Links Ranch Subdivision

Tentative Subdivision Map No. 2021-02, Annexation Application No. 2021-01, and Precise Plan Application No. 2021-04

Initial Study / Mitigated Negative Declaration

August 2021

Prepared for:



Planning Department 205 W. 4th Street Madera, CA 93637

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Chapter 1 Introduction

Precision Civil Engineering, Inc. has prepared this Initial Study/Mitigated Negative Declaration (IS/MND) on behalf of City of Madera (City) to address the environmental effects of the proposed Links Ranch Subdivision (Project). This document has been prepared in accordance with the California Environmental Quality Act (CEQA), Public Resources Code Section 21000 et. seq. The City of Madera is the CEQA Lead Agency for this proposed Project. The site and the proposed Project are described in detail in Chapter 2 Project Description.

1.1 Regulatory Information

An Initial Study (IS) is a document prepared by a lead agency to determine whether a project may have a significant effect on the environment. In accordance with California Code of Regulations Title 14 (Chapter 3, Section 15000, et seq.)-- also known as the CEQA Guidelines-- Section 15064 (a)(1) states that an environmental impact report (EIR) must be prepared if there is substantial evidence in light of the whole record that the proposed Project under review may have a significant effect on the environment and should be further analyzed to determine mitigation measures or project alternatives that might avoid or reduce project impacts to less than significant levels. A negative declaration (ND) may be prepared instead if the lead agency finds that there is <u>no</u> substantial evidence in light of the whole record that the project may have a significant effect on the environment. An ND is a written statement describing the reasons why a proposed Project, not otherwise exempt from CEQA, would not have a significant effect on the environment and, therefore, why it would not require the preparation of an EIR (CEQA Guidelines Section 15371). According to CEQA Guidelines Section 15070, a ND or mitigated ND shall be prepared for a project subject to CEQA when either:

- a. The IS shows there is no substantial evidence, in light of the whole record before the agency, that the proposed Project may have a significant effect on the environment, or
- b. The IS identified potentially significant effects, but:
 - Revisions in the project plans or proposals made by or agreed to by the applicant before the proposed MND and IS is released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur is prepared, and
 - 2. There is no substantial evidence, in light of the whole record before the agency, that the proposed Project as revised may have a significant effect on the environment.

1.2 Document Format

This IS/MND contains five chapters plus appendices. Chapter 1 Introduction provides an overview of the proposed Project and the CEQA process. Chapter 2 Project Description provides a detailed description of proposed Project components. Chapter 3 Determination identifies the environmental factors potentially affected based on the analyses contained in this IS and includes with the Lead Agency's determination based upon those analyses. Chapter 4 Impact Analysis presents the CEQA checklist and environmental analyses for all impact areas and the mandatory findings of significance. A brief discussion of the reasons why the Project impact is anticipated to be potentially significant, less than significant with mitigation incorporated, less than significant or why no impacts are expected is included. Chapter 5 Mitigation Monitoring and Report Program presents the mitigation measures recommended in the IS/MND for the

Project. The CalEEMod Output Files and Cultural Resources Information are provided as **Appendix A** and **Appendix B**, respectively, at the end of this document.

Chapter 2 Project Description

2.1 Project Background

2.1.1 Project Title

Links Ranch, LLC: Links Ranch Subdivision (ANX 2021-01, 2021-02, PPL 2021-04)

2.1.2 Lead Agency Name and Address

City of Madera 205 W. 4th Street Madera, CA 93637

2.1.3 Contact Person and Phone Number

Lead Agency Contact

John Thomason, Senior Planner (559) 661-5400 jthomason@madera.gov

Applicant Information

Links Ranch, LLC 2900 Airport Drive Madera, CA 93637

2.1.4 Study Prepared By

Precision Civil Engineering, Inc. 1234 O Street Fresno, CA 93721

2.1.5 Project Location

The proposed Project is located in the western area of the city of Madera, California, approximately two (2) miles west of State Route 99 (SR 99) and approximately four (4) miles west of SR 145 (Figure 2-1). The Project site is composed of approximately 41 acres of property on the south side of Cleveland Avenue between Avenue 16 and Road 23 (Figure 2-2). The 41-acre Project site occupies a portion of Section 16 of Township 11 South, Range 17 East, Mount Diablo Base and Meridian. The Project site is identified as a portion of Madera County Assessor's Parcel Number (APN) 033-180-003 (Figure 2-3).

2.1.6 Latitude and Longitude

The centroid of the Project area is 36.973154, -120.112807.

¹ United States, Department of Interior, Geological Survey, and State of California, Department of Water Resources. *Madera Quadrangle, California, 7.5 Minute Series (Topographic), Photo revised 1981.*

2.1.7 General Plan Designation

The Project site has a Madera General Plan land use designation of LD- Low Density Residential (Figure 2-5) with a small portion on the west side of the site designated for High Density (HD) Residential (approximately 1.36 acres, or 4.3% of the total Project site).

Although the HD Residential land use designation has a target density of 22.4 units to the acre, according to Policy LU-8 of the Madera General Plan, "density averaging may be permitted as part of a comprehensively planned development [in this case, a Planned Development] in order to enhance a project's ability to provide a variety of housing types or to incorporate additional public amenities. The total number of dwelling units approved as part of the density averaging program must meet the target density, and must not exceed the maximum density requirements for the applicable land use designations." The LD — Low Density Residential land use designation allows for residential development at a density of 2.1 to 7 dwelling units per acre, with a Target Density of 5.25 dwelling units per acre. The HD — High Density Residential land use designation allows for residential development at a density of 15.1 to 50 dwelling units per acre, with a Target Density of 22.5 dwelling units per acre. Taking the acreage of land planned for LD and for HD results in an allowed density range of 83-277 units per acre. The 214 units proposed as part of the project is within the density range permitted by the Madera General Plan.

The LD — Low Density Residential land use designation represents the traditional single-family neighborhood with a majority of single-family detached homes. The Project proposes a 214-lot single-family neighborhood with a residential density of 5.3 dwelling units per acre, which is within the density range allowed by the land use designations, as noted above. Therefore, the Project is consistent with the existing planned land use designations.

2.1.8 Zoning

The Project site is within the ARE – Agricultural Rural Exclusive – 20 Acres Zone District (County of Madera) (Figure 2-4). Because the Project is outside of the city limits, it is subject to annexation into the city of Madera. City annexation requires a pre-zone to change the zone district to P-D (4500) which is consistent with the planned land use designation of LD – Low Density Residential. The P-D (4500) Zone District permits one unit for each 4,500 square feet (sf.) of site area. The Project proposes a 214-lot subdivision with a minimum lot size of 50-feet by 100-feet, or 5,000 sf. Therefore, the Project is consistent with the P-D (4500) Zone District. The proposed development standards for the P-D (4500) Zone District are provided in Table 2-1 Proposed Development Standards for P-D (4500).

Table 2-1 Proposed Development Standards for P-D (4500)

Development Standards	Existing Use
Density Range	2.1 – 7.0 du/ac
Minimum Lot Area	5,000 sf.
Minimum Corner Lot Area	5,500 sf.
Maximum Lot Coverage	55%
Minimum Landscape Area (Front Yard)	25%
Minimum Interior Lot Width	45 ft.
Minimum Exterior Lot Width	50 ft.
Minimum Lot Depth	80 ft.
Maximum Building Height	2 stories, 38 ft.
Minimum Curved Frontage	35 ft.

Minimum Yard Setbacks Front Setback – Porch, Balcony, Deck 10 ft. Front Setback – Living Space 13 ft. Front Setback – Front Entry Gate 20 ft. Street Side Setback 10 ft. (or 15 ft. for Reverse Corner) *Interior Side Setback* 5 ft. Rear Setback – Patio Cover, Balcony Deck 5 ft. Rear Setback – Living Space not adjacent to an 15 ft. arterial, collector, or local street Rear Setback – Living Space adjacent to an 20 ft. arterial, collector, or local street

2.1.9 Description of Project

Project Description

The proposed Project includes a pre-zone/annexation (Annexation Application No. 2021-01), tentative tract map (Tentative Subdivision Map No. 2021-02), and planned development/precise plan (Precise Plan Application No. 2021-04) applications to facilitate a residential development in the City of Madera. The Project would allow for the construction of a residential subdivision that consists of 214 single-family lots (5.30 dwelling units per acre) to occupy approximately 40-acres of the total 307-acre parcel located on the south side of Cleveland Avenue between Avenue 16 and Road 23 in Madera, CA (portion of APN: 033-18-003) (Figure 2-7). The Project would require annexation of the site into the City of Madera.

The pre-zone application requests to change the zoning of the subject site from the Agricultural Rural Exclusive- 20-acres Zone District (County), to the P-D (4500) Zone District. The planned development application has been filed as required to establish this P-D Zone District. The precise plan proposes specific development standards, landscaping, and architectural character proposed as part of this planned development application. The proposed tract map would allow for the subdivision of the subject site into 214 single-family lots at 5.30 dwelling units per acre. The minimum proposed lot size is 50-feet by 100-feet or 5,000 sf. and the average lot area is approximately 5,460 sf.

The site is bounded to the north by Cleveland Avenue (Arterial) and to the east by Road 24 Alignment. The primary access points to the subdivision are proposed on Cleveland Avenue at N Street (future Local) and B Street (future Collector) at Alamosa Drive (future Local). This portion of Cleveland Avenue will be improved with curb and gutter, sidewalk, bicycle lanes/sharrows, landscaping, storm drains, and streetlights. Similar improvements are proposed for B Street. Landscape corridors are provided along Cleveland Avenue and B Street. These corridors will contain plant materials selected for their appropriateness to the project theme, climatic conditions, soil conditions, water requirements, and ongoing maintenance. Materials include but are not limited to Red Maple, Gingko, Crape Myrtle, Saratoga Laurel, Chinese Pistache, and Chinese Elm (Figure 2-8).

The Project is subject to provision of utilities and service systems. The Project will include installation of a 12-inch water main from the Road 24 Alignment east of the Project site. The 12-inch water main will be installed along Cleveland Avenue and B Street. A water well will be constructed off-site. Wastewater services will be provided for the Project site. Wastewater from the site will be conveyed to the existing City of Madera Wastewater Treatment Plant through the existing Westberry Trunkline. Further, it has been confirmed that the Melanie Meadows sewer lift station has the capacity to serve the Project. Future

residences will be served by the City's contracted waste hauler. Lastly, the Applicant proposes the construction of a temporary stormwater drainage basin to the north of the Project site, north of Cleveland Avenue, for stormwater drainage.

Required Actions

The City of Madera City Council would be requested to act on the adoption of the Mitigated Negative Declaration with appropriate findings, adoption of a Mitigation Monitoring and Reporting Program, and approval of the Tentative Subdivision Map, the Pre-Zone/Annexation Application, and Planned Development/Precise Plan Application. The City of Madera would also issue the following permits if and once the above actions are approved: grading permit, encroachment permit, sign permits, and building permits.

2.1.10 Site and Surrounding Land Uses and Setting

Project Setting

Historically, the Project site has been designated and operated as agricultural land. The existing site contains a single-family residential dwelling (1,395 sf.) and metal barn for agricultural equipment and related storage. These structures are located on the northeast corner of the site. There are no other improvements or structures on-site. Cleveland Avenue, a two-lane, east-west Arterial forms the northerly Project site boundary and Road 24 Alignment forms the easterly Project site boundary. No street frontage improvements are present (i.e., no curb, gutter, sidewalk, storm drains, or streetlights). The existing biotic conditions and resources of the Project site can be defined primarily as agricultural with a majority of the site containing almond orchards. Trees, shrubs, and ruderal and herbaceous vegetation surround the single-family residential dwelling. There are approximately 15 trees surrounding the residence; the trees surrounding the residence are not protected. As referenced in Table 2-2, the Project site is surrounded by agricultural land to the north, south, and west, the Fresno River to the south, and vacant land to the east. The properties to the north, south, east, and west are planned for residential uses.

Table 2-2 Existing Uses, General Plan Designations, and Zone Districts of Surrounding Properties

Direction from Project site	Existing Use	General Plan Designation	Zone District	
North	Agriculture	VR – Village Reserve	ARE – Agricultural Rural Exclusive – 20 Acres (County of Madera)	
East	Vacant, developing residential	LD – Low Density Residential	P-D (8000)	
South	Agriculture	VR – Village Reserve	ARE — Agricultural Rural Exclusive — 40 Acres (County of Madera)	
West	Agriculture	VR – Village Reserve	ARE — Agricultural Rural Exclusive — 20 Acres (County of Madera)	

2.1.11 Other Public Agencies Whose Approval May Be Required

Other agencies may have the authority to issue permits prior to implementation of the project including, but not limited to, the San Joaquin Valley Air Pollution Control District (SJVAPCD), California Regional Water Quality Control Board, and the Madera County LAFCO. The Project is subject to the SJVAPCD District Rule 9510 (Indirect Source Review) because it will receive a project-level discretionary approval from a public agency and will exceed 50 single family dwelling units. The Project will also be subject to a SJVAPCD Authority to Construct Permit, and District Regulation VIII (Fugitive PM10 Prohibitions) which requires the approval of a Dust Control Plan prior to construction. The Project may also be subject to District Rule 2010 (Permits Required and Rule 2201 (New and Modified Stationary Source Review), Rule 4402 (Nuisance), Rule 4601 (Architectural Coatings) or to Rule 4641 (Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations), as well as a Permit to Operate. The Regional Water Quality Control Board will review the Project for compliance and issue a Notice of Intent (NOI) to Comply with the National Pollutant Discharge Elimination System (NPDES) General Construction Permit, and Storm Water Pollution Prevention Plan (SWPPP). Lastly, the Madera County LAFCO must review and approve the annexation.

2.1.12 Consultation with California Native American Tribes

Public Resources Code Section 21080.3.1, et seq. (codification of AB 52, 2013-14)) requires that a lead agency, within 14 days of determining that it will undertake a project, must notify in writing any California Native American Tribe traditionally and culturally affiliated with the geographic area of the project if that Tribe has previously requested notification about projects in that geographic area. The notice must briefly describe the project and inquire whether the Tribe wishes to initiate request formal consultation. Tribes have 30 days from receipt of notification to request formal consultation. The lead agency then has 30 days to initiate the consultation, which then continues until the parties come to an agreement regarding necessary mitigation or agree that no mitigation is needed, or one or both parties determine that negotiation occurred in good faith, but no agreement will be made.

The City of Madera has not received written correspondence from any California Native American Tribe pursuant to Public Resources Code Section 21080.3.1 requesting notification of proposed Projects in the City of Madera.

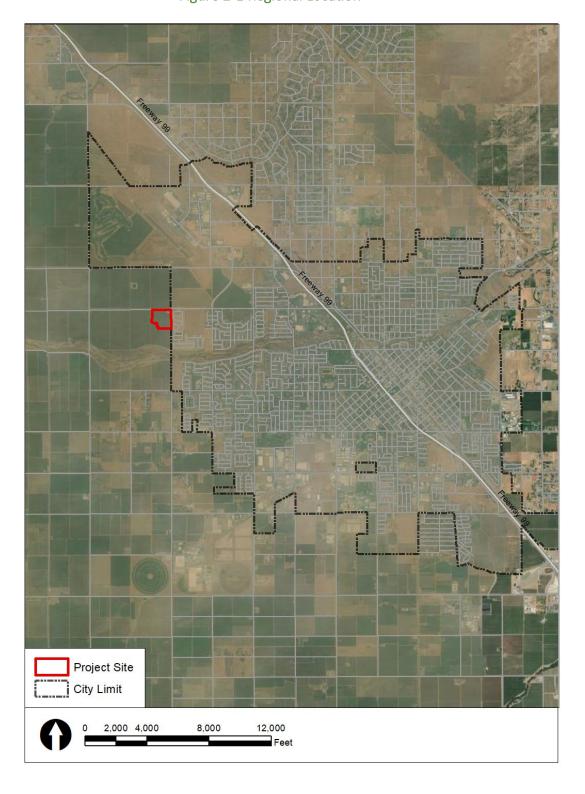


Figure 2-1 Regional Location

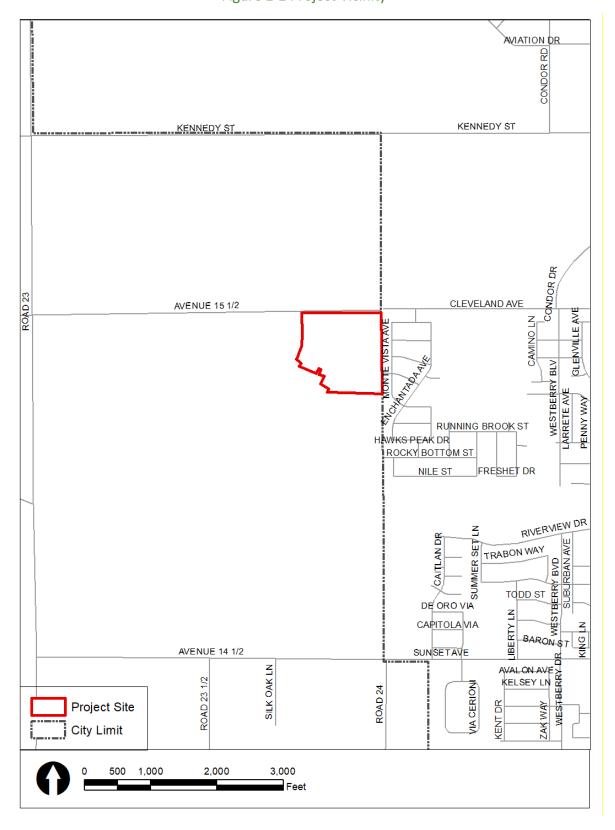


Figure 2-2 Project Vicinity

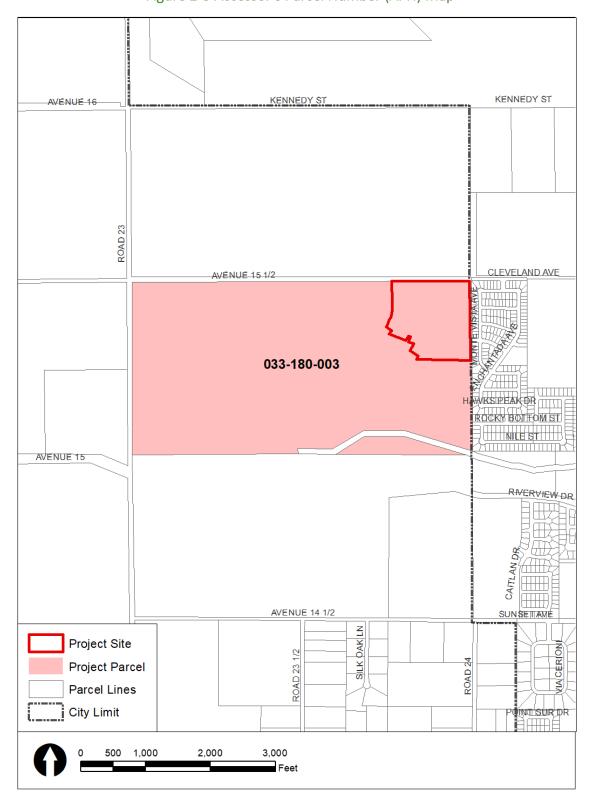


Figure 2-3 Accessor's Parcel Number (APN) Map

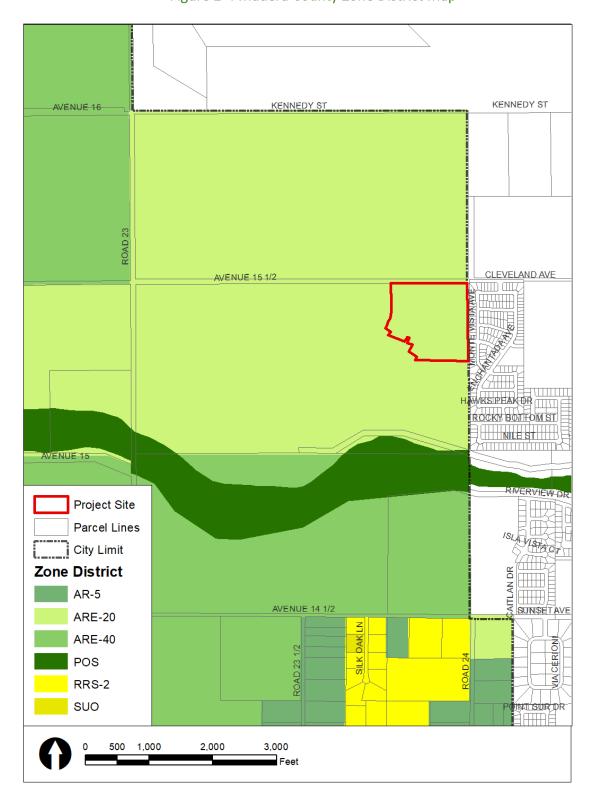


Figure 2-4 Madera County Zone District Map

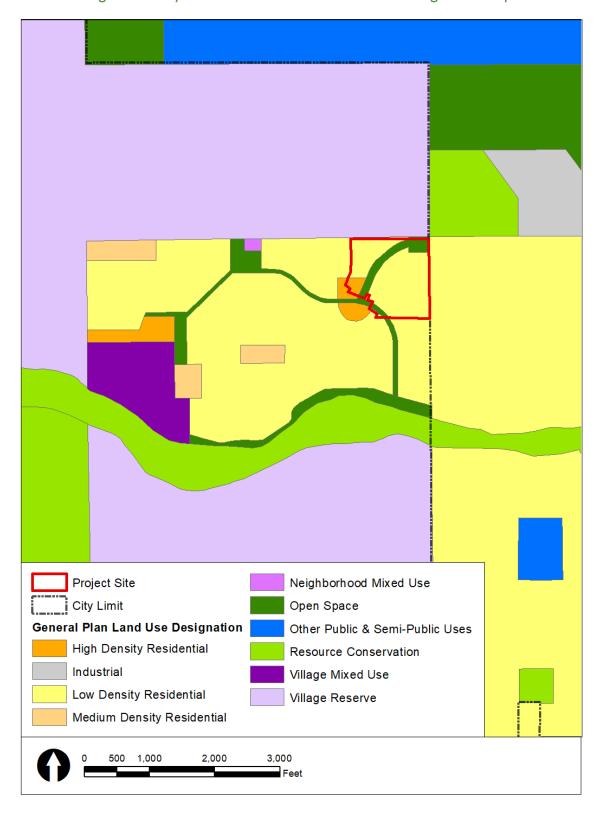


Figure 2-5 City of Madera General Plan Land Use Designation Map

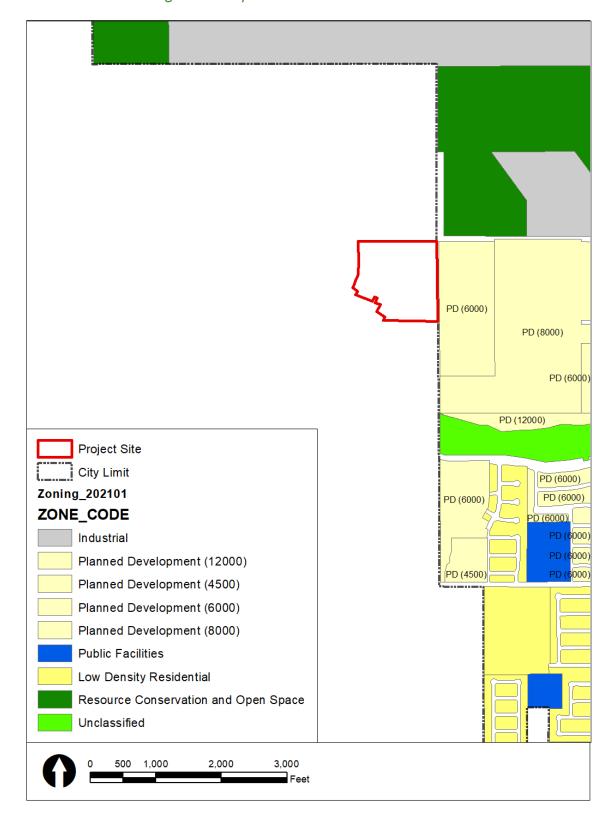


Figure 2-6 City of Madera Current Zone Districts

Figure 2-7 Tentative Tract Map for the Proposed Project

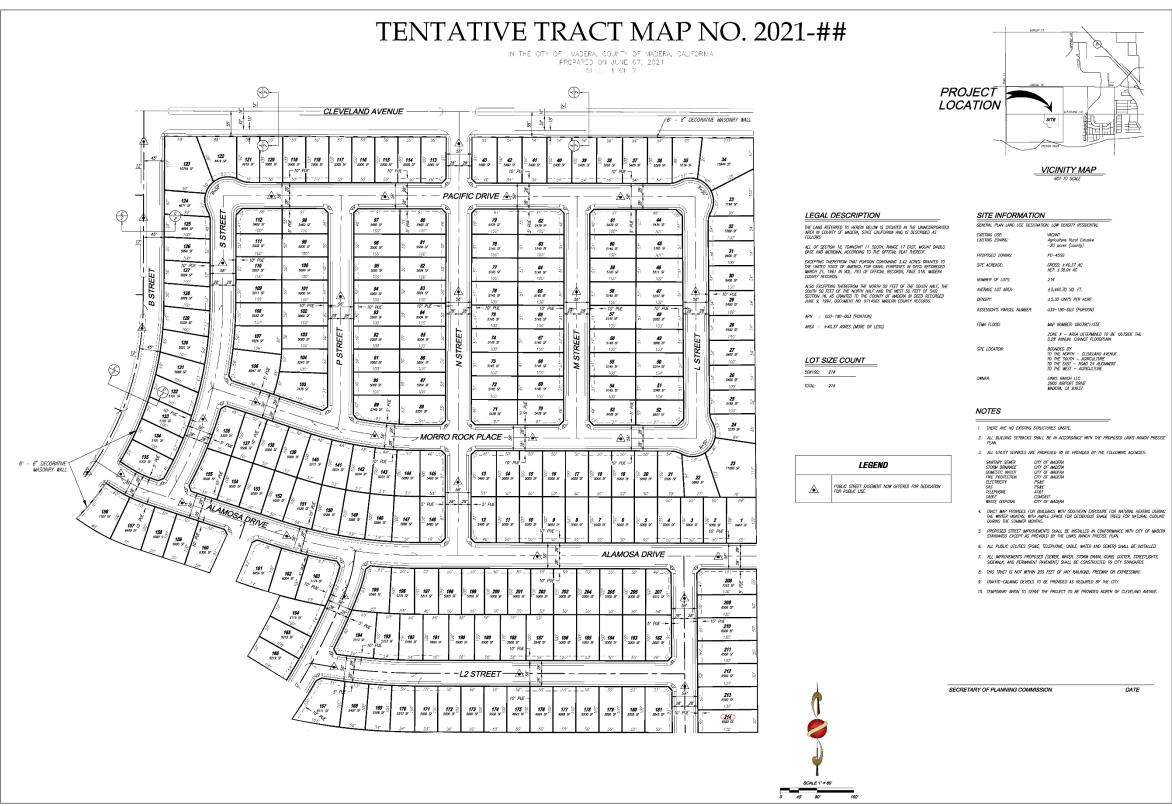


Figure 2-8 Conceptual Landscaping Exhibit

Landscaping Plan

Landscape corridors are provided along major streets including Eleveland Avenue and B Street (**Figure 4**). These corridors will contain andscaping, sidewalks, lighting, and public utilities. The plant materials hown in **Figure 4** have been selected for their appropriateness to the project theme, climatic conditions, soil conditions, water requirements, and ongoing maintenance. Plant material selections shall be reviewed approved by the City during project review. Plant installation shall be provided per City standards. Final plant species and location will be letermined as part of the improvement plan process with the final lesign utilizing this palette to create aesthetic, cohesive and complementary designs throughout the Project area.

Plant Materials

Botanical Name

Acer rubrum var 'Autumn Blaze' Gingko biloba 'Autumn Gold' Lagerstroemia indica 'Pink' Laurus nobilis 'Saratoga' Pistacia Chinensis 'Keith Davey' Ulmus parvifolia 'Allee'

Common Name

Red Maple Gingko (male variety) Crape Myrtle Saratoga Laurel Chinese Pistache (seedless) Chinese Elm

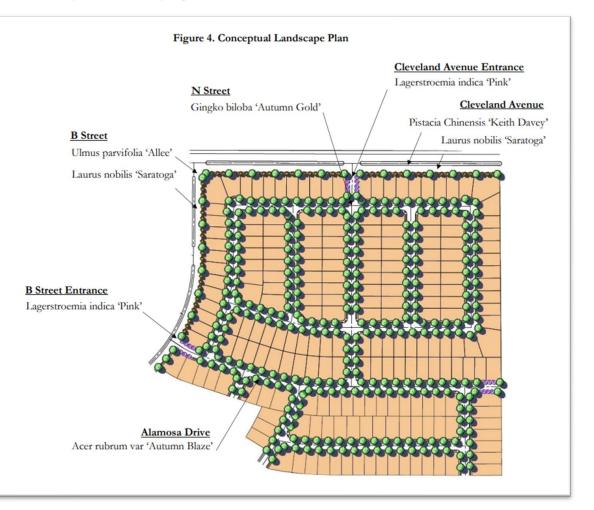


Figure 2-9 Project Design Guidelines

Architecture

The general design guidelines for the residential subdivision are as follows.

Building Siting and Orientation

- 1. Orient the front of the buildings toward the streets and open space, wherever feasible.
- Buildings on corner lots should respond to adjacent streets and intersections appropriately, addressing the increased public visibility by wrapping architectural detailing and elements around the corner.

Building Form, Scale, and Massing

- 1. Form and massing should be established by the characteristics of the building's architectural style.
- 2. Building forms should be of simple geometry.
- 3. Long, uninterrupted expanses of building walls are discouraged.
- 4. Variation in scale, massing and details should be incorporated among nearby buildings.

Building Façades, Features and Details

- All design features and details should complement the architectural style of the building.
- All design elements should appear as an integrated part of an overall site design concept. Details should be integrated into the buildings and not simply applied as an afterthought.
- Elements such as porches, balconies, bay windows, etc., should be used to break up the façade of multi-story buildings.
- 4. Front entries should be clearly visible and directly accessible from the street, where appropriate.
- Architectural massing and articulation, landscaping and/or lighting should be used to highlight the location of the front entrances.
- Porches and stoops may be used to highlight the front entries and provide a transition from the public street to the private dwelling. Porches should be a minimum of 4' deep to provide a usable and furnishable space.
- Windows and doors should be detailed, sized and positioned appropriately in the context of the architectural style.
- Windows on side elevations should be staggered, where possible, so as not to be positioned directly
 opposite the windows on the adjacent buildings.
- Homes on corner lots should be designed for two-sided corner exposure with enhanced architectural elements.

Building Materials and Colors

- To achieve the variety of architectural expressions, no single building material or color should predominate. Rather, a variety of harmonious materials and color should be used to create a rich tapestry of design elements.
- Building materials should be compatible with the architectural style of the home. Permitted building materials include, but are not limited to, stucco, brick, stone, and wood-like siding/shingle.
- Building materials should be high quality, durable and low maintenance.
- 4. Building color palettes should be authentic to the selected architectural styles of the homes.
- Primary building colors should be neutral and muted in hue. Brighter and more saturated colors should be used as accent colors only or as part of a balanced, carefully executed color scheme.
- Architectural details and trims, such as cornices and window/door trims, should be painted a subtly contrasting color to be distinguished from the wall surface.

Roofs

- Roof forms and materials should reflect the selected architectural style of the building.
- 2. Roofs should be designed to appear harmoniously with one another in terms of form and color.
- On larger roof surfaces, features such as parapets, overhanging eaves and variation in the slope of roof planes should be incorporated to add variety.





Source: Precise Plan prepared for the Project

Chapter 3 Determination

3.1 Environmental Factors Potentially Affected

As indicated by the discussions of existing and baseline conditions, and impact analyses that follow in this Chapter, environmental factors not checked below would have no impacts or less than significant impacts resulting from the project. Environmental factors that are checked below would have potentially significant impacts resulting from the project. Mitigation measures are recommended for each of the potentially significant impacts that would reduce the impact to less than significant.

Aesthetics	Agriculture & Forestry 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

The analyses of environmental impacts in **Chapter 4 Impact Analysis** result in an impact statement, which shall have the following meanings.

Potentially Significant Impact. This category is applicable if there is substantial evidence that an effect may be significant, and no feasible mitigation measures can be identified to reduce impacts to a less than significant level. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

Less than Significant with Mitigation Incorporated. This category applies where the incorporation of mitigation measures would reduce an effect from a "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measure(s), and briefly explain how they would reduce the effect to a less than significant level (mitigation measures from earlier analyses may be cross-referenced).

Less Than Significant Impact. This category is identified when the proposed Project would result in impacts below the threshold of significance, and no mitigation measures are required.

No Impact. This category applies when a project would not create an impact in the specific environmental issue area. "No Impact" answers do not require a detailed explanation if they are adequately supported by the information sources cited by the lead agency, which show that the impact does not apply to the specific project (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).

3.2 Determination

On the	basis of this initial evaluation (to be comp	Dieted by the Lead Agency):
	I find that the proposed Project COULD NEGATIVE DECLARATION will be prepare	NOT have a significant effect on the environment, and a
	will not be a significant effect in this case	t could have a significant effect on the environment, there se because revisions in the project have been made by or IITIGATED NEGATIVE DECLARATION will be prepared.
	I find that the proposed Project MAY ENVIRONMENTAL IMPACT REPORT is re-	have a significant effect on the environment, and an quired.
	significant unless mitigated" impact or adequately analyzed in an earlier docum addressed by mitigation measures base	have a "potentially significant impact" or "potentially the environment, but at least one effect 1) has been ent pursuant to applicable legal standards, and 2) has been d on the earlier analysis as described on attached sheets. Frequired, but it must analyze only the effects that remain
	because all potentially significant effect NEGATIVE DECLARATION pursuant to ap	ect could have a significant effect on the environment, is (a) have been analyzed adequately in an earlier EIR or plicable standards, and (b) have been avoided or mitigated DECLARATION, including revisions or mitigation measures bject, nothing further is required.
Signatu	ure	Date
Gary Co	onte AICP Planning Manager	

Chapter 4 Impact Analysis

4.1 Aesthetics

•	as provided in Public Resources Code 21099, would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a)	Have a substantial adverse effect on a scenic vista?			\boxtimes	
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?				

4.1.1 Environmental Setting

The city of Madera is located within Madera County in the San Joaquin Valley in central California. The city's visual features predominately include urbanized land uses, agricultural land uses, rivers, creeks, and trees. The Project site is located in the western area of the city of Madera, situated on the south side of Cleveland Avenue between Avenue 16 and Road 23. The Project area (i.e., within ½-mile radius of the Project site) generally comprises agricultural lands that are designed for low density residential development by the Madera General Plan. Views of agricultural lands can be seen to the north, south, east, and west from the Project site. The Sierra Nevada mountains are visible to the east, but the views are somewhat obstructed by the expansive views of surrounding agricultural lands. Future planned development, including the proposed Project, will result in the installation of infrastructure such as roadways, streetlights, and ambient light sources typical of residential development.

4.1.2 Impact Assessment

a) Would the project have a substantial adverse effect on a scenic vista?

Less than Significant Impact. The Madera General Plan does not identify or designate any scenic vistas in the city of Madera. Many roads outside the Madera city limits pass through agricultural areas and provide views of the mountain ranges in the distance. Although not located within or adjacent to the Project site, State Route (SR) 99 and SR 145 are located in Madera and pass through agricultural and rural lands. In addition, the Fresno River is located to the south but is not visible from the Project site. Given the flat topography and limited long-distance viewshed available, scenic vistas and far-field views from public vantage within the Project site are currently obstructed by existing agricultural uses because agricultural uses are pervasive for extended distances in all directions. As such, scenic views of features including mountains are not significant. In addition, the Project site does not contain any specific visual features or historic resources; and there are no scenic highways in or near the Project site according to the General Plan. As such, the Project itself would not result in an adverse effect on a scenic vista, including any federal, state, or locally classified scenic vistas or areas, historic resources, or a scenic highway. Therefore, the Project would have a less than significant impact.

b) Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

No Impact. According to the California State Scenic Highway System Map, the Project is not located near a State-designated scenic highway and therefore, the Project would not damage scenic resources within a state scenic highway. No officially designated state scenic highways are located within the Project site, or the City of Madera. Portions of SR 49 and SR 41 are eligible, but those highway segments are located in the Sierra Nevada over 30 miles northeast of the Project site. As a result, the Project would not affect scenic resources within a state scenic highway and therefore would have no impact.

c) In non-urbanized areas, would the project 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?

Less than Significant Impact. Development of the Project site would result in the conversion of approximately 41-acre of agricultural land to suburban uses. This conversion would change the existing visual character or quality of public views of the site and its surroundings. However, the area just east of the site is experiencing similar conversion and is becoming urbanized. Thus, the proposed Project will not result in a substantial degradation of the visual character of the area as it will be consistent with uses in adjacent approved projects. In terms of public views, given the flat topography and limited long-distance viewshed available, scenic vistas and far-field views from public vantage within the Project site are currently obstructed by existing agricultural uses because agricultural uses are pervasive for extended distances in all directions. As such, scenic views of features including mountains are not significant. Further, the proposed use is consistent with the planned land use designation and is planned for urban growth and is

² Caltrans, California State Scenic Highway System Map. Accessed July 27, 2021, https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aacaa

subject to compliance with applicable zoning and other regulations governing scenic quality. In addition, architectural standards are proposed as part of the Precise Plan application which will further ensure the minimization of visual impact by upholding the visual character or quality of public views of the site and its surroundings. Therefore, the Project would have a less than significant impact on the visual character and scenic quality of the Project area.

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

Less than Significant Impact. Generally, lighting impacts are associated with artificial lighting in evening hours either through interior lighting from windows or exterior lighting (e.g., street lighting, parking lot lighting, landscape lighting, cars, and trucks). Development of the Project site would introduce new light sources including residential development and sources associated with increased traffic levels in the Project area. Such sources could create adverse effects on day or nighttime views in the area.

As mentioned above, the Project would introduce new light sources into the area, including temporary light and glare resulting from construction activities that could adversely affect day or nighttime views. Although construction activities are anticipated to occur primarily during daylight hours, it is possible that some activities could occur during dusk or early evening hours (pursuant to Madera Municipal Code Section 3-11.01, construction activities are allowed between 6:00 AM and 8:00 PM). Construction during these time periods could result in light and glare from construction vehicles or equipment. However, construction would occur primarily during daylight hours and would be temporary in nature. Once construction is completed, any light and glare from these activities would cease to occur.

The Project would be required to comply with the General Plan and Madera Municipal Code, which contain specific, enforceable requirements and/or restrictions intended to prevent light and glare impacts. In particular, compliance with Title 24 — Residential Lighting Design Guide would reduce impacts related to nighttime light. The lighting design guide covers outdoor spaces including regulations for mounted luminaires (i.e., high efficacy, motion sensor controlled, time clocks, energy management control systems, etc.). As such, conditions imposed on the Project by the City of Madera pursuant to Title 24 would reduce light and glare impacts to a less than significant impact.

4.2 Agriculture and Forestry Resources

Would	the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a)	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non- agricultural use?			\boxtimes	
b)	Conflict with existing zoning for agricultural use, or a Williamson Act contract?				
c)	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?				\boxtimes
d)	Result in the loss of forest land or conversion of forest land to non-forest use?				\boxtimes
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?			\boxtimes	

4.2.1 Environmental Setting

The Project site is within the ARE – Agricultural Rural Exclusive – 20 Acres Zone District (County of Madera). Historically, the Project site has been operated as agricultural land. A majority of the 41-acre site contains almond orchards, in addition to a single-family residential dwelling unit and metal barn for agricultural equipment and related storage on the northeast corner of the site. The Project site does not contain any forestry resources such as forest land or timberland. The site is not under a Williamson Act Contract.

According to the Farmland Monitoring and Mapping Program, California Important Farmland Finder, the Project site is located on land that is designated as "Prime Farmland" and "Farmland of Statewide Importance." Prime Farmland is farmland with 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. Farmland of Statewide Importance is 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.

4.2.2 Impact Assessment

a) Would the project 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?

Less than Significant Impact. The Project site is currently used for agricultural operations and is designated as "Prime Farmland" and "Farmland of Statewide Importance" as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program. Thus, the proposed Project would result in the conversion of agricultural lands to a non-agricultural use (i.e., residential development). However, the site is within the Urban Growth Area in northwest Madera. The Urban Growth Area is planned for the development of urban uses, including residential development. This conversion of agricultural land to residential uses was evaluated under the Madera General Plan Update Environmental Impact Report (EIR). This EIR recognized that despite implementation of the objectives and policies of the General Plan, project and cumulative impacts on agricultural resources will remain significant. The City of Madera adopted Findings of Fact related to Significant and Unavoidable Effects as well as Statements of Overriding Considerations in order to certify the General Plan Updated Environmental Impact Report. Section 15093 of the California Environmental Quality Act requires the lead agency to balance the benefits of a proposed Project against its unavoidable environmental risks in determining whether to approve the project.

The adopted Statements of Overriding Considerations for the General Plan EIR addressed Findings of Significant Unavoidable Impacts within the categories/areas of Agricultural Resources; citing specific economic, legal, social, technological, or other considerations which were deemed and considered by the City Council to be benefits, which outweighed the unavoidable adverse environmental effects attributed to development occurring within the City of Madera Sphere of Influence (SOI), consistent with the land uses, densities, and intensities set forth in the Madera General Plan.

Furthermore, the Madera County LAFCO approved the expansion of the City of Madera's Sphere of Influence in October 2018. The expansion is consistent with Madera County General Plan Policy 5.A.5: "The County shall allow the conversion of existing agricultural land to urban uses only within designated urban and rural residential areas, new growth areas, and within city spheres of influence where designated for urban development on the General Plan Land Use Diagram." Because the Project is within a designated urban residential area and is within the City's sphere of influence, conversion of the agricultural land to a non-agricultural use is permitted pursuant to Policy 5.A.5.

Given the Project is within the City's Sphere of Influence, Urban Growth Area, and designated urban residential area, it can be concluded that the conversion of Prime Farmland and Farmland of Statewide Importance to a non-agricultural use would have a less than significant impact.

b) Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?

Less than Significant Impact. The Project site is currently zoned ARE – Agricultural Rural Exclusive – 20 Acres in the Madera County Zoning Ordinance and is used for agricultural operations; however, the site is not under a Williamson Act contract. The proposed residential use would conflict with the existing zoning for agricultural use. However, as previously discussed, the site is outside of city limits but is within a designated Urban Growth Area for future development of urban uses. Therefore, the site is subject to an annexation and a pre-zone/rezone to facilitate a use that is consistent with its planned land use designation. Specifically, the Project proposes the establishment of a P-D (4500) Zone District which is consistent with its LD – Low Density Residential planned land use designation. Furthermore, conversion of agricultural lands to urban uses (i.e., residential development) within the Urban Growth Area is consistent with the Madera County General Plan (see discussion under criteria 'a' above). Overall, development of the Project site is consistent with the intention of the Urban Growth Area and the pre-zone/rezone would bring the site into conformance with its planned land use designation. For these reasons, the Project would have a less than significant impact.

c) Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

No Impact. The Project site does not contain forest land or timberland and it is not zoned for forestry or timberland uses. As a result, the Project would have no impact.

d) Would the project result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. The Project site does not contain forest land or timberland and it is not zoned for forestry or timberland uses. As a result, the Project would have no impact.

e) Would the project 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?

Less than Significant Impact. The Project site is within the Urban Growth Area considered for northwest Madera. Properties within the Urban Growth Area are planned for future urban uses. The Project area primarily consists of agricultural lands that are planned for residential uses. Parcels to the north, south, and west of the Project site are within the county of Madera. These parcels are zoned for agricultural uses and are planned for residential development upon annexation into the city. The parcel to the east of the Project site is within the city of Madera, is zoned and planned for residential uses, and is currently undergoing development. The Project area (inclusive of the Project site) does not contain forest land or timberland.

The Project site is currently used for agricultural operations. The Project proposes a residential subdivision and therefore would result in the conversion of farmland to non-agricultural uses. Thus, it can be expected that the Project area will undergo changes in the existing environment, which due to their location or

nature would result in the conversion of farmland to non-agricultural use. However, because the Project area is within the Urban Growth Area, such changes have been anticipated and previously analyzed through the Madera General Plan, Madera County General Plan, and action by the Madera County LAFCO to expand the city's Sphere of Influence in 2018 (see discussion under criteria 'a' above). For these reasons, the Project would have a less than significant impact to the existing environment.

4.3 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:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	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?			\boxtimes	
d)	Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?				

4.3.1 Environmental Setting

The city of Madera lies within the central portion of the San Joaquin Valley Air Basin that is bounded by the Sierra Nevada Mountain range to the east, Coastal Ranges to the west, and Tehachapi mountains to the south. In general, there are four (4) major sources of air pollutant emissions in this Air Basin: motor vehicles, industrial plants, agricultural activities, and construction activities. The San Joaquin Valley Air Pollution Control District (SJVAPCD) oversees the San Joaquin Valley Air Basin.

4.3.2 Impact Assessment

Thresholds of Significance

To assist local jurisdictions in the evaluation of air quality impacts, the SJVAPCD has published the *Guide for Assessing and Mitigating Air Quality Impacts* (GAMAQI). This guidance document includes recommended thresholds of significance to be used for the evaluation of short-term construction, long-term operational, odor, toxic air contaminant, and cumulative air quality impacts. Accordingly, the SJVAPCD-recommended thresholds of significance are used to determine whether implementation of the proposed Project would result in a significant air quality impact. Projects that exceed these recommended thresholds would be considered to have a potentially significant impact to human health and welfare. The thresholds of significance are summarized, as follows:

Short-Term Emissions of Particulate Matter (PM10): Construction impacts associated with the proposed Project would be considered significant if the feasible control measures for construction in compliance with Regulation VIII as listed in the SJVAPCD guidelines are not incorporated or implemented, or if project-generated emissions would exceed 15 tons per year (TPY).

Short-Term Emissions of Ozone Precursors (ROG and NOX): Construction impacts associated with the proposed Project would be considered significant if the project generates emissions of Reactive Organic Gases (ROG) or NO_X that exceeds 10 TPY.

Long-Term Emissions of Particulate Matter (PM10): Operational impacts associated with the proposed Project would be considered significant if the project generates emissions of PM₁₀ that exceed 15 TPY.

Long-Term Emissions of Ozone Precursors (ROG and NOX): Operational impacts associated with the proposed Project would be considered significant if the project generates emissions of ROG or NOX that exceeds 10 TPY.

Conflict with or Obstruct Implementation of Applicable Air Quality Plan: Due to the region's nonattainment status for ozone, $PM_{2.5}$, and PM_{10} , if the project-generated emissions of either of the ozone precursor pollutants (i.e., ROG and NO_x) or PM_{10} would exceed the SJVAPCD's significance thresholds, then the project would be considered to conflict with the attainment plans. In addition, if the project would result in a change in land use and corresponding increases in vehicle miles traveled, the project may result in an increase in vehicle miles traveled that is unaccounted for in regional emissions inventories contained in regional air quality control plans.

Local Mobile-Source CO Concentrations: Local mobile source impacts associated with the proposed Project would be considered significant if the project contributes to CO concentrations at receptor locations in excess of the CAAQS (i.e., 9.0 ppm for 8 hours or 20 ppm for 1 hour).

Exposure to toxic air contaminants (TAC) would be considered significant if the probability of contracting cancer for the Maximally Exposed Individual (i.e., maximum individual risk) would exceed 10 in 1 million or would result in a Hazard Index greater than 1.

Odor impacts associated with the proposed Project would be considered significant if the project has the potential to frequently expose members of the public to objectionable odors.

Short-term and long-term emissions associated with the Project were calculated using California Emissions Estimator Model (CalEEMod, Version 2016.3.2) based on available Project information. Modeling assumptions and output files are included in Appendix A.

a) Would the project conflict with or obstruct implementation of the applicable air quality plan?

Less than Significant Impact. CalEEMod was used to determine the potential emissions of regulated criterion pollutants for the Project. CalEEMod defaults were used with the exception of the construction phase; the construction phase timeline was updated with estimated dates. In addition, the following mitigation measures were selected for operations: increase density, improve walkability design, improve pedestrian network, provide traffic calming measures, use low VOC paint (interior/exterior), use of only natural gas hearths, and use of reclaimed water. Table 4-1 below shows the Project totals (in tons per year) in relation to the SJVAPCD adopted thresholds outlined in the GAMAQI. The results shown used default CalEEMod factors with the modification of demolition from the Construction factors, as major demolition is not required for the Project. As shown, the estimated Construction and Operational emissions of the Project are below all significant thresholds and the Project is therefore consistent with the GAMAQI. CalEEMod Output Files are presented in Appendix A.

Table 4-1 CO, NOx, ROG, PM10, PM2.5 Thresholds, Maximum

Emission Source (Tons Per Year)	ROG	NO _x	CO	SO ₂	PM ₁₀	DM
, ,	KOG	NOx	CO	3U ₂	PIVI ₁₀	PM _{2.5}
Construction						
Construction, Unmitigated	3.6504	3.5526	2.9334	0.00603	0.7296	0.4374
(maximum)						
Significance Threshold	10	10	100	27	15	15
Exceed Threshold?	No	No	No	No	No	No
Operational						
Operational, Mitigated	2.6519	6.0274	9.6872	0.0405	2.6610	0.7851
Significance Threshold	10	10	100	27	15	15
Exceed Threshold?	No	No	No	No	No	No

Source: CalEEMod, Version 2016.3.2, ran on July 29, 2021

Additionally, the proposed Project shall comply with all rules and regulations administered by the SJVAPCD including but not limited to Regulation VIII - Fugitive PM_{10} Prohibitions, Rules 8011-8081 which intend to minimize human-generated PM_{10} emissions (e.g., dust and dirt) and Indirect Source Review, Rule 9510 which intends to minimize NO_x and PM_{10} emissions through on-site mitigation or district-administered projects off-site. The Project design anticipates such requirements and incorporates the measures in regard to air quality impacts, as described above. Thus, any impacts related to construction activities of the Project would be regulated through SJVAPCD regulations and requirements.

Overall, the Project would not have potential emissions of regulated criterion pollutants that exceed the SJVAPCD adopted thresholds as outlined in the GAMAQI. In addition, the Project shall be conditioned to meet additional rules and regulations administered by the SJVAPCD to minimize and mitigate on-site emissions. Consequently, the Project would result in a less than significant impact.

b) Would the project 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?

Less than Significant Impact. The San Joaquin Valley Air Basin is in non-attainment for ozone, PM_{10} , and $PM_{2.5}$, which means that certain pollutants' exposure levels are often higher than the normal air quality requirements. The requirements have been set to protect public health, particularly the health of vulnerable populations. Therefore, if the concentration of those contaminants exceeds the norm, some susceptible individuals in the population are likely to experience health effects. Concentration of the pollutant in the air, the length of time exposed and the individual's reaction are factors that affect the extent and nature of the health effects. Although the construction and operations of the Project would not exceed the thresholds of significant for criteria pollutants as set by the GAMAQI (See Table 4-1), there are PM_{10} , and $PM_{2.5}$ emissions associated with the Project and the Project would thereby contribute to cumulative increases. However, the construction and operational emissions analysis shows that the Project is well below the substantial thresholds of the GAMAQI and thus the project is compliant with the applicable Air Quality Attainment Plan. Therefore, the Project would not result in significant cumulative health impacts because the emissions are not at a level that would be considered cumulatively significant. As such, the Project would have a less than significant impact.

c) Would the project expose sensitive receptors to substantial pollutant concentrations?

Less than Significant Impact. Sensitive receptors are defined as people that have an increased sensitivity to air pollution or environmental contaminants. Sensitive receptor locations include schools, parks and playgrounds, day care centers, nursing homes, hospitals, and residential dwelling unit(s). The nearest sensitive receptors to the Project site are single-family residential dwelling units located approximately 75-ft. to the east of the site. As stated under criteria a) and b) above, emissions during construction or operations would not reach the significance thresholds and are not anticipated to result in concentrations that reach or surpass ambient air quality requirements. In addition, the project proposes a residential development, which is not a use which results in excessive pollutant concentrations which could impact sensitive receptors. Therefore, the Project would have a less than significant impact on nearby sensitive receptors.

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

Less than Significant Impact. Specific land uses that are considered sources of undesirable odors include landfills, transfer stations, composting facilities, sewage treatment plants, wastewater pump stations, asphalt batch plants and rendering plants. The Project would not consist of such land uses; rather, the Project proposes a residential subdivision and thus is unlikely to produce odors that would be considered to adversely affect a substantial number of people. Further, there are no major odor-generating sources within the Project area. Although some odors would be emitted during construction of the site (i.e., through diesel fuel and exhaust from equipment), these odors would be temporary and last only during construction activities. For these reasons, the odor impacts associated with the Project would be less than significant.

4.4 Biological Resources

Would	the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a)	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?				
b)	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?				
c)	Have a substantial adverse effect on 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?				

4.4.1 Environmental Setting

According to the California Natural Diversity Database, seven (7) plant and animal special-status species have been found in the city of Madera in the past. The database also shows one (1) "natural community" that has also been found in the city of Madera. This Natural Community, Northern Hardpan Vernal Pool,

contains vernal pools (which fill seasonally during the rainy season) that could harbor sensitive plant and animal species (including fairy shrimps). These vernal pools are generally found in annual grasslands, grasslands where the soils include an impermeable clay-pan layer below the surface, conditions which are widely distributed in the eastern portion of the city.

Sensitive plants and animals that have been found in the city of Madera are listed below.

- Burrowing Owl.
- California Tiger Salamander.
- Blunt nosed leopard lizard.
- California linderiella ("fairy shrimp").
- Vernal pool fairy shrimp.
- Madera leptosiphon.
- Hairy orcutt grass.

Although most of the city of Madera has been changed from its natural condition by farming and urban uses, a few areas of natural habitat remain. These include:

- Annual grasslands.
- Riparian areas.
- Wetlands. In addition, according to state records, one type of "Natural Community" is found in the Planning Area.

The Project site is within a rural but urbanizing area of the city. The site is currently farmed with minor rural residential improvements, but includes no vegetative cover, non-agricultural related trees, or water features suitable for habitat by special-status species (Figure 4-1, Figure 4-2, Figure 4-3, Error! Reference source not found.). There are no wetlands, historic or current, present on the site as indicated by the U.S. Fish and Wildlife Service, National Wetlands Inventory. Further, there are no natural habitats on the Project site. Wildlife use of the Project site and area is relatively low due to the lack of natural habitats and the dominance of monotypic orchard trees across most of the landscape. However, varieties of species are known to occur in agricultural areas.

A Biological Resources Evaluation (BRE) was conducted in November 2018 by LSA for a larger project area (i.e., Biological Study Area), inclusive of the Project site. The BRE is a combination of findings from visual observation and research. Based on the BRE conducted, common wildlife species observed or that could occur in the area include, but are not limited to, California ground squirrels (Otospermophilus beecheyi), coyote (Canis latrans), American crow (Corvus brachyrhynchos), western meadowlark (Sturnella neglecta), Brewer's blackbird (Euphagus cyanocephalus), northern mockingbird (Mimus polyglottos), mourning dove (Zenaida macroura), and red-tailed hawk (Buteo jamaicensis). The BRE also indicated the potentially suitable nesting and foraging habitat of the western burrowing owl to be present on the northeastern corner of the Project site (Figure 4-5). None of the visually inspected burrows within the area exhibited signs of burrowing owl occupancy, however, a full coverage survey was not possible during the reconnaissance windshield survey.

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³U.S. Fish & Wildlife Service. National Wetlands Inventory. Accessed July 27, 2021, https://www.fws.gov/wetlands/data/Mapper.html



Figure 4-1 View of Project site from Cleveland Avenue facing South

Source: Google Maps, image captured September 2015



Figure 4-2 View of Project site from Cleveland Avenue facing Southeast

Source: Google Maps, image captured September 2015

Figure 4-3 View of Project site from Cleveland Avenue facing Southeast



Source: Precision Civil Engineering, image captured August 2021

Figure 4-4 View of Project site from Cleveland Avenue facing Southwest



Source: Precision Civil Engineering, image captured August 2021

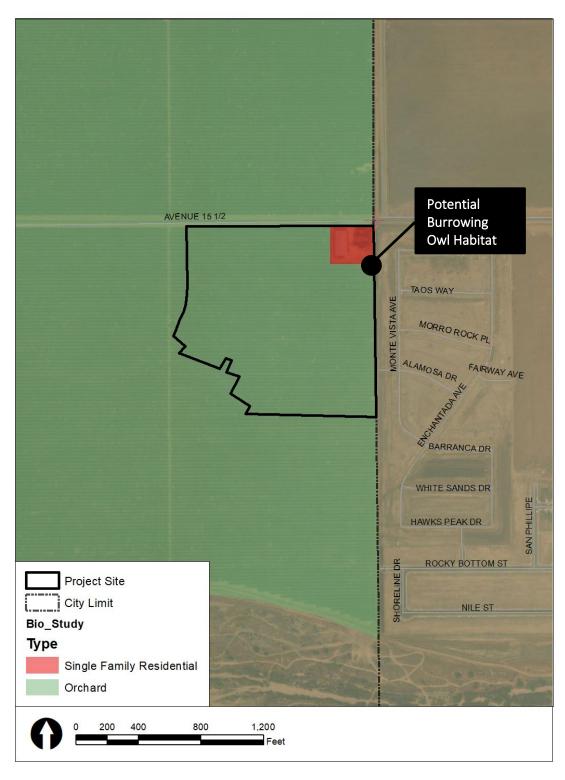


Figure 4-5 Potential Burrowing Owl Habitat

Source: Biological Resources Evaluation conducted by LSA in November 2018

4.4.2 Impact Assessment

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

Less than Significant Impact with Mitigation. No State or federally listed or proposed plant species occur in the project area; therefore, no special-status plants would be affected by the project. However, the Project has the potential to affect a special-status wildlife species. Particularly, implementation of the Project would result in potential impacts to suitable western burrowing oil habitat as a result of construction because permanent changes to barren areas (disked/plowed fallow fields) would occur. Though there is a low potential for burrowing owl to occur in the project area, implementation of the proposed Project could directly affect burrowing owls if this species is present on the site when construction activities begin. Therefore, implementation of Mitigation Measure BIO-1.1 would reduce any impacts to less than significant.

Mitigation Measure BIO-1.1. Prior to the issuance of grading permits, the following measures shall be implemented to reduce potential impacts to western burrowing owls:

- 1. Preconstruction surveys for western burrowing owls shall be conducted by a qualified biologist in accordance with the California Department of Fish and Wildlife (CDFW) 2012 Staff Report on Burrowing Owl Mitigation, or the most current guidelines.
- 2. If burrowing owls are identified during the preconstruction survey, avoidance of occupied burrows during the breeding season shall be implemented or passive exclusion, per CDFW's 2012 Staff Report on Burrowing Owl Mitigation, or the most current guidelines (installing one-way doors in burrow openings during the non-breeding season to temporarily exclude burrowing owls, or permanently exclude burrowing owls and close burrows after verifying burrows are empty by site monitoring and scoping) shall be implemented.
- b) Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

No Impact. According to the Madera General Plan and the U.S. Fish and Wildlife Service, National Wetlands Inventory, there are no known riparian habitats or other sensitive natural communities (defined as vegetation alliances) identified within the immediate vicinity of the Project. In addition, the Project site does not contain any water features that would provide habitat for riparian or other sensitive natural communities. Additionally, the Project site has been previously disturbed over time as it is used for agricultural operations and contains a single-family residential dwelling. For these reasons, the Project would not have a substantial adverse effect on any riparian habitat or other sensitive natural community. Therefore, the Project would have no impact.

c) Would the project 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?

No Impact. A search of the National Wetlands Inventory shows no federally protected wetlands (including but not limited to marsh, vernal pool, coastal, etc.) on the Project site or within the broader Project area.⁴ Further, no water features exist on site. Therefore, the Project would have no impact on state or federally protected wetlands.

d) Would the project 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?

Less than Significant Impact. Wildlife movement corridors are linear habitats that function to connect two or more areas of significant wildlife habitat. These corridors may function on a local level as links between small habitat patches (e.g., streams in urban settings) or may provide critical connections between regionally significant habitats (e.g., deer movement corridors). Wildlife corridors typically include vegetation and topography that facilitate the movements of wild animals from one area of suitable habitat to another, in order to fulfill foraging, breeding, and territorial needs. These corridors often provide cover and protection from predators that may be lacking in surrounding habitats. Wildlife corridors generally include riparian zones and similar linear expanses of contiguous habitat.

There is no evidence that the plant communities present in the area support a wildlife movement corridor or wildlife nursery site. The Project Area is heavily impacted by human activity (ongoing agriculture, vehicular traffic, etc.) so overall use by wildlife is likely low. Additionally, the Fresno River is located south of the Project Area, approximately 0.30-miles south of the Project site and provides a potentially suitable migration corridor. Therefore, the proposed Project would not impact a wildlife corridor or wildlife nursery site. Construction of the proposed Project could result in impacts to local wildlife movement, but these potential impacts would be minor and insignificant. As a result, a less than significant impact would occur.

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

Less than Significant Impact. The Madera General Plan Conservation Element outlines policies related to conservation of biological resources. Due to the lack of any identified special-status species or habitat for special-status species on the Project site or within the Project area, the Project would not conflict with any local policies or ordinances protecting biological resources including:

Conservation Policy CON-23: The City shall seek to conserve and improve native wildlife and plant habitat in cooperation with governmental agencies, private associations, and individuals in Madera.

Conservation Policy CON-24: Residential, commercial, industrial, and recreational projects shall avoid impacts to native wildlife and plant habitat to the extent feasible.

⁴ USGS, "National Wetlands Inventory." Accessed July 27, 2021, https://fwsprimary.wim.usgs.gov/wetlands/apps/wetlands-mapper/

Conservation Policy CON-25: The City encourages the preservation of habitat areas needed for the ongoing viability of native species, and habitat connectivity through the use of conservation easements or other methods.

Conservation Policy CON-26: To offset possible additional losses of native wildlife and plant habitat due to development projects, developers shall be responsible for mitigation. Such mitigation measures may include providing and permanently maintaining similar quality and quantity of replacement habitat, enhancing existing habitat areas, or paying in-lieu funds to an approved wildlife habitat improvement and acquisition fund. Replacement habitat may occur either on site or at approved offsite locations, but preference shall be given to on-site replacement.

Conservation Policy CON-27: The City supports the revitalization of the Fresno River as an amenity which can be enjoyed by both visitors and residents of Madera and serve as a source of civic pride, while continuing to provide for plant and wildlife habitat opportunities.

However, in the case that western burrowing owls are observed on site, Mitigation Measure BIO-1.1 would mitigate any potential impacts to less than significant. Therefore, the Project would have a less than significant impact.

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

No Impact. The Project site is not subject to an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. Therefore, construction of the proposed Project would not conflict with the provisions of any adopted habitat conservation plans and no impact would occur.

4.5 Cultural Resources

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Cause a substantial adverse chang significance of a historical resource pursuant to in §15064.5?	·			
b) Cause a substantial adverse chang significance of an archaeological r pursuant to §15064.5?	·			
c) Disturb any human remains, inclu those interred outside of dedicate cemeteries?	Ŭ -			

4.5.1 Environmental Setting

Generally, the term 'cultural resources' describes property types such as prehistoric and historical archaeological sites, buildings, bridges, roadways, and tribal cultural resources. As defined by CEQA, historical resources include sites, structures, objects, or districts that may have historical, prehistoric, architectural, archaeological, cultural, or scientific importance. Such resources are eligible for listing in the California Register of Historic Resources by the State Historical Resources Commission. According to the Madera General Plan, there are approximately 54 historic buildings/structures and sites in the city. Places of contemporary historical significance include the Madera County Courthouse, Luther Burbank School, and Dixie Motel. There are also many paleontological resources that have been discovered at the Fairmead landfill (approximately 18-miles northwest of the city). In addition, it is likely that archaeological and cultural resources exist along waterways.

In recent history, the Project site has been designated and operated as agricultural land. The existing site contains a single-family residential dwelling (1,395 sf.) and metal barn for agricultural equipment and related storage. These structures are located on the northeast corner of the site. A north-south/east-west Pacific Gas and Electric Company (PG&E) easement bounds the Project site. There are no other improvements or structures on-site. Cleveland Avenue, a two-lane, east-west Arterial forms the northerly Project site boundary and Road 24 Alignment forms the easterly Project site boundary.

The existing biotic conditions and resources of the Project site can be defined primarily as agricultural with a majority of the site containing almond orchards. Trees, shrubs, and ruderal and herbaceous vegetation surround the single-family residential dwelling. There are approximately 15 trees surrounded the residence. The Project site is surrounded by agricultural land to the north, south, and west, the Fresno River to the south, and vacant land to the east. The properties to the north, south, east, and west are planned for residential uses. Agricultural activities have significantly altered the Project site and surrounding properties.

Record Search

The Southern San Joaquin Valley Information Center (SJVIC) conducted a California Historical Resources Information System (CHRIS) Record Search for the Project site and surrounding area (0.25-mile radius) on August 3, 2021 (SJVIC File Number 21-286). The search results do not show any formally recorded prehistoric or historic archeological resources or historic buildings within the Project area or within the immediate vicinity of the Project area. In addition, no resources that are known to have value to local cultural groups have been formally reported to the SJVIC. The SJVIC Correspondence is provided in Appendix B.

4.5.2 Impact Assessment

a) Would the project cause a substantial adverse change in the significance of a historical resource pursuant to in §15064.5?

No Impact. In recent history, the Project site has been designated and operated as agricultural land and contains a single-family residential dwelling and metal barn for agricultural equipment and related storage. According to the CHRIS Record Search conducted by SJVIC on August 3, 2021, there are no local, state, or federal designated historical resources on the Project site or within the Project area. Further, the Project site has been highly disturbed as it has been used for agricultural operations. As such, the Project would not cause a change to a historical resource pursuant to Section 15064.5 and therefore, the Project would have no impact.

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

Less than Significant Impact. Based on the records search and site visit conducted on August 3, 2021, there is no evidence that cultural resources of any type (including historical, archaeological, paleontological, or unique geologic features) exist on the Project site. Nevertheless, there is some possibility that a non-visible, buried site may exist and may be uncovered during ground disturbing construction activities which would constitute a significant impact. Madera General Plan Action Item HC-9.2 imposes the following condition on all discretionary projects which may cause ground disturbance pursuant to Public Resources Code Section 21082.2: "The Planning Department shall be notified immediately if any prehistoric, archaeologic, or fossil artifact or resource is uncovered during construction. All construction must stop and an archaeologist that meets the Secretary of the Interior's Professional Qualifications Standards in prehistoric or historical archaeology shall be retained to evaluate the finds and recommend appropriate action." Thus, if such resources were discovered, implementation of the required condition would reduce the impact to less than significant.

c) Would the project disturb any human remains, including those interred outside of dedicated cemeteries?

Less than Significant Impact. Based on the records search and site visit conducted on August 3, 2021, there is no evidence that human remains exist on the Project site. Nevertheless, there is some possibility that a non-visible buried site may exist and may be uncovered during ground disturbing construction activities which would constitute a significant impact. Madera General Plan Action Item HC-9.2 imposes the following condition on all discretionary projects which may cause ground disturbance pursuant to California Code of Regulations Section 15064.5(e), Public Resources Code Section 5097.98, and California Health and Safety Code Section 7050.5: "All construction must stop if any human remains are uncovered, and the County Coroner must be notified according to Section 7050.5 of California's Health and Safety Code. If the remains

are determined to be Native American, the procedures outlined in CEQA Section 15064.5 (d) and (e) shall be followed." Thus, if such resources were discovered, implementation of the required condition would reduce the impact to less than significant.

4.6 Energy

Would	the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	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?				

4.6.1 Environmental Setting

Appendix F – Energy Conservation of the CEQA Guidelines requires consideration of energy implications in project decisions, including a discussion of the potential energy impacts with emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy resources (Public Resources Code Section 21100(b)(3)). Per Appendix F, a project would be considered inefficient, wasteful, and unnecessary if it violated existing energy standards, had a negative effect on local and regional energy supplies and requirements for additional capacity, had a negative effect on peak and base period demands for electricity and other energy forms, and effected energy resources.

The California Energy Commission updates the Building Energy Efficiency Standards (Title 24, Parts 6 – Energy Code, and Part 11 – Green Building Standards Code (CALGreen); Title 20 – Appliance Efficiency Standards Code) every three years as part of the California Code of Regulations. The standards apply for new construction of, and additions and alterations to, residential and nonresidential buildings and relate to various energy efficiencies including but not limited to ventilation, air conditioning, lighting, and appliances. The 2019 Building Energy Efficiency Standards went into effect on January 1, 2020. Additionally, the California Air Resources Board (CARB) oversees air pollution control efforts, regulations, and programs that contribute to reduction of energy consumption. Compliance with these energy efficiency regulations and programs ensure that development will not result in wasteful, inefficient, or unnecessary consumption of energy sources.

⁵ California Energy Commission, "2019 Building Energy Efficiency Standards." Accessed July 29, 2021, https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/2019-building-energy-efficiency

4.6.2 Impact Assessment

a) Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Less than Significant Impact. The Project proposes the construction of 214 single-family residential dwelling units with an anticipated population of 612. Energy would be consumed through Project construction and operations. Energy consumption related to construction and operations is further analyzed as follows.

Construction. Construction is anticipated to be completed over a 2.5-year timeframe and will be short-term and temporary. There are no unusual project characteristics or construction processes that would require the use of equipment that would be more energy intensive than is used for comparable activities. Construction would include demolition, site preparation, building construction, paving, and architectural coatings — all of which require the transportation of building materials and equipment. Therefore, the primary source of energy for construction activities would be diesel and gasoline (i.e., petroleum fuels). All construction equipment shall conform to current emissions standards and related fuel efficiencies including applicable CARB regulations (Airborne Toxic Control Measure), California Code of Regulations (Title 13, Motor Vehicles), and Title 24 standards. Compliance with such regulations would ensure that the short-term, temporary construction activities do not result in wasteful, inefficient, or unnecessary consumption of energy resources.

Operations. Operations would involve heating, cooling, equipment, and vehicle trips. Energy consumption related to operations would be associated with natural gas, electricity, and fuel.

Energy and natural gas consumption were estimated using CalEEMod (Appendix A). When compared to energy outputs for Madera County, the results of the analyses do not rise to a level of significance. As shown in Appendix A, the Project is estimated to demand 1,874,800 kilowatt hours of electricity and 5,595,080 kilo-British Thermal Units of natural gas, respectively, on an annual basis. It would be expected that building energy consumption associated with the Project would not be any more inefficient, wasteful, or unnecessary than for any other similar residential buildings in the region or state. New construction is required to meet the 2019 CALGreen and Title 24 standards, which are intended to increase energy efficiency and reduce energy demand. Therefore, while the Project would result in an increase demand for electricity and natural gas, such energy would be consumed more efficiently as required by state regulations. Documentation demonstrating compliance with such standards will be required to be submitted with the building permit application; and compliance will be enforced by the Building Department.

In regard to transportation energy demand, Section 4.17 analyzes vehicle miles traveled (VMT) associated with the Project and found the VMT per capita to be less than the countywide average and therefore, less than significant.

For these reasons, Project operations would not result in wasteful, inefficient, or unnecessary consumption of energy resources, thus impact would be less than significant.

b) Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Less than Significant Impact. As previously mentioned, the construction and operations of the Project would be subject to compliance with applicable CARB regulations, California Code of Regulations, and Title 24 standards that include a broad set of energy conservation requirements in addition to BMPs for water conservation. Documentation demonstrating compliance with such standards will be required to be submitted with the building permit application; and compliance will be enforced by the Building Department. Therefore, the Project would comply with such standards and thereby would not conflict with any plans for renewable energy or energy efficiency. For these reasons, the Project would have a less than significant impact.

4.7 Geology and Soils

Would	the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	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 42.				
	ii) Strong seismic ground shaking?			\boxtimes	
	iii) Seismic-related ground failure, including liquefaction?				
	iv) Landslides?			\boxtimes	
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 wastewater disposal systems where sewers are not available for the disposal of wastewater?				
f)	Directly or indirectly destroy a unique paleontological resource or site or unique geological feature?				

4.7.1 Environmental Setting

The City of Madera is located within the San Joaquin Valley which is part of the Great Valley Geomorphic Providence that is bounded to the east by the Sierra Nevada Mountain range, to the west by the Coastal Range, and to the south by the Tehachapi mountains. Madera is generally flat with some areas of slopes including areas near rivers and streams. In addition, the city has no known active earthquake faults (i.e., faults showing activity within the last 11,000 years) and is not in any Alquist-Priolo Special Studies Zones. The nearest active fault is more than 50-miles from the city. Potential ground shaking may occur due to earthquakes on nearby faults. However, compliance with the California Building Code (CBC) would be sufficient to prevent significant damage during seismic events. A brief discussion of the likelihood of seismic activities to occur in or affect Madera is provided below. However, CEQA requires an analysis of the Project's impacts on the environment, not the environment's potential impacts on the Project; therefore, shaking, liquefaction, and other seismic activities are less than significant.

Liquefaction. Liquefaction is a seismic phenomenon in which loose, saturated, fine-grained granular soils behave similarly to a fluid when subjected to high-intensity ground shaking. Factors that determine liquefaction potential include soil type, soil density, depth to the groundwater table, and duration and intensity of ground shaking. Areas that are most prone to liquefaction are those that are water-saturated, or with a water table of less than 30 feet below the surface. The Madera LHMP indicates that soil types within the county are not conducive to liquefaction because they are too coarse in texture or too high in clay content. Soil types thereby mitigate against the potential for liquefaction.

Subsidence. Ground subsidence is the settling or sinking of surface soil deposits with little or no horizontal motion. Soils with high silt or clay content are subject to subsidence. According to the Madera County LHMP, the probability of future occurrences of subsidence is likely (i.e., between 10 and 100% chance of occurrence in the next year or has a recurrence interval of 10 years or less). However, the likely magnitude/severity is negligible (i.e., less than 10 percent of property severely damaged; shut down of facilities for less than 24 hours; and/or injuries/illnesses treatable with first aid). In addition, the Madera General Plan indicates the risk of subsidence in Madera County to be "low."

Landslides. A landslide is the down-slope movement of rock, debris, or earth that can be caused by gravity, earthquakes, disturbance by human activities, etc. Lateral spreading is a related occurrence that results in a fluid-like, down-slope movement. Lateral spreading can be caused by liquefaction. According to the Madera County LHMP, most areas throughout the county are at low to moderate risk for landslides. The central and eastern portions of the county are at high risk. Geographic extent of such occurrences is limited to less than 10% of Madera County.

4.7.2 Impact Assessment

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

No Impact. There are no known active earthquake faults in Madera, nor is Madera within an Alguist-Priolo

earthquake fault zone as established by the Alquist-Priolo Fault Zoning Act. In addition, the Project does not have any aspect that could result in a fault rupturing. As CEQA requires an analysis of a Project's impact on the environment rather than the environment's impacts on a Project, no impacts would occur. Thus, the Project would not cause rupture of a known earthquake fault and therefore, would have no impact.

a-ii) Strong seismic ground shaking?

Less than Significant Impact. The Project site is relatively flat with stable, native soils of the PaA – Pachappa fine sandy loan (0 to 1 percent slopes, well drained, low runoff, more than 80 inches depth to water table) and TwA Tujunga loamy sand (0 to 3 percent slopes, somewhat excessively drained, negligible runoff, more than 80 inches depth to water table) series. As mentioned in the Environmental Setting, there are no known active earthquake faults in Madera and the Project site and vicinity are located in an area traditionally characterized by relatively low seismic activity. Further, the Project would be required to conform to current seismic protection standards in the California Building Code, which are intended to minimize potential risks. In addition, the Project does not have any aspect that could result in strong seismic ground shaking. As CEQA requires an analysis of a Project's impact on the environment rather than the environment's impacts on a Project, no impacts would occur. Therefore, because of the Project's stable soils and distance from active fault lines, and because the Project does not have any aspect that could result in strong seismic ground shaking, the Project would have a less than significant impact.

a-iii) Seismic-related ground failure, including liquefaction?

Less than Significant Impact. As previously described, there are no geologic hazards or unstable soil conditions known to exist on the Project site. The site is relatively flat with stable soils and no apparent unique or significant landforms. Further, development of the site would require compliance with the City's grading and drainage standards. In addition, neither liquefaction nor lateral spreading have been observed in Madera from any historic earthquake. Liquefaction and lateral spreading potential in the City of Madera is considered very low as due to the nature of the underlying soils, relatively deep-water table, and history of low ground shaking potential. In addition, the Project does not have any aspect that could result in seismic-related ground failure, including liquefaction. As CEQA requires an analysis of a Project's impact on the environment rather than the environment's impacts on a Project, no impacts would occur. Therefore, because of the Project's relatively flat topography, stability of soils, infrequency of seismic activity, required compliance with City standards, and because the Project does not have any aspect that could result in seismic-related ground failure, including liquefaction, the Project would have a less than significant impact.

a-iv) Landslides?

Less than Significant Impact. The topography of the Project site is relatively flat with stable, native soils, and the site is not susceptible to seismic activities, geologic instability, or landslides. Furthermore, the site is not in the immediate vicinity of rivers or creeks that would be more susceptible to landslides. Landslides are not expected to affect the project area as the City of Madera is not located near an area with steep slopes and has a relatively dry climate. The area is nearly level with a southwest slope of about 0.2 percent grade, which is not subject to landslides. In addition, the Project does not have any aspect that could result in landslide. As CEQA requires an analysis of a Project's impact on the environment rather than the environment's impacts on a Project, no impacts would occur. Therefore, there would be a less than significant impact.

b) Would the project result in substantial soil erosion or the loss of topsoil?

Less than Significant Impact. Development of the Project site would require typical site preparation activities such as grading and trenching which may result in the potential for short-term soil disturbance or erosion impacts. Construction would also involve the use of water which may cause further soil disturbance. Such impacts would be addressed through compliance with Madera General Plan Policy CON-8, which encourages Low Impact Development practices, and regulations set by the State Water Resources Control Board (SWRCB). Namely, the SWRCB requires sites larger than one acre to comply with the General Permit for Discharges of Storm Water Associated with Construction Activity (i.e., General Permit Order No. 2012-0006-DWQ). The General Permit requires the development of a Storm Water Pollution Prevention Plan (SWPPP) by a certified Qualified SWPPP Developer (QSD). The SWPPP estimates the sediment risk associated with construction activities and includes best management practices (BMP) to control erosion. BMPs specific to erosion control cover erosion, sediment, tracking, and waste management controls. Implementation of the SWPPP in addition to compliance with General Plan Policy CON-8 minimizes the potential for the Project to result in substantial soil erosion or loss of topsoil. With these provisions in place, impacts to soil and topsoil by the Project would be considered less than significant.

c) Would the project 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?

Less than Significant Impact. The site is relatively flat with stable soils and no apparent unique or significant landforms. Furthermore, the Project site is in an area of infrequent and low historic seismic activity of nearby faults. Such factors minimize the potential for other geologic hazards such as landslides, lateral spreading, subsidence, liquefaction, or collapse. Therefore, any development on the native, stable soils is unlikely to become unstable and result in geologic hazards. In addition, the Project does not have any aspect that could result in a landslide, lateral spreading, subsidence, liquefaction, or collapse. As CEQA requires an analysis of a Project's impact on the environment rather than the environment's impacts on a Project, no impacts would occur. As such, the Project would have a less than significant impact.

d) Would the project 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?

Less than Significant Impact. The Project would not be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), and would not create substantial direct or indirect risks to life or property. The site comprises stable, native soils as previously described. Therefore, the Project would have a less than significant impact.

e) Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

No Impact. The Project will not involve the installation of a septic tank or alternative wastewater disposal system. The Project will connect to the City's sewer system. Therefore, the Project would have no impact.

f) Would the project directly or indirectly destroy a unique paleontological resource or site or unique geological feature?

Less than Significant Impact. As discussed in the Cultural Resources section above, there are no known paleontological resources or unique geological features known to the City within this area or on this site.

Nevertheless, there is some possibility that a non-visible, buried site may exist and may be uncovered during ground disturbing construction activities which would constitute a significant impact. Madera General Plan Action Item HC-9.2 imposes the following condition on all discretionary projects which may cause ground disturbance pursuant to Public Resources Code Section 21082.2: "The Planning Department shall be notified immediately if any prehistoric, archaeologic, or fossil artifact or resource is uncovered during construction. All construction must stop and an archaeologist that meets the Secretary of the Interior's Professional Qualifications Standards in prehistoric or historical archaeology shall be retained to evaluate the finds and recommend appropriate action." Thus, in if such resources were discovered, implementation of the required condition would reduce the impact to less than significant.

4.8 Greenhouse Gas Emissions

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

4.8.1 Environmental Setting

Various gases in the Earth's atmosphere, classified as atmospheric greenhouse gases (GHGs), play a critical role in determining the Earth's surface temperature. Solar radiation enters Earth's atmosphere from space and a portion of the radiation is absorbed by the Earth's surface. The Earth emits this radiation back toward space, but the properties of the radiation change from high-frequency solar radiation to lower-frequency infrared radiation.

Naturally occurring greenhouse gases include water vapor (H_2O) , carbon dioxide (CO_2) , methane (CH_4) , nitrous oxide (N_2O) , and ozone (O_3) . Several classes of halogenated substances that contain fluorine, chlorine, or bromine are also GHGs, but they are, for the most part, solely a product of industrial activities. Although the direct greenhouse gases CO_2 , CH_4 , and N_2O occur naturally in the atmosphere, human activities have changed their atmospheric concentrations. From the pre-industrial era (i.e., ending about 1750) to 2011, concentrations of these three GHGs have increased globally by 40, 150, and 20 percent, respectively (Intergovernmental Panel on Climate Change [IPCC], 2013).

GHGs, which are transparent to solar radiation, are effective in absorbing infrared radiation. As a result, this radiation that otherwise would have escaped back into space is now retained, resulting in a warming of the atmosphere. This phenomenon is known as the greenhouse effect. Among the prominent GHGs contributing to the greenhouse effect are carbon dioxide (CO₂), methane (CH₄), ozone (O₃), water vapor, nitrous oxide (N₂O), and chlorofluorocarbons (CFCs).

The emissions from a single project will not cause global climate change, however, GHG emissions from multiple projects throughout the world could result in a cumulative impact with respect to global climate change. Therefore, the analysis of GHGs and climate change presented in this section is presented in terms of the proposed Project's contribution to cumulative impacts and potential to result in cumulatively considerable impacts related to GHGs and climate change.

Cumulative impacts are the collective impacts of one or more past, present, and future projects that, when combined, result in adverse changes to the environment. In determining the significance of a proposed Project's contribution to anticipated adverse future conditions, a lead agency should generally undertake

a two-step analysis. The first question is whether the combined effects from both the proposed Project and other projects would be cumulatively significant. If the agency answers this inquiry in the affirmative, the second question is whether "the proposed Project's incremental effects are cumulatively considerable" and thus significant in and of themselves.

The cumulative project list for this issue (climate change) comprises anthropogenic (i.e., human made) GHG emissions sources across the globe and no project alone would reasonably be expected to contribute to a noticeable incremental change to the global climate. However, legislation and executive orders on the subject of climate change in California have established a statewide context and process for developing an enforceable statewide cap on GHG emissions. Given the nature of environmental consequences from GHGs and global climate change, CEQA requires that lead agencies consider evaluating the cumulative impacts of GHGs. Small contributions to this cumulative impact (from which significant effects are occurring and are expected to worsen over time) may be potentially considerable and, therefore, significant.

In assessing the significance of impacts from GHG emissions, Section 15064.4(b) of the CEQA Guidelines states that a lead agency may consider the following:

- The extent to which the project may increase or reduce GHG emissions as compared to the environmental setting.
- Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.
- 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.

The SJVAPCD's Guidance for Valley Land Use Agencies in Addressing GHG Impacts for New Projects Under CEQA (2009) provides screening criteria for climate change analyses, as well as draft guidance for the determination of significance. ^{6,7} These criteria are used to evaluate whether a project would result in a significant climate change impact (see below). Projects that meet one of these criteria would have less than significant impact on the global climate.

- Does the project comply with an adopted statewide, regional, or local plan for reduction or mitigation of GHG emissions? If no, then:
 - O Does the project achieve 29% GHG reductions by using approved Best Performance Standards (BPS)? If no, then
 - O Does the project achieve AB 32 targeted 29% GHG emission reductions compared with Business As Usual (BAU)?

Below is a simplification of this process identified in a Fact Sheet from the San Joaquin Valley Air Pollution Control District (Figure 4-6).⁸

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⁶ San Joaquin Valley Air Pollution Control District. (2009). Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA. Accessed July 27, 2021,

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⁷ San Joaquin Valley Air Pollution Control District. (2000). Environmental Review Guidelines: Procedures for Implementing the California Environmental Quality Act. Accessed July 27, 2021,

http://www.valleyair.org/transportation/CEQA%20Rules/ERG%20Adopted%20 August%202000 .pdf

⁸ San Joaquin Valley Air Pollution Control District, FACT SHEET, Addressing Greenhouse Gas Emissions Impact under the California Environmental Quality Act (CEQA), Land Use Development Projects https://www.valleyair.org/Programs/CCAP/bps/Fact Sheet Development Sources.pdf

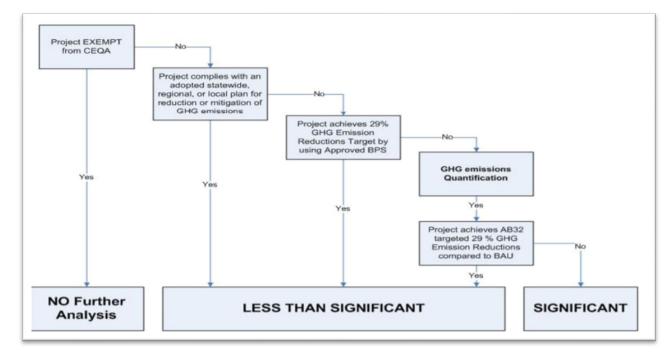


Figure 4-6 SJVAPCD Guidance for CEQA Climate Change Analyses

Source: San Joaquin Valley Air Pollution Control District Factsheet

The City of Madera has a Climate Action Plan (CAP) that was adopted by City Council on September 2, 2015. In this plan, the following is noted: "According to the California Natural Resources Agency (2009) and the State's Office of the Attorney General (2009), GHG emissions may be best analyzed and mitigated at a programmatic level (i.e., GHG reduction plan/CAP). In 2009, the California Natural Resources Agency amended the State CEQA Guidelines to add a new provision, Section 15183.5, which allows jurisdictions to analyze and mitigate the significant effects of GHG emissions at a programmatic level by adopting a plan for the reduction of GHG emissions (i.e., a CAP). Section 15183.5 states a plan for the reduction of GHG emissions should:

- Quantify GHG emissions, both existing and projected over a specified time period, resulting from activities within a defined geographic area.
- Establish a level, based on substantial evidence, below which the contribution to GHG emissions from activities covered by the plan would not be cumulatively considerable; v Identify and analyze the GHGs emissions resulting from sources in the community.
- Identify a suite of specific, enforceable measures that, collectively, will achieve the emissions target.
- Establish a mechanism to monitor the plan's progress and to require amendment if the plan is falling short; and
- Be adopted in a public process following environmental review.

This CAP incorporates these elements consistent with State CEQA Guidelines Section 15183.5, which allows it to be used in the cumulative GHG emissions impacts analysis of later projects. The environmental document for each project must identify those requirements specified in the CAP that apply to the project, and if those requirements are not otherwise binding or enforceable, should be incorporated as mitigation measures applicable to the project (CEQA 15183.5b). To facilitate this process for future projects Appendix E lists CAP measures applicable to new development. If it is determined that the proposed Project is not

consistent with the CAP, further analysis would be required, and the applicant would be required to demonstrate that the proposed Project would not substantially interfere with implementation of the CAP."

Thus, if an individual project is found to be consistent with the CAP, the project can be deemed to have a less than significant impact as it related to Greenhouse Gas impacts.

4.8.2 Impact Assessment

a) Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less than Significant Impact. The Project's estimated GHG emissions for construction and operation are presented in Table 4-2 below. In regard to construction, the SJVAPCD does not recommend assessing pollution associated with construction, as pollution-related construction will be temporary. As presented below, maximum short-term annual construction emissions of GHG associated with development of the project are estimated to be 534 MTCO₂e. These construction GHG emissions are a one-time release. Cumulatively, these construction emissions would not generate a significant contribution to global climate change over the lifetime of the proposed project.

In regard to the long-term operational related GHG emissions, the estimated operational emissions for buildout of the Project incorporates the potential area source and vehicle emissions, and emissions associated with utility and water usage, and wastewater and solid waste generation. As described in Section 4.3 Air Quality, the operational emission estimates account for limited vehicle trips associated with the Project. As shown, the annual unmitigated operational GHG emissions associated with buildout of the proposed project would be 4,483 MTCO₂e. Further, the Project would not exceed the thresholds of significance for construction or operations as discussed in Section 4.3. Cumulatively, these emissions would not generate a significant contribution to global climate change over the lifetime of the proposed project.

Table 4-2 Project GHG Emissions (Metric Tons Per Year)

	Total CO₂	CH₄	N₂O	CO₂e
Construction				
Construction, Unmitigated (maximum)	530.7037	0.1389	0.0000	534.1773
Operational				
Operational, Unmitigated	4,361.3549	4.6233	0.0233	4,483.8785

Source: CalEEMod, Version 2016.3.2, ran on July 29, 2021

In addition, as demonstrated in Table 4-3 the project will incorporate applicable measures and standards from the City of Madera's CAP. As shown in this table, the Project would be generally consistent with the applicable goals and policies related to GHG reduction measures by complying with the City of Madera's CAP. Because of this, the Project would not occur at a scale or scope with potential to contribute substantially or cumulatively to the generation of greenhouse gas emissions and therefore the impact would be less than significant.

Table 4-3 Project Consistency with City of Madera CAP

Measure Name	Project Actions	Project Compliance (Yes/No/NA)	Description/Details*
E-2 Energy Efficient New Construction	Is the project consistent withapplicable policies of the Conservation Element of the General Plan?	Yes	The project's demonstrated compliance with the elements of the conservation element can be found in this initial study (i.e., Hydrology, Agricultural, Public Services and Bio, etc.). Some of the items discussed in the Conservation Element include Water Quality (pollution prevention, discharge, and runoff control), Soils and Agriculture, Biology, Air Quality, etc. The analysis contained in this initial study is demonstrated compliance with these measures.
	Does the project exceed Title 24 Energy Efficiency Building Standards, meet the state's Green Building Standards voluntary tier levels, or is LEED Greenpoint, or ENERGY STAR rated?	N/A	No specific developer has been identified for the proposed residential development but given that the 2019 Building Code increased energy efficiency requirements and the baseline in the CAP is 2015 standards, it can be assumed that all buildings constructed at the Project site will exceed standards.
E-3 On-Site Small-Scale Renewable Energy	Does the project include solar PVsystems or solar hot water heaters?	Yes	No specific developer has been identified for the proposed residential development but given that the 2019 Building Code requires solar PV requirements, to project will comply.
T-1: Infill and Mixed-Use Development	Is the project consistent with the land use designation(s) shown on the General Plan Land Use Map and with the applicable polies of the Land Use Element of the General Plan policies?	Yes	This is demonstrated by identified General Plan policies in this Initial Study. In addition, the Project site has a Madera General Plan land use designation of LD- Low Density Residential with a small portion of the site designated for High Density Residential. The LD – Low Density Residential land use designation allows for residential development at a density of 2.1 to

			7 dwelling units per acre, with a Target Density of 5.25 dwelling units per acre. The LD — Low Density Residential land use designation represents the traditional single-family neighborhood with a majority of single-family detached homes. The Project proposes a 214-lot single-family neighborhood with a residential density of 5.3 dwelling units per acre, which is within the density range allowed by the LD — Low Density Residential land use designation (blended density taking into consideration the small piece of high density residential).
	Is the project consistent with the Madera County Blueprint? Does the project include	Yes	The project is consistent with the guiding principles of this plan, including Fostering attractive and safe places to live and creating a range of housing opportunities and choices. Project site is not planned for
	mixed-use, higher density (22.5 to 50 units per acre), or infill development?	N/A	mixed use development.
	Is the project located within 1/4 mile of transit stops or in existing community centers/downtown?	No	Although the project is not located near a transit stop, it is located along Cleveland Avenue, one of the major thoroughfares in the City of Madera. All three bus lines in the City include portions of Cleveland Avenue. It is anticipated that the project area will be served by public transit and the population in the area continues to increase.
T-2 Bicycle and Pedestrian Environment	Is the project consistent with applicable policies of the Community Design and Circulation Elements of the General Plan?	Yes	The project will construct bicycle and pedestrian facilities as required by the General Plan and Municipal Code.
	Is the project consistent with the Bicycle Master Plan?	N/A	The project will construct bicycle and pedestrian facilities as required by the General Plan and

		I	
			Municipal Code. There is now active master plan in the City.
	Does the project meet minimum design criteria for bicycle andpedestrian circulation?	Yes	Project has been reviewed by Engineering to verify compliance.
	Does the project provide adequate and secure bicycle parking?	Yes	Project has been reviewed by Engineering to verify compliance and conditioned accordingly.
T-3 Transit Travel	Is the project consistent with applicable policies of the Circulation and Community Development Elements of the General Plan?	Yes	Project has been reviewed by Engineering to verify compliance and conditioned accordingly.
	Does the project provide safe routes to adjacent transit stops, where applicable?	Yes	Although there are no stops in the vicinity, the project will provide sidewalks along major streets and improve access.
	Does the project finance and/orconstruct bus turnouts and shelters where transit demand warrants such improvements?	N/A	
	Does the project provide publictransit vouchers to its employees?	N/A	Residential uses proposed.
T-4 Commute Trip Reduction	Is the project consistent with applicable policies of the Community Development Element of the General Plan?	Yes	Project has been reviewed by Planning to verify compliance and conditioned accordingly.
	Does the project include and/or promote TDM programs?	N/A	
T-5 Traffic Flow and Vehicle Idling	Does the project include measures to improve traffic flow?	Yes	Project has been reviewed by Engineering to verify compliance and conditioned accordingly.
T-6 Low Carbon Fuel Vehicles and Infrastructure	Is the project consistent with applicable policies of the Community Development Element of the General Plan?	Yes	Project has been reviewed by Planning to verify compliance and conditioned accordingly.

	Is the project consistent with theSan Joaquin Valley Plug-in Electric Vehicle (PEV) Readiness Plan? Does the project include alternative fueling stations or	Yes N/A	No specific developer has been identified for the proposed residential development but given that the 2019 Building Code requires EV readiness, the project will comply. Residential Development
T-7 Construction and Off-Road Equipment	EV charging stations? Would construction of the project use alternatively fueled construction vehicles/equipment(i.e., repowered engines, electric drive trains, CARB-approved lowcarbon fuel, electrically powered)?	Yes	Project will comply with all requirements of the San Joaquin Valley Air Pollution Control District.
	Would the project include low-maintenance native landscapingor xeriscaping?	Yes	Project will comply with MWELO standards.
W-1 Exceed SB X7-7 Water Conservation Target	Does the project incorporate water efficiency and water conservation measures?	Yes	Project will comply with MWELO standards.
W-2 Recycled Water	Is the project consistent with applicable policies of the Conservation Element of the General Plan?	Yes	Project will install recycled water infrastructure.
	Does the project incorporate recycled/reclaimed water?	Yes	Project will install recycled water infrastructure.
U-1 Trees and Vegetation	Is the project consistent with applicable policies of the Community Design Element of the General Plan?	Yes	Project has been reviewed by Planning to verify compliance and conditioned accordingly.
	Does the project include the planting of new trees or new acres of vegetated land?	Yes	Project will add hundreds of shade trees to the project area.

b) Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Less than Significant Impact. As discussed above, the project complies with the City of Madera adopted Climate Action Plan. In addition to this, the compatibility of the Project with the Climate Change Scoping Plan is evaluated. The Project complies with several of the measures as described below. Assembly Bill 32 was enacted by the state in 2006 in an effort to reduce GHGs to 1990 levels by 2020. In 2008, the ARB adopted the Climate Change Scoping Plan in accordance with the requirements of AB 32 which outlines the actions recommended to achieve that aim. The Scoping Plan involves a number of measures to reduce the pollution from the State. The Project complies with several of the measures as described in Table 4-4.

Table 4-4. Scoping Plan Reduction Measures Consistency Analysis

Reduction Measure	Consistency/Applicability Determination
Energy Efficiency. Maximize energy efficiency building and appliance standards; pursue additional efficiency including new technologies, policy, and implementation mechanisms.	As new construction, the Project is required to meet the State Building Energy Efficiency Standards (Title 24, Parts 6 and 11). Compliance with these energy efficiency regulations and programs ensure that development will not result in wasteful, inefficient, or unnecessary consumption of energy sources. Therefore, the Project is consistent with this measure.
Renewable Portfolio Standard. Achieve 33% renewable energy mix statewide. Renewable energy sources include (but are not limited to) wind, solar, geothermal, small hydroelectric, biomass, anaerobic digestion, and landfill gas.	This measure is a statewide measure that is not implemented by a project applicant or lead agency. Therefore, the measure is not applicable to the proposed Project.
Low Carbon Fuel Standard. Develop and adopt the Low Carbon Fuel Standard.	This measure is a statewide measure that is not implemented by a project applicant or lead agency. Therefore, the measure is not applicable to the proposed Project. However, when the measure is initiated, it would be applicable to vehicles that would access the Project site.
Regional Transportation-Related Greenhouse Gas Targets. Develop regional greenhouse gas emissions reduction targets for passenger vehicles.	This measure refers to SB 375. SB 375 does not have requirements that directly apply to development projects. Therefore, the measure is not applicable to the Project.
Vehicle Efficiency Measures. Implement light-duty vehicle efficiency measures.	This measure is a statewide measure that is not implemented by a project applicant or lead agency. Therefore, the measure is not applicable to the proposed Project. However, when the measure is initiated, it would be applicable to light-duty vehicles that would access the Project site.

Million Solar Roofs Program. Install 3,000 MW of solar-electric capacity under California's existing solar programs.	This measure is implemented by electricity providers and existing solar programs throughout the State. Therefore, the measure is not applicable to the Project.
Industrial Emissions. Require assessment of large industrial sources to determine whether individual sources within a facility can cost effectively reduce greenhouse gas emissions and provide other pollution reduction co-benefits.	The Project does not propose an industrial use. Therefore, the measure is not applicable.
Green Building Strategy. Expand the use of green building practices to reduce the carbon footprint of California's new and existing inventory of buildings.	As new construction, the Project is required to meet the State Building Energy Efficiency Standards (Title 24, Parts 6 and 11) (i.e., CALGreen). Compliance with these energy efficiency regulations and programs ensure that development will not result in wasteful, inefficient, or unnecessary consumption of energy sources. Therefore, the Project is consistent with this measure.
Recycling and Waste. Reduce methane emissions at landfills. Increase waste diversion, composting, and commercial recycling. Move toward zero-waste.	The Madera General Plan outlines goals and policies for source reduction and recycling. The Project is required to comply with these goals and policies during the approval process.
Water. Continue efficiency programs and use cleaner energy sources to move and treat water.	As new construction, the Project is required to meet the State Building Energy Efficiency Standards (Title 24, Parts 6 and 11) (i.e., CALGreen). Compliance with these energy efficiency regulations and programs ensure that development will not result in wasteful, inefficient, or unnecessary consumption of energy sources. Therefore, the proposed Project is consistent with this measure.

In conclusion, the Project contains features that would reduce GHG emissions. These features are in accordance with several measures from the Scoping Plan and the City of Madera's CAP. As such, the Project would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs, and therefore the impact would be less than significant.

4.9 Hazards and Hazardous Materials

Would	the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	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?				\boxtimes
e)	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?				
f)	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				
g)	Expose people or structures, either directly or indirectly to a significant risk of loss, injury or death involving wildland fires?				

4.9.1 Environmental Setting

For the purposes of this section, the term "hazardous materials" as defined by the California Code of Regulations are substances with certain physical properties that could pose a substantial present or future hazard to human health or the environment when improperly handled, disposed, or otherwise managed. Hazardous materials are grouped into the following four categories based on their properties:

- Toxic: causes human health effect
- Ignitable: has the ability to burn
- Corrosive: causes severe burns or damage to materials
- Reactive: causes explosions or generates toxic gases

A hazardous waste is any hazardous material that is discarded, abandoned, or slated to be recycled. The criteria that define a material as hazardous also define a waste as hazardous. If improperly handled, hazardous materials and hazardous waste can result in public health hazards if released into the soil or groundwater or through airborne releases in vapors, fumes, or dust. Soil and groundwater having concentrations of hazardous constituents higher than specific regulatory levels must be handled and disposed of as hazardous waste when excavated or pumped from an aquifer. The California Code of Regulations, Title 22, Sections 66261.20-24 contains technical descriptions of toxic characteristics that could cause soil or groundwater to be classified as hazardous waste.

Hazardous materials are routinely used, stored, and transported in Madera that are associated with industrial and commercial/retail businesses, as well as in educational facilities, hospitals, and households. Hazardous waste generators may include industries, businesses, public and private institutions, and households. Federal, state, and local agencies maintain comprehensive databases that identify the location of facilities using large quantities of hazardous materials, as well as facilities generating hazardous waste. Some of these facilities use certain classes of hazardous materials that require risk management plans to protect surrounding land uses. The release of hazardous materials would be subject to existing federal, State, and local regulations and is similar to the transport, use, and disposal of hazard materials.

The California Department of Toxic Substance Control's EnviroStor database and the State Water Resources Control Board's GeoTracker database include hazardous release and contamination sites. A search of each database was conducted in July 2021. The search revealed no hazardous material release sites at the Project site or in the vicinity of the Project site.

4.9.2 Impact Assessment

a) Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less than Significant Impact. The Project consists of a residential development. The type of hazardous materials that would be associated with the Project are those typical of residential developments: household cleaners, landscape maintenance, soaps, pesticides for pest control, etc. Because of the use, it is not expected that the Project would routinely transport, use, or dispose of hazardous materials other than those typical of residential uses and such materials would not be of the type or quantity that would pose a significant hazard to the public. Further, there are no listed hazardous sites in the vicinity of the Project site as indicated by the California Department of Toxic Substances Control Envirostor database. Potential impacts during construction of the Project could result from the use of fuels and lubricants for construction equipment. However, these impacts would be short-term and temporary, and would be reduced to less than significant levels through compliance with local, state, and federal regulations in addition to standard equipment operating practices. For these reasons, the Project would have a less than significant impact and no mitigation measures are required.

b) Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Less than Significant Impact. As described under criterion a) above, it is not anticipated that the project itself will involve any operations that would require routine transport, use, or disposal of hazardous materials and therefore is not anticipated to create a significant hazard to the public or the environment through release of hazardous materials. While potential impacts would occur through construction-related transport and disposal of hazardous materials, such impacts would be short-term and temporary, and would be reduced to less than significant levels through compliance with local, state, and federal regulations in addition to standard equipment operating practices. Therefore, the Project would have a less than significant impact.

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

Less than Significant Impact. The nearest school is Lincoln Elementary School, approximately 0.70-miles to the southeast of the Project site. As described under criteria a) and b) above, the proposed Project is not anticipated to emit hazardous emissions or handle hazardous materials, substances, or waste that would pose a risk or threat to the school or surrounding area. Therefore, the Project would have a less than significant impact.

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

No Impact. According to Envirostor and Geotracker, the Project is not located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. Therefore, the Project would not create a significant hazard to the public of the environment. For these reasons, there would be no impact.

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

Less than Significant Impact. The nearest public airport to the Project site is the Madera Municipal Airport, which is located approximately 0.60-miles north of the site. The applicable airport land use plan for the Madera Municipal Airport is the Madera Countywide Airport Land Use Compatibility Plan (ALUCP) adopted in 2015. According to this land use plan, the Project site is located within the airport influence area of the Madera Municipal Airport. The site is within the Traffic Pattern Zone (6) but is outside of the noise contour areas. Because the site is within the airport influence area, it is subject to established airport compatibility measures within the Madera General Plan to ensure that projects would not result in a safety hazard or excessive noise for people residing or working in the area. In particular, the following policies are applicable to the review process for the proposed Project.

Policy HS-31: City shall consider compatibility criteria in the ALUCP and Airport Master Plan in reviewing potential land uses or projects. Projects shall be approved only where consistency with compatibility criteria in the ALUCP can be demonstrated

Action Item HS-31.1: Review projects to ensure consistency with ALUCP and Master Plan at earliest possible stage of planning/ entitlement process. A determination on consistency shall be made by the entity (City Council, Planning Commission, Staff) given authority to approve the project pursuant to the zoning ordinance.

Action Item HS-31.2: Establish and maintain a geographic information system to identify all parcels within the airport influence area and establish a standard review checklist applicable to those projects which includes references to airport compatibility criteria

Policy HS-32: City shall ensure that new development near Madera Airport is designed to protect public safety from airport operations consistent with recommendations and requirements of the ALUC, the FAA, and other responsible agencies. It shall be the City's intent to comply with all State laws related to airport land use planning.

The City of Madera has reviewed the Project for consistency with the ALUCP and it has been determined that the Project is consistent with the ALUCP. Therefore, the Project has been deemed compatible with the land use plan and would thereby not result in a safety hazard or excessive noise. For these reasons, the Project would have a less than significant impact.

f) Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less than Significant Impact. The Project would not involve any new or altered infrastructure associated with evacuation, emergency response, and emergency access routes within the City or County of Madera. Construction of frontage improvements may require lane closure; however, these activities would be short-term and access through Cleveland Avenue would be maintained through standard traffic control. Following construction, Cleveland Avenue would continue to provide access to the site. Furthermore, the Project would be subject to compliance with applicable standards for on-site emergency access including turn radii and fire access. Therefore, the Project would have a less than significant impact.

g) Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

No Impact. The Project site is not identified by the California Department of Forestry and Fire Protection (Cal Fire) or the City of Madera as a Very High Fire Hazard Severity Zone (VHFHSZ); rather, the site is within an "area of local responsibility" and is considered an area of low fire risk. Lastly, the Project would be required to be developed and operate in compliance with all regulations of the current California Fire Code. Therefore, the Project would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires. For these reasons, the Project would have no impact.

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⁹ Cal Fire, "FHSZ Viewer." Accessed on July 30, 2021, https://egis.fire.ca.gov/FHSZ/

4.10 Hydrology and Water Quality

Would	the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a)	Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?				
b)	Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?				
c)	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: i) result in substantial erosion or siltation				
	on- or off-site; ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;				
	iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or				
	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 a water quality control plan or sustainable groundwater management plan?				

4.10.1 Environmental Setting

The city of Madera is part of the San Joaquin River watershed which originates in the Sierra Nevada Mountain range, traveling for approximately 330 miles before converging with the Sacramento River in the Sacramento-San Joaquin Delta. The San Joaquin River forms the western and much of the southern boundary of Madera County. The San Joaquin River watershed is divided into hydrologic areas and subareas. The city of Madera lies within the Madera and Berenda Creek hydrologic area, which both drain to the Fresno River. The Project site is located approximately 3.50-miles north of the San Joaquin River and 1.40-miles south of the Fresno River.

As with most Cities in the Central San Joaquin Valley, water demands for the City of Madera are increasing each year. In 2014, the City had an annual demand of 13,800 acre-feet to service the 63,105 population. ¹⁰ The City of Madera uses various methods to facilitate groundwater recharge. The Madera General Plan, along with the Madera County Local Hazard Mitigation Plan, and FEMA Flood Insurance Study have noted the Madera County area has good drainage. ^{11,12}

Stormwater from the City is sent to retention basins to recharge and manage the Madera Subbasin. During drier periods of time, the City has the option to use small purchases of surface water from the Madera Irrigation District (MID) to send to the City's stormwater basins. The proposed Project includes an on-site retention basin to capture stormwater from the subject site. The stormwater will percolate and allow for groundwater recharge. A study conducted by the EPA (among others) discusses urban water management BMPs and has identified successful water quality control within infiltration basins where runoff infiltrated into the ground separates contaminants that attach to the soil and those that dissolve.¹³

4.10.2 Impact Assessment

a) Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Anticipated buildout of the Project would increase water demands within the Project area and as a result, the Project would increase the need for sustainable water sources. The Project will be required to connect to the City of Madera water system. Per State law, new water connections including landscape areas are required to be constructed to current City standards including Automatic Meter Reading (AMR) installed within the City right-of-way and backflow prevention device within private property. In addition, the landscaping shall be subject to the Model Water Efficient Landscape Ordinance (MWELO) which requires new development to meet water efficiency standards.

While the Project would introduce new uses to an undeveloped site, the type and intensity of development is consistent with the land use designation for which it was previously planned. Water impacts for the

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¹⁰ County of Madera (2017). Madera County Storm Water Resource Plan. Accessed August 6, 2021, https://www.maderacountywater.com/wp-content/uploads/2018/06/FINAL MaderaSWRP 171228.pdf

¹¹ City of Madera (2010). General Plan.

¹² County of Madera (2017). Madera County Local Hazard Mitigation Plan Update. Accessed August 6, 2021, https://www.maderacounty.com/home/showdocument?id=362

¹³ United States Environmental Protection Agency. (1999). Preliminary Data Summary of Urban Storm Water Best Management Practices. Accessed July 15, 2021, https://www.epa.gov/sites/production/files/2015-11/documents/urban-stormwater-bmps preliminary-study 1999.pdf

Project were evaluated by the City Engineer as well as outside agencies including the MID to ensure that water quality standards and waste discharge requirements are not violated.

Based on this review, the Project is required to install a master-planned water supply facilities in accordance with the City of Madera Water System Master Plan. In particular, the Project is required to install a 12-inch water main in Cleveland Avenue from the Road 24 alignment to the western edge of the Project frontage, and a 12-inch water main in B Street from Cleveland Avenue to the southern edge of the Project frontage. As an additional measure, the Project is required to install recycled/non-potable water facilities to serve future landscape areas, park strips, and front and back yards. With these installation requirements, the City has determined there is adequate capacity based on the estimated water consumption.

In addition, prior to construction, the contractor is required to prepare a SWPPP per the General Construction Permit requirements of the NPDES program (Section 4.7). The SWPPP incorporates water quality control Best Management Practices, which would prevent water quality degradation, control erosion and siltation, and minimize any impacts to water quality to a level that is less than significant. Therefore, the Project would have a less than significant impact. Implementation of the SWPPP in addition to compliance with General Plan Policy CON-8 minimizes the potential for the Project to violate any waste discharge requirements or otherwise substantially degrade surface or ground water quality

Runoff resulting from the anticipated buildout of the Project would be managed by the City and would meet water quality standards as listed in Madera County's Storm Water Resource Plan, and as required by applicable regulatory permits. Additionally, the City requires developers to improve storm drainage systems in conjunction with new housing developments. These improvements are guided by City Code and Standard Specifications as referenced in the General Plan.

Compliance with existing regulations including the General Construction Permit, BMPs, the Standard Condition of Approval and implementation of General Plan policies would reduce potential impacts related to water quality and waste discharge to less than significant levels.

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

Less than Significant Impact. Water demands for the City of Madera are increasing each year. In 2014, the City had an annual demand of 13,800 acre-feet to service the 63,105 population. Anticipated buildout of the proposed Project would increase water demands within the area and would encourage the need for sustainable water sources. The City of Madera uses a variety of methods to facilitate groundwater recharge. The General Plan, Madera County Local Hazard Mitigation Plan, and FEMA Flood Insurance Study have noted the Madera County area has excellent drainage.

The units resulting from the Proposed Project would be required to connect to the City of Madera water system. Per State law, new water connections including landscape areas are required to be constructed to current City standards including Automatic Meter Reading (AMR) installed within the City right-of-way and

¹⁴ County of Madera (2017). Madera County Storm Water Resource Plan. Accessed August 6, 2021, https://www.maderacountywater.com/wp-content/uploads/2018/06/FINAL MaderaSWRP 171228.pdf

backflow prevention device within private property. In addition, the landscaping shall be subject to the Model Water Efficient Landscape Ordinance (MWELO) which requires new development to meet water efficiency standards.

Stormwater from the City is sent to retention basins to recharge and manage the Madera Subbasin. During drier periods of time, the City as the option to use small purchases of surface water from the MID to send to the City's stormwater basins. In addition, the proposed Project includes an off-site retention basin to capture excess flood waters from MID to be used for groundwater recharge. A study conducted by the EPA (among others) discusses urban water management BMPs and has identified successful water quality control within infiltration basins¹⁵ where runoff infiltrated into the ground separates contaminants that attach to the soil and those that dissolve.

As required by the City's Engineering Division, water would be used for groundwater recharge and irrigation of landscaped areas and open space areas to reduce groundwater demand. The Groundwater Sustainability Plan (GSP)¹⁶ concluded that the groundwater basin is capable of supplying the potable water required to meet the City's water demands through 2040. In addition, implementation of the proposed Project would increase impervious surface within the project area, but with the use of recharge basins included as part of the project, the addition of landscaped areas and use of the City's water supply and recycled water, the proposed Project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge. In addition, compliance with existing regulations including the General Construction Permit, BMPs, the Standard Condition of Approval and implementation of General Plan policies address water quality of runoff generated during construction and operation of the proposed Project. As a result, a less than significant impact would occur.

c) Would the project 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:

c-i) result in substantial erosion or siltation on- or off-site.

Less than Significant Impact. Erosion is a natural process in which soil is moved from place to place by wind or from flowing water. The effects of erosion within the Project Area can be accelerated by ground-disturbing activities associated with development. Erosion control methods outlined in the SWPPPs for future development within the Project site would limit soil transportation and erosion.

Siltation is the settling of sediment to the bed of a stream or lake which increases the turbidity of water. Turbid water can have harmful effects to aquatic life by clogging fish gills, reducing spawning habitat, and suppress aquatic vegetation growth.

Anticipated buildout of the proposed Project would result in the development of the existing agricultural lands. Bare soils, common within farmlands are more susceptible to erosion than an already developed

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¹⁵ United States Environmental Protection Agency. (1999). Preliminary Data Summary of Urban Storm Water Best Management Practices. Accessed July 15, 2021, https://www.epa.gov/sites/production/files/2015-11/documents/urban-stormwater-bmps_preliminary-study_1999.pdf

¹⁶ Madera Subbasin. (2020). Final Madera Subbasin Sustainable Groundwater Management Act, Joint Groundwater Sustainability Plan. Accessed August 6, 2021, https://www.maderacountywater.com/wp-content/uploads/2020/02/Madera GSP 2020 FinalReport.pdf

urban land, thus it is expected erosion would occur on-site. During construction activities, and in compliance with the Project's SWPPP, several construction BMPs would be implemented to reduce potential impacts related to erosion and siltation. These BMPs would include, but are not limited to, covering and/or binding soil surfaces to prevent soil from being detached and transported by water or wind, and the use of barriers such as straw bales and sandbags to control sediment.

The Project would increase impervious surfaces by installing paving, concrete pads, and sidewalks. However, the Project includes an off-site retention basin to capture stormwater runoff from the site, which will percolate and allow for groundwater recharge. The temporary stormwater drainage basin is proposed to the north of the Project site, north of Cleveland Avenue. Further, the drainage pattern is proposed to be constructed per existing regulations of the Storm Drainage System Master Plan and will be reviewed by the City Engineer to ensure proper drainage. Consequently, this review and approval by City, and compliance with mitigation measures and standard requirements would mean that the Project would result in a less than significant impact.

c-ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site.

Less than Significant Impact. The City Engineer has reviewed the Project and has required that the Project provide a basin to capture runoff water and thereby comply with the Storm Drainage System Master Plan. The City requires a detailed drainage study for the chosen path of conveyance, storage, and design of the onsite drainage facilities. The study has not been completed to-date, but preliminary support calculations have been completed in order to adequately size the basin. Therefore, the provision of the onsite drainage system to the north of the Project site, north of Cleveland Avenue, as approved by the City would ensure that surface runoff is controlled in a manner which would not result in flooding on- or off-site. For this reason, the Project would have a less than significant impact.

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

Less than Significant Impact. As previously described, the City Engineer has reviewed the Project and has required that runoff water be drained into a new basin to be constructed north of the Project site, north of Cleveland Avenue in order to capture runoff water and thereby comply with the Storm Drainage System Master Plan. Preliminary support calculations have been completed in order to adequately size the basin so as to not create or contribute runoff water which would exceed the capacity of drainage systems. Therefore, the provision of the drainage system as approved by the City would ensure that the Project does not create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage system or provide substantial additional sources of polluted runoff. For this reason, the Project would have a less than significant impact.

c-iv) impede or redirect flood flows?

Less than Significant Impact. Although the construction of the proposed Project would result in impervious surface, drainage patterns would not be altered because there are no drainages that cross the project area that would be altered. Expansion and maintenance of the City's municipal storm drain system in the identified flood zone in the area would minimize flood risks. Runoff from the project would be conveyed to storm drain inlets and then carried to the retention basin to infiltrate into soil. As mentioned above, project-related storm drainage and runoff will be captured via an off-site infiltration basin planned to the

north of the subject site. Thus, the Project would not impede or redirect flood flows and therefore, the Project would have a less than significant impact.

d) Would the project in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundations?

Less than Significant Impact. The Project site is not in a flood hazard, tsunami, or seiche zone (i.e., standing waves on river, reservoirs, ponds, and lakes); the Project site is approximately 108 miles from the Pacific Ocean and there are no rivers, reservoirs, ponds, or lakes within the site. Although the Project is located near the Fresno River, the Project site is designated as Zone X on the most recent Flood Insurance Rate Map (FIRM) No. 06039C1155E dated September 26, 2008. Zone X is an area of minimal flood hazards with a 0.2 percent-annual-chance of flood (i.e., 500-year flood). In addition, the project area as well as the City of Madera as a whole has historically been subject to low to moderate ground shaking and has a relatively low probability of shaking. Seiches are unlikely to form due to the low seismic energy produced in the area. Therefore, as a low-risk area, the Project would have a less than significant impact as it relates to the risk release of pollutants due to project inundations.

e) Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan (SGMA)?

Less than Significant Impact. The proposed Project would not compromise water quality control. Implementation of the Project would require Statewide NPDES permits for construction runoff and municipal storm drain systems (MS4) require provisions of water quality control measures be upheld to protect groundwater quality. Stormwater is sent to retention basins within the area, which serves to recharge groundwater, and the City. This process would allow multi-generational use by returning water back into the aquifer which would ultimately help with the implementation of SGMA. In addition, as mentioned above, the Groundwater Sustainability Plan (GSP) prepared in January 2020 concluded that the groundwater basin is capable of supplying the potable water required to meet the City's water demands through 2040. This, development of the site consistent with the City's General Plan will not conflict or obstruct the implementation of the sustainable groundwater management plan. For these reasons, the project impacts would be less than significant.

4.11 Land Use and Planning

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	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?				

4.11.1 Environmental Setting

The Project site is within the City's Sphere of Influence and has a planned land use designation of LD – Low Density Residential (and a small oddly shape piece planned high density residential and open space). The Project is subject to annexation and a pre-zone/rezone. The proposed zone district is the P-D (4500) Zone District, which is consistent with the planned land use designations (blended density). Overall, the proposed use is consistent with the planned land use designation and proposed zone district.

4.11.2 Impact Assessment

a) Would the project physically divide an established community?

Less than Significant Impact. Typically, physical division of an established community is associated with new, intersecting roadways, or new incompatible uses inconsistent with the planned or existing land uses. The Project site is currently used for agricultural operations but has a planned land use designation for residential uses. The site is surrounded by agricultural land to the north, south, and west, the Fresno River to the south, and vacant land to the east. The vacant land to the east is currently undergoing residential development. Further, the properties to the north, south, east, and west are planned for residential uses. Therefore, the proposed use of the Project site is compatible with the surrounding properties in that the area is planned for residential development.

The Project will introduce new roadways. However, the proposed roadways are local streets that are internal to the subdivision. The local streets are necessary to provide for internal circulation. A future collector, "B Street", is also proposed and will bound the site to the west. The proposed local and collector streets will be constructed per City of Madera Standards and will provide for safe access to Cleveland Avenue. Therefore, the new roadways are necessary for internal circulation and would not physically divide an established community since they are internal to the subdivision.

As such, the Project does not represent a significant change in the surrounding area as it will develop a site planned for residential uses with a residential development. This development is compatible with the planned land uses within the area. In addition, the new roadways will be internal to the development and

are necessary to provide for safe internal circulation and access to Cleveland Avenue. For these reasons, the Project would have a less than significant impact.

b) Would the project cause a significant environmental conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

Less than Significant Impact. As noted above, the proposed use is consistent with its land use designations. Development of the proposed Project in accordance with the General Plan would require consistency with various federal, State, and local plans, policies, and regulations. Policy conflicts do not, in and of themselves, constitute a significant environmental impact. Policy conflicts are considered to be environmental impacts only when they would result in direct physical impacts or where those conflicts relate to avoiding or mitigating environmental impacts. As such, associated physical environmental impacts are discussed in this document under specific topical sections, such as Biological Resources, Cultural Resources, and Tribal Cultural Resources; however, a discussion of certain land use plans, policies, and regulations that are applicable to the proposed Project are included below. Table 4-5 provides a comparison of the proposed Project's characteristics with all applicable policies included in the General Plan as they relate to land use issues. As discussed below, the proposed Project is generally consistent with the General Plan.

Table 4-5 Discussion on Land Use Policies in the General Plan

Policy	Policy Language	Consistency Discussion
Policy LU-20	New residential development should be designed to avoid continuous blocks or clusters of dwellings that are connected only by streets, sidewalks, and hardscape. New development shall incorporate amenities which establish a sense of identity at the project or neighborhood level, create opportunities for community interaction, and enhance the visual appeal of the area. Features which accomplish these goals may include pathways, paseos, parks, community gardens, and other semipublic gathering places.	Consistent. The proposed Project establishes Development Standards and Design Guidelines to establish cohesive neighborhoods that provide a sense of identity by creating a compact development with a diversity of residential building types, and walkable and bikeable streets that allow for a diverse, well-balanced community.
Policy LU-22	Single family developments need to provide functional outdoor recreational space. The space can be provided either on individual lots or more efficiently as aggregated local public spaces, creating features such as those described in PolicyLU-20.	Consistent. The proposed Project will provide residential single-family lots that will allow for ample private open space.

Further, through the entitlement process, the Project is reviewed for compliance with applicable regulations inclusive of those adopted for the purpose of avoiding or mitigating environmental effects. Overall, the entitlement process would ensure that the Project complies with the General Plan, Municipal Code, and any other applicable policies. As such, the Project would have a less than significant impact.

4.12 Mineral Resources

Would the project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Result in the loss of availabilit mineral resource that would I the region and the residents of	e of value to				
b) Result in the loss of availabilit important mineral resource redelineated on a local general plan, or other land use plan?	ecovery site				

4.12.1 Environmental Setting

The California Geological Survey (CGS) classifies and designates areas within California that contain or potentially contain significant mineral resources. Lands are classified into Aggregate and Mineral Resource Zones (MRZs), which identify known or inferred significant mineral resources. According to the California Department of Conservation, CGS's Surface Mining and Reclamation Act (SMARA) Mineral Lands Classification (MLC) data portal, the Project area does not contain any state or locally designated mineral resource. ¹⁷ Further, according to the Madera General Plan EIR, the Project Area inclusive of the Project site does not have the potential to affect the availability of any state or locally designated mineral resource.

4.12.2 Impact Assessment

a) Would the project 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?

No Impact. The Project site is not located in an area designated for mineral resource preservation or recovery. Therefore, 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. Therefore, the Project would have no impact.

b) Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

No Impact. As described above, the Project site is not located in an area designated for mineral resource preservation or recovery. Therefore, 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. Further, the site is not delineated on the General Plan, a Specific Plan, or other land use plan as a locally important mineral resource recovery site, thus it would not result in the loss of availability of a locally important mineral resource. Therefore, the Project would have no impact.

¹⁷California Department of Conservation. "Surface Mining and Reclamation Act Mineral Lands Classification data portal." Accessed July 29, 2021, https://maps.conservation.ca.gov/cgs/informationwarehouse/index.html?map=mlc

4.13 Noise

Would	the project result in?	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	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?				

4.13.1 Environmental Setting

In general, there are two (2) types of noise sources: 1) mobile source and 2) stationary sounds. Mobile source noises are typically associated with transportation including automobiles, trains, and aircraft. Stationary sounds are sources that do not move such as machinery or construction sites. The Madera General Plan Noise Element and Madera Municipal Code outlines policies and regulations to mitigate health effects of noise in the community and prevent exposures to excessive noise levels.

4.13.2 Impact Assessment

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

Less than Significant Impact. Although the Project would result in increased ambient noise level at the Project site, compliance with the General Plan and Chapter 11 of the Madera Municipal Code requirements would result in the Project's compliance with applicable standards. Two (2) noise generating sources of the Project would include construction (short-term, temporary) and operational (long-term) noise, each described below. Overall, the Project would result in a less than significant impact in regard to noise.

Short-Term Noise: Construction. Construction would result in short-term noise impacts. Temporary construction noise impacts from construction activities would be generated from the use of construction equipment for grading the site and building the proposed structures. Construction would not include

equipment such as piledriving that would cause significant noise impacts Further, Project construction is not expected to result in a significant impact because the noise would be generated during daylight hours and not during evening or more noise-sensitive time periods; and the increase in noise would cease upon completion of the Project. As is the case for this Project, the site is within an area that is experiencing ongoing development of vacant sites. For these reasons, the Project would have a less than significant impact in regard to construction noise impacts.

Long-Term Noise: Operations. As indicated by General Plan Policy N-13, a 5 db increase in CNEL or Ldn noise levels shall be normally considered to be a significant increase in noise. Therefore, the significance criteria define a significant impact to occur if the project would result in a substantial (5 dBA or greater) permanent increase in ambient noise levels in the project vicinity above levels existing without the project.

The proposed Project would generate an additional 2,021 average daily trips (ADT). The majority of these trips would utilize Cleveland Avenue. If we assume 80% of these ADTs will utilize Cleveland Avenue, the project will result in 1,616 new trips along this corridor. A FHWA Roadway Noise Level Analysis was conducted on February 27, 2020. This study determined that the CNEL at 50-feet from the near travel lane centerline to be 62.79 dB for Cleveland Avenue between the Road 24 alignment and Westbury Avenue. The ADT assumed in this analysis for this stretch of roadway was 2,349. If we add 1,616 new trips, the new ADT with the project would be 3,965. Based on this same noise analysis noted above, nearby street segments in the City of Madera with similar ADTs have a CNEL (dBA) at 50 ft. from Centerline of Outermost Lane of between 66.1 and 66.5 dB. Looking at this conservatively, the increase would be 3.71 dBA, which is below the threshold. In addition to this, to reduce traffic noise at outdoor living areas, typical noise mitigation would include the construction of a stand-alone sound wall which reduces noise levels by approximately 5 to 10 dBA. The proposed Project includes the construction of a sound wall along Cleveland Avenue, resulting in a less than significant impact.

b) Would the project result in generation of excessive ground borne vibration or ground borne noise levels?

Less than Significant Impact. Construction equipment has the potential to generate vibrations throughout the ground, depending on the equipment and methods used, distance to the affected structures, and soil type. It is not anticipated that the Project would generate excessive ground borne vibration or ground borne noise levels, given the type of improvements associated with residential development. Further, construction or operation of the Project would not involve equipment that would generate substantial groundborne vibration of ground borne noise levels. Thus, the Project would result in a less than significant impact.

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?

Less than Significant Impact. As required by the Caltrans Division of Aeronautics, the Madera County ALUC must prepare an ALUCP for public and public use airport within its jurisdiction. An ALUCP guides local jurisdictions in determining appropriate compatible land uses with detailed findings and policies. The Madera County ALUC adopted the Madera Countywide Airport Land Use Plan, which covers the Madera Municipal Airport and the Chowchilla Municipal Airport. The proposed Project, other City land use plans, and all City land use decisions must be compatible with the adopted ALUCP. The ALUCP includes CNEL noise contours based on projected airport and aircraft operations. The purpose of these noise contours is to

minimize the effect of airport and aircraft noise on the adjacent community by determining land use compatibility and locations for noise mitigation measures during the planning, design, and development process.

The Madera Countywide ALUCP establishes land uses that are either acceptable or unacceptable within each CNEL noise contour based on the noise sensitivity of the particular use. Noise-sensitive land uses such as residential uses are typically only acceptable in areas outside the 65 dBA CNEL and greater noise contours. It is within these areas that the Madera County ALUC has determined that residential uses can occur while still minimizing the effects of adjacent and overhead aircraft noise on noise-sensitive receptors. Any land use decision made within the jurisdictional boundary of the ALUCP, based upon policies set forth by the General Plan, must be consistent with the ALUCP, including the land use compatibility policies based on CNEL noise contours, as required by law.

The Madera Municipal Airport is located approximately ½ mile directly north of the Project site. The Project site lies beyond the 65 dBA CNEL noise contours and thus it us within an acceptable area for residential uses. As such, the proposed Project would not include new residential uses or similar noise-sensitive land use proposed for areas susceptible to aircraft noise levels exceeding those levels that are typically considered acceptable.

There are no private airstrips operating within or near the project. As a result, any noise associated with private airstrips would not result in substantial noise levels for the project. Therefore, the proposed Project would not result in impacts from adjacent and overhead aircraft noise on noise-sensitive land uses. Therefore, impacts associated with noise produced by public, public use, or private airports in the Project Area would be less than significant.

4.14 Population and Housing

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	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)?			\boxtimes	
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?				

4.14.1 Environmental Setting

The following section utilizes data from the U.S. Census Bureau (Census) and the City's General Plan Housing Element. 18

Population. The City's General Plan Housing Element estimated the population of Madera was 63,008 in 2014. Between 2010 and 2014, the City's population grew by 1,592 residents, approximately 0.6 percent. The US Census QuickFacts estimated that the population of Madera had increased to 65,706 in 2018. ¹⁹

Housing. The City's Housing Element estimated that the housing stock in 2014 consisted of approximately 17,240 housing units.²⁰ Although a more recent estimate of the number of housing units in Madera is not available, the US Census QuickFacts estimated that 18,037 households existed in Madera in 2018. The majority of households consist of owner-occupied housing units (48.5 percent) and the remainder were renter-occupied housing units (51.5 percent). The average household size within the City is approximately 3.55 persons per household, which is slightly higher than the County's average of 3.28 persons per household.

¹⁸ City of Madera. (2015). City of Madera 2016-2024 Housing Element Update. Accessed on August 6, 2021, https://www.madera.gov/wp-content/uploads/2015/11/MadHE Adopted 12-02-15 Highlighted.pdf

¹⁹ US Census Bureau, "US Census QuickFacts," Accessed August 6. 2021, www.census.gov/quickfacts/fact/table/maderacitycalifornia/HSD310218

²⁰ City of Madera. (2015). City of Madera 2016-2024 Housing Element Update. Accessed on August 6, 2021, https://www.madera.gov/wp-content/uploads/2015/11/MadHE Adopted 12-02-15 Highlighted.pdf

4.14.2 Impact Assessment

a) Would the project 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)?

Less than Significant Impact. The Project area is planned for residential development. The proposed Project is consistent with the residential planned land use designation. CEQA Guidelines Section 15126.2(d) requires that a CEQA document discuss the ways in which the proposed Project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. The CEQA Guidelines provide the example of a major expansion of a wastewater treatment plant that may allow for more construction within the service area. The CEQA Guidelines also note that the evaluation of growth inducement should consider the characteristics of a project that may encourage or facilitate other activities that could significantly affect the environment. This impact will first discuss the potential for direct and indirect growth inducement and then address consistency with regional population and growth projections. Direct and Indirect Growth Inducement consists of activities that directly facilitate population growth. The construction of new dwelling units is considered an activity that directly results in population growth.

A key consideration in evaluating growth inducement is whether the activity in question constitutes "planned growth". A residential project that is consistent with the underlying General Plan would generally be considered planned growth because it was previously contemplated by these long-range documents, and, thus, would not be deemed to have a significant growth-inducing effect.

In addition, the extension of this urban infrastructure is "growth accommodating" because it is intended to facilitate planned growth. This relatively small population will not affect any regional population, housing or employment projections anticipated by City policy documents. Thus, since the proposed Project is considered planned growth, the impact is less than significant.

b) Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

No Impact. The Project site is currently used for agricultural uses and will not result in the displacement of people or housing. Therefore, the Project would have no impact.

4.15 Public Services

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

4.15.1 Environmental Setting

The Project is located within the City of Madera Sphere of Influence and will be annexed into the City and thus, would receive public services provided by the City of Madera and will be subject to fees to provide such services.

Fire Protection. Fire protection and emergency medical services will be provided by the Madera City Fire Department, which is administered by the California Department of Forestry and Fire Protection (CAL Fire) through a cooperative fire protection agreement. Policy direction remains with the Madera City Council and all permanent Fire Department staff are CAL Fire employees. The Department currently has three operational fire stations:

- Fire Station 56. Located at 317 North Lake Street, approximately 3 miles east of the Project site
- Fire Station 57. Located at 200 South Schnoor Street, approximately 3 miles southeast of the Project site
- Fire Station 58. Located at 2558 Condor Drive, a little over a 1-mile northeast of the Project site.

The Fire Department staffs two fire engines and one mini-pumper. One of the engines features a 50- foot tele-squirt aerial ladder. City fire protection services provided include fire prevention and suppression,

emergency medical assistance, rescue, public assistance, fire menace standby, safety inspections, and review of building plans for compliance with applicable codes and ordinances.

Police Protection. Police protection services are provided to the project area by the City of Madera Police Department (MPD). MPD headquarters is located at 330 South C Street. According to the most recent MPD annual report, the MPD has 70 sworn officers and 34 non-sworn employees. In 2019, MPD handled 60,432 calls for services and the average response time for emergency calls was 5 minutes and 21 seconds, including calls such as an armed robbery or burglary in progress, person not breathing, or traffic collisions involving injuries.²¹

Schools. Madera Unified School District (MUSD) schools serving the project include Lincoln Elementary School, a transitional kindergarten (TK) through 8^{th} grade (TK-8) facility, Thomas Jefferson Middle School, a 7^{th} - 8^{th} grade facility, and Madera High School, a 9^{th} - 12^{th} grade facility.

Parks and Recreation. The City of Madera owns and maintains 26 parkland facilities, including three community parks, five neighborhood parks, four pocket parks, four linear parks, two trails, and eight special use facilities. The facilities include 320 acres, not included building grounds, landscape buffer areas, median islands, and park strips.

4.15.2 Impact Assessment

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

Fire Protection:

Less than Significant Impact. The Project site will be annexed into the City and therefore will be served by the Madera Fire Department. The site is located a little over a mile southwest of the City of Madera Fire Department, Station #58. The project would be required to comply with standard requirements including the Madera Municipal Code and current California Fire Code, including provision of fire hydrants. The City of Madera Engineering Division reviewed the Project and required the project to comply with the following conditions:

- A water system shall be designed to meet the required fire flow for the type of development planned and approved by the fire department. Fire flows shall be determined by Uniform Fire Code appendix III-A.
- Unless the City Engineer or fire flow analysis specifies larger water lines, a minimum of 8 inches in
 diameter shall be installed in all streets. Water main installation shall be per City of Madera
 installation procedures and guidelines. Any new water main or fire hydrant line installations of 18
 feet or more shall be sterilized in accordance with the water main connection procedures, including
 the temporary use of a reduced pressure assembly. Water service connections are required to be

²¹ City of Madera. (2019). City of Madera Police Department Annual Report 2019. Accessed on August 6, 2021, https://www.madera.gov/wp-content/uploads/2020/10/PD-Annual-Report-Final.pdf

hot tap type connection to existing city main. If the subdivision is constructed in phases, blow-offs will be required at each termination point. All water system bacterial analysis testing costs shall be reimbursed to the City prior to approval of any units for final occupancy. Fees shall be based on rates established by the Department of Public Works.

- Infrastructure shall be installed to the extent necessary to provide a looped water main system that provides an adequate potable water supply that meets fire flow requirements for each phase. Water mains shall be constructed to current City standards in effect at time of construction.
- Prior to beginning any framing construction, approved fire hydrants shall be installed in accordance with spacing requirements for residential development (400 feet) or commercial development (300 feet). For each phase, a copy of the preliminary water and hydrant location plan shall be provided to the City Engineer and the fire protection planning officer for review and approval. Fire hydrants shall be constructed in accordance with City Standard W-26. Fire hydrant pavement markers shall be installed as soon as the permanent pavement has been installed.
- For subdivisions, water services shall be placed 3 feet from either property line, opposite of streetlight and fire hydrant installations, installed and tested at the time the water main is installed, and identified on the curb face. Water meters shall not be located within driveway approaches or sidewalk areas. Water services shall not be located at fire hydrant or streetlight locations.
- The divided community entry streets within the TSM shall be in accordance with plans approved by the City Engineer and the Fire Marshall. Landscaping shall be maintained by the Landscape Maintenance District.
- An approved on-site or off-site turn-around shall be provided at the end of each stub-out or roadway 150 feet or more in length pursuant to the uniform fire code. Cul-de-sacs shall be no longer than 450 feet. Any off-site turn-around shall have a maintenance covenant and easement recorded prior to recording of final map. The developer is responsible for all fees associated with the approval of all documents.
- If developed in phases, each phase shall have two (2) points of vehicular access within a recorded easement for fire and other emergency equipment and for routes of escape which will safely handle evacuations as required by emergency services personnel. An all-weather access road shall be two inches of type "A" asphalt over 6 inches of 90% compacted native soil or 4 inches of Class II aggregate base capable of withstanding the imposed loads of fire apparatus. A maintenance covenant and easement along with associated fees shall be recorded prior to recording the final map for any phased development.

In addition, the proposed buildings are required to be fully sprinklered and adequate fire access shall be provided. In addition, the Project would be subject to Fire Department Impact Fees to offset any impacts. Given the fact that the Project would be required to meet standard requirements, which would minimize the need for services, and that the Project would not result in a need for new or altered facilities, the Project would have a less than significant impact.

Police Protection

Less than Significant Impact. The Project site, when annexed, will be within city limits and therefore will be served by the Madera Police Department. The Police Department Headquarters are located 4.5 miles southeast of the site. The Project site is located immediately adjacent to a residential area that is currently served by the Police Department; the addition of the subdivision within a growing residential area would not cause the Department to significantly expand its existing service area or construct a new facility to serve the Project site.

Schools

Less than Significant Impact. Educational services for the proposed Project will be provided by the Madera Unified School District (MUSD). MUSD schools serving the project include Lincoln Elementary School, Thomas Jefferson Middle School, and Madera High School. The Project developer will be required to pay a School Impact Fee to mitigate impacts to the school. Funding for schools and school facilities impacts is outlined in Education Code Section 17620 and Government Code Section 65995 et. seq., which governs the amount of fees that can be levied against new development. These fees are used to construct new or expanded school facilities. Payment of fees authorized by the statute is deemed "full and complete mitigation." The proposed Project will be required to pay impact fees from new development based on the Developer Fee rates that are in place at the time payment is due. The payment amount is determined by the School District and the State Allocation Board (SAB). Payment of the applicable impact fees by the Project applicant would fund capital and labor costs associated with providing school services to the Project. For these reason, the project's impacts would be less than significant.

Parks

Less than Significant Impact. As a new subdivision, the Project would be subject to requirements of the Quimby Act, including land dedication and payment of fees in-lieu thereof (or a combination of both). The Quimby Act authorizes the City to require dedication of parkland or the payment of fees in-lieu of such dedication in set amounts to meet the needs of the community for parkland. For reference, the nearest public parks to the Project site are the Rotary Dog Park, which is located approximately two miles east of the site on the east side of Highway 99 and the Lions Town and Country Park, which is located approximately two miles southeast of the site on the west side of South Schnoor Street.

Park and recreational facilities are typically impacted by an increase in use from proposed residential development. The Project proposes a residential use and thus, would result in a net increase in the area population. Relevant to the proposed Project, Madera General Plan Policy LU-22 states, "single family developments need to provide functional outdoor recreational space. The space can be provided either on individual lots or more efficiently as aggregated local public spaces, creating features such as those described in Policy LU-20." As shown on the site plan (Figure 2-7), the Project proposes ample open space on individual lots. The proposed development standards require a minimum 15-foot rear yard and 25% of the front yard to be landscaped. Therefore, the Project provides open space as required. The Project would thereby not directly result in need for new or physically altered parks, the construction of which could cause significant environmental impacts. For these reasons, the Project would have a less than significant impact.

Other Facilities

Less than Significant Impact. Development of the Project will increase the demand for other public services. However, the small increase in demand will not require construction of additional facilities. In addition, payment of development impact fees will be required for the proposed Project. Thus, the Project would not result in the need for new or altered facilities to provide other public services and thus the project will result in a less than significant impact.

4.16 Recreation

Would	the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a)	Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				
b)	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?				

4.16.1 Environmental Setting

As a new subdivision, the Project would be subject to requirements of the Quimby Act, including land dedication and payment of fees in-lieu thereof (or a combination of both). The Quimby Act authorizes the City to require dedication of parkland or the payment of fees in-lieu of such dedication in set amounts to meet the needs of the community for parkland. For reference, the nearest public parks to the Project site are the Rotary Dog Park, which is located approximately two miles east of the site on the east side of Highway 99 and the Lions Town and Country Park, which is located approximately two miles southeast of the site on the west side of South Schnoor Street.

4.16.2 Impact Assessment

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?

Less than Significant Impact. Park and recreational facilities are typically impacted by an increase in use from proposed residential development. The Project proposes a residential use and thus, would result in a net increase in the area population. Relevant to the proposed Project, Madera General Plan Policy LU-22 states, "single family developments need to provide functional outdoor recreational space. The space can be provided either on individual lots or more efficiently as aggregated local public spaces, creating features such as those described in Policy LU-20." As shown on the site plan (Figure 2-7), the Project proposes ample open space on individual lots. The proposed development standards require a minimum 15-foot rear yard and 25% of the front yard to be landscaped. Therefore, the Project provides open space as required. Furthermore, as a new subdivision, the Project is subject to the requirements of the Quimby Act, including land dedication and payments of fees in-lieu thereof (or a combination of both). Quimby Act requirements would ensure that the Project meets the needs of the community for parkland, thereby reducing any significant impacts related to recreation. As such, the Project not directly result in the increased use of

parks or recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated. For these reasons, the Project would have a less than significant impact.

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?

No Impact. As stated under criterion a) above, the Project proposes ample open space on individual lots. The open space is in accordance with the applicable development standards. Thus, the Project's open space would not have an adverse physical effect on the environment.

4.17 Transportation

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	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) 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?			\boxtimes	

4.17.1 Environmental Setting

Under Senate Bill 743 (SB743), traffic impacts are related to Vehicle Miles Traveled (VMT). The VMT metric became mandatory on July 1, 2020. To-date, a VMT significance threshold has not been adopted by the City of Madera or County of Madera. To evaluate the significance of the Project as it relates to VMT, Section 15064.3 of the CEQA Guidelines and the Office of Planning and Research (OPR) 2018 Technical Advisory on Evaluating Transportation Impacts in CEQA were used. Pursuant to Section 15064.3(b) of the CEQA Guidelines, if existing models or methods are not available to estimate the VMT for the particular project being considered, a Lead Agency may analyze the project's VMT qualitatively. Such a qualitative analysis would evaluate factors such as the availability of transit, proximity to other destinations, etc.

The Project Area is located at the western edge of the City. Within the City of Madera, all major roadways are classified based on the City's General Plan Circulation Master Plan. Following is a brief description of the roadways located within the project area.

Cleveland Avenue. Cleveland Avenue is an east-west divided arterial within the City of Madera. In the City's Circulation Master Plan, Cleveland Avenue is designated as "Urban Arterial" under existing conditions. Under the General Plan, Cleveland Avenue is designated as a six-lane "Urban Arterial" between Schnoor Street and SR 99, and as a four-lane "Urban Arterial" between Granada Drive and Schnoor Street and between Sharon Road and D Street.

4.17.2 Impact Assessment

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

Less than Significant Impact. The proposed Project would be required to comply with all project level requirements implemented by a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities, including the MCTC active transportation plan adopted in May of 2018. Based on Engineering comments prepared for the project, standard pedestrian facilities (sidewalks) are required. The Project is required to submit improvement plans, including roadway improvements, for review and approval by the City Engineer to ensure improvements will be consistent with City standards. Therefore, there would be a less than significant impact.

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

Less than Significant Impact. Senate Bill (SB) 743 requires that relevant CEQA analysis of transportation impacts be conducted using a metric known as vehicle miles traveled (VMT) instead of Level of Service (LOS). VMT measures how much actual automobile travel (additional miles driven) a proposed Project would create on California roads. If the project adds excessive automobile travel onto roads, then the project may cause a significant transportation impact.

The State CEQA Guidelines were amended to implement SB 743 by adding Section 15064.3. Among its provisions, Section 15064.3 confirms that, except with respect to transportation projects, a project's effect on automobile delay shall not constitute a significant environmental impact. Therefore, LOS measures of impacts on traffic facilities are no longer a relevant CEQA criteria for transportation impacts.

According to the Governor's Office of Planning and Research's (OPR) Technical Advisory on Evaluating Transportation Impacts in CEQA, land use projects, residential, office, and retail projects tend to have the greatest influence on VMT. For that reason, OPR recommends the quantified thresholds described above for purposes of analysis and mitigation. Lead agencies, using more location-specific information, may develop their own more specific thresholds, which may include other land use types." Neither the City of Madera nor the County's Regional Transportation Planning Agency (Madera County Transportation Commission (MCTC)), have established VMT thresholds or guidelines. Since the MCTC and the City of Madera do not have established thresholds or guidelines, the state guidelines, including the Technical Advisory, have been utilized as the default methodology used to analyze VMT impacts.

In regard to recommended thresholds for residential projects, the OPR advises: "a proposed Project exceeding a level of 15 percent below existing VMT per capita may indicate a significant transportation impact. Existing VMT per capita may be measured as regional VMT per capita or as city VMT per capital." Thus, residential development that would generate vehicle travel that is 15 or more percent below the existing residential VMT per capita, measured against the region or city, may indicate a less-than significant transportation impact.

Using this methodology, if it can be determined that the Project would generate vehicle travel that is more than 15% below the existing County residential VMT per capita, then the project can be determined to be less than significant. Table 4-6 shows the VMT per capita for the Madera County region under existing conditions (2019), in addition to the VMT per capita for the Project's Transportation Analysis Zone (TAZ). As shown, the average residential VMT per capita in Madera County is 14.64 miles per day. The Project is located within TAZ 2544 of the California Statewide Travel Demand Model (CSTDM), Version 2 (2016), which has an average home-based VMT per capita of 10.41. When compared to VMT per capita for the County, the TAZ average is approximately 29% less than the regional average. Because 29% is more than the 15% threshold, the Project's impact would be less than significant.

Table 4-6 VMT Statistics for Madera County, 2019

VMT Metric	Regional Average (2019)	TAZ Average (2016)	Difference (%)
VMT per Capita	14.64 miles	10.41 miles	29%

Source: Travel Demand Forecasting Model (MCTC 2018) and Caltrans VMT Output File by CSTDM TAZ

Although the VMT impacts from the proposed Project can be determined to be less than significant, the Project will comply with several mitigation measures outlined in the State's Technical Advisory referenced above. Potential measures include improved or increased transit access and improved pedestrian/bicycle networks or transit service. In addition, the Project includes the installation of sidewalks consistent with City standards, which will improve the pedestrian network and provide increased access to transit.

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

Less than Significant Impact. The Project design does not contain any features that would create a hazard or incompatible uses. Further, the Project does not propose any incompatible uses and is consistent with other development in the area because it is similar in nature to surrounding uses. In addition, the Project was reviewed by multiple City departments, including Fire and Engineering, to ensure that site layout conforms to applicable regulations and codes. Therefore, the Project would be consistent with and adhere to design and site layout guidelines and would thereby have a less than significant impact.

d) Would the project result in inadequate emergency access?

Less than Significant Impact. The Project does not involve a change to any emergency response plan. Access points to the Project were reviewed by the City of Madera's Engineering Department and Fire Department. Standard conditions have been imposed to ensure adequate site access. In the case that Project construction requires lane closures, access through Cleveland Avenue would be maintained through standard traffic control and therefore, potential lane closures would not affect emergency evacuation plans. Thus, the impact would be less than significant.

4.18 Tribal Cultural Resources

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
 i) Listed or eligible for listing in the California Register of Historical Resources, or in the local register of historical resources as defined in Public Resources Code section 5020.1(k), or 				
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.				

4.18.1 Environmental Setting

Assembly Bill 52 (AB 52) requires consultation with California Native American tribes during the CEQA process to determine potential effects of proposed Projects on a tribal cultural resource. Pursuant to Public Resources Code (PRC) Section 21080.3.1, the lead agency shall begin consultation with the California Native American tribe that is traditionally and culturally affiliated with the geographical area of the proposed Project. Such significant cultural resources are either sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a tribe which is either on or eligible for inclusion in the California Historic Register or local historic register, or, the lead agency, at its discretion, and support by substantial evidence, choose to treat the resources as a Tribal Cultural Resources (PRC Section 21074(a) (1-2)). Todate, the City of Madera has not received a request from any California Native American tribes in the geographic area to be notified about projects in the city of Madera.

Generally, the term 'cultural resources' describes property types such as prehistoric and historical archaeological sites, buildings, bridges, roadways, and tribal cultural resources. As defined by CEQA, historical resources include sites, structures, objects, or districts that may have historical, prehistoric, architectural, archaeological, cultural, or scientific importance. Such resources are eligible for listing in the California Register of Historic Resources by the State Historical Resources Commission. According to the Madera General Plan, there are approximately 54 historic buildings/structures and sites in the city. Places of contemporary historical significance include the Madera County Courthouse, Luther Burbank School, and Dixie Motel. There are also many paleontological resources that have been discovered at the Fairmead landfill (approximately 18-miles northwest of the city). In addition, it is likely that archaeological and cultural resources exist along waterways.

In recent history, the Project site has been designated and operated as agricultural land. The existing site contains a single-family residential dwelling (1,395 sf.) and metal barn for agricultural equipment and related storage. These structures are located on the northeast corner of the site. A north-south/east-west Pacific Gas and Electric Company (PG&E) easement bounds the Project site. There are no other improvements or structures on-site. Cleveland Avenue, a two-lane, east-west Arterial forms the northerly Project site boundary and Road 24 Alignment forms the easterly Project site boundary. The Fresno River south of the Project site forms the Project's southern boundary. The river has been subject to channelization and modification for agricultural irrigation.

Topography is generally flat. The existing biotic conditions and resources of the Project site can be defined primarily as agricultural with a majority of the site containing almond orchards. Trees, shrubs, and ruderal and herbaceous vegetation surround the single-family residential dwelling. There are approximately 15 trees surrounded the residence. The Project site is surrounded by agricultural land to the north, south, and west, the Fresno River to the south, and vacant land to the east. The properties to the north, south, east, and west are planned for residential uses. Agricultural activities have significantly altered the Project site and surrounding properties.

Record Search

The Southern San Joaquin Valley Information Center (SJVIC) conducted a California Historical Resources Information System (CHRIS) Record Search for the Project site and surrounding area (0.25-mile radius) on August 3, 2021 (SJVIC File Number 21-286). The search results do not show any formally recorded prehistoric or historic archeological resources or historic buildings within the Project area or within the immediate vicinity of the Project area. In addition, no resources that are known to have value to local cultural groups have been formally reported to the SJVIC. The SJVIC Correspondence is provided in Appendix B.

4.18.2 Impact Assessment

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

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

Less than Significant Impact. As discussed in Section 4.5, the Project site does not contain any property or site features that are eligible for listing in the California Register of Historical Sources, or in a local register of historical resources as defined in PRC Section 5020.1(k). Nevertheless, there is some possibility that a non-visible, buried site may exist and may be uncovered during ground disturbing construction activities which would constitute a significant impact. Madera General Plan Action Item HC-9.2 imposes the following condition on all discretionary projects which may cause ground disturbance pursuant to Public Resources Code Section 21082.2: "The Planning Department shall be notified immediately if any prehistoric, archaeologic, or fossil artifact or resource is uncovered during construction. All construction must stop and an archaeologist that meets the Secretary of the Interior's Professional Qualifications Standards in prehistoric or historical archaeology shall be retained to evaluate the finds and recommend appropriate action." Thus, if such resources were discovered, implementation of the required condition would reduce the impact to less than significant. As such, the Project would have a less than significant impact.

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

Less than Significant Impact. The Project site has not been determined by the City of Madera to be a significant resource pursuant to Public Resources Code Section 5024.1 and to-date, no substantial information has been provided to the City to indicate otherwise. Further, the Project site, inclusive of site features, is not listed in the California Register of Historical Sources. However, there is some possibility that a non-visible, buried site may exist and may be uncovered during ground disturbing construction activities which would constitute a significant impact. Madera General Plan Action Item HC-9.2 imposes the following condition on all discretionary projects which may cause ground disturbance pursuant to Public Resources Code Section 21082.2: "The Planning Department shall be notified immediately if any prehistoric, archaeologic, or fossil artifact or resource is uncovered during construction. All construction must stop and an archaeologist that meets the Secretary of the Interior's Professional Qualifications Standards in prehistoric or historical archaeology shall be retained to evaluate the finds and recommend appropriate action." In such a case, the California Native American Heritage Commission would also be notified. Thus, if such resources were discovered, implementation of the required condition would reduce the impact to less than significant. As such, the Project would have a less than significant impact.

4.19 Utilities and Service Systems

Would	the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	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?			\boxtimes	
e)	Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?				

4.19.1 Environmental Setting

The Project site is subject to annexation and thus, would be required to connect to water, sewer, stormwater, and wastewater services provided by the City of Madera and may be subject to fees to be provided such services. The Project's proposed residential land use has been previously analyzed within the City's planning documents including the Water System Master Plan (2014), Sanitary Sewer System Master Plan (2014), Storm Drainage System Master Plan, and Urban Water Management Plan (2015).

4.19.2 Impact Assessment

a) Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas or

telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

Less than Significant Impact. Because the Project is subject to annexation, it will be required to connect to existing water, wastewater, stormwater, electricity, natural gas, and telecommunications systems. As part of these connections, the Project would be required to install master planned water supply, sewer, and stormwater drainage facilities in accordance with the Water System Master Plan (2014), Sanitary Sewer System Master Plan (2014), Storm Drainage System Master Plan, and Urban Water Management Plan (2015). The Project's proposed connections are described as follows.

Water. The Project will include installation of a 12-inch water main from the Road 24 Alignment east of the Project site. The 12-inch water main will be installed along Cleveland Avenue and B Street.

Wastewater. Wastewater services will be provided for the Project site. Wastewater from the site will be conveyed to the existing City of Madera Wastewater Treatment Plant through the existing Westberry Trunkline. Further, it has been confirmed that the Melanie Meadows sewer lift station has the capacity to serve the Project.

Stormwater. Applicant proposes the construction of a temporary stormwater drainage basin to the north of the Project site, north of Cleveland Avenue, for stormwater drainage.

Electricity and natural gas. PG&E, the natural gas and electric service provider for the area, incrementally expands and updates its service system as needed to serve its users.

Telecommunications. Accordingly, telecommunications providers in the area incrementally expand and update their service systems in response to usage and demand.

In addition, the City has reviewed the Project to ensure compliance with applicable requirements and regulations in addition to determining adequate capacity in these systems to accommodate development within the Project area. Further, while the Project would introduce new uses to an undeveloped site, the type and intensity of development is consistent with the land use designation for which it was previously planned. For these reasons, the Project would not cause significant environmental effects and therefore would have a less than significant impact.

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

Less than Significant Impact. As discussed in Section 4.10, anticipated buildout of the Project would increase water demands within the Project area and as a result, the Project would increase the need for sustainable water sources. The Project will be required to connect to the City of Madera water system. Per State law, new water connections including landscape areas are required to be constructed to current City standards including Automatic Meter Reading (AMR) installed within the City right-of-way and backflow prevention device within private property. In addition, the landscaping shall be subject to the Model Water Efficient Landscape Ordinance (MWELO) which requires new development to meet water efficiency standards.

While the Project would introduce new uses to an undeveloped site, the type and intensity of development is consistent with the land use designation for which it was previously planned. Water impacts for the Project were evaluated by the City Engineer. Based on the City's review, the Project is required to install a master-planned water supply facilities in accordance with the City of Madera Water System Master Plan.

In particular, the Project is required to install a 12-inch water main in Cleveland Avenue from the Road 24 alignment to the western edge of the Project frontage, and a 12-inch water main in "B Street" from Cleveland Avenue to the southern edge of the Project frontage. As an additional measure, the Project is required to install recycled/non-potable water facilities to serve future landscape areas, park strips, and front and back yards. With these installation requirements, the City has determined there is adequate capacity based on the estimated water consumption. For these reasons, the Project would have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years. Therefore, the Project would have a less than significant impact.

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

Less than Significant Impact. The City of Madera Wastewater Treatment Plant (WWTP) is the regional facility for disposal of wastewater for residential, commercial, and industrial accounts. As previously mentioned, the Project is consistent with the planned land use designation previously accounted for in the Madera General Plan. The wastewater impacts for the Project were evaluated by the City Engineer to ensure compliance with the City's wastewater treatment requirements and capacity. Based on the City's review, the Project is required to install master-planned sewer facilities in accordance with the City of Madera Sanitary Sewer System Master Plan. In particular, the Project is required to install a 15-inch main from the Road 24 alignment to the western edge of the Project frontage. With this installation requirement, the City has determined there is adequate capacity based on the estimated sewage collection and treatment demand. For these reasons, the Project would not exceed wastewater treatment requirements such that a new facility would be required, nor would the existing WWTP Facility need to be expanded. As such, the Project would have a less than significant impact.

d) Would the project 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?

Less than Significant Impact. Future residences will be served by the City's contracted waste hauler. The Project would be required to comply with Madera Municipal Code, Title V: Sanitation and Health, Chapter 3: Garbage, Refuse, and Recycling, which outlines requirements and specifications for solid waste collection. For construction and demolition recycling, the Project would be subject to compliance with Madera Municipal Code Section 5-3.30: Construction and Demolition Debris Recycling which is in accordance with Assembly Bill (AB) 939 and CALGreen. In addition, the Madera General Plan outlines goals and policies for source reduction and recycling including Policy C1-62, C1-63, C1-64, and C1-65. Compliance with these measures and policies would serve to reduce impacts of solid waste by promoting regular collection and encouraging the recycling of materials. For this reason, the Project would have a less than significant impact.

e) Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Less than Significant Impact. Project construction and operations would be required to comply with federal, state, and local management and reduction statutes related to solid waste. Therefore, the Project would not generate substantial amounts of solid waste. Therefore, the Project would have a less than significant impact.

4.20 Wildfire

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	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 uncontrollable spread of 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?				

4.20.1 Environmental Setting

The Project site is located on a relatively flat property within the city's Urban Growth Area planned for urban uses, including residential development. Further, the Project site is not identified by the California Department of Forestry and Fire Protection (Cal Fire) or the City of Madera as a Very High Fire Hazard Severity Zone (VHFHSZ); rather, the site is within an "area of local responsibility" as defined by Cal Fire and is considered an area of low fire risk.²² Lastly, the Project would be required to be developed and operate in compliance with all regulations of the current California Fire Code.

4.20.2 Impact Assessment

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:

²² Cal Fire, "FHSZ Viewer." Accessed on July 28, 2021, https://egis.fire.ca.gov/FHSZ/

a) Substantially impair an adopted emergency response plan or emergency evacuation plan?

No Impact. The Project site is within an "area of local responsibility" and is not identified by Cal Fire as a Very High Fire Hazard Severity Zone (VHFHSZ). Further, the Project would be required to comply with adopted emergency response plans and emergency evacuation plans and thereby would not substantially impair any such plans. As such, the Project would have no impact.

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?

No Impact. The Project site is located on a relatively flat property with minimal slope and is not subject to strong prevailing winds or other factors that would exacerbate wildfire risks. Further, the site is not identified by Cal Fire or the City as a VHFHSZ. Therefore, the Project would have no impact.

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?

No Impact. The Project site is located on property within the city's Urban Growth Area planned for urban uses, including residential development. Further, the site is within a low fire risk area that is not designated by Cal Fire or the City as a VHFHSZ. Therefore, the Project would have no impact.

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?

No Impact. The Project site is located on a relatively flat property with minimal slope and is not subject to downslope, downstream flooding, or landslides. Therefore, the Project would have no impact.

4.21 CEQA Mandatory Findings of Significance

Does the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?				
b) Have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?				
c) Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?				

4.21.1 Impact Assessment

a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

Less than Significant Impact with Mitigation Incorporated. The analyses of environmental issues contained in this Initial Study indicate that the Project is not expected to have substantial impact on the environment or on any resources identified in the Initial Study. Standard requirements that will be implemented through the tentative subdivision map review process and one biological mitigation measure have been incorporated in the project to reduce all potentially significant impacts to less than significant. Therefore, the Project would have a less than significant impact.

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

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

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

Less than Significant Impact. The analyses of environmental issues contained in this Initial Study indicate that the project is not expected to have substantial impact on human beings, either directly or indirectly. Standard requirements and conditions have been incorporated in the project to reduce all potentially significant impacts to less than significant. Therefore, the Project would have a less than significant impact.

Chapter 5 Mitigation Monitoring and Reporting Program

This Mitigation Monitoring and Reporting Program (MMRP) has been formulated based upon the findings of the Initial Study/Mitigated Negative Declaration (IS/MND) for the Links Ranch Subdivision Project in the City of Madera. The MMRP lists mitigation measures recommended in the IS/MND for the Project and identifies monitoring and reporting requirements.

Table 5-1 presents the mitigation measures identified for the proposed Project. Each mitigation measure is numbered with a symbol indicating the topical section to which it pertains, a hyphen, and the impact number. For example, AIR-2 would be the second mitigation measure identified in the Air Quality analysis of the IS/MND.

The first column of **Table 5-1** identifies the mitigation measure. The second column, entitled "When Monitoring is to Occur," identifies the time the mitigation measure should be initiated. The third column, "Frequency of Monitoring," identifies the frequency of the monitoring of the mitigation measure. The fourth column, "Agency Responsible for Monitoring," names the party ultimately responsible for ensuring that the mitigation measure is implemented. The last columns will be used by the City of Madera to ensure that individual mitigation measures have been complied with and monitored.

Table 5-1 Mitigation Monitoring and Reporting Program

Mitigation Monitoring and Reporting Program											
Mitigation Measure/Condition of Approval	When Monitoring is to Occur	Frequency of Monitoring	Agency Responsible for Monitoring	Method to Verify Compliance	Verification of Compliance						
Aesthetics											
Biology											
Prior to the issuance of grading permits, the following measures shall be implemented to reduce potential impacts to western burrowing owls: 1) Preconstruction surveys for western burrowing owls shall be conducted by a qualified biologist in accordance with the California Department of Fish and Wildlife (CDFW) 2012 Staff Report on Burrowing Owl Mitigation, or the most current guidelines. 2) If burrowing owls are identified during the preconstruction survey, avoidance of occupied burrows during the breeding season shall be implemented or passive exclusion, per CDFW's 2012 Staff Report on Burrowing Owl Mitigation, or the most current guidelines (installing one-way doors in burrow openings during the non-breeding season to temporarily exclude burrowing owls, or permanently exclude burrowing owls and close burrows after verifying burrows are empty by site monitoring and scoping) shall be implemented).	Prior to Project Construction	Prior to Project Construction	City of Madera	Review of Documentation Submittal							

Appendix A CalEEMod Output Files

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Links Ranch Subdivision - Madera County, Annual

Links Ranch Subdivision Madera County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population	
Single Family Housing	214.00	Dwelling Unit	41.00	385,200.00	612	

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.9	Precipitation Freq (Days)	51
Climate Zone	3			Operational Year	2024
Utility Company	Pacific Gas & Electri	c Company			
CO2 Intensity (lb/MWhr)	641.35	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

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Links Ranch Subdivision - Madera County, Annual

Project Characteristics - default

Land Use - 214 units on 41 acres

Construction Phase - Estimated dates

Grading - total acres

Consumer Products -

Land Use Change -

Sequestration -

Construction Off-road Equipment Mitigation -

Mobile Land Use Mitigation -

Area Mitigation -

Water Mitigation -

Energy Use -

Table Name	Column Name	Default Value	New Value		
tblConstructionPhase	NumDays	740.00	365.00		
tblConstructionPhase	PhaseEndDate	11/7/2025	5/31/2024		
tblConstructionPhase	PhaseEndDate	6/6/2025	12/29/2023		
tblConstructionPhase	PhaseEndDate	8/22/2025	3/15/2024		
tblConstructionPhase	PhaseStartDate	8/23/2025	3/18/2024		
tblConstructionPhase	PhaseStartDate	6/7/2025	1/1/2024		
tblGrading	AcresOfGrading	187.50	41.00		
tblLandUse	LotAcreage	69.48	41.00		
tblSequestration	NumberOfNewTrees	0.00	214.00		
tblWoodstoves	NumberCatalytic	41.00	69.48		
tblWoodstoves	NumberNoncatalytic	41.00	69.48		

2.0 Emissions Summary

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Links Ranch Subdivision - Madera County, Annual

2.1 Overall Construction
<u>Unmitigated Construction</u>

	ROG	NOx	CO	SO2	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	0.3641	3.5526	2.9334	6.0300e- 003	0.5699	0.1597	0.7296	0.2893	0.1481	0.4374	0.0000	530.7037	530.7037	0.1389	0.0000	534.1773
2023	0.2473	2.1269	2.4159	5.0500e- 003	0.0995	0.0918	0.1913	0.0269	0.0864	0.1133	0.0000	445.0623	445.0623	0.0778	0.0000	447.0082
2024	3.6504	0.2970	0.4711	7.7000e- 004	6.5700e- 003	0.0146	0.0212	1.7500e- 003	0.0136	0.0153	0.0000	67.4296	67.4296	0.0183	0.0000	67.8880
Maximum	3.6504	3.5526	2.9334	6.0300e- 003	0.5699	0.1597	0.7296	0.2893	0.1481	0.4374	0.0000	530.7037	530.7037	0.1389	0.0000	534.1773

Mitigated Construction

	ROG	NOx	СО	SO2	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	ar tons/yr											МТ	/yr			
2022	0.3641	3.5526	2.9334	6.0300e- 003	0.5699	0.1597	0.7296	0.2893	0.1481	0.4374	0.0000	530.7032	530.7032	0.1389	0.0000	534.1768
2023	0.2473	2.1269	2.4159	5.0500e- 003	0.0995	0.0918	0.1913	0.0269	0.0864	0.1133	0.0000	445.0619	445.0619	0.0778	0.0000	447.0079
2024	3.6504	0.2970	0.4711	7.7000e- 004	6.5700e- 003	0.0146	0.0212	1.7500e- 003	0.0136	0.0153	0.0000	67.4295	67.4295	0.0183	0.0000	67.8879
Maximum	3.6504	3.5526	2.9334	6.0300e- 003	0.5699	0.1597	0.7296	0.2893	0.1481	0.4374	0.0000	530.7032	530.7032	0.1389	0.0000	534.1768

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	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2022	3-31-2022	0.9713	0.9713
2	4-1-2022	6-30-2022	1.3356	1.3356
3	7-1-2022	9-30-2022	0.9525	0.9525
4	10-1-2022	12-31-2022	0.6661	0.6661
5	1-1-2023	3-31-2023	0.5880	0.5880
6	4-1-2023	6-30-2023	0.5938	0.5938
7	7-1-2023	9-30-2023	0.6003	0.6003
8	10-1-2023	12-31-2023	0.5880	0.5880
9	1-1-2024	3-31-2024	0.9486	0.9486
10	4-1-2024	6-30-2024	2.8965	2.8965
		Highest	2.8965	2.8965

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2.2 Overall Operational Unmitigated Operational

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Area	3.3390	0.3081	14.4815	0.0426		2.1130	2.1130		2.1130	2.1130	280.8884	95.3019	376.1903	1.3174	1.7000e- 003	409.6309
Energy	0.0302	0.2578	0.1097	1.6500e- 003		0.0208	0.0208		0.0208	0.0208	0.0000	843.9752	843.9752	0.0304	0.0106	847.8865
Mobile	0.6466	5.2929	6.9356	0.0330	2.1912	0.0216	2.2128	0.5886	0.0202	0.6089	0.0000	3,061.145 0	3,061.145 0	0.1768	0.0000	3,065.564 2
Waste						0.0000	0.0000		0.0000	0.0000	44.7230	0.0000	44.7230	2.6431	0.0000	110.7993
Water						0.0000	0.0000		0.0000	0.0000	4.4235	30.8979	35.3214	0.4557	0.0110	49.9976
Total	4.0158	5.8589	21.5268	0.0772	2.1912	2.1555	4.3466	0.5886	2.1541	2.7427	330.0348	4,031.320 1	4,361.354 9	4.6233	0.0233	4,483.878 5

Links Ranch Subdivision - Madera County, Annual

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					ton	s/yr							МТ	/yr		
Area	1.9231	0.0984	1.6224	5.9000e- 004		0.0153	0.0153		0.0153	0.0153	0.0000	95.3019	95.3019	4.2700e- 003	1.7000e- 003	95.9151
Energy	0.0302	0.2578	0.1097	1.6500e- 003		0.0208	0.0208		0.0208	0.0208	0.0000	843.9752	843.9752	0.0304	0.0106	847.8865
Mobile	0.6986	5.6712	7.9551	0.0382	2.5996	0.0253	2.6249	0.6984	0.0237	0.7220	0.0000	3,544.977 6	3,544.977 6	0.1893	0.0000	3,549.711 1
Waste	;					0.0000	0.0000		0.0000	0.0000	44.7230	0.0000	44.7230	2.6431	0.0000	110.7993
Water	,					0.0000	0.0000		0.0000	0.0000	4.2465	30.0200	34.2666	0.4375	0.0106	48.3571
Total	2.6519	6.0274	9.6872	0.0405	2.5996	0.0614	2.6610	0.6984	0.0598	0.7581	48.9695	4,514.274 8	4,563.244 3	3.3046	0.0229	4,652.669 1

	ROG	NOx	СО	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	33.96	-2.88	55.00	47.57	-18.64	97.15	38.78	-18.64	97.23	72.36	85.16	-11.98	-4.63	28.52	1.89	-3.76

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2.3 Vegetation

Vegetation

	CO2e
Category	MT
New Trees	151.5120
Total	151.5120

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2022	3/11/2022	5	50	
2	Site Preparation	Site Preparation	3/12/2022	4/22/2022	5	30	
3	Grading	Grading	4/23/2022	8/5/2022	5	75	
4	Building Construction	Building Construction	8/6/2022	12/29/2023	5	365	
5	Paving	Paving	1/1/2024	3/15/2024	5	55	
6	Architectural Coating	Architectural Coating	3/18/2024	5/31/2024	5	55	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 41

Acres of Paving: 0

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Residential Indoor: 780,030; Residential Outdoor: 260,010; 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
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

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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	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	77.00	23.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 **Demolition - 2022**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
J. Trodu	0.0660	0.6430	0.5149	9.7000e- 004		0.0311	0.0311		0.0289	0.0289	0.0000	84.9756	84.9756	0.0239	0.0000	85.5723
Total	0.0660	0.6430	0.5149	9.7000e- 004		0.0311	0.0311		0.0289	0.0289	0.0000	84.9756	84.9756	0.0239	0.0000	85.5723

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3.2 Demolition - 2022

<u>Unmitigated Construction Off-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/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	8.9000e- 004	0.0101	3.0000e- 005	2.9900e- 003	2.0000e- 005	3.0100e- 003	7.9000e- 004	2.0000e- 005	8.1000e- 004	0.0000	2.5699	2.5699	7.0000e- 005	0.0000	2.5717
Total	1.4500e- 003	8.9000e- 004	0.0101	3.0000e- 005	2.9900e- 003	2.0000e- 005	3.0100e- 003	7.9000e- 004	2.0000e- 005	8.1000e- 004	0.0000	2.5699	2.5699	7.0000e- 005	0.0000	2.5717

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Off-Road	0.0660	0.6430	0.5149	9.7000e- 004		0.0311	0.0311		0.0289	0.0289	0.0000	84.9755	84.9755	0.0239	0.0000	85.5722
Total	0.0660	0.6430	0.5149	9.7000e- 004		0.0311	0.0311		0.0289	0.0289	0.0000	84.9755	84.9755	0.0239	0.0000	85.5722

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3.2 Demolition - 2022

<u>Mitigated Construction Off-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/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	8.9000e- 004	0.0101	3.0000e- 005	2.9900e- 003	2.0000e- 005	3.0100e- 003	7.9000e- 004	2.0000e- 005	8.1000e- 004	0.0000	2.5699	2.5699	7.0000e- 005	0.0000	2.5717
Total	1.4500e- 003	8.9000e- 004	0.0101	3.0000e- 005	2.9900e- 003	2.0000e- 005	3.0100e- 003	7.9000e- 004	2.0000e- 005	8.1000e- 004	0.0000	2.5699	2.5699	7.0000e- 005	0.0000	2.5717

3.3 Site Preparation - 2022

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Fugitive Dust					0.2710	0.0000	0.2710	0.1490	0.0000	0.1490	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0476	0.4963	0.2955	5.7000e- 004		0.0242	0.0242		0.0223	0.0223	0.0000	50.1591	50.1591	0.0162	0.0000	50.5647
Total	0.0476	0.4963	0.2955	5.7000e- 004	0.2710	0.0242	0.2952	0.1490	0.0223	0.1712	0.0000	50.1591	50.1591	0.0162	0.0000	50.5647

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3.3 Site Preparation - 2022
Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/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	1.0400e- 003	6.4000e- 004	7.3000e- 003	2.0000e- 005	2.1500e- 003	2.0000e- 005	2.1700e- 003	5.7000e- 004	1.0000e- 005	5.9000e- 004	0.0000	1.8503	1.8503	5.0000e- 005	0.0000	1.8516
Total	1.0400e- 003	6.4000e- 004	7.3000e- 003	2.0000e- 005	2.1500e- 003	2.0000e- 005	2.1700e- 003	5.7000e- 004	1.0000e- 005	5.9000e- 004	0.0000	1.8503	1.8503	5.0000e- 005	0.0000	1.8516

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Fugitive Dust					0.2710	0.0000	0.2710	0.1490	0.0000	0.1490	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0476	0.4963	0.2955	5.7000e- 004		0.0242	0.0242		0.0223	0.0223	0.0000	50.1590	50.1590	0.0162	0.0000	50.5646
Total	0.0476	0.4963	0.2955	5.7000e- 004	0.2710	0.0242	0.2952	0.1490	0.0223	0.1712	0.0000	50.1590	50.1590	0.0162	0.0000	50.5646

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3.3 Site Preparation - 2022 Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/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	1.0400e- 003	6.4000e- 004	7.3000e- 003	2.0000e- 005	2.1500e- 003	2.0000e- 005	2.1700e- 003	5.7000e- 004	1.0000e- 005	5.9000e- 004	0.0000	1.8503	1.8503	5.0000e- 005	0.0000	1.8516
Total	1.0400e- 003	6.4000e- 004	7.3000e- 003	2.0000e- 005	2.1500e- 003	2.0000e- 005	2.1700e- 003	5.7000e- 004	1.0000e- 005	5.9000e- 004	0.0000	1.8503	1.8503	5.0000e- 005	0.0000	1.8516

3.4 Grading - 2022

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	⁻ /yr		
Fugitive Dust					0.2476	0.0000	0.2476	0.1265	0.0000	0.1265	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1359	1.4566	1.0891	2.3300e- 003		0.0613	0.0613		0.0564	0.0564	0.0000	204.5048	204.5048	0.0661	0.0000	206.1583
Total	0.1359	1.4566	1.0891	2.3300e- 003	0.2476	0.0613	0.3089	0.1265	0.0564	0.1829	0.0000	204.5048	204.5048	0.0661	0.0000	206.1583

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3.4 Grading - 2022

<u>Unmitigated Construction Off-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/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	2.9000e- 003	1.7800e- 003	0.0203	6.0000e- 005	5.9700e- 003	5.0000e- 005	6.0200e- 003	1.5900e- 003	4.0000e- 005	1.6300e- 003	0.0000	5.1398	5.1398	1.4000e- 004	0.0000	5.1433
Total	2.9000e- 003	1.7800e- 003	0.0203	6.0000e- 005	5.9700e- 003	5.0000e- 005	6.0200e- 003	1.5900e- 003	4.0000e- 005	1.6300e- 003	0.0000	5.1398	5.1398	1.4000e- 004	0.0000	5.1433

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Fugitive Dust					0.2476	0.0000	0.2476	0.1265	0.0000	0.1265	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1359	1.4566	1.0891	2.3300e- 003		0.0613	0.0613	1 1 1	0.0564	0.0564	0.0000	204.5045	204.5045	0.0661	0.0000	206.1580
Total	0.1359	1.4566	1.0891	2.3300e- 003	0.2476	0.0613	0.3089	0.1265	0.0564	0.1829	0.0000	204.5045	204.5045	0.0661	0.0000	206.1580

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3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/уг		
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
- [2.9000e- 003	1.7800e- 003	0.0203	6.0000e- 005	5.9700e- 003	5.0000e- 005	6.0200e- 003	1.5900e- 003	4.0000e- 005	1.6300e- 003	0.0000	5.1398	5.1398	1.4000e- 004	0.0000	5.1433
Total	2.9000e- 003	1.7800e- 003	0.0203	6.0000e- 005	5.9700e- 003	5.0000e- 005	6.0200e- 003	1.5900e- 003	4.0000e- 005	1.6300e- 003	0.0000	5.1398	5.1398	1.4000e- 004	0.0000	5.1433

3.5 Building Construction - 2022

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Off-Road	0.0896	0.8198	0.8591	1.4100e- 003		0.0425	0.0425		0.0400	0.0400	0.0000	121.6558	121.6558	0.0292	0.0000	122.3844
Total	0.0896	0.8198	0.8591	1.4100e- 003		0.0425	0.0425		0.0400	0.0400	0.0000	121.6558	121.6558	0.0292	0.0000	122.3844

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3.5 Building Construction - 2022 Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/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
1	4.0200e- 003	0.1240	0.0279	3.4000e- 004	7.9800e- 003	3.5000e- 004	8.3300e- 003	2.3100e- 003	3.3000e- 004	2.6400e- 003	0.0000	32.1449	32.1449	2.5500e- 003	0.0000	32.2087
Worker	0.0156	9.6000e- 003	0.1093	3.1000e- 004	0.0322	2.4000e- 004	0.0324	8.5600e- 003	2.2000e- 004	8.7800e- 003	0.0000	27.7036	27.7036	7.6000e- 004	0.0000	27.7225
Total	0.0196	0.1336	0.1372	6.5000e- 004	0.0402	5.9000e- 004	0.0408	0.0109	5.5000e- 004	0.0114	0.0000	59.8485	59.8485	3.3100e- 003	0.0000	59.9312

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
	0.0896	0.8198	0.8591	1.4100e- 003		0.0425	0.0425		0.0400	0.0400	0.0000	121.6556	121.6556	0.0292	0.0000	122.3842
Total	0.0896	0.8198	0.8591	1.4100e- 003		0.0425	0.0425		0.0400	0.0400	0.0000	121.6556	121.6556	0.0292	0.0000	122.3842

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3.5 Building Construction - 2022 Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/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	4.0200e- 003	0.1240	0.0279	3.4000e- 004	7.9800e- 003	3.5000e- 004	8.3300e- 003	2.3100e- 003	3.3000e- 004	2.6400e- 003	0.0000	32.1449	32.1449	2.5500e- 003	0.0000	32.2087
Worker	0.0156	9.6000e- 003	0.1093	3.1000e- 004	0.0322	2.4000e- 004	0.0324	8.5600e- 003	2.2000e- 004	8.7800e- 003	0.0000	27.7036	27.7036	7.6000e- 004	0.0000	27.7225
Total	0.0196	0.1336	0.1372	6.5000e- 004	0.0402	5.9000e- 004	0.0408	0.0109	5.5000e- 004	0.0114	0.0000	59.8485	59.8485	3.3100e- 003	0.0000	59.9312

3.5 Building Construction - 2023

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

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3.5 Building Construction - 2023 Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.9800e- 003	0.2356	0.0570	8.2000e- 004	0.0198	2.4000e- 004	0.0200	5.7100e- 003	2.3000e- 004	5.9400e- 003	0.0000	77.7081	77.7081	4.4800e- 003	0.0000	77.8201
Worker	0.0359	0.0213	0.2471	7.3000e- 004	0.0797	5.8000e- 004	0.0803	0.0212	5.4000e- 004	0.0217	0.0000	66.0081	66.0081	1.6700e- 003	0.0000	66.0498
Total	0.0428	0.2568	0.3041	1.5500e- 003	0.0995	8.2000e- 004	0.1003	0.0269	7.7000e- 004	0.0277	0.0000	143.7161	143.7161	6.1500e- 003	0.0000	143.8699

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
- Cil rioda	0.2045	1.8700	2.1117	3.5000e- 003		0.0910	0.0910	 	0.0856	0.0856	0.0000	301.3458	301.3458	0.0717	0.0000	303.1380
Total	0.2045	1.8700	2.1117	3.5000e- 003		0.0910	0.0910		0.0856	0.0856	0.0000	301.3458	301.3458	0.0717	0.0000	303.1380

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3.5 Building Construction - 2023 Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	ıs/yr							MT	-/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.9800e- 003	0.2356	0.0570	8.2000e- 004	0.0198	2.4000e- 004	0.0200	5.7100e- 003	2.3000e- 004	5.9400e- 003	0.0000	77.7081	77.7081	4.4800e- 003	0.0000	77.8201
Worker	0.0359	0.0213	0.2471	7.3000e- 004	0.0797	5.8000e- 004	0.0803	0.0212	5.4000e- 004	0.0217	0.0000	66.0081	66.0081	1.6700e- 003	0.0000	66.0498
Total	0.0428	0.2568	0.3041	1.5500e- 003	0.0995	8.2000e- 004	0.1003	0.0269	7.7000e- 004	0.0277	0.0000	143.7161	143.7161	6.1500e- 003	0.0000	143.8699

3.6 Paving - 2024

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Off-Road	0.0272	0.2619	0.4022	6.3000e- 004		0.0129	0.0129		0.0119	0.0119	0.0000	55.0730	55.0730	0.0178	0.0000	55.5183
Paving	0.0000	 				0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0272	0.2619	0.4022	6.3000e- 004		0.0129	0.0129		0.0119	0.0119	0.0000	55.0730	55.0730	0.0178	0.0000	55.5183

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3.6 Paving - 2024

<u>Unmitigated Construction Off-Site</u>

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/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	1.3800e- 003	7.9000e- 004	9.5500e- 003	3.0000e- 005	3.2900e- 003	2.0000e- 005	3.3100e- 003	8.7000e- 004	2.0000e- 005	9.0000e- 004	0.0000	2.6676	2.6676	6.0000e- 005	0.0000	2.6692
Total	1.3800e- 003	7.9000e- 004	9.5500e- 003	3.0000e- 005	3.2900e- 003	2.0000e- 005	3.3100e- 003	8.7000e- 004	2.0000e- 005	9.0000e- 004	0.0000	2.6676	2.6676	6.0000e- 005	0.0000	2.6692

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Off-Road	0.0272	0.2619	0.4022	6.3000e- 004		0.0129	0.0129		0.0119	0.0119	0.0000	55.0729	55.0729	0.0178	0.0000	55.5182
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0272	0.2619	0.4022	6.3000e- 004		0.0129	0.0129		0.0119	0.0119	0.0000	55.0729	55.0729	0.0178	0.0000	55.5182

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3.6 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/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
VVOINCI	1.3800e- 003	7.9000e- 004	9.5500e- 003	3.0000e- 005	3.2900e- 003	2.0000e- 005	3.3100e- 003	8.7000e- 004	2.0000e- 005	9.0000e- 004	0.0000	2.6676	2.6676	6.0000e- 005	0.0000	2.6692
Total	1.3800e- 003	7.9000e- 004	9.5500e- 003	3.0000e- 005	3.2900e- 003	2.0000e- 005	3.3100e- 003	8.7000e- 004	2.0000e- 005	9.0000e- 004	0.0000	2.6676	2.6676	6.0000e- 005	0.0000	2.6692

3.7 Architectural Coating - 2024

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Archit. Coating	3.6154					0.0000	0.0000	 - - -	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.9700e- 003	0.0335	0.0498	8.0000e- 005		1.6800e- 003	1.6800e- 003	1	1.6800e- 003	1.6800e- 003	0.0000	7.0215	7.0215	4.0000e- 004	0.0000	7.0313
Total	3.6204	0.0335	0.0498	8.0000e- 005		1.6800e- 003	1.6800e- 003		1.6800e- 003	1.6800e- 003	0.0000	7.0215	7.0215	4.0000e- 004	0.0000	7.0313

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3.7 Architectural Coating - 2024 <u>Unmitigated Construction Off-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/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	1.3800e- 003	7.9000e- 004	9.5500e- 003	3.0000e- 005	3.2900e- 003	2.0000e- 005	3.3100e- 003	8.7000e- 004	2.0000e- 005	9.0000e- 004	0.0000	2.6676	2.6676	6.0000e- 005	0.0000	2.6692
Total	1.3800e- 003	7.9000e- 004	9.5500e- 003	3.0000e- 005	3.2900e- 003	2.0000e- 005	3.3100e- 003	8.7000e- 004	2.0000e- 005	9.0000e- 004	0.0000	2.6676	2.6676	6.0000e- 005	0.0000	2.6692

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Archit. Coating	3.6154					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.9700e- 003	0.0335	0.0498	8.0000e- 005		1.6800e- 003	1.6800e- 003	! ! !	1.6800e- 003	1.6800e- 003	0.0000	7.0214	7.0214	4.0000e- 004	0.0000	7.0313
Total	3.6204	0.0335	0.0498	8.0000e- 005		1.6800e- 003	1.6800e- 003		1.6800e- 003	1.6800e- 003	0.0000	7.0214	7.0214	4.0000e- 004	0.0000	7.0313

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3.7 Architectural Coating - 2024 Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/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	1.3800e- 003	7.9000e- 004	9.5500e- 003	3.0000e- 005	3.2900e- 003	2.0000e- 005	3.3100e- 003	8.7000e- 004	2.0000e- 005	9.0000e- 004	0.0000	2.6676	2.6676	6.0000e- 005	0.0000	2.6692
Total	1.3800e- 003	7.9000e- 004	9.5500e- 003	3.0000e- 005	3.2900e- 003	2.0000e- 005	3.3100e- 003	8.7000e- 004	2.0000e- 005	9.0000e- 004	0.0000	2.6676	2.6676	6.0000e- 005	0.0000	2.6692

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Density

Improve Walkability Design

Improve Pedestrian Network

Provide Traffic Calming Measures

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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	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Mitigated	0.6986	5.6712	7.9551	0.0382	2.5996	0.0253	2.6249	0.6984	0.0237	0.7220	0.0000	3,544.977 6	3,544.977 6	0.1893	0.0000	3,549.711 1
Crimingatou	0.6466	5.2929	6.9356	0.0330	2.1912	0.0216	2.2128	0.5886	0.0202	0.6089	0.0000	3,061.145 0	3,061.145 0	0.1768	0.0000	3,065.564 2

4.2 Trip Summary Information

	Ave	rage Daily Trip Ra	ate	Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	2,037.28	2,120.74	1844.68	5,786,576	6,865,286
Total	2,037.28	2,120.74	1,844.68	5,786,576	6,865,286

4.3 Trip Type Information

		Miles			Trip %			Trip Purpos	e %
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Single Family Housing	10.80	7.30	7.50	42.30	19.60	38.10	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	МН
Single Family Housing	0.544823	0.030518	0.165561	0.108739	0.017640	0.004881	0.013984	0.100698	0.002705	0.001640	0.006798	0.001202	0.000811

5.0 Energy Detail

Historical Energy Use: N

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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	7/yr		
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	545.4003	545.4003	0.0247	5.1000e- 003	547.5374
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	545.4003	545.4003	0.0247	5.1000e- 003	547.5374
NaturalGas Mitigated	0.0302	0.2578	0.1097	1.6500e- 003		0.0208	0.0208		0.0208	0.0208	0.0000	298.5749	298.5749	5.7200e- 003	5.4700e- 003	300.3491
NaturalGas Unmitigated	0.0302	0.2578	0.1097	1.6500e- 003		0.0208	0.0208		0.0208	0.0208	0.0000	298.5749	298.5749	5.7200e- 003	5.4700e- 003	300.3491

5.2 Energy by Land Use - NaturalGas <u>Unmitigated</u>

	NaturalGa s 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	5.59508e +006	0.0302	0.2578	0.1097	1.6500e- 003		0.0208	0.0208		0.0208	0.0208	0.0000	298.5749	298.5749	5.7200e- 003	5.4700e- 003	300.3491
Total		0.0302	0.2578	0.1097	1.6500e- 003		0.0208	0.0208		0.0208	0.0208	0.0000	298.5749	298.5749	5.7200e- 003	5.4700e- 003	300.3491

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5.2 Energy by Land Use - NaturalGas Mitigated

	NaturalGa s 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	5.59508e +006	0.0302	0.2578	0.1097	1.6500e- 003		0.0208	0.0208		0.0208	0.0208	0.0000	298.5749	298.5749	5.7200e- 003	5.4700e- 003	300.3491
Total		0.0302	0.2578	0.1097	1.6500e- 003		0.0208	0.0208		0.0208	0.0208	0.0000	298.5749	298.5749	5.7200e- 003	5.4700e- 003	300.3491

5.3 Energy by Land Use - Electricity <u>Unmitigated</u>

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr		MT	-/yr	
Single Family Housing	1.8748e +006	545.4003	0.0247	5.1000e- 003	547.5374
Total		545.4003	0.0247	5.1000e- 003	547.5374

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5.3 Energy by Land Use - Electricity Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr		МТ	-/yr	
Single Family Housing	1.8748e +006	545.4003	0.0247	5.1000e- 003	547.5374
Total		545.4003	0.0247	5.1000e- 003	547.5374

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use only Natural Gas Hearths

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	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	y tons/yr												MT	/yr		
Mitigated	1.9231	0.0984	1.6224	5.9000e- 004		0.0153	0.0153		0.0153	0.0153	0.0000	95.3019	95.3019	4.2700e- 003	1.7000e- 003	95.9151
Unmitigated	3.3390	0.3081	14.4815	0.0426		2.1130	2.1130		2.1130	2.1130	280.8884	95.3019	376.1903	1.3174	1.7000e- 003	409.6309

6.2 Area by SubCategory

<u>Unmitigated</u>

	ROG	NOx	CO	SO2	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	0.3615		1 1 1			0.0000	0.0000	1 1 1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.5044		 			0.0000	0.0000	 	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	1.4253	0.2898	12.8932	0.0425		2.1042	2.1042	 	2.1042	2.1042	280.8884	92.7064	373.5948	1.3149	1.7000e- 003	406.9731
Landscaping	0.0478	0.0183	1.5883	8.0000e- 005		8.8000e- 003	8.8000e- 003	 	8.8000e- 003	8.8000e- 003	0.0000	2.5956	2.5956	2.4900e- 003	0.0000	2.6578
Total	3.3390	0.3081	14.4815	0.0426		2.1130	2.1130		2.1130	2.1130	280.8884	95.3019	376.1903	1.3174	1.7000e- 003	409.6309

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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	0.3615					0.0000	0.0000	 	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.5044		 			0.0000	0.0000	1 1 1 1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	9.3700e- 003	0.0801	0.0341	5.1000e- 004		6.4700e- 003	6.4700e- 003	1 1 1 1	6.4700e- 003	6.4700e- 003	0.0000	92.7064	92.7064	1.7800e- 003	1.7000e- 003	93.2573
Landscaping	0.0478	0.0183	1.5883	8.0000e- 005		8.8000e- 003	8.8000e- 003	 	8.8000e- 003	8.8000e- 003	0.0000	2.5956	2.5956	2.4900e- 003	0.0000	2.6578
Total	1.9231	0.0984	1.6224	5.9000e- 004		0.0153	0.0153		0.0153	0.0153	0.0000	95.3019	95.3019	4.2700e- 003	1.7000e- 003	95.9151

7.0 Water Detail

7.1 Mitigation Measures Water

Use Reclaimed Water

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	Total CO2	CH4	N2O	CO2e
Category		МТ	√yr	
	34.2666	0.4375	0.0106	48.3571
Jgatou	35.3214	0.4557	0.0110	49.9976

7.2 Water by Land Use <u>Unmitigated</u>

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	13.943 / 8.79013	35.3214	0.4557	0.0110	49.9976
Total		35.3214	0.4557	0.0110	49.9976

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7.2 Water by Land Use

Mitigated

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	13.3852 / 8.79013	34.2666	0.4375	0.0106	48.3571
Total		34.2666	0.4375	0.0106	48.3571

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e		
	MT/yr					
willigated	44.7230	2.6431	0.0000	110.7993		
Jgatea	44.7230	2.6431	0.0000	110.7993		

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8.2 Waste by Land Use <u>Unmitigated</u>

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	220.32	44.7230	2.6431	0.0000	110.7993
Total		44.7230	2.6431	0.0000	110.7993

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	220.32	44.7230	2.6431	0.0000	110.7993
Total		44.7230	2.6431	0.0000	110.7993

9.0 Operational Offroad

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

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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type Nur	nber Hours/Day	per	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

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	Total CO2	CH4	N2O	CO2e
Category		N	ΙΤ	
	151.5120	0.0000	0.0000	151.5120

11.2 Net New Trees

Species Class

	Number of Trees	Total CO2	CH4	N2O	CO2e	
		МТ				
Miscellaneous	214	151.5120	0.0000	0.0000	151.5120	
Total		151.5120	0.0000	0.0000	151.5120	

Appendix B CHRIS Records Search Results

<u>California</u>
<u>H</u>istorical
<u>R</u>esources
<u>I</u>nformation
<u>S</u>ystem



Fresno Kern Kings Madera Tulare Southern San Joaquin Valley Information Center

Record Search 21-286

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: Jenna Chilingerian

Precision Civil Engineering, Inc.

1234 O Street Fresno, CA 93721

Date: August 3, 2021

Re: Links Ranch Subdivision

County: Madera

Map(s): Madera 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 have been no previous cultural resource studies conducted within the project area or within a one-half mile radius.

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

There are no recorded resources within the project area, and it is not known if any exist there. There is one recorded cultural resource within the one-half mile radius, P-20-002308, the Madera Canal.

Resource P-20-002308 has been given a National Register status code of 2D2, indicating it is a contributor to a district that has been determined eligible for listing in the National Register of Historic Places by a consensus through the Section 106 process. It is also listed in the California Register of Historical Resources. There are no other 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 development of a 214-lot residential subdivision. Further, we understand the project site currently contains a single-family residence, barn, and agricultural field. According to our records, the existing structures have not been recorded or evaluated for historical significance. If the structures are more than 45 years old, we recommend a qualified, professional consultant record and evaluate the structures for historical significance prior to alteration or demolition. Additionally, it should be noted that agriculture does not constitute previous development, as it does not destroy cultural resources, but merely moves them around within the plow zone. Because a cultural resources study has not been completed on this property, it is unknown if any cultural resources are present. Therefore, prior to any ground disturbance activities, we recommend a qualified, professional consultant conduct a 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: August 3, 2021

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