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblFleetMix	HHD	0.08	0.02
tblFleetMix	LDA	0.56	0.52
tblFleetMix	LDT1	0.03	0.22
tblFleetMix	LDT2	0.18	0.17
tblFleetMix	LHD1	0.01	8.0000e-004
tblFleetMix	LHD2	3.9290e-003	1.0000e-003
tblFleetMix	MCY	3.9640e-003	2.5000e-003
tblFleetMix	MDV	0.11	0.06
tblFleetMix	MH	5.3000e-004	2.5000e-003
tblFleetMix	MHD	0.02	7.4000e-003
tblFleetMix	OBUS	1.7880e-003	0.00
tblFleetMix	SBUS	1.0270e-003	5.0000e-004
tblFleetMix	UBUS	1.0760e-003	4.4000e-003
tblLandUse	LotAcreage	32.79	17.50
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural

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					
2026	0.1284	1.1632	1.2861	2.6700e-003	0.2488	0.0468	0.2956	0.1112	0.0436	0.1548	0.0000	234.1004	234.1004	0.0577	0.0000	235.5430
2027	1.8773	1.4909	1.9501	3.7000e-003	0.0559	0.0599	0.1158	0.0150	0.0563	0.0713	0.0000	322.3735	322.3735	0.0649	0.0000	323.9963
Maximum	**1.8773**	**1.4909**	**1.9501**	**3.7000e-003**	**0.2488**	**0.0599**	**0.2956**	**0.1112**	**0.0563**	**0.1548**	**0.0000**	**322.3735**	**322.3735**	**0.0649**	**0.0000**	**323.9963**

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					
2026	0.1284	1.1632	1.2861	2.6700e-003	0.1143	0.0468	0.1612	0.0480	0.0436	0.0916	0.0000	234.1002	234.1002	0.0577	0.0000	235.5427
2027	1.8773	1.4909	1.9501	3.7000e-003	0.0559	0.0599	0.1158	0.0150	0.0563	0.0713	0.0000	322.3732	322.3732	0.0649	0.0000	323.9960
Maximum	**1.8773**	**1.4909**	**1.9501**	**3.7000e-003**	**0.1143**	**0.0599**	**0.1612**	**0.0480**	**0.0563**	**0.0916**	**0.0000**	**322.3732**	**322.3732**	**0.0649**	**0.0000**	**323.9960**

	ROG	NOx	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**	**44.13**	**0.00**	**32.68**	**50.06**	**0.00**	**27.95**	**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	7-1-2026	9-30-2026	0.7961	0.7961
2	10-1-2026	12-31-2026	0.4919	0.4919
3	1-1-2027	3-31-2027	0.4804	0.4804
4	4-1-2027	6-30-2027	0.4852	0.4852
5	7-1-2027	9-30-2027	0.4905	0.4905
		Highest	0.7961	0.7961

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	1.2642	0.0993	4.0042	0.0109		0.5356	0.5356		0.5356	0.5356	70.7477	44.9790	115.7266	0.3327	8.0000e-004	124.2842
Energy	0.0140	0.1198	0.0510	7.6000e-004		9.6800e-003	9.6800e-003		9.6800e-003	9.6800e-003	0.0000	415.2615	415.2615	0.0141	4.9100e-003	417.0751
Mobile	0.2426	0.8132	3.1043	0.0111	1.2814	8.0400e-003	1.2894	0.3428	7.4500e-003	0.3502	0.0000	1,022.6542	1,022.6542	0.0443	0.0000	1,023.7621
Waste						0.0000	0.0000		0.0000	0.0000	21.1192	0.0000	21.1192	1.2481	0.0000	52.3219
Water						0.0000	0.0000		0.0000	0.0000	2.0877	15.9717	18.0594	0.2151	5.2000e-003	24.9860
Total	**1.5209**	**1.0322**	**7.1594**	**0.0227**	**1.2814**	**0.5533**	**1.8347**	**0.3428**	**0.5527**	**0.8955**	**93.9545**	**1,498.8663**	**1,592.8209**	**1.8543**	**0.0109**	**1,642.4293**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.9028	8.5800e-003	0.7438	4.0000e-005		4.1300e-003	4.1300e-003		4.1300e-003	4.1300e-003	0.0000	1.2140	1.2140	1.1600e-003	0.0000	1.2429
Energy	0.0140	0.1198	0.0510	7.6000e-004		9.6800e-003	9.6800e-003		9.6800e-003	9.6800e-003	0.0000	415.2615	415.2615	0.0141	4.9100e-003	417.0751
Mobile	0.2384	0.7865	2.9526	0.0105	1.2051	7.6200e-003	1.2127	0.3224	7.0600e-003	0.3294	0.0000	965.0913	965.0913	0.0421	0.0000	966.1446
Waste						0.0000	0.0000		0.0000	0.0000	21.1192	0.0000	21.1192	1.2481	0.0000	52.3219
Water						0.0000	0.0000		0.0000	0.0000	1.6702	13.4204	15.0906	0.1721	4.1700e-003	20.6342
Total	**1.1552**	**0.9148**	**3.7474**	**0.0113**	**1.2051**	**0.0214**	**1.2266**	**0.3224**	**0.0209**	**0.3433**	**22.7894**	**1,394.9872**	**1,417.7765**	**1.4776**	**9.0800e-003**	**1,457.4187**

	ROG	NOx	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	**24.04**	**11.37**	**47.66**	**50.33**	**5.95**	**96.13**	**33.15**	**5.95**	**96.22**	**61.67**	**75.74**	**6.93**	**10.99**	**20.32**	**16.77**	**11.26**

3.0 Construction Detail

Construction Phase

Cross Creek Bend Phase 4 - Tulare County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	7/1/2026	7/14/2026	5	10	
2	Grading	Grading	7/15/2026	8/25/2026	5	30	
3	Building Construction	Building Construction	8/26/2026	10/19/2027	5	300	
4	Paving	Paving	10/20/2027	11/16/2027	5	20	
5	Architectural Coating	Architectural Coating	11/17/2027	12/14/2027	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 75

Acres of Paving: 0

Residential Indoor: 368,145; Residential Outdoor: 122,715; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
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
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
Architectural Coating	1	7.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	36.00	11.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0124	0.1262	0.0896	1.9000e-004		5.4300e-003	5.4300e-003		5.0000e-003	5.0000e-003	0.0000	16.7335	16.7335	5.4100e-003	0.0000	16.8688
Total	**0.0124**	**0.1262**	**0.0896**	**1.9000e-004**	**0.0903**	**5.4300e-003**	**0.0958**	**0.0497**	**5.0000e-003**	**0.0547**	**0.0000**	**16.7335**	**16.7335**	**5.4100e-003**	**0.0000**	**16.8688**

3.2 Site Preparation - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.8000e-004	2.2000e-004	2.4200e-003	1.0000e-005	1.1100e-003	1.0000e-005	1.1200e-003	3.0000e-004	1.0000e-005	3.0000e-004	0.0000	0.7523	0.7523	1.0000e-005	0.0000	0.7526
Total	**3.8000e-004**	**2.2000e-004**	**2.4200e-003**	**1.0000e-005**	**1.1100e-003**	**1.0000e-005**	**1.1200e-003**	**3.0000e-004**	**1.0000e-005**	**3.0000e-004**	**0.0000**	**0.7523**	**0.7523**	**1.0000e-005**	**0.0000**	**0.7526**

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					0.0352	0.0000	0.0352	0.0194	0.0000	0.0194	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0124	0.1262	0.0896	1.9000e-004		5.4300e-003	5.4300e-003		5.0000e-003	5.0000e-003	0.0000	16.7335	16.7335	5.4100e-003	0.0000	16.8688
Total	**0.0124**	**0.1262**	**0.0896**	**1.9000e-004**	**0.0352**	**5.4300e-003**	**0.0407**	**0.0194**	**5.0000e-003**	**0.0244**	**0.0000**	**16.7335**	**16.7335**	**5.4100e-003**	**0.0000**	**16.8688**

3.2 Site Preparation - 2026

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.8000e-004	2.2000e-004	2.4200e-003	1.0000e-005	1.1100e-003	1.0000e-005	1.1200e-003	3.0000e-004	1.0000e-005	3.0000e-004	0.0000	0.7523	0.7523	1.0000e-005	0.0000	0.7526
Total	**3.8000e-004**	**2.2000e-004**	**2.4200e-003**	**1.0000e-005**	**1.1100e-003**	**1.0000e-005**	**1.1200e-003**	**3.0000e-004**	**1.0000e-005**	**3.0000e-004**	**0.0000**	**0.7523**	**0.7523**	**1.0000e-005**	**0.0000**	**0.7526**

3.3 Grading - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1301	0.0000	0.1301	0.0540	0.0000	0.0540	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0435	0.4191	0.3950	9.3000e-004		0.0170	0.0170		0.0156	0.0156	0.0000	81.7593	81.7593	0.0264	0.0000	82.4204
Total	**0.0435**	**0.4191**	**0.3950**	**9.3000e-004**	**0.1301**	**0.0170**	**0.1471**	**0.0540**	**0.0156**	**0.0696**	**0.0000**	**81.7593**	**81.7593**	**0.0264**	**0.0000**	**82.4204**

3.3 Grading - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2800e-003	7.2000e-004	8.0600e-003	3.0000e-005	3.7200e-003	2.0000e-005	3.7400e-003	9.9000e-004	2.0000e-005	1.0100e-003	0.0000	2.5075	2.5075	5.0000e-005	0.0000	2.5087
Total	**1.2800e-003**	**7.2000e-004**	**8.0600e-003**	**3.0000e-005**	**3.7200e-003**	**2.0000e-005**	**3.7400e-003**	**9.9000e-004**	**2.0000e-005**	**1.0100e-003**	**0.0000**	**2.5075**	**2.5075**	**5.0000e-005**	**0.0000**	**2.5087**

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					0.0507	0.0000	0.0507	0.0210	0.0000	0.0210	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0435	0.4191	0.3950	9.3000e-004		0.0170	0.0170		0.0156	0.0156	0.0000	81.7592	81.7592	0.0264	0.0000	82.4203
Total	**0.0435**	**0.4191**	**0.3950**	**9.3000e-004**	**0.0507**	**0.0170**	**0.0677**	**0.0210**	**0.0156**	**0.0367**	**0.0000**	**81.7592**	**81.7592**	**0.0264**	**0.0000**	**82.4203**

3.3 Grading - 2026

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2800e-003	7.2000e-004	8.0600e-003	3.0000e-005	3.7200e-003	2.0000e-005	3.7400e-003	9.9000e-004	2.0000e-005	1.0100e-003	0.0000	2.5075	2.5075	5.0000e-005	0.0000	2.5087
Total	**1.2800e-003**	**7.2000e-004**	**8.0600e-003**	**3.0000e-005**	**3.7200e-003**	**2.0000e-005**	**3.7400e-003**	**9.9000e-004**	**2.0000e-005**	**1.0100e-003**	**0.0000**	**2.5075**	**2.5075**	**5.0000e-005**	**0.0000**	**2.5087**

3.4 Building Construction - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0629	0.5736	0.7399	1.2400e-003		0.0243	0.0243		0.0228	0.0228	0.0000	106.6830	106.6830	0.0251	0.0000	107.3099
Total	**0.0629**	**0.5736**	**0.7399**	**1.2400e-003**		**0.0243**	**0.0243**		**0.0228**	**0.0228**	**0.0000**	**106.6830**	**106.6830**	**0.0251**	**0.0000**	**107.3099**

3.4 Building Construction - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	9.1000e-004	0.0394	6.6900e-003	1.2000e-004	3.0300e-003	4.0000e-005	3.0600e-003	8.7000e-004	4.0000e-005	9.1000e-004	0.0000	11.8236	11.8236	4.4000e-004	0.0000	11.8346
Worker	7.0400e-003	3.9700e-003	0.0445	1.5000e-004	0.0205	1.1000e-004	0.0206	5.4500e-003	1.0000e-004	5.5500e-003	0.0000	13.8414	13.8414	2.6000e-004	0.0000	13.8480
Total	**7.9500e-003**	**0.0433**	**0.0512**	**2.7000e-004**	**0.0235**	**1.5000e-004**	**0.0237**	**6.3200e-003**	**1.4000e-004**	**6.4600e-003**	**0.0000**	**25.6649**	**25.6649**	**7.0000e-004**	**0.0000**	**25.6826**

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	0.0629	0.5736	0.7399	1.2400e-003		0.0243	0.0243		0.0228	0.0228	0.0000	106.6828	106.6828	0.0251	0.0000	107.3098
Total	**0.0629**	**0.5736**	**0.7399**	**1.2400e-003**		**0.0243**	**0.0243**		**0.0228**	**0.0228**	**0.0000**	**106.6828**	**106.6828**	**0.0251**	**0.0000**	**107.3098**

3.4 Building Construction - 2026

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	9.1000e-004	0.0394	6.6900e-003	1.2000e-004	3.0300e-003	4.0000e-005	3.0600e-003	8.7000e-004	4.0000e-005	9.1000e-004	0.0000	11.8236	11.8236	4.4000e-004	0.0000	11.8346
Worker	7.0400e-003	3.9700e-003	0.0445	1.5000e-004	0.0205	1.1000e-004	0.0206	5.4500e-003	1.0000e-004	5.5500e-003	0.0000	13.8414	13.8414	2.6000e-004	0.0000	13.8480
Total	**7.9500e-003**	**0.0433**	**0.0512**	**2.7000e-004**	**0.0235**	**1.5000e-004**	**0.0237**	**6.3200e-003**	**1.4000e-004**	**6.4600e-003**	**0.0000**	**25.6649**	**25.6649**	**7.0000e-004**	**0.0000**	**25.6826**

3.4 Building Construction - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1422	1.2969	1.6728	2.8000e-003		0.0549	0.0549		0.0516	0.0516	0.0000	241.1962	241.1962	0.0567	0.0000	242.6137
Total	**0.1422**	**1.2969**	**1.6728**	**2.8000e-003**		**0.0549**	**0.0549**		**0.0516**	**0.0516**	**0.0000**	**241.1962**	**241.1962**	**0.0567**	**0.0000**	**242.6137**

3.4 Building Construction - 2027

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0200e-003	0.0882	0.0145	2.8000e-004	6.8400e-003	8.0000e-005	6.9200e-003	1.9800e-003	8.0000e-005	2.0600e-003	0.0000	26.5918	26.5918	1.0300e-003	0.0000	26.6175
Worker	0.0150	8.1700e-003	0.0934	3.3000e-004	0.0464	2.4000e-004	0.0466	0.0123	2.2000e-004	0.0125	0.0000	30.2362	30.2362	5.4000e-004	0.0000	30.2498
Total	**0.0170**	**0.0964**	**0.1079**	**6.1000e-004**	**0.0532**	**3.2000e-004**	**0.0535**	**0.0143**	**3.0000e-004**	**0.0146**	**0.0000**	**56.8280**	**56.8280**	**1.5700e-003**	**0.0000**	**56.8673**

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	0.1422	1.2969	1.6728	2.8000e-003		0.0549	0.0549		0.0516	0.0516	0.0000	241.1959	241.1959	0.0567	0.0000	242.6134
Total	**0.1422**	**1.2969**	**1.6728**	**2.8000e-003**		**0.0549**	**0.0549**		**0.0516**	**0.0516**	**0.0000**	**241.1959**	**241.1959**	**0.0567**	**0.0000**	**242.6134**

3.4 Building Construction - 2027

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0200e-003	0.0882	0.0145	2.8000e-004	6.8400e-003	8.0000e-005	6.9200e-003	1.9800e-003	8.0000e-005	2.0600e-003	0.0000	26.5918	26.5918	1.0300e-003	0.0000	26.6175
Worker	0.0150	8.1700e-003	0.0934	3.3000e-004	0.0464	2.4000e-004	0.0466	0.0123	2.2000e-004	0.0125	0.0000	30.2362	30.2362	5.4000e-004	0.0000	30.2498
Total	**0.0170**	**0.0964**	**0.1079**	**6.1000e-004**	**0.0532**	**3.2000e-004**	**0.0535**	**0.0143**	**3.0000e-004**	**0.0146**	**0.0000**	**56.8280**	**56.8280**	**1.5700e-003**	**0.0000**	**56.8673**

3.5 Paving - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.1500e-003	0.0858	0.1458	2.3000e-004		4.1900e-003	4.1900e-003		3.8500e-003	3.8500e-003	0.0000	20.0193	20.0193	6.4700e-003	0.0000	20.1811
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**9.1500e-003**	**0.0858**	**0.1458**	**2.3000e-004**		**4.1900e-003**	**4.1900e-003**		**3.8500e-003**	**3.8500e-003**	**0.0000**	**20.0193**	**20.0193**	**6.4700e-003**	**0.0000**	**20.1811**

3.5 Paving - 2027

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-004	3.3000e-004	3.7400e-003	1.0000e-005	1.8600e-003	1.0000e-005	1.8700e-003	4.9000e-004	1.0000e-005	5.0000e-004	0.0000	1.2114	1.2114	2.0000e-005	0.0000	1.2119
Total	**6.0000e-004**	**3.3000e-004**	**3.7400e-003**	**1.0000e-005**	**1.8600e-003**	**1.0000e-005**	**1.8700e-003**	**4.9000e-004**	**1.0000e-005**	**5.0000e-004**	**0.0000**	**1.2114**	**1.2114**	**2.0000e-005**	**0.0000**	**1.2119**

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	9.1500e-003	0.0858	0.1458	2.3000e-004		4.1900e-003	4.1900e-003		3.8500e-003	3.8500e-003	0.0000	20.0192	20.0192	6.4700e-003	0.0000	20.1811
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**9.1500e-003**	**0.0858**	**0.1458**	**2.3000e-004**		**4.1900e-003**	**4.1900e-003**		**3.8500e-003**	**3.8500e-003**	**0.0000**	**20.0192**	**20.0192**	**6.4700e-003**	**0.0000**	**20.1811**

3.5 Paving - 2027

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-004	3.3000e-004	3.7400e-003	1.0000e-005	1.8600e-003	1.0000e-005	1.8700e-003	4.9000e-004	1.0000e-005	5.0000e-004	0.0000	1.2114	1.2114	2.0000e-005	0.0000	1.2119
Total	**6.0000e-004**	**3.3000e-004**	**3.7400e-003**	**1.0000e-005**	**1.8600e-003**	**1.0000e-005**	**1.8700e-003**	**4.9000e-004**	**1.0000e-005**	**5.0000e-004**	**0.0000**	**1.2114**	**1.2114**	**2.0000e-005**	**0.0000**	**1.2119**

3.6 Architectural Coating - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.7064					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.7100e-003	0.0115	0.0181	3.0000e-005		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	2.5533	2.5533	1.4000e-004	0.0000	2.5567
Total	**1.7081**	**0.0115**	**0.0181**	**3.0000e-005**		**5.2000e-004**	**5.2000e-004**		**5.2000e-004**	**5.2000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.4000e-004**	**0.0000**	**2.5567**

3.6 Architectural Coating - 2027

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	1.5000e-004	1.7500e-003	1.0000e-005	8.7000e-004	0.0000	8.7000e-004	2.3000e-004	0.0000	2.3000e-004	0.0000	0.5653	0.5653	1.0000e-005	0.0000	0.5656
Total	**2.8000e-004**	**1.5000e-004**	**1.7500e-003**	**1.0000e-005**	**8.7000e-004**	**0.0000**	**8.7000e-004**	**2.3000e-004**	**0.0000**	**2.3000e-004**	**0.0000**	**0.5653**	**0.5653**	**1.0000e-005**	**0.0000**	**0.5656**

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	1.7064					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.7100e-003	0.0115	0.0181	3.0000e-005		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	2.5533	2.5533	1.4000e-004	0.0000	2.5567
Total	**1.7081**	**0.0115**	**0.0181**	**3.0000e-005**		**5.2000e-004**	**5.2000e-004**		**5.2000e-004**	**5.2000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.4000e-004**	**0.0000**	**2.5567**

3.6 Architectural Coating - 2027

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	1.5000e-004	1.7500e-003	1.0000e-005	8.7000e-004	0.0000	8.7000e-004	2.3000e-004	0.0000	2.3000e-004	0.0000	0.5653	0.5653	1.0000e-005	0.0000	0.5656
Total	**2.8000e-004**	**1.5000e-004**	**1.7500e-003**	**1.0000e-005**	**8.7000e-004**	**0.0000**	**8.7000e-004**	**2.3000e-004**	**0.0000**	**2.3000e-004**	**0.0000**	**0.5653**	**0.5653**	**1.0000e-005**	**0.0000**	**0.5656**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Diversity

Improve Walkability Design

Improve Destination Accessibility

Improve Pedestrian Network

	ROG	NOx	CO	SO2	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	0.2384	0.7865	2.9526	0.0105	1.2051	7.6200e-003	1.2127	0.3224	7.0600e-003	0.3294	0.0000	965.0913	965.0913	0.0421	0.0000	966.1446
Unmitigated	0.2426	0.8132	3.1043	0.0111	1.2814	8.0400e-003	1.2894	0.3428	7.4500e-003	0.3502	0.0000	1,022.6542	1,022.6542	0.0443	0.0000	1,023.7621

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	961.52	1,000.91	870.62	3,433,870	3,229,555
Total	961.52	1,000.91	870.62	3,433,870	3,229,555

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	16.80	7.10	7.90	38.40	22.60	39.00	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	0.518500	0.217000	0.168400	0.057500	0.000800	0.001000	0.007400	0.019500	0.000000	0.004400	0.002500	0.000500	0.002500

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	276.5634	276.5634	0.0114	2.3600e-003	277.5528
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	276.5634	276.5634	0.0114	2.3600e-003	277.5528
NaturalGas Mitigated	0.0140	0.1198	0.0510	7.6000e-004		9.6800e-003	9.6800e-003		9.6800e-003	9.6800e-003	0.0000	138.6981	138.6981	2.6600e-003	2.5400e-003	139.5223
NaturalGas Unmitigated	0.0140	0.1198	0.0510	7.6000e-004		9.6800e-003	9.6800e-003		9.6800e-003	9.6800e-003	0.0000	138.6981	138.6981	2.6600e-003	2.5400e-003	139.5223

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	2.5991e+006	0.0140	0.1198	0.0510	7.6000e-004		9.6800e-003	9.6800e-003		9.6800e-003	9.6800e-003	0.0000	138.6981	138.6981	2.6600e-003	2.5400e-003	139.5223
Total		**0.0140**	**0.1198**	**0.0510**	**7.6000e-004**		**9.6800e-003**	**9.6800e-003**		**9.6800e-003**	**9.6800e-003**	**0.0000**	**138.6981**	**138.6981**	**2.6600e-003**	**2.5400e-003**	**139.5223**

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	2.5991e+006	0.0140	0.1198	0.0510	7.6000e-004		9.6800e-003	9.6800e-003		9.6800e-003	9.6800e-003	0.0000	138.6981	138.6981	2.6600e-003	2.5400e-003	139.5223
Total		**0.0140**	**0.1198**	**0.0510**	**7.6000e-004**		**9.6800e-003**	**9.6800e-003**		**9.6800e-003**	**9.6800e-003**	**0.0000**	**138.6981**	**138.6981**	**2.6600e-003**	**2.5400e-003**	**139.5223**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	868000	276.5634	0.0114	2.3600e-003	277.5528
Total		**276.5634**	**0.0114**	**2.3600e-003**	**277.5528**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	868000	276.5634	0.0114	2.3600e-003	277.5528
Total		**276.5634**	**0.0114**	**2.3600e-003**	**277.5528**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

No Hearths Installed

	ROG	NOx	CO	SO2	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	0.9028	8.5800e-003	0.7438	4.0000e-005		4.1300e-003	4.1300e-003		4.1300e-003	4.1300e-003	0.0000	1.2140	1.2140	1.1600e-003	0.0000	1.2429
Unmitigated	1.2642	0.0993	4.0042	0.0109		0.5356	0.5356		0.5356	0.5356	70.7477	44.9790	115.7266	0.3327	8.0000e-004	124.2842

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	0.1706					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.7100					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.3611	0.0906	3.2549	0.0108		0.5314	0.5314		0.5314	0.5314	70.7477	43.7540	114.5016	0.3316	8.0000e-004	123.0299
Landscaping	0.0225	8.6300e-003	0.7492	4.0000e-005		4.1600e-003	4.1600e-003		4.1600e-003	4.1600e-003	0.0000	1.2250	1.2250	1.1700e-003	0.0000	1.2543
Total	**1.2642**	**0.0993**	**4.0042**	**0.0109**		**0.5356**	**0.5356**		**0.5356**	**0.5356**	**70.7477**	**44.9790**	**115.7266**	**0.3327**	**8.0000e-004**	**124.2842**

6.2 Area by SubCategory

Mitigated

SubCategory	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Architectural Coating	0.1706					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.7100					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0222	8.5800e-003	0.7438	4.0000e-005		4.1300e-003	4.1300e-003		4.1300e-003	4.1300e-003	0.0000	1.2140	1.2140	1.1600e-003	0.0000	1.2429
Total	**0.9028**	**8.5800e-003**	**0.7438**	**4.0000e-005**		**4.1300e-003**	**4.1300e-003**		**4.1300e-003**	**4.1300e-003**	**0.0000**	**1.2140**	**1.2140**	**1.1600e-003**	**0.0000**	**1.2429**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	15.0906	0.1721	4.1700e-003	20.6342
Unmitigated	18.0594	0.2151	5.2000e-003	24.9860

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	6.58056 / 4.14861	18.0594	0.2151	5.2000e-003	24.9860
Total		**18.0594**	**0.2151**	**5.2000e-003**	**24.9860**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	5.26445 / 3.89555	15.0906	0.1721	4.1700e-003	20.6342
Total		**15.0906**	**0.1721**	**4.1700e-003**	**20.6342**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	21.1192	1.2481	0.0000	52.3219
Unmitigated	21.1192	1.2481	0.0000	52.3219

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	104.04	21.1192	1.2481	0.0000	52.3219
Total		**21.1192**	**1.2481**	**0.0000**	**52.3219**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	104.04	21.1192	1.2481	0.0000	52.3219
Total		**21.1192**	**1.2481**	**0.0000**	**52.3219**

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

ATTACHMENT "B"

Biological Resources

RESOURCE MANAGEMENT AGENCY

5961 SOUTH MOONEY BLVD
VISALIA, CA 93277
PHONE (559) 624-7000
FAX (559) 730-2653

Aaron R. Bock — Economic Development and Planning
Reed Schenke — Public Works
Sherman Dix — Fiscal Services

REED SCHENKE, DIRECTOR — MICHAEL WASHAM, ASSOCIATE DIRECTOR

INTEROFFICE MEMORANDUM

DATE: February 17, 2021

TO: Hector Guerra, Chief Environmental Planner

FROM: Jessica Willis, Planner IV

SUBJECT: Biological Resources Evaluation for Swift Homes Subdivision (TSM 20-003)

PROJECT DESCRIPTION

The proposed Project consists of 206 single-family residential units at the northwest corner of Avenue 310 and Road 72 within the Goshen Community Plan Urban Development Boundary area. The approximately 69.98-acre site will have a density of 5.82 units per acre constructed on approximately 35.39 acres of the site based on the gross area dedicated to residential development (i.e. lots, roadways, curbs, gutters, and sidewalks). The remaining approximate 1.59 acres will be improved with a stormwater detention basin. The project will be developed in 4 phases: Phase 1 = 34 lots; Phase 2 = 49 lots; Phase 3 = 39 lots; and Phase 4 = 84 lots.

PROJECT LOCATION

Project site is located between Avenue 310 and Avenue 312, and between Road 70 and Road 72 (see Figure 1).

United States Geological Survey 7.5-minute Quadrangle: Goshen

Public Land Survey System: Section 24, Township 18 South, Range 23 East, Mount Diablo Base and Meridian

Assessor Parcel Number: 075-440-002

Latitude/Longitude: 36° 21’ 09” N / 119° 24’ 44 W” (or 36.352619 N, -119.412485 W (at intersection of Avenue 310 and Road 72)

CNDDB/BIOS EVALUATION

The Environmental Impact Report (EIR) for the Goshen Community Plan Update included a Biological Evaluation for the area within the Goshen Urban Development Boundary (UDB). [1, 2] The evaluation included identification of special status species and habitats/natural communities

[1] The Goshen Community Plan Update EIR was adopted by the Tulare County Board of Supervisors on May 22, 2018. It can be found on the RMA website at https://tularecounty.ca.gov/rma/index.cfm/projects/planning-projects/environmental-documents/goshen-community-plan-update/goshen-community-plan-update-final-eir/.

[2] The Biological Evaluation was prepared by Live Oak Associated, Inc. in August 2014, and is included as Appendix B of the EIR prepared for the Goshen Community Plan Update.

potentially located within the Community Plan Update Proposed Planning Study Area (PPSA) and recommended mitigation measures to reduce any potentially significant impacts to these species. The Mitigation Monitoring and Reporting Program (MMRP) adopted for the Community Plan includes 24 mitigation measures for biological resources including: four (4) measures for Swainson's hawk; five (5) measures for San Joaquin kit fox; three (3) measures for burrowing owl; two (2) measures for American badger; three (3) measures for nesting raptors and migratory birds; four (4) measures for roosting bats; and three (3) measures for Waters of the U.S. and the State.[3]

Biological Species and Natural Communities

As the proposed Project is located within the PPSA, if biological resources are found within or in close proximity to the Project site, the Project would be subject to the applicable mitigation measures included in the Community Plan MMRP. The most recent California Department of Fish and Wildlife's California Natural Diversity Database (CNDDB), RareFind 5 and Biogeographic Information and Observation System (BIOS) was accessed on February 17, 2021, to determine if special status species have historically been recorded within or in close proximity to the Project site.[4]

Based on the BIOS map, the the Project site is located within historic range of one (1) special status plant species, and within five (5) miles of of two (2) natural communities, five (5) plant species, and seven (7) animal species (see Table 1 and Figures 2 and 3).

Table 1. Special Status Species in Project Vicinity (Common Name)

Animal Species	Plant Species	Natural Communities
vernal pool fairy shrimp	heartscale	Valley Sacaton Grassland
vernal pool tadpole shrimp	subtle orache	Northern Claypan Vernal Pool
California linderiella	lesser salt scale	
western spadefoot	California alkali grass	
burrowing owl	alkali-sink goldfields	
Swainson's hawk		
San Joaquin Valley kit fox		

Source: California Department of Fish and Wildlife. California Natural Diversity Database. Biogeographic Information and Observation System. February 17, 2021.

As the Project site is within the Goshen Urban Development Boundary the proposed Project is subject to the mitigation measures included in the Environmental Impact Report and Mitigation and Monitoring Program prepared for the Goshen Community Plan Update. Consistent with the Goshen Community Plan and the adopted MMRP, the following mitigation measures will be implemented, as applicable, to reduce potential impacts to biological resources to less than significant.[5]

[3] The MMRP is included as Chapter 8 of the EIR prepared for the Goshen Community Plan Update.

[4] California Department of Fish and Wildlife. CNDDB Maps and Data.. https://wildlife.ca.gov/Data/CNDDB/Maps-and-Data#43018407-rarefind-5

[5] The full text of the mitigation measures can be found on pages 8-4 thru 8-12 of Chapter 8 of the Goshen Community Plan Update EIR.

Swainson's hawk:	Measure 4-1 (Nesting Surveys) Measure 4-2 (Avoidance) Measure 4-3 (Establish Buffers) Measure 4-4 (Compensatory Mitigation)
San Joaquin Kit Fox:	Measure 4-5 (Pre-construction Surveys) Measure 4-6 (Avoidance) Measure 4-7 (Minimization) Measure 4-8 (Employee Education Program) Measure 4-9 (Mortality Reporting)
Burrowing Owl:	Measure 4-10 (Pre-construction Surveys) Measure 4-11 (Avoidance of Active Nests) Measure 4-12 (Passive Relocation of Resident Owls)
Nesting Raptors and Migratory Birds:	Measure 4-15 (Avoidance) Measure 4-16 (Pre-construction Surveys) Measure 4-17 (Establish Buffers)

As the Community Plan MMRP does not include mitigation measures for special status plant species and all the animal species identified in Table 1, the following mitigation measures will be implementd prior to the start of construction-related activities

Pre-construction Survey: A qualified biologist/botanist shall conduct pre-construction surveys for special status plant species in accordance with the California Department of Fish and Wildlife (CDFW) Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities (2009). This protocol includes identification of reference populations to facilitate the likelihood of field investigation occurring during the appropriate floristic period. Surveys should be timed to coincide with flowering periods for species that could occur (March-May). In the absence of protocol-level surveys being performed, additional surveys may be necessary.

- If special status plant species are not identified during pre-construction surveys, no further action is required.
- If special status plant species are detected during pre-construction surveys, the biologist/botanist will supervise establishment of a minimum 50-foot no disturbance buffer from the outer edge of the plant population. If buffers cannot be maintained, the Sacramento Field Office of the USFWS and the Fresno Field Office of CDFW shall be contacted immediately to identify the appropriate minimization actions to be taken as appropriate for the species identified and to determine permitting needs.

Pre-construction Survey: A qualified biologist will conduct pre-construction surveys during the appropriate periods for special status animal species

in accordance with CDFW guidance and recommendations. In the absence of protocol-level surveys being performed, additional surveys may be necessary.

- If special status animal species are not identified during pre-construction surveys, no further action is required.
- If special status animal species are detected during pre-construction surveys, the Sacramento Field Office of the USFWS and the Fresno Field Office of CDFW shall be contacted immediately to identify the appropriate avoidance and minimization actions to be taken as applicable for the species identified and to determine permitting needs.

Jurisdictional Waters

An unnamed ditch and ponding basin and Mill Creek Ditch, considered Waters of both the State and the U.S., are within close proximity to the Project vicinity, specifically approximately 0.25 mile (1,320 feet) north and approximately 1.2 miles south (6,330 feet), respectively, of the Project site; however, jurisdictional waters are absent from the Project site itself.[6]. These waters are separated from the Project site by Avenue 312 and agricultural uses to the north of the roadway. As such, the proposed Project will not result in significant impacts to these waters or to any riparian habitats or other protected wetlands. Therefore, as the proposed Project would have a less than significant impact on jurisdictional waters, mitigation measures would not be warranted.

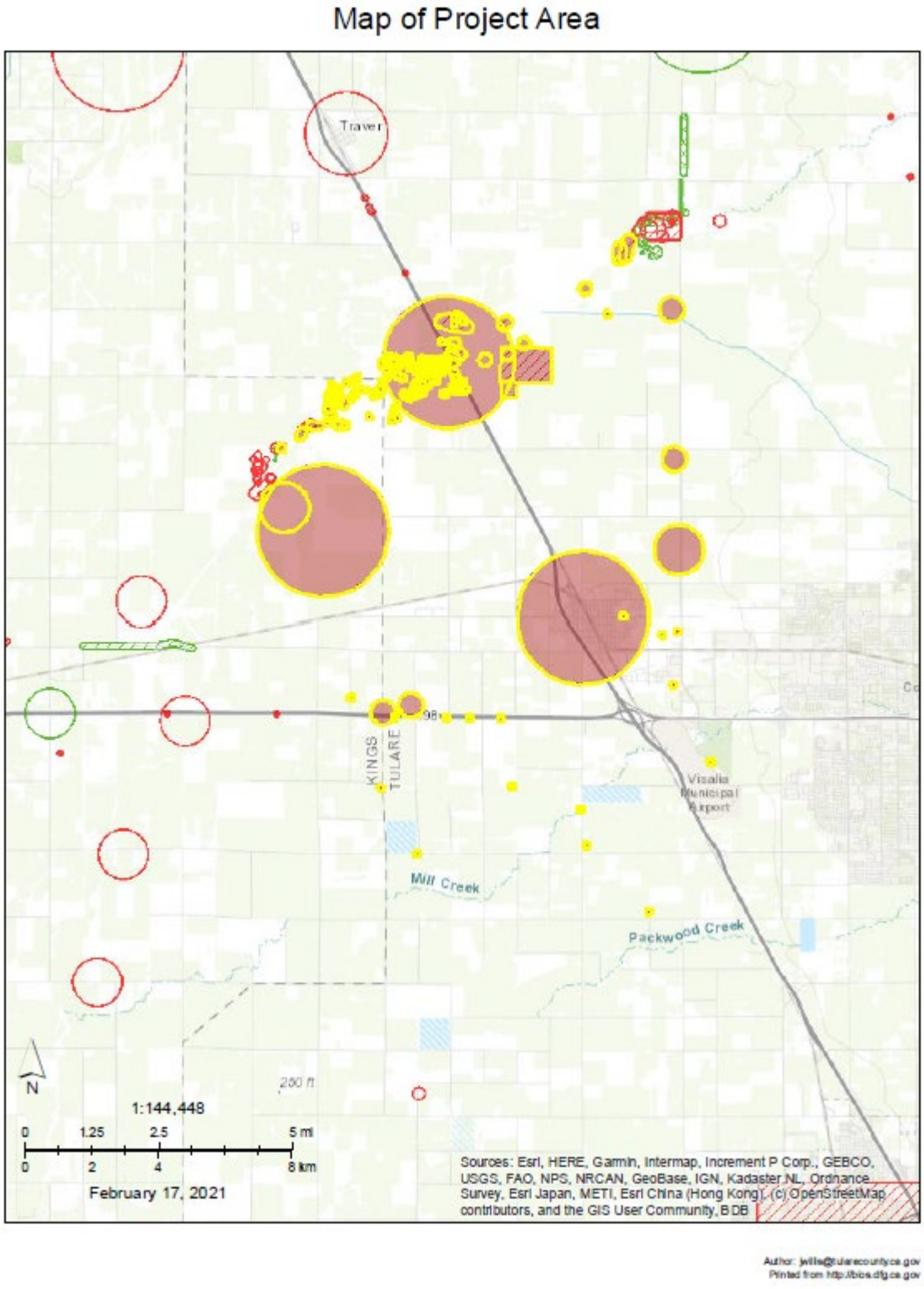
SUMMARY

The Project is located within the Goshen Community Plan Update PPSA. Future projects within the Goshen UDB must comply with applicable mitigation measures identified in the MMRP adopted for the Update. As such, the Project must comply with all applicable mitigation measures to reduce potential impacts to biological species. Therefore, the Project will not result in significant impact to to special status species or natural communities, nor will is have a significant impact on jurisdictional waters.

[6] United States Geological Survey. National Water Information System: Mapper. https://maps.waterdata.usgs.gov/mapper/index.html
United States Fish and Wildlife Service. National Wetlands Inventory. Surface Waters and Wetlands Mapper. https://www.fws.gov/wetlands/data/mapper.html
California Department of Fish and Wildlife. CNDDB Maps and Data.. https://wildlife.ca.gov/Data/CNDDB/Maps-and-Data#43018407-rarefind-5

Figure 1. Project Location

Figure 2. Special Status Species and Natural Communities Map



Note: Species located within the 5-mile radius are indicated by yellow boundaries.

Figure 3. Special Status Species Recorded within 5 miles of the Project Site

California Natural Diversity Database (CNDDB) Government [ds45]

Scientific Name	Common Name	Element Code	Occ Number	MAPNDX	EONDX	Key Quad Code	Key Quad Name	Key County Code	Accuracy	Presence	Occ Type	Occ Rank	Sensitive	Site Date	Elm Date	Owner Management	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank	CDFW Status	Other Status	Symbology	Taxon Group
Branchinecta lynchi	vernal pool fairy shrimp	ICBRA03030	113	32752	18594	3611944	Traver	TUL	specific area	Presumed Extant	Natural/Native occurrence	Good	N	19930109	19930109	PVT	Threatened	None	G3	S3			IUCN_VU	202	Crustaceans
Branchinecta lynchi	vernal pool fairy shrimp	ICBRA03030	111	32737	17096	3611934	Goshen	TUL	80 meters	Presumed Extant	Natural/Native occurrence	Unknown	N	19950209	19950209	PVT	Threatened	None	G3	S3			IUCN_VU	201	Crustaceans
Valley Sacaton Grassland	Valley Sacaton Grassland	CTT42120CA	12	15270	8665	3611934	Goshen	KNG	1 mile	Presumed Extant	Natural/Native occurrence	Poor	N	19850312	19850312	PVT	None	None	G1	S1.1				304	Herbaceous
Lepidurus packardi	vernal pool tadpole shrimp	ICBRA10010	129	40395	35402	3611944	Traver	TUL	1/10 mile	Presumed Extant	Natural/Native occurrence	Fair	N	19980410	19980410	PVT	Endangered	None	G4	S3S4			IUCN_EN	204	Crustaceans
Atriplex cordulata var. cordulata	heartscale	PDCHE040B0	30	25124	3244	3611934	Goshen	TUL	1 mile	Presumed Extant	Natural/Native occurrence	Unknown	N	19380509	19380905	UNKNOWN	None	None	G3T2	S2	1B.2		BLM_S	604	Dicots
Northern Claypan Vernal Pool	Northern Claypan Vernal Pool	CTT44120CA	10	15328	26434	3611944	Traver	TUL	1 mile	Presumed Extant	Natural/Native occurrence	Unknown	N	1983XXXX	1983XXXX	UNKNOWN	None	None	G1	S1.1				304	Herbaceous
Atriplex subtilis	subtle orache	PDCHE042T0	8	25124	33912	3611934	Goshen	TUL	1 mile	Possibly Extirpated	Natural/Native occurrence	None	N	20020912	19050901	UNKNOWN	None	None	G1	S1	1B.2			604	Dicots
Athene cunicularia	burrowing owl	ABNSB10010	310	40396	35403	3611944	Traver	TUL	non-specific area	Presumed Extant	Natural/Native occurrence	Fair	N	19980410	19980410	PVT	None	None	G4	S3		SSC	BLM_S; IUCN_LC; USFWS_BCC	203	Birds
Spea hammondii	western spadefoot	AAABF02020	288	55262	55262	3611934	Goshen	TUL	80 meters	Presumed Extant	Natural/Native occurrence	Good	N	20040422	20040422	PVT-JACUZZI PROPERTY	None	None	G3	S3		SSC	BLM_S; IUCN_NT	201	Amphibians
Vulpes macrotis mutica	San Joaquin kit fox	AMAJA03041	150	55307	55307	3611944	Traver	TUL	1/5 mile	Presumed Extant	Natural/Native occurrence	Fair	N	20030808	20030808	UNKNOWN	Endangered	Threatened	G4T2	S2				204	Mammals
Atriplex minuscula	lesser saltscale	PDCHE042M0	14	56415	56431	3611934	Goshen	TUL	80 meters	Presumed Extant	Natural/Native occurrence	Fair	N	20020912	20020912	UNKNOWN	None	None	G2	S2	1B.1			101	Dicots
Vulpes macrotis mutica	San Joaquin kit fox	AMAJA03041	619	67378	67546	3611944	Traver	TUL	1/5 mile	Presumed Extant	Natural/Native occurrence	Unknown	N	1971XXXX	1971XXXX	UNKNOWN	Endangered	Threatened	G4T2	S2				204	Mammals
Vulpes macrotis mutica	San Joaquin kit fox	AMAJA03041	620	67379	67547	3611934	Goshen	TUL	1/5 mile	Presumed Extant	Natural/Native occurrence	Unknown	N	1973XXXX	1973XXXX	UNKNOWN	Endangered	Threatened	G4T2	S2				204	Mammals
Vulpes macrotis mutica	San Joaquin kit fox	AMAJA03041	907	67784	67936	3611934	Goshen	TUL	2/5 mile	Presumed Extant	Natural/Native occurrence	Unknown	N	197507XX	197507XX	UNKNOWN	Endangered	Threatened	G4T2	S2				204	Mammals
Vulpes macrotis mutica	San Joaquin kit fox	AMAJA03041	924	67807	67957	3611935	Remnoy	KNG	2/5 mile	Presumed Extant	Natural/Native occurrence	Unknown	N	197507XX	197507XX	UNKNOWN	Endangered	Threatened	G4T2	S2				204	Mammals
Buteo swainsoni	Swainson's hawk	ABNKC19070	1691	69651	70431	3611934	Goshen	TUL	80 meters	Presumed Extant	Natural/Native occurrence	Good	N	20120807	20120807	CALTRANS	None	Threatened	G5	S3			BLM_S; IUCN_LC; USFWS_BCC	201	Birds
Lepidurus packardi	vernal pool tadpole shrimp	ICBRA10010	293	86221	87258	3611944	Traver	TUL	non-specific area	Presumed Extant	Natural/Native occurrence	Good	N	20110524	20110524	PVT	Endangered	None	G4	S3S4			IUCN_EN	203	Crustaceans
Lepidurus packardi	vernal pool tadpole shrimp	ICBRA10010	294	86222	87264	3611944	Traver	TUL	1/10 mile	Presumed Extant	Natural/Native occurrence	Good	N	20110516	20110516	PVT	Endangered	None	G4	S3S4			IUCN_EN	204	Crustaceans
Buteo swainsoni	Swainson's hawk	ABNKC19070	1782	86224	87266	3611944	Traver	TUL	80 meters	Presumed Extant	Natural/Native occurrence	Good	N	20110422	20110422	PVT	None	Threatened	G5	S3			BLM_S; IUCN_LC; USFWS_BCC	201	Birds
Spea hammondii	western spadefoot	AAABF02020	428	86230	87272	3611944	Traver	TUL	non-specific area	Presumed Extant	Natural/Native occurrence	Good	N	20110516	20110516	PVT	None	None	G3	S3		SSC	BLM_S; IUCN_NT	203	Amphibians
Spea hammondii	western spadefoot	AAABF02020	429	86232	87274	3611944	Traver	TUL	non-specific area	Presumed Extant	Natural/Native occurrence	Good	N	20110516	20110516	PVT	None	None	G3	S3		SSC	BLM_S; IUCN_NT	203	Amphibians
Spea hammondii	western spadefoot	AAABF02020	431	86234	87276	3611944	Traver	TUL	non-specific area	Presumed Extant	Natural/Native occurrence	Good	N	20110516	20110516	PVT	None	None	G3	S3		SSC	BLM_S; IUCN_NT	203	Amphibians

Figure 3 (continued)

Spea hammondii	western spadefoot	AAABF02020	432	86235	87277	3611944	Traver	TUL	1/10 mile	Presumed Extant	Natural/Native occurrence	Good	N	20110516	20110516	PVT	None	None	G3	S3		SSC	BLM_S; IUCN_NT	204	Amphibians
Spea hammondii	western spadefoot	AAABF02020	433	86236	87278	3611944	Traver	TUL	1/10 mile	Presumed Extant	Natural/Native occurrence	Good	N	20110524	20110524	PVT	None	None	G3	S3		SSC	BLM_S; IUCN_NT	204	Amphibians
Spea hammondii	western spadefoot	AAABF02020	434	86237	87279	3611944	Traver	TUL	non-specific area	Presumed Extant	Natural/Native occurrence	Good	N	20110524	20110524	PVT	None	None	G3	S3		SSC	BLM_S; IUCN_NT	203	Amphibians
Spea hammondii	western spadefoot	AAABF02020	430	86233	87275	3611944	Traver	TUL	1/10 mile	Presumed Extant	Natural/Native occurrence	Good	N	20110524	20110524	PVT	None	None	G3	S3		SSC	BLM_S; IUCN_NT	204	Amphibians
Buteo swainsoni	Swainson's hawk	ABNKC19070	1790	86999	87966	3611934	Goshen	KNG	80 meters	Presumed Extant	Natural/Native occurrence	Good	N	20080715	20080715	PVT	None	Threatened	G5	S3			BLM_S; IUCN_LC; USFWS_BCC	201	Birds
Buteo swainsoni	Swainson's hawk	ABNKC19070	1793	87003	87969	3611934	Goshen	TUL	80 meters	Presumed Extant	Natural/Native occurrence	Fair	N	20120712	20120712	CALTRANS	None	Threatened	G5	S3			BLM_S; IUCN_LC; USFWS_BCC	201	Birds
Buteo swainsoni	Swainson's hawk	ABNKC19070	1786	86229	87271	3611934	Goshen	TUL	1/5 mile	Presumed Extant	Natural/Native occurrence	Fair	N	19990420	1993XXXX	PVT	None	Threatened	G5	S3			BLM_S; IUCN_LC; USFWS_BCC	204	Birds
Buteo swainsoni	Swainson's hawk	ABNKC19070	2512	90294	91329	3611934	Goshen	TUL	80 meters	Presumed Extant	Natural/Native occurrence	Excellent	N	201208XX	20120531	PVT	None	Threatened	G5	S3			BLM_S; IUCN_LC; USFWS_BCC	201	Birds
Buteo swainsoni	Swainson's hawk	ABNKC19070	2513	90295	91330	3611934	Goshen	TUL	80 meters	Presumed Extant	Natural/Native occurrence	Unknown	N	20120807	20120807	PVT	None	Threatened	G5	S3			BLM_S; IUCN_LC; USFWS_BCC	201	Birds
Buteo swainsoni	Swainson's hawk	ABNKC19070	2511	90293	91328	3611934	Goshen	TUL	80 meters	Presumed Extant	Natural/Native occurrence	Excellent	N	20120416	20120416	PVT	None	Threatened	G5	S3			BLM_S; IUCN_LC; USFWS_BCC	201	Birds
Buteo swainsoni	Swainson's hawk	ABNKC19070	2514	90296	91334	3611934	Goshen	TUL	80 meters	Presumed Extant	Natural/Native occurrence	Good	N	201204D6	201204D6	PVT	None	Threatened	G5	S3			BLM_S; IUCN_LC; USFWS_BCC	201	Birds
Buteo swainsoni	Swainson's hawk	ABNKC19070	2515	90297	91335	3611934	Goshen	TUL	80 meters	Presumed Extant	Natural/Native occurrence	Good	N	20120807	20120619	PVT	None	Threatened	G5	S3			BLM_S; IUCN_LC; USFWS_BCC	201	Birds
Puccinellia simplex	California alkali grass	PMPOA53110	14	25124	100163	3611934	Goshen	TUL	1 mile	Possibly Extirpated	Natural/Native occurrence	None	N	19250324	19250324	UNKNOWN	None	None	G3	S2	1B.2		BLM_S	804	Monocots
Athene cunicularia	burrowing owl	ABNSB10010	2004	A4870	106568	3611944	Traver	TUL	80 meters	Presumed Extant	Natural/Native occurrence	Unknown	N	20170301	20170301	PVT	None	None	G4	S3		SSC	BLM_S; IUCN_LC; USFWS_BCC	201	Birds
Athene cunicularia	burrowing owl	ABNSB10010	2005	A4872	106570	3611944	Traver	TUL	80 meters	Presumed Extant	Natural/Native occurrence	Unknown	N	20170301	20170301	PVT	None	None	G4	S3		SSC	BLM_S; IUCN_LC; USFWS_BCC	201	Birds
Athene cunicularia	burrowing owl	ABNSB10010	396	44977	44977	3611944	Traver	KNG	specific area	Presumed Extant	Natural/Native occurrence	Good	N	20170301	20170301	PVT	None	None	G4	S3		SSC	BLM_S; IUCN_LC; USFWS_BCC	202	Birds
Branchinecta lynchi	vernal pool fairy shrimp	ICBRA03030	911	A6723	108492	3611944	Traver	TUL	specific area	Presumed Extant	Natural/Native occurrence	Excellent	N	20170301	20170301	PVT	Threatened	None	G3	S3			IUCN_VU	202	Crustaceans
Branchinecta lynchi	vernal pool fairy shrimp	ICBRA03030	912	A6724	108493	3611944	Traver	KNG	80 meters	Presumed Extant	Natural/Native occurrence	Excellent	N	20170301	20170301	PVT	Threatened	None	G3	S3			IUCN_VU	201	Crustaceans
Branchinecta lynchi	vernal pool fairy shrimp	ICBRA03030	207	41571	41571	3611944	Traver	KNG	specific area	Presumed Extant	Natural/Native occurrence	Fair	N	20170301	20170301	PVT	Threatened	None	G3	S3			IUCN_VU	202	Crustaceans
Spea hammondii	western spadefoot	AAABF02020	472	A6746	108515	3611944	Traver	TUL	specific area	Presumed Extant	Natural/Native occurrence	Excellent	N	20170301	20170301	PVT	None	None	G3	S3		SSC	BLM_S; IUCN_NT	202	Amphibians
Spea hammondii	western spadefoot	AAABF02020	473	A6747	108517	3611944	Traver	TUL	specific area	Presumed Extant	Natural/Native occurrence	Excellent	N	20170301	20170301	PVT	None	None	G3	S3		SSC	BLM_S; IUCN_NT	202	Amphibians
Spea hammondii	western spadefoot	AAABF02020	474	A6749	108518	3611944	Traver	KNG	specific area	Presumed Extant	Natural/Native occurrence	Excellent	N	20170301	20170301	PVT	None	None	G3	S3		SSC	BLM_S; IUCN_NT	202	Amphibians
Spea hammondii	western spadefoot	AAABF02020	475	A6750	108519	3611944	Traver	KNG	specific area	Presumed Extant	Natural/Native occurrence	Excellent	N	20170301	20170301	PVT	None	None	G3	S3		SSC	BLM_S; IUCN_NT	202	Amphibians
Lepidurus packardi	vernal pool tadpole shrimp	ICBRA10010	140	41572	41572	3611944	Traver	KNG	specific area	Presumed Extant	Natural/Native occurrence	Fair	N	20170301	20170301	PVT	Endangered	None	G4	S3S4			IUCN_EN	202	Crustaceans
Lepidurus packardi	vernal pool tadpole shrimp	ICBRA10010	295	86223	87265	3611944	Traver	TUL	specific area	Presumed Extant	Natural/Native occurrence	Good	N	20170301	20170301	PVT	Endangered	None	G4	S3S4			IUCN_EN	202	Crustaceans

Figure 3 (continued)

Buteo sw ainsoni	Sw ainson's hawk	ABNKC19070	2733	A8178	109959	3611934	Goshen	TUL	80 meters	Presumed Extant	Natural/Native occurrence	Unknown	N	20170530	20170530	UNKNOWN	None	Threatened	G5	S3			BLM_S; IUCN_LC; USFWS_BCC	201	Birds
Atriplex minuscula	lesser saltscale	PDCHE042M0	52	B0734	112603	3611944	Traver	TUL	non-specific area	Presumed Extant	Natural/Native occurrence	Excellent	N	20160802	20160802	PVT	None	None	G2	S2	1B.1			103	Dicots
Atriplex minuscula	lesser saltscale	PDCHE042M0	53	B0735	112604	3611944	Traver	TUL	specific area	Presumed Extant	Natural/Native occurrence	Excellent	N	20160802	20160802	PVT	None	None	G2	S2	1B.1			102	Dicots
Atriplex minuscula	lesser saltscale	PDCHE042M0	54	B0736	112605	3611944	Traver	TUL	specific area	Presumed Extant	Natural/Native occurrence	Excellent	N	20160802	20160802	PVT	None	None	G2	S2	1B.1			102	Dicots
Buteo sw ainsoni	Sw ainson's hawk	ABNKC19070	2751	B0744	112614	3611934	Goshen	TUL	80 meters	Presumed Extant	Natural/Native occurrence	Good	N	20170523	20170523	PVT, UNKNOWN	None	Threatened	G5	S3			BLM_S; IUCN_LC; USFWS_BCC	201	Birds
Puccinellia simplex	California alkali grass	PMPOA53110	76	B3004	114929	3611944	Traver	TUL	specific area	Presumed Extant	Natural/Native occurrence	Good	N	20170331	20170331	PVT	None	None	G3	S2	1B.2		BLM_S	802	Monocots
Buteo sw ainsoni	Sw ainson's hawk	ABNKC19070	2769	B3332	115248	3611934	Goshen	KNG	80 meters	Presumed Extant	Natural/Native occurrence	Unknown	N	20160422	20160422	PVT	None	Threatened	G5	S3			BLM_S; IUCN_LC; USFWS_BCC	201	Birds
Buteo sw ainsoni	Sw ainson's hawk	ABNKC19070	2786	B3381	115297	3611934	Goshen	TUL	80 meters	Presumed Extant	Natural/Native occurrence	Unknown	N	20160601	20160601	UNKNOWN	None	Threatened	G5	S3			BLM_S; IUCN_LC; USFWS_BCC	201	Birds
Buteo sw ainsoni	Sw ainson's hawk	ABNKC19070	2795	B3406	115321	3611934	Goshen	TUL	80 meters	Presumed Extant	Natural/Native occurrence	Unknown	N	20170706	20170706	CITY OF VISALIA	None	Threatened	G5	S3			BLM_S; IUCN_LC; USFWS_BCC	201	Birds
Buteo sw ainsoni	Sw ainson's hawk	ABNKC19070	1784	86226	87268	3611944	Traver	TUL	non-specific area	Presumed Extant	Natural/Native occurrence	Fair	N	20170601	20170601	CALTRANS ROW	None	Threatened	G5	S3			BLM_S; IUCN_LC; USFWS_BCC	203	Birds
Linderiella occidentalis	California linderiella	ICBRA06010	492	B5572	118542	3611944	Traver	TUL	specific area	Presumed Extant	Natural/Native occurrence	Good	N	20160914	20160914	PVT	None	None	G2G3	S2S3			IUCN_NT	202	Crustaceans
Linderiella occidentalis	California linderiella	ICBRA06010	493	B5573	118543	3611944	Traver	KNG	specific area	Presumed Extant	Natural/Native occurrence	Good	N	20160914	20160914	PVT	None	None	G2G3	S2S3			IUCN_NT	202	Crustaceans
Lasthenia chrysantha	alkali-sink goldfields	PDAST5L030	22	25124	118554	3611934	Goshen	TUL	1 mile	Presumed Extant	Natural/Native occurrence	Unknown	N	19140326	19140326	UNKNOWN	None	None	G2	S2	1B.1			804	Dicots
Lasthenia chrysantha	alkali-sink goldfields	PDAST5L030	23	B3004	118558	3611944	Traver	TUL	specific area	Presumed Extant	Natural/Native occurrence	Unknown	N	20170331	20170331	PVT	None	None	G2	S2	1B.1			802	Dicots

ATTACHMENT "C"

CHRIS Results

California Historical Resources Information System

Fresno
Kern
Kings
Madera
Tulare

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

To: Hector Guerra
Tulare County Resource Management Agency
5961 South Mooney Blvd.
Visalia, CA 93277

Record Search 20-435

Date: December 14, 2020

Re: Swift Homes TSM 20-003

County: Tulare

Map(s): Goshen 7.5'

CULTURAL RESOURCES RECORDS SEARCH

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

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

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

According to the information in our files, there has been one previous cultural resource studies conducted within the project area, TU-01357. There have been ten additional studies within the one-half mile radius, TU-00102, 00187, 01032, 01158, 01312, 01324, 01395, 01476, 01676, and 01789.

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

There are no recorded resources within the project area. There is one recorded resource within the one-half mile radius, P-54-004626, an historic era railroad.

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

COMMENTS AND RECOMMENDATIONS

We understand this project consists of subdividing 36.98 acres into 197 parcels and an 80,580 square foot pond on land that is currently vacant. It is unclear if this subdivision will result in construction or other ground disturbance. The cultural resources study conducted on this project area was completed 12 years ago. A cultural resources study is generally only considered valid for up to five years. If no ground disturbance will result from this subdivision, then no further cultural resource investigation is recommended at this time. However, if this subdivision will result in ground disturbance activities, then we recommend a qualified, professional consultant first conduct a new field survey to determine if any cultural resources are present. A list of qualified consultants can be found at www.chrisinfo.org.

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

By:

Celeste M. Thomson, Coordinator **Date**: December 14, 2020

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

ATTACHMENT "D"

Traffic Impact Study

Traffic Impact Study and Vehicle Miles Travelled Assessment for the Goshen Residential Development Project

Goshen, California

January, 2021

Traffic Impact Study

And

Vehicle Miles Travelled Assessment

for the Goshen Residential

Development Project

Goshen, California

January 2021

Prepared for:
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https://2013c2corp-my.sharepoint.com/personal/charley_c2consultcorp_com/Documents/Project/PROJECTS/1341.8 Nunley Development Goshen 36 Traffic Assessment/Work Product/Goshen TIS.doc

This report and the data contained herein have been prepared expressly for the purposes of this project. The use of this data, the conclusions contained in the report or the information provided herein by individuals or agencies is done so at their sole discretion and at their own responsibility. Publication of this document does not warrant the use of the data, the conclusions or the information for any purpose other than that described within this report.

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Traffic Impact Study

And

Vehicle Miles Travelled Assessment

for the Goshen Residential

Development Project

CHAPTER 1 – INTRODUCTION

Study Purpose

The Goshen Residential Project is a proposed 197 unit development located on the southwest corner of Riggin Avenue at Road 72 in Goshen, California. The community is adjacent to the City of Visalia and will provide additional housing in this unique area. This traffic impact study has been prepared to assess the impact of additional traffic that will be generated by this development and provide a response to the requirements of SB743 for assessment under the California Environmental Impact Analysis. **Figure 1** shows a vicinity map of the area around the development site.

Study Area

The County of Tulare has designated the following items to be evaluated as part of this study. The intersection locations are shown in **Figure 2**.The segments are described in Table

Intersections (numbers relate to Community Plan evaluation)

7. Betty Drive / SR 99 SB Ramps
8. Betty Drive / SR 99 NB Ramps
9. Betty Drive / Road 67
12. Betty Drive / Robinson Road
13. Avenue 312-Riggin Avenue / Road 72
14. Avenue 310 / Road 72
15. Avenue 308 / Road 72
17. Avenue 312-Riggin Avenue / Road 76
18. Goshen Avenue / Road 76

Roadway Segments (numbers relate to Community Plan evaluation)

1. Betty Drive:
   - SR 99 to Robinson Road
   - Robinson Road to Road 72
   - Road 72 to Road 76
   - East of Road 76

3. Avenue 304/Goshen Avenue:
   - East of Road 76

6. SR 99:
   - North of Betty Drive
   - Betty Drive to Avenue 304

8. Robinson Road:
   - North of Betty Drive
   - South of Betty Drive

9. Road 72:
   - Avenue 312/Riggin Avenue to Avenue 310
   - Avenue 310 to Avenue 308
   - South of Avenue 308

Analysis Scenarios

The scenarios that were analyzed for this study include:

- Existing Year 2020 Conditions
- Existing Year 2020 with Goshen Project Conditions
- Future Year 2040 Build Conditions (with General Plan which includes the Project)

Traffic Counts

According to the Caltrans *Guide for the Preparation of Traffic Impact Studies*, one of the common rules for counting vehicular traffic is:

> "*Vehicle counts should be conducted on Tuesdays, Wednesdays, or Thursdays during weeks not containing a holiday and conducted in favorable weather conditions*."[1]

However, it is acknowledged that under the conditions resulting from COVID traffic counts for this evaluation reflect the conditions at the time of this study. The transportation profession is acknowledging that these conditions are not consistent with pre-COVID traffic volumes and may reflect only a portion of the post-COVID travel patterns, as well as, work and school commuting. Traffic counts for this study were conducted during the weeks of November 30 and December 7, 2020.

Analysis Time Periods

According to *Traffic Impact Analyses for Site Development*, the overall purpose of a traffic impact study is to determine the project impacts that are likely to occur to the surrounding street system. In order to accomplish this, analysts need to determine what occurs when the peak of the project generated traffic is combined with the peak of the surrounding street traffic. The publication states

[1] *Guide for the Preparation of Traffic Impact Studies*, State of California Department of Transportation, December 2002, page 4.

that "peak periods [of adjacent streets and highways] are generally the weekday morning (7-9 a.m.) and evening (4-6 p.m.) peak hours, although local area characteristics occasionally result in other peaks (e.g., at major shopping or recreational centers). In order to accommodate these analyses, traffic counts were collected during weekdays during the time period listed below:

Weekdays

- 7:00 to 9:00 AM
- 4:00 to 6:00 PM

Analysis Methodology

All level of service analyses performed for this study conform to the practices of the *Highway Capacity Manual*, and were done using the Highway Capacity Manual traffic analysis software for unsignalized intersections or for signalized intersections the Synchro 7 software. For signalized intersections, this software allows for optimization of signal timings to minimize traffic delay at each intersection. This process can result in different signal cycle lengths for both the AM and PM peak hours of a given analysis scenario and may also vary between different scenarios. This optimization somewhat reflects traffic agency procedure whereby intersection signal cycle lengths are adjusted for differing traffic conditions and times, based on counts of existing traffic volume.

For analysis purposes, HCM defines six levels of service for various facility types. The six levels are given letter designations ranging from "A" to "F", with "A" representing the best operating conditions and "F" the worst. Quantifiable measures of effectiveness that best describe the quality of operation on the subject facility type are used to determine the facilities level of service. For the case of both signalized and unsignalized intersections, the quantifiable measure of effectiveness is average control delay.

Control delay for two-way stop-controlled (TWSC) intersections, which have stop signs on only the minor street approaches, is on a per-vehicle basis and is computed for the stop-controlled, minor-street movements and major street left turn movements only, because major-street through movements are theoretically in continual free-flow conditions and therefore experience no delay. Since there is no aggregation of delay for a TWSC intersection, there is no level of service for an intersection as a whole, but only levels of service for individual minor-street and major-street left turn movements.

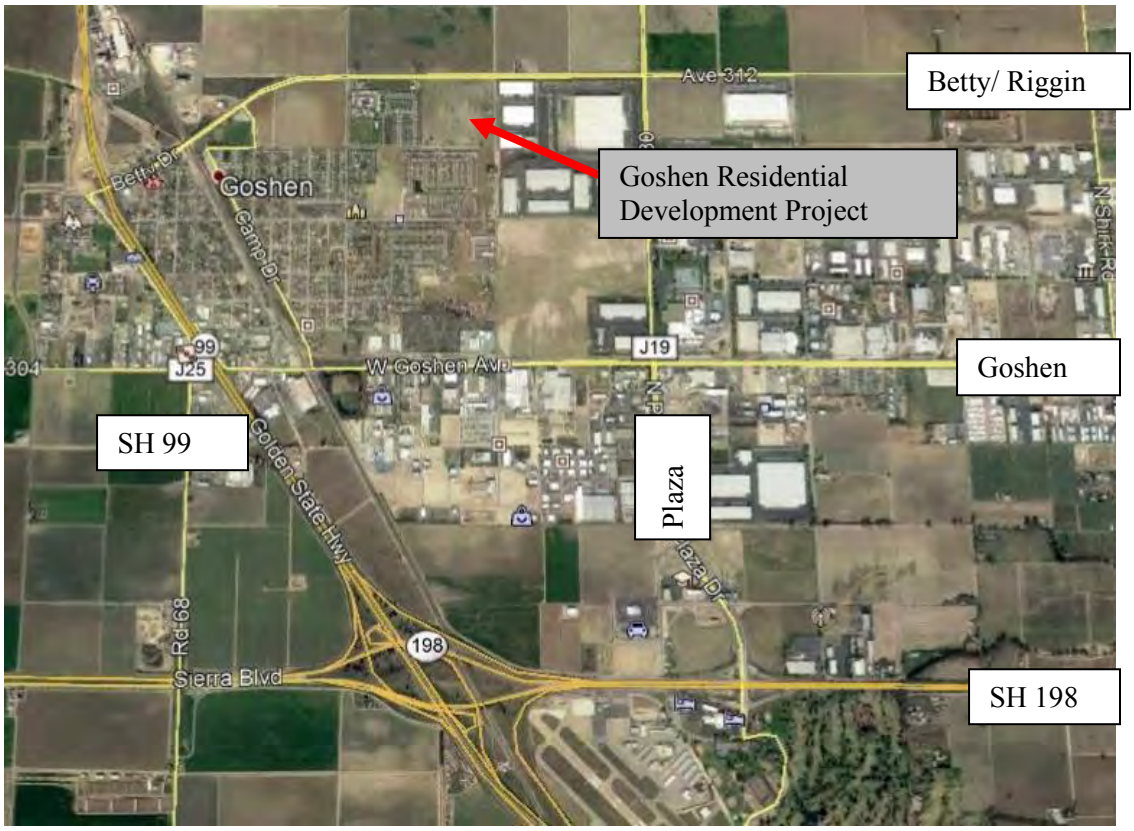


FIGURE 1: Vicinity Map

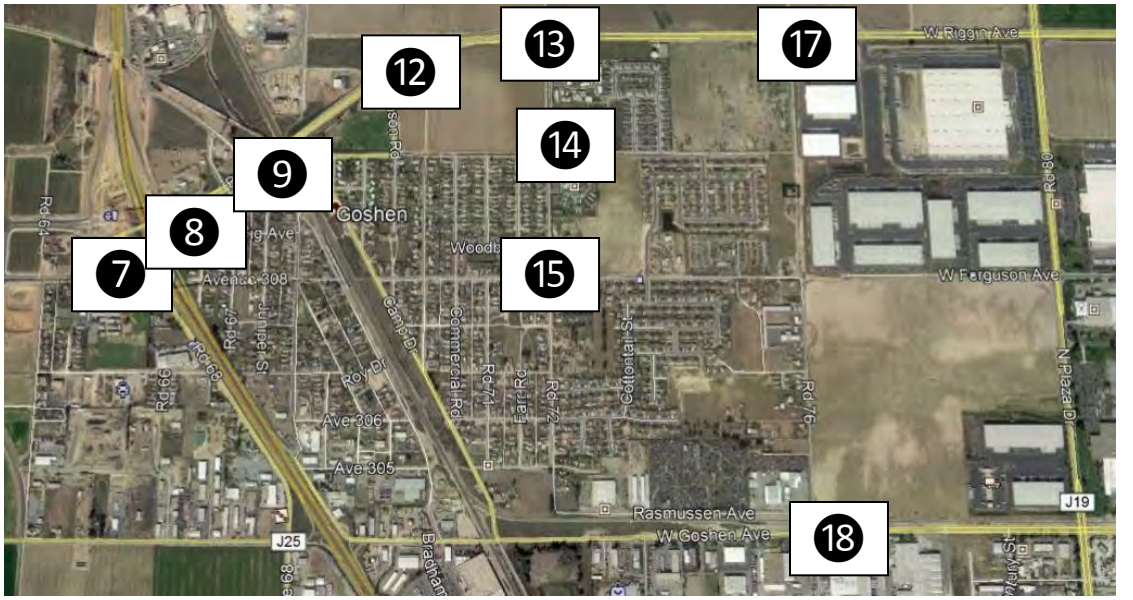


FIGURE 2: Study Intersection Locations (intersection numbers from Goshen Community Plan)

The following table shows level of service ratings and their corresponding ranges of average control delay for both signalized and unsignalized intersections. For signalized intersections, it also contains a general description of traffic flow associated with each level of service. Each table was taken from the Goshen Community Plan Update, Traffic Impact Study and are included to provide consistency with that document.

INTERSECTION LEVEL OF SERVICE DESCRIPTIONS			**Allowable Delay**	
			Signalized	**Unsignalized[1]**
Level of Service	**Conditions**	**Signalized Intersection Description**	**Delay (sec/veh)**	**Delay (sec/veh)**
"A"	Free Flow	*Users experience very low delay. Progression is favorable and most vehicles do not stop at all.*	≤10.0	≤10.0
"B"	Stable Operations	*Vehicles travel with good progression. Some vehicles stop, causing slight delay.*	>10.0 – 20.0	>10.0 – 15.0
"C"	Stable Operations	*Higher delays result from fair progression. A significant number of vehicles stop, although many continue to pass through the intersection without stopping.*	>20.0 to 35.0	>15.0 – 25.0
"D"	Approaching Unstable	*Congestion is noticeable. Progression is unfavorable, with more vehicles stopping rather than passing through the intersection.*	>35.0 – 55.0	>25.0 – 35.0
"E"	Unstable Operations	*Traffic volumes are at capacity. Users experience poor progression and long delays.*	>55.0 – 80.0	>35.0 – 50.0
"F"	Forced Flow	*Intersection's capacity is oversaturated, causing poor progression and unusually long delays.*	>80.0	>50.0

Source: Chapters 16 and 18, Highway Capacity Manual 2010, Transportation Research Board.

[1] *Unsignalized intersections include TWSC and AWSC*

Control delay, according to the 2010 Highway Capacity Manual, page 16-1, includes initial acceleration delay, queue move-up time, stopped delay, and final acceleration delay.

Annual Average Daily Volumes **Level of Service Capacity** (from Goshen Community Plan)					
Lanes	**Divided**	**B**	**C**	**D**	**E**
Freeways					
4	Divided	45,800	61,500	74,400	79,900
6	Divided	68,100	93,000	111,800	123,300
8	Divided	91,500	123,500	148,700	166,800
State Class I Roadways					
2	Undivided	*	16,800	17,700	**
4	Divided	*	37,900	39,800	**
6	Divided	*	58,400	59,900	**
8	Divided	*	78,800	80,100	**
Non-State Class I Roadways					
2	Undivided	*	15,120	15,930	**
2	Divided	*	15,960	16,815	**
4	Undivided	*	32,215	33,830	**
4	Divided	*	34,110	35,820	**
6	Divided	*	52,560	53,910	**
8	Divided	*	70,920	72,090	**
Non-State Class II Roadways					
2	Undivided	*	6,570	13,320	14,040
2	Divided	*	6,935	14,060	14,820
4	Undivided	*	12,325	27,540	28,730
4	Divided	*	13,050	29,160	30,420

Notes:

** Cannot be achieved using table input value defaults.*
*** Not applicable for that level of service letter grade. For the automobile mode, volumes greater than level of service D become F because intersection capacities have been reached.*

Level of service for each study intersection in the various analysis scenarios are summarized in tables through the report. For signalized intersections, the level of service rating shown represents the overall level of service for the intersection as a whole. For stop-controlled intersections, the level of service rating shown is for each individual traffic movement (excluding major-street through movements) instead of the entire intersection.

The County Circulation Element of the General Plan identifies a target goal of level of service D (LOS D) for roadway operations. Tulare County's 2030 General Plan, policy number TC-1.16, identifies a minimum LOS standard of D on the County roadway system (both segments and intersections). Historically, this LOS D has also been used as a significance threshold for CEQA transportation analysis. After July 1, 2020, as specified in SB 743, roadway operations will no longer be an acceptable CEQA significance threshold and the County Circulation Element will be amended to reflect this change. Maintenance of level of service D or better roadway operations will still be an important goal for the County, but actions to achieve this goal will be outside the CEQA process.

Based on guidance from Caltrans, the LOS for operating State highway facilities is based on Measures of Effectiveness (MOE) identified in the Highway Capacity Manual (HCM). Caltrans endeavors to maintain a target LOS at the transition between LOS "C" and LOS "D" on State highway facilities; however, Caltrans acknowledges that this may not always be feasible and recommends that the lead agency consult with Caltrans to determine the appropriate target LOS. If an existing State highway facility is operating at less than this target LOS, the existing MOE should be maintained. In general, the region-wide goal for an acceptable LOS on all freeways, roadways segments, and intersections is "D". For undeveloped or not densely developed locations, the goal may be to achieve LOS "C". Again, after July 1, 2020, as specified in SB 743, roadway operations will no longer be an acceptable CEQA significance threshold therefore the use of this Caltrans Level of Service Standard is no longer applicable.

CHAPTER 2 – EXISTING CONDITIONS

Roadways

Functional classification is the process by which streets and highways are grouped into classes according to the type of service they provide. Streets and highways are classified according to their primary function and may be assigned into several basic classifications:

State Highways (which may be freeways, expressways or conventional highways) – Connect regional destinations and generally pass through several jurisdictions. Traffic carrying capacity is maintained through access control at two-mile or more intervals, with shorter intervals between access points permitted in large urban areas.

State Route 99 and State Route (SR) 198 are the principle state highways serving Goshen. SR 99 is the principal north-south state highway and serves most of the larger cities in the San Joaquin Valley. In the Goshen area, Highway 99 includes three travel lanes in each direction. There is a freeway interchange at Betty Drive in Goshen, as well as freeway ramps without an overcrossing at Avenue 304; these facilities provide access between the community and the freeway. The Betty Drive at SR 99 interchange is currently under construction and will entail a partial cloverleaf configuration upon completion.

State Route 198 is a major east-west highway that connects Sequoia National Park in the east with US 101 in San Luis Obispo county in the west. In the vicinity of Goshen and to the east SR 198 is an expressway, with two lanes in each direction.

Arterials – Serve as the principal network for cross-town traffic flow. They connect areas of major traffic generation within the community area and connect with important county roads and state highways. They also provide for the distribution and collection of through traffic to and from collector and local streets.

Betty Drive is an arterial road that traverses SR 99 via an overcrossing, connecting parcels west of SR 99 with Riggin Avenue east of SR 99. It has two travel lanes west of SR 99 and at this overcrossing, widens to four lanes at Road 67. Riggin Avenue (also designated as Avenue 312) is the continuation of Betty Drive. In the study area it is a four-lane arterial.

Avenue 304 / Goshen Avenue is an east-west arterial street that is bifurcated into two segments by SR99; the segment east of SR 99 is called Goshen Avenue.

Collectors – Provide for traffic movement between arterial and local streets, traffic movement within and between neighborhoods and major activity centers, and limited direct access to abutting properties.

Within Goshen, Avenue 308 is an east-west collector level street that, like Avenue 304, is bifurcated into two segments by SR99. Its western segment, serves the Goshen Elementary School with approximately 530 students, which is part of the Visalia Unified School District.

Road 67 is a two-lane north-south collector street providing access to mainly industrial parcels just east of SR 99.

Robinson Road is a two-lane north-south collector street that provides access to industrial parcels north of Betty Drive and to a residential area south of Betty Drive.

Road 72 is a two-lane north-south collector street serving primarily residential areas of Goshen; it connects Riggin Avenue in the north with Rasmussen Avenue in the south.

Road 76 is also a two-lane north-south collector street. It currently runs from West Goshen Avenue to Avenue 308. There are near-term plans to extend Road 76 north to Riggin Avenue.

Local Streets – Provide for direct access to abutting properties and for very localized traffic movements within residential, commercial and industrial areas.

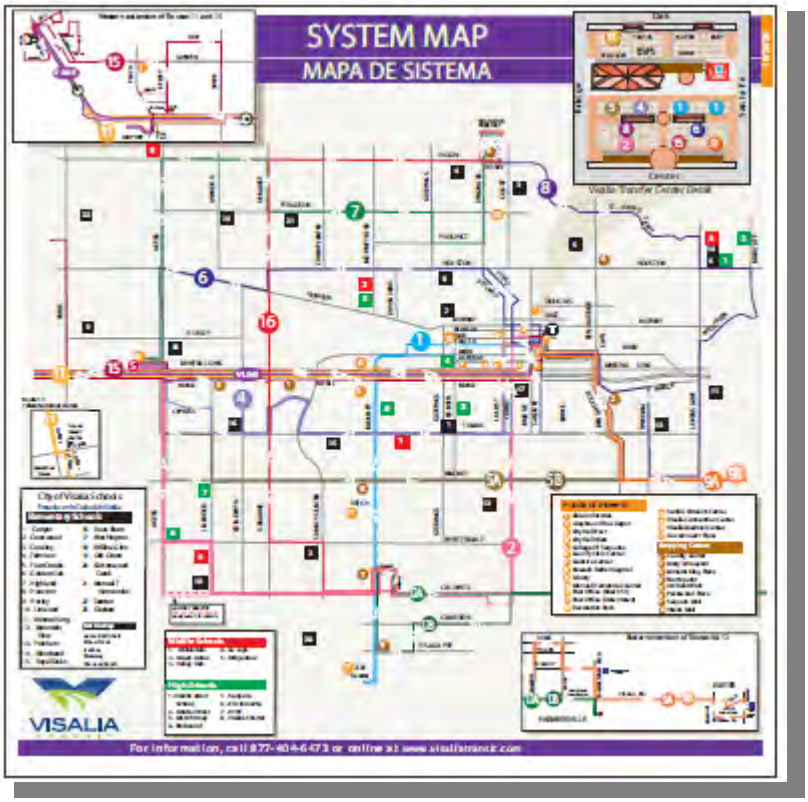
Existing traffic control measures are summarized in **Table 1** for each intersection considered in this study.

TABLE 1
EXISTING INTERSECTION TRAFFIC CONTROL AND LANES

Location No.	Intersection	Control Type
7.	Betty Drive / SR 99 SB Ramps	Traffic signal
8.	Betty Drive / SR 99 NB Ramps	Traffic signal
9.	Betty Drive / Road 67	Traffic signal
12.	Betty Drive / Robinson Road	Traffic signal
13.	Betty/Riggin Avenue / Road 72	One-Way Stop Sign
14.	Avenue 310 / Road 72	All-Way Stop Sign
15.	Avenue 308 / Road 72	Two-Way Stop Sign
17.	Riggin Avenue / Road 76	Traffic signal
18.	Goshen Avenue / Road 76	Two-Way Stop Sign
Segment No.	**Roadway**	**Lanes**
1	Betty Drive	4 lane divided
3	Avenue 304/Goshen Avenue:	4 lane divided
6	State Highway 99:	6 lane freeway
8	Robinson Road:	2 lane undivided
9	Road 72	2 lane undivided

Transit

The City of Visalia's Transit Division operates numerous mass transit services. Visalia Transit operates 12 bus routes that serve Visalia, Farmersville, Exeter, Goshen, and Tulare. Visalia Transit connects with Tulare InterModal Express, Tulare County Area Transit, Kings Area Regional Transit and Greyhound. Travel conveniently on Visalia Transit fixed-route. For those who need curb side pick-up and drop-offs, Dial-A-Ride para-transit services can get you there. Anyone traveling from Visalia to Fresno or back can conveniently hop on the V-LINE which provides express service between Fresno and Visalia. Youth can also get from schools to near-by recreation centers via the Loop Bus.



The site is currently served by Visalia Transit Route 15, which has a bus stop near the intersection of Avenue 310 at Road 72. One way fares for the fixed route service are $1.75

Bicycle Facilities

Bicycle lanes are present on Betty Drive and Riggin Avenue both east and west of Road 72.

Pedestrian Facilities

Pedestrian facilities are limited in the area surrounding the Project Site. This reflects the industrial development to the east of the site. There are sidewalks to the south and east of the Site and those were constructed as part of the residential development. It is anticipated that as part of the Goshen Residential Project, additional sidewalks and appropriate pedestrian crossings would be constructed along the perimeter of the Project Site.

Level of Service Standards

The County of Tulare General Plan currently calls for all intersections and roadway segments to be maintained at LOS "D" or better; this objective would be obtained given implementation of the Community Plan and the specific roadway improvements (mitigation measures) noted below. The Caltrans' level of service uses the transition between C/D as the acceptable level of service criteria in for this area.

Existing Conditions Analysis

The intersection existing lane configurations (shown in Figure 3) were analyzed using existing weekday traffic volumes (shown in Figure 4) in order to determine level of service for existing year (2020) conditions. Level of service for existing conditions at intersections is summarized in **Table 2** and for segments is shown in **Table 3**. Calculations for existing weekday conditions are included in Appendix B.

TABLE 2
EXISTING LEVEL OF SERVICE
Intersections

Intersection	AM	PM
7. Betty Drive / SR 99 SB Ramps	A	A
8. Betty Drive / SR 99 NB Ramps	B	B
9. Betty Drive / Road 67	A	B
12. Betty Drive / Robinson Road	A	A
13. Avenue 312-Riggin Avenue / Road 72 (critical approach)	B	B
14. Avenue 310 / Road 72	A	A
15. Avenue 308 / Road 72	A	A
17. Avenue 312-Riggin Avenue / Road 76	A	A
18. Goshen Avenue / Road 76 (critical approach)	B	B

TABLE 3
EXISTING LEVEL OF SERVICE
Segments

Roadway Segment	LOS D Capacity	2020 Daily Volume	LOS
1. Betty Drive:			
SR 99 to Robinson Road	35,820	14,808	<C
Robinson Road to Road 72	35,820	14,635	<C
Road 72 to Road 76	35,820	14,568	<C
East of Road 76	35,820	14,301	<C
3. Avenue 304/Goshen Avenue:			
East of Road 76	15,930	6,953	<C
6. SR 99:			
North of Betty Drive		N/A	-
Betty Drive to Avenue 304		N/A	-
8. Robinson Road:			
North of Betty Drive	15,930	760	<C
South of Betty Drive	15,930	2,339	<C
9. Road 72:			
Avenue 312/Riggin Ave to Ave 310	15,930	3,300	<C
Avenue 310 to Avenue 308	15,930	1,771	<C
South of Avenue 308	15,930	657	<C

Note: the intersection numbers and the roadway numbers correspond to the reference number contained in the Goshen Community Plan and its accompanying technical study. They are included to assist in the cross referencing of results.

The intersections were found to currently be operating above the County of Tulare's level of service standard and above the Caltrans the level of service "C/D" threshold. All road segments are currently operating above the County of Tulare's level of service standard. It should be noted that based on the Goshen Community Plan level of service segment criteria, level of service below "C" is deemed to be in determinant. Therefore, the segment assessment shown above is well above the level of service "C/D" threshold.

Also, this study was unable to collect data on State Highway 99 and therefore, no assessment of the segments north or south of Betty Drive were completed. It should be noted that as part of the Goshen Community Plan, State Highway 99 was evaluated (1997/98) and it was determined by that Study it was operating at a level of service "B". It is presumed that for the timeframe of this evaluation and in light of the travel restrictions as a result of COVID, the existing traffic volumes will be lower.

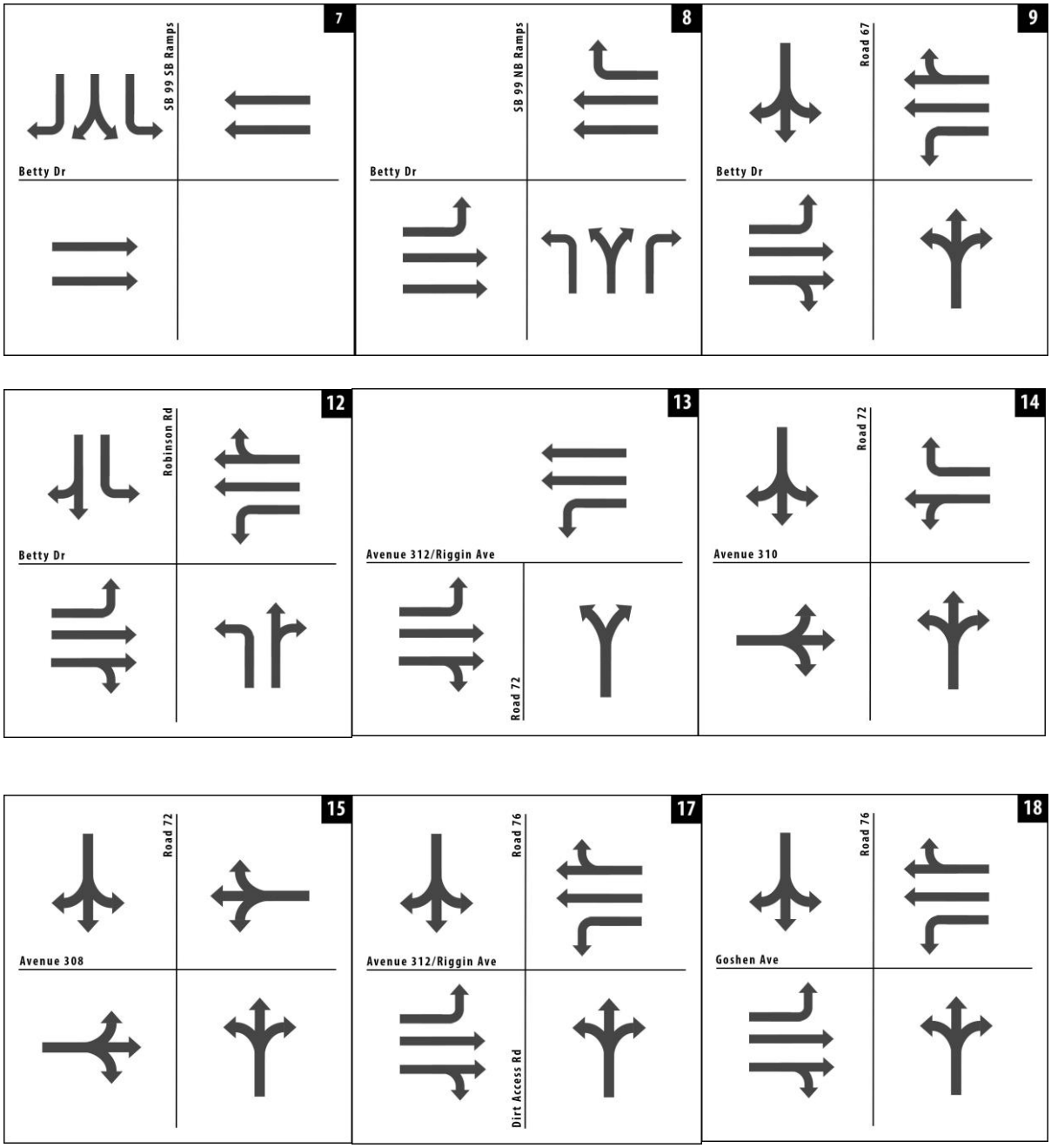


FIGURE 3: Existing Lane Configurations

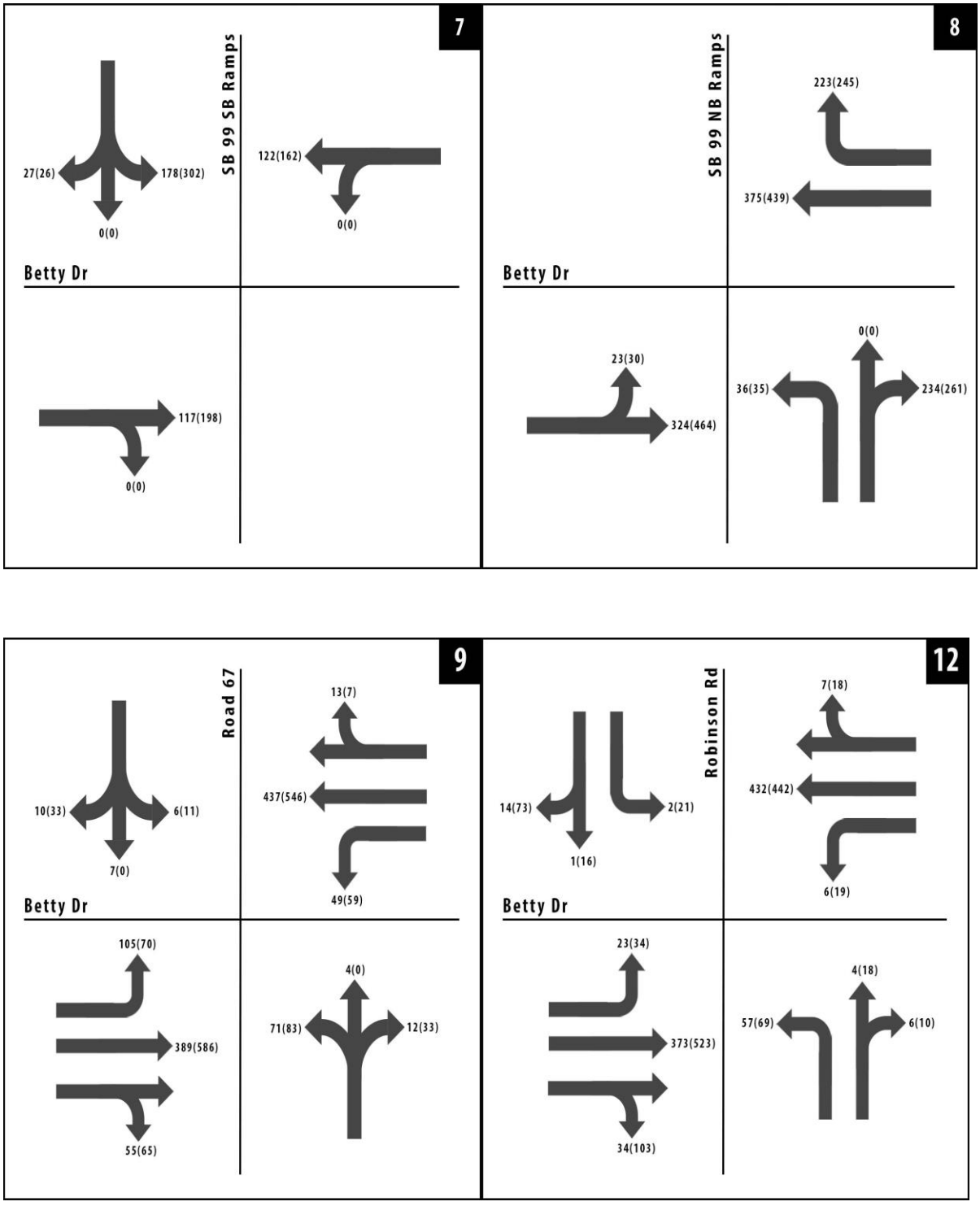


FIGURE 4: Existing Weekday Traffic Volumes at Intersections

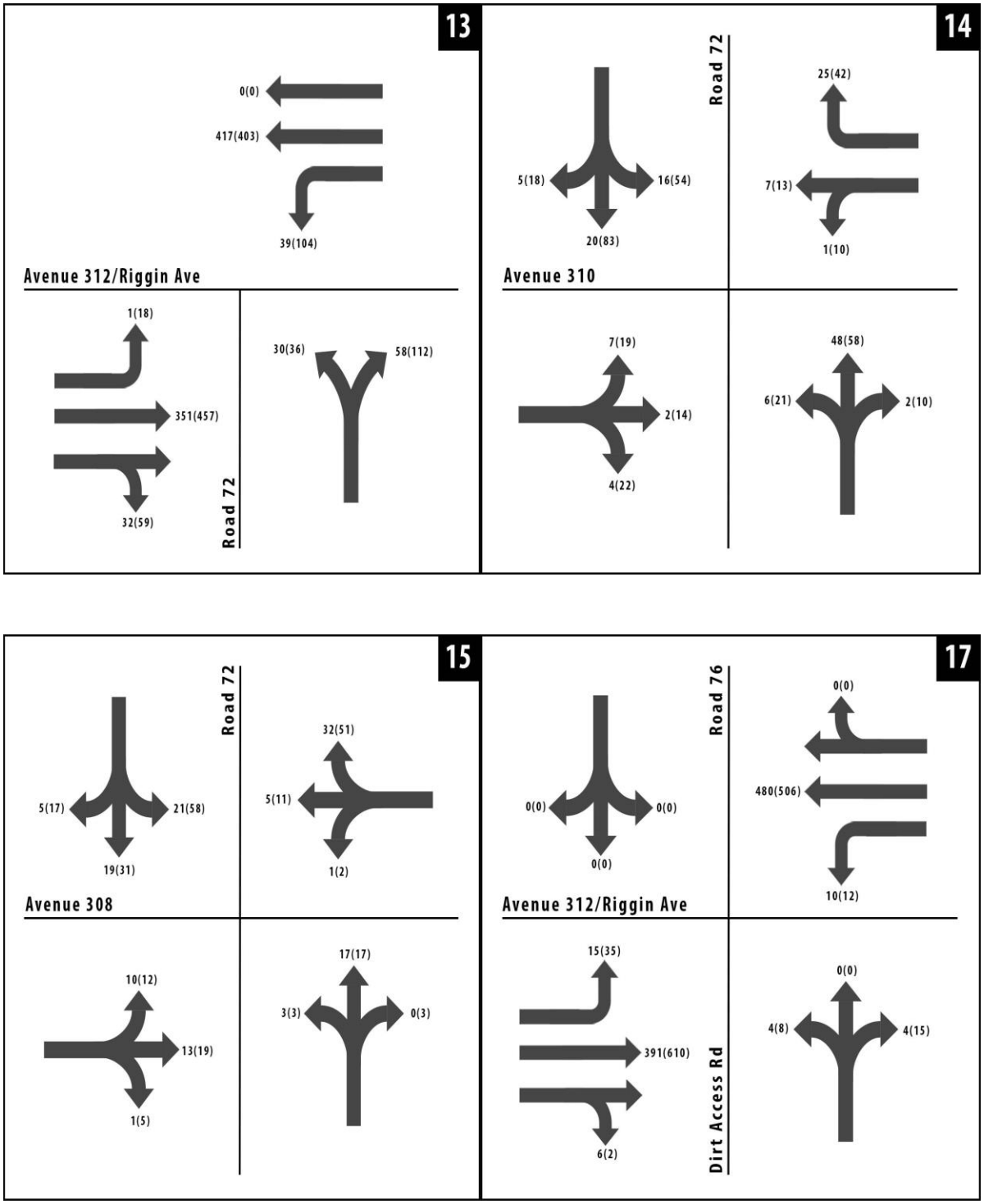


FIGURE 4: Existing Weekday Traffic Volumes at Intersections

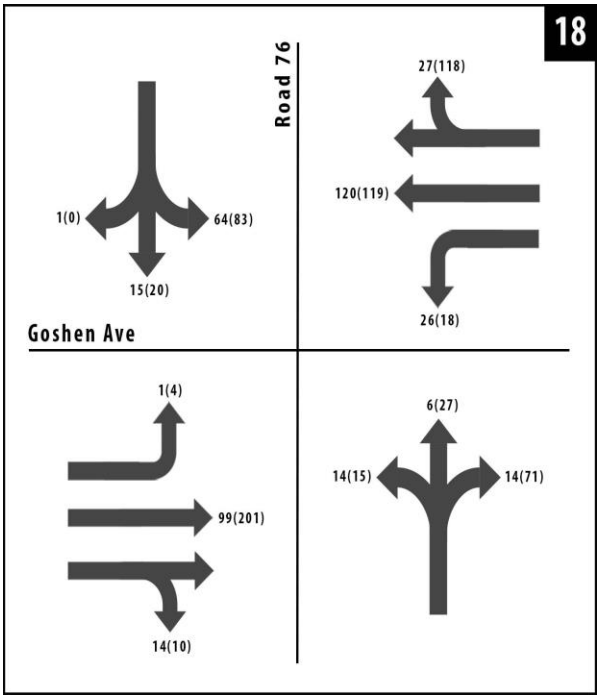


FIGURE 4: Existing Weekday Traffic Volumes at Intersections

CHAPTER 3 – PROJECT DESCRIPTION, TRIP GENERATION AND DISTRIBUTION

Project Description

The Goshen Residential Project is located on the southwest corner of the intersection of Riggin Avenue/Betty Drive at Road 72. The Project proposes to build 197 single family homes within the community of Goshen, which is adjacent to the City of Visalia. This project was included in the Goshen Community Plan when that study was adopted by the County of Tulare in February 2018. As such the Project is consistent with that plan. **Figure 5** shows the layout and overall configuration of the subdivision as well as access streets into and out of the Project. Access will be provided via one street connecting to Road 72 and two streets connecting to Avenue 308. No access is to be provided to the Project along it's frontage with Riggin Avenue/Betty Drive.

Project Trip Generation

New trips generated by the Goshen Residential Project were estimated using the Institute of Transportation Engineer's *Trip Generation Manual.* This publication provides average rates of trip generation for different building uses, and relates these rates to building size (retail) of dwelling units (residential) whether measured in square feet or other metrics such as number of employees. Trip generation rates are provided for weekdays along with the proportion of trips that are inbound or outbound from the development. T The resulting Project trip generation is shown in **Table 4** and a project summary sheet is included in **Appendix C**.

TABLE 4
GOSHEN PROJECT TRIP GENERATION

Average Weekday 2-way Volume	1.940
Peak Hour	
7a-9a Entering	37
7a-9a Exiting	111
7a-9a Total	148
4p-6p Entering	122
4p-6p Exiting	72
4p-6p Total	193

The estimated Goshen Project's vehicle trips yields 148 trips in the AM peak hour and 193 trips in the PM peak hour. It should be noted that these estimated Project trips represent pre-Covid trip generation estimates. Post-Covid trip generation profiles for all land uses will need to be re-calibrated to account for reduced trip making at homes, offices, retail and other land uses. These estimated trips for the Goshen Project may not reflect the actual trips generated by this Project.

The Goshen Residential Project's Vehicle Trip Distribution

The Goshen Residential Project is expected to distribute project related trips matching the current travel pattern at the study intersections. Therefore, existing turning movements were used as guidelines for the distribution of vehicular trips to the surrounding streets. Based on this methodology, the Goshen Project's trips were distributed as shown in **Figure 6**. Again, post-Covid trip distribution for this Project will need to be re-calibrated to reflect changes in travel patterns.

FIGURE 5: The Goshen Residential Project Site Plan

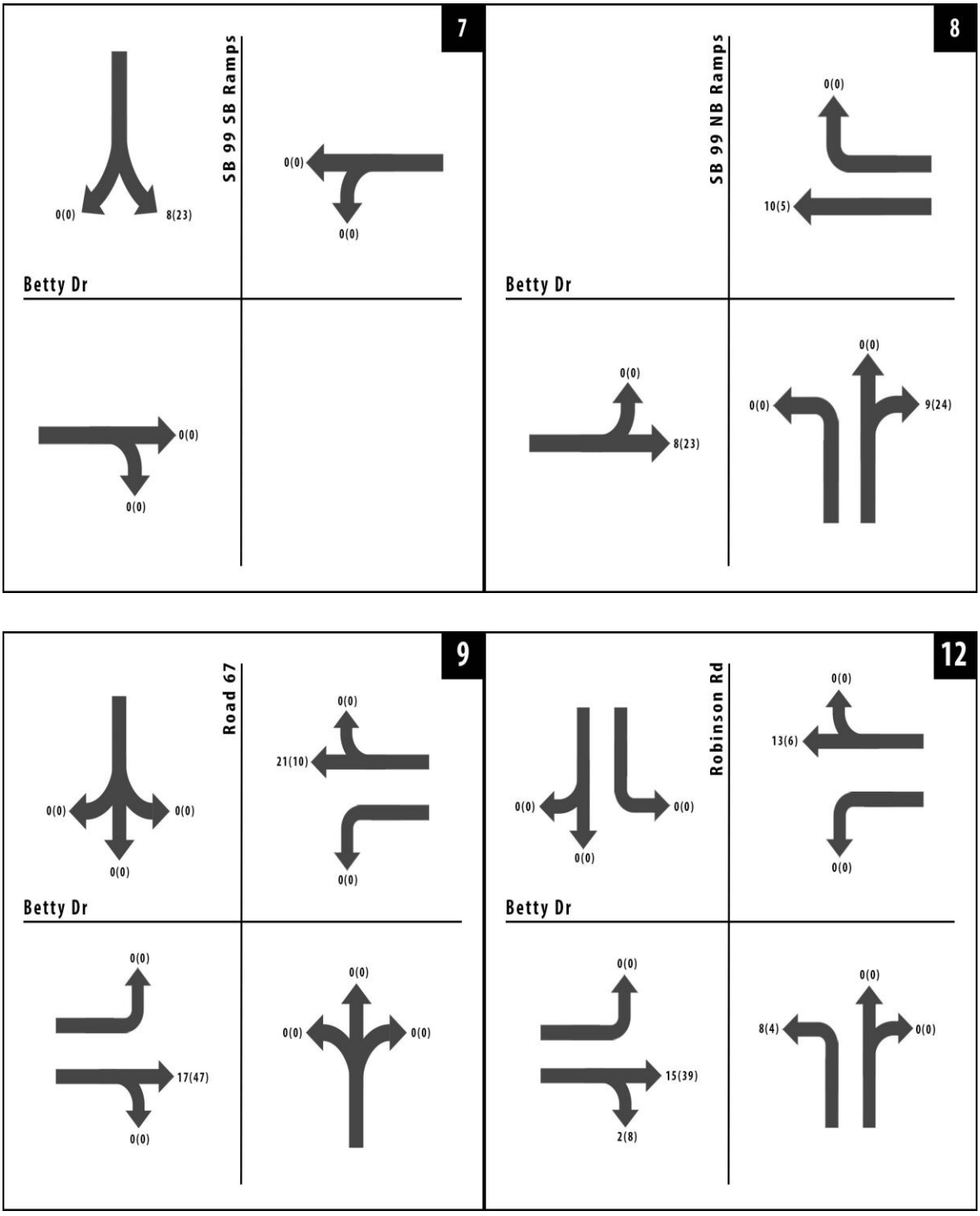


FIGURE 6: Goshen Residential Project Vehicle Trip Distribution and Assignment at Intersections

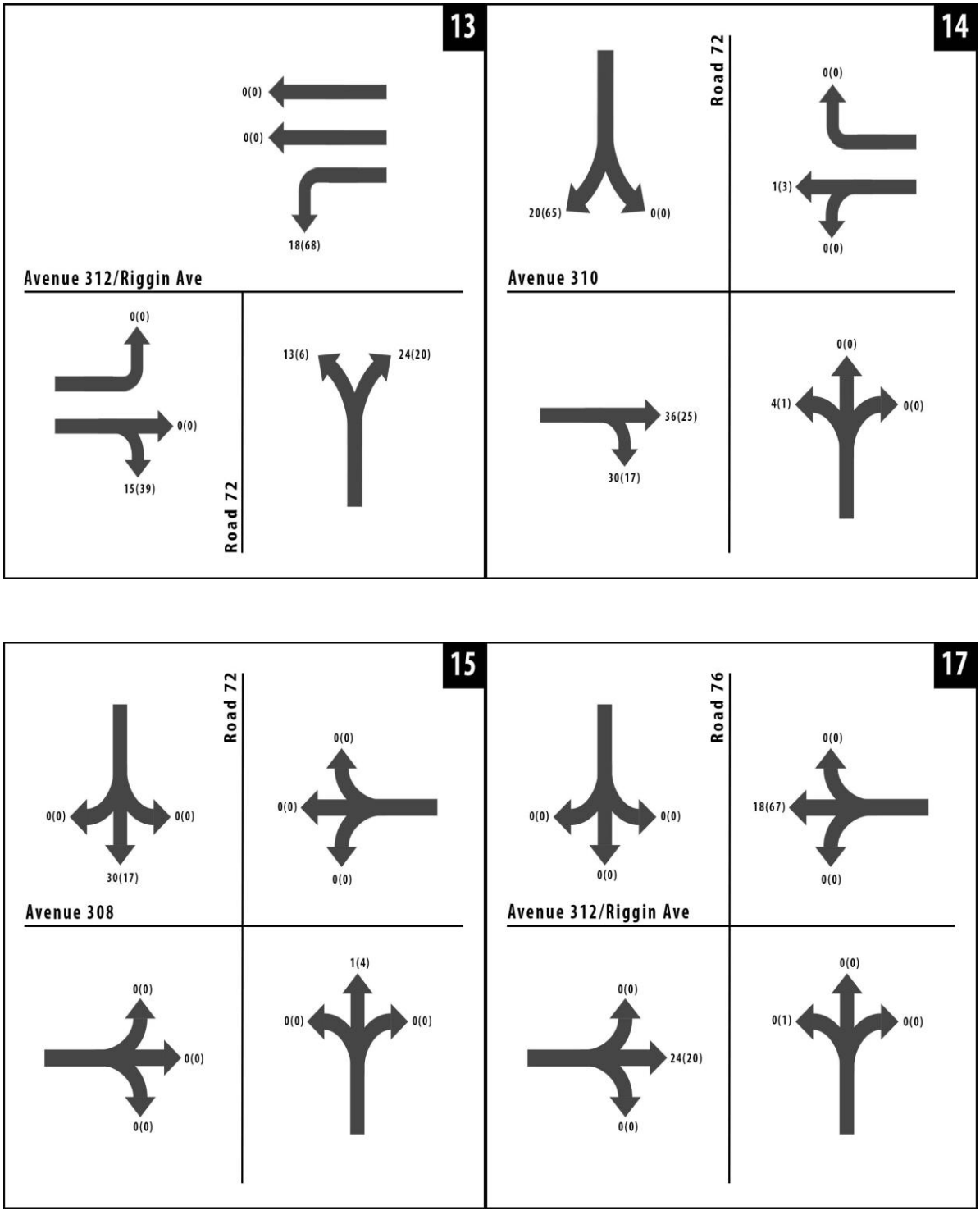
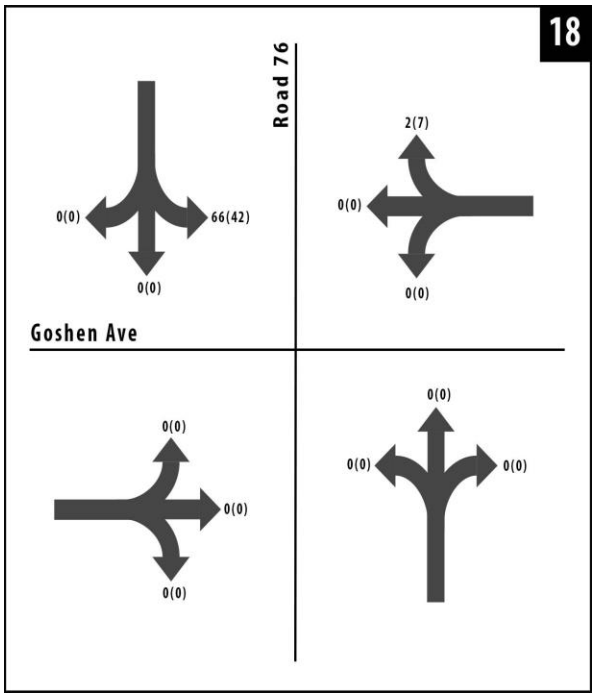


FIGURE 6: Goshen Residential Project Vehicle Trip Distribution and Assignment at Intersections



FIGUR E 6: Goshen Residential Project Vehicle Trip Distribution and Assignment at Intersections

CHAPTER 4 -- EXISTING PLUS THE GOSHEN PROJECT

Existing Plus the Goshen Projects Level of Service

New trips generated by the residential project were combined with existing weekday traffic volumes and then analyzed to determine level of service with the Project. Traffic volumes under these existing plus Project traffic volumes are shown in **Figure 7**, while level of service under these conditions are shown in **Tables 5 and 6** for each intersection. Calculations for existing plus project conditions are included in Appendix D.

TABLE 5
EXISTING PLUS THE GOSHEN PROJECT
Intersections

Intersection	AM	PM
7. Betty Drive / SR 99 SB Ramps	A	A
8. Betty Drive / SR 99 NB Ramps	B	B
9. Betty Drive / Road 67	A	B
12. Betty Drive / Robinson Road	A	A
13. Avenue 312-Riggin Avenue / Road 72 (critical approach)	C	C
14. Avenue 310 / Road 72	A	A
15. Avenue 308 / Road 72	A	A
17. Avenue 312-Riggin Avenue / Road 76	A	A
18. Goshen Avenue / Road 76 (critical approach)	B	B

TABLE 6
EXISTING PLUS THE GOSHEN PROJECT
Segments

Roadway Segment	LOS D Capacity	2020 Daily Volume	LOS
1. Betty Drive:			
SR 99 to Robinson Road	35,820	15,266	<C
Robinson Road to Road 72	35,820	14,965	<C
Road 72 to Road 76	35,820	14,898	<C
East of Road 76	35,820	14,631	<C
3. Avenue 304/Goshen Avenue:			
East of Road 76	15,930	8,105	<C
6. SR 99:			
North of Betty Drive		N/A	-
Betty Drive to Avenue 304		N/A	-
8. Robinson Road:			
North of Betty Drive	15,930	760	<C
South of Betty Drive	15,930	2,467	<C
9. Road 72:			
Avenue 312/Riggin Ave to Ave 310	15,930	3,960	<C
Avenue 310 to Avenue 308	15,930	2,347	<C
South of Avenue 308	15,930	1,233	<C

Note: the intersection numbers and the roadway numbers correspond to the reference number contained in the Goshen Community Plan and its accompanying technical study. They are included to assist in the cross referencing of results.

With the addition of the Goshen Residential Project's traffic to the existing traffic volumes, all intersections are projected to operate above the County's former level of service standard. The two intersections subject to the Caltrans jurisdictions are also projected to continue to operate above their level of service standard. Again, it should be noted that based on the Goshen Community Plan level of service segment criteria, level of service above "C" is deemed to be in determinant. Therefore, the segment assessment shown above is well above the level of service "C/D" threshold.

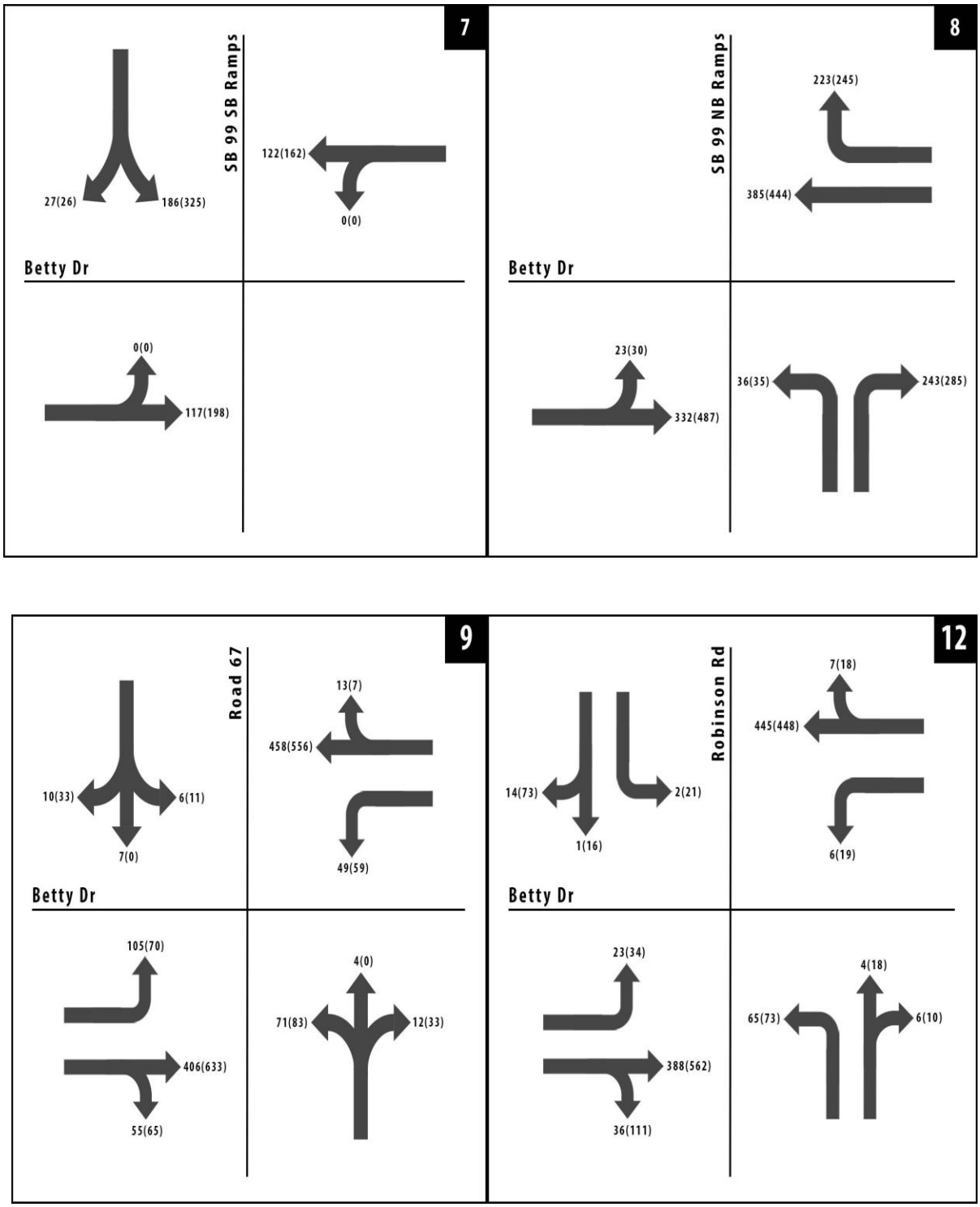


FIGURE 7: Existing plus the Goshen Residential Project Weekday Traffic Volumes at Intersections

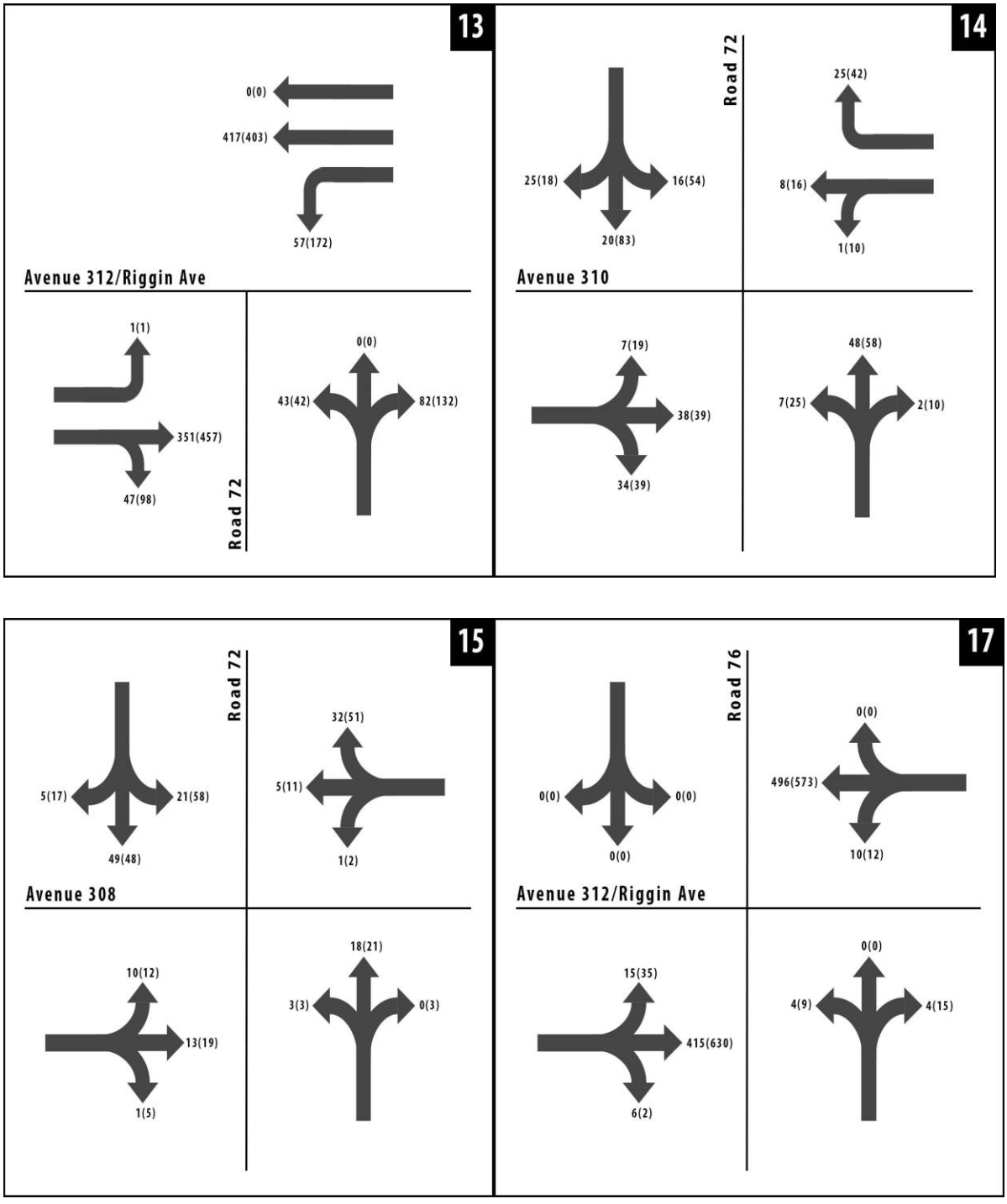


FIGURE 7: Existing plus the Goshen Residential Project Weekday Traffic Volumes at Intersections

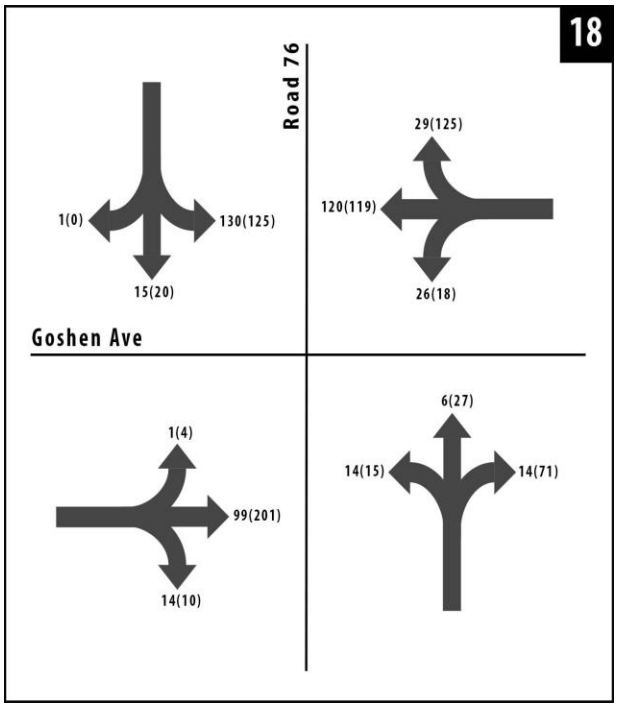


FIGURE 7: Existing plus the Goshen Residential Project Weekday Traffic Volumes at Intersections

CHAPTER 5 – Future Year (2040) with the Goshen Residential Project

Future Year (2040) with the Goshen Project Level of Service

Traffic generated by the Goshen Residential Project was included in the Goshen Community Plan prepared and adopted by the County of Tulare in 2018. As such this Project has been assessed as part of that master planning process. Reference is made to the Goshen Community Plan and it's supporting technical studies and Environmental Impact Report for specifics. Traffic volumes for the year 2040 with the Community Plan are shown in **Figure 8**. These were taken directly from the technical report prepared for the Community Plan. The resulting levels of service under these conditions are shown in **Table 7** for each intersection and **Table 8** for each segment. Calculations for these levels of service can be found in the Community Plan technical report.

TABLE 7
FUTURE YEAR (2040) WITH THE GOSHEN PROJECT
LEVEL OF SERVICE

Intersection	AM	PM
7. Betty Drive / SR 99 SB Ramps	A	B
8. Betty Drive / SR 99 NB Ramps	**D**	**E**
9. Betty Drive / Road 67	D	**F**
12. Betty Drive / Robinson Road	**F**	**F**
13. Avenue 312-Riggin Avenue / Road 72	**F+**	**F+**
14. Avenue 310 / Road 72	B	B
15. Avenue 308 / Road 72	B	B
17. Avenue 312-Riggin Avenue / Road 76	**F+**	**F+**
18. Goshen Avenue / Road 76	C	C

TABLE 8
FUTURE YEAR (2040) WITH THE GOSHEN PROJECT
LEVEL OF SERVICE

Roadway Segment	**LOS D Capacity**	**2040 Daily Volume**	**LOS**
1. Betty Drive:			
SR 99 to Robinson Road	35,820	45,000	**F**
Robinson Road to Road 72	35,820	33,000	C
Road 72 to Road 76	35,820	44,100	**F**
East of Road 76	35,820	44,100	**F**
3. Avenue 304/Goshen Avenue:			
East of Road 76	15,930	8,100	C
6. SR 99:			
North of Betty Drive		N/A	C
Betty Drive to Avenue 304		N/A	C
8. Robinson Road:			
North of Betty Drive	15,930	2,300	C
South of Betty Drive	15,930	11,400	C
9. Road 72:			
Ave 312/Riggin Ave to Ave 310	15,930	10,900	C
Avenue 310 to Avenue 308	15,930	3,900	C
South of Avenue 308	15,930	1,600	C

Note: the intersection numbers and the roadway numbers correspond to the reference number contained in the Goshen Community Plan and its accompanying technical study. They are included to assist in the cross referencing of results.

The Goshen Community Plan concluded that several intersections and three segments would be projected to operate below the appropriate level of service standard. These are as follows:

Intersections

8. Betty Drive / SR 99 NB Ramps
9. Betty Drive / Road 67
12. Betty Drive / Robinson Road
13. Avenue 312-Riggin Avenue / Road 72
17. Avenue 312-Riggin Avenue / Road 76

Segments

1. Betty Drive:
   SR 99 to Robinson Road
   Road 72 to Road 76
   East of Road 76

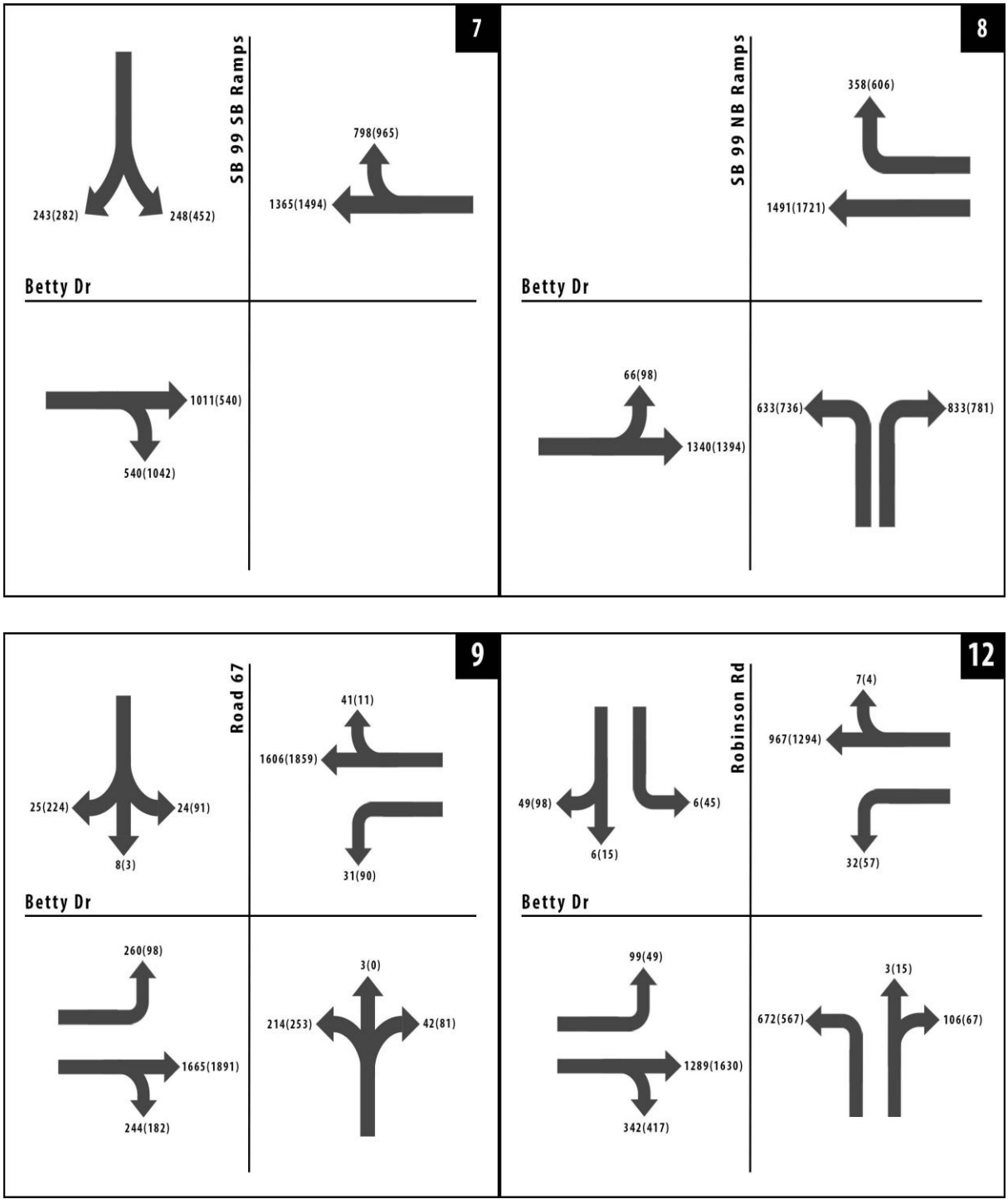


FIGURE 8: Future Year (2040) with the Goshen Residential Project Weekday Traffic Volumes at Intersections

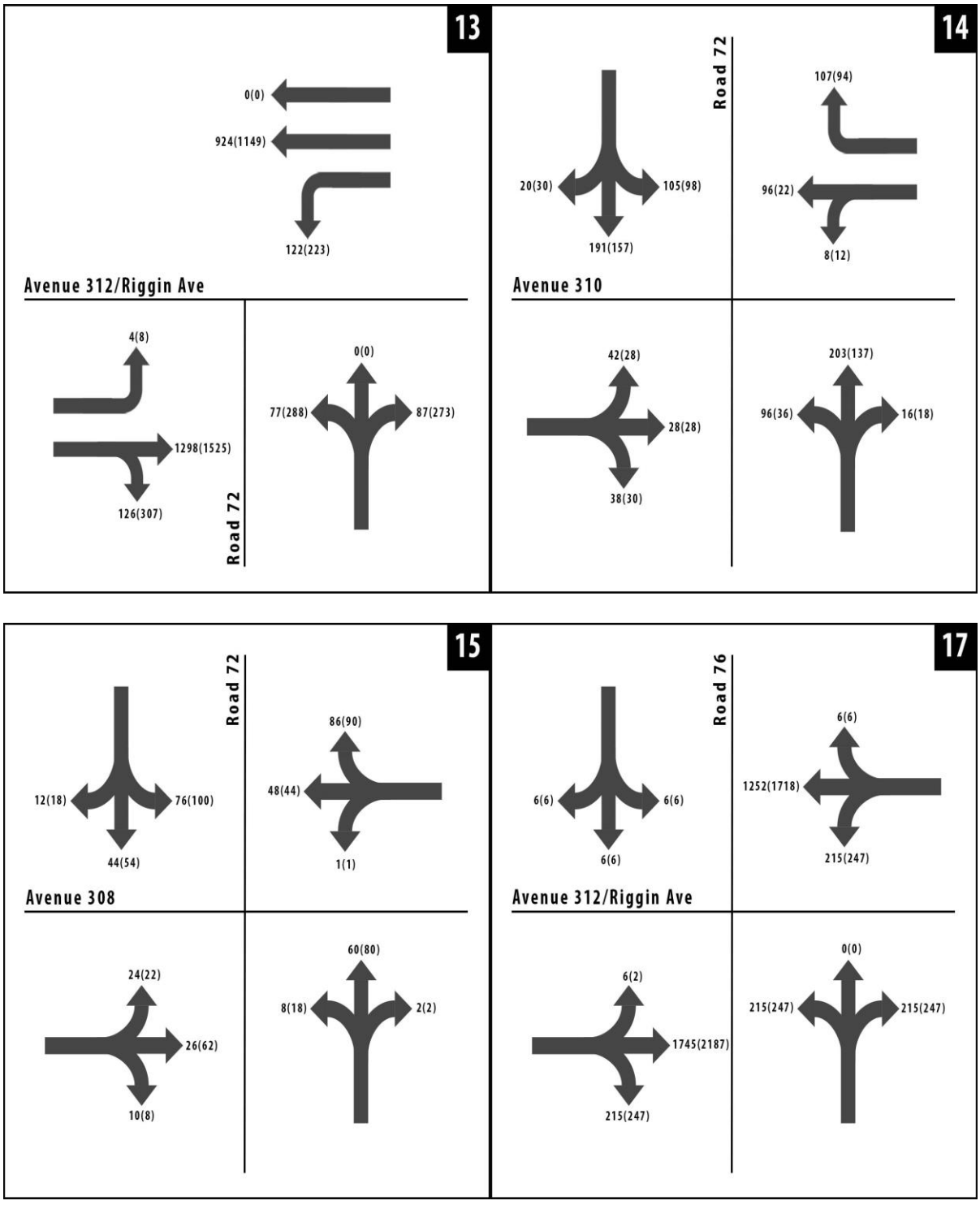


FIGURE 8: Future Year (2040) with the Goshen Residential Project Weekday Traffic Volumes at Intersections

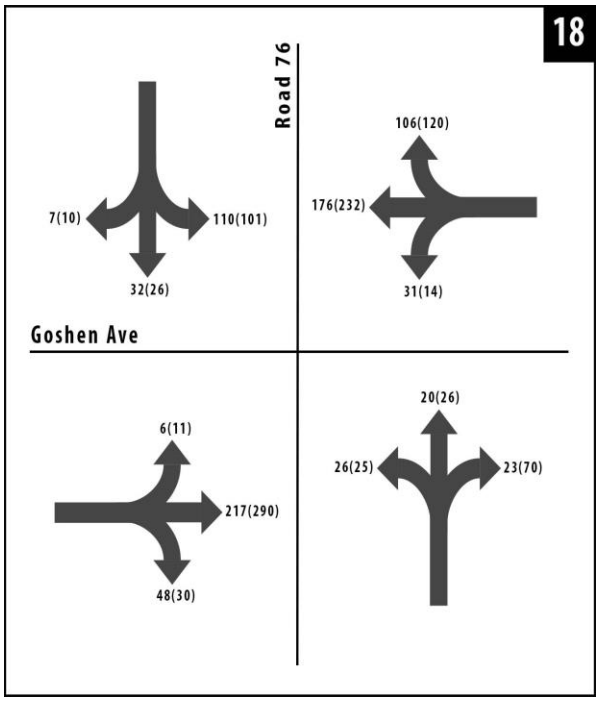


FIGURE 8: Future Year (2040) with the Goshen Residential Project Weekday Traffic Volumes at Intersections

Mitigation Measures from the Community Plan
Described below are mitigation measures at study area intersections and segments for the Future Year 2040 scenarios that address future transportation and circulation issues in the Goshen community. The improvements identified would result in acceptable levels of service. Improvements labeled with a double asterisk (**) were identified in the Goshen Transportation and Community Plan that was approved February 4, 2014.

Intersection Mitigation Measures

Future Year 2040 No Build Scenario
MM TR - 1. Betty Drive / Robinson Road
- o Widen the eastbound approach to 1 left turn lane, 2 through lanes, and 1 right turn lane (adding 1 right turn lane)

MM TR - 2. Avenue 312-Riggin Avenue / Road 72
- o Install Traffic Signal **

MM TR - 3. Avenue 312-Riggin Avenue / Road 76
- o Install Traffic Signal**

Future Year 2040 Build Scenario
MM TR - 4. Avenue 308 / Road 60
- o Install Traffic Signal
- o Widen all approaches to 1 left turn lane and 1 through lane with a shared right (adding 1 left turn lane)

MM TR - 5. Betty Drive / Road 64
- o Install northbound right overlap phasing

MM TR - 6. Avenue 308 / Road 64
- o Widen the westbound approach to 1 left turn lane, 2 through lanes, and 1 right turn lane with overlap phasing (adding 1 right turn lane)

MM TR - 7. Betty Drive / SR 99 NB Ramps
- o Widen the northbound approach to 2 left turn lanes and 2 right turn lanes (adding 1 right turn lane)
- o Widen the westbound approach to 3 through lanes and 2 right turn lanes (adding 1 through lane and 1 right turn lane)

MM TR - 8. Betty Drive / Road 67
- o Widen the northbound approach to 1 left turn lane and 1 through lane with a shared right (adding 1 left turn lane)
- o Widen the southbound approach to 1 left-through lane and 1 right turn lane with overlap phasing (adding 1 right turn lane)
- o Widen the eastbound approach to 1 left turn lane, 2 through lanes, and 1 right turn lane (adding 1 right turn lane)
- o Widen the westbound approach to 1 left turn lane, 2 through lanes, and 1 right turn lane (adding 1 right turn lane)

MM TR - 9. Betty Drive / Robinson Road
- o Widen the northbound approach to 2 left turn lanes and 1 through lane with a shared right (adding 1 left turn lane)
- o Widen the eastbound approach to 1 left turn lane, 2 through lanes, and 1 right turn lane with overlap phasing (adding 1 right turn lane)

o Widen the westbound approach to 1 left turn lane, 2 through lanes, and 1 right turn lane (adding 1 right turn lane)

MM TR - 10. Avenue 312-Riggin Avenue / Road 72
- o Install Traffic Signal**
- o Widen the northbound approach to 1 left turn lane and 1 right turn lane (adding 1 right turn lane)

MM TR - 11. Avenue 312-Riggin Avenue / Road 76
- o Install Traffic Signal**
- o Widen the northbound approach to 2 left turn lanes and 1 right turn lane with overlap phasing (adding 1 left turn lane and 1 right turn lane)
- o Widen the eastbound approach to 1 left turn lane, 2 through lanes, and 1 right turn lane with overlap phasing (adding 1 right turn lane)
- o Widen the westbound approach to 2 left turn lanes and 2 through lanes 61 Goshen Community Plan Update with a shared right (adding 1 left turn lane)

Future Year 2040 Build – Alternative 1 Scenario Mitigation Measures

MM TR - 12. Avenue 308 / Road 60
- o Install Traffic Signal
- o Widen all approaches to 1 left turn lane and 1 through lane with a shared right (adding 1 left turn lane)

MM TR - 13. Avenue 308 / Road 64
- o Widen the westbound approach to 1 left turn lane, 2 through lanes, and 1 right turn lane with overlap phasing (adding 1 right turn lane)

MM TR - 14. Avenue 304 / Road 64
- o Install Four-Way Stop

MM TR - 15. Betty Drive / SR 99 NB Ramps
- o Widen the northbound approach to 2 left turn lanes and 2 right turn lanes (adding 1 right turn lane)
- o Widen the westbound approach to 3 through lanes and 2 right turn lanes (adding 1 through lane and 1 right turn lane)

MM TR - 16. Betty Drive / Road 67
- o Widen the northbound approach to 1 left turn lane and 1 through lane with a shared right (adding 1 left turn lane)
- o Widen the southbound approach to 1 left-through lane and 1 right turn lane with overlap phasing (adding 1 right turn lane)

MM TR - 17. Betty Drive / Robinson Road
- o Widen the northbound approach to 2 left turn lanes and 1 through lane with a shared right (adding 1 left turn lane)
- o Widen the eastbound approach to 1 left turn lane, 2 through lanes, and 1 right turn lane with overlap phasing (adding 1 right turn lane)

MM TR - 18. Avenue 312-Riggin Avenue / Road 72
- o Install Traffic Signal**
- o Widen the northbound approach to 1 left turn lane and 1 right turn lane (adding 1 right turn lane)

MM TR - 19. Goshen Avenue / Camp Drive
- o Install Traffic Signal

MM TR - 20. Avenue 312-Riggin Avenue / Road 76
- o Install Traffic Signal**

o Widen the northbound approach to 2 left turn lanes and 1 right turn lane (adding 1 left turn lane and 1 right turn lane)
o Widen the eastbound approach to 1 left turn lane, 2 through lanes, and 1 right turn lane (adding 1 right turn lane)

MM TR - 21. Goshen Avenue / Road 76
o Install Traffic Signal**

Roadway Segments Mitigation Measures

Future Year 2040 Build Scenario

MM TR - 22. Betty Drive between SR 99 and Robinson Road:
o Widen from 2 to 3 travel lanes in both directions (adding 1 travel lane in each direction)**

MM TR - 23. Betty Drive between Road 72 and Road 76:
o Widen from 2 to 3 travel lanes in both directions (adding 1 travel lane in each direction)**

MM TR - 24. Betty Drive East of Road 76:
o Widen from 2 to 3 travel lanes in both directions (adding 1 travel lane in each direction)**

MM TR - 25. Avenue 308 between Road 60 and Road 64:
o Widen from 1 to 2 travel lanes in both directions (adding 1 travel lane in each direction)**

Future Year 2040 Build – Alternative 1 Scenario

MM TR - 26. Betty Drive between SR 99 and Robinson Road:
o Widen from 2 to 3 travel lanes in both directions (adding 1 travel lane in each direction)**

MM TR - 27. Betty Drive between Road 72 and Road 76:
o Widen from 2 to 3 travel lanes in both directions (adding 1 travel lane in each direction)**

MM TR - 28. Betty Drive East of Road 76:
o Widen from 2 to 3 travel lanes in both directions (adding 1 travel lane in each direction)**

MM TR - 29. Avenue 308 between Road 60 and Road 64:
o Widen from 1 to 2 travel lanes in both directions (adding 1 travel lane in each direction)

With implementation of the mitigation measures described above, the study area intersections and segments for the Future Year 2040 scenario will operate at acceptable levels of service. Improvements labeled with a double asterisk (**) were identified in the Goshen Transportation and Community Plan that was approved February 4, 2014. The following tables taken from the Goshen Community Plan show the level of service results with these improvements at critical intersections and road segments.

Table 3-4
Intersection Operations with Improvements

INTERSECTION	CONTROL	TARGET LOS	PEAK HOUR	FUTURE YEAR 2040 NO BUILD		FUTURE YEAR 2040 BUILD		FUTURE YEAR 2040 BUILD ALT 1	
				DELAY	LOS	DELAY	LOS	DELAY	LOS
1. Avenue 308 / Road 60	Signalized	D	AM			14.9	B	14.9	B
			PM			37.4	D	37.4	D
2. Betty Drive / Road 64	Signalized	D	AM			22.8	C		
			PM			46.4	D		
3. Avenue 308 / Road 64	Signalized	D	AM			38.5	D	36.7	D
			PM			48.8	D	45.6	D
4. Avenue 304 / Road 64	Four-Way Stop Sign	D	AM					11.6	B
			PM					17.8	C
8. Betty Drive / SR 99 NB Ramps	Signalized	C	AM			26.5	C	25.3	C
			PM			33.5	C	28.2	C
9. Betty Drive / Road 67	Signalized	D	AM			38.7	D	37.7	D
			PM			54.8	D	54.7	D
12. Betty Drive / Robinson Road	Signalized	D	AM	43.3	D	45.7	D	33.3	C
			PM	42.9	D	54.9	D	35.5	D
13. Avenue 312-Riggin Avenue / Road 72	Signalized	D	AM	8.5	A	10.6	B	9.9	A
			PM	33.0	C	53.2	D	43.2	D
16. Goshen Avenue / Camp Drive	Signalized	D	AM					6.7	A
			PM					8.2	A
17. Avenue 312-Riggin Avenue / Road 76	Signalized	D	AM	13.4	B	21.7	C	34.8	C
			PM	19.1	B	48.7	D	51.9	D
18. Goshen Avenue / Road 76	Signalized	D	AM					15.5	B
			PM					16.2	B

DELAY is measured in seconds

LOS = Level of Service / **BOLD** denotes LOS standard has been exceeded

For signalized and all-way stop controlled intersections, delay results show the average for the entire intersection.

Table 3-5
Segment Operations with Improvements

STREET SEGMENT	SEGMENT DESCRIPTION	TARGET LOS	CAPACITY[1]	FUTURE YEAR 2040 BUILD			FUTURE YEAR 2040 BUILD ALT 1		
				VOLUME	V/C[2]	LOS	VOLUME	V/C[2]	LOS
1. Betty Drive									
SR 99 to Robinson Road	6 Lanes Divided	D	53,910	45,000	0.83	C	41,900	0.78	C
Road 72 to Road 76	6 Lanes Divided	D	53,910	44,100	0.82	C	39,900	0.74	C
East of Road 76	6 Lanes Divided	D	53,910	44,100	0.82	C	40,200	0.75	C
2. Avenue 308									
Road 60 to Road 64	4 Lanes Undivided	D	33,830	17,200	0.51	C	17,200	0.51	C

LOS = Level of Service / **BOLD** denotes LOS standard has been exceeded
1: Modified HCM-Based LOS Tables (Florida Tables)
2: Volume to Capacity Ratio

CHAPTER 6 – VEHICLE MILES TRAVELLED ASSESSMENT

In 2020 the County of Tulare prepared the County of Tulare Draft SB 743 Guidelines for the implementation of Senate Bill 743 in the unincorporated area of Tulare County. SB 743 was passed by the legislature and signed into law in the fall of 2013. This legislation led to a change in the way that transportation impacts will be measured under the California Environmental Quality Act (CEQA). Starting on July 1, 2020, automobile delay and level of service (LOS) may no longer be used as the performance measure to determine the transportation impacts of land development projects under CEQA and the new performance measure will be vehicle miles traveled (VMT). Although statewide guidance for the implementation of SB 743 has been written by the Governor's Office of Planning and Research (OPR), CEQA allows lead agencies (including Tulare County) the latitude to determine their own methodologies and significance thresholds for CEQA technical studies. The SB 743 Guidelines provided in this report are based on the statewide guidance provided by OPR, but they include clarifications and details tailored for and specific to local conditions in Tulare County SB 743 applies to both land development and transportation projects. The VMT analysis methodology for land development projects was developed in order to accomplish the following:

- *Meet the requirements of CEQA, including the new SB 743 regulations that were adopted into*
- *CEQA in December 2018 and go into effect on July 1, 2020.*
- *Provide for transportation improvements to be built that benefit Tulare County residents and*
- *facilitate travel by walking, bicycling, and transit.*
- *Provide for analysis and mitigation of VMT impacts in a way that is feasible and within the scale*
- *of land development projects in Tulare County.*

VMT analysis for land development projects is to be conducted by comparing a project's VMT/capita or VMT/employee to the average VMT/capita or VMT/employee for the traffic analysis zone (TAZ) in which the project is located. Projects that have a VMT/capita or VMT/employee equal to or above the average for the TAZ are required to provide mitigation in the form of relatively low-cost improvement projects that would support travel by bicycling or walking or provide justification that improvements at the regional level are sufficient to mitigate their VMT impacts. Certain projects such as small projects and local serving retail projects would be presumed to have a less than significant impact and would not be required to do a VMT analysis. It is important to note that goods movement (e.g., the transport of raw or finished products from one location to another, for example, transfer of milk to an ice cream producing plant and then the transfer of ice cream to a distributor or directly to a retailer) is not subject to SB 743 and only passenger trips need to be considered in a VMT analysis. 1 Transportation projects that are focused on improvements to travel by bicycling, walking, and transit would be presumed to have a less than significant impact (as these modes of travel eliminate or reduce miles travelled by a vehicle) and would not be required to do a VMT analysis. Certain small roadway projects and all roadway projects that are consistent with the General Plan would be presumed to have a less than significant impact (as these projects have been anticipated to accommodate projected growth and/or are planned improvements to the roadway system for safety, to meet current roadway standards, or to improve roads that are functionally obsolete). Larger roadway projects that are inconsistent with the General Plan would need to conduct a VMT analysis and would need to consider providing mitigation if the project is forecasted to cause an increase in VMT.

Although VMT will be the performance measure for CEQA transportation studies, California jurisdictions may still require consideration of roadway operational analysis in the project approval process and may condition projects to provide roadway improvements. Guidelines are provided for the evaluation of the effect of projects on roadways, including the determination of required roadway improvements.

3.1 Overview of Analysis

The VMT analysis methodology for land development projects was developed in order to accomplish the following:

- *Meet the requirements of CEQA, including the new SB 743 regulations that were adopted into CEQA in December 2018 and go into effect on July 1, 2020.*
- *Provide for transportation improvements to be built that benefit Tulare County residents and facilitate travel by walking, bicycling, and transit.*
- *Provide for analysis and mitigation of VMT impacts in a way that is feasible and within the scale of land development projects in Tulare County.*

The starting point for the VMT analysis provided in these Guidelines was OPR's December 2018 technical advisory. OPR recommends determining the project VMT/capita or VMT/employee and comparing it to regional and/or city-wide averages. For urban, suburban, and rural areas within counties that are part of Metropolitan Planning Areas (MPO's), OPR recommends use of VMT/capita and VMT/employee significance thresholds that are 15% below the relevant averages. OPR also states that for rural areas outside MPO's, significance thresholds may be best determined on a case-by-case basis.

It is important to note that VMT analysis, as described in these Guidelines only applies to passenger travel, not goods movement (as defined earlier). The following (referring to CEQA) is contained in OPR's technical advisory: "Section 15064.3, subdivision (a), states, 'For the purposes of this section, vehicle miles traveled refers to the amount and distance of automobile travel attributable to a project. Here, the term 'automobile' refers to on-road passenger vehicles, specifically cars and light trucks." Therefore, trips related to the movement of goods for agricultural or industrial purposes would not be subject to a VMT analysis and would be considered to have a less than significant impact on the transportation system. For projects that include both auto and truck (i.e. goods movement) trips only the auto trips would be analyzed. When determining mitigation measures, only a project's auto trips would be considered.

Building on the OPR guidance, these Guidelines provide a refined VMT analysis specifically tailored to the unincorporated areas within the County of Tulare's jurisdiction. These Guidelines extend OPR's concept of determining significance thresholds for rural areas on a case-by-case basis to Tulare County based on the concept that travel behavior in the small town and rural areas of Tulare County is similar to travel behavior in the rural portions of non-MPO counties.

Project VMT/capita and VMT/employee can be most easily determined using a travel demand model, either by running the model for each specific project VMT analysis or by creating maps and tables showing average VMT/capita and VMT/employee values for the area of interest. Many types of transportation analyses in Tulare County should be conducted using the TCAG regional travel demand model and this model can potentially be used for VMT analysis if a model run is conducted for each project. However, TCAG does not provide map or table based VMT/capita and

VMT/employee values. Instead VMT analysis can be conducted using the California Statewide Travel Demand Model (CSTDM), developed and maintained by Caltrans. Caltrans has provided base-year (2010) and horizon year (2040) VMT/capita and VMT/employee values for the entire state broken down by county and by geographical units known as traffic analysis zones (TAZ's) within each county.

In its Technical Advisory, OPR refers to the process described earlier for small projects as "map based screening". OPR recommends this methodology for determining which projects are located in VMT-efficient areas and can therefore be "screened out" from requiring a VMT analysis. For Tulare County, this process is extended to allow for the map-based analysis of VMT/capita and VMT/employee values.

Thresholds of significance for VMT analysis are also based on OPR's recommendations, but some refinements have been made to reflect the predominantly rural character of Tulare County; following are refinements applicable to Tulare County:

- *OPR recommends that residential and office projects compare project VMT/capita or VMT/employee to regional or city-wide average. For Tulare County, due to its predominantly rural character, these comparisons are made between project VMT and the average VMT/capita or between project VMT/employee for the average VMT/employee in the TAZ in which the project is located.*
- *OPR recommends a significance threshold of 15% below average. For Tulare County, the significance threshold is below the TAZ average. Therefore, projects that have a VMT/capita or VMT/employee equal to or above the average VMT/capita or VMT/employee in the TAZ in which the project is located would be presumed to have a significant transportation impact.*
- *OPR recommends that local-serving retail projects can be presumed to have a less than significant transportation impact. This is because local-serving retail typically reduces trip lengths by providing additional destinations that tend to replace trips to more distant retail locations. For Tulare County, this concept is also used and it is extended to other types of local-serving projects such as schools, public facilities, parks, and local-serving medical offices.*
- *OPR recommends that a regional retail project may have a significant impact if results in a net increase in total VMT. This threshold is also used by Tulare County.*
- *OPR does not recommend a specific threshold for industrial projects. For Tulare County, an industrial project has a significant impact if its VMT/employee equals or exceeds average VMT/employee for the TAZ in which the project is located. It should be noted that goods movement is not subject to VMT analysis. Therefore, goods movement trips associated with an industrial project would not be included when determining VMT/employee.*

While many projects will go through the process described above to analyze VMT, some projects will be determined to be "screened out" due to project size or project type. These projects are described in Section 3.2. Figure 3-1 shows a flow chart that summarizes the VMT analysis process. Tulare County Traffic Zone Analysis Maps are shown in Figure 3-2. These maps provide a general indication of the location of TAZ's within Tulare County. At the time of preparation of this report, more detailed TAZ maps were available on the website of the Northern California Section of the Institute of Transportation Engineers (www.norcalite.org). In the future these maps may be available from Tulare County staff or the Caltrans SB 743 website (https://dot.ca.gov/programs/transportationplanning/

office-of-smart-mobility-climate-change/sb-743). VMT/capita and VMT/employee values for base year conditions based on the CSTDM are shown in Table 3-1.

It should be noted that some projects include a mix of land uses. For these projects, one way to conduct the VMT analysis would be to use the methodology described above and analyze VMT impacts and mitigation for each land use type separately. An alternative approach would be to conduct an analysis determine the VMT reduction that would occur due to internal capture (i.e. trips between different land uses that occur within the project site). The information in Appendix A may be helpful in determining VMT reductions for mixed use projects.

3.2 Screening Criteria

Following is a description of projects that would have a less than significant transportation impact due to project size or project type. If a project meets at least one of the following screening criteria, it would not require a detailed VMT analysis.

Small Projects

Some projects are small enough that they can be presumed to have a less than significant transportation impact without doing a detailed VMT analysis. For Tulare County, projects that generate less than 500 trips per day can be presumed to have a less than significant impact. Trip generation would normally be determined using the current edition of the Institute of Transportation Engineers (ITE) Trip Generation Manual. Other potential sources include the San Diego Association of Governments (SANDAG) trip generation guide (Not So Brief Guide of Vehicular Traffic Generation Rates in the San Diego Region, April 2002), articles in the ITE Journal, as well as trip generation rates obtained from other accepted sources. In some cases, project applicants may choose to conduct counts of existing similar facilities in order to determine trip generation rates.

Local-Serving Retail and Similar Land Uses

Consistent with OPR's Technical Advisory, local-serving retail uses are presumed to have a less than significant impact on VMT since they tend to attract vehicle trips from adjacent areas that would have otherwise been made to more distant retail locations. This presumption also applies in Tulare County.

Most retail developments in the unincorporated area of Tulare County are anticipated to be local serving. In cases where there is reasonable doubt on whether a project is local serving or regional, County staff can exercise an option of requesting, or requiring, a market study to assist in the evaluation/determination of localness or regionality. Other developments that are not technically retail may fall under this category such as medical offices, insurance agents, and other offices that are intended to serve the general public. See Appendix E for a list of projects that would fall into this category based on the County's zoning code. Project applicants are encouraged to submit a written analysis to Tulare County for a determination on whether the local serving status applies.

Local-Serving Public Facilities

Similar to retail land uses, local-serving public facilities are presumed to have a less than significant impact on VMT. This would include government facilities intended to typically serve the local public, parks, and public elementary schools, public middle schools, and high schools.

Affordable and Farmworker Housing Projects
OPR's Technical Advisory allows for a less than significant finding for transportation impacts of residential projects that that are 100% affordable housing located in infill areas. For Tulare County, affordable housing is defined as affordable to all persons with a household income equal to or less than 50% of the area median income (as defined by California Health and Safety Code Section 50093), housing for senior citizens, housing for transitional foster youth, disabled veterans, and homeless persons. In addition, this screening category applies to all 100% affordable housing projects that meet the detailed criteria above, regardless of whether they are located in infill areas. It also applies to all developments intended primarily for farm worker housing regardless of their status with respect to affordability.

Redevelopment Projects That Result in a Net Reduction of VMT
According to CEQA, projects are considered to have a less than significant impact if they result in a net reduction in the relevant performance measure (in this case VMT). Therefore, redevelopment projects in Tulare County that generate less VMT than the existing project they are replacing would be considered to have a less than significant impact on VMT. For the purposes of VMT analysis, a redevelopment project is any project that replaces an existing development rather than being built on vacant/undeveloped land, Since VMT/capita and VMT/employee are efficiency metrics, a redevelopment project that would produce more VMT than the existing project it is replacing would need to conduct a VMT analysis assuming the proposed land use (with no credit taken for the existing land use) to determine whether the proposed project meets the applicable significance thresholds (i.e. a value below the average VMT/capita or VMT/employee of the TAZ in which the project is located).

Mixed-Use Projects That Result in a Net Reduction of VMT
Mixed-use projects typically generate less VMT than the individual component land uses would generate if they were built on separate project sites because mixed-use projects allow some trips to be made by walking or by short vehicle trips which would occur within or very near the project site. Mixed-use projects that wish to demonstrate a net reduction in VMT would need to conduct an internal capture analysis using the methodology described in the current edition Institute of Transportation Engineers Trip Generation Handbook. Once a reduction in VMT is demonstrated through internal capture, the VMT reduction would be used to indicate a reduced level of VMT/capita or VMT/employee for one or more of the individual land uses. After applying this reduction, the individual land use components of the project would be analyzed separately with respect to applicable significance thresholds.

3.3 Significance Thresholds

Significance thresholds for land development projects are summarized below. Additional discussion and substantial evidence can be found in Appendix C.

- *Residential Projects: A significant transportation impact occurs if the project VMT per capita equals or exceeds the average VMT per capita for the TAZ where the project is located.*
- *Office Projects: A significant transportation impact occurs if the project VMT per employee equals or exceeds the average VMT per employee for the TAZ where the project is located.*
- *Regional Retail Projects: A significant transportation impact occurs if the project results in a net increase in VMT.*

- *Industrial Projects: A significant transportation impact occurs if the project VMT per employee exceeds the average VMT per employee for the TAZ where the project is located. Appendix B includes information on project types not described above.*

3.4 Mitigation

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. This can be accomplished as follows:

- *A survey should be conducted within one half mile of the project site to determine any gaps in facilities for walking, bicycling, or transit. For example, this could include repair of damaged or construction of new sidewalks, installation of curb ramps, provision of bicycle facilities, or improvement to transit stops or access to transit routes. For bicycle facilities, the improvement could be a Class I, II, or III bicycle facility consistent with TCAG's Regional Active Transportation Plan or Tulare County Complete Streets plans and programs.*
- *If suitable improvements are not found within one half mile of the project site, improvements could be suggested in more remote locations as long as they support walking, bicycling, and transit in the unincorporated area of Tulare County.*
- *The project list in Appendix F, based on the TCAG Regional Active Transportation Plan, can be consulted for potential projects that could be used for VMT mitigation.*
- *In order to provide VMT mitigation for CEQA purposes, the cost of the mitigation provided should exceed either $20 per average daily trip generated by the project or 0.5% of the total construction cost of the project (not including land acquisition). The $20 value per average daily trip is based on a generally typical statewide minimum roadway mitigation value of $2,000 per single family dwelling unit and an assumption that transit, bicycling, and walking make up approximately 1% of all trips in Tulare County. The value of 0.5% of construction cost is meant to be roughly equivalent to this value but expressed in a different way.*
- *If a project provides mitigation that meets either or both of the VMT mitigation costs described above, it can presume a 1% reduction in VMT for reporting purposes. The goal of this mitigation is that it will be sufficient to reduce a project's VMT impacts to a level of insignificance.*
- *In some cases, it may be infeasible for projects to meet the requirements described earlier. In these cases, a project may submit reasonable rationale to the County and request mitigation of VMT impacts on a regional basis. The project applicant would then provide reasonable documentation (i.e., evidence) of how its implementation would provide funding toward unfunded projects. Suitable projects may be found in the TCAG Regional Active Transportation Plan, transit development plans, bicycle and pedestrians plans adopted at the local level, or as part of complete streets projects. Payment could be made through direct or indirect payment of fees or other monetary contributions that would be used to fund relevant improvements. In order for a project to demonstrate a 1% reduction in VMT for reporting purposes, a reasonable argument must be made and submitted by the project applicant to the County for review and subsequent approval.*

3.5 Step by Step Summary of VMT Analysis for Land Development Projects

Following is a step by step summary of the process for VMT analysis of land development projects.

- *Determine whether the project is relieved of the requirements to conduct a VMT analysis using the screening criteria described in Section 3.2.*

- *If the project is not relieved, determine the TAZ where the project is located based on the maps shown in Figure 3-2 or the more detailed maps available from the ITE or Caltrans sources noted at the end of Section 3.1.*
- *Determine the average VMT/capita or VMT/employee for the TAZ in which the project is located based on Table 3-1.*
- *Unless the project has unique characteristics that would result in less VMT generation than a typical project, assume the project VMT/capita or VMT/employee is the same as the average for the TAZ in which the project is located. This would typically result in a significant VMT impact.*
- *Provide VMT mitigation as described in Section 3.4.*

3.6 Additional VMT Methodologies for Unique Situations

For some projects, it may be acceptable to conduct VMT analysis in an alternative manner than what is described above. This could apply to proposed very large projects that would require a model run rather than the methodology described above. It could also apply to projects that have unique VMT characteristics for which the average VMT/capita or VMT/employee in the TAZ where the project is located would not be applicable.

Goshen Project Vehicle Miles Travelled Analysis and Mitigation

Following is a step by step summary of the process for VMT analysis of land development projects.

- *Determine whether the project is relieved of the requirements to conduct a VMT analysis using the screening criteria described in Section 3.2.*
  - Small Projects – **"NO"**
  - Local-Serving Retail and Similar Land Uses – **"NO"**
  - Local-Serving Public Facilities – "NO"
  - Affordable and Farmworker Housing Projects – **"NO"**
  - Redevelopment Projects That Result in a Net Reduction of VMT – **"NO"**
  - Mixed-Use Projects That Result in a Net Reduction of VMT – **"NO"**

- *If the project is not relieved, determine the TAZ where the project is located based on the maps shown in Figure 3-2 or the more detailed maps available from the ITE or Caltrans sources noted at the end of Section 3.1. –*

  "Traffic Analysis Zone #2700, Community of Goshen"

- *Determine the average VMT/capita or VMT/employee for the TAZ in which the project is located based on Table 3-1.*

  "Traffic Analysis Zone #2700, Community of Goshen, Daily VMT Per Capita = 14.55, Daily VMT Per Employee= 30.92"

- *Unless the project has unique characteristics that would result in less VMT generation than a typical project, assume the project VMT/capita or VMT/employee is the same as the average for the TAZ in which the project is located. This would typically result in a significant VMT impact.*

This does not apply to this Project

- *Provide VMT mitigation as described in Section 3.4.*

PAYMENT OF FEES IN LIEU

$20 per trip x 1,940 Goshen Project daily trips =

$38,800 VMT mitigation fee to be paid to the County

The based on the County Policy, the Project would be eligible for credit against this in lieu fee for the cost of construction of items such as sidewalks, transit stop, etc. Those credits, if any, will be determined by the County at the time of construction.

Appendix A
Sources and References

This report was prepared using information taken from the following sources:

Highway Capacity Manual Transportation Research Board

Guide for the Preparation of Traffic Impact Studies, State of California Department of Transportation.

Synchro Studio 7 User Guide, Trafficware

Traffic Impact Analysis for Site Development, A Recommended Practice, ITE, Transportation Planners Council Task Force on Traffic Access/Impact Studies

Trip Generation Manual

Goshen Community Plan and Supporting Technical Report, County of Tulare, 2018

SB 743 Guidelines, County of Tulare, 2020

Appendix B

Existing Weekday Level of Service Calculations

#7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑↑	↱
Volume (vph)	0	117	122	0	178	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0
Lane Util. Factor		0.95	0.95		0.97	0.91
Frt		1.00	1.00		1.00	0.85
Flt Protected		1.00	1.00		0.95	1.00
Satd. Flow (prot)		3139	3139		3048	1278
Flt Permitted		1.00	1.00		0.95	1.00
Satd. Flow (perm)		3139	3139		3048	1278
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	127	133	0	193	29
RTOR Reduction (vph)	0	0	0	0	2	16
Lane Group Flow (vph)	0	127	133	0	194	10
Heavy Vehicles (%)	15%	15%	15%	15%	15%	15%
Turn Type						Perm
Protected Phases		4	8		6	
Permitted Phases						6
Actuated Green, G (s)		16.0	16.0		16.0	16.0
Effective Green, g (s)		16.0	16.0		16.0	16.0
Actuated g/C Ratio		0.40	0.40		0.40	0.40
Clearance Time (s)		4.0	4.0		4.0	4.0
Lane Grp Cap (vph)		1256	1256		1219	511
v/s Ratio Prot		0.04	c0.04		c0.06	
v/s Ratio Perm						0.01
v/c Ratio		0.10	0.11		0.16	0.02
Uniform Delay, d1		7.5	7.5		7.7	7.3
Progression Factor		1.00	1.58		1.00	1.00
Incremental Delay, d2		0.2	0.2		0.3	0.1
Delay (s)		7.7	12.0		8.0	7.3
Level of Service		A	B		A	A
Approach Delay (s)		7.7	12.0		7.9	
Approach LOS		A	B		A	

Intersection Summary			
HCM Average Control Delay	9.0	HCM Level of Service	A
HCM Volume to Capacity ratio	0.13		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	30.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

#7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↰↑↑	↱
Volume (vph)	0	198	162	0	302	26
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0
Lane Util. Factor		0.95	0.95		0.97	0.91
Frt		1.00	1.00		1.00	0.85
Flt Protected		1.00	1.00		0.95	1.00
Satd. Flow (prot)		3139	3139		3050	1278
Flt Permitted		1.00	1.00		0.95	1.00
Satd. Flow (perm)		3139	3139		3050	1278
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	215	176	0	328	28
RTOR Reduction (vph)	0	0	0	0	2	15
Lane Group Flow (vph)	0	215	176	0	329	10
Heavy Vehicles (%)	15%	15%	15%	15%	15%	15%
Turn Type						Perm
Protected Phases		4	8		6	
Permitted Phases						6
Actuated Green, G (s)		16.0	16.0		16.0	16.0
Effective Green, g (s)		16.0	16.0		16.0	16.0
Actuated g/C Ratio		0.40	0.40		0.40	0.40
Clearance Time (s)		4.0	4.0		4.0	4.0
Lane Grp Cap (vph)		1256	1256		1220	511
v/s Ratio Prot		c0.07	0.06		c0.11	
v/s Ratio Perm						0.01
v/c Ratio		0.17	0.14		0.27	0.02
Uniform Delay, d1		7.7	7.6		8.1	7.3
Progression Factor		1.00	1.71		1.00	1.00
Incremental Delay, d2		0.3	0.2		0.5	0.1
Delay (s)		8.0	13.3		8.6	7.3
Level of Service		A	B		A	A
Approach Delay (s)		8.0	13.3		8.5	
Approach LOS		A	B		A	

Intersection Summary			
HCM Average Control Delay	9.5	HCM Level of Service	A
HCM Volume to Capacity ratio	0.22		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	32.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

#8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	23	324	0	0	375	223	36	0	234	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0			
Lane Util. Factor	1.00	0.95			0.95	1.00	0.95	0.91	0.95			
Frt	1.00	1.00			1.00	0.85	1.00	0.85	0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95	1.00	1.00			
Satd. Flow (prot)	1570	3139			3139	1404	1491	1283	1334			
Flt Permitted	0.51	1.00			1.00	1.00	0.95	1.00	1.00			
Satd. Flow (perm)	847	3139			3139	1404	1491	1283	1334			
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	25	352	0	0	408	242	39	0	254	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	145	0	74	78	0	0	0
Lane Group Flow (vph)	25	352	0	0	408	97	35	54	52	0	0	0
Heavy Vehicles (%)	15%	15%	15%	15%	15%	15%	15%	15%	15%	2%	2%	2%
Turn Type	Perm					Perm	Perm		Perm			
Protected Phases		4			8			2				
Permitted Phases	4					8	2		2			
Actuated Green, G (s)	16.0	16.0			16.0	16.0	16.0	16.0	16.0			
Effective Green, g (s)	16.0	16.0			16.0	16.0	16.0	16.0	16.0			
Actuated g/C Ratio	0.40	0.40			0.40	0.40	0.40	0.40	0.40			
Clearance Time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0			
Lane Grp Cap (vph)	339	1256			1256	562	596	513	534			
v/s Ratio Prot		0.11			c0.13							
v/s Ratio Perm	0.03					0.07	0.02	0.04	0.04			
v/c Ratio	0.07	0.28			0.32	0.17	0.06	0.10	0.10			
Uniform Delay, d1	7.4	8.1			8.3	7.7	7.4	7.5	7.5			
Progression Factor	0.70	0.73			1.61	3.84	1.00	1.00	1.00			
Incremental Delay, d2	0.4	0.6			0.7	0.6	0.2	0.4	0.4			
Delay (s)	5.6	6.5			14.0	30.3	7.6	7.9	7.9			
Level of Service	A	A			B	C	A	A	A			
Approach Delay (s)		6.4			20.1			7.8			0.0	
Approach LOS		A			C			A			A	

Intersection Summary			
HCM Average Control Delay	13.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.21		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	30.5%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
2: Betty & NB ramp

1/20/2021

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	30	464	0	0	439	245	35	0	261	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0			
Lane Util. Factor	1.00	0.95			0.95	1.00	0.95	0.91	0.95			
Frt	1.00	1.00			1.00	0.85	1.00	0.85	0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95	1.00	1.00			
Satd. Flow (prot)	1570	3139			3139	1404	1491	1282	1334			
Flt Permitted	0.48	1.00			1.00	1.00	0.95	1.00	1.00			
Satd. Flow (perm)	792	3139			3139	1404	1491	1282	1334			
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	33	504	0	0	477	266	38	0	284	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	160	0	83	87	0	0	0
Lane Group Flow (vph)	33	504	0	0	477	106	34	60	58	0	0	0
Heavy Vehicles (%)	15%	15%	15%	15%	15%	15%	15%	15%	15%	2%	2%	2%
Turn Type	Perm					Perm	Perm		Perm			
Protected Phases		4			8			2				
Permitted Phases	4					8	2		2			
Actuated Green, G (s)	16.0	16.0			16.0	16.0	16.0	16.0	16.0			
Effective Green, g (s)	16.0	16.0			16.0	16.0	16.0	16.0	16.0			
Actuated g/C Ratio	0.40	0.40			0.40	0.40	0.40	0.40	0.40			
Clearance Time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0			
Lane Grp Cap (vph)	317	1256			1256	562	596	513	534			
v/s Ratio Prot		c0.16			0.15							
v/s Ratio Perm	0.04					0.08	0.02	0.05	0.04			
v/c Ratio	0.10	0.40			0.38	0.19	0.06	0.12	0.11			
Uniform Delay, d1	7.5	8.6			8.5	7.8	7.4	7.6	7.5			
Progression Factor	0.78	0.77			1.74	4.42	1.00	1.00	1.00			
Incremental Delay, d2	0.6	0.9			0.8	0.7	0.2	0.5	0.4			
Delay (s)	6.5	7.6			15.6	35.1	7.6	8.0	7.9			
Level of Service	A	A			B	D	A	A	A			
Approach Delay (s)		7.5			22.6			7.9			0.0	
Approach LOS		A			C			A			A	

Intersection Summary			
HCM Average Control Delay	14.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.26		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	32.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
9: Betty & Road 67

1/22/2021

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	105	389	55	49	437	13	71	4	12	6	7	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00			1.00	
Frt	1.00	0.98		1.00	1.00			0.98			0.94	
Flt Protected	0.95	1.00		0.95	1.00			0.96			0.99	
Satd. Flow (prot)	1570	3081		1570	3126			1558			1537	
Flt Permitted	0.47	1.00		0.48	1.00			0.80			0.95	
Satd. Flow (perm)	782	3081		787	3126			1296			1480	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	114	423	60	53	475	14	77	4	13	7	8	11
RTOR Reduction (vph)	0	28	0	0	5	0	0	8	0	0	7	0
Lane Group Flow (vph)	114	455	0	53	484	0	0	86	0	0	19	0
Heavy Vehicles (%)	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	16.0	16.0		16.0	16.0			16.0			16.0	
Effective Green, g (s)	16.0	16.0		16.0	16.0			16.0			16.0	
Actuated g/C Ratio	0.40	0.40		0.40	0.40			0.40			0.40	
Clearance Time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lane Grp Cap (vph)	313	1232		315	1250			518			592	
v/s Ratio Prot		0.15			c0.15							
v/s Ratio Perm	0.15			0.07				c0.07			0.01	
v/c Ratio	0.36	0.37		0.17	0.39			0.17			0.03	
Uniform Delay, d1	8.4	8.4		7.7	8.5			7.7			7.3	
Progression Factor	1.25	1.21		0.52	0.60			1.00			1.00	
Incremental Delay, d2	3.2	0.8		1.1	0.9			0.7			0.1	
Delay (s)	13.7	11.1		5.1	6.0			8.4			7.4	
Level of Service	B	B		A	A			A			A	
Approach Delay (s)		11.6			5.9			8.4			7.4	
Approach LOS		B			A			A			A	

Intersection Summary			
HCM Average Control Delay	8.8	HCM Level of Service	A
HCM Volume to Capacity ratio	0.28		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	39.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	70	586	65	59	546	7	83	0	33	11	0	33
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00			1.00	
Frt	1.00	0.98		1.00	1.00			0.96			0.90	
Flt Protected	0.95	1.00		0.95	1.00			0.97			0.99	
Satd. Flow (prot)	1570	3092		1570	3133			1534			1467	
Flt Permitted	0.40	1.00		0.33	1.00			0.80			0.94	
Satd. Flow (perm)	653	3092		542	3133			1270			1398	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	76	637	71	64	593	8	90	0	36	12	0	36
RTOR Reduction (vph)	0	21	0	0	2	0	0	22	0	0	22	0
Lane Group Flow (vph)	76	687	0	64	599	0	0	104	0	0	26	0
Heavy Vehicles (%)	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	16.0	16.0		16.0	16.0			16.0			16.0	
Effective Green, g (s)	16.0	16.0		16.0	16.0			16.0			16.0	
Actuated g/C Ratio	0.40	0.40		0.40	0.40			0.40			0.40	
Clearance Time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lane Grp Cap (vph)	261	1237		217	1253			508			559	
v/s Ratio Prot		c0.22			0.19							
v/s Ratio Perm	0.12			0.12				c0.08			0.02	
v/c Ratio	0.29	0.56		0.29	0.48			0.21			0.05	
Uniform Delay, d1	8.1	9.3		8.2	8.9			7.8			7.3	
Progression Factor	1.48	1.39		0.78	0.77			1.00			1.00	
Incremental Delay, d2	2.7	1.7		3.3	1.3			0.9			0.2	
Delay (s)	14.8	14.6		9.7	8.1			8.8			7.5	
Level of Service	B	B		A	A			A			A	
Approach Delay (s)		14.6			8.3			8.8			7.5	
Approach LOS		B			A			A			A	

Intersection Summary			
HCM Average Control Delay	11.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.38		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	44.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	23	373	34	6	432	7	57	4	6	2	1	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	0.99		1.00	1.00		1.00	0.90		1.00	0.86	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1570	3100		1570	3131		1570	1494		1570	1420	
Flt Permitted	0.48	1.00		0.50	1.00		0.75	1.00		0.75	1.00	
Satd. Flow (perm)	791	3100		819	3131		1234	1494		1240	1420	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	25	405	37	7	470	8	62	4	7	2	1	15
RTOR Reduction (vph)	0	17	0	0	3	0	0	4	0	0	9	0
Lane Group Flow (vph)	25	425	0	7	475	0	62	7	0	2	7	0
Heavy Vehicles (%)	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	16.0	16.0		16.0	16.0		16.0	16.0		16.0	16.0	
Effective Green, g (s)	16.0	16.0		16.0	16.0		16.0	16.0		16.0	16.0	
Actuated g/C Ratio	0.40	0.40		0.40	0.40		0.40	0.40		0.40	0.40	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)	316	1240		328	1252		494	598		496	568	
v/s Ratio Prot		0.14			c0.15			0.00			0.00	
v/s Ratio Perm	0.03			0.01			c0.05			0.00		
v/c Ratio	0.08	0.34		0.02	0.38		0.13	0.01		0.00	0.01	
Uniform Delay, d1	7.4	8.3		7.3	8.5		7.6	7.2		7.2	7.2	
Progression Factor	0.91	0.94		0.24	0.47		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.5	0.7		0.1	0.8		0.5	0.0		0.0	0.0	
Delay (s)	7.2	8.5		1.9	4.8		8.1	7.3		7.2	7.3	
Level of Service	A	A		A	A		A	A		A	A	
Approach Delay (s)		8.5			4.8			8.0			7.3	
Approach LOS		A			A			A			A	

Intersection Summary				
HCM Average Control Delay	6.7	HCM Level of Service	A	
HCM Volume to Capacity ratio	0.25			
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.0	
Intersection Capacity Utilization	35.3%	ICU Level of Service	A	
Analysis Period (min)	15			
c Critical Lane Group				

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	34	523	103	19	442	18	69	18	10	21	16	73
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	0.98		1.00	0.99		1.00	0.95		1.00	0.88	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1570	3062		1570	3120		1570	1564		1570	1448	
Flt Permitted	0.47	1.00		0.35	1.00		0.69	1.00		0.74	1.00	
Satd. Flow (perm)	769	3062		570	3120		1148	1564		1218	1448	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	37	568	112	21	480	20	75	20	11	23	17	79
RTOR Reduction (vph)	0	41	0	0	7	0	0	7	0	0	47	0
Lane Group Flow (vph)	37	639	0	21	493	0	75	24	0	23	49	0
Heavy Vehicles (%)	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	16.0	16.0		16.0	16.0		16.0	16.0		16.0	16.0	
Effective Green, g (s)	16.0	16.0		16.0	16.0		16.0	16.0		16.0	16.0	
Actuated g/C Ratio	0.40	0.40		0.40	0.40		0.40	0.40		0.40	0.40	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)	308	1225		228	1248		459	626		487	579	
v/s Ratio Prot		c0.21			0.16			0.02			0.03	
v/s Ratio Perm	0.05			0.04			c0.07			0.02		
v/c Ratio	0.12	0.52		0.09	0.39		0.16	0.04		0.05	0.08	
Uniform Delay, d1	7.6	9.1		7.5	8.6		7.7	7.3		7.3	7.5	
Progression Factor	0.87	0.97		0.32	0.47		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.7	1.4		0.7	0.9		0.8	0.1		0.2	0.3	
Delay (s)	7.2	10.2		3.1	4.9		8.5	7.4		7.5	7.7	
Level of Service	A	B		A	A		A	A		A	A	
Approach Delay (s)		10.1			4.8			8.2			7.7	
Approach LOS		B			A			A			A	

Intersection Summary				
HCM Average Control Delay	7.9	HCM Level of Service	A	
HCM Volume to Capacity ratio	0.34			
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.0	
Intersection Capacity Utilization	41.6%	ICU Level of Service	A	
Analysis Period (min)	15			
c Critical Lane Group				

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	CC
Agency/Co.	County of Tulare
Date Performed	1/15/2021
Analysis Time Period	AM Peak Hour

Site Information

Intersection	#13 - Betty & Rd 72
Jurisdiction	
Analysis Year	Existing

Project Description: Goshen Residential Development

East/West Street: Betty Riggin

North/South Street: Road 72

Intersection Orientation: East-West

Study Period (hrs): 1.00

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	1	351	32	39	417	
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Hourly Flow Rate, HFR (veh/h)	1	351	32	39	417	0
Percent Heavy Vehicles	20	--	--	20	--	--
Median Type	Raised curb					
RT Channelized			0			0
Lanes	1	2	0	1	2	0
Configuration	L	T	TR	L	T	
Upstream Signal		1			1	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	30	0	58			
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Hourly Flow Rate, HFR (veh/h)	30	0	58	0	0	0
Percent Heavy Vehicles	5	0	5	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	0	0
Configuration		LTR				

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L	L		LTR				
v (veh/h)	1	39		88				
C (m) (veh/h)	927	955		557				
v/c	0.00	0.04		0.16				
95% queue length	0.00	0.13		0.56				
Control Delay (s/veh)	8.9	8.9		12.7				
LOS	A	A		B				
Approach Delay (s/veh)	--	--	12.7					
Approach LOS	--	--	B					

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	CC	Intersection	#13-BETTY & RD 72
Agency/Co.	County of Tulare	Jurisdiction	
Date Performed	1/15/2021	Analysis Year	Existing
Analysis Time Period	PM Peak Hour		

Project Description	Goshen Residential Development
East/West Street:	North/South Street: Road 72
Intersection Orientation: East-West	Study Period (hrs): 1.00

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	1	457	59	104	403	
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Hourly Flow Rate, HFR (veh/h)	1	457	59	104	403	0
Percent Heavy Vehicles	20	--	--	20	--	--
Median Type	Raised curb					
RT Channelized			0			0
Lanes	1	2	0	1	2	0
Configuration	L	T	TR	L	T	
Upstream Signal		1			1	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	36	0	58			
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Hourly Flow Rate, HFR (veh/h)	36	0	58	0	0	0
Percent Heavy Vehicles	5	0	5	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	0	0
Configuration		LTR				

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L	L		LTR				
v (veh/h)	1	104		94				
C (m) (veh/h)	939	850		457				
v/c	0.00	0.12		0.21				
95% queue length	0.00	0.42		0.77				
Control Delay (s/veh)	8.8	9.8		14.9				
LOS	A	A		B				
Approach Delay (s/veh)	--	--	14.9					
Approach LOS	--	--	B					

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ALL-WAY STOP CONTROL ANALYSIS

General Information

Analyst	CC
Agency/Co.	County of Tulare
Date Performed	1/15/2021
Analysis Time Period	AM Peak Hour

Site Information

Intersection	#14 - Ave 310 at Rd 72
Jurisdiction	
Analysis Year	Existing

Project ID *Goshen Residential Development*

East/West Street: *Avenue 310*

North/South Street: *Road 72*

Volume Adjustments and Site Characteristics

Approach	Eastbound			Westbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	7	2	4	1	7	25
%Thrus Left Lane						

Approach	Northbound			Southbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	6	48	2	16	20	16
%Thrus Left Lane						

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LT	R	LTR		LTR	
PHF	1.00		1.00	1.00	1.00		1.00	
Flow Rate (veh/h)	13		8	25	56		52	
% Heavy Vehicles	5		5	5	5		0	
No. Lanes	1		2		1		1	
Geometry Group	4a		5		2		2	
Duration, T	1.00							

Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
Prop. Left-Turns	0.5		0.1	0.0	0.1		0.3	
Prop. Right-Turns	0.3		0.0	1.0	0.0		0.3	
Prop. Heavy Vehicle	0.0		0.0	0.0	0.0		0.0	
hLT-adj	0.2	0.2	0.5	0.5	0.2	0.2	0.2	0.2
hRT-adj	-0.6	-0.6	-0.7	-0.7	-0.6	-0.6	-0.6	-0.6
hHV-adj	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
hadj, computed	0.0		0.1	-0.6	0.1		-0.1	

Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
hd, initial value (s)	3.20		3.20	3.20	3.20		3.20	
x, initial	0.01		0.01	0.02	0.05		0.05	
hd, final value (s)	4.28		4.89	4.13	4.14		3.93	
x, final value	0.02		0.01	0.03	0.06		0.06	
Move-up time, m (s)	2.0		2.3		2.0		2.0	
Service Time, t_s (s)	2.3		2.6	1.8	2.1		1.9	

Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity (veh/h)	263		258	275	306		302	
Delay (s/veh)	7.34		7.64	6.95	7.42		7.17	
LOS	A		A	A	A		A	
Approach: Delay (s/veh)	7.34		7.12		7.42		7.17	
LOS	A		A		A		A	
Intersection Delay (s/veh)	7.26							
Intersection LOS	A							

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ALL-WAY STOP CONTROL ANALYSIS

General Information

Analyst	CC
Agency/Co.	County of Tulare
Date Performed	1/15/2021
Analysis Time Period	pm peak hour

Site Information

Intersection	#14 - Ave 310 at Rd 72
Jurisdiction	
Analysis Year	Existing

Project ID *Goshen Residential Development*

East/West Street: *Avenue 310*

North/South Street: *Road 72*

Volume Adjustments and Site Characteristics

Approach	Eastbound			Westbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	19	14	22	10	13	42
%Thrus Left Lane						

Approach	Northbound			Southbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	21	58	10	54	83	18
%Thrus Left Lane						

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LT	R	LTR		LTR	
PHF	1.00		1.00	1.00	1.00		1.00	
Flow Rate (veh/h)	55		23	42	89		155	
% Heavy Vehicles	5		5	5	5		5	
No. Lanes	1		2		1		1	
Geometry Group	4a		5		2		2	
Duration, T	1.00							

Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
Prop. Left-Turns	0.3		0.4	0.0	0.2		0.3	
Prop. Right-Turns	0.4		0.0	1.0	0.1		0.1	
Prop. Heavy Vehicle	0.0		0.0	0.0	0.0		0.0	
hLT-adj	0.2	0.2	0.5	0.5	0.2	0.2	0.2	0.2
hRT-adj	-0.6	-0.6	-0.7	-0.7	-0.6	-0.6	-0.6	-0.6
hHV-adj	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
hadj, computed	-0.1		0.3	-0.6	0.1		0.1	

Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
hd, initial value (s)	3.20		3.20	3.20	3.20		3.20	
x, initial	0.05		0.02	0.04	0.08		0.14	
hd, final value (s)	4.57		5.42	4.50	4.42		4.37	
x, final value	0.07		0.03	0.05	0.11		0.19	
Move-up time, m (s)	2.0		2.3		2.0		2.0	
Service Time, t_s (s)	2.6		3.1	2.2	2.4		2.4	

Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity (veh/h)	305		273	292	339		405	
Delay (s/veh)	7.91		8.32	7.45	7.97		8.38	
LOS	A		A	A	A		A	
Approach: Delay (s/veh)	7.91		7.76		7.97		8.38	
LOS	A		A		A		A	
Intersection Delay (s/veh)	8.10							
Intersection LOS	A							

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ALL-WAY STOP CONTROL ANALYSIS

General Information

Analyst	CC
Agency/Co.	County of Tulare
Date Performed	1/15/2021
Analysis Time Period	AM Peak Hour

Site Information

Intersection	#15-Avenue 308 at Road 72
Jurisdiction	County of Tulare
Analysis Year	Existing

Project ID *Goshen Residential Development*

East/West Street: *Avenue 308*

North/South Street: *Road 72*

Volume Adjustments and Site Characteristics

Approach	Eastbound			Westbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	10	13	1	1	5	32
%Thrus Left Lane						

Approach	Northbound			Southbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	3	17	0	21	19	5
%Thrus Left Lane						

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LTR		LTR	
PHF	1.00		1.00		1.00		1.00	
Flow Rate (veh/h)	24		38		20		45	
% Heavy Vehicles	0		0		0		0	
No. Lanes	1		1		1		1	
Geometry Group	1		1		1		1	
Duration, T	0.25							

Saturation Headway Adjustment Worksheet

Prop. Left-Turns	0.4		0.0		0.2		0.5	
Prop. Right-Turns	0.0		0.8		0.0		0.1	
Prop. Heavy Vehicle	0.0		0.0		0.0		0.0	
hLT-adj	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
hRT-adj	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6
hHV-adj	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
hadj, computed	0.1		-0.5		0.0		0.0	

Departure Headway and Service Time

hd, initial value (s)	3.20		3.20		3.20		3.20	
x, initial	0.02		0.03		0.02		0.04	
hd, final value (s)	4.13		3.56		4.10		4.07	
x, final value	0.03		0.04		0.02		0.05	
Move-up time, m (s)	2.0		2.0		2.0		2.0	
Service Time, t_s (s)	2.1		1.6		2.1		2.1	

Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity (veh/h)	274		288		270		295	
Delay (s/veh)	7.25		6.70		7.19		7.29	
LOS	A		A		A		A	
Approach: Delay (s/veh)	7.25		6.70		7.19		7.29	
LOS	A		A		A		A	
Intersection Delay (s/veh)	7.09							
Intersection LOS	A							

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ALL-WAY STOP CONTROL ANALYSIS

General Information

Analyst	CC
Agency/Co.	County of Tulare
Date Performed	1/15/2021
Analysis Time Period	PM Peak Hour

Site Information

Intersection	#15-Avenue 308 at Road 72
Jurisdiction	County of Tulare
Analysis Year	Existing

Project ID *Goshen Residential Development*

East/West Street: *Avenue 308*

North/South Street: *Road 72*

Volume Adjustments and Site Characteristics

Approach	Eastbound			Westbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	12	19	5	2	11	51
%Thrus Left Lane						

Approach	Northbound			Southbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	3	17	3	58	31	0
%Thrus Left Lane						

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LTR		LTR	
PHF	1.00		1.00		1.00		1.00	
Flow Rate (veh/h)	36		64		23		89	
% Heavy Vehicles	0		0		0		0	
No. Lanes	1		1		1		1	
Geometry Group	1		1		1		1	
Duration, T	0.25							

Saturation Headway Adjustment Worksheet

Prop. Left-Turns	0.3		0.0		0.1		0.7	
Prop. Right-Turns	0.1		0.8		0.1		0.0	
Prop. Heavy Vehicle	0.0		0.0		0.0		0.0	
hLT-adj	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
hRT-adj	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6
hHV-adj	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
hadj, computed	-0.0		-0.5		-0.1		0.1	

Departure Headway and Service Time

hd, initial value (s)	3.20		3.20		3.20		3.20	
x, initial	0.03		0.06		0.02		0.08	
hd, final value (s)	4.19		3.72		4.15		4.26	
x, final value	0.04		0.07		0.03		0.11	
Move-up time, m (s)	2.0		2.0		2.0		2.0	
Service Time, t_s (s)	2.2		1.7		2.1		2.3	

Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity (veh/h)	286		314		273		339	
Delay (s/veh)	7.38		6.98		7.26		7.76	
LOS	A		A		A		A	
Approach: Delay (s/veh)	7.38		6.98		7.26		7.76	
LOS	A		A		A		A	
Intersection Delay (s/veh)	7.41							
Intersection LOS	A							

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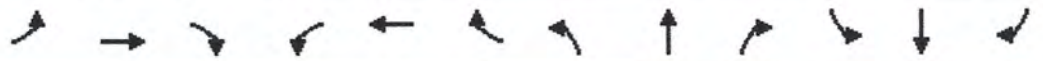
HCM Signalized Intersection Capacity Analysis
5: Riggin & Road 76 1/22/2021

#17



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	15	391	6	10	480	0	4	0	4	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0				
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00				
Frt	1.00	1.00		1.00	1.00			0.93				
Flt Protected	0.95	1.00		0.95	1.00			0.98				
Satd. Flow (prot)	1570	3132		1570	3139			1646				
Flt Permitted	0.45	1.00		0.50	1.00			0.94				
Satd. Flow (perm)	743	3132		827	3139			1590				
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	16	425	7	11	522	0	4	0	4	0	0	0
RTOR Reduction (vph)	0	3	0	0	0	0	0	2	0	0	0	0
Lane Group Flow (vph)	16	429	0	11	522	0	0	6	0	0	0	0
Heavy Vehicles (%)	15%	15%	15%	15%	15%	15%	5%	5%	5%	2%	2%	2%
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	16.0	16.0		16.0	16.0			16.0				
Effective Green, g (s)	16.0	16.0		16.0	16.0			16.0				
Actuated g/C Ratio	0.40	0.40		0.40	0.40			0.40				
Clearance Time (s)	4.0	4.0		4.0	4.0			4.0				
Lane Grp Cap (vph)	297	1253		331	1256			636				
v/s Ratio Prot		0.14			c0.17							
v/s Ratio Perm	0.02			0.01				c0.00				
v/c Ratio	0.05	0.34		0.03	0.42			0.01				
Uniform Delay, d1	7.4	8.3		7.3	8.6			7.2				
Progression Factor	0.50	0.70		1.00	1.00			1.00				
Incremental Delay, d2	0.3	0.7		0.2	1.0			0.0				
Delay (s)	4.0	6.6		7.5	9.7			7.3				
Level of Service	A	A		A	A			A				
Approach Delay (s)		6.5			9.6			7.3			0.0	
Approach LOS		A			A			A			A	

Intersection Summary			
HCM Average Control Delay	8.2	HCM Level of Service	A
HCM Volume to Capacity ratio	0.21		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	23.3%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

#17

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	35	610	2	12	506	0	8	0	15	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0				
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00				
Frt	1.00	1.00		1.00	1.00			0.91				
Flt Protected	0.95	1.00		0.95	1.00			0.98				
Satd. Flow (prot)	1570	3138		1570	3139			1624				
Flt Permitted	0.43	1.00		0.35	1.00			0.95				
Satd. Flow (perm)	710	3138		585	3139			1568				
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	38	663	2	13	550	0	9	0	16	0	0	0
RTOR Reduction (vph)	0	1	0	0	0	0	0	10	0	0	0	0
Lane Group Flow (vph)	38	664	0	13	550	0	0	15	0	0	0	0
Heavy Vehicles (%)	15%	15%	15%	15%	15%	15%	5%	5%	5%	2%	2%	2%
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	16.0	16.0		16.0	16.0			16.0				
Effective Green, g (s)	16.0	16.0		16.0	16.0			16.0				
Actuated g/C Ratio	0.40	0.40		0.40	0.40			0.40				
Clearance Time (s)	4.0	4.0		4.0	4.0			4.0				
Lane Grp Cap (vph)	284	1255		234	1256			627				
v/s Ratio Prot		c0.21			0.18							
v/s Ratio Perm	0.05			0.02				c0.01				
v/c Ratio	0.13	0.53		0.06	0.44			0.02				
Uniform Delay, d1	7.6	9.1		7.4	8.7			7.3				
Progression Factor	0.50	0.71		1.00	1.00			1.00				
Incremental Delay, d2	0.9	1.5		0.5	1.1			0.1				
Delay (s)	4.7	7.9		7.8	9.8			7.3				
Level of Service	A	A		A	A			A				
Approach Delay (s)		7.8			9.8			7.3			0.0	
Approach LOS		A			A			A			A	

Intersection Summary			
HCM Average Control Delay	8.6	HCM Level of Service	A
HCM Volume to Capacity ratio	0.28		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	33.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	CC	Intersection	#18 Goshen at Road 76
Agency/Co.	County of Tulare	Jurisdiction	
Date Performed	1/19/2021	Analysis Year	Existing
Analysis Time Period	AM Peak Hour		

Project Description: Goshen Residential Development

East/West Street: Goshen | North/South Street: Road 76

Intersection Orientation: East-West | Study Period (hrs): 1.00

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	1	99	14	26	120	27
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Hourly Flow Rate, HFR (veh/h)	1	99	14	26	120	27
Percent Heavy Vehicles	10	--	--	10	--	--
Median Type	Raised curb					
RT Channelized			0			0
Lanes	1	2	0	1	2	0
Configuration	L	T	TR	L	T	TR
Upstream Signal		0			0	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	14	6	14	64	15	1
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Hourly Flow Rate, HFR (veh/h)	14	6	14	64	15	1
Percent Heavy Vehicles	10	10	10	10	10	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L	L		LTR			LTR	
v (veh/h)	1	26		34			80	
C (m) (veh/h)	1376	1418		839			741	
v/c	0.00	0.02		0.04			0.11	
95% queue length	0.00	0.06		0.13			0.36	
Control Delay (s/veh)	7.6	7.6		9.5			10.4	
LOS	A	A		A			B	
Approach Delay (s/veh)	--	--	9.5			10.4		
Approach LOS	--	--	A			B		

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TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	CC
Agency/Co.	County of Tulare
Date Performed	1/19/2021
Analysis Time Period	PM Peak Hour

Site Information

Intersection	#18 Goshen at Road 76
Jurisdiction	
Analysis Year	Existing

Project Description: Goshen Residential Development

East/West Street: Goshen | North/South Street: Road 76

Intersection Orientation: East-West | Study Period (hrs): 1.00

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	4	201	10	18	119	118
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Hourly Flow Rate, HFR (veh/h)	4	201	10	18	119	118
Percent Heavy Vehicles	10	--	--	10	--	--
Median Type	Raised curb					
RT Channelized			0			0
Lanes	1	2	0	1	2	0
Configuration	L	T	TR	L	T	TR
Upstream Signal		0			0	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	15	27	71	83	20	0
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Hourly Flow Rate, HFR (veh/h)	15	27	71	83	20	0
Percent Heavy Vehicles	10	10	10	10	10	10
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L	L		LTR			LTR	
v (veh/h)	4	18		113			103	
C (m) (veh/h)	1271	1300		804			683	
v/c	0.00	0.01		0.14			0.15	
95% queue length	0.01	0.04		0.49			0.53	
Control Delay (s/veh)	7.8	7.8		10.2			11.2	
LOS	A	A		B			B	
Approach Delay (s/veh)	--	--	10.2			11.2		
Approach LOS	--	--	B			B		

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Appendix C

ITE Trip Generation Estimates for the Goshen Residential Project

Goshen 36
Summary of Trip Generation Calculation
For 197 Dwelling Units of Single Family Detached Housing
September 30, 2020

	Average Rate	Standard Deviation	Adjustment Factor	Driveway Volume
Avg. Weekday 2-Way Volume	9.85	0.00	1.00	1940
7-9 AM Peak Hour Enter	0.19	0.00	1.00	37
7-9 AM Peak Hour Exit	0.56	0.00	1.00	111
7-9 AM Peak Hour Total	0.75	0.00	1.00	148
4-6 PM Peak Hour Enter	0.62	0.00	1.00	122
4-6 PM Peak Hour Exit	0.36	0.00	1.00	72
4-6 PM Peak Hour Total	0.98	0.00	1.00	193
AM Pk Hr, Generator, Enter	0.20	0.00	1.00	39
AM Pk Hr, Generator, Exit	0.56	0.00	1.00	111
AM Pk Hr, Generator, Total	0.76	0.00	1.00	150
PM Pk Hr, Generator, Enter	0.63	0.00	1.00	124
PM Pk Hr, Generator, Exit	0.36	0.00	1.00	70
PM Pk Hr, Generator, Total	0.99	0.00	1.00	194
Saturday 2-Way Volume	10.24	0.00	1.00	2016
Saturday Peak Hour Enter	0.50	0.00	1.00	98
Saturday Peak Hour Exit	0.44	0.00	1.00	87
Saturday Peak Hour Total	0.94	0.00	1.00	185
Sunday 2-Way Volume	8.77	0.00	1.00	1728
Sunday Peak Hour Enter	0.47	0.00	1.00	92
Sunday Peak Hour Exit	0.41	0.00	1.00	82
Sunday Peak Hour Total	0.88	0.00	1.00	174

Note: A zero indicates no data available.
The above rates were calculated from these equations:

24-Hr. 2-Way Volume:	LN(T) = .92LN(X) + 2.71, R^2 = 0.96
7-9 AM Peak Hr. Total:	T = .7(X) + 9.74
	R^2 = 0.89 , 0.25 Enter, 0.75 Exit
4-6 PM Peak Hr. Total:	LN(T) = .9LN(X) + .51
	R^2 = 0.91 , 0.63 Enter, 0.37 Exit
AM Gen Pk Hr. Total:	T = .7(X) + 12.37
	R^2 = 0.89 , 0.26 Enter, 0.74 Exit
PM Gen Pk Hr. Total:	LN(T) = .88LN(X) + .62
	R^2 = 0.91 , 0.64 Enter, 0.36 Exit
Sat. 2-Way Volume:	LN(T) = .95LN(X) + 2.59, R^2 = 0.92
Sat. Pk Hr. Total:	T = .89(X) + 9.56
	R^2 = 0.91 , 0.53 Enter, 0.47 Exit
Sun. 2-Way Volume:	T = 8.84(X) + -13.31, R^2 = 0.94
Sun. Pk Hr. Total:	LN(T) = .91LN(X) + .35
	R^2 = 0.87 , 0.53 Enter, 0.47 Exit

Source: Institute of Transportation Engineers
Trip Generation, 8th Edition, 2008.

TRIP GENERATION BY MICROTRANS

Appendix D

Existing + Goshen Residential Project Weekday Level of Service Calculations

#7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↰↑	↱
Volume (vph)	0	117	122	0	186	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0
Lane Util. Factor		0.95	0.95		0.97	0.91
Frt		1.00	1.00		1.00	0.85
Flt Protected		1.00	1.00		0.95	1.00
Satd. Flow (prot)		3139	3139		3048	1278
Flt Permitted		1.00	1.00		0.95	1.00
Satd. Flow (perm)		3139	3139		3048	1278
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	127	133	0	202	29
RTOR Reduction (vph)	0	0	0	0	2	16
Lane Group Flow (vph)	0	127	133	0	203	10
Heavy Vehicles (%)	15%	15%	15%	15%	15%	15%
Turn Type						Perm
Protected Phases		4	8		6	
Permitted Phases						6
Actuated Green, G (s)		16.0	16.0		16.0	16.0
Effective Green, g (s)		16.0	16.0		16.0	16.0
Actuated g/C Ratio		0.40	0.40		0.40	0.40
Clearance Time (s)		4.0	4.0		4.0	4.0
Lane Grp Cap (vph)		1256	1256		1219	511
v/s Ratio Prot		0.04	c0.04		c0.07	
v/s Ratio Perm						0.01
v/c Ratio		0.10	0.11		0.17	0.02
Uniform Delay, d1		7.5	7.5		7.7	7.3
Progression Factor		1.00	1.61		1.00	1.00
Incremental Delay, d2		0.2	0.2		0.3	0.1
Delay (s)		7.7	12.3		8.0	7.3
Level of Service		A	B		A	A
Approach Delay (s)		7.7	12.3		7.9	
Approach LOS		A	B		A	

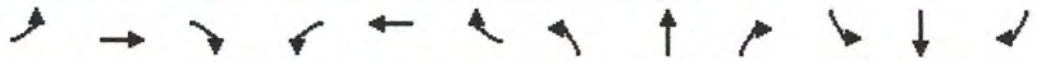
Intersection Summary			
HCM Average Control Delay	9.0	HCM Level of Service	A
HCM Volume to Capacity ratio	0.14		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	30.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

#7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↰↑↑	↱
Volume (vph)	0	198	162	0	325	26
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0
Lane Util. Factor		0.95	0.95		0.97	0.91
Frt		1.00	1.00		1.00	0.85
Flt Protected		1.00	1.00		0.95	1.00
Satd. Flow (prot)		3139	3139		3050	1278
Flt Permitted		1.00	1.00		0.95	1.00
Satd. Flow (perm)		3139	3139		3050	1278
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	215	176	0	353	28
RTOR Reduction (vph)	0	0	0	0	1	15
Lane Group Flow (vph)	0	215	176	0	355	10
Heavy Vehicles (%)	15%	15%	15%	15%	15%	15%
Turn Type						Perm
Protected Phases		4	8		6	
Permitted Phases						6
Actuated Green, G (s)		16.0	16.0		16.0	16.0
Effective Green, g (s)		16.0	16.0		16.0	16.0
Actuated g/C Ratio		0.40	0.40		0.40	0.40
Clearance Time (s)		4.0	4.0		4.0	4.0
Lane Grp Cap (vph)		1256	1256		1220	511
v/s Ratio Prot		c0.07	0.06		c0.12	
v/s Ratio Perm						0.01
v/c Ratio		0.17	0.14		0.29	0.02
Uniform Delay, d1		7.7	7.6		8.1	7.3
Progression Factor		1.00	1.72		1.00	1.00
Incremental Delay, d2		0.3	0.2		0.6	0.1
Delay (s)		8.0	13.4		8.8	7.3
Level of Service		A	B		A	A
Approach Delay (s)		8.0	13.4		8.7	
Approach LOS		A	B		A	

Intersection Summary			
HCM Average Control Delay	9.6	HCM Level of Service	A
HCM Volume to Capacity ratio	0.23		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	32.4%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

#0



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	23	332	0	0	385	223	36	0	243	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0			
Lane Util. Factor	1.00	0.95			0.95	1.00	0.95	0.91	0.95			
Frt	1.00	1.00			1.00	0.85	1.00	0.85	0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95	1.00	1.00			
Satd. Flow (prot)	1570	3139			3139	1404	1491	1283	1334			
Flt Permitted	0.51	1.00			1.00	1.00	0.95	1.00	1.00			
Satd. Flow (perm)	838	3139			3139	1404	1491	1283	1334			
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	25	361	0	0	418	242	39	0	264	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	145	0	77	81	0	0	0
Lane Group Flow (vph)	25	361	0	0	418	97	35	56	54	0	0	0
Heavy Vehicles (%)	15%	15%	15%	15%	15%	15%	15%	15%	15%	2%	2%	2%
Turn Type	Perm					Perm	Perm		Perm			
Protected Phases		4			8			2				
Permitted Phases	4					8	2		2			
Actuated Green, G (s)	16.0	16.0			16.0	16.0	16.0	16.0	16.0			
Effective Green, g (s)	16.0	16.0			16.0	16.0	16.0	16.0	16.0			
Actuated g/C Ratio	0.40	0.40			0.40	0.40	0.40	0.40	0.40			
Clearance Time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0			
Lane Grp Cap (vph)	335	1256			1256	562	596	513	534			
v/s Ratio Prot		0.12			c0.13							
v/s Ratio Perm	0.03					0.07	0.02	0.04	0.04			
v/c Ratio	0.07	0.29			0.33	0.17	0.06	0.11	0.10			
Uniform Delay, d1	7.4	8.1			8.3	7.7	7.4	7.5	7.5			
Progression Factor	0.70	0.73			1.66	4.01	1.00	1.00	1.00			
Incremental Delay, d2	0.4	0.6			0.7	0.6	0.2	0.4	0.4			
Delay (s)	5.6	6.5			14.5	31.7	7.6	8.0	7.9			
Level of Service	A	A			B	C	A	A	A			
Approach Delay (s)		6.4			20.8			7.9			0.0	
Approach LOS		A			C			A			A	

Intersection Summary			
HCM Average Control Delay	13.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.22		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	30.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

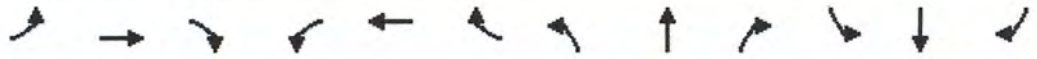
#8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	30	487	0	0	444	245	35	0	285	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0			
Lane Util. Factor	1.00	0.95			0.95	1.00	0.95	0.91	0.95			
Frt	1.00	1.00			1.00	0.85	1.00	0.85	0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95	1.00	1.00			
Satd. Flow (prot)	1570	3139			3139	1404	1491	1282	1334			
Flt Permitted	0.48	1.00			1.00	1.00	0.95	1.00	1.00			
Satd. Flow (perm)	787	3139			3139	1404	1491	1282	1334			
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	33	529	0	0	483	266	38	0	310	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	160	0	91	95	0	0	0
Lane Group Flow (vph)	33	529	0	0	483	106	34	65	63	0	0	0
Heavy Vehicles (%)	15%	15%	15%	15%	15%	15%	15%	15%	15%	2%	2%	2%
Turn Type	Perm					Perm	Perm		Perm			
Protected Phases		4			8			2				
Permitted Phases	4					8	2		2			
Actuated Green, G (s)	16.0	16.0			16.0	16.0	16.0	16.0	16.0			
Effective Green, g (s)	16.0	16.0			16.0	16.0	16.0	16.0	16.0			
Actuated g/C Ratio	0.40	0.40			0.40	0.40	0.40	0.40	0.40			
Clearance Time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0			
Lane Grp Cap (vph)	315	1256			1256	562	596	513	534			
v/s Ratio Prot		c0.17			0.15							
v/s Ratio Perm	0.04					0.08	0.02	0.05	0.05			
v/c Ratio	0.10	0.42			0.38	0.19	0.06	0.13	0.12			
Uniform Delay, d1	7.5	8.7			8.5	7.8	7.4	7.6	7.6			
Progression Factor	0.77	0.76			1.76	4.47	1.00	1.00	1.00			
Incremental Delay, d2	0.7	1.0			0.8	0.7	0.2	0.5	0.5			
Delay (s)	6.4	7.6			15.8	35.5	7.6	8.1	8.0			
Level of Service	A	A			B	D	A	A	A			
Approach Delay (s)		7.5			22.8			8.0			0.0	
Approach LOS		A			C			A			A	

Intersection Summary			
HCM Average Control Delay	14.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.27		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	32.4%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	105	406	55	49	458	13	71	4	12	6	7	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00			1.00	
Frt	1.00	0.98		1.00	1.00			0.98			0.94	
Flt Protected	0.95	1.00		0.95	1.00			0.96			0.99	
Satd. Flow (prot)	1570	3083		1570	3126			1558			1537	
Flt Permitted	0.46	1.00		0.46	1.00			0.80			0.95	
Satd. Flow (perm)	755	3083		768	3126			1296			1480	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	114	441	60	53	498	14	77	4	13	7	8	11
RTOR Reduction (vph)	0	26	0	0	5	0	0	8	0	0	7	0
Lane Group Flow (vph)	114	475	0	53	507	0	0	86	0	0	19	0
Heavy Vehicles (%)	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	16.0	16.0		16.0	16.0			16.0			16.0	
Effective Green, g (s)	16.0	16.0		16.0	16.0			16.0			16.0	
Actuated g/C Ratio	0.40	0.40		0.40	0.40			0.40			0.40	
Clearance Time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lane Grp Cap (vph)	302	1233		307	1250			518			592	
v/s Ratio Prot		0.15			c0.16							
v/s Ratio Perm	0.15			0.07				c0.07			0.01	
v/c Ratio	0.38	0.38		0.17	0.41			0.17			0.03	
Uniform Delay, d1	8.5	8.5		7.7	8.6			7.7			7.3	
Progression Factor	1.27	1.22		0.54	0.62			1.00			1.00	
Incremental Delay, d2	3.5	0.9		1.2	0.9			0.7			0.1	
Delay (s)	14.2	11.3		5.3	6.3			8.4			7.4	
Level of Service	B	B		A	A			A			A	
Approach Delay (s)		11.9			6.2			8.4			7.4	
Approach LOS		B			A			A			A	

Intersection Summary			
HCM Average Control Delay	9.1	HCM Level of Service	A
HCM Volume to Capacity ratio	0.29		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	40.4%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	70	633	65	59	556	7	83	0	33	11	0	33
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00			1.00	
Frt	1.00	0.99		1.00	1.00			0.96			0.90	
Flt Protected	0.95	1.00		0.95	1.00			0.97			0.99	
Satd. Flow (prot)	1570	3095		1570	3133			1534			1467	
Flt Permitted	0.39	1.00		0.30	1.00			0.80			0.94	
Satd. Flow (perm)	641	3095		494	3133			1270			1398	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	76	688	71	64	604	8	90	0	36	12	0	36
RTOR Reduction (vph)	0	19	0	0	2	0	0	22	0	0	22	0
Lane Group Flow (vph)	76	740	0	64	610	0	0	104	0	0	26	0
Heavy Vehicles (%)	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	16.0	16.0		16.0	16.0			16.0			16.0	
Effective Green, g (s)	16.0	16.0		16.0	16.0			16.0			16.0	
Actuated g/C Ratio	0.40	0.40		0.40	0.40			0.40			0.40	
Clearance Time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lane Grp Cap (vph)	256	1238		198	1253			508			559	
v/s Ratio Prot		c0.24			0.19							
v/s Ratio Perm	0.12			0.13				c0.08			0.02	
v/c Ratio	0.30	0.60		0.32	0.49			0.21			0.05	
Uniform Delay, d1	8.2	9.5		8.3	8.9			7.8			7.3	
Progression Factor	1.49	1.41		0.80	0.78			1.00			1.00	
Incremental Delay, d2	2.8	2.0		4.1	1.3			0.9			0.2	
Delay (s)	15.0	15.3		10.7	8.3			8.8			7.5	
Level of Service	B	B		B	A			A			A	
Approach Delay (s)		15.3			8.5			8.8			7.5	
Approach LOS		B			A			A			A	

Intersection Summary			
HCM Average Control Delay	11.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.40		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	46.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	23	388	36	6	445	7	65	4	6	2	1	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	0.99		1.00	1.00		1.00	0.90		1.00	0.86	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1570	3099		1570	3131		1570	1494		1570	1420	
Flt Permitted	0.47	1.00		0.49	1.00		0.75	1.00		0.75	1.00	
Satd. Flow (perm)	779	3099		804	3131		1234	1494		1240	1420	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	25	422	39	7	484	8	71	4	7	2	1	15
RTOR Reduction (vph)	0	17	0	0	3	0	0	4	0	0	9	0
Lane Group Flow (vph)	25	444	0	7	489	0	71	7	0	2	7	0
Heavy Vehicles (%)	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	16.0	16.0		16.0	16.0		16.0	16.0		16.0	16.0	
Effective Green, g (s)	16.0	16.0		16.0	16.0		16.0	16.0		16.0	16.0	
Actuated g/C Ratio	0.40	0.40		0.40	0.40		0.40	0.40		0.40	0.40	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)	312	1240		322	1252		494	598		496	568	
v/s Ratio Prot		0.14			c0.16			0.00			0.00	
v/s Ratio Perm	0.03			0.01			c0.06			0.00		
v/c Ratio	0.08	0.36		0.02	0.39		0.14	0.01		0.00	0.01	
Uniform Delay, d1	7.4	8.4		7.3	8.5		7.6	7.2		7.2	7.2	
Progression Factor	0.91	0.94		0.23	0.47		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.5	0.8		0.1	0.8		0.6	0.0		0.0	0.0	
Delay (s)	7.2	8.6		1.8	4.9		8.2	7.3		7.2	7.3	
Level of Service	A	A		A	A		A	A		A	A	
Approach Delay (s)		8.6			4.8			8.1			7.3	
Approach LOS		A			A			A			A	

Intersection Summary			
HCM Average Control Delay	6.8	HCM Level of Service	A
HCM Volume to Capacity ratio	0.27		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	36.0%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	34	562	111	19	448	18	73	18	10	21	16	73
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	0.98		1.00	0.99		1.00	0.95		1.00	0.88	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1570	3061		1570	3121		1570	1564		1570	1448	
Flt Permitted	0.46	1.00		0.31	1.00		0.69	1.00		0.74	1.00	
Satd. Flow (perm)	761	3061		519	3121		1148	1564		1218	1448	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	37	611	121	21	487	20	79	20	11	23	17	79
RTOR Reduction (vph)	0	41	0	0	7	0	0	7	0	0	47	0
Lane Group Flow (vph)	37	691	0	21	500	0	79	24	0	23	49	0
Heavy Vehicles (%)	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	16.0	16.0		16.0	16.0		16.0	16.0		16.0	16.0	
Effective Green, g (s)	16.0	16.0		16.0	16.0		16.0	16.0		16.0	16.0	
Actuated g/C Ratio	0.40	0.40		0.40	0.40		0.40	0.40		0.40	0.40	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)	304	1224		208	1248		459	626		487	579	
v/s Ratio Prot		c0.23			0.16			0.02			0.03	
v/s Ratio Perm	0.05			0.04			c0.07			0.02		
v/c Ratio	0.12	0.56		0.10	0.40		0.17	0.04		0.05	0.08	
Uniform Delay, d1	7.6	9.3		7.5	8.6		7.7	7.3		7.3	7.5	
Progression Factor	0.84	0.97		0.29	0.44		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.7	1.6		0.9	0.9		0.8	0.1		0.2	0.3	
Delay (s)	7.1	10.7		3.1	4.6		8.5	7.4		7.5	7.7	
Level of Service	A	B		A	A		A	A		A	A	
Approach Delay (s)		10.5			4.5			8.2			7.7	
Approach LOS		B			A			A			A	

Intersection Summary			
HCM Average Control Delay	8.0	HCM Level of Service	A
HCM Volume to Capacity ratio	0.37		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	43.1%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	CC
Agency/Co.	County of Tulare
Date Performed	1/15/2021
Analysis Time Period	AM Peak Hour

Site Information

Intersection	#13 Betty/Riggin at Road 72
Jurisdiction	
Analysis Year	Existing + Project

Project Description: Goshen Residential Development

East/West Street: Betty/Riggin | North/South Street: Road 72

Intersection Orientation: East-West | Study Period (hrs): 1.00

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	1	351	47	57	417	
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Hourly Flow Rate, HFR (veh/h)	1	351	47	57	417	0
Percent Heavy Vehicles	20	--	--	20	--	--
Median Type	Raised curb					
RT Channelized			0			0
Lanes	1	2	0	1	2	0
Configuration	L	T	TR	L	T	
Upstream Signal		1			1	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	43	0				
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Hourly Flow Rate, HFR (veh/h)	43	0	0	0	0	0
Percent Heavy Vehicles	5	0	5	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	0	0
Configuration		LTR				

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L	L		LTR				
v (veh/h)	1	57		43				
C (m) (veh/h)	927	942		382				
v/c	0.00	0.06		0.11				
95% queue length	0.00	0.19		0.38				
Control Delay (s/veh)	8.9	9.1		15.6				
LOS	A	A		C				
Approach Delay (s/veh)	--	--	15.6					
Approach LOS	--	--	C					

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TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	CC
Agency/Co.	County of Tulare
Date Performed	1/15/2021
Analysis Time Period	PM Peak Hour

Site Information

Intersection #13	Betty/Riggin at Road 72
Jurisdiction	
Analysis Year	Existing+Project

Project Description: Goshen Residential Development

East/West Street: Betty/Riggin | North/South Street: Road 72

Intersection Orientation: East-West | Study Period (hrs): 1.00

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	1	457	98	172	403	
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Hourly Flow Rate, HFR (veh/h)	1	457	98	172	403	0
Percent Heavy Vehicles	20	--	--	20	--	--
Median Type	Raised curb					
RT Channelized			0			0
Lanes	1	2	0	1	2	0
Configuration	L	T	TR	L	T	
Upstream Signal		1			1	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	42	0				
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Hourly Flow Rate, HFR (veh/h)	42	0	58	0	0	0
Percent Heavy Vehicles	5	0	5	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	0	0
Configuration		LTR				

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L	L		LTR				
v (veh/h)	1	172		100				
C (m) (veh/h)	939	821		389				
v/c	0.00	0.21		0.26				
95% queue length	0.00	0.79		1.03				
Control Delay (s/veh)	8.8	10.5		17.4				
LOS	A	B		C				
Approach Delay (s/veh)	--	--	17.4					
Approach LOS	--	--	C					

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ALL-WAY STOP CONTROL ANALYSIS

General Information

Analyst	CC
Agency/Co.	County of Tulare
Date Performed	1/15/2021
Analysis Time Period	AM Peak Hour

Site Information

Intersection	#14 - Ave 310 at Rd 72
Jurisdiction	
Analysis Year	Existing+Project

Project ID *Goshen Residential Development*

East/West Street: *Avenue 310* North/South Street: *Road 72*

Volume Adjustments and Site Characteristics

Approach	Eastbound			Westbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	7	38	34	1	8	25
%Thrus Left Lane						

Approach	Northbound			Southbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	7	48	2	16	20	
%Thrus Left Lane						

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LT	R	LTR		LTR	
PHF	1.00		1.00	1.00	1.00		1.00	
Flow Rate (veh/h)	79		9	25	57		36	
% Heavy Vehicles	5		5	5	5		0	
No. Lanes	1		2		1		1	
Geometry Group	4a		5		2		2	
Duration, T	1.00							

Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
Prop. Left-Turns	0.1		0.1	0.0	0.1		0.4	
Prop. Right-Turns	0.4		0.0	1.0	0.0		0.0	
Prop. Heavy Vehicle	0.0		0.0	0.0	0.0		0.0	
hLT-adj	0.2	0.2	0.5	0.5	0.2	0.2	0.2	0.2
hRT-adj	-0.6	-0.6	-0.7	-0.7	-0.6	-0.6	-0.6	-0.6
hHV-adj	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
hadj, computed	-0.2		0.1	-0.6	0.1		0.1	

Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
hd, initial value (s)	3.20		3.20	3.20	3.20		3.20	
x, initial	0.07		0.01	0.02	0.05		0.03	
hd, final value (s)	4.09		4.91	4.15	4.27		4.29	
x, final value	0.09		0.01	0.03	0.07		0.04	
Move-up time, m (s)	2.0		2.3		2.0		2.0	
Service Time, t_s (s)	2.1		2.6	1.9	2.3		2.3	

Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity (veh/h)	329		259	275	307		286	
Delay (s/veh)	7.50		7.67	6.97	7.58		7.48	
LOS	A		A	A	A		A	
Approach: Delay (s/veh)	7.50		7.16		7.58		7.48	
LOS	A		A		A		A	
Intersection Delay (s/veh)	7.46							
Intersection LOS	A							

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ALL-WAY STOP CONTROL ANALYSIS

General Information

Analyst	CC
Agency/Co.	County of Tulare
Date Performed	1/15/2021
Analysis Time Period	PM Peak Hour

Site Information

Intersection	#14 - Ave 310 at Rd 72
Jurisdiction	
Analysis Year	Existing+Project

Project ID *Goshen Residential Development*

East/West Street: *Avenue 310* North/South Street: *Road 72*

Volume Adjustments and Site Characteristics

Approach	Eastbound			Westbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	19	39	39	10	16	42
%Thrus Left Lane						

Approach	Northbound			Southbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	25	58	10	54	83	18
%Thrus Left Lane						

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LT	R	LTR		LTR	
PHF	1.00		1.00	1.00	1.00		1.00	
Flow Rate (veh/h)	97		26	42	93		155	
% Heavy Vehicles	5		5	5	5		5	
No. Lanes	1		2		1		1	
Geometry Group	4a		5		2		2	
Duration, T	1.00							

Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Prop. Left-Turns	0.2		0.4	0.0	0.3		0.3	
Prop. Right-Turns	0.4		0.0	1.0	0.1		0.1	
Prop. Heavy Vehicle	0.0		0.0	0.0	0.0		0.0	
hLT-adj	0.2	0.2	0.5	0.5	0.2	0.2	0.2	0.2
hRT-adj	-0.6	-0.6	-0.7	-0.7	-0.6	-0.6	-0.6	-0.6
hHV-adj	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
hadj, computed	-0.1		0.3	-0.6	0.1		0.1	

Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
hd, initial value (s)	3.20		3.20	3.20	3.20		3.20	
x, initial	0.09		0.02	0.04	0.08		0.14	
hd, final value (s)	4.56		5.46	4.57	4.55		4.49	
x, final value	0.12		0.04	0.05	0.12		0.19	
Move-up time, m (s)	2.0		2.3		2.0		2.0	
Service Time, t_s (s)	2.6		3.2	2.3	2.5		2.5	

Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity (veh/h)	347		276	292	343		405	
Delay (s/veh)	8.20		8.39	7.52	8.16		8.56	
LOS	A		A	A	A		A	
Approach: Delay (s/veh)	8.20		7.85		8.16		8.56	
LOS	A		A		A		A	
Intersection Delay (s/veh)	8.27							
Intersection LOS	A							

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ALL-WAY STOP CONTROL ANALYSIS

General Information

Analyst	CC
Agency/Co.	County of Tulare
Date Performed	1/15/2021
Analysis Time Period	AM Peak Hour

Site Information

Intersection	#15-Avenue 308 at Road 72
Jurisdiction	County of Tulare
Analysis Year	Existing+Project

Project ID *Goshen Residential Development*

East/West Street: *Avenue 308* North/South Street: *Road 72*

Volume Adjustments and Site Characteristics

Approach	Eastbound			Westbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	10	13	1	1	5	32
%Thrus Left Lane						

Approach	Northbound			Southbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	3	18	0	21		5
%Thrus Left Lane						

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LTR		LTR	
PHF	1.00		1.00		1.00		1.00	
Flow Rate (veh/h)	24		38		21		45	
% Heavy Vehicles	0		0		0		0	
No. Lanes	1		1		1		1	
Geometry Group	1		1		1		1	
Duration, T	0.25							

Saturation Headway Adjustment Worksheet

Prop. Left-Turns	0.4		0.0		0.1		0.5	
Prop. Right-Turns	0.0		0.8		0.0		0.1	
Prop. Heavy Vehicle	0.0		0.0		0.0		0.0	
hLT-adj	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
hRT-adj	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6
hHV-adj	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
hadj, computed	0.1		-0.5		0.0		0.0	

Departure Headway and Service Time

hd, initial value (s)	3.20		3.20		3.20		3.20	
x, initial	0.02		0.03		0.02		0.04	
hd, final value (s)	4.13		3.57		4.10		4.07	
x, final value	0.03		0.04		0.02		0.05	
Move-up time, m (s)	2.0		2.0		2.0		2.0	
Service Time, t_s (s)	2.1		1.6		2.1		2.1	

Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity (veh/h)	274		288		271		295	
Delay (s/veh)	7.25		6.71		7.20		7.29	
LOS	A		A		A		A	
Approach: Delay (s/veh)	7.25		6.71		7.20		7.29	
LOS	A		A		A		A	
Intersection Delay (s/veh)	7.09							
Intersection LOS	A							

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ALL-WAY STOP CONTROL ANALYSIS

General Information

Analyst	CC
Agency/Co.	County of Tulare
Date Performed	1/15/2021
Analysis Time Period	PM Peak Hour

Site Information

Intersection	#15-Avenue 308 at Road 72
Jurisdiction	County of Tulare
Analysis Year	Existing+Project

Project ID *Goshen Residential Development*

East/West Street: *Avenue 308* North/South Street: *Road 72*

Volume Adjustments and Site Characteristics

Approach	Eastbound			Westbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	12	19	5	2	11	51
%Thrus Left Lane						

Approach	Northbound			Southbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	3	21	3	58	48	
%Thrus Left Lane						

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LTR		LTR	
PHF	1.00		1.00		1.00		1.00	
Flow Rate (veh/h)	36		64		27		106	
% Heavy Vehicles	0		0		0		0	
No. Lanes	1		1		1		1	
Geometry Group	1		1		1		1	
Duration, T	0.25							

Saturation Headway Adjustment Worksheet

Prop. Left-Turns	0.3		0.0		0.1		0.5	
Prop. Right-Turns	0.1		0.8		0.1		0.0	
Prop. Heavy Vehicle	0.0		0.0		0.0		0.0	
hLT-adj	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
hRT-adj	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6
hHV-adj	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
hadj, computed	-0.0		-0.5		-0.0		0.1	

Departure Headway and Service Time

hd, initial value (s)	3.20		3.20		3.20		3.20	
x, initial	0.03		0.06		0.02		0.09	
hd, final value (s)	4.24		3.76		4.17		4.25	
x, final value	0.04		0.07		0.03		0.13	
Move-up time, m (s)	2.0		2.0		2.0		2.0	
Service Time, t_s (s)	2.2		1.8		2.2		2.2	

Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity (veh/h)	286		314		277		356	
Delay (s/veh)	7.43		7.03		7.31		7.85	
LOS	A		A		A		A	
Approach: Delay (s/veh)	7.43		7.03		7.31		7.85	
LOS	A		A		A		A	
Intersection Delay (s/veh)	7.50							
Intersection LOS	A							

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#17

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	15	415	6	10	496	0	4	0	4	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0				
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00				
Frt	1.00	1.00		1.00	1.00			0.93				
Flt Protected	0.95	1.00		0.95	1.00			0.98				
Satd. Flow (prot)	1570	3132		1570	3139			1646				
Flt Permitted	0.44	1.00		0.49	1.00			0.94				
Satd. Flow (perm)	723	3132		807	3139			1590				
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	16	451	7	11	539	0	4	0	4	0	0	0
RTOR Reduction (vph)	0	2	0	0	0	0	0	2	0	0	0	0
Lane Group Flow (vph)	16	456	0	11	539	0	0	6	0	0	0	0
Heavy Vehicles (%)	15%	15%	15%	15%	15%	15%	5%	5%	5%	2%	2%	2%
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	16.0	16.0		16.0	16.0			16.0				
Effective Green, g (s)	16.0	16.0		16.0	16.0			16.0				
Actuated g/C Ratio	0.40	0.40		0.40	0.40			0.40				
Clearance Time (s)	4.0	4.0		4.0	4.0			4.0				
Lane Grp Cap (vph)	289	1253		323	1256			636				
v/s Ratio Prot		0.15			c0.17							
v/s Ratio Perm	0.02			0.01				c0.00				
v/c Ratio	0.06	0.36		0.03	0.43			0.01				
Uniform Delay, d1	7.4	8.4		7.3	8.7			7.2				
Progression Factor	0.51	0.71		1.00	1.00			1.00				
Incremental Delay, d2	0.4	0.8		0.2	1.1			0.0				
Delay (s)	4.1	6.8		7.5	9.8			7.3				
Level of Service	A	A		A	A			A				
Approach Delay (s)		6.7			9.7			7.3			0.0	
Approach LOS		A			A			A			A	

Intersection Summary			
HCM Average Control Delay	8.3	HCM Level of Service	A
HCM Volume to Capacity ratio	0.22		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	23.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

#17

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	35	630	2	12	573	0	9	0	15	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0				
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00				
Frt	1.00	1.00		1.00	1.00			0.92				
Flt Protected	0.95	1.00		0.95	1.00			0.98				
Satd. Flow (prot)	1570	3138		1570	3139			1628				
Flt Permitted	0.38	1.00		0.34	1.00			0.94				
Satd. Flow (perm)	629	3138		563	3139			1566				
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	38	685	2	13	623	0	10	0	16	0	0	0
RTOR Reduction (vph)	0	1	0	0	0	0	0	10	0	0	0	0
Lane Group Flow (vph)	38	686	0	13	623	0	0	16	0	0	0	0
Heavy Vehicles (%)	15%	15%	15%	15%	15%	15%	5%	5%	5%	2%	2%	2%
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	16.0	16.0		16.0	16.0			16.0				
Effective Green, g (s)	16.0	16.0		16.0	16.0			16.0				
Actuated g/C Ratio	0.40	0.40		0.40	0.40			0.40				
Clearance Time (s)	4.0	4.0		4.0	4.0			4.0				
Lane Grp Cap (vph)	252	1255		225	1256			626				
v/s Ratio Prot		c0.22			0.20							
v/s Ratio Perm	0.06			0.02				c0.01				
v/c Ratio	0.15	0.55		0.06	0.50			0.03				
Uniform Delay, d1	7.7	9.2		7.4	9.0			7.3				
Progression Factor	0.47	0.68		1.00	1.00			1.00				
Incremental Delay, d2	1.1	1.5		0.5	1.4			0.1				
Delay (s)	4.7	7.8		7.9	10.4			7.4				
Level of Service	A	A		A	B			A				
Approach Delay (s)		7.6			10.3			7.4			0.0	
Approach LOS		A			B			A			A	

Intersection Summary			
HCM Average Control Delay	8.8	HCM Level of Service	A
HCM Volume to Capacity ratio	0.29		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	34.1%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	CC	Intersection	#18 Goshen at Road 76
Agency/Co.	County of Tulare	Jurisdiction	
Date Performed	1/19/2021	Analysis Year	Existing+Project
Analysis Time Period	AM Peak Hour		

Project Description: Goshen Residential Development

East/West Street: Goshen | North/South Street: Road 76

Intersection Orientation: East-West | Study Period (hrs): 1.00

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	1	99	14	26	120	29
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Hourly Flow Rate, HFR (veh/h)	1	99	14	26	120	29
Percent Heavy Vehicles	10	--	--	10	--	--
Median Type	Raised curb					
RT Channelized			0			0
Lanes	1	2	0	1	2	0
Configuration	L	T	TR	L	T	TR
Upstream Signal		0			0	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	14	6	14	0	15	1
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Hourly Flow Rate, HFR (veh/h)	14	6	14	0	15	1
Percent Heavy Vehicles	10	10	10	10	10	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L	L		LTR			LTR	
v (veh/h)	1	26		34			16	
C (m) (veh/h)	1373	1418		839			709	
v/c	0.00	0.02		0.04			0.02	
95% queue length	0.00	0.06		0.13			0.07	
Control Delay (s/veh)	7.6	7.6		9.5			10.2	
LOS	A	A		A			B	
Approach Delay (s/veh)	--	--	9.5			10.2		
Approach LOS	--	--	A			B		

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TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	CC
Agency/Co.	County of Tulare
Date Performed	1/19/2021
Analysis Time Period	PM Peak Hour

Site Information

Intersection	#18 Goshen at Road 76
Jurisdiction	
Analysis Year	Existing+Project

Project Description: Goshen Residential Development

East/West Street: Goshen | North/South Street: Road 76

Intersection Orientation: East-West | Study Period (hrs): 1.00

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	4	201	10	18	119	125
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Hourly Flow Rate, HFR (veh/h)	4	201	10	18	119	125
Percent Heavy Vehicles	10	--	--	10	--	--
Median Type	Raised curb					
RT Channelized			0			0
Lanes	1	2	0	1	2	0
Configuration	L	T	TR	L	T	TR
Upstream Signal		0			0	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	15	27	71	0	20	0
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Hourly Flow Rate, HFR (veh/h)	15	27	71	0	20	0
Percent Heavy Vehicles	10	10	10	10	10	10
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L	L		LTR			LTR	
v (veh/h)	4	18		113			20	
C (m) (veh/h)	1263	1300		802			649	
v/c	0.00	0.01		0.14			0.03	
95% queue length	0.01	0.04		0.49			0.10	
Control Delay (s/veh)	7.9	7.8		10.2			10.7	
LOS	A	A		B			B	
Approach Delay (s/veh)	--	--	10.2			10.7		
Approach LOS	--	--	B			B		

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ATTACHMENT "E"

Tribal Cultural Resources

NATIVE AMERICAN HERITAGE COMMISSION

CHAIRPERSON
Laura Miranda
Luiseño

VICE CHAIRPERSON
Reginald Pagaling
Chumash

SECRETARY
Merri Lopez-Keifer
Luiseño

PARLIAMENTARIAN
Russell Attebery
Karuk

COMMISSIONER
Marshall McKay
Wintun

COMMISSIONER
William Mungary
Paiute/White Mountain Apache

COMMISSIONER
Julie Tumamait-Stenslie
Chumash

COMMISSIONER
[**Vacant**]

COMMISSIONER
[**Vacant**]

EXECUTIVE SECRETARY
Christina Snider
Pomo

NAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov

January 6, 2021

Hector Guerra
Tulare County Resource Managemento Agency

Via Email to: HGuerra@co.tulare.ca.us; JWillis@co.tulare.ca.us

Re: Native American Tribal Consultation, Pursuant to the Assembly Bill 52 (AB 52), Amendments to the California Environmental Quality Act (CEQA) (Chapter 532, Statutes of 2014), Public Resources Code Sections 5097.94 (m), 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2 and 21084.3, Swift Homes TSM 20-003 Project, Tulare County

Dear Mr. Guerra:

Pursuant to Public Resources Code section 21080.3.1 (c), attached is a consultation list of tribes that are traditionally and culturally affiliated with the geographic area of the above-listed project. Please note that the intent of the AB 52 amendments to CEQA is to avoid and/or mitigate impacts to tribal cultural resources, (Pub. Resources Code §21084.3 (a)) ("Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource.")

Public Resources Code sections 21080.3.1 and 21084.3(c) require CEQA lead agencies to consult with California Native American tribes that have requested notice from such agencies of proposed projects in the geographic area that are traditionally and culturally affiliated with the tribes on projects for which a Notice of Preparation or Notice of Negative Declaration or Mitigated Negative Declaration has been filed on or after July 1, 2015. Specifically, Public Resources Code section 21080.3.1 (d) provides:

Within 14 days of determining that an application for a project is complete or a decision by a public agency to undertake a project, the lead agency shall provide formal notification to the designated contact of, or a tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, which shall be accomplished by means of at least one written notification that includes a brief description of the proposed project and its location, the lead agency contact information, and a notification that the California Native American tribe has 30 days to request consultation pursuant to this section.

The AB 52 amendments to CEQA law does not preclude initiating consultation with the tribes that are culturally and traditionally affiliated within your jurisdiction prior to receiving requests for notification of projects in the tribe's areas of traditional and cultural affiliation. The Native American Heritage Commission (NAHC) recommends, but does not require, early consultation as a best practice to ensure that lead agencies receive sufficient information about cultural resources in a project area to avoid damaging effects to tribal cultural resources.

The NAHC also recommends, but does not require that agencies should also include with their notification letters, information regarding any cultural resources assessment that has been completed on the area of potential effect (APE), such as:

1. The results of any record search that may have been conducted at an Information Center of the California Historical Resources Information System (CHRIS), including, but not limited to:

- A listing of any and all known cultural resources that have already been recorded on or adjacent to the APE, such as known archaeological sites;
- Copies of any and all cultural resource records and study reports that may have been provided by the Information Center as part of the records search response;
- Whether the records search indicates a low, moderate, or high probability that unrecorded cultural resources are located in the APE; and
- If a survey is recommended by the Information Center to determine whether previously unrecorded cultural resources are present.

2. The results of any archaeological inventory survey that was conducted, including:

- Any report that may contain site forms, site significance, and suggested mitigation measures.

  All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for public disclosure in accordance with Government Code section 6254.10.

3. The result of any Sacred Lands File (SLF) check conducted through the Native American Heritage Commission was negative.

4. Any ethnographic studies conducted for any area including all or part of the APE; and

5. Any geotechnical reports regarding all or part of the APE.

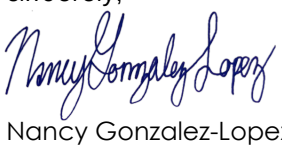
Lead agencies should be aware that records maintained by the NAHC and CHRIS are not exhaustive and a negative response to these searches does not preclude the existence of a tribal cultural resource. A tribe may be the only source of information regarding the existence of a tribal cultural resource.

This information will aid tribes in determining whether to request formal consultation. In the event that they do, having the information beforehand will help to facilitate the consultation process.

If you receive notification of change of addresses and phone numbers from tribes, please notify the NAHC. With your assistance, we can assure that our consultation list remains current.

If you have any questions, please contact me at my email address: Nancy.Gonzalez-Lopez@nahc.ca.gov.

Sincerely,



Nancy Gonzalez-Lopez
Cultural Resources Analyst

Attachment

Native American Heritage Commission
Tribal Consultation List
January 6, 2021

Big Sandy Rancheria of Western Mono Indians
Elizabeth D. Kipp, Chairperson
PO. Box 337 — Western Mono
Auberry , CA 93602
lkipp@bsrnation.com
(559) 374-0066

Dunlap Band of Mono Indians
Benjamin Charley Jr., Tribal Chair
P.O. Box 14 — Mono
Dunlap , CA 93621
ben.charley@yahoo.com
(760) 258-5244

Dunlap Band of Mono Indians
Dirk Charley, Tribal Secretary
5509 E. McKenzie Avenue — Mono
Fresno , CA 93727
dcharley2016@gmail.com
(559) 554-5433

Kern Valley Indian Community
Julie Turner, Secretary
P.O. Box 1010 — Kawaiisu
Lake Isabella , CA 93240 — Tubatulabal
(661) 340-0032 Cell

Kern Valley Indian Community
Robert Robinson, Chairperson
P.O. Box 1010 — Tubatulabal
Lake Isabella , CA 93240 — Kawaiisu
bbutterbredt@gmail.com
(760) 378-2915 Cell

Kern Valley Indian Community
Brandy Kendricks
30741 Foxridge Court — Kawaiisu
Tehachapi , CA 93561 — Tubatulabal
krazykendricks@hotmail.com
(661) 821-1733

Santa Rosa Rancheria Tachi Yokut Tribe
Leo Sisco, Chairperson
P.O. Box 8 — Tache
Lemoore , CA 93245 — Tachi
Yokut
(559) 924-1278

Tubatulabals of Kern Valley
Robert L. Gomez, Jr., Tribal Chairperson
P.O. Box 226 — Tubatulabal
Lake Isabella , CA 93240
(760) 379-4590

Tule River Indian Tribe
Neil Peyron, Chairperson
P.O. Box 589 — Yokuts
Porterville , CA 93258
neil.peyron@tulerivertribe-nsn.gov
(559) 781-4271

Wuksache Indian Tribe/Eshom Valley Band
Kenneth Woodrow, Chairperson
1179 Rock Haven Ct. — Foothill Yokuts
Salinas , CA 93906 — Mono
kwood8934@aol.com — Wuksache
(831) 443-9702

This list is current only as of the date of this document and is based on the information available to the Commission on the date it was produced. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097. 94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list applicable only for consultation with Native American tribes under Public Resources Code Sections 21080.3.1 for the proposed: Swift Homes TSM 20-003 Project, Tulare County.

From:	Jessica R Willis
To:	Ken Woodrow; Robert Robinson; Felix Christman; Brandy Kendricks; Julie Turner; Bianca Arias; Greg Cuara; Leo Sisco; Robert Jeff; Samantha McCarty; Shana Powers; Robert L. Gomez; Neil Peyron; Kerri Vera
Cc:	Cheng Chi; Hector Guerra
Subject:	Tribal Consultation Request for Swift Homes TSM 20-003
Date:	Sunday, December 27, 2020 11:12:45 AM
Attachments:	Swift Homes TSM 20-003Project Maps.pdf Swift Homes TSM 20-003_Topo Map.pdf Swift Homes TSM 20-003_Project Description.pdf 20-435 Results Letter.pdf

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Good morning all.

Pursuant to AB 52, the County of Tulare is providing the following information for your review of the Swift Homes (TSM 20-003) project within the Goshen Urban Development Boundary. If your Tribe wishes to initiate consultation with the County please respond within 30 days of receipt of this email (email, hard copy, or by phone are acceptable).

Please note that the County is upgrading its email system beginning at noon on December 27, 2020, and the transition will not be complete until December 31, 2020. During this time County staff will not have access to their email. Our email will be fully operational on January 1, 2021. If you have any questions or comments, please feel free to contact me by phone during this time. Also, starting January 4, 2021, email addresses will change from @co.tulare.ca.us to @tularecounty.ca.gov.

Jessica Willis, Planner IV
Tulare County Resource Management Agency
Economic Development and Planning Branch
Environmental Planning Division
Phone: (559) 624-7122
E-mail: JWillis@co.tulare.ca.us

RESOURCE MANAGEMENT AGENCY

5961 SOUTH MOONEY BLVD
VISALIA, CA 93277
PHONE (559) 624-7000
FAX (559) 730-2653

Aaron R. Bock — Economic Development and Planning
Reed Schenke — Public Works
Sherman Dix — Fiscal Services

REED SCHENKE, DIRECTOR — MICHAEL WASHAM, ASSOCIATE DIRECTOR

February 16, 2021

Big Sandy Rancheria of Western Mono Indians
Elizabeth D. Kipp, Chairperson
P.O. Box 337
Auberry, CA 93602

SENT VIA E-MAIL &
USPS CERTIFIED MAIL

RE: Project Notification Pursuant to Assembly Bill (AB) 52
Swift Homes Subdivision (TSM 20-003)

Dear Chairperson Kipp,

Pursuant to the provisions of AB 52, as the lead agency under the California Environmental Quality Act (CEQA), the County of Tulare hereby extends an invitation to consult on the CEQA review of the Swift Homes Subdivision (TSM 20-003) Project in order to assist with identifying and/or preserving and/or mitigating project impacts to Native American cultural places including:

- Native American sanctified cemetery, place of worship, religious or ceremonial site, or sacred shrine; and
- Native American historic, cultural, or sacred site that is listed or may be eligible for listing in the California Register of Historical Resources including historic or prehistoric ruins and any burial ground, archaeological, or historic site.

In accordance with the CEQA (Pub. Resources Code, § 21000 et seq.), the County of Tulare Resource Management Agency (RMA) will be preparing a Mitigated Negative Declaration (MND) to evaluate the environmental effects associated with the Project.

Sacred Lands File Search

The County requested a Sacred Lands File (SLF) search through the Native American Heritage Commission (NAHC) on December 1, 2020, for the Project. The SLF search returned on January 6, 2021, with "negative" results; however, the NAHC recommended consultation with your Tribe. Results of the SLF search are enclosed for your review.

California Historical Resources Information System

A California Historical Resources Information System (CHRIS) search for the project area was requested through the Southern San Joaquin Valley Information Center (SSJVIC) on December 1, 2020. The CHRIS search (Record Search 20-435) dated December 14, 2020, indicated that there has been one (1) cultural resources study conducted within the project area (site) and and ten (10) studies conducted

within the one-half mile radius. There are no recorded resources within the project area and one (1) recorded resource, an historic era railroad, within the one-half mile radius. However, the SSJVIC recommended that a field survey be conducted to determine if cultural resources are present on the project site. As such, the County is requesting consultation with your Tribe to determine whether a Cultural Resources Study will be required. The results of the CHRIS search are enclosed for your review. Should the County not receive a response to this request within thirty (30) days of receipt of this letter, it will be presumed that there are no cultural resources of concern and a Cultural Resources Study will not be required.

If your Tribe desires to consult with the County on the review of this project, please respond in writing within thirty (30) days of receipt of this letter. Written correspondence can be mailed to the address provided above or e-mailed to the addresses provided below. **If the County does not receive a response to this notification, it will be presumed that your Tribe has declined the opportunity to consult on this project pursuant to AB 52.**

Thank you for your consideration on this matter and please do not hesitate to contact me by phone or e-mail should you have any questions or need additional information. If you need immediate assistance and I am unavailable, please contact, Hector Guerra, Chief of Environmental Planning, by phone at (559) 624-7121, or by email at hguerra@tularecounty.ca.gov .

Sincerely,

Jessica Willis
Planner IV
(559) 624-7121
jwillis@tularecounty.ca.gov

Enclosures: Project Description
Project Maps
Sacred Lands File Search Results
California Historical Resources Information Search Results

RESOURCE MANAGEMENT AGENCY

5961 SOUTH MOONEY BLVD
VISALIA, CA 93277
PHONE (559) 624-7000
FAX (559) 730-2653

Aaron R. Bock — Economic Development and Planning
Reed Schenke — Public Works
Sherman Dix — Fiscal Services

REED SCHENKE, DIRECTOR — MICHAEL WASHAM, ASSOCIATE DIRECTOR

February 16, 2021

Dunlap Band of Mono Indians
Benjamin Charley, Jr., Tribal Chair
P.O. Box 14
Dunlap, CA 93621

SENT VIA E-MAIL &
USPS CERTIFIED MAIL

RE: Project Notification Pursuant to Assembly Bill (AB) 52
Swift Homes Subdivision (TSM 20-003)

Dear Tribal Chair Charley,

Pursuant to the provisions of AB 52, as the lead agency under the California Environmental Quality Act (CEQA), the County of Tulare hereby extends an invitation to consult on the CEQA review of the Swift Homes Subdivision (TSM 20-003) Project in order to assist with identifying and/or preserving and/or mitigating project impacts to Native American cultural places including:

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Thank you for your consideration on this matter and please do not hesitate to contact me by phone or e-mail should you have any questions or need additional information. If you need immediate assistance and I am unavailable, please contact, Hector Guerra, Chief of Environmental Planning, by phone at (559) 624-7121, or by email at hguerra@tularecounty.ca.gov .

Sincerely,

Jessica Willis
Planner IV
(559) 624-7121
jwillis@tularecounty.ca.gov

Enclosures: Project Description
Project Maps
Sacred Lands File Search Results
California Historical Resources Information Search Results

RESOURCE MANAGEMENT AGENCY

5961 SOUTH MOONEY BLVD
VISALIA, CA 93277
PHONE (559) 624-7000
FAX (559) 730-2653

Aaron R. Bock — Economic Development and Planning
Reed Schenke — Public Works
Sherman Dix — Fiscal Services

REED SCHENKE, DIRECTOR — MICHAEL WASHAM, ASSOCIATE DIRECTOR

February 16, 2021

Dunlap Band of Mono Indians
Dirk Charley, Tribal Secretary
5509 E. McKenzie Ave.
Fresno, CA 93727

SENT VIA E-MAIL &
USPS CERTIFIED MAIL

RE: Project Notification Pursuant to Assembly Bill (AB) 52
Swift Homes Subdivision (TSM 20-003)

Dear Mr. Charley,

Pursuant to the provisions of AB 52, as the lead agency under the California Environmental Quality Act (CEQA), the County of Tulare hereby extends an invitation to consult on the CEQA review of the Swift Homes Subdivision (TSM 20-003) Project in order to assist with identifying and/or preserving and/or mitigating project impacts to Native American cultural places including:

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Sincerely,

Jessica Willis
Planner IV
(559) 624-7121
jwillis@tularecounty.ca.gov

Enclosures: Project Description
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RESOURCE MANAGEMENT AGENCY

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VISALIA, CA 93277
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FAX (559) 730-2653

Aaron R. Bock — Economic Development and Planning
Reed Schenke — Public Works
Sherman Dix — Fiscal Services

REED SCHENKE, DIRECTOR — MICHAEL WASHAM, ASSOCIATE DIRECTOR

February 16, 2021

Kern Valley Indian Community
Brandy Kendricks
30741 Foxridge Court
Tehachapi, CA 93561

SENT VIA E-MAIL &
USPS CERTIFIED MAIL

RE: Project Notification Pursuant to Assembly Bill (AB) 52
Swift Homes Subdivision (TSM 20-003)

Dear Ms. Kendricks,

Pursuant to the provisions of AB 52, as the lead agency under the California Environmental Quality Act (CEQA), the County of Tulare hereby extends an invitation to consult on the CEQA review of the Swift Homes Subdivision (TSM 20-003) Project in order to assist with identifying and/or preserving and/or mitigating project impacts to Native American cultural places including:

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Sincerely,

Jessica Willis
Planner IV
(559) 624-7121
jwillis@tularecounty.ca.gov

Enclosures: Project Description
Project Maps
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California Historical Resources Information Search Results

RESOURCE MANAGEMENT AGENCY

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PHONE (559) 624-7000
FAX (559) 730-2653

Aaron R. Bock — Economic Development and Planning
Reed Schenke — Public Works
Sherman Dix — Fiscal Services

REED SCHENKE, DIRECTOR — MICHAEL WASHAM, ASSOCIATE DIRECTOR

February 16, 2021

Kern Valley Indian Community
Robert Robinson, Chairperson
P.O. Box 1010
Lake Isabella, CA 93240

SENT VIA E-MAIL &
USPS CERTIFIED MAIL

RE: Project Notification Pursuant to Assembly Bill (AB) 52
Swift Homes Subdivision (TSM 20-003)

Dear Chairperson Robinson,

Pursuant to the provisions of AB 52, as the lead agency under the California Environmental Quality Act (CEQA), the County of Tulare hereby extends an invitation to consult on the CEQA review of the Swift Homes Subdivision (TSM 20-003) Project in order to assist with identifying and/or preserving and/or mitigating project impacts to Native American cultural places including:

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In accordance with the CEQA (Pub. Resources Code, § 21000 et seq.), the County of Tulare Resource Management Agency (RMA) will be preparing a Mitigated Negative Declaration (MND) to evaluate the environmental effects associated with the Project.

Sacred Lands File Search

The County requested a Sacred Lands File (SLF) search through the Native American Heritage Commission (NAHC) on December 1, 2020, for the Project. The SLF search returned on January 6, 2021, with "negative" results; however, the NAHC recommended consultation with your Tribe. Results of the SLF search are enclosed for your review.

California Historical Resources Information System

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within the one-half mile radius. There are no recorded resources within the project area and one (1) recorded resource, an historic era railroad, within the one-half mile radius. However, the SSJVIC recommended that a field survey be conducted to determine if cultural resources are present on the project site. As such, the County is requesting consultation with your Tribe to determine whether a Cultural Resources Study will be required. The results of the CHRIS search are enclosed for your review. Should the County not receive a response to this request within thirty (30) days of receipt of this letter, it will be presumed that there are no cultural resources of concern and a Cultural Resources Study will not be required.

If your Tribe desires to consult with the County on the review of this project, please respond in writing within thirty (30) days of receipt of this letter. Written correspondence can be mailed to the address provided above or e-mailed to the addresses provided below. **If the County does not receive a response to this notification, it will be presumed that your Tribe has declined the opportunity to consult on this project pursuant to AB 52.**

Thank you for your consideration on this matter and please do not hesitate to contact me by phone or e-mail should you have any questions or need additional information. If you need immediate assistance and I am unavailable, please contact, Hector Guerra, Chief of Environmental Planning, by phone at (559) 624-7121, or by email at hguerra@tularecounty.ca.gov .

Sincerely,

Jessica Willis
Planner IV
(559) 624-7121
jwillis@tularecounty.ca.gov

Enclosures: Project Description
Project Maps
Sacred Lands File Search Results
California Historical Resources Information Search Results

RESOURCE MANAGEMENT AGENCY

5961 SOUTH MOONEY BLVD
VISALIA, CA 93277
PHONE (559) 624-7000
FAX (559) 730-2653

Aaron R. Bock — Economic Development and Planning
Reed Schenke — Public Works
Sherman Dix — Fiscal Services

REED SCHENKE, DIRECTOR — MICHAEL WASHAM, ASSOCIATE DIRECTOR

February 16, 2021

Kern Valley Indian Community
Julie Turner, Secretary
P.O. Box 1010
Lake Isabella, CA 93240

SENT VIA E-MAIL &
USPS CERTIFIED MAIL

RE: Project Notification Pursuant to Assembly Bill (AB) 52
Swift Homes Subdivision (TSM 20-003)

Dear Ms. Turner,

Pursuant to the provisions of AB 52, as the lead agency under the California Environmental Quality Act (CEQA), the County of Tulare hereby extends an invitation to consult on the CEQA review of the Swift Homes Subdivision (TSM 20-003) Project in order to assist with identifying and/or preserving and/or mitigating project impacts to Native American cultural places including:

- Native American sanctified cemetery, place of worship, religious or ceremonial site, or sacred shrine; and
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Sincerely,

Jessica Willis
Planner IV
(559) 624-7121
jwillis@tularecounty.ca.gov

Enclosures: Project Description
Project Maps
Sacred Lands File Search Results
California Historical Resources Information Search Results

RESOURCE MANAGEMENT AGENCY

5961 SOUTH MOONEY BLVD
VISALIA, CA 93277
PHONE (559) 624-7000
FAX (559) 730-2653

Aaron R. Bock — Economic Development and Planning
Reed Schenke — Public Works
Sherman Dix — Fiscal Services

REED SCHENKE, DIRECTOR — MICHAEL WASHAM, ASSOCIATE DIRECTOR

February 16, 2021

Santa Rosa Rancheria Tachi Yokut Tribe
Cultural Department
Greg Cuara, Cultural Specialist
P. O. Box 8
Lemoore, CA 93245

SENT VIA E-MAIL &
USPS CERTIFIED MAIL

RE: Project Notification Pursuant to Assembly Bill (AB) 52
Swift Homes Subdivision (TSM 20-003)

Dear Mr. Cuara,

Pursuant to the provisions of AB 52, as the lead agency under the California Environmental Quality Act (CEQA), the County of Tulare hereby extends an invitation to consult on the CEQA review of the Swift Homes Subdivision (TSM 20-003) Project in order to assist with identifying and/or preserving and/or mitigating project impacts to Native American cultural places including:

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In accordance with the CEQA (Pub. Resources Code, § 21000 et seq.), the County of Tulare Resource Management Agency (RMA) will be preparing a Mitigated Negative Declaration (MND) to evaluate the environmental effects associated with the Project.

Sacred Lands File Search

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Sincerely,

Jessica R. Willis

Jessica Willis
Planner IV
(559) 624-7121
jwillis@tularecounty.ca.gov

Enclosures: Project Description
Project Maps
Sacred Lands File Search Results
California Historical Resources Information Search Results

RESOURCE MANAGEMENT AGENCY

5961 SOUTH MOONEY BLVD
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PHONE (559) 624-7000
FAX (559) 730-2653

Aaron R. Bock — Economic Development and Planning
Reed Schenke — Public Works
Sherman Dix — Fiscal Services

REED SCHENKE, DIRECTOR — MICHAEL WASHAM, ASSOCIATE DIRECTOR

February 16, 2021

Santa Rosa Rancheria Tachi Yokut Tribe
Bianca Arias, Administrative Assistant
P. O. Box 8
Lemoore, CA 93245

SENT VIA E-MAIL &
USPS CERTIFIED MAIL

RE: Project Notification Pursuant to Assembly Bill (AB) 52
Swift Homes Subdivision (TSM 20-003)

Dear Ms. Arias,

Pursuant to the provisions of AB 52, as the lead agency under the California Environmental Quality Act (CEQA), the County of Tulare hereby extends an invitation to consult on the CEQA review of the Swift Homes Subdivision (TSM 20-003) Project in order to assist with identifying and/or preserving and/or mitigating project impacts to Native American cultural places including:

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Sincerely,

Jessica Willis
Planner IV
(559) 624-7121
jwillis@tularecounty.ca.gov

Enclosures: Project Description
Project Maps
Sacred Lands File Search Results
California Historical Resources Information Search Results

RESOURCE MANAGEMENT AGENCY

5961 SOUTH MOONEY BLVD
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PHONE (559) 624-7000
FAX (559) 730-2653

Aaron R. Bock — Economic Development and Planning
Reed Schenke — Public Works
Sherman Dix — Fiscal Services

REED SCHENKE, DIRECTOR — MICHAEL WASHAM, ASSOCIATE DIRECTOR

February 16, 2021

Santa Rosa Rancheria Tachi Yokut Tribe
Robert Jeff, Vice-Chair
P. O. Box 8
Lemoore, CA 93245

SENT VIA E-MAIL &
USPS CERTIFIED MAIL

RE: Project Notification Pursuant to Assembly Bill (AB) 52
Swift Homes Subdivision (TSM 20-003)

Dear Vice-Chair Jeff,

Pursuant to the provisions of AB 52, as the lead agency under the California Environmental Quality Act (CEQA), the County of Tulare hereby extends an invitation to consult on the CEQA review of the Swift Homes Subdivision (TSM 20-003) Project in order to assist with identifying and/or preserving and/or mitigating project impacts to Native American cultural places including:

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Sincerely,

Jessica Willis
Planner IV
(559) 624-7121
jwillis@tularecounty.ca.gov

Enclosures: Project Description
Project Maps
Sacred Lands File Search Results
California Historical Resources Information Search Results

RESOURCE MANAGEMENT AGENCY

5961 SOUTH MOONEY BLVD
VISALIA, CA 93277
PHONE (559) 624-7000
FAX (559) 730-2653

Aaron R. Bock — Economic Development and Planning
Reed Schenke — Public Works
Sherman Dix — Fiscal Services

REED SCHENKE, DIRECTOR — MICHAEL WASHAM, ASSOCIATE DIRECTOR

February 16, 2021

Santa Rosa Rancheria Tachi Yokut Tribe
Cultural Department
Samantha McCarty, Cultural Specialist
P. O. Box 8
Lemoore, CA 93245

SENT VIA E-MAIL &
USPS CERTIFIED MAIL

RE: Project Notification Pursuant to Assembly Bill (AB) 52
Swift Homes Subdivision (TSM 20-003)

Dear Ms. McCarty,

Pursuant to the provisions of AB 52, as the lead agency under the California Environmental Quality Act (CEQA), the County of Tulare hereby extends an invitation to consult on the CEQA review of the Swift Homes Subdivision (TSM 20-003) Project in order to assist with identifying and/or preserving and/or mitigating project impacts to Native American cultural places including:

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Sincerely,

Jessica R. Willis

Jessica Willis
Planner IV
(559) 624-7121
jwillis@tularecounty.ca.gov

Enclosures: Project Description
Project Maps
Sacred Lands File Search Results
California Historical Resources Information Search Results

RESOURCE MANAGEMENT AGENCY

5961 SOUTH MOONEY BLVD
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PHONE (559) 624-7000
FAX (559) 730-2653

Aaron R. Bock — Economic Development and Planning
Reed Schenke — Public Works
Sherman Dix — Fiscal Services

REED SCHENKE, DIRECTOR — MICHAEL WASHAM, ASSOCIATE DIRECTOR

February 16, 2021

Santa Rosa Rancheria Tachi Yokut Tribe
Cultural Department
Shana Powers, Director
P. O. Box 8
Lemoore, CA 93245

SENT VIA E-MAIL &
USPS CERTIFIED MAIL

RE: Project Notification Pursuant to Assembly Bill (AB) 52
Swift Homes Subdivision (TSM 20-003)

Dear Ms. Powers,

Pursuant to the provisions of AB 52, as the lead agency under the California Environmental Quality Act (CEQA), the County of Tulare hereby extends an invitation to consult on the CEQA review of the Swift Homes Subdivision (TSM 20-003) Project in order to assist with identifying and/or preserving and/or mitigating project impacts to Native American cultural places including:

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Sincerely,

Jessica R. Willis

Jessica Willis
Planner IV
(559) 624-7121
jwillis@tularecounty.ca.gov

Enclosures: Project Description
Project Maps
Sacred Lands File Search Results
California Historical Resources Information Search Results

RESOURCE MANAGEMENT AGENCY

5961 SOUTH MOONEY BLVD
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PHONE (559) 624-7000
FAX (559) 730-2653

Aaron R. Bock — Economic Development and Planning
Reed Schenke — Public Works
Sherman Dix — Fiscal Services

REED SCHENKE, DIRECTOR — MICHAEL WASHAM, ASSOCIATE DIRECTOR

February 16, 2021

Santa Rosa Rancheria Tachi Yokut Tribe
Leo Sisco, Chairperson
P. O. Box 8
Lemoore, CA 93245

SENT VIA E-MAIL &
USPS CERTIFIED MAIL

RE: Project Notification Pursuant to Assembly Bill (AB) 52
Swift Homes Subdivision (TSM 20-003)

Dear Chairperson Sisco,

Pursuant to the provisions of AB 52, as the lead agency under the California Environmental Quality Act (CEQA), the County of Tulare hereby extends an invitation to consult on the CEQA review of the Swift Homes Subdivision (TSM 20-003) Project in order to assist with identifying and/or preserving and/or mitigating project impacts to Native American cultural places including:

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Sincerely,

Jessica Willis
Planner IV
(559) 624-7121
jwillis@tularecounty.ca.gov

Enclosures: Project Description
Project Maps
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RESOURCE MANAGEMENT AGENCY

5961 SOUTH MOONEY BLVD
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PHONE (559) 624-7000
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Aaron R. Bock — Economic Development and Planning
Reed Schenke — Public Works
Sherman Dix — Fiscal Services

REED SCHENKE, DIRECTOR — MICHAEL WASHAM, ASSOCIATE DIRECTOR

February 16, 2021

Tubatulabals of Kern Valley
Robert L. Gomez, Jr., Chairperson
P.O. Box 226
Lake Isabella, CA 93240

SENT VIA E-MAIL &
USPS CERTIFIED MAIL

RE: Project Notification Pursuant to Assembly Bill (AB) 52
Swift Homes Subdivision (TSM 20-003)

Dear Chairperson Gomez,

Pursuant to the provisions of AB 52, as the lead agency under the California Environmental Quality Act (CEQA), the County of Tulare hereby extends an invitation to consult on the CEQA review of the Swift Homes Subdivision (TSM 20-003) Project in order to assist with identifying and/or preserving and/or mitigating project impacts to Native American cultural places including:

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within the one-half mile radius. There are no recorded resources within the project area and one (1) recorded resource, an historic era railroad, within the one-half mile radius. However, the SSJVIC recommended that a field survey be conducted to determine if cultural resources are present on the project site. As such, the County is requesting consultation with your Tribe to determine whether a Cultural Resources Study will be required. The results of the CHRIS search are enclosed for your review. Should the County not receive a response to this request within thirty (30) days of receipt of this letter, it will be presumed that there are no cultural resources of concern and a Cultural Resources Study will not be required.

If your Tribe desires to consult with the County on the review of this project, please respond in writing within thirty (30) days of receipt of this letter. Written correspondence can be mailed to the address provided above or e-mailed to the addresses provided below. **If the County does not receive a response to this notification, it will be presumed that your Tribe has declined the opportunity to consult on this project pursuant to AB 52.**

Thank you for your consideration on this matter and please do not hesitate to contact me by phone or e-mail should you have any questions or need additional information. If you need immediate assistance and I am unavailable, please contact, Hector Guerra, Chief of Environmental Planning, by phone at (559) 624-7121, or by email at hguerra@tularecounty.ca.gov .

Sincerely,

Jessica Willis
Planner IV
(559) 624-7121
jwillis@tularecounty.ca.gov

Enclosures: Project Description
Project Maps
Sacred Lands File Search Results
California Historical Resources Information Search Results

RESOURCE MANAGEMENT AGENCY

5961 SOUTH MOONEY BLVD
VISALIA, CA 93277
PHONE (559) 624-7000
FAX (559) 730-2653

Aaron R. Bock — Economic Development and Planning
Reed Schenke — Public Works
Sherman Dix — Fiscal Services

REED SCHENKE, DIRECTOR — MICHAEL WASHAM, ASSOCIATE DIRECTOR

February 16, 2021

Tule River Indian Tribe
Environmental Department
Felix Christman, Tribal Archaeological Monitor
P. O. Box 589
Porterville, CA 93258

SENT VIA E-MAIL &
USPS CERTIFIED MAIL

RE: Project Notification Pursuant to Assembly Bill (AB) 52
Swift Homes Subdivision (TSM 20-003)

Dear Mr. Christman,

Pursuant to the provisions of AB 52, as the lead agency under the California Environmental Quality Act (CEQA), the County of Tulare hereby extends an invitation to consult on the CEQA review of the Swift Homes Subdivision (TSM 20-003) Project in order to assist with identifying and/or preserving and/or mitigating project impacts to Native American cultural places including:

- Native American sanctified cemetery, place of worship, religious or ceremonial site, or sacred shrine; and
- Native American historic, cultural, or sacred site that is listed or may be eligible for listing in the California Register of Historical Resources including historic or prehistoric ruins and any burial ground, archaeological, or historic site.

In accordance with the CEQA (Pub. Resources Code, § 21000 et seq.), the County of Tulare Resource Management Agency (RMA) will be preparing a Mitigated Negative Declaration (MND) to evaluate the environmental effects associated with the Project.

Sacred Lands File Search

The County requested a Sacred Lands File (SLF) search through the Native American Heritage Commission (NAHC) on December 1, 2020, for the Project. The SLF search returned on January 6, 2021, with "negative" results; however, the NAHC recommended consultation with your Tribe. Results of the SLF search are enclosed for your review.

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Sincerely,

Jessica R. Willis

Jessica Willis
Planner IV
(559) 624-7121
jwillis@tularecounty.ca.gov

Enclosures: Project Description
Project Maps
Sacred Lands File Search Results
California Historical Resources Information Search Results

RESOURCE MANAGEMENT AGENCY

5961 SOUTH MOONEY BLVD
VISALIA, CA 93277
PHONE (559) 624-7000
FAX (559) 730-2653

Aaron R. Bock — Economic Development and Planning
Reed Schenke — Public Works
Sherman Dix — Fiscal Services

REED SCHENKE, DIRECTOR — MICHAEL WASHAM, ASSOCIATE DIRECTOR

February 16, 2021

Tule River Indian Tribe
Neil Peyron, Chairperson
P. O. Box 589
Porterville, CA 93258

SENT VIA E-MAIL &
USPS CERTIFIED MAIL

RE: Project Notification Pursuant to Assembly Bill (AB) 52
Swift Homes Subdivision (TSM 20-003)

Dear Chairperson Peyron,

Pursuant to the provisions of AB 52, as the lead agency under the California Environmental Quality Act (CEQA), the County of Tulare hereby extends an invitation to consult on the CEQA review of the Swift Homes Subdivision (TSM 20-003) Project in order to assist with identifying and/or preserving and/or mitigating project impacts to Native American cultural places including:

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Sincerely,

Jessica Willis
Planner IV
(559) 624-7121
jwillis@tularecounty.ca.gov

Enclosures: Project Description
Project Maps
Sacred Lands File Search Results
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RESOURCE MANAGEMENT AGENCY

5961 SOUTH MOONEY BLVD
VISALIA, CA 93277
PHONE (559) 624-7000
FAX (559) 730-2653

Aaron R. Bock — Economic Development and Planning
Reed Schenke — Public Works
Sherman Dix — Fiscal Services

REED SCHENKE, DIRECTOR — MICHAEL WASHAM, ASSOCIATE DIRECTOR

February 16, 2021

Tule River Indian Tribe
Environmental Department
Kerri Vera, Director
P. O. Box 589
Porterville, CA 93258

SENT VIA E-MAIL &
USPS CERTIFIED MAIL

RE: Project Notification Pursuant to Assembly Bill (AB) 52
Swift Homes Subdivision (TSM 20-003)

Dear Ms. Vera,

Pursuant to the provisions of AB 52, as the lead agency under the California Environmental Quality Act (CEQA), the County of Tulare hereby extends an invitation to consult on the CEQA review of the Swift Homes Subdivision (TSM 20-003) Project in order to assist with identifying and/or preserving and/or mitigating project impacts to Native American cultural places including:

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Sincerely,

Jessica R. Willis

Jessica Willis
Planner IV
(559) 624-7121
jwillis@tularecounty.ca.gov

Enclosures: Project Description
Project Maps
Sacred Lands File Search Results
California Historical Resources Information Search Results

RESOURCE MANAGEMENT AGENCY

5961 SOUTH MOONEY BLVD
VISALIA, CA 93277
PHONE (559) 624-7000
FAX (559) 730-2653

Aaron R. Bock — Economic Development and Planning
Reed Schenke — Public Works
Sherman Dix — Fiscal Services

REED SCHENKE, DIRECTOR — MICHAEL WASHAM, ASSOCIATE DIRECTOR

February 16, 2021

Wuksache Indian Tribe/Eshom Valley Band
Kenneth Woodrow, Chairperson
1179 Rock Haven Ct.
Salinas, CA 93906

SENT VIA E-MAIL &
USPS CERTIFIED MAIL

RE: Project Notification Pursuant to Assembly Bill (AB) 52
Swift Homes Subdivision (TSM 20-003)

Dear Chairperson Woodrow,

Pursuant to the provisions of AB 52, as the lead agency under the California Environmental Quality Act (CEQA), the County of Tulare hereby extends an invitation to consult on the CEQA review of the Swift Homes Subdivision (TSM 20-003) Project in order to assist with identifying and/or preserving and/or mitigating project impacts to Native American cultural places including:

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Sincerely,

Jessica Willis
Planner IV
(559) 624-7121
jwillis@tularecounty.ca.gov

Enclosures: Project Description
Project Maps
Sacred Lands File Search Results
California Historical Resources Information Search Results

ATTACHMENT "F"

CEQA Notice

TULARE COUNTY RESOURCE MANAGEMENT AGENCY
NOTICE OF INTENT TO ADOPT
A MITIGATED NEGATIVE DECLARATION
Swift Homes Subdivision, TSM 20-003

NOTICE IS HEREBY GIVEN that Tulare County intends to adopt a Mitigated Negative Declaration (MND) for the Swift Homes Subdivision (TSM 20-003) Project. The MND has been approved for public review by the Tulare County Environmental Assessment Officer. Copies are available for review and comment at the Resource Management Agency, Permit Center, 5961 South Mooney Blvd, Visalia, California 93277-9394. Comments and recommendations on the adequacy of the environmental document may be filed at the aforementioned address during the public review period established for the proposed Project.

1. **PROJECT:** Swift Homes Subdivision (TSM 20-003)

2. **APPLICANT/AGENT:** Greg Nunley
   Swift Homes
   1969 Hillman St.
   Tulare, CA 93724

3. **LOCATION:** The site is located in the Goshen USGS 7.5 Minute Quadrangle at the northwest corner of Avenue 310 and Road 72, within the Goshen Urban Development Boundary. The site is located on Tulare County APN 075-440-002, and lies within Section 19, Township 18S, Range 24E, MDB&M, within.

4. **PROJECT DESCRIPTION:** The Applicant proposes development of 206 single-family residential units on an approximately 37-acre site with a density of 5.57 units per acre (based on the gross acreage). The proposed Project also includes open space in the form of a stormwater detention basin and roadways with curbs, gutters, and sidewalks. Residential parcels will be a minimum of 5,000 square feet. The proposed Project will be developed in four (4) phases: Phase 1 = 34 lots; Phase 2 = 49 lots; Phase 3 = 39 lots; and Phase 4 = 84 lots.

5. **ENVIRONMENTAL DOCUMENT:** The MND can be viewed at the Resource Management Agency office located at the address above, **by appointment only**; or on the County web site at:
   https://tularecounty.ca.gov/rma/index.cfm/planning-building/environmental-planning/mitigated-negative-declarations/swift-homes-subdivision-tsm-20-003/

   Due to the current COVID-19 situation, no copies of the MND shall be available at any libraries at the moment.

6. **REVIEW PERIOD:** February 24, 2021 – March 26, 2021, at 5:00 p.m.

7. **CONTACT FOR MORE INFORMATION:** Hector Guerra, Chief Environmental Planner at (559) 624-7121 or HGuerra@co.tulare.ca.us **(para Español llame Jose Saenz (559) 624-7102)**.

The MND has a review period of **30 days**, starting on **Wednesday, February 24, 2021**, and ending on **Friday, March 26, 2021**, which has been approved by the State of California, Office of Planning and Research. Any written comments on the MND should be sent to the Tulare County Resource Management Agency at the address noted above, to the attention of: Hector Guerra, Chief Environmental Planner.

After the close of the public comment review period on the MND established by this notice, this matter will be set for public hearing before the Tulare County Planning Commission. Notice of the date, time and place for such public hearing will be published and/or mailed as provided by law.

Please take notice that - pursuant to Public Resource Code Section 21177, Government Code Section 65009, and other applicable law - if you challenge the proposed action described above in court, then you may be limited to raising only those issues or objections you or someone else raised during the public comment period or the public hearing, or in written correspondence delivered to the Tulare County Resource Management Agency within the review period, or to the Planning Commission during the public hearing.

REED SCHENKE, P.E., ENVIRONMENTAL ASSESSMENT OFFICER

(148-08)
TULARE COUNTY RESOURCE MANAGEMENT AGENCY
NOTICE OF INTENT TO ADOPT A MITIGATED NEGATIVE DECLARATION
SWIFT HOMES SUBDIVISION, TSM 20-003
COUNTY OF TULARE

NOTICE IS HEREBY GIVEN that Tulare County intends to adopt a Mitigated Negative Declaration (MND) for the Swift Homes Subdivision (TSM 20-003) Project. The MND has been approved for public review by the Tulare County Environmental Assessment Officer. Copies are available for review and comment at the Resource Management Agency, Permit Center, 5961 South Mooney Blvd, Visalia, California 93277-9394. Comments and recommendations on the adequacy of the environmental document may be filed at the aforementioned address during the public review period established for the proposed Project.

1. PROJECT: Swift Homes Subdivision (TSM 20-003)

2. APPLICANT/ AGENT: Greg Nunley
Swift Homes
1969 Hillman St.
Tulare, CA 93724

3.LOCATION: The site is located in the Goshen USGS 7.5 Minute Quadrangle at the northwest corner of Avenue 310 and Road 72, within the Goshen Urban Development Boundary. The site is located on Tulare County APN 075-440-002, and lies within Section 19, Township 18S, Range 24E, MDB&M, within.

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REED SCHENKE,
ENVIRONMENTAL ASSESSMENT OFFICER

Sun-Gaz 2/24/21

ATTACHMENT "G"

Mitigation Monitoring and Reporting Program

Mitigation Monitoring and Reporting Program

The Mitigation Monitoring and Reporting Program (MMRP) has been prepared in compliance with State law for Project TSM 20-003 by the County of Tulare.

The California Environmental Quality Act (CEQA) Section 21081.6 requires adoption of a reporting or monitoring program for those measures placed on a project to mitigate or avoid adverse effects on the environment.[1] The law states that the reporting or monitoring program shall be designed to ensure compliance during project implementation. The Mitigation Monitoring and Reporting Program contains the following elements:

• **Action and Procedure.** The mitigation measures are recorded with the action and procedure necessary to ensure compliance. In some instances, one action may be used to verify implementation of several mitigation measures.

• **Compliance and Verification.** A procedure for compliance and verification has been outlined for each action necessary. This procedure designates who will take action, what action will be taken and when, and to whom and when compliance will be reported.

• **Flexibility.** The program has been designed to be flexible. As monitoring progresses, changes to compliance procedures may be necessary based upon recommendations by those responsible for the Mitigation Monitoring and Reporting Program. As changes are made, new monitoring compliance procedures and records will be developed and incorporated into the program.

[1] Public Resource Code §21081.6

Mitigation Monitoring Reporting Program - TSM 20-003							
Mitigation Measure		**Monitoring Timing/ Frequency**	**Action Indicating Compliance**	**Monitoring Agency**	**Verification of Compliance**		
					Initials	**Date**	**Remarks**
Biological Resources – The following measures from the Goshen Community Plan will be implemented as appropriate/applicable.							
Swainson's Hawk							
4-1	***(Nesting Surveys).*** Surveys consistent with *Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley* (SHTAC 2000) will be conducted to determine whether Swainson's hawks nest within the immediate vicinity of an individual project site. The guidelines call for three surveys during each of the two survey periods immediately prior to a project's initiation, regardless of whether or not construction starts in the nesting season, where the survey periods are defined as: Period I (January-March 20), Period II (March 20-April 5), Period III (April 5-April 20), Period IV (April 21-June 10), and Period V (June 10-July 30). It is recommended that surveys be completed in Periods II, III, and/or V, but not be conducted during Period IV. All suitable trees within ½ mile of the individual project site will be inspected for evidence of nesting by Swainson's hawks.	Prior to a project's initiation	Issuance of building permit	County of Tulare Planning and Public Works Department and Cal Fish and Wildlife Service			
4-2	**(*Avoidance*).** If feasible, construction activities will occur outside the nesting season, or between September 16th and January 31st, to avoid potential construction related mortality.	Prior to initiation of construction	Issuance of building permit	County of Tulare Planning and Public Works Department and Cal Fish and Wildlife Service			
4-3	***(Establish Buffers).*** If it is not feasible to construct an individual project outside of the nesting season, any active Swainson's hawk nests discovered in the survey area defined in Mitigation Measure 3.3.1a will be avoided by an appropriate distance arranged in consultation with CDFW. Disturbance-free buffers will be identified on the ground with flagging, fencing, or by other easily visible means, and will be maintained until a qualified biologist has determined that the young have fledge.	Prior to a project's initiation	Issuance of building permit	County of Tulare Planning and Public Works Department and Cal Fish and Wildlife Service			

Mitigation Monitoring Reporting Program - TSM 20-003							
Mitigation Measure		**Monitoring Timing/ Frequency**	**Action Indicating Compliance**	**Monitoring Agency**	**Verification of Compliance**		
					Initials	**Date**	**Remarks**
4-4	***(Compensatory Mitigation).*** If Swainson's hawks are determined to be nesting within ½ mile of alfalfa fields, wheat fields, or other high-quality foraging habitat on an individual project site, as determined by nesting surveys conducted during the nesting season immediately prior to the start of construction (*Mitigation Measure 3.3.1a*), loss of foraging habitat will be compensated through the purchase of credits from an approved mitigation bank, the preservation of on-site habitats, or the acquisition and preservation of off-site habitats. Habitat suitable for the Swainson's hawk will be preserved at a ratio of one acre of habitat preserved for each acre of habitat permanently disturbed by project construction within ½ mile of the nest. The preservation lands will be protected in perpetuity by conservation easement.	Prior to initiation of construction	Issuance of building permit	County of Tulare Planning and Public Works Department and Cal Fish and Wildlife Service			
San Joaquin Kit Fox: Prior to the construction of any projects within the PPSA, the following measures adapted from the U.S. Fish and Wildlife Service 2011 *Standardized Recommendations for Protection of the San Joaquin Kit Fox Prior to or During Ground Disturbance* will be implemented.							
4-5	***(Pre-construction Surveys).*** Pre-construction surveys shall be conducted no less than 14 days and no more than 30 days prior to the beginning of ground disturbance, construction activities, and/or any Project activity likely to impact the San Joaquin kit fox. These surveys will be conducted in accordance with the USFWS *Standard Recommendations*. The primary objective is to identify kit fox habitat features (e.g. potential dens and refugia) on the Project site and evaluate their use by kit foxes through use of remote monitoring techniques such as motion-triggered cameras and tracking medium. If an active kit fox den is detected within or immediately adjacent to the area of work, the USFWS and CDFW shall be contacted immediately.	Prior to initiation of construction	Issuance of building permit	County of Tulare Planning and Public Works Department and Cal Fish and Wildlife Service			
4-6	***(Avoidance).*** Should an active kit fox den be detected within or immediately adjacent to the area of work, a disturbance-free buffer will be established around the den in consultation with the USFWS and CDFW, to be maintained until a qualified biologist has determined that the den is no longer occupied. Known kit fox dens may not be destroyed until they have been vacant for a period of at least three days, as	Prior to and during construction	Issuance of building permit	County of Tulare Planning and Public Works Department and Cal Fish and Wildlife Service			

Mitigation Monitoring Reporting Program - TSM 20-003							
Mitigation Measure		**Monitoring Timing/ Frequency**	**Action Indicating Compliance**	**Monitoring Agency**	**Verification of Compliance**		
					Initials	**Date**	**Remarks**
	demonstrated by use of motion-triggered cameras or tracking medium, and then only after obtaining take authorization from the USFWS.						
4-7	***(Minimization)*.** Construction activities shall be carried out in a manner that minimizes disturbance to kit foxes. Minimization measures include, but are not limited to: restriction of Project-related vehicle traffic to established roads, construction areas, and other designated areas; inspection and covering of structures (e.g., pipes), as well as installation of escape structures, to prevent the inadvertent entrapment of kit foxes; restriction of rodenticide and herbicide use; and proper disposal of food items and trash.	Prior to and during construction	Issuance of building permit	County of Tulare Planning and Public Works Department and Cal Fish and Wildlife Service			
4-8	***(Employee Education Program)*.** Prior to the start of construction the applicant will retain a qualified biologist to conduct a tailgate meeting to train all construction staff that will be involved with the Project on the San Joaquin kit fox. This training will include a description of the kit fox and its habitat needs; a report of the occurrence of kit fox in the Project area; an explanation of the status of the species and its protection under the Endangered Species Act; and a list of the measures being taken to reduce impacts to the species during Project construction and implementation.	Prior to initiation of construction	Issuance of building permit	County of Tulare Planning and Public Works Department and Cal Fish and Wildlife Service			
4-9	***(Mortality Reporting)*.** The Sacramento Field Office of the USFWS and the Fresno Field Office of CDFW will be notified in writing within three working days in case of the accidental death or injury of a San Joaquin kit fox during Project-related activities. Notification must include the date, time, location of the incident or of the finding of a dead or injured animal, and any other pertinent information.	During construction	Issuance of building permit	County of Tulare Planning and Public Works Department and Cal Fish and Wildlife Service			
Burrowing Owl: Prior to the initiation of project-related activities involving ground disturbance or heavy equipment use on those portions of the PPSA that contain suitable burrowing owl habitat, the following measures will be implemented, adapted from the California Department of Fish and Game 1995 and 2012 *Staff Report on Burrowing Owl Mitigation*.							
4-10	***(Pre-construction Surveys).*** A pre-construction survey for burrowing owls will be conducted by a qualified biologist within 30 days of the onset of Project-related activities involving ground disturbance or heavy equipment use. The	Prior to initiation of construction	Issuance of building permit	County of Tulare Planning and Public Works			

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Mitigation Measure		**Monitoring Timing/ Frequency**	**Action Indicating Compliance**	**Monitoring Agency**	**Verification of Compliance**		
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	survey area will include all suitable habitat on and within 500 feet of Project impact areas, where accessible.			Department and Cal Fish and Wildlife Service			
4-11	***(Avoidance of Active Nests).*** If pre-construction surveys and subsequent Project activities are undertaken during the breeding season (February 1-August 31) and active nest burrows are located within or near Project impact areas, a 250-foot construction setback will be established around active owl nests, or alternate avoidance measures will be implemented in consultation with CDFW. The buffer areas will be enclosed with temporary fencing to prevent construction equipment and workers from entering the setback area. Buffers will remain in place for the duration of the breeding season, unless otherwise arranged with CDFW. After the breeding season (i.e. once all young have left the nest), passive relocation of any remaining owls may take place as described below.	Prior to initiation of construction	Issuance of building permit	County of Tulare Planning and Public Works Department and Cal Fish and Wildlife Service			
4-12	***(Passive Relocation of Resident Owls).*** During the non-breeding season (September 1-January 31), resident owls occupying burrows in Project impact areas may be passively relocated to alternative habitat in accordance with a relocation plan prepared by a qualified biologist. Passive relocation may include one or more of the following elements: 1) establishing a minimum 50 foot buffer around all active burrowing owl burrows, 2) removing all suitable burrows outside the 50 foot buffer and up to 160 feet outside of the impact areas as necessary, 3) installing one-way doors on all potential owl burrows within the 50 foot buffer, 4) leaving one-way doors in place for 48 hours to ensure owls have vacated the burrows, and 5) removing the doors and excavating the remaining burrows within the 50 foot buffer.	Prior to initiation of construction	Issuance of building permit	County of Tulare Planning and Public Works Department and Cal Fish and Wildlife Service			
American Badger: The following measures will be implemented to avoid and minimize the potential for project-related mortality of American badgers.							
4-13	***(Preconstruction Surveys).*** A preconstruction survey for American badgers will be conducted by a qualified biologist within 30 days of the onset of Project-related activities involving ground disturbance or heavy equipment use.	Prior to initiation of construction	Issuance of building permit	County of Tulare Planning and Public Works			

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	Preconstruction surveys will be conducted in all suitable denning habitat of the Project area.			Department and Cal Fish and Wildlife Service			
4-14	***(Avoidance).*** Should an active natal den be identified during the preconstruction surveys, a disturbance-free buffer will be established around the den and maintained until a qualified biologist has determined that the cubs have dispersed or the den has been abandoned.	Prior to initiation of construction	Issuance of building permit	County of Tulare Planning and Public Works Department and Cal Fish and Wildlife Service			
Nesting Raptors and Migratory Birds (Including Swainson's Hawk, White-tailed Kite, and Loggerhead Shrike): The following measures will be implemented prior to the start of Project activities within the PPSA.							
4-15	**(*Avoidance*).** In order to avoid impacts to nesting raptors and migratory birds, individual Projects within the Project will be constructed, where possible, outside the nesting season (between September 1st and January 31st).	Prior to initiation of construction	Issuance of building permit	County of Tulare Planning and Public Works Department and Cal Fish and Wildlife Service			
4-16	***(Preconstruction Surveys).*** If Project activities must occur during the nesting season (February 1-August 31), a qualified biologist will conduct preconstruction surveys for active raptor and migratory bird nests within 30 days of the onset of these activities. The survey will include the proposed work area(s) and surrounding lands within 500 feet for all nesting raptors and migratory birds save Swainson's hawk; the Swainson's hawk survey will extend to ½-mile outside of work area boundaries. If no nesting pairs are found within the survey area, no further mitigation is required.	Prior to initiation of construction	Issuance of building permit	County of Tulare Planning and Public Works Department and Cal Fish and Wildlife Service			
4-17	***(Establish Buffers).*** Should any active nests be discovered near proposed work areas, the biologist will determine appropriate construction setback distances based on applicable CDFW guidelines and/or the biology of the affected species. Construction-free buffers will be identified on the ground with flagging, fencing, or by other easily	Prior to initiation of construction	Issuance of building permit	County of Tulare Planning and Public Works Department and			

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	visible means, and will be maintained until the biologist has determined that the young have fledged.			Cal Fish and Wildlife Service			
Roosting Bats: The following measures will be implemented for construction activities involving the removal of buildings or mature trees.							
4-18	***(Temporal Avoidance).*** To avoid potential impacts to maternity bat roosts, removal of buildings and trees should occur outside of the period between April 1 and September 30, the time frame within which colony-nesting bats generally assemble, give birth, nurse their young, and ultimately disperse.	Prior to initiation of construction	Issuance of building permit	County of Tulare Planning and Public Works Department and Cal Fish and Wildlife Service			
4-19	***(Preconstruction Surveys).*** If removal of buildings or trees is to occur between April 1 and September 30 (general maternity bat roost season), then within 30 days prior to these activities, a qualified biologist will survey affected buildings and trees for the presence of bats. The biologist will look for individuals, guano, and staining, and will listen for bat vocalizations. If necessary, the biologist will wait for nighttime emergence of bats from roost sites. If no bats are observed to be roosting or breeding, then no further action would be required, and construction could proceed.	Prior to initiation of construction	Issuance of building permit	County of Tulare Planning and Public Works Department and Cal Fish and Wildlife Service			
4-20	***(Minimization).*** If a non-breeding bat colony is detected during preconstruction surveys, the individuals will be humanely evicted via partial dismantlement of trees prior to full removal and/or installation of exclusion devices on buildings prior to demolition under the direction of a qualified biologist to ensure that no harm or "take" of any bats occurs as a result of construction activities.	Prior to initiation of construction	Issuance of building permit	County of Tulare Planning and Public Works Department and Cal Fish and Wildlife Service			
4-21	***(Avoidance of Maternity Roosts).*** If a maternity colony is detected during preconstruction surveys, a disturbance-free buffer will be established around the colony and remain in place until a qualified biologist deems that the nursery is no longer active. The disturbance-free buffer will range from 50 to 100 feet as determined by the biologist.	Prior to initiation of construction	Issuance of building permit	County of Tulare Planning and Public Works Department and Cal Fish and Wildlife Service			

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Waters of the U.S. The state of California and the federal government have both adopted a no-net-loss policy for wetlands and other jurisdictional waters. Mitigation measures will be implemented that are in conformance with that policy. These measures would be as follows:							
4-22	***(Avoidance).*** Individual projects within the PPSA will be designed to avoid and/or minimize impacts to waters of the U.S. to the maximum extent practicable while still achieving its goal of expanding the planning area.	Prior to initiation of construction	Issuance of building permit	County of Tulare Planning and Public Works Department			
4-23	***(Minimization).*** If the Mill Creek Ditch or unnamed ditch is determined to be a water of the U.S. by the USACE, then the applicant will be required to follow the permit requirements which may include an employee education program, implementation of Best Management Practices, placement of protective fencing between nearby unaffected waters and construction areas during construction, removal of temporary fills, and restoring temporarily disturbed areas to pre-project conditions, among others.	Prior to initiation of construction	Issuance of building permit	County of Tulare Planning and Public Works Department			
4-24	(***Compensatory Mitigation).*** If the ditches are determined to be waters of the U.S., then compensatory mitigation will be provided at a minimum of 1:1 for all losses of waters that exceed 0.5 acre. Compensatory mitigation will be provided in the form of either on-site or off site preservation or creation, through payment into an in-lieu fee program (if one is available), purchase of credits from an approved Mitigation Bank in the vicinity, or some combination of one or more of these options. Preserved and/or created waters would have to be placed under conservation easement held by a third party and managed in perpetuity with an approved endowment fund. If losses are 0.5 acre or less.	Prior to initiation of construction	Issuance of building permit	County of Tulare Planning and Public Works Department			
Biological Resources – The following measures will be implemented to reduce impacts on Special Status Species as applicable.							
Special Status Plant Species							
4-25	*(Pre-construction Survey)* A qualified biologist/botanist shall conduct pre-construction surveys for special status plant species in accordance with the California Department of Fish and Wildlife (CDFW) Protocols for Surveying and Evaluating Impacts to Special Status Native Plant	Prior to start of construction	Issuance of building permit	County of Tulare Planning Department and Cal Fish and			

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	Populations and Natural Communities (2009). This protocol includes identification of reference populations to facilitate the likelihood of field investigation occurring during the appropriate floristic period. Surveys should be timed to coincide with flowering periods for species that could occur (March-May). In the absence of protocol-level surveys being performed, additional surveys may be necessary. • If special status plant species are not identified during pre-construction surveys, no further action is required. • If special status plant species are detected during pre-construction surveys, the biologist/botanist will supervise establishment of a minimum 50-foot no disturbance buffer from the outer edge of the plant population. If buffers cannot be maintained, the Sacramento Field Office of the USFWS and the Fresno Field Office of CDFW shall be contacted immediately to identify the appropriate minimization actions to be taken as appropriate for the species identified and to determine permitting needs.			Wildlife Service			
Special Status Animal Species							
4-26	*(Pre-construction Survey)* A qualified biologist will conduct pre-construction surveys during the appropriate periods for special status animal species in accordance with CDFW guidance and recommendations. In the absence of protocol-level surveys being performed, additional surveys may be necessary. • If special status animal species are not identified during pre-construction surveys, no further action is required. • If special status animal species are detected during pre-construction surveys, the Sacramento Field Office of the USFWS and the Fresno Field Office of CDFW shall be contacted immediately to identify the appropriate avoidance and minimization actions to be taken as applicable for the species identified and to determine permitting needs.						

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Cultural Resources and Tribal Cultural Resources							
5-1	In the event that historical, archaeological or paleontological resources are discovered during site excavation, the County shall require that grading and construction work on the Project site be immediately suspended until the significance of the features can be determined by a qualified archaeologist or paleontologist. In this event, the property owner shall retain a qualified archaeologist/paleontologist to provide recommendations for measures necessary to protect any site determined to contain or constitute an historical resource, a unique archaeological resource, or a unique paleontological resource or to undertake data recover, excavation analysis, and curation of archaeological or paleontological materials. County staff shall consider such recommendations and implement them where they are feasible in light of Project design as previously approved by the County.	Prior to issuance of grading permits Ongoing monitoring during subsurface excavation	Retention of professional paleontologist/ ongoing monitoring/ submittal of Report of Findings, if applicable	County of Tulare Planning and Public Works Department			
5-2	The property owner shall avoid and minimize impacts to paleontological resources. If a potentially significant paleontological resource is encountered during ground disturbing activities, all construction within a 100-foot radius of the find shall immediately cease until a qualified paleontologist determines whether the resources requires further study. The owner shall include a standard inadvertent discovery clause in every construction contract to inform contractors of this requirement. The paleontologist shall notify the Tulare County Resource Management Agency and the Project proponent of the procedures that must be followed before construction is allowed to resume at the location of the find. If the find is determined to be significant and the Tulare County Resource Management Agency determines avoidance is not feasible, the paleontologist shall design and implement a data recovery plan consistent with applicable standards. The plan shall be submitted to the Tulare County Resource Management	Prior to issuance of grading permits Ongoing monitoring during subsurface excavation	Retention of professional paleontologist/ ongoing monitoring/ submittal of Report of Findings, if applicable	County of Tulare Planning and Public Works Department			

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	Agency for review and approval. Upon approval, the plan shall be incorporated into the Project.						
5-3	Consistent with Section 7050.5 of the California Health and Safety Code and (CEQA Guidelines) Section 15064.5, if human remains of Native American origin are discovered during project construction, it is necessary to comply with State laws relating to the disposition of Native American burials, which fall within the jurisdiction of the Native American Heritage Commission (Public Resources Code Sec. 5097). In the event of the accidental discovery or recognition of any human remains in any location other than a dedicated cemetery, the following steps should be taken: 1. There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until: a. The Tulare County Coroner/Sheriff must be contacted to determine that no investigation of the cause of death is required; and b. If the coroner determines the remains to be Native American: i. The coroner shall contact the Native American Heritage Commission within 24 hours. ii. The Native American Heritage Commission shall identify the person or persons it believes to be the most likely descended from the deceased Native American. iii. The most likely descendent may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code section 5097.98, or 2. Where the following conditions occur, the landowner or his authorized representative shall rebury the Native	Prior to issuance of grading permits Ongoing monitoring during subsurface excavation	Retention of professional paleontologist/ ongoing monitoring/ submittal of Report of Findings, if applicable	County of Tulare Planning and Public Works Department			

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	American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance. a. The Native American Heritage Commission is unable to identify a most likely descendent or the most likely descendent failed to make a recommendation within 24 hours after being notified by the commission. b. The descendant fails to make a recommendation; or c. The landowner or his authorized representative rejects the recommendation of the descendent.						
Hydrology & Water Quality(To be Implemented as Project Design Features)							
10-1	Install water meters and adopt a use-weighted rate schedule to encourage reduced usage by the rate-payers.	Prior to issuance of grading permits.	Issuance of building permit.	County of Tulare Planning and Public Works Department			
10-2	Limit permissible landscape area for each residence to 2,500 square feet or less.	Prior to issuance of grading permits.	Issuance of building permit.	County of Tulare Planning and Public Works Department			
10-3	Adopt limited outdoor watering days and hours (now in force statewide, as of August 1, 2014, by order of the Department of Water Resources).	Prior to issuance of grading permits.	Issuance of building permit.	County of Tulare Planning and Public Works Department			
10-4	Mandate use of native and drought-tolerant species for all landscaping.	Prior to issuance of grading permits.	Issuance of building permit.	County of Tulare Planning and Public Works Department			
Noise							
13-1	The hours of future construction shall be limited to 7:00 a.m. to 7:00 p.m. Monday through Friday or weekends (if allowed by the County) where residential uses are within	Prior to issuance of grading permits	Retention of professional paleontologist/	County of Tulare Planning and Public			

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	200 feet of where the activity is taking place. If residential uses are beyond 300 feet limited work hours are not required.	Ongoing monitoring during subsurface excavation	ongoing monitoring/ submittal of Report of Findings, if applicable	Works Department			
Transportation							
17-1	Applicant shall provide VMT mitigation in the form of payment of fees in lieu. Fees will be based on the following equation: $20 per trip x Project daily trips = Total fees due	(TBD)	Payment received by the County of Tulare Planning Department	County of Tulare Planning Department			