



Greenfield Commons

CEQA Initial Study / Mitigated Negative Declaration

Design Review and Minor Subdivision (Planning Permit
Nos. 20020 and 20060)



December 2020

Prepared by:

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599 El Camino Real, Greenfield, CA 93927

DRAFT MITIGATED NEGATIVE DECLARATION

Project Title: Greenfield Commons Residential Project

Project Location: The 10.97-acre project site is located at 41206 Walnut Avenue east of Highway 101 and approximately 0.91 miles east of downtown Greenfield. The project site is bounded by agricultural uses and unincorporated lands to the north; agricultural uses and the Walnut Avenue Specific Plan area to the west; Caesar Chavez Elementary School and residential uses to south; and residential uses to the east.

Assessor's Parcel No. 109-082-012-000

Applicant: Michael Schaier, Project Manager/EAH Housing
22 Pelican Way, San Rafael CA 93940

Initial Study:

An Initial Study was prepared for the purpose of determining whether this project may have a significant effect on the environment. A copy of this study and all supporting documentation is on file at the City of Greenfield, Planning Department, 599 El Camino Real, Greenfield, CA 93927.

Determination: The City of Greenfield has determined that, based on the results of the Initial Study, that all potential environmental effects resulting from the project are either less than significant, or can be avoided or mitigated to a less than significant level. As such, adoption of a Mitigated Negative Declaration is appropriate and an Environmental Impact Report is not required.

Findings and Reasons:

The Initial Study identified potentially significant effects on the environment. However, this project has been mitigated (see mitigation measures below which avoid or mitigate the effects) to a point where no significant effects will occur. There is no substantial evidence that the project may have a residual significant effect on the environment. The following reasons support these findings:

1. The proposal is a logical component of the existing land use pattern of this area.
2. Identified adverse impacts would be effectively mitigated by construction best practices, pre-construction surveys and standard conditions of approval.
3. The proposed project is consistent with the adopted goals, policies land uses and zoning regulations of the City of Greenfield General Plan and Municipal Code.
4. With the application of the following mitigation measures, the proposed project will not have any significant impacts on the environment:

MITIGATION MEASURES

Air Quality

AQ1. The developer shall comply with all applicable control measures adopted by the air district for achieving reduction in district-wide emissions. The measures shall be included in contractor work specifications and improvement plans for all individual projects. Improvement plans shall be subject to review of the City Public Works Department for this purpose prior to approval of the plans.

AQ2. Prior to the start of construction, the project contractor shall prepare a construction dust mitigation plan. The plan shall specify the methods of dust control that will be utilized, demonstrate the availability of needed equipment and personnel, use reclaimed water for dust control, and identify a responsible individual who, if needed, can authorize implementation of additional measures. The construction dust mitigation plan shall, at a minimum, include the following measures:

- a. Limit grading activity to a maximum of 2.2 acres daily. As more detailed construction information becomes available, emissions from grading activities could be reassessed to determine if the area of grading could be increased. Such an assessment would be completed using appropriate assumptions and mitigation measures.
- b. Water all active construction areas at least twice daily and more often during windy periods. Active construction areas adjacent to existing businesses should be kept damp at all times. If necessary, during windy periods, watering is to occur on all days of the week regardless of on-site activities.
- c. Cover soil or maintain at least two feet of freeboard on all hauling trucks.
- d. Pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas at construction sites.
- e. Sweep daily all on-site paved access roads, parking areas, and staging areas at construction sites.
- f. Sweep adjacent off-site streets daily if visible soil material is deposited onto the roads.
- g. Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (previously graded areas inactive for ten days or more).
- h. Enclose, cover, water twice daily or apply (non-toxic) soil binders to exposed stockpiles.
- i. Limit traffic speeds on unpaved roads to 15 miles per hour.
- j. Replant vegetation in disturbed areas as quickly as possible.
- k. Suspend excavation and grading activity if visible dust clouds cannot be contained within the construction site.

AQ3. The developer shall reduce Nitrogen Oxide (NO_x) exhaust and particulate matter emissions by implementing one of the following measures prior to the start of construction:

- a. Provide a plan, acceptable by the Air District, demonstrating that the heavy-duty (> 50 horsepower) off-road vehicles and equipment to be used in the construction project, including owned, leased and subcontractor vehicles, will achieve a project wide fleet-

average 20 percent NO_x reduction and 45 percent particulate reduction compared to the most recent California Air Resources Board fleet average for the time of construction; or

- b. Provide a plan, acceptable by the Air District, that all off-road construction vehicles/equipment greater than 50 horsepower that will be used on site for more than one week shall: 1) be manufactured during or after 1996, 2) shall meet the NO_x emissions standard of 6.9 grams per brake horsepower hour, and 3) shall be equipped with diesel particulate matter filters.

AQ4. The developer shall reduce Nitrogen Oxide (NO_x) exhaust and particulate matter emissions by implementing the following measures prior to the start of construction:

- a. Contractors shall install temporary electrical service whenever possible to avoid the need for independently-powered equipment (e.g. compressors).
- b. Signs at the construction site shall be clearly visible to advise that that diesel equipment standing idle for more than five minutes shall be turned off. This would include trucks waiting to deliver or receive soil, aggregate, or other bulk materials. Rotating drum concrete trucks may keep their engines running continuously if on-site and staged away from residential areas.
- c. Properly tune and maintain equipment for low emissions.
- d. Stage large diesel-powered equipment at least 200 feet from any active land uses (e.g., residences).

Biological Resources

BR1. To avoid/minimize potential impacts to burrowing owl, the developer will retain a qualified biologist to conduct a two-visit (i.e. morning and evening) presence/absence survey at areas of suitable habitat on and adjacent to the project site no less than 14 days prior to the start of construction. Surveys shall be conducted according to methods described in the CDFW 2012 Staff Report on Burrowing Owl Mitigation. If these pre-construction "take avoidance" surveys performed during the breeding season (February through August) or the non-breeding season (September through January) for the species locate occupied burrows in or near the construction area, then consultation with the CDFW would be required to interpret survey results and develop a project-specific avoidance and minimization approach.

BR2. To avoid impacts to nesting birds during the nesting season (January 15 through September 15), to the extent feasible, construction activities that include any vegetation removal or ground disturbance (such as grading or grubbing) shall be conducted between September 16 and January 14, which is outside of the bird nesting season. If construction activities commence during the bird nesting season, then a qualified biologist shall conduct a preconstruction survey for nesting birds to ensure that no nests would be disturbed during project construction.

BR3. If construction activities are scheduled during the nesting season (February 15 to August 30 for small bird species such as passerines; January 15 to September 15 for owls; and February 15 to

September 15 for other raptors), a qualified biologist shall conduct nesting bird surveys. Two surveys for active nests of such birds shall occur within 10 days prior to start of construction, with the second survey conducted with 48 hours prior to start of construction. Appropriate minimum survey radius surrounding the work area is typically 250 feet for passerines, 500 feet for smaller raptors, and 1,000 feet for larger raptors. Surveys shall be conducted at the appropriate times of day to observe nesting activities.

- BR4. If the qualified biologist documents active nests within the project site or in nearby surrounding areas, an appropriate buffer between each nest and active construction shall be established. The buffer shall be clearly marked and maintained until the young have fledged and are foraging independently. Prior to construction, the qualified biologist shall conduct baseline monitoring of each nest to characterize “normal” bird behavior and establish a buffer distance, which allows the birds to exhibit normal behavior. The qualified biologist shall monitor the nesting birds daily during construction activities and increase the buffer if birds show signs of unusual or distressed behavior (e.g. defensive flights and vocalizations, standing up from a brooding position, and/or flying away from the nest). If buffer establishment is not possible, the qualified biologist or construction foreman shall have the authority to cease all construction work in the area until the young have fledged and the nest is no longer active. This measure shall be implemented by the developer prior to start of construction activities.

Cultural Resources

- CR1. Any prehistoric or historic-period material is unexpectedly encountered by equipment operators during ground-disturbing activities, or other individuals working within the Project area, that work be halted within 50 feet of the discovery area until a Secretary of Interior-qualified archaeologist (and tribal representative if the resources is tribal in nature) is retained to inspect the deposit and provide further recommendations for evaluation and proper treatment of the resource.

Historic-period resources potentially include all byproducts of human land use greater than 50 years of age, including alignments of stone or brick, foundation elements from previous structures, minor earthworks, brick features, surface scatters of farming or domestic type material, and subsurface deposits of domestic type material (e.g., glass, ceramic, metal, etc.).

Prehistoric-period artifacts that are typically found associated with prehistoric sites in the area include humanly modified stone, shell, bone or other materials such as charcoal, ash and burned rock that can be indicative of food procurement or processing activities. Prehistoric domestic features include hearths, fire pits, house floor depressions and mortuary features consisting of human skeletal remains.

- CR2. Procedures of conduct following the discovery of human remains on non-federal lands have been mandated by California Health and Safety Code §7050.5, PRC §5097.98 and the California Code of Regulations (CCR) §15064.5(e). According to the provisions in CEQA, should human remains be encountered, all work in the immediate vicinity of the burial must cease, and any necessary steps to ensure the integrity of the immediate area must be taken. The Monterey County Coroner will be immediately notified. The Coroner must then determine whether the remains are Native

American. If the Coroner determines the remains are Native American, the Coroner has 24 hours to notify the NAHC, who will, in turn, notify the person they identify as the most likely descendent (MLD) of any human remains. Further actions will be determined, in part, by the desires of the MLD. The MLD has 48 hours to make recommendations regarding the disposition of the remains following notification from the NAHC of the discovery. If the MLD does not make recommendations within 48 hours, the owner shall, with appropriate dignity, reinter the remains in an area of the property secure from further disturbance. Alternatively, if the owner does not accept the MLD's recommendations, the owner or the descendent may request mediation by the NAHC.

Geology and Soils

G1. The applicant shall follow all recommendations in the *Geotechnical Investigation* conducted for the project by Krazan & Associates, Inc. and dated March 14, 2019. Recommendations shall be incorporated into the final improvements plans and approved by the City prior to grading.

Noise

- N1. Construction should occur during the permissible hours as defined in the Municipal Code.
- N2. During construction, the contactor shall ensure all construction equipment is equipped with appropriate noise attenuating devices.
- N3. The contractor should locate equipment staging areas that will create the greatest distance between construction-related noise/vibration sources and sensitive receptors nearest the project site during all project construction.
- N4. Idling equipment should be turned off when not in use.

Transportation

TRA1. Prior to the approval of final improvement plants, the applicant shall work with the City of Greenfield to install appropriate signage per City Municipal Code, Chapter 17.62 to indicate "Caution Pedestrian Crossing" where appropriate.

1.0 INTRODUCTION

1.1 Introduction and Regulatory Guidance

EAH Housing is a nonprofit corporation which develops, manages, and operates affordable housing for low-income families, older adults, and persons with disabilities/special needs in California and Hawaii. EAH Housing proposes to develop the Greenfield Commons Residential Development project (“project”) to provide 222 apartments including those targeted to farmworkers earning 50 percent of Area Median Income (AMI) on a 10.97-acre site in the City of Greenfield, east of U.S. 101. The site is currently vacant.

This Initial Study has been prepared to identify and evaluate the potential environmental effects of construction and operation of the Greenfield Commons project at 41206 Walnut Avenue in the City of Greenfield, California (Planning Permit Nos. 20020 and 20060). This study has been prepared pursuant to the California Environmental Quality Act (CEQA) (Pub. Resources Code, Section 21000, et seq.).

1.2 Lead Agency

The lead agency is the public agency with primary responsibility over a proposed project. Where two or more public agencies will be involved with a project, CEQA Guidelines Section 15051 provides criteria for identifying the lead agency. In accordance with CEQA Guidelines Section 15051(b) (1), “the lead agency will normally be the agency with general governmental powers, such as a city or county, rather than an agency with a single or limited purpose.” Based on the criteria above, the City of Greenfield (City) is the lead agency for the proposed project.

1.3 Environmental Analysis

This document has been prepared using the City’s environmental initial study checklist, together with recently certified environmental documents for nearby projects, review of all data obtained from on-site field observations, peer review of available technical studies prepared by the applicant, and other relevant data. The conclusions herein are based on CEQA standards, professional judgement, field review and available public documents. This Initial Study constitutes substantial evidence supporting the conclusion that preparation of an EIR is not required prior to approval of the project by the City and provides the required documentation under CEQA.

1.4 Findings and Conclusions

The project, compared to existing conditions, will have no significant or adverse effect on the environment with implementation of the identified mitigation measures. Minor changes in land use and traffic patterns would occur and protections have been put in place to reduce the effects of project construction and operation to a less than significant level. No permanent, significant effects have been identified. The uses proposed are consistent with the General Plan, Municipal Code, and other City policies and programs adopted for the purpose of mitigating environmental effects. Consistent with CEQA Section 15153(c), this Initial Study constitutes the requisite environmental review of the project, and the City can prepare a Mitigated Negative Declaration.

1.5 Mitigation Monitoring and Reporting Program

As required by Public Resources Code Section 21081.6 (a)(1), a mitigation monitoring and reporting program (MMRP) has been prepared for the project in order to monitor the implementation of the mitigation measures that have been adopted for the project. Any long-term monitoring of mitigation measures imposed on the overall development will be implemented through the MMRP.

2.0 INITIAL STUDY

2.1 Project Information Summary

Project Title:	Greenfield Commons
Lead Agency Name and Address:	City of Greenfield 599 El Camino Real Greenfield, CA 93927
Contact Person and Phone Number:	Rob Mullane, AICP, Consulting Planner (805) 227-4359 rmullane@hrandassociates.org
Project Location:	41206 Walnut Avenue Greenfield, Monterey County, California 93927 (APN 109-082-012-000)
Project Sponsor's Name and Address:	EAH Housing Attn: Michael Schaiyer, Project Manager 22 Pelican Way San Rafael, CA 94901
General Plan Designation:	Medium Density Residential
Zoning:	R-M, Multiple Family Residential (7 to 15 du/acre)
Project Description:	EAH Housing proposes to develop Greenfield Commons on a vacant 10.97-acre site (APN 109-082-012-000) with address 41206 Walnut Avenue in Greenfield, Monterey County, California 93927. The project would construct 222 apartments in two-story modular structures. The project will construct eight residential buildings, two laundry buildings, one maintenance building

	<p>and one community building for a total of 12 buildings on the site. The unit mix will be 78 one-bedroom units, 88 two-bedroom units, 56 three-bedroom units and two manager’s units. A total of 333 parking spaces will be provided onsite for a ratio of 1.5 parking spaces per unit. A total of 227 bicycle parking spaces will also be provided, with 115 outdoor spaces and 112 secured overnight spaces. Open space areas will be provided onsite.</p> <p>The site plan incorporates community buildings which include amenities for residents. Amenities include multi-purpose spaces, fitness space, laundry and leasing offices. Courtyard spaces are an integral component of the development and are large enough to provide recreational opportunities, playgrounds, community gathering spaces and community gardens.</p> <p>Buildings will be modular, prefabricated construction. The architecture is traditional in nature, incorporating sloped roofs, textured siding and stepped massing. The development will be built to Green Point Gold standard and will utilize roof-top photovoltaic panels to lower overall operating costs.</p> <p>Vehicular access will be provided at two locations from Walnut Avenue to the north. A simple driveway loop around the site will provide emergency vehicle and fire truck access as well as resident and guest access to onsite parking. The internal driveway will use permeable pavers and space has been allocated in the site plan for retention of drainage and implementation of water quality systems. The frontage along Walnut Avenue will be landscaped and planted to reinforce the residential nature of the development. Sidewalks along the street frontage will connect to a broader network of pedestrian walks throughout the development.</p> <p>The project will provide 222 units of farmworker and other affordable housing targeting income of 50% of Area Median Income (AMI).</p>
<p>Surrounding Land Uses and Setting:</p>	<p>The 10.97-acre project area consists of one vacant parcel (APN 109-082-012-000) located at 41206 Walnut Avenue in Greenfield, California. The center of the property lies approximately 0.42 miles east of Highway 101 and approximately 0.91 miles east of downtown Greenfield. The site is bounded by agricultural uses in unincorporated areas to the north; the Walnut Avenue Specific Plan area to the west; Caesar Chavez Elementary School and residential uses to south; and residential uses to the east.</p>
<p>Other Public Agencies whose approval is required:</p>	<p>Special permits/encroachment from Caltrans for the transport of modular components on State Highways.</p>

<p>Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation?</p>	<p>Outreach to known tribal representatives has been conducted but no formal requests for consultation have been made.</p>
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2.2 Description of Project and Environmental Setting

Regional Context

Greenfield (formerly, Clarke Colony) is a city in Monterey County, California. Greenfield is located in the Salinas Valley, 33 miles southeast of Salinas, at an elevation of 289 feet. The City was the fastest growing in the County during the 2000s, with a population that grew from 12,583 in 2000 to 16,330 in the 2010 census. Its most well-known public event is the annual Harvest Festival. Greenfield is a member of the Association of Monterey Bay Area Governments. Greenfield is largely an agricultural community in terms of its economic base; however, the City is striving to diversify economically.

The City of Greenfield is located in the heart of the Salinas Valley, between the Gabilan Mountains range to the east and the Santa Lucia Mountains range to the west. Greenfield is, approximately 135 miles south of San Francisco, 95 miles south of San Jose and 60 miles north of Paso Robles. King City is approximately 10 miles to the south, and the City of Soledad is about 10 miles north along the US 101 corridor. See **Figure 1**.

Project Location

The 10.97-acre project area consists of one vacant parcel (APN 109-082-012-000) located at 41206 Walnut Avenue. The project site is located east of Highway 101 and approximately 0.91 miles east of downtown Greenfield. The project site is bounded by agricultural uses in unincorporated areas to the north; agricultural uses and the Walnut Avenue Specific Plan area to the west; Caesar Chavez Elementary School and residential uses to south; and residential uses to the east. There is an older rural residential property with a home and outbuildings immediately to the southwest.

Existing Site Conditions

The property is currently vacant, disked and previously used for agriculture. There are no existing structures on site. A stormwater drain inlet is located adjacent to 3rd Street near the northwestern boundary of the project site. There are no visible utilities located on site.

The surrounding land uses are shown in **Figure 2**. Photographs of existing site conditions are shown in **Figure 3**.

Project Description

The Greenfield Commons development is intended to provide permanently affordable, year-around rental housing to local families including those employed in the Agriculture sector. Project characteristics are described below.

Building Program and Design

The project would construct eight residential buildings, two laundry facilities, one maintenance building and one community building for a total of 12 buildings on the site as shown in **Figure 4**. The eight residential buildings would be located throughout the property in multiple configurations of one-, two-, and three-bedroom unit clusters. The proposed residential building coverage is 250,271 sf (5.75 acres) on

a total lot area of 477,853 sf (10.97 acres). Each building cluster would include a child play area, laundry facility, and outdoor common space. All residential buildings will be factory-built and transported to the site.

Unit Mix

As shown in **Table 1**, the unit mix would comprise of 222 apartment units, which would be constructed in two phases as described further below. The project would also provide two manager’s units for resident managers/staff.

The 222 apartment units would be distributed as follows: 78 one-bedroom units at 635 square feet; 88 two-bedroom units at 830 square feet; and 56 three-bedroom units at 1,185 square feet. The distribution of affordability by income level may vary slightly depending on the source of project financing, but the affordability across all units is anticipated to be in the range of 25 to 70 percent of the Monterey County AMI.

Table 1 Residential Unit Mix

	1-Bedroom	2-Bedroom	3-Bedroom	Total
Phase I	36	48	28	112
Phase II	42	40	28	110
	78	88	56	222

The eight residential buildings would each be two-stories tall with a maximum height of 35 feet. See **Figures 5a and 5b** for typical elevations of the buildings. The community building would be located at the corner of 3rd Street and Walnut Avenue and would be 12 feet tall at the top plate. See **Figure 6**.

In addition to residential units, the project includes and associated amenities such as multi-purpose spaces, tot-lots, community gardens, fitness space, laundry and leasing offices. See **Figure 7** for a site plan with amenities. Typical floor plans for each building cluster are shown in **Figures 8a and 8b**.

Affordable Housing Density Bonus and Development Incentives

The proposed project is intended to be consistent with California Density Bonus Law (CA Government Code Sections 65915-65918) and the City of Greenfield Municipal Code Chapter 17.50 (Density Bonus and other Developer Incentives). The project is intended to meet the affordability targeting criteria for a 35 percent density bonus and three development incentives. The applicant is requesting two development incentives: 1) a parking reduction from 366 parking stalls to 333, and 2) impact fee deferral of up to \$3.2 Million which is identified in a letter from the City of Greenfield dated January 8, 2019, and which is appended to the project application. **Table 2** shows a summary of the Density Bonus and Incentive calculations.

Table 2 Density Bonus and Incentive Calculations

	Dwelling Units	Required Parking	Impact Fee Deferral
Permissible Without Density Bonus	165	330 ¹	--
Permissible With Density Bonus	222	366	--
Additional Incentives	--	333	City Impact Fee for a term of 55 years at 3% simple interest paid for residual receipts.
<i>Adjustment Calcs</i>	(15 du/acre + 35%)*10.97 acres	1:1BR; 2:2-3BR (inclusive of guest parking and ADA)	--

¹ Per City of Greenfield Municipal Code, Table 17.58-1, Parking Requirements by Land Use Type, parking spaces for Multi-Family bedroom units are required as follows: 1 space per unit for studios and 1-bedroom units, 2 spaces per unit for two- and three-bedroom units, and 3 spaces per unit for four or more bedroom units. The standard parking requirements shown assume 100 percent 2 and 3 bedroom units. Source: City of Greenfield Municipal Code, Chapter 17.50, "Density Bonus and Other Developer Incentives"

Project Utilities/Engineering

Grading

The project site is relatively flat. Earthwork would include minimal grading and contouring to accommodate drainage and elevation requirements. The project site slopes east with the highest point adjacent to 3rd Street. The project will require the cut of 6,000 cubic yards (cy) of soil, and the fill of 6,000 cy of soil; for a net balance of zero. See **Figure 9** for the conceptual grading plan.

Water and Sewer

Sewer and water service will be provided by the City of Greenfield. Existing domestic water mains available for connection adjacent to the project site include an existing 12-inch water distribution line located along Walnut Avenue. As part of the proposed project, sewer pipelines on the project site would be installed in the project roadways to connect to an existing 24-inch wastewater collection line located along Walnut Avenue. See **Figure 10**.

Stormwater

Other improvements include storm drainage and utility systems constructed to local code, landscaping, and fencing. Storm drain detention basins would be required to collect and capture stormwater runoff on site. As shown in **Figure 10**, two stormwater basins will be located on site, draining from a west to east direction.

Electricity and Natural Gas

Increased electricity demand to power the project would require additional coordination and approval from Pacific Gas & Electric Company (PG&E). The project is proposed to be all-electric; natural gas is not proposed to serve the development.

Access, Circulation, and Parking

Access to the project site would be provided from two locations from Walnut Avenue to the north. As currently proposed, an internal road in the form of a simple driveway loop would provide two-way circulation within the site. The internal road would provide resident and guest access to onsite parking. Emergency vehicle and garbage truck access would also enter and exit from these two driveways.

The project would include 333 parking spaces and 227 bicycle parking spaces. Of the 333 parking spaces, 12 spaces will be disabled, ADA-compliant parking spaces. The project site plan is shown in **Figure 7**. Frontage improvements include curb, gutter and sidewalk. The sidewalk would extend the existing sidewalk from the adjacent neighborhood along the frontage to the corner of 3rd Street and Walnut Avenue.

Open Space and Landscaping

The project is proposing open space areas in the form of outdoor common space, gathering spaces, and flexible meeting spaces as shown in **Figure 7**. There will be outdoor dining areas, turfs, tot lots, and multiple gardens.

The project is proposing landscaping within the site plan and along perimeter streets which would consist of trees, groundcovers, perennials, and shrubs that would adhere to low water, drought tolerant local and State regulations. The conceptual landscaping plan is included as **Figure 11**.

Energy and Water Efficient Components

The project will use solar photovoltaics, low-flow water systems, drought-tolerant landscaping, and energy-efficient appliances to minimize the impact of residential development.

Project Construction

Modular Construction (Residential Buildings)

Modular construction is proposed for the 222-unit development. Modular construction is proposed because it offers the potential to reduce construction time and environmental impact by constructing the modules off-site. By constructing modules off-site, there is a reduction in waste produced, fewer worker trips visiting the project site during construction and fewer building materials delivered to the site.

Construction will require fine grading, ground preparation, trenching, staking and flagging, installation and extension of utility systems and assembly of modular units. Construction of the development will require the use of tractor/backhoe, dozers, scraper, medium sized graders, dump truck, and water truck. Cranes will be used to offload and place the modular construction components. Construction will be

Type V¹ on grade, permanent foundation. Although elements of the development will be constructed on-site (see below), 90 percent of the project structures will be factory built. Because the modular components will be oversized, special encroachment permits will be required for transport of modular components on State Highways and potentially for the use the City Right-of-Way for off-loading and placement of modular components.

On-site Construction

Elements of the development that will be constructed on site include the community building, laundry facilities, maintenance building, all site work, street improvements, carports, building stairways, building cladding, exterior finishes, and permanent foundation.

Project Construction and Phasing

Construction will occur in two phases (Phase I and II) for the 222-unit development. The two phases of construction are expected to occur over a 10-month period.

Phase I construction will include 112 residential units, laundry, community building, Walnut Avenue street improvements, stormwater catchment features and parking.

Phase II construction includes 110 residential units, laundry, maintenance building and parking. A portion of the stormwater drainage basin, located in Phase II, will be constructed in Phase I.

The applicant has filed an application to subdivide the parcel to facilitate the creation of two ownership entities for the development. The proposed parcel line is intended to ensure that each property remains within the City Municipal Code requirements for setbacks, density and parking. Although the project will be constructed in two phases, it is understood the project will operate as a single residential development enforceable by shared use and reciprocal easement agreements.

The conceptual grading plan (site plan) is illustrated in **Figure 9**.

Project Operation

The future tenants are expected to be local families and those employed in the agriculture sector. Use of the common areas such as the multi-use building and maintenance/leasing offices would comply with the City Municipal Code and/or project-specific covenants and regulations.

Requested Approvals

The project is expected to require the following approvals:

- Subdivision of the property into two parcels
- Land dedication of approximately 11,580 square feet will allow for a sidewalk extension beginning at the northeastern corner of the property extending along Walnut Avenue toward 3rd Street
- Special permits/encroachment for transport of modular components on State Highways.

¹ Type V construction uses any structural element construction from a materials permitted by code (i.e., wood-frame structures).

- Approval of shared use and reciprocal easement agreements.

The project site is located in an urbanizing area and will utilize municipal water supplies. The project will not result in diversion of surface waters for irrigation, impacts to water bodies or habitat, or other issues that would trigger additional State or federal resource permitting beyond what is already required for water quality conformance.

2.3 Project Consistency Analysis

CEQA Guidelines Section 15063(d)(5) states that the Initial Study is to examine whether the project would be consistent with existing zoning, plans, and other applicable land use controls. This section includes a discussion of the proposed project’s consistency with the City of Greenfield General Plan (2005) and Zoning Code, the Monterey Bay Air Resources District’s Air Quality Management Plan (2016), and the Association of Monterey Bay Area Governments (AMBAG) 2040 Metropolitan Regional Transportation Plan (2018).

General Plan and Zoning Code

The property (10.97-acre site) is currently within the jurisdiction of the City of Greenfield. The property has been planned for future growth and development under City policies and land use regulations since 2005.

According to the City of Greenfield General Plan, the project site has a General Plan land use designation of Medium Density Residential, with a conforming Multiple Family Residential (R-M) zoning designation. Under this designation and zoning, projects are intended to accommodate a variety of housing types with a density range between 7.0 and 15.0 dwelling units per acre. Detached and attached single-family homes, duplexes, townhomes, condominiums, row houses, and garden apartments are allowed within the R-M District. The R-M District is intended to serve as a transitional residential district between lower density single-family neighborhoods and high-density residential districts, office buildings, commercial uses, or light industrial uses. R-M sites are intended to be located near arterial or collector roads. **Table 3** and **Figures 12 and 13** show the General Plan land uses and zoning designations surrounding the project site, respectively. The project would be consistent with the permitted uses.

Table 3 Land Use Designations

	General Plan Designation	Current Zoning Classification	Existing Land Use
Subject Property	Medium Density Residential	R-M, Multiple Family Residential (7 to 15 du/acre)	Vacant
North	Unincorporated/outside City limits	Unincorporated/outside City limits	Agricultural
South	Public and Quasi Public and Medium Density Residential	PQP, Public and Quasi Public And R-M, Multiple Family Residential (7 to 15 du/acre)	School Residential
East	Medium Density Residential	R-M, Multiple Family Residential (7 to 15 du/acre)	Residential

	General Plan Designation	Current Zoning Classification	Existing Land Use
West	Highway Commercial	SP-, Specific Plan (Walnut Avenue Specific Plan) with Regional Commercial Design Overlay	Various (predominately vacant with some commercial on adjacent parcels)

Agricultural Buffers

The project site is located in an area adjacent to agricultural fields to the north and west. Given the project’s location and configuration of the subject parcel, the applicant has proposed an 82-foot buffer on the northern side of the project site (between actively farmed fields and the nearest structures) to reduce the likelihood of the drift of applied compounds during pesticide or herbicide applications from the adjacent farmland toward the project area (see Site Plan).

The applicant met with the Monterey County Agricultural Commission to discuss the project’s compliance with a 2013 Memorandum of Agreement (MOA) regarding agricultural buffers in the City. The applicant formally met with the Agricultural Commission by phone on August 29, 2019, and in-person at the project site on September 4, 2019. On February 26, 2020, the Monterey County Agricultural Commissioner recommended a 150-foot agricultural buffer zone for the project site, unless it could be shown that an alternative buffer would provide adequate protection and compliance with the interim buffer polices of the MOA. A Health Risk Assessment (HRA) was prepared by AECOM (final HRA dated September 2020) determined the proposed 82-foot buffer is adequate to protect residents from drift of agricultural products.

Air Quality Management Plan

Greenfield is located within the North Central Coast Air Basin (NCCAB). The Monterey Bay Air Resources District (MBARD) is the air pollution control agency for the NCCAB. The MBARD prepared the 2016 update to the Air Quality Management Plan (AQMP) and continues to prepare triennial updates to the AQMP to attain State and federal ambient air quality standards in the air basin. The AQMP and updates accommodate growth by projecting the growth in emissions based on different indicators. For example, population forecasts adopted by the Association of Monterey Bay Association of Governments (AMBAG) are used to forecast population-related emissions. Through the planning process, emissions growth is offset by basin-wide controls on stationary, area, and transportation sources of air pollution.

Projects that are not consistent with the AQMP or have not been accommodated in the plan and would have a significant cumulative impact on regional air quality unless emissions are completely offset. The MBARD has developed a consistency determination process for local jurisdictions to identify whether proposed residential land uses are consistent with the AQMP. Specifically, the MBARD consistency determination process demonstrates whether the population associated with growth, such as the proposed project, is accommodated because AMBAG’s regional forecasts for population and dwelling units are embedded in the emissions inventory projections used in the AQMP. Projects that are consistent

with AMBAG’s regional forecasts have been accommodated in the AQMP and therefore are consistent with the plan. Buildout of the project’s 10.97 acres been anticipated since adoption of the 2005 Greenfield General Plan, and therefore have been included in AMBAG’s regularly updated regional forecasts.

Regional Transportation Plan

The purpose of AMBAG’s 2040 Metropolitan Regional Transportation Plan is to establish goals, policies, programs, and projects for transportation improvements in the County. In some cases, this means reaffirming existing transportation policy and in others it means establishing policy to address new transportation needs. AMBAG is responsible for the development and implementation of the Regional Transportation Plan. The residential project is consistent with the City’s planned development pattern and *would not* impact any transportation projects identified in the RTP.



Source: Google Maps, 2020

Figure 1: Regional Location and Vicinity

Greenfield Commons
Initial Study / Mitigated Negative Declaration



Not to scale



Source: EAH Housing Project Application Materials, 2019

Figure 2: Surrounding Land Uses

Greenfield Commons
 Initial Study / Mitigated Negative Declaration



Not to scale



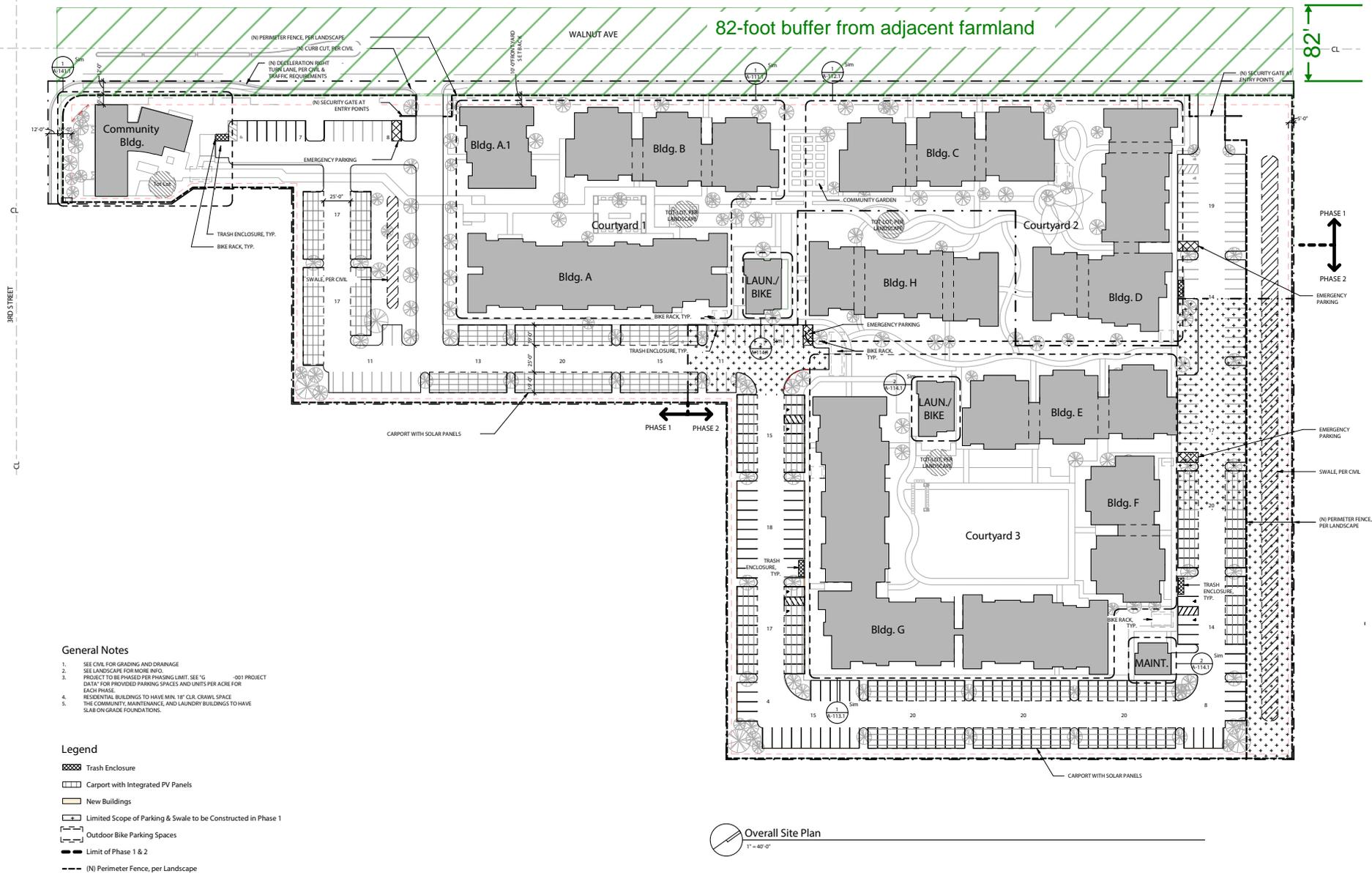
Source: EAH Housing Project Application Materials, 2019

Figure 3: Site Photographs

Greenfield Commons
 Initial Study / Mitigated Negative Declaration

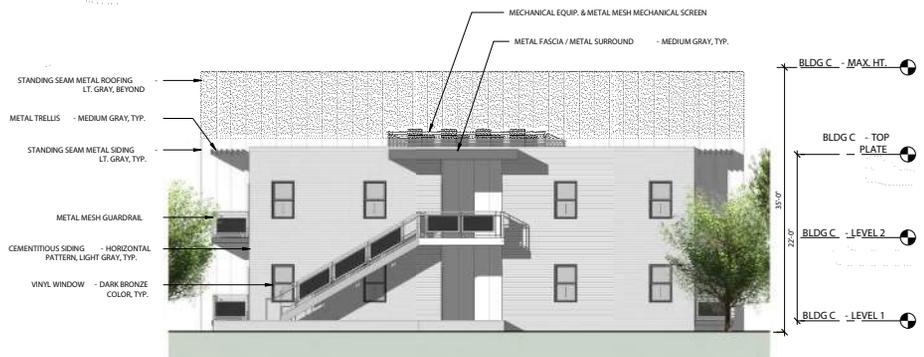


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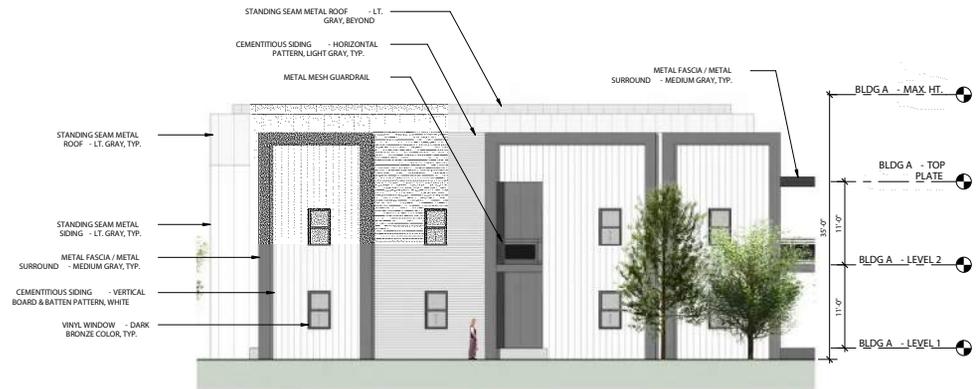


Source: EAH Housing Project Application Materials, 2019

Figure 4: Site Plan
Greenfield Commons
Initial Study / Mitigated Negative Declaration



Exterior Elevation - Building C (East)



Exterior Elevation - Building C (East)



Exterior Elevation - Building A (South)

Source: EAH Housing Project Application Materials, 2019

Figure 5a: Typical Building Elevations
 Greenfield Commons
 Initial Study / Mitigated Negative Declaration



Exterior Elevation - Building C (North)

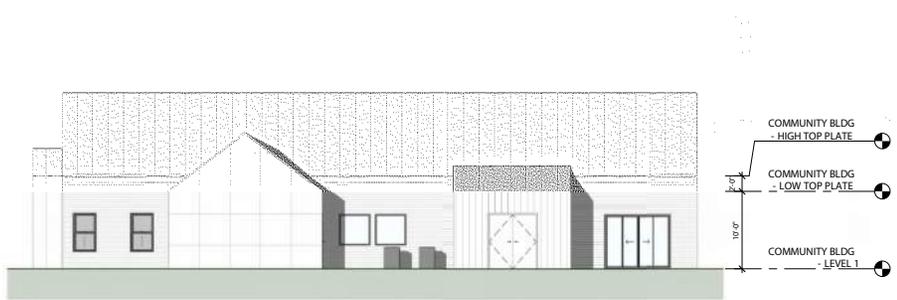


Exterior Elevation - Building D (South)

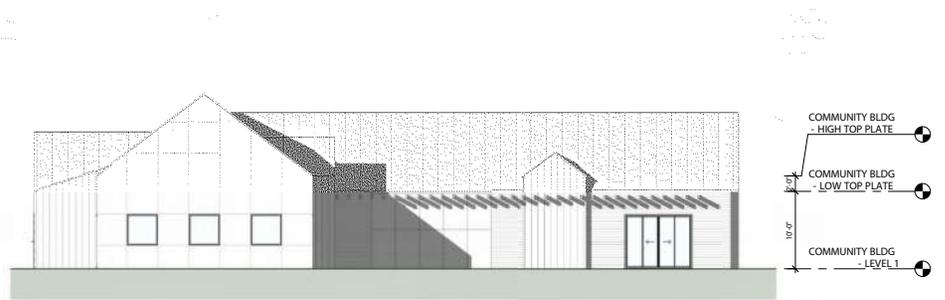
Source: EAH Housing Project Application Materials, 2019

Figure 5b: Typical Building Elevations

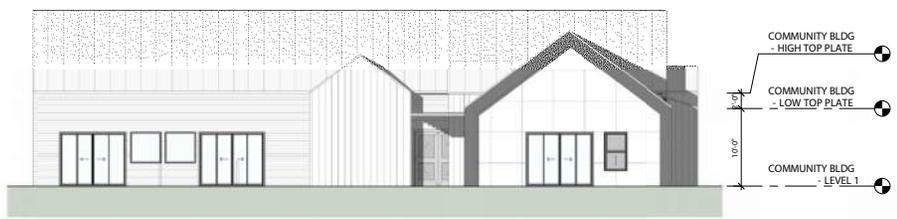
Greenfield Commons
Initial Study / Mitigated Negative Declaration



Exterior Elevation - Community Building (West)



Exterior Elevation - Community Building (South)



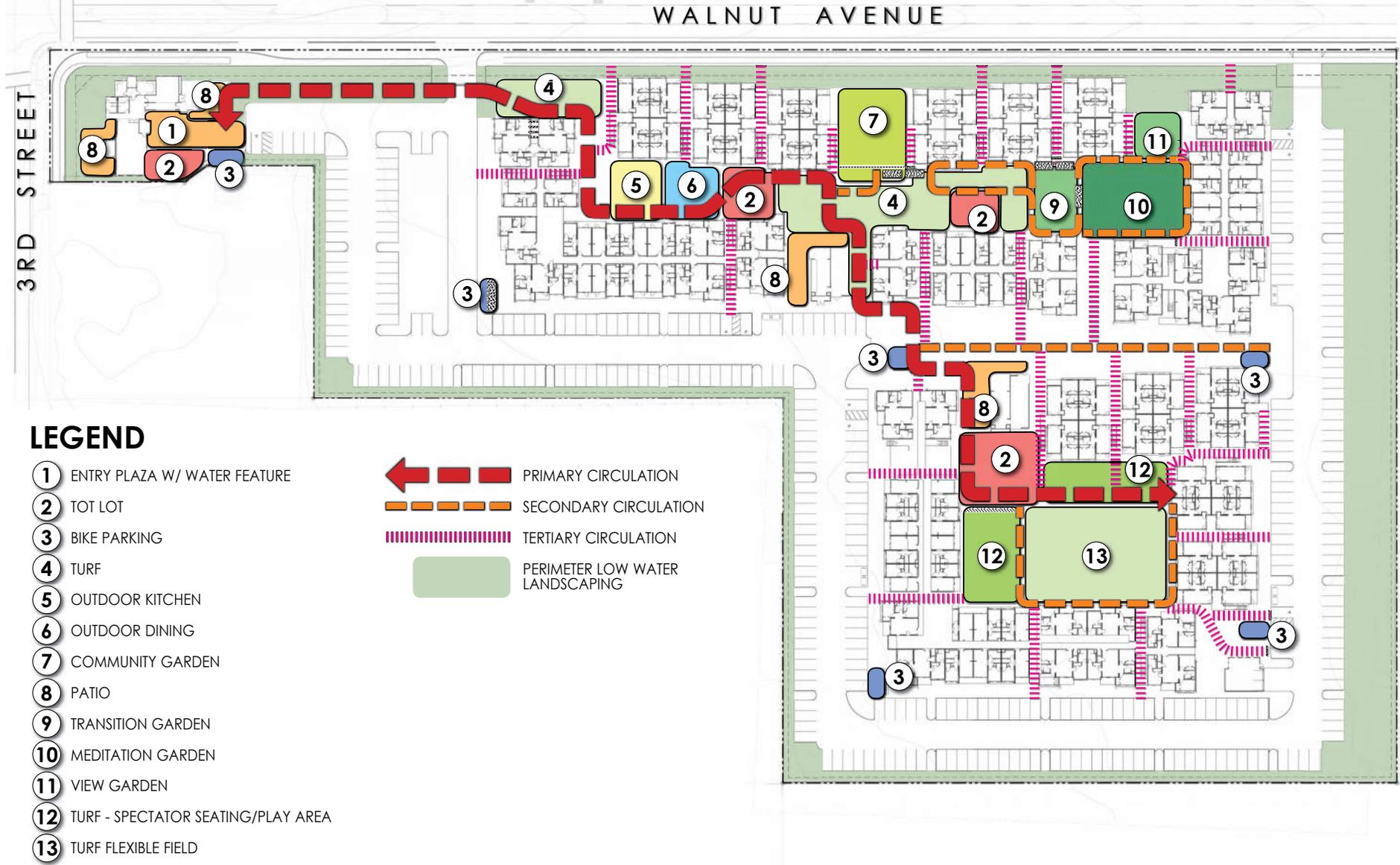
Exterior Elevation - Community Building (East)



Exterior Elevation - Community Building (North)

Source: EAH Housing Project Application Materials, 2019

Figure 6: Community Building Elevations
 Greenfield Commons
 Initial Study / Mitigated Negative Declaration



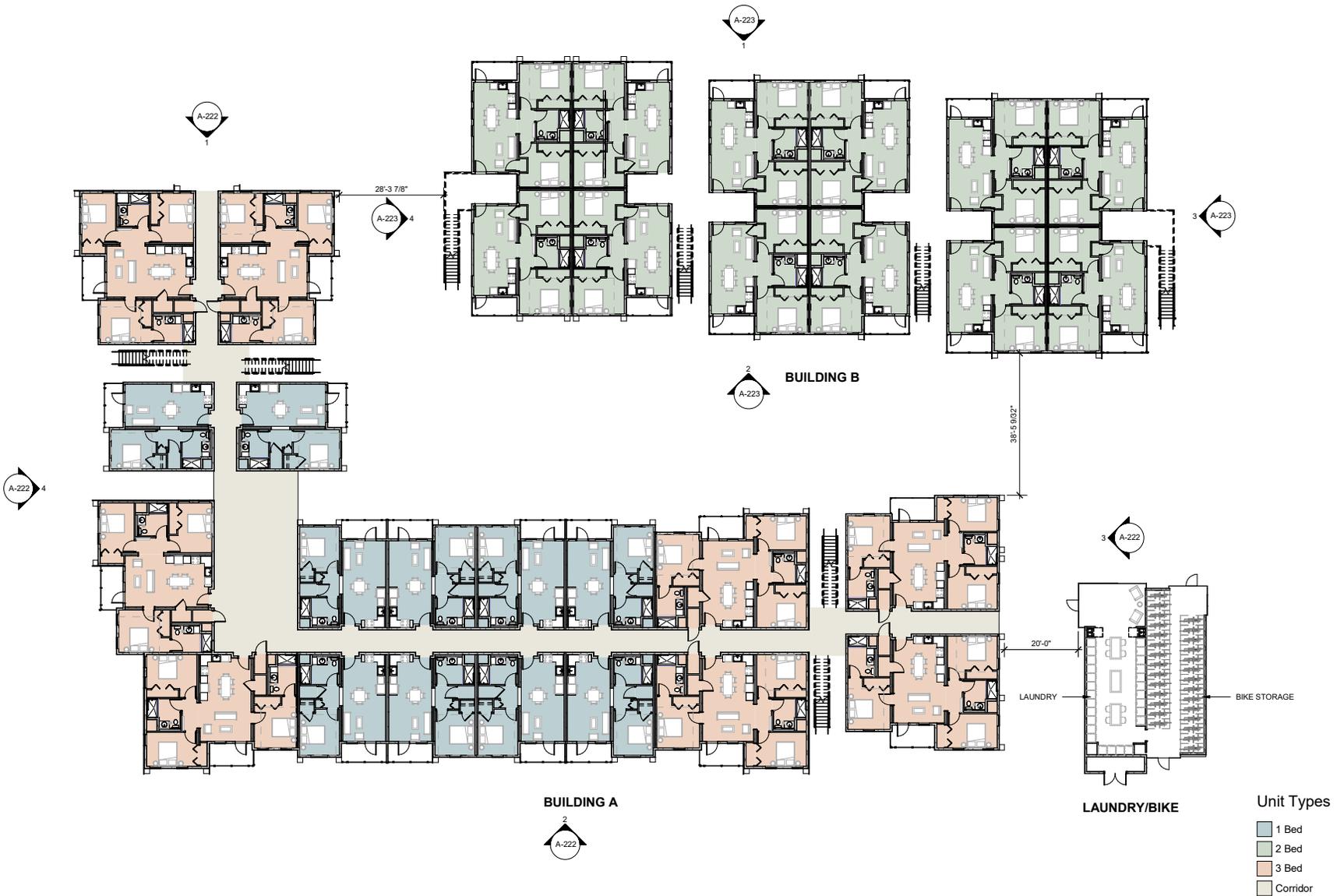
Source: EAH Housing Project Application Materials, 2019

Figure 7: Project Access and Amenities

Greenfield Commons
Initial Study / Mitigated Negative Declaration



Not to scale



Source: EAH Housing Project Application Materials, 2019

Figure 8a: Typical Floor Plan (Level 1)

Greenfield Commons

Initial Study / Mitigated Negative Declaration



LEVEL 2 PLAN - ZONE 1
1/16" = 1'-0"

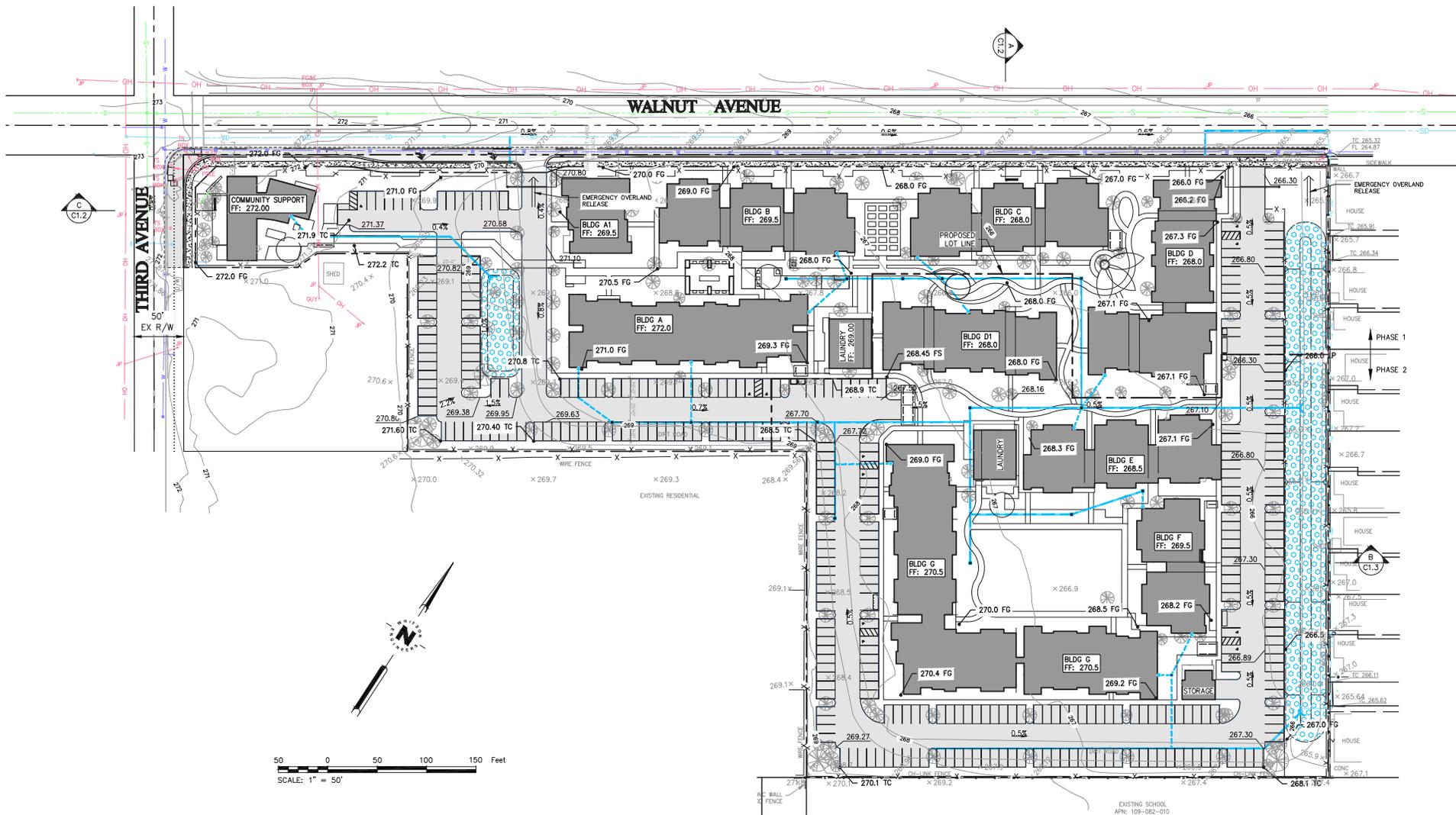
- Unit Types**
- 1 Bed
 - 2 Bed
 - 3 Bed
 - Corridor

Note:
Corridors to be exterior non-conditioned space

Source: EAH Housing Project Application Materials, 2019

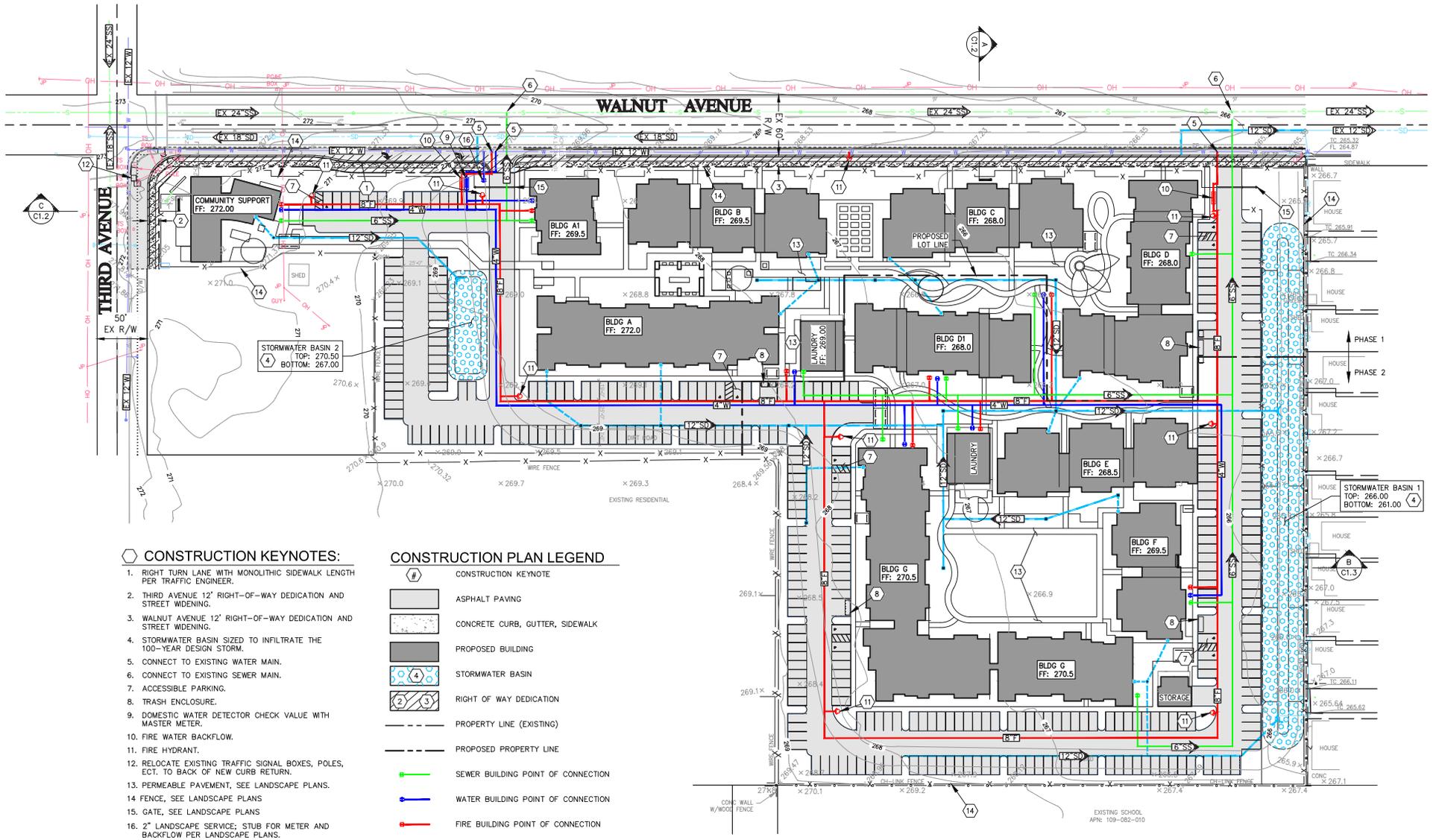
Figure 8b: Typical Floor Plan (Level 2)

Greenfield Commons
Initial Study / Mitigated Negative Declaration



Source: EAH Housing Project Application Materials, 2019

Figure 9: Conceptual Grading Plan
 Greenfield Commons
 Initial Study / Mitigated Negative Declaration



Source: EAH Housing Project Application Materials, 2019

Figure 10: Utilities Plan

Greenfield Commons
Initial Study / Mitigated Negative Declaration



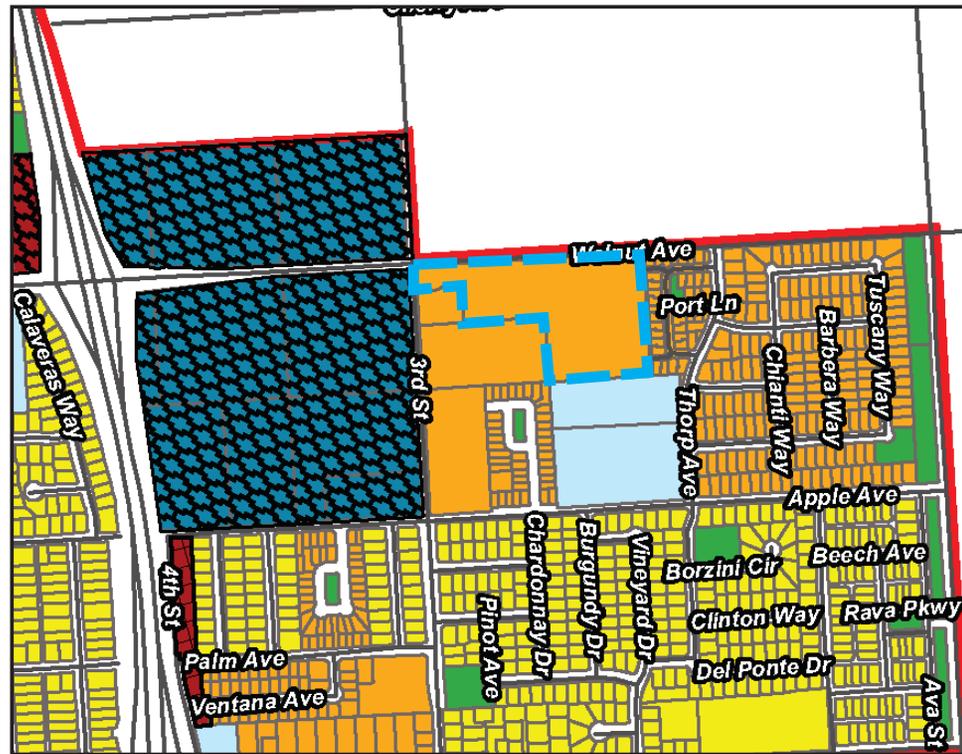
Source: EAH Housing Project Application Materials, 2019

Figure 11: Landscape Plan

Greenfield Commons
 Initial Study / Mitigated Negative Declaration



Not to scale



Legend



Greenfield City Boundary



Project Site

Zoning



R-L, Single Family Residential (1 to 7 du/ac)



R-M, Multiple Family Residential (7 to 15 du/ac)



R-H, High Density Multifamily Residential (12 to 21 du/ac)



C-N, Neighborhood Commercial



C-R, Retail Business



C-H, Highway Commercial



P-O, Professional Office



I-L, Light Industrial



PQP, Public and Quasi Public



OS, Open Space



SP-"x", Specific Plan

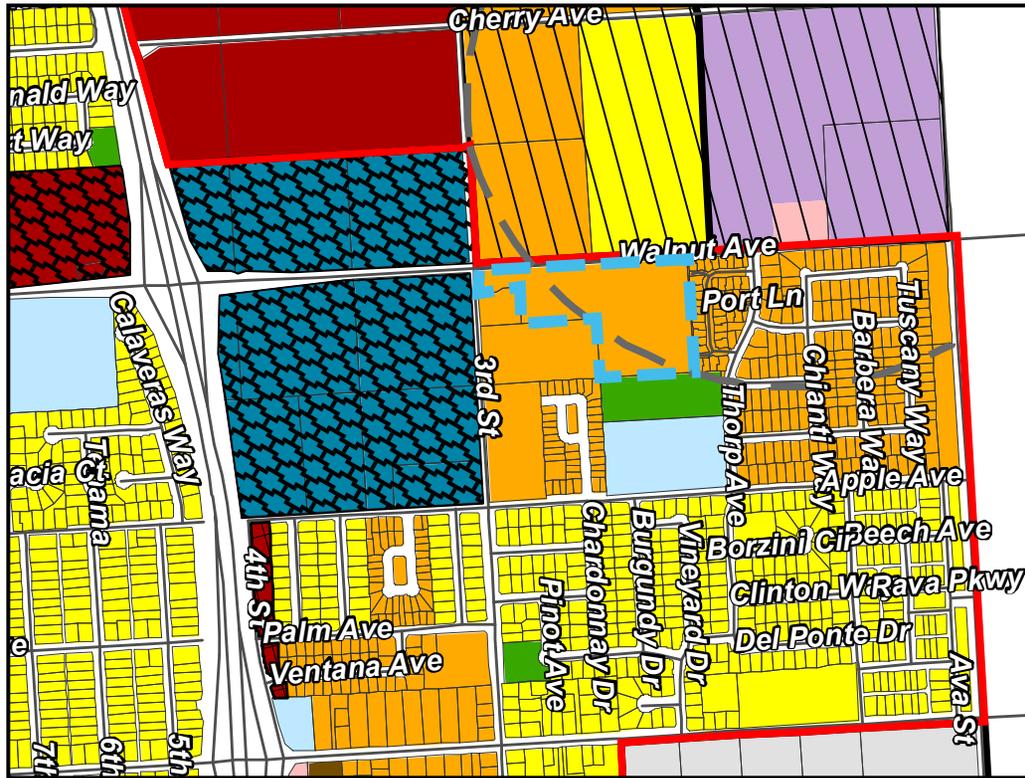
Source: City of Greenfield Zoning Map, 2017

Figure 12: Zoning Map

Greenfield Commons
Initial Study / Mitigated Negative Declaration



Not to scale



Legend

— ■ ■ Project Site

General Plan Land Use

- Residential Estate
- Low Density Residential
- Medium Density Residential
- High Density Residential
- Neighborhood Commercial Center
- Downtown Commercial
- Highway Commercial
- Professional Office
- Light Industrial
- Heavy Industrial
- Public Quasi Public
- Artisan Agricultural Visitor Serving
- Recreation and Open Space
- Future Study Area
- Specific Plan

Source: City of Greenfield General Plan Land Use Map, 2017

Figure 13: Land Use Map

Greenfield Commons
Initial Study / Mitigated Negative Declaration



Not to scale

2.4 Environmental Factors Potentially Affected

The following lists the numbered sections in this evaluation and indicates, if marked, environmental factors that would be potentially affected by this project. Check-marked factors indicate there may be a “Potentially Significant Impact” or a “Potentially Significant Impact Unless Mitigated” As indicated by the checklist on the following pages:

	1 Aesthetics		11 Land Use and Planning
	2 Agriculture and Forestry Resources		12 Mineral Resources
X	3 Air Quality	X	13 Noise
X	4 Biological Resources		14 Population and Housing
X	5 Cultural Resources		15 Public Services
	6 Energy		16 Recreation
X	7 Geology and Soils	X	17 Transportation
	8 Greenhouse Gas Emissions	X	18 Tribal Cultural Resources
	9 Hazards and Hazardous Materials		19 Utilities and Service Systems
	10 Hydrology and Water Quality		20 Wildfire
			21 Mandatory Findings of Significance

Determination

On the basis of this environmental evaluation:

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

Signature: _____ Date: December 10, 2020

Name: Rob Mullane, AICP, Consulting Planner

3.0 ENVIRONMENTAL ANALYSIS

3.1 Aesthetics

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

a) Have a substantial adverse effect on a scenic vista?

The primary character-defining visual resources in the Salinas Valley are widespread agricultural activities and mountains that border both sides of the valley along nearly its entire length. Views of these visual resources include open vistas of agricultural landscapes; however, these views and vistas are not considered regionally unique as they are nearly unobstructed and available from U.S. Highway 101 and other locations throughout south Monterey County. According to the California Department of Transportation Scenic Highway Program, there are no officially designated, or candidate, State or county scenic routes within or in the immediate vicinity of the City.

The project is also surrounded by development on three sides along the Walnut Avenue frontage. Given its location, the project will not interfere with distant views or vistas from public locations.

While this portion of Greenfield provides some expansive views and vistas of fields and distant hills, the project will not degrade, block or have a substantial adverse effect on a scenic vista. This is a less than significant impact.

Source: (2) (3)

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

The project is not within or adjacent to a state scenic highway. Therefore, the project will not damage scenic resources within a state scenic highway. Regardless of state scenic highway status, there are no such scenic resources on the project site.

There is no impact in this regard.

Source: (2) (3)

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

The project is located in an area that is urbanizing (and is planned for urbanization), but currently retains a rural, agricultural character north of Walnut Avenue. While the project is of a larger scale and higher residential density of the surrounding residential uses, the architectural aesthetic of the project is consistent with the character of existing development in the area and would not substantially degrade views or the visual character of the area. The project does not conflict with current zoning and land use plans governing scenic quality (such as setbacks, landscaping or building heights).

Impacts are *Less than Significant*.

Source: (4)

d) Create a new source of substantial light or glare, adversely affecting day or nighttime views in an area?

The project will be required to comply with City standards for multi-family residential lighting and lighting public streets. City standards specify that lighting be directed downward to avoid off-site glare and light spill to adjoining properties. There are similar sources of urban light and glare near the project site and immediately adjacent to it. Street lighting and lighting of the adjacent single-family residential areas are the most notable existing light sources, and the project would be compatible with these uses. Light sources from the project would not be substantial, unusual or significantly affect day or nighttime views.

Impacts are *Less than Significant*.

Source: (5)

3.2 Agriculture and Forestry Resources

Issues	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
<p>II. Agriculture and Forestry Resources. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state’s inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:</p>				
<p>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?</p>			X	
<p>b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?</p>				X
<p>c) In 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))?</p>				X
<p>d) Result in the loss of forest land or conversion of forest land to non-forest use?</p>				X
<p>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?</p>				X

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?

The project site is not identified as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance on maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency. While this area of Greenfield is adjacent to Prime Farmland to the north, the site itself is identified as “Grazing Land”; land on which the existing vegetation is suited to the grazing of livestock. See **Figure 14**.

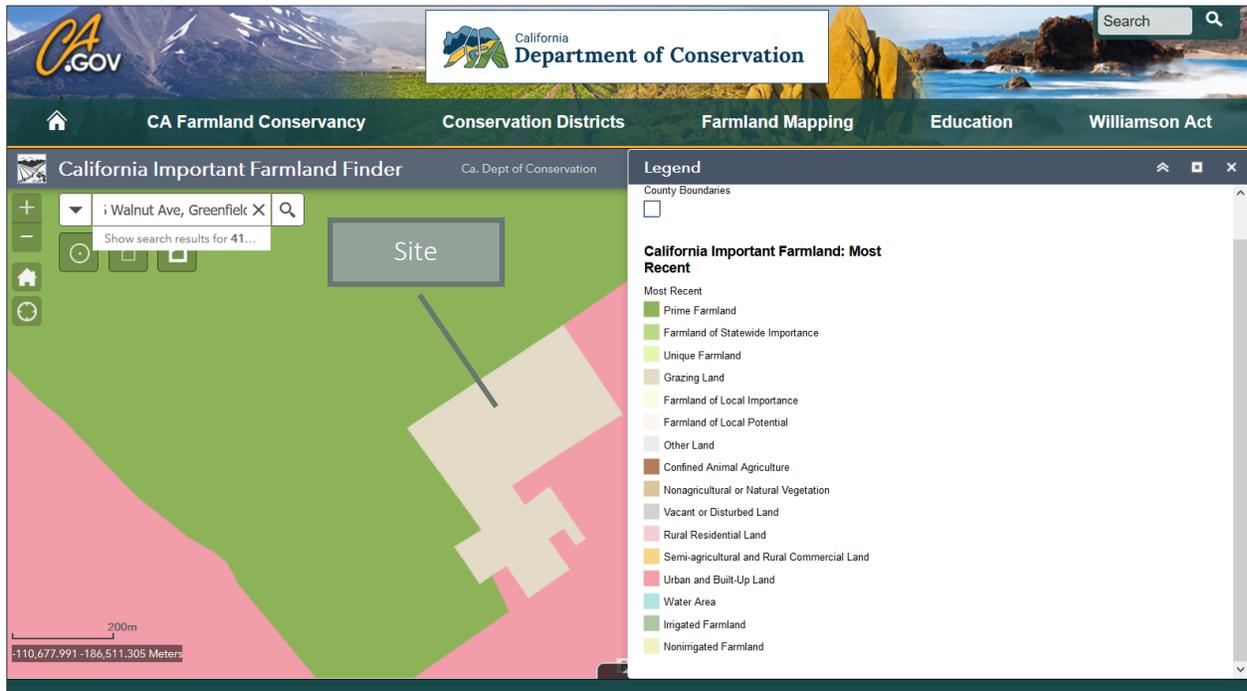


Figure 14 California Important Farmland

Impacts are *Less than Significant*.

Source: (6)

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

The site is currently zoned R-M, Multiple Family Residential and not zoned for agricultural use. The subject property is not under Williamson Act contract.

There is no impact in this regard.

Source: (4) (7) (8)

c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code In 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))?

The project site does not involve forestland, timberland, or land for timberland production, as defined in PRC sections 12220(g), 2546, and 51104(g).

There is no impact in this regard.

Source: (2) (4)

d) Result in the loss of forest land or conversion of forest land to non-forest use?

The project site does not involve forest land.

There is no impact in this regard.

Source: (2) (4)

e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

The proposed project will cause conversion of existing (non-prime) Farmland to non-agricultural use or forest land to non-forest use. However, the project site has been identified as suitable for residential development in the City's General Plan and analyzed within the General Plan EIR. The City made specific findings regarding the long-term conversion of agricultural land relative to the City's growth. The growth pattern in the City has been established by the City and LAFCO of Monterey County. The project site is consistent with those adopted plans and agreements.

There is no impact in this regard.

Source: (2) (4) (7)

3.3 Air Quality

Issues	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
III. 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:				
a) Conflict with or obstruct implementation of the applicable air quality plan?			X	
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?		X		
c) Expose sensitive receptors to substantial pollutant concentrations?			X	
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?				X

Regional Climate and Topography

The City of Greenfield is located in the North Central Coast Air Basin (air basin), which lies along the central coast of California covering an area of approximately 5,159 square miles. The air basin is comprised of several interconnected valleys: a portion of the Santa Clara Valley, San Benito Valley, Salinas Valley, and Carmel Valley. A semi-permanent high-pressure cell in the eastern Pacific Ocean is the basic controlling factor in the climate of the air basin. In the summer, the high-pressure cell is dominant and causes persistent west and northwest winds over the entire California coast. Air descends in the high-pressure cell forming a stable temperature inversion of hot air over a cool coastal layer of air. The onshore air currents pass over cool ocean waters to bring fog and relatively cool air into the coastal valleys. Warmer air aloft acts to inhibit vertical air movement.

The generally northwest-southeast orientation of mountain ranges restricts and channels summer on-shore air currents. Surface heating in the interior portion of the Salinas and San Benito valleys creates a weak low pressure, which intensifies on-shore airflows during the afternoon and evening. In the fall, the surface winds become weak, and the marine layer grows shallow, dissipating altogether on some days. Airflow is occasionally reversed in a weak offshore movement, and the relatively stationary air mass is

held in place by the high-pressure cell, which allows pollutants to build up over a period of a few days. It is most often during this season that the north or east winds develop, which can transport pollutants from either the San Francisco Bay Area or the Central Valley into the air basin.

During the winter, the high-pressure cell migrates southward and has less influence on the air basin. Air frequently flows in a southeasterly direction out of the Salinas and San Benito valleys, especially during night and morning hours. Northwest winds are nevertheless still dominant in winter, but easterly flow is more frequent. The general absence of deep, persistent inversions and the occasional storm systems usually result in good air quality for the basin as a whole in winter and early spring.

Appendix A contains additional details regarding the existing setting, regulated (criteria) pollutants, and regulatory setting information.

Monterey Bay Air Resources District

MBARD regulates air quality in the NCCAB and is responsible for attainment planning related to criteria air pollutants and for district rule development and enforcement. It also reviews air quality analyses prepared for CEQA assessments and has published the *CEQA Air Quality Guidelines* document (last revised February 2008) for use in evaluation of air quality impacts. The purpose of these Guidelines is to assist in the review and evaluation of air quality impacts from projects which are subject to CEQA. These Guidelines are an advisory document intended to provide lead agencies, consultants, and project applicants with uniform procedures for assessing potential air quality impacts and preparing the air quality section of environmental documents. These Guidelines are also intended to help these entities anticipate areas of concern from the MBARD in its role as a lead, commenting, and/or responsible agency for air quality.

Source: (10)

Analysis Method

CalEEMod is a statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and greenhouse gas (GHG) emissions associated with both construction and operations from a variety of land use projects. The model quantifies direct emissions from construction and operations (including vehicle use), as well as indirect emissions, such as GHG emissions from energy use, solid waste disposal, vegetation planting and/or removal, and water use. The model incorporates Pavley standards and Low Carbon Fuel standards into the mobile source emission factors. Further, the model identifies Mitigation Measures to reduce criteria pollutant and GHG emissions along with calculating the benefits achieved from measures chosen by the user. The GHG Mitigation Measures were recently developed and adopted by the California Air Pollution Control Officers Association (CAPCOA).

CalEEMod Version 2016.3.2 was used to analyze the potential emissions resulting from project operation and construction. CalEEMod is designed to estimate air emissions from land use development projects.

Project Impacts

a) Conflict with or obstruct implementation of the applicable air quality plan?

In accordance with the California Clean Air Act, MBARD has developed the *2017 Air Quality Management Plan for the Monterey Bay Region (2017 AQMP)*. The 2012-2015 AQMP is a transitional plan shifting focus of MBARD's efforts from achieving the 1-hour component of the CAAQS for ozone to achieving the 8-hour requirement CAAQS for ozone. The plan includes an updated air quality trends analysis, which reflects both the 1- and 8-hour standards, as well as an updated emission inventory, which includes the latest information on stationary, area and mobile emission sources.

In April 2013, MBARD adopted the *2012 Triennial Plan Revision (2012 AQMP Revision)*, which assesses and updates elements of the 2008 AQMP, including the air quality trends analysis, emission inventory, and mobile source programs. The 2012 AQMP Revision only addresses attainment of the State ozone standard. In 2012, U.S. EPA designated the NCCAB as in attainment of the current 8-hour NAAQS for ozone of 0.075 ppm.²

The following MBARD rules would limit emissions of air pollutants from construction and operation of the proposed project:

- *Rule 400 (Visible Emissions)* – Discharge of visible air pollutant emissions into the atmosphere from any emission source for a period or periods aggregating more than 3 minutes in any 1 hour, as observed using an appropriate test method, is prohibited.
- *Rule 402 (Nuisances)* - No person shall discharge from any source whatsoever such quantities of air contaminants or other materials which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public; or which endanger the comfort, repose, health, or safety of any such persons or the public; or which cause, or have a natural tendency to cause, injury or damage to business or property.
- *Rule 425 (Use of Cutback Asphalt)* – The use of cutback asphalt (asphalt cement that has been blended with petroleum solvents) is restricted.
- *Rule 426 (Architectural Coatings)* – This rule limits the emissions of ROG's from the use of architectural coatings.

The Project anticipates a population of up to 844 persons. The *Regional Housing Needs Allocation Plan: 2014-2023* prepared by the Association of Monterey Bay Area Governments (AMBAG) the City of Greenfield anticipates population growth of 40% between 2010-2025. As of the 2010 Census, the population of Greenfield was 16,330 and is expected to be 22,862 in 2025, an increase of 6,532 persons.

² On October 1, 2015, U.S. EPA adopted a new 8-hour ozone standard of 0.070 ppm. However, U.S. EPA has not yet reviewed recent NCCAB emissions to determine attainment with the current 0.070 ppm standard. Therefore, this attainment status is based upon U.S. EPA's prior 0.075 ppm standard.

At a population of up to 844 persons, the project will not exceed AMBAG population forecasts for the jurisdiction and would be consistent with the MBARD Air Quality Plan.

The MBARD’s 2008 CEQA Air Quality Guidelines provides criteria for determining cumulative impacts and consistency. The CEQA Air Quality Guidelines note that a project which is inconsistent with an Air Quality Plan would have a significant cumulative impact on regional air quality. As noted above, the project is consistent. In addition, the proposed project’s construction and operation emissions would not exceed MBARD thresholds as noted below. The NCCAB is currently in non-attainment for State ozone and PM₁₀ standards which represents an existing cumulatively significant impact within the NCCAB. Ozone precursors include reactive organic gases (ROG) and NO_x. The project would not exceed quantitative thresholds for either of these ozone precursors. Similarly, PM₁₀ thresholds also would not be exceeded for construction or operation of the project. Therefore, the project would not make a considerable contribution to this existing, cumulatively significant impact. This is a less than significant impact.

Source: (11) (12)

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?

Project Operations

CalEEMod 2016.3.2 was used to model emissions and greenhouse gases for the project for both operational and construction-related emissions. The results of operational emissions are shown in the table below with their corresponding Threshold of Significance.

Table 4 Operational Emissions

Pollutant	Daily Emissions	Threshold of Significance	Significant?
VOC	8.28	137 lbs/day	No
NO _x	16.23	137 lbs/day	No
PM ₁₀	7.4	82 lbs/day (on-site)	No
CO	43.33	550 lbs/day (direct)	No
SO ₂	0.10	150 lbs/day (direct)	No

Impacts are *Less than Significant*.

Source: (10) (12) (Appendix A)

Construction Activity

The table below shows calculated PM₁₀ dust emissions during construction with the corresponding Threshold of Significance.

Table 5 Construction Emissions

Pollutant	Daily Emissions	Threshold of Significance	Significant?
PM ₁₀	2.13	82 lbs/day	No

There are no significant impacts identified; however, the project is subject to implementation of policies that address air quality and construction best practices.

Impacts are *Less than Significant with Mitigation Incorporated*.

Source: (10) (12) (Appendix A)

Mitigation Measures:

The project would reduce construction and operational air emissions consistent with Monterey Bay Air Resources District guidelines by implementing the following measures:

- AQ1. The developer shall comply with all applicable control measures adopted by the air district for achieving reduction in district-wide emissions. The measures shall be included in contractor work specifications and improvement plans for all individual projects. Improvement plans shall be subject to review of the City Public Works Department for this purpose prior to approval of the plans.
- AQ2. Prior to the start of construction, the project contractor shall prepare a construction dust mitigation plan. The plan shall specify the methods of dust control that will be utilized, demonstrate the availability of needed equipment and personnel, use reclaimed water for dust control, and identify a responsible individual who, if needed, can authorize implementation of additional measures. The construction dust mitigation plan shall, at a minimum, include the following measures:
- a. Limit grading activity to a maximum of 2.2 acres daily. As more detailed construction information becomes available, emissions from grading activities could be reassessed to determine if the area of grading could be increased. Such an assessment would be completed using appropriate assumptions and mitigation measures.
 - b. Water all active construction areas at least twice daily and more often during windy periods. Active construction areas adjacent to existing businesses should be kept damp at all times. If necessary, during windy periods, watering is to occur on all days of the week regardless of on-site activities.
 - c. Cover soil or maintain at least two feet of freeboard on all hauling trucks.
 - d. Pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas at construction sites.
 - e. Sweep daily all on-site paved access roads, parking areas, and staging areas at construction sites.
 - f. Sweep adjacent off-site streets daily if visible soil material is deposited onto the roads.
 - g. Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (previously graded areas inactive for ten days or more).
 - h. Enclose, cover, water twice daily or apply (non-toxic) soil binders to exposed stockpiles.
 - i. Limit traffic speeds on unpaved roads to 15 miles per hour.
 - j. Replant vegetation in disturbed areas as quickly as possible.

- k. Suspend excavation and grading activity if visible dust clouds cannot be contained within the construction site.

AQ3. The developer shall reduce Nitrogen Oxide (NO_x) exhaust and particulate matter emissions by implementing one of the following measures prior to the start of construction:

- a. Provide a plan, acceptable by the Air District, demonstrating that the heavy-duty (> 50 horsepower) off-road vehicles and equipment to be used in the construction project, including owned, leased and subcontractor vehicles, will achieve a project wide fleet-average 20 percent NO_x reduction and 45 percent particulate reduction compared to the most recent California Air Resources Board fleet average for the time of construction; or
- b. Provide a plan, acceptable by the Air District, that all off-road construction vehicles/equipment greater than 50 horsepower that will be used on site for more than one week shall: 1) be manufactured during or after 1996, 2) shall meet the NO_x emissions standard of 6.9 grams per brake horsepower hour, and 3) shall be equipped with diesel particulate matter filters.

AQ4. The developer shall reduce Nitrogen Oxide (NO_x) exhaust and particulate matter emissions by implementing the following measures prior to the start of construction:

- a. Contractors shall install temporary electrical service whenever possible to avoid the need for independently-powered equipment (e.g. compressors).
- b. Signs at the construction site shall be clearly visible to advise that that diesel equipment standing idle for more than five minutes shall be turned off. This would include trucks waiting to deliver or receive soil, aggregate, or other bulk materials. Rotating drum concrete trucks may keep their engines running continuously if on-site and staged away from residential areas.
- c. Properly tune and maintain equipment for low emissions.
- d. Stage large diesel-powered equipment at least 200 feet from any active land uses (e.g., residences).

c) *Expose sensitive receptors to substantial pollutant concentrations?*

There are no freeways or stationary permitted sources of emissions within 1,000 feet of the Project site that could adversely affect residents. Based on the projected traffic volumes, there are also no carbon monoxide hot spots near the site that warrant additional analysis.

There is no impact in this regard.

Source: (4) (13) (14)

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

The project is residential in nature and therefore does not involve any operations which would cause odors to emit from the site.

There is no impact in this regard.

Source: (4) (Appendix A)

3.4 Biological Resources

Issues	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
IV. Biological Resources. Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?		X		
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 Wildlife or U.S. Fish and Wildlife Service?				X
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?				X
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?			X	
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				X
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other				X

approved local, regional, or state habitat conservation plan?				
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- 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 Wildlife or U.S. Fish and Wildlife Service?*

Biological Constraints Analysis

EMC Planning Group conducted a biological constraints analysis for the project in June 2019. The purpose was to assess potential project impacts resulting from constructing and operating the project.

The report includes a discussion of existing plant and wildlife habitats observed, and the potential for special-status biological resources to occur on the site. It also provides recommendations for avoiding and/or minimizing impacts to special-status biological resources that otherwise could require discretionary permit oversight from regulatory resource agencies such as the California Department of Fish and Wildlife (CDFW), U.S. Fish and Wildlife Service (USFWS), Army Corps of Engineers (USACE), and Regional Water Quality Control Board (RWQCB). Please see **Appendix B** for the full report and additional details.

Existing Conditions

The approximately 11-acre site consists of a fallow agricultural field positioned on the Greenfield U.S. Geological Survey (USGS) 7.5-minute quadrangle map; elevation on the site is approximately 270 feet. The field is bordered to the west and north by agricultural fields, and to the east and south by residential development and Cesar Chavez Elementary School. The disturbed field contains non-native ruderal (weedy) plants, including common knotweed (*Polygonum aviculare ssp. depressum*), hedge mustard (*Sisymbrium officinale*), shortpod mustard (*Hirschfeldia incana*), lamb's quarters (*Chenopodium album*), red-stemmed filaree (*Erodium cicutarium*), cheeseweed (*Malva parviflora*), barley (*Hordeum murinum*), and slender wild oat (*Avena barbata*). Non-native grassland patches and a row of non-native ornamental Australian pine trees (*Casuarina equisetifolia*) are located adjacent to the southwestern edges of the site.

Wildlife habitat quality on the project site is low due to the level of disturbance from past agricultural activities and mechanical disking. Common wildlife species expected to occur on the site include raccoon (*Procyon lotor*), striped skunk (*Mephitis mephitis*), Virginia opossum (*Didelphis virginiana*), and California ground squirrel (*Spermophilus beecheyi*). Common species of small rodents including mice (*Mus musculus*, *Reithrodontomys megalotis*, and *Peromyscus maniculatus*) and California vole (*Microtus californicus*) may also occur, though few burrows were noted on the site. No wetlands or other drainage features are present.

Potential Impacts to Special-Status Species

Most special-status plant and wildlife species known to occur in the region are not expected to occur on the project site due to lack of suitable habitat, including but certainly not limited to the following species of regional concern:

- San Joaquin kit fox (*Vulpes macrotis mutica*) is a state-listed Threatened and federally listed Endangered species; its current range extends from the southern end of the San Joaquin Valley, north to Tulare County, and along the interior Coast Range valleys and foothills to central Contra Costa County. San Joaquin kit foxes typically inhabit annual grasslands or grassy open spaces with scattered shrubby vegetation but can occasionally be found in agricultural habitats and urban areas. The project site biological survey found no indication of the possible presence of this species, and no medium or large burrows were present. The site is located adjacent to dense residential development with frequent barking of multiple domestic dogs. Regular disking/mechanical disturbance of the site and surrounding agricultural properties has diminished habitat suitability for the kit fox in the Greenfield area. The nearest observation of this species was documented about two miles northeast of the project site in 1975, and all other records from the region also are dated 1975. This species is not expected to occur on the site; no project impacts to this species are anticipated.
- The high level of site disturbance (regular mechanical ground disking) makes it unsuitable to support California Species of Special Concern American badger (*Taxidea taxus*) or San Joaquin coachwhip (*Masticophis flagellum ruddocki*); no project impacts to these species are anticipated.
- The site lacks trees or buildings that could provide roosting habitat for California Species of Special Concern pallid bat (*Antrozous pallidus*) or Townsend's bigeared bat (*Corynorhinus townsendii*); no project impacts to these species are anticipated.

The proposed project does have potential to impact certain special-status avian species (burrowing owl and nesting birds) with potential to occur on or adjacent to the site. Potential impacts would be reduced to a less-than-significant level by incorporating the mitigation measures recommended below.

Burrowing owl (*Athene cunicularia*) is a California Species of Special Concern with low potential to occur on and adjacent to the project site. Burrowing owls live and breed in burrows in the ground. Optimal habitat conditions include large, open, dry, and nearly level grasslands or prairies with short to moderate vegetation height and cover, areas of bare ground, and populations of burrowing mammals. This species occurs in open, dry grasslands, deserts, and shrub-lands with low-growing vegetation; it usually occupies natural burrows excavated by other fossorial species such as California ground squirrel. In open habitats, they prefer flat, open areas where the vegetation is relatively short, affording a vantage point from which to evade potential predators. Marginally suitable habitat for this species is present in open fields on and adjacent to the project site. If individuals are present on or adjacent to the site, construction activities could result in indirect disturbance or direct loss (mortality) of individual animals. Implementation of the following mitigation measure will reduce these potential impacts to a *less-than-significant* level.

Conclusion

With implementation of the mitigation measures below to avoid/minimize potential project impacts to burrowing owl and nesting birds, impacts are *less than significant*. No other special-status species are expected to occur on the project site.

Less than Significant with Mitigation Incorporated

Mitigation Measures:

- BR1. To avoid/minimize potential impacts to burrowing owl, the developer will retain a qualified biologist to conduct a two-visit (i.e. morning and evening) presence/absence survey at areas of suitable habitat on and adjacent to the project site no less than 14 days prior to the start of construction. Surveys shall be conducted according to methods described in the CDFW 2012 Staff Report on Burrowing Owl Mitigation. If these pre-construction “take avoidance” surveys performed during the breeding season (February through August) or the non-breeding season (September through January) for the species locate occupied burrows in or near the construction area, then consultation with the CDFW would be required to interpret survey results and develop a project-specific avoidance and minimization approach.
- BR2. To avoid impacts to nesting birds during the nesting season (January 15 through September 15), to the extent feasible, construction activities that include any vegetation removal or ground disturbance (such as grading or grubbing) shall be conducted between September 16 and January 14, which is outside of the bird nesting season. If construction activities commence during the bird nesting season, then a qualified biologist shall conduct a preconstruction survey for nesting birds to ensure that no nests would be disturbed during project construction.
- BR3. If construction activities are scheduled during the nesting season (February 15 to August 30 for small bird species such as passerines; January 15 to September 15 for owls; and February 15 to September 15 for other raptors), a qualified biologist shall conduct nesting bird surveys. Two surveys for active nests of such birds shall occur within 10 days prior to start of construction, with the second survey conducted with 48 hours prior to start of construction. Appropriate minimum survey radius surrounding the work area is typically 250 feet for passerines, 500 feet for smaller raptors, and 1,000 feet for larger raptors. Surveys shall be conducted at the appropriate times of day to observe nesting activities.
- BR4. If the qualified biologist documents active nests within the project site or in nearby surrounding areas, an appropriate buffer between each nest and active construction shall be established. The buffer shall be clearly marked and maintained until the young have fledged and are foraging independently. Prior to construction, the qualified biologist shall conduct baseline monitoring of each nest to characterize “normal” bird behavior and establish a buffer distance, which allows the birds to exhibit normal behavior. The qualified biologist shall monitor the nesting birds daily during construction activities and increase the buffer if birds show signs of unusual or distressed behavior (e.g. defensive flights and vocalizations, standing up from a brooding position, and/or flying away from the nest). If buffer establishment is not possible, the qualified biologist or construction foreman shall have the authority to cease all construction work in the area until the young have fledged and the nest is no longer active. This measure shall be implemented by the developer prior to start of construction activities.

Source: (15) (Appendix B)

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 Wildlife or U.S. Fish and Wildlife Service?*

The site does not contain riparian habitats or other sensitive natural communities. There is no impact in this regard.

Source: (15) (Appendix B)

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?*

The site does not contain riparian habitats or wetlands/waterways.

As shown in **Figure 15**, the site does not contain any wetlands listed on the National Wetlands Inventory.



Figure 15: Wetlands

There is no impact in this regard.

Source: (15) (16) (Appendix B)

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?

The site may allow limited movement opportunities for common, urban-adapted wildlife species to access neighboring fields; however, the field is already bordered by dense development to the east and south, so the proposed development project would have a less-than-significant impact on wildlife movement.

Impacts are *Less than Significant*.

Source: (15) (Appendix B)

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

The site does not contain City-regulated trees or other biological resources. The proposed project therefore would not impact these types of biological resources.

There is no impact in this regard.

Source: (15) (Appendix B)

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

The site does not contain riparian habitats or other sensitive natural communities; wetlands/waterways; native wildlife nursery sites; City-regulated trees or other biological resources; or areas addressed by a habitat conservation plan. The proposed project therefore would not impact these types of biological resources.

There is no impact in this regard.

Source: (15) (Appendix B)

3.5 Cultural Resources

Issues	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
V. Cultural Resources. Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?			X	
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?		X		
c) Disturb any human remains, including those interred outside of dedicated cemeteries?		X		

Material Culture Consulting prepared a *Cultural and Paleontological Assessment: Greenfield Commons Residential Project City of Greenfield, Monterey County, California* in July 2019. Please see this full report in **Appendix C** to this Initial Study for more detailed information.

Prehistoric Context

The Project is located in what is known as the Central Coast region. This region is defined as the area south of San Francisco that stretches towards the Southern California Bight and includes the counties of Santa Clara, San Benito, Santa Cruz, Monterey, and San Luis Obispo. Portions of Kings, Merced, and Fresno counties are also included within this region. Archaeological studies located within the Central Coast date back to the late 1940s, with most archaeological work in the region focusing along or near the coast (City of Greenfield 2005). However, regional chronologies for the area continue to evolve and have resulted in the development of six temporal periods that serve as a general chronological framework for integrating general cultural patterns within Monterey Bay and the Central Coast region in proximity to it (Jones et al. 2007). These temporal periods include: Paleoindian (pre-8,000 cal B.C.), Millingstone/Early Archaic (8,000 to 3,500 cal B.C.), Early Hunting (3,500 to 600 cal B.C.), Middle Hunting (600 cal B.C. to cal A.D. 1000), Middle/Late Transition Hunting (cal A.D. 1000 to 1250), and Late (cal A.D. 1250 to 1769).

Historic Context

The Historic Period in California begins in the early-sixteenth century with the start of European contact. In 1521, Spain sent explorer and conquistador Hernan Cortes and his army into what is now Mexico to conquer the indigenous Aztecs and capture the wealth of the land and its people. “New Spain,” as the region soon became known, quickly became the hub of Spanish colonial efforts in the New World. Cortes, hopeful of finding comparable wealth in the northern Pacific, authorized the first explorations, and in

1535, founded the first nonnative settlement in Baja (or Lower) California. Inspired by Cortes' success in the New World and hoping to find a waterway from the Pacific to the Atlantic, the Spanish dispatched Juan Rodriguez Cabrillo in 1542 to explore the northwest coast of New Spain. It is believed that Cabrillo sailed as far north as the Oregon border, and that he became the first European to see what was then termed "Alta (or Upper) California".³

This "Spanish Period" was followed by the Mexican Period (1821-1848) and the American Period (to present day). By the 20th century, the Salinas Valley, including Greenfield, saw an influx of Anglo-American expansion and farmsteads. Greenfield began originally as Clark Colony in April of 1905, created by a subdivision of 4,000 acres of valley bottomland by the California Home Extension Associations, which was a branch of Rancho Arroyo Seco (City of Greenfield 2019). Around the same time, the Clark Colony Water Company was formed and became in charge of water distribution to the subdivision and surrounding area. Once this water irrigation system was in place, immigration into the area began in earnest. The Clark Colony settlers then constructed the largest irrigation and domestic water supply system in the Salinas Valley (City of Greenfield 2019). Presently, the Clark Colony Water Company still holds 1916 Prior Rights guaranteeing delivery to its members a certain amount of water from the Arroyo Seco River before any other agencies' use of the river water (City of Greenfield 2019). Clark Colony evolved into Clark City and was eventually renamed Greenfield after being informed by the United States Postal Service that there were too many "Clark Cities" in California. The name Greenfield was picked to honor a long-time settler of the area, Mr. Greenfield, who was instrumental in the formation of the City and was active in public affairs of the City and its service clubs such as the Grange Organization (City of Greenfield 2019). Greenfield was incorporated on January 7, 1947.

Source: (17) (Appendix C)

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

The Phase I cultural resource assessment found no evidence of historic resources on the project site. The assessment did note that there is an historic-era residential property just south of the proposed project. This property will not be impacted by the project as currently proposed. Impacts are considered *less than significant*.

Source: (17)

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

The Phase I cultural resource assessment of the Project Area included a records search of the California Historical Resources Information System (CHRIS), Native American Heritage Commission (NAHC) outreach, background research, and a field pedestrian survey. The records search results show no cultural

³ For additional Historic Context, see Appendix C.

resources within the Project Area and one resource, P-27-002322/Highway 101, located within less of 1/2 mile of the Project Area. The entirety of the Project Area has undergone intensive disturbance with the activities associated with agriculture farming and modern development. Based on these findings, the Project Area is considered to have low potential for encountering significant cultural resources.

However, as the potential exists that buried cultural resources could be discovered during construction (inadvertent discoveries), mitigation measures are proposed to protect any resources that may be present. Impacts are *less than significant with mitigation*.

Source: (17)

Mitigation Measures:

CR1. Any prehistoric or historic-period material is unexpectedly encountered by equipment operators during ground-disturbing activities, or other individuals working within the Project area, that work be halted within 50 feet of the discovery area until a Secretary of Interior-qualified archaeologist (and tribal representative if the resources is tribal in nature) is retained to inspect the deposit and provide further recommendations for evaluation and proper treatment of the resource.

Historic-period resources potentially include all byproducts of human land use greater than 50 years of age, including alignments of stone or brick, foundation elements from previous structures, minor earthworks, brick features, surface scatters of farming or domestic type material, and subsurface deposits of domestic type material (e.g., glass, ceramic, metal, etc.).

Prehistoric-period artifacts that are typically found associated with prehistoric sites in the area include humanly modified stone, shell, bone or other materials such as charcoal, ash and burned rock that can be indicative of food procurement or processing activities. Prehistoric domestic features include hearths, fire pits, house floor depressions and mortuary features consisting of human skeletal remains.

CR2. Procedures of conduct following the discovery of human remains on non-federal lands have been mandated by California Health and Safety Code §7050.5, PRC §5097.98 and the California Code of Regulations (CCR) §15064.5(e). According to the provisions in CEQA, should human remains be encountered, all work in the immediate vicinity of the burial must cease, and any necessary steps to ensure the integrity of the immediate area must be taken. The Monterey County Coroner will be immediately notified. The Coroner must then determine whether the remains are Native American. If the Coroner determines the remains are Native American, the Coroner has 24 hours to notify the NAHC, who will, in turn, notify the person they identify as the most likely descendent (MLD) of any human remains. Further actions will be determined, in part, by the desires of the MLD. The MLD has 48 hours to make recommendations regarding the disposition of the remains following notification from the NAHC of the discovery. If the MLD does not make recommendations within 48 hours, the owner shall, with appropriate dignity, reinter the remains in an area of the property secure from further disturbance. Alternatively, if the owner does not accept the MLD's recommendations, the owner or the descendent may request mediation by the NAHC.

Source: (18)

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

There are no known human remains at the site and it is not anticipated that human remains will be found during construction. However, mitigation will be required during project ground-disturbing activities. Please see section b) above and associated mitigation measures CR-1 and CR-2. See also section 4.19, Tribal Cultural Resources for further information.

Impacts are *less than significant with mitigation*.

Source: (4) (17) (Appendix C)

Mitigation measures CR-1 and CR-2 (discussed above) would be applied.

3.6 Energy

Issues	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
VI. Energy. Would the project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?			X	
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?				X

Existing Setting

Pacific Gas and Electric Company (PG&E) is the City's energy utility provider, furnishing both natural gas and electricity for residential, commercial, industrial, and municipal uses. PG&E generates or buys electricity from hydroelectric, nuclear, renewable, natural gas, and coal facilities. In 2018, natural gas facilities provided 15 percent of PG&E's electricity delivered to retail customers; nuclear plants provided 34 percent; hydroelectric operations provided 13 percent; renewable energy facilities including solar, geothermal, and biomass provided 39 percent.⁴

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

Construction

The energy consumption associated with construction of the proposed project includes primarily diesel fuel consumption from on-road hauling trips and off-road construction diesel equipment, and gasoline consumption from on-road worker commute and vendor trips. Temporary electric power for as-necessary lighting and electronic equipment (such as computers inside temporary construction trailers, and heating, ventilation, and air conditioning) would be powered by a generator. The amount of electricity used during construction would be minimal; typical demand would stem from the use of electrically powered hand tools and several construction trailers by managerial staff during the hours of

⁴ Pacific Gas and Electric, Exploring Clean Energy Solutions, https://www.pge.com/en_US/about-pge/environment/what-we-are-doing/clean-energy-solutions/clean-energy-solutions.page?WT.mc_id=Vanity_cleanenergy, accessed October 13, 2020.

construction activities. The majority of the energy used during construction would be from petroleum. This analysis relies on the construction equipment list and operational characteristics, as stated in the Air Quality and Greenhouse Gas Emissions sections herein, as well as, **Appendix A** of this Initial Study. **Table 6** quantifies the construction energy consumption are provided for the proposed project, followed by an analysis of impacts based on those quantifications.

Table 6 Project Energy Consumption During Construction

Source	Project Construction Usage	Monterey County Annual Energy Consumption	Percentage Increase Countywide
Electricity Use	Megawatt Hours (MWh)		
Water Use ¹	32	2,471	0.001%
Diesel Use	Gallons		
On-Road Construction Trips ²	4,433	30,602,838	0.015%
Off-Road Construction Equipment ³	29,261		0.096%
Construction Diesel Total	33,695		0.110%
Gasoline	Gallons		
On-Road Construction Trips ²	17,082	173,248,792	0.010%

1. Construction water use based on acres disturbed per day per construction sequencing and estimated water use per acre.

2. On-road mobile source fuel use based on vehicle miles traveled (VMT) from CalEEMod and fleet-average fuel consumption in gallons per mile from EMFAC2017 in Monterey County.

3. Off-road mobile source fuel usage based on a fuel usage rate of 0.05 gallons of diesel per horsepower (hp)-hour from USEPA.

Abbreviations:

CalEEMod: California Emission Estimation Model; EMFAC: Emission Factor Model 2017

Sources: **Appendix J**: Energy Calculations

In total, construction of the proposed project would consume approximately 33,695 gallons of diesel and 17,082 gallons of gasoline. The proposed project's fuel from the entire construction period would increase fuel use in the County by approximately 0.11 percent for diesel and 0.01 percent for gasoline.

There are no unusual project characteristics that would necessitate the use of construction equipment that would be less energy-efficient than at comparable construction sites in the region or state. In addition, some incidental energy conservation would occur during construction through compliance with State requirements that equipment not in use for more than five minutes be turned off. Project construction equipment would also be required to comply with the latest EPA and CARB engine emissions

standards. These engines use highly efficient combustion engines to minimize unnecessary fuel consumption.

The CEQA Guideline Appendix G and Appendix F criteria requires the proposed project’s effects on local and regional energy supplies and on the requirements for additional capacity to be addressed. A 0.11 percent increase in construction fuel demand is not anticipated to trigger the need for additional capacity. Fuel consumption is based on a conservative construction phasing and conservative estimates for annual construction fuel consumption. Longer phases would result in lower construction intensity and a lower annual fuel consumption, resulting in lower annual demand on energy supplies. Additionally, use of construction fuel would cease once the proposed project is fully developed. As such, project construction would have a nominal effect on the local and regional energy supplies. Therefore, it is expected that construction fuel consumption associated with the proposed project would not be inefficient, wasteful, or unnecessary. The proposed project would not substantially affect existing energy or fuel supplies, or resources and new capacity would not be required. Impacts would be less than significant in this regard.

Operational

The energy consumption would include building electricity, water, and natural gas usage, as well as fuel usage from on-road vehicles. Note that this energy resources analysis is consistent with the analysis presented in the Air Quality and Greenhouse Gas Emissions sections herein. Quantifications of operational energy consumption are provided for the project in **Table 7** below.

Table 7 Annual Energy Consumption during Operations

Source	Project Operational Usage	Monterey County Annual Energy Consumption	Percentage Increase Countywide
Electricity Use	Megawatt Hour/Year (MWh/year)		
Area ¹	0 ²	2,470,652	0.00%
Natural Gas Use	Therms/year		
Area ¹	0 ²	114,999,082	0.00%
Diesel Use	Gallons/Year		
Mobile ³	40,450	30,602,838	0.13%
Gasoline Use	Gallons/Year		
Mobile ³	223,171	173,248,792	0.13%

Notes:

1. The electricity and natural gas usage are based on project-specific estimates and CalEEMod defaults.

2. The project will incorporate 100% renewable energy at the site using solar voltaic panel electrical generation to meet a Zero Net Energy project. The project will use 100% electric power and zero natural gas.

3. Calculated based on the mobile source fuel use based on vehicle miles traveled (VMT) and fleet-average fuel consumption (in gallons per mile) from EMFAC2017.

Abbreviations: CalEEMod: California Emission Estimation Model; EMFAC2017: California Air Resources Board Emission Factor Model

Operation of uses implemented pursuant to the proposed project would annually consume approximately 0 therms of natural gas, 40,450 gallons of diesel, and 223,171 gallons of gasoline.

Pacific Gas and Electric (PG&E) provides electricity to the proposed project area. Electricity is currently used by the existing residences on the proposed project site. The proposed project site is expected to continue to be served by the existing PG&E electrical facilities. Total electricity demand in PG&E's service area is forecast to increase by approximately 12,000 GWh—or 12 billion kWh—between 2016 and 2028. The proposed project's anticipated electricity demand (0 MWh) would be nominal compared to overall demand in PG&E's service area. The project includes solar voltaic panel electrical generation to meet a Zero Net Energy Consumer project. Additionally, the project will use 100 percent electric power and no natural gas. The project will seek LEED Gold Certification. Therefore, the projected electrical demand would not impact PG&E's level of service.

Regarding natural gas, Monterey County consumed 115,000,000 therms of natural gas in 2019. The project would not require natural gas and therefore operational energy consumption for space and water heating would represent 0 percent of the natural gas consumption in the County.

In 2018, Californians consumed approximately 15,589,042,965 gallons of gasoline and approximately 3,107,823,655 gallons of diesel fuel. Monterey County annual gasoline fuel use in 2019 was 173,248,792 gallons, and diesel fuel use was 30,602,838 gallons. Expected project operational use of gasoline and diesel would represent 0.13 percent of current gasoline use and 0.13 percent of current diesel use in the County.

It should also be noted that the proposed project design and materials would comply with the 2019 Building Energy Efficiency Standards, which take effect on January 1, 2020, and/or future 2019 Building Energy Efficiency Standards depending on when construction permits are issued. Prior to issuance of a building permit, the City of Greenfield would review and verify that the proposed project plans demonstrate compliance with the current version of the Building and Energy Efficiency Standards. Title 24 standards require energy conservation features in new construction (e.g., high-efficiency lighting, high-efficiency heating, ventilating, and air-conditioning (HVAC) systems, thermal insulation, double-glazed windows, water conserving plumbing fixtures).

Although the proposed project does not include on-site renewable energy resources, the proposed building would conform to the City's Green Building Measures. Additionally, the proposed project would also be required adhere to the provisions of CALGreen, which establishes planning and design standards for sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and internal air contaminants. The insulation and design code requirements would minimize wasteful energy consumption.

None of the project energy uses exceed one percent of Monterey County use. Therefore, project operations would not substantially affect existing energy or fuel supplies or resources. The proposed project would comply with applicable energy standards and new capacity would not be required. Impacts would be less than significant.

Impacts are *Less than Significant*.

Source: (4)

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

As stated above, the project would be required to be built to renewable energy and energy efficiency standards such as the California Public Utilities Commission (CPUC) Energy Efficiency Strategic Plan, California Building Energy Efficiency Standards (Title 24), and CALGreen. The proposed project would be required to comply with existing regulations, including applicable measures from the City's General Plan, or would be directly affected by the outcomes (vehicle trips and energy consumption would be less carbon intensive due to statewide compliance with future low carbon fuel standard amendments and increasingly stringent Renewable Portfolio Standards). As such, the proposed project would not conflict with any other state-level regulations pertaining to energy. The 2019 Title 24 standards are more than 30 percent more efficient than previous standards for residential development. Additionally, the 2019 Title 24 standards will promote photovoltaic systems in newly constructed residential buildings, which will use about 53 percent less energy than residential buildings constructed under the 2019 standards. Adherence to the CPUC's energy requirements would ensure conformance with the state's goal of promoting energy and lighting efficiency. The proposed infill project would reduce single-occupancy traffic trips and include green design measures to promote energy efficiency. Additionally, the project would include solar voltaic energy to offset electricity use. The project would also seek LEED Gold certification. Therefore, the project would comply with existing State energy standards and would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency, and impacts would be less than significant.

Source: (4)

3.7 Geology and Soils

Issues	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
VII. Geology and Soils. Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: <ul style="list-style-type: none"> 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 			X	
ii) Strong seismic ground shaking?			X	
iii) Seismic-related ground failure, including liquefaction?			X	
iv) Landslides?				X
b) Result in substantial soil erosion or the loss of topsoil?			X	
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?		X		
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?				X
e) Have soils incapable of adequately supporting the use of septic tanks or				X

alternative waste water disposal systems where sewers are not available for the disposal of waste water?				
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?			x	

Geologic Setting

The project site is located in the southeast-central portion of the Salinas Valley, and is situated between the Gabilan Range to the northeast and the Sierra De Salinas Hills to the southwest. The Salinas Valley is narrow valley located within the Coast Ranges Geomorphic Province. The province includes many separate mountain ranges and several major structural valleys. A peculiar distinction to this province is the presence of two entirely different core complexes, one being a disordered Jurassic-Cretaceous sequence of volcanic, metamorphic, and deep marine elastic sedimentary rocks commonly known as the Franciscan assemblage. The other core complex consists of Early Cretaceous granitic intrusives and older metamorphic rocks. The two unrelated core complexes lie side by side, separated from each other by faults. A thick blanket of Late Cretaceous and Cenozoic (less than 100 million years old) elastic sedimentary rocks covers large parts of the province. Surface and near surface deposits in the Greenfield area consist of Quaternary alluvium consisting of unconsolidated cobbles, gravels, sands, and silts derived from erosion the surrounding mountain ranges and hills and deposited by the Salinas River from the northeast and the Arroyo Seco River originating from the southwest.

Seismic Setting

The City of Greenfield is located within the Central Salinas Valley, which is bordered on the east by the San Andreas Fault. Because of the likelihood of an earthquake along its length, the San Andreas has been classified as an “active” fault as per the Alquist-Priolo Special Studies Zones Act of 1972. Many faults not classified as “active” by the Alquist-Priolo Act are still considered by geologists to be active and capable of inflicting severe loss of life and property.

The closest potentially active fault to the City of Greenfield is the Reliz/Rinconada fault. No known historical earthquakes have occurred on this fault; however, evidence exists of late Quaternary activity. A maximum expected magnitude earthquake of 7.3 on the Richter scale has been attributed to this fault. Historical data regarding seismically induced ground failures in northern California (Youd and Hoose, 1978) shows no recorded ground failures within the City of Greenfield.

Paleontological Setting

The project area is situated in the Salinas Valley, which lies within the central Coast Ranges geomorphic province. This area is dominated by active tectonic plates, with regional tectonic forces generating an estimated relative motion between the North American and Pacific plates by approximately 2 inches per year. The Salinas Valley consists primarily of consolidated Quaternary deposits, which have been derived from the Salinas River, its tributaries, basin and tidal flat sediments, and eolian or dune sediments. Underlying these Quaternary sediments is a layer of mostly marine Pliocene to Pleistocene sediment with basement rock composed of high-grade metamorphic rock and Cretaceous granitic rock. Rapid erosion

and deposition of soil from uplifted mountains of the Galiban and Santa Lucia Ranges have formed the broad alluvial fans of well-drained, nutrient-rich soil, which has made the region valuable agricultural land. The Salinas Valley structural development is difficult to interpret, although the stream produced features are visible, downward folding from the Gabilan and Santa Lucia ranges was important to the development of the area. The entire proposed project area has surficial deposits of younger Quaternary Alluvium, derived as alluvial fan deposits from the Coast Ranges via either the Salinas River that currently flows just to the east or from Reliz Creek that currently flows to the west.

Site Conditions

Presently, the site predominately consists of vacant/fallow agricultural land. The site appears to have been utilized for agricultural purposes historically between 1937 to the mid 2010's, and the northwestern portion of the site appears to have been developed with a rural residence and/or barn-type structure between 1937 and 1960. No surface structures remain on the site.

Soil Profile and Subsurface Conditions

The subsurface conditions encountered appear typical of those found in the geologic region of the site. In general, the upper soils consisted of approximately 6 to 12 inches of very loose silty sand or sandy silt. Some of these soils were intermixed with varying amounts of gravel, cobbles and traces of clay. These soils are disturbed, have low strength characteristics and are highly compressible when saturated.

Below the loose surface soils, approximately 2 to 3 feet of loose to medium dense silty sand, sandy clayey silt or sandy silt with gravel, trace clay and sand were encountered. Field and laboratory tests suggest that these soils are moderately strong and slightly to moderately compressible.

Below approximately 3 to 4 feet, predominately medium dense to very dense silty sand, sandy silt, and gravelly sand or stiff to hard sandy clay were encountered. Field and laboratory tests suggest that these soils are moderately strong and slightly compressible.

Source: (18)

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?***

Moderate to large earthquakes have affected the area of the subject site within historic time. Based on the proximity of several dominant active faults and seismogenic structures, as well as the historic seismic record, the area of the subject site is considered subject to moderate to relatively high seismicity. The Rinconada Fault Zone is the nearest active fault to the site and is located approximately 4.35 miles southwest of the project site. The Pinnacles and San Andreas Faults are located approximately 7.46 miles and 14.29 miles northeast of the site, respectively.

There are no active fault traces in the project vicinity. Accordingly, the project area is not within an Earthquake Fault Zone (Special Studies Zone).

Impacts are *Less than Significant*.

Source: (18) (Appendix D)

iii) Seismic-related ground failure, including liquefaction?

No soils subject to liquefaction have been identified on the project site.

There is no impact in this regard.

Source: (18) (Appendix D)

iv) Landslides?

The site is relatively flat and not subject to landsliding.

There is no impact in this regard.

Source: (18) (19) (Appendix D)

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

The site in its current, undeveloped state is subject to moderate erosion from wind and rain; however, erosion control measures are required during construction to avoid stormwater pollution/siltation. See “Hydrology and Water Quality” section that follows for a discussion of stormwater quality impacts and best practices during construction.

Impacts are *Less than Significant*.

Source: (18) (Appendix D)

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?

In brief, the subject site and soil conditions, with the exception of the loose surface soils and existing development, appear to be conducive to the development of the project. The surface soils have a loose consistency. These soils are disturbed, have low strength characteristics, and are highly compressible when saturated. Accordingly, it is recommended that these surface soils be recompacted. The intent is to stabilize the surface soils and locate any unsuitable or pliant areas not found during field investigation.

Impacts are *Less than significant with Mitigation Incorporated*.

Source: (18) (Appendix D)

Mitigation Measure:

- G1. The applicant shall follow all recommendations in the *Geotechnical Investigation* conducted for the project by Krazan & Associates, Inc. and dated March 14, 2019. Recommendations shall be incorporated into the final improvements plans and approved by the City prior to grading.

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?

No expansive soils have been identified on the site.

There is no impact in this regard.

Source: (18) (Appendix D)

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

Soils on the site are capable of supporting septic tanks; although no new septic systems are proposed for the project. The project will connect to the City's sanitary sewer system.

There is no impact in this regard.

Source: (18) (Appendix D)

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

The geologic unit present within the Project area is identified as younger Quaternary Alluvium, derived as alluvial fan deposits from the Coast Ranges that surround the region. No significant paleontological resources were identified directly within the Project area during the locality search, additional database searches, or the field survey. The locality search did yield fossils within the region that have been recovered in similar sediment deposits. Based on these findings, the probability of encountering paleontological resources within the Project area is low (at surface) to moderate (at depth). Therefore, MCC recommended paleontological monitoring during the course of substantial grading excavations at depths greater than 10 ft below surface, in order to quickly and professionally recover any fossil remains.

Per the project structural engineer, 2,500 pounds per square feet of load is achieved with soils at 2-3 feet below grade that will result in minimum footing widths for a low-rise wood building. There is no structural need to excavate deeper than 2-3 feet. At a depth of 10 feet or greater, very dense soils are encountered which would yield a higher allowable bearing pressure, but the proposed project does not require this.

No excavation will not occur below 10 feet; therefore there is no requirement for onsite monitoring by an archaeologist or paleontologist.

Impacts are *less than significant*.

Source: (4) (18) (Appendix D)

3.8 Greenhouse Gas Emissions

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

Greenhouse Gas Emissions (GHG)

Similar to regulated air pollutants, GHG emissions and global climate change also represent cumulative impacts. GHG emissions contribute, on a cumulative basis, to the significant adverse environmental impacts of global climate change. Climate change impacts may include an increase in extreme heat days, higher concentrations of air pollutants, sea level rise, impacts to water supply and water quality, public health impacts, impacts to ecosystems, impacts to agriculture, and other environmental impacts. No single project could generate enough GHG emissions to noticeably change the global average temperature. The combination of GHG emissions from past, present, and future projects contribute substantially to the phenomenon of global climate change and its associated environmental impacts.

Monterey Bay Air Resources District

The Monterey Bay Air Resources District (MBARD, or air district) has been in the process of developing guidance for evaluation of GHG emissions impacts for several years. In June 2011, the air district proposed interim thresholds of significance for use in the CEQA analysis process. After release of the interim guidance, the air district consulted with various stakeholders regarding the proposed thresholds. To date, the air district has not formally adopted thresholds of significant or other district-specific guidance regarding analysis of GHG impacts as part of the CEQA process. However, air district has been informally recommending that local lead agencies consider using thresholds of significance adopted by the San Luis Obispo Air Pollution Control District (“SLO air district”) as described in its Air Quality Guidelines (San Luis Obispo County Air Pollution Control District 2012), until such time as the air district formally adopts its own thresholds of significance. Information about the SLO district guidelines is provided in the Thresholds of Significance section below.

General Plan/City GHG Reduction Planning

To date, the City has not adopted regulations or standards of significance pertaining to GHGs. Because the General Plan was adopted and the General Plan Environmental Impact Report (EIR) certified before AB 32 was signed into law, neither document contains policies or impact analyses pertaining to climate change or GHGs. However, the General Plan does contain direction that would directly or indirectly result in reduction of mobile source GHGs from motor vehicles, which generally are the primary source of GHGs from new development projects. The City’s key land use design principles include concepts for fostering compact growth, encouraging infill and development intensification, encouraging mixed-use development, ensuring access to and encouraging infrastructure for alternative transportation, and promoting a jobs-to-housing balance would reduce vehicle trip numbers and vehicle trip distances relative to past development practices in the City.

Greenhouse Gases – Thresholds of Significance

For land use development projects, the Thresholds of Significance for operational-related GHG emissions are: compliance with a qualified GHG Reduction Strategy; or annual emissions less than or 4.9 MT CO₂e/service population/year. If annual emissions of operational-related GHGs exceed these levels, the proposed project would result in a cumulatively considerable contribution of GHG emissions and a cumulatively significant impact to global climate change.

a) *Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?*

CalEEMod was used to calculate Greenhouse Gas Emissions. The results are shown in the table below.

Table 8 Greenhouse Gases – Analysis

Mitigated	CO ₂ (Total all sources) (metric TPY)	CH ₄ (metric TPY)	N ₂ O (metric TPY)	CO ₂ e (metric TPY)
Area Source:	2.4258	0.00235	0.00	2.4845
Energy:	361.8731	0.0135	0.00436	363.5113
Mobile:	1,643.6346	0.0898	0.00	1645.8784
Solid Waste:	18.6752	1.1037	0.00	46.2669
Water & Wastewater:	33.0107	0.4259	0.0103	46.7268
Total:	2,059.62	1.64	0.0147	2,104.8679
Population				844
MT CO ₂ e/service population/year				2.49

Mitigated	CO ₂ (Total all sources) (metric TPY)	CH ₄ (metric TPY)	N ₂ O (metric TPY)	CO ₂ e (metric TPY)
Threshold (MT CO ₂ e/service population/year)				4.9
<i>Significance?</i>				<i>No</i>

Greenhouse Gases - Results

The project would incrementally generate greenhouse gas emissions; however, these emissions are below Thresholds of Significance before mitigation, and therefore, would not have a significant impact on the environment.

Impacts are *less than significant*.

Source: (12) (20) (Appendix A)

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

Regarding conflict with an applicable GHG reduction plan, because neither the air district nor city have yet developed a qualified plan for the purpose of reducing GHG emissions, AB 32 serves as the GHG reduction plan that has relevance to the proposed project. In the case of the SLO air district (whose methods are used in this document), since its thresholds were developed based on a goal to reduce emissions within its district consistent with AB 32, if a project's GHG emissions are below either of the quantified thresholds described above, the project would be considered consistent with AB 32.

There is no impact in this regard.

Source: (5)

3.9 Hazards and Hazardous Materials

Issues	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
IX. Hazards and Hazardous Materials. Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?				X
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?			X	
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				X
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code § 65962.5 and, as a result, would it create a significant hazard to the public or the environment?			X	
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?				X
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				X

g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?			X	
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a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

The project is residential development that will not involve the routine transport, use, or disposal of hazardous materials. The project will not involve chemicals, hazardous materials or emit hazardous emissions beyond small amounts of common household products (cleaning supplies, paints, solvents, etc.) used within individual households.

There is no impact in this regard.

Source: (4)

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?

While the project itself will not create a significant hazard to the public involving the release of hazardous materials into the environment, the project is located across Walnut Avenue from actively farmed agricultural lands. The closest farmed lands are Units 6, 7 and 9 of the Borzini Farms and Ranch. These units are approximately 70 feet, 155 feet, and 80 feet from the project site, respectively. The EAH site plan includes an 82-foot agricultural buffer zone along the northern boundary of the project site.

Because of the use of agricultural products (pesticides, herbicides, fungicides) to promote and protect crops within the Borzini Farms and the location of the planned Greenfield Commons residential community, both the Agricultural Commissioner for Monterey County and the City wanted to better understand the potential for drift of the agricultural products used on the Borzini Farms crop areas and exposure to the future residents of the Greenfield Commons.

Upon review of the Greenfield Commons plan and site location relative to the agricultural area as well as active application of agricultural products during the growing seasons, the Monterey County Agricultural Commissioner suggested in a letter dated February 26, 2020 that an agricultural buffer zone distance of 150 feet, as well as installation of a bermed and treed, vegetative screen along Walnut Avenue, would be a sufficient safeguard to reduce agricultural drift of compounds from Borzini Farm spraying applications near the Greenfield Commons area.

A buffer of this width provided design challenges due to the shape of the parcel. So in order to quantify the potential risk of pesticide drift, the City contracted with a consultant to assess the likelihood of agricultural drift of applied compounds to the Borzini Farms areas to impact the Greenfield Commons site as well as the efficacy of the proposed buffer zone and vegetative screening to limit exposure of the future Greenfield Commons residents from the drifting of sprayed chemical compounds from agricultural applications. This analysis, a Health Risk Assessment (HRA), consisted of detailed modeling effort based

on the agricultural products use, how they are applied, and atmospheric conditions. The entire HRA and detailed modeling results are included as **Appendix F** to this Initial Study.

HRA Results

The results of the AgDRIFT (model) assessment suggest that the material being applied by the Borzini Farm based on current practices will not likely reach the Greenfield Commons project site without substantial reduction in sprayed quantity mass, since smaller particles are transported farther distances. Continuation of the existing agricultural practices of the neighboring farm will not likely result in agricultural drift of pesticides or other compounds toward the Greenfield Commons site in significant quantities that may affect exposure. Simulations of the Borzini application amounts in AgDRIFT supports the notion of limited drift of applied material would affect future residents of the planned Greenfield Commons community. These modeling conclusions are also supported by the soil sampling results, which did not detect agricultural operations-related pollutants in onsite soils. Based on current analysis and CARB's current HARP database of constituents, the 82-foot buffer proposed by the applicant appears adequate to protect project residents from drift of agricultural products. Further modeling with AERMOD and HARP2 shows that the excess cancer risk and non-cancer risk from active ingredients current assessed in HARP2 are below CEQA thresholds.

Based on the analysis, pesticide drift and risk to existing and future residents is a *less than significant* impact.

Source: (32)

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

The project is residential development that will not involve the routine transport, use, or disposal of hazardous materials. The project will not involve chemicals, hazardous materials or emit hazardous emissions. While the project is immediately adjacent to an elementary school, the Cesar Chavez Elementary School, the proposed development will not emit hazardous emissions or waste and therefore will have no impact.

There is no impact in this regard.

Source: (4)

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?

A Phase I Environmental Site Assessment was conducted for the property at 41206 Walnut Avenue in Greenfield, California by Krazan & Associates, Inc. in September 2018. Based on the recommendations of the Phase I ESA, a limited geophysical survey and soil sampling analysis was conducted. A summary of the findings of these reports is provided below. The complete reports are included as **Appendix E** to this Initial Study.

Phase I Environmental Site Assessment

Krazan & Associates, Inc., (Krazan) completed a Phase I Environmental Site Assessment at the referenced site summarized in a report dated September 7, 2018. During the course of the assessment, Krazan identified no evidence of recognized environmental conditions (RECs), controlled RECs (CRECs) or historical RECs (HRECs) in conjunction with the subject site as defined by ASTM E 1527-13. However, the following potential areas of concern (PAOCs) and site development issues were identified in connection with the subject site:

PAOCs

- Krazan’s review of historical aerial photographs indicates that a rural residential area was present in the northwestern portion of the subject site from at least 1937 until at least 1960, and a barn-type structure was visible in the northwestern portion of the subject site circa 1937. Additionally, historical aerial photographs of the subject site vicinity taken between 1937 and 2017 suggest that the subject site and the surrounding properties have been associated with agricultural uses throughout most of the 1937 to 2017 time interval. Historical uses of the subject site prior to 1937 were not reasonably ascertainable utilizing the standard historical references consulted during this assessment, and it is therefore unknown how long structures were located on the subject site prior to 1937. Mr. James McNulty, a representative of the owner of the subject site familiar with the subject site for the past 61 years, indicated that he was unaware of underground storage tanks (USTs) being located at the subject site and no records of USTs for the subject site are on file with the local regulatory agencies.
- Given the time frame in which the subject site was partially occupied by an orchard and the use of the subject site for the cultivation of row crops/orchards for at least 80 years, there is a potential that environmentally persistent pesticides/herbicides historically may have been applied to the crops located on the subject site. Additionally, the subject site owner representative indicated in a questionnaire response that soil imported from the adjoining school is located on the subject site, although he did not indicate the location of the imported soil.

Site Development Issues

- According to a representative of the owner of the subject site who has been familiar with the subject site for the past 61 years, no water wells are located on the subject site. However, Krazan’s review of historical aerial photographs indicates that a structure was located within the northwestern portion of the subject site circa 1937. A domestic water well was possibly associated with the former on-site structure. If a water well is identified during the planned redevelopment of the subject site, it should be properly destroyed in accordance with State and local guidelines (California Public Health and Safety Code, Part 9.5, Section 115700).

A septic system which has not been in use for 50+ years is also located on the subject site. The presence of the septic system is not anticipated to have adversely impacted the subject site due to its presumed use for domestic purposes only. As the septic system is not proposed to be utilized in the planned redevelopment of the subject site, it should be properly abandoned/closed or destroyed in accordance

with State and local guidelines. In response to the recommendations in the Phase I report, a Phase II report was conducted by Krazan & Associates, Inc. in February 2019.

Phase II Soil Sampling

The purpose of the investigation was to assess the presence or absence of potential current or former unregistered USTs on the subject site and the presence or absence of potential concentrations of organochlorine pesticides (OCPs)/chlorinated herbicides (CHs) and arsenic in shallow soils located on the subject site property.

Krazan's evaluation of the results and findings associated with the soil sampling included referencing the January 2019 San Francisco Regional Water Quality Control Board's (SFRWQCB) environmental screening levels (ESLs) referenced in the technical document titled, *Screening for Environmental Concerns at Sites With Contaminated Soil and Groundwater*. According to the RWQCB's 2019 document, ESLs are considered to be conservative. Under most circumstances and within limits described by the RWQCB, the presence of a chemical in soil, soil vapor or groundwater at concentrations below the corresponding ESL (Residential, Any Land Use/Construction Worker or Commercial/Industrial) for the respective constituent can be assumed not to pose a significant, long-term (chronic) threat to human health and the environment. Additional evaluation will generally be necessary at sites where a chemical is present at concentrations above the corresponding ESL. Active remediation may or may not be required, however, depending on site-specific conditions and considerations. As stated by the RWQCB, the ESL document may be especially beneficial for use at sites with limited impacts, where the preparation of a formal environmental assessment may not be warranted or feasible due to time and cost constraints.

Soil Sampling Results

Analytical results for the soil samples submitted for laboratory analysis for organochlorine pesticides and chlorinated herbicides were reported as not detected (ND) above laboratory reporting limits (RLs). Arsenic was ND above the laboratory RL of 5.0 mg/kg. The laboratory reporting limits for arsenic is above the Residential ESL for arsenic, however, the laboratory RL is within the background level of 12 mg/kg that researchers with the DTSC have reported.

Limited Geophysical Survey

The results of the limited geophysical survey (LGS) indicated the presence of randomly scattered, shallow metal debris detected in the locations shown on the LGS report. According to the LGS, no anomalies possibly indicative of large structural objects such as USTs or items of significant debris were detected with the area of the LGS.

Conclusion

Based on the findings in the field and the laboratory analytical reports for the soil samples collected and analyzed from the subject site during investigation, no evidence of a known significant impact (based on a comparison with established regulatory screening levels) was identified in the areas assessed with respect to the reported concentrations of organochlorine pesticides and chlorinated herbicides.

The project is not located on a site which is included on a list of hazardous materials sites pursuant to Government Code Section 65962.5. There are no significant hazards to the public or environment as a result of the project. Impacts are *less than significant*.

Source: (21) (22) (Appendix E)

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 excess noise for people residing or working in the project area?

There are no airports within two miles of the project site. As shown in **Figure 16**, the nearest airport is Metz private airstrip located 2.85 miles east of the site. There are no Airport Land Use Plans that apply to the site. The site is not located within the Runway Protection Zone or Airport Influence Area with development restrictions. Therefore, there are no airport-related safety or noise hazards that could affect future residents.

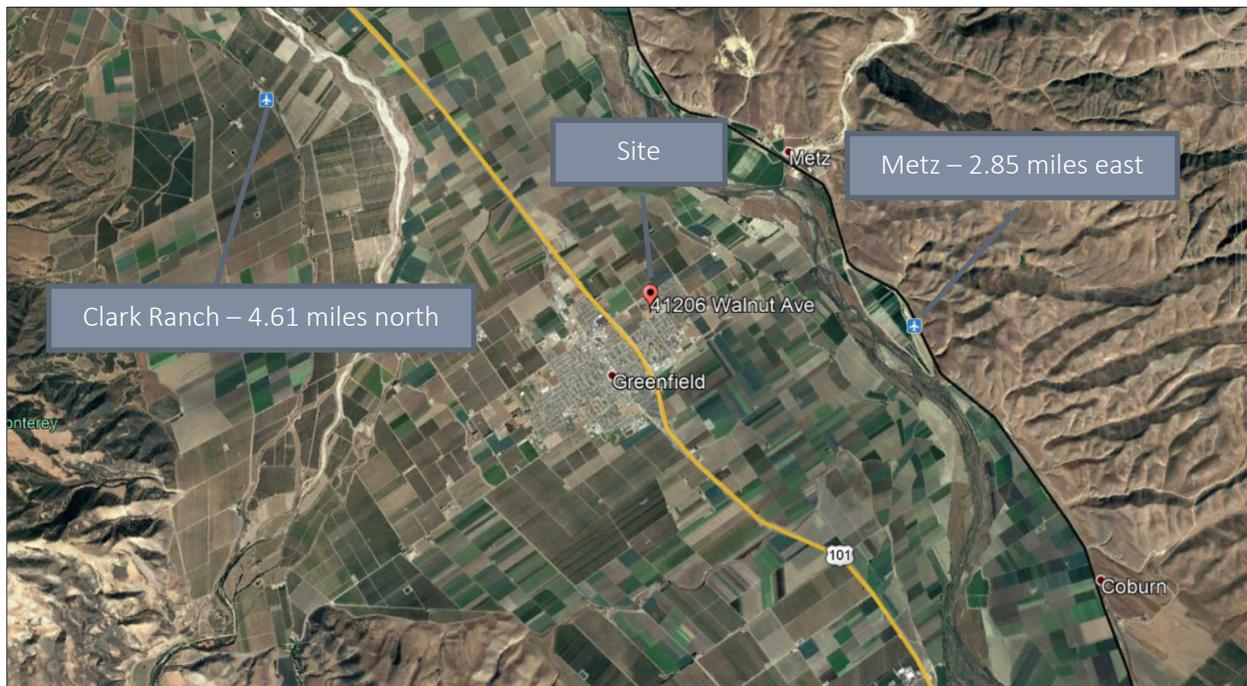


Figure 16 Proximity to Nearest Airport

There is no impact in this regard.

Source: (4) (13)

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

The project would not interfere with an emergency response plan or emergency evacuation plan. The project includes emergency vehicle access circulation paths in its design and will be required to comply

with all emergency access-related development standards and/or conditions of approval such as those that require minimum lighting levels and adequate width to allow emergency vehicle access.

There is no impact in this regard.

Source: (4)

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

Significant portions of the upland portions of the County are designated as a high or very high fire hazard area by the California Department of Forestry and Fire Protection. Exceptions include lands on the floor of the Salinas Valley and lands on the Monterey Peninsula. As identified in the General Plan, there are no areas of high hazard for wildfires within the City.

As the project site borders irrigated agricultural uses, there is a low potential for wildfire to affect the subject property. All means for providing fire prevention and fire protection access to the site will be made at the site.

Impacts are *less than significant*.

Source: (4) (5)

3.10 Hydrology and Water Quality

Issues	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
X. Hydrology and Water Quality. Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?			X	
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?			X	
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: <ul style="list-style-type: none"> i) result in a substantial erosion or siltation on- or off-site; ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite; iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or iv) impede or redirect flood flows? 		X		
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?				X

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

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

The project will meet all State guidelines and will include a Stormwater Pollution Prevention Plan as part of a Construction General Permit with the State.

The project will be required to submit a Notice of Intent to the State Board and apply for coverage under the State NPDES General Permit for Construction Activities, prepare and submit a Stormwater Pollution Prevention Plan (SWPPP) for review and approval by the Building Official prior to issuance of a Building Permit. The NPDES General Permit requires development and implementation of a SWPPP and monitoring plan, which must include erosion-control and sediment-control Best Management Practices (BMPs) that would meet or exceed measures required by the General Permit to control potential construction-related pollutants.

Adherence to NPDES requirements, the SWPPP, BMPS, and City requirements will ensure impacts are *less than significant*.

Source: (23)

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

The City currently obtains its water supply exclusively from one water source (Salinas Valley Groundwater Basin). Currently, the City has three wells to extract water from the underlying groundwater basin and pumps it to two storage tanks. The groundwater basin underlying Greenfield is the Lower Aquifer sub-basin in the Salinas River Basin. Regional groundwater flow in the Lower Aquifer sub-basin is northerly toward the Monterey Bay. This resource, as well as other water resources in the Salinas River Basin, are managed by the Monterey County Water Resources Agency. Water from the Lower Aquifer sub-basin is used for irrigation, domestic, municipal, and industrial uses.

The project is also subject to the post-construction stormwater management requirements outlined in Central Coast RWQCB Resolution No. R3-2013-0032, which requires site-specific design measures and water quality treatment and percolation measures for projects that create and/or replace 2,500 square feet or more of impervious surface. As shown in **Figure 10**, there will be two on-site stormwater detention basins. These detention basins will be designed to City standards and help to percolate water back into the ground.

As discussed further in the Utilities and Service Systems section, there is adequate water supply from the City of Greenfield with all wells operating. However, there is not redundant capacity during peak usage. Thus, if a well is taken out of operation for servicing or repairs, there is a possibility that usage restrictions may be mandated by the City. The City has plans to address this by adding one well and providing additional storage. Despite the possibility of temporary usage restrictions until such time that the City

brings online the additional well and additional storage, the project will not deplete groundwater supplies or interfere with groundwater recharge.

Impacts are *less than significant*.

Source: (23)

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 a substantial erosion or siltation on- or off-site;

The nearest stream or river is the Salinas River, which is located approximately 1.7 miles east of the project site. The increase in impervious surface would not result in substantial downstream erosion as designed. The existing site gently slopes from the south to the north and west to east directing with all surface water draining towards Walnut Avenue where water continues east along the Walnut Avenue street frontage and enters into the City storm drain system through a catch basin located at the south side of Walnut Avenue. The natural drainage pattern of the site will be maintained from the south and an on-site storm drain system will convey all drainage to two new on-site storm water basins. The on-site basins will be sized to capture and infiltrate the 100-year storm event, and a direct connection to the existing City storm drain system will not be made. The basins will be owned and operated by the City. The existing drainage pattern of the site will be maintained to drain to a basin located along the eastern edge of the site and the basin emergency overland release direction will be maintained to Walnut Avenue. Necessary easements or property dedications will be provided by the development. By capturing and detaining stormwater on site, potential impacts for substantial erosion or siltation on- or off-site would be minimized by the bioretention areas/basins.

Impacts are *less than significant*.

Source: (23)

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

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

iv) impede or redirect flood flows?

As discussed above, the project will mitigate all run-off onsite by constructing on-site stormwater detention basins designed to City standards. The basins will be designed to infiltrate runoff from the 100-year storm event. As such, the project will not cause flooding on- or off-site, or exceed the existing stormwater drainage system. The biofiltration characterizes of the proposed basins would serve to treat runoff water quality.

Impacts are *less than significant*.

Source: (23) (25)

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

The project is not located within a 100- or 500-year flood zone. As shown in **Figure 17**, the site is located in Zone X: *Areas of minimal Flooding* as depicted on Federal Emergency Management Agency’s Flood Insurance Rate Map Number 06053C0850G, effective date April 2, 2009.

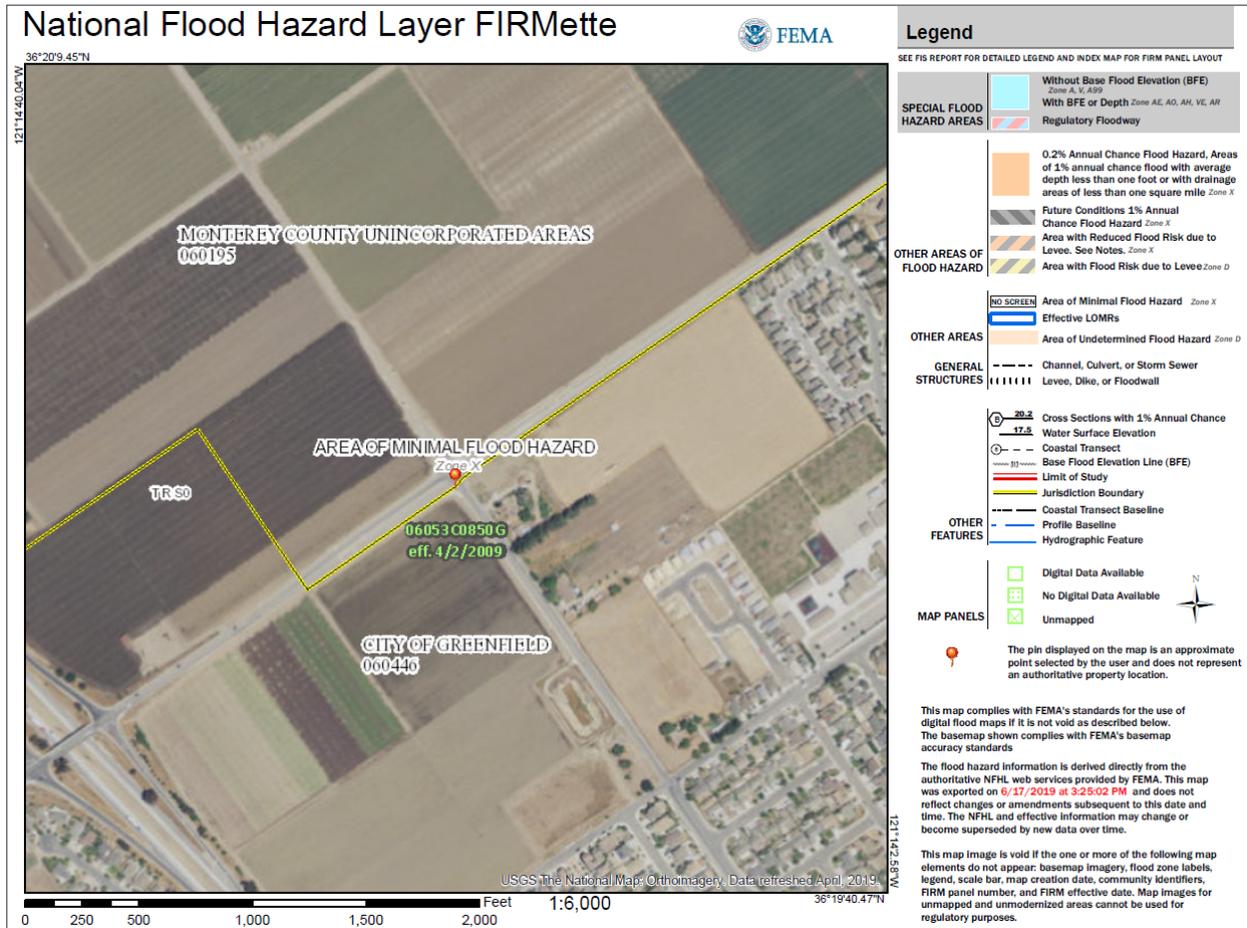


Figure 17 FEMA Floodplain Map

Because the site is not located within or near a floodplain, tsunami or seiche zone, there is minimal risk of inundation and therefore minimal risk of release of pollutants due to inundation.

Impacts are *less than significant*.

Source: (4) (13) (23)

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

Greenfield is located within the larger Salinas Valley Groundwater Basin, which is divided into a series of subbasins. The Monterey County Groundwater Sustainability Agency (Monterey County GSA) was formed in response to the State’s Sustainable Groundwater Management Act of 2014. The Monterey County GSA has adopted a Groundwater Sustainability Plan (GSP) for the 180/400 foot Aquifer Subbasin, which extends from the ocean to just south of the City of Gonzales. The GSP focuses on this subbasin because of its vulnerability to seawater intrusion and overdraft. The Forebay Aquifer (subbasin) below Greenfield contains different hydrogeologic characteristics, is not vulnerable to seawater intrusion, and has a high rate of sustainable production. Given Greenfield’s location, the project will not conflict or obstruct implementation of the GSP for the 180/400 Foot Aquifer. The project has been designed for compliance with City of Greenfield water quality control plans and permits and would not negatively affect groundwater resources. See also item a) above.

Impacts are *less than significant*.

Source: (23) (25) (43)

3.11 Land Use and Planning

Issues	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
XI. Land Use and Planning. Would the project:				
a) Physically divide an established community?				X
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?				X

a) Physically divide an established community?

The project site is located in an area with adjacent residential uses at the bordering edge of the City. The project site is adjacent to urban development on two sides and is adjacent to an adopted specific plan area on a third side. The project site is planned for urban development and would integrate into, not divide, the established community,

There is no impact in this regard.

Source: (4) (7)

b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

The project site has the appropriate land use designation and zoning to allow the project. Please refer to the Project Consistency Analysis in the Project Description above. As indicated in Policy 7.1.1 in the City General Plan, the City encourages the transition of agricultural operations to urban uses within the City. While the project site is not located on agricultural lands, it is adjacent to agricultural fields to the north and northwest. Policy 7.1.2 in the City General Plan requires development occurring in close proximity to agricultural uses minimize conflicts and negative impacts resulting from development. To comply with this requirement, the applicant has coordinated with City staff and the Monterey County Agricultural Commissioner to include an 82-foot agricultural buffer. As such, there are no conflicts with adopted land use plans, policies or regulations that avoid or mitigate environmental effects.

There is no impact in this regard.

Source: (2) (4) (7)

3.12 Mineral Resources

Issues	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
XII. Mineral Resources. Would the project:				
a) Result in the loss of availability of a known mineral resource that would be a value to the region and the residents of the state?				X
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				X

a) Result in the loss of availability of a known mineral resource that would be of value to the region and residents of the state?

Mineral Resources Public Resources Code Section 2761 states that the Conservation Element of the General Plan must include mineral resources policies that address the conservation and development of identified mineral deposits of Statewide importance, balance the value of these deposits against competing land uses, and minimize the impact of mining activities. Areas within the vicinity of Greenfield are utilized for agricultural uses and not for mining minerals. The City is not located within any designated Mineral Resource Zones. As such, the site is not located within an identified Mineral Resource Sector. There are no known mineral resources of regional or state value on the site.

There is no impact in this regard.

Source: (25)

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

There are no identified locally important mineral resources in the City of Greenfield.

There is no impact in this regard.

Source: (25), (33)

3.13 Noise

Issues	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
XIII. Noise. Would the project result in:				
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?		X		
b) Generation of excessive groundborne vibration or groundborne noise levels?			X	
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?				X

Ldn Consulting, Inc. conducted a *Noise Study* for the proposed project in August 2019, to determine the existing noise environment and to assess potential noise impacts. 24-hour measurements were taken in July 2019 at two locations on the project site, with the project site noted as having a relatively flat terrain and no obstruction from trees or structures. See **Appendix G** for the Noise Study. The noise study was peer reviewed by Kimley-Horn, and the results of the analysis are summarized below.

Fundamentals of Noise

Sound is measured on a logarithmic scale consisting of sound pressure levels known as a decibel (dB). The sounds heard by humans typically do not consist of a single frequency but of a broadband of frequencies having different sound pressure levels. The method for evaluating all the frequencies of the sound is to apply an A-weighting to reflect how the human ear responds to the different sound levels at different frequencies. The A-weighted sound level (dBA) adequately describes the instantaneous noise whereas the equivalent sound level depicted as Leq (equivalent continuous sound pressure level) represents a steady sound level containing the same total acoustical energy as the actual fluctuating sound level over a given time interval.

The Community Noise Equivalent Level (CNEL) is the 24 hour A-weighted average for sound, with corrections for evening and nighttime hours. The corrections require an addition of 5 decibels to sound levels in the evening hours between 7 p.m. and 10 p.m. and an addition of 10 decibels to sound levels at nighttime hours between 10 p.m. and 7 a.m. These additions are made to account for the increased sensitivity during the evening and nighttime hours when sound appears louder.

A vehicle's noise level is from a combination of the noise produced by the engine, exhaust and tires. The cumulative traffic noise levels along a roadway segment are based on three primary factors: the amount of traffic, the travel speed of the traffic, and the vehicle mix ratio or number of medium and heavy trucks. The intensity of traffic noise is increased by higher traffic volumes, greater speeds and increased number of trucks.

Because mobile/traffic noise levels are calculated on a logarithmic scale, a doubling of the traffic noise or acoustical energy results in a noise level increase of 3 dBA. Therefore, a doubling of traffic volume, without changing the vehicle speeds or mix ratio, results in a noise increase of 3 dBA. Mobile noise levels radiate in an almost oblique fashion from the source and drop off at a rate of 3 dBA for each doubling of distance under hard site conditions and at a rate of 4.5 dBA for soft site conditions. Hard site conditions consist of concrete, asphalt and hard packed dirt while soft site conditions exist in areas having slight grade changes, landscaped areas and vegetation. On the other hand, fixed/point sources radiate outward uniformly as sound travels away from the source. Their sound levels attenuate or drop off at a rate of 6 dBA for each doubling of distance.

The most effective noise reduction methods consist of controlling the noise at the source, blocking the noise transmission with barriers or relocating the receiver. Any or all of these methods may be required to reduce noise levels to an acceptable level.

City Guidelines for the Determination of Significance

The City's General Plan includes allowable exterior and interior noise standards for projects affected by transportation related noise sources. Noise compatibility of proposed development is determined in comparison to these standards. The City's applicable noise standards for projects affected by transportation noise sources are presented in the table below.

Table 9 Noise Standard for New Uses Affected by Transportation Noise

New Land Use	Outdoor Activity Area (dBA CNEL/L _{dn})	Interior – L _{dn} /Peak Hour (dBA L _{eq}) ¹
All Residential ^{2,3,4}	60-65	45
Transit Lodging ⁵	65	45
Hospitals & Nursing Homes ⁶	60	45
Theaters & Auditoriums	--	35
Churches, Meeting Halls, Schools, Libraries	60	40
Office Buildings ⁷	65	45

New Land Use	Outdoor Activity Area (dBA CNEL/L _{dn})	Interior – Ldn/Peak Hour (dBA L _{eq}) ¹
Commercial Buildings ⁷	65	50
Playgrounds, Parks, etc.	70	--
Industry ⁷	65	50

Notes:

¹ For traffic noise within the City of Greenfield, Ldn and peak-hour L_{eq} values are estimated to be approximately similar. Interior noise level standards are applied within noise-sensitive areas of the various land uses, with windows and doors in the closed positions.

² Outdoor activity areas for single-family residential uses are defined as back yards. For large parcels or residences with no clearly defined outdoor activity area, the standard shall be applicable within a 100-foot radius of the residence.

³ For multi-family residential uses, the exterior noise level standard shall be applied at the common outdoor recreation area, such as at pools, play areas or tennis courts. Where such areas are not provided, the standards shall be applied at individual patios and balconies of the development.

⁴ Where it is not possible to reduce noise in outdoor activity areas to 60 dB Ldn or less using a practical application of the best-available noise reduction measures, an exterior noise level of up to 65 dB Ldn may be allowed provided that available exterior noise level reduction measures have been implemented and interior noise levels are in compliance with this table.

⁵ Outdoor activity areas of transient lodging facilities include swimming pool and picnic areas.

⁶ Hospitals are often noise generating uses. The exterior noise level standards for hospitals are applicable only at clearly identified areas designated for outdoor relaxation by either hospital staff or patients.

⁷ Only the exterior spaces of these uses designated for employee or customer relaxation have any degree of sensitivity to noise.

Existing Setting

Existing noise levels were taken at the two locations on the project site. The noise measurement locations were determined based on-site access and noise impact potential to the proposed sensitive uses. See **Figure 18** for noise measurement locations. Monitoring location 1 (M1) was located on the southern portion of the site and monitoring location 2 (M2) was located adjacent to Walnut Avenue. During the noise measurements, the sound level meter and microphone were mounted on a tripod, five feet above the ground and equipped with a windscreen during all measurements.



Figure 18 Noise Measurement Locations

Results of the noise level measurements are presented in the table below. The ambient L_{eq} noise levels measured at the project were found to be roughly 59-61 dBA due to background noise from Highway 101 and agricultural activities. As can be seen in the table, 50 percent (L50) of the time the noise levels were below 48 dBA and 90 percent (L90) the noise levels were below 40 dBA.

Table 10 Existing Noise Environment

Location	Noise Levels (dBA)						
	CNEL	L_{eq}	L_{min}	L_{max}	L10	L50	L90
M1	55.0	50.4	34.7	91.8	54.5	47.0	39.0
M2	61.7	57.0	33.6	91.1	62.0	47.5	39.0

Sensitive Receptors

Noise exposure standards and guidelines for various types of land uses reflect the varying noise sensitivities associated with each of these uses. Residences, hospitals, schools, guest lodging, libraries, and churches are treated as the most sensitive to noise intrusion and therefore have more stringent noise exposure targets than do other uses, such as manufacturing or agricultural uses that are not subject to impacts such as sleep disturbance. As shown in **Table 11**, sensitive receptors near the project site include single-family residences to the east and southwest and Cesar Chavez Elementary School to the southeast. It should be noted that the classrooms at the Cesar Chavez Elementary School are on the far side of the school property from the project site with play fields sited closest to the project site.

Table 11 Sensitive Receptors

Receptor Description	Distance and Direction from the Project Site
Single-family residential community	10 feet east
Cesar Chavez Elementary School	25 feet southeast
Single-family residential community	30 feet southwest
Single-family residential home	60 feet west
Single-family residential community	600 feet south
Centennial Rotary Park	850 feet southeast
Tuscany Park	0.25 miles east

- 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?*

Construction

Construction noise typically occurs intermittently and varies depending on the nature or phase of construction (e.g. land clearing, grading, excavation, paving). Noise generated by construction equipment can reach high levels. During construction, exterior noise levels could affect the residential neighborhoods surrounding the construction site. The project boundary is approximately 10 feet from

existing residences to the east of the project site. However, the project includes a 10-foot setback, therefore the construction activity would occur approximately 20 feet from the nearest sensitive receptors. Additionally, construction activities would occur throughout the site and would not be concentrated at a single point near sensitive receptors. Noise levels typically attenuate (or drop off) at a rate of 6 dB per doubling of distance from point sources, such as industrial machinery. During construction, exterior noise levels could affect the residences nearest to the construction site.

Construction activities associated with development of the proposed project would include site preparation, grading, paving, building construction, and architectural coating. Such activities would require graders, scrapers, and tractors during site preparation; graders, dozers, and tractors during grading; cranes, forklifts, generators, tractors, and welders during building construction; pavers, rollers, mixers, tractors, and paving equipment during paving; and air compressors during architectural coating. Typical noise levels associated with individual construction equipment are listed in **Table 12**. The analysis assumes that no pile driving would be required, and it is understood that the construction methods for installing modular building components would substantially reduce the level and duration of typical post-earthwork construction noise.

The City's construction noise standards are provided in Subsection 17.30.060.D.1 of the City Municipal Code. Subsection 17.30.060.D.1, of the City Municipal Code prohibits the operation of any tools or equipment used in construction, or demolition work between the hours of 7:00 p.m. and 7:00 a.m. except for emergency work by public service utilities. The Federal Transit Administration (FTA) has established a daytime threshold of 90 dBA L_{eq} (1 hour) and 80 dBA L_{eq} (8 hour) for residential uses 100 dBA L_{eq} (1 hour) for non-residential uses to evaluate construction noise impacts.⁵ As shown in **Table 12**, noise levels from construction at the closest sensitive receptors approximately 20 feet away are above 90 dBA. All noise levels are below 90 dBA at 50 feet.

Table 12 Typical Construction Noise Levels

Equipment Type	Typical Noise Level (dBA) at 50 feet from Source ¹	Typical Noise Level (dBA) at 20 feet from Source ¹	Typical Noise Level (dBA) at 150 feet from Source ¹
Air Compressor	80	88	70
Backhoe	80	88	70
Compactor	82	90	72
Concrete Mixer	85	93	75
Concrete Pump	82	90	72
Concrete Vibrator	76	84	66
Crane, Derrick	88	96	78
Crane, Mobile	83	91	73

⁵ Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual*, Table 7-2, Page 179, September 2018.

Equipment Type	Typical Noise Level (dBA) at 50 feet from Source ¹	Typical Noise Level (dBA) at 20 feet from Source ¹	Typical Noise Level (dBA) at 150 feet from Source ¹
Dozer	85	93	75
Generator	82	90	72
Grader	85	93	75
Impact Wrench	85	93	75
Jack Hammer	88	96	78
Loader	80	88	70
Paver	85	93	75
Pneumatic Tool	85	109	75
Pump	77	103	67
Roller	85	93	75
Saw	76	85	66
Scraper	85	93	75
Shovel	82	84	72
Truck	84	93	74

Notes:

¹ Calculated using the inverse square law formula for sound attenuation: $dBA_2 = dBA_1 + 20 \log(d_1/d_2)$

Where: dBA_2 = estimated noise level at receptor; dBA_1 = reference noise level; d_1 = reference distance; d_2 = receptor location distance

Source: Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual, September 2018.

Grading activities will consist of the preparation of graded slopes, bioretention basins, internal roadways, and the finished pads. Based upon the site plan, the majority of the grading operations, on average, will occur more than 150 feet from the property lines.

As shown in **Table 12**, noise levels at the nearest sensitive receptor structure are below 109 dBA at 20 feet. The highest anticipated construction noise level for the adjoining residential uses are jack hammers and heavy equipment during the site preparation phase and cranes during the building construction phase. Majority of the construction would not occur near the sensitive receptors and instead would occur at least 150 feet away where noise levels would attenuate to 78 dBA. Additionally, noisy, heavy machinery would be not operate immediately adjacent to the sensitive receptors and would be limited in duration.

The noise levels calculated in **Table 13** show estimated exterior construction noise for the project without accounting for attenuation from existing physical barriers. All construction equipment was assumed to operate simultaneously at a construction area nearest to the sensitive receptor. These assumptions represent a worst-case noise scenario, as construction activities would routinely be spread throughout the construction site farther away from noise sensitive receptors.

Table 13 Project Construction Noise Levels

Construction Phase	Modeled Exterior Construction Level at Property Line of Nearest Sensitive Receptor	
	dBA L_{eq}	dBA L_{max}
Site Preparation	78.5	80.5

Construction Phase	Modeled Exterior Construction Level at Property Line of Nearest Sensitive Receptor	
	dBA L _{eq}	dBA L _{max}
Grading	79.1	79.0
Paving	70.9	74.0
Construction	78.4	79.4
Painting/Architectural Coating	74	N/A

Source: Refer to **Appendix G** for construction noise modeling assumptions and results.

As shown in **Table 13**, unobstructed construction noise levels could reach 79.1 dBA L_{eq} at the property line of the nearest sensitive receptor. Construction equipment would operate throughout the project site during each phase, and the associated noise levels would not occur at a fixed location for extended periods of time. Construction noise would be dispersed throughout the project site and would be masked to some degree by existing freeway and roadway noise. Construction of the project would be below FTA's daytime threshold of 80 dBA L_{eq} (8 hour) for residential uses.

In Subsection 17.30.060.D.1, the City Municipal Code prohibits the operation of any tools or equipment used in construction, or demolition work between the hours of 7:00 p.m. and 7:00 a.m., except for emergency work by public service utilities. Construction would occur throughout the project site and would not be concentrated or confined in the area directly adjacent to sensory receptors. Therefore, construction noise would be acoustically dispersed throughout the project site. In addition, standard City restrictions on construction hours would also minimize potential construction equipment-related noise impacts, and any such impacts would be temporary and limited to the construction phase of the development.

Construction Traffic Noise

Construction noise may be generated by large trucks moving materials to and from the proposed project site. Large trucks would be necessary to deliver building materials as well as remove dump materials. Based on the CalEEMod default assumptions for this project, as analyzed in Air Quality, the proposed project would generate the highest number of daily trips during the building construction phase. The model estimates that the proposed project would generate up to 160 worker trips and 24 vendor trips per day for building construction. Therefore, a total of 184 daily trips would occur during the construction phase. Because of the logarithmic nature of noise levels, a doubling of the traffic volume (assuming that the speed and vehicle mix do not also change) would result in a noise level increase of 3 dBA. According to the Circulation Element of the General Plan (2015), Walnut Avenue has an average daily trip volume of 3,800 vehicles. The 184 daily construction trips would not double the existing traffic volume per day. Construction-related traffic noise would not be noticeable and would not create a significant noise impact.

To further minimize temporary construction noise at adjacent land uses and ensure compliance with City noise standards, the following measures should be taken:

Mitigation Measures:

- N1. Construction should occur during the permissible hours as defined in the Municipal Code.

- N2. During construction, the contractor shall ensure all construction equipment is equipped with appropriate noise attenuating devices.
- N3. The contractor should locate equipment staging areas that will create the greatest distance between construction-related noise/vibration sources and sensitive receptors nearest the project site during all project construction.
- N4. Idling equipment should be turned off when not in use.

Impacts are *Less than Significant with Mitigation Incorporated*.

Source: (31)

Operations

Implementation of the proposed project would create new sources of noise in the project vicinity. The major noise sources associated with the proposed project that would potentially impact existing and future nearby residences include the following:

- Off-site traffic noise;
- Residential area noise;
- Recreational noise;
- Mechanical equipment (i.e., trash compactors, air conditioners, etc.);
- Delivery trucks on the project site, and approaching and leaving the loading areas;
- Activities at the loading areas (i.e., maneuvering and idling trucks, loading/unloading, and equipment noise);
- Parking areas (i.e., car door slamming, car radios, engine start-up, and car pass-by); and
- Landscape maintenance activities.

As discussed above, the closest sensitive receptors are the existing residences located as close as 20 feet to the east of the project site. The City of Greenfield’s exterior Noise Standard for residential areas is 65 dBA L_{eq} .

On-Site Traffic Noise

The primary source of potential noise impacts to the project site would occur from vehicular traffic noise along Walnut Avenue. The Buildout (cumulative) scenario includes a capacity of 10,400 ADT in the future conditions based on the City’s General Plan roadway classification operating at an acceptable level of service (LOS) C. The future roadway parameters and inputs utilized in this analysis are provided in the table below.

Table 14 Buildout Traffic Volumes

Roadway	Buildout Average Daily Traffic (ADT)	Peak Hour Traffic (ADT)	Speed (MPH)
Walnut Avenue	10,400	1,040	35

The roadway segment noise levels projected were calculated using the methods in the Highway Noise Model published by the Federal Highway Administration. The FHWA Model uses the traffic volume, vehicle mix, speed, and roadway geometry to compute the equivalent noise level. The vehicle mix and

speeds were assumed to be the same in the modeling to determine the overall noise level increases based on traffic volumes. To assess the peak hour traffic noise conditions, 10 percent of the ADT was utilized and a conservative vehicle mix was also utilized to predict the worst case noise levels. Based on the exterior noise model, the worst-case noise level from Walnut Avenue was found to be less than 65 dBA CNEL at the nearest outdoor sensitive use on the site located 125 feet from the centerline of the site. The modeling results are provided in the table below.

Table 15 Future Noise Levels

Traffic Volumes, Mix and Speeds				
	Automobiles	Medium Trucks	Heavy Trucks	
Mix Ratio by Percent	96%	2%	2%	
Roadway	ADT	Speed (mph)	CNEL	
			at 50 Feet (dBA)	at 60 Feet (dBA)
Walnut Avenue	10,400	35	67.1	148
Noise Reduction due to Distance				
	Distance (feet)	Reduction	Resultant Level (dBA CNEL)	
Walnut Avenue	125	-3.98	63.1	

The City's Noise Compatibility Guidelines also state, consistent with Title 24 of the California Code of Regulations (CCR), a project is required to perform an interior assessment on the portions of a project site where the building facades were found to be above 60 dBA CNEL in order to ensure that acceptable interior noise levels can be achieved. Interior noise levels for residential structures are required to be reduced to 45 dBA CNEL. Standard building construction will provide a noise reduction of approximately 15 dBA with windows open and 25 dBA with windows closed (Source: U.S. EPA, Protective Noise Levels, 1978). Based on the future traffic volumes, building facades could be as high as 67 dBA CNEL at 50 feet, and the 60 dBA CNEL contours from Walnut Avenue could extend 148 feet from the center line as can be seen in the table above. With windows closed, interior noise levels would be reduced to 42 dBA and would not exceed the 45 dBA interior noise standard.

Off-site Traffic Noise

Typically, it requires a project to double (or add 100%) the traffic volumes to have a 3 dBA CNEL increase or be a major contributor to the cumulative traffic volumes to be considered a potential impact. Usually a 5 dBA CNEL increase is considered an impact. The project will add 1,219 daily trips, conservatively, based on the project's traffic assessment. If all the project-related traffic occurred or traveled west on Walnut Avenue to Highway 101 and doubled the traffic volume (i.e., 1,219 x 2), the overall noise levels would be below 61 dBA CNEL. Additionally, there are no residential uses west of the site along Walnut Avenue. If

all the project traffic went east, which is unlikely, the existing residential uses to the east have 6-foot noise barriers that would further reduce the traffic related noise at least 5 decibels. Therefore, the project would not result in a significant noise increase to the surrounding sensitive uses.

Stationary Noise Sources

Implementation of the proposed project would create new sources of noise in the project vicinity from residential sources, recreational noise, mechanical equipment, truck loading areas, parking lot noise, and landscape maintenance. These sources are briefly discussed below.

Residential Areas

Noise that is typical of multi-family residential areas includes group conversations, pet noise, vehicle noise (see discussion below) and general maintenance activities. Noise from residential stationary sources would primarily occur during the “daytime” activity hours of 7:00 a.m. to 7:00 p.m. Furthermore, the residences would be required to comply with the noise standards set forth in the City’s General Plan and Municipal Code.

The project area may include some crowd noise due to residents and visitors at the proposed outdoor exercise and common space areas. Crowd noise is dependent on several factors including vocal effort, impulsiveness, and the random orientation of the crowd members. Crowd noise is estimated at 60 dBA at one meter (3.28 feet) away for raised normal speaking. This noise level would have a +5 dBA adjustment for the impulsiveness of the noise source, and a -3 dBA adjustment for the random orientation of the crowd members. Therefore, crowd noise would be 62 dBA at one meter from the source. Normal residential noise sources and crowd noise at the closest existing sensitive receptors (located approximately 85 feet away) would not exceed the City’s 65 dBA standard. A less than significant impact would occur in this regard.

Recreational Noise

The outdoor recreational areas proposed for the project would include a turf field and spectator seating/play area. Noise sources associated with turf field would primarily consist of occasional shouting and cheering of the players and spectators during the contests and practices. The City of Greenfield’s exterior Noise Standards for residential areas is 65 dBA L_{eq} . The closest sensitive receptors to the turf field and spectator/play area would be approximately 150 feet east. At 150 feet noise levels from the turf field and spectator/play area would be 56.5 dBA. Additionally, the proposed residential buildings would be located to the east of the recreational area and would act as a noise barrier to the existing residences to the east. Therefore, recreational noise at the closest existing sensitive receptors (located approximately 150 feet away) would not exceed the City’s 65 dBA standard. A less than significant impact would occur in this regard.

Mechanical Equipment

Regarding mechanical equipment, the proposed project would generate stationary-source noise associated with heating, ventilation, and air conditioning (HVAC) units. HVAC units typically generate

noise levels of approximately 52 dBA at 50 feet.⁶ The nearest existing sensitive receptor structures are located approximately 85 feet from the closest potential proposed living area of the site. At 85 feet, mechanical equipment noise levels would be 47.4 dBA. However, the mechanical equipment would be located within in an enclosed building. Therefore, noise levels from the mechanical equipment would not be audible from the nearest sensitive receptors. The mechanical equipment could also be roof mounted, however this would be centrally located, shielded by parapets, and more than 85 feet from the nearest sensitive receptor. Therefore, the noise level is below the City's 65 dBA exterior standard. Impacts from mechanical equipment would be less than significant.

Loading Area Noise

The proposed project is a residential development with community amenities that would necessitate occasional deliveries typically occurring during daytime hours. The proposed project is not anticipated to require a significant number of truck deliveries. The majority of deliveries for the community amenities would consist of vendor deliveries in vans and would be infrequent and irregular. The closest that the proposed project could be located to sensitive receptors would be approximately 15 feet away. However, the proposed truck activities would occur approximately 150 feet from the sensitive receptors near the proposed community amenities. While there would be temporary noise increases during truck maneuvering and engine idling, these impacts would be of short duration and infrequent. As noise levels associated with trucks and loading/unloading activities would be infrequent and irregular, impacts would be less than significant.

Parking Areas

Traffic associated with parking areas is typically not of sufficient volume to exceed community noise standards, which are based on a time-averaged scale such as the CNEL scale. However, the instantaneous maximum sound levels generated by a car door slamming, engine starting up and car pass-bys may be an annoyance to adjacent noise-sensitive receptors. Parking lot noise can also be considered a "stationary" noise source.

Maximum parking lot noise levels would be 38 dBA at the closest sensitive receptors, approximately 20 feet away, and would not exceed the City's 65 dBA standard. It should be noted that parking lot noise are instantaneous noise levels compared to noise standards in the CNEL scale, which are averaged over time. As a result, actual noise levels over time resulting from parking lot activities would be far lower. Noise associated with parking lot activities is not anticipated to exceed the City's Noise Standards or the California Land use Compatibility Standards during operation. Therefore, noise impacts from parking lots would be less than significant.

⁶ Elliott H. Berger, Rick Neitzel, and Cynthia A. Kladden, Noise Navigator Sound Level Database with Over 1700 Measurement Values, July 6, 2010.

Landscape Maintenance Activities

Development and operation of the proposed project includes new landscaping that would require periodic maintenance. Noise generated by a gasoline-powered lawnmower is estimated to be approximately 70 dBA at a distance of 5 feet. Landscape Maintenance activities would be 64 dBA at the closest sensitive receptor approximately 10 feet away. Maintenance activities would operate during daytime hours for brief periods of time as allowed by the City Municipal Code and would not permanently increase ambient noise levels in the project vicinity and would be consistent with activities that currently occur at the surrounding uses. Therefore, with adherence to the City's Municipal Code, impacts associated with landscape maintenance would be less than significant.

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

Construction

Project construction on the proposed project site would have the potential to result in varying degrees of temporary groundborne vibration, depending on the specific construction equipment used and the operations involved. The effect on buildings located in the vicinity of the construction site often varies depending on soil type, ground strata, and construction characteristics of the receiver building(s). The results from vibration can range from no perceptible effects at the lowest vibration levels, to low rumbling sounds and perceptible vibration at moderate levels, to slight damage at the highest levels. Groundborne vibrations from construction activities rarely reach levels that damage structures.

The FTA has published standard vibration velocities for construction equipment operations (i.e. 0.2 in/sec). **Table 16**, lists vibration levels at 25 feet for typical construction equipment. Groundborne vibration decreases rapidly with distance. As indicated in **Table 16**, based on FTA data, vibration velocities from typical heavy construction equipment operations that would be used during project construction range from 0.003 to 0.089 in/sec PPV at 25 feet from the source of activity. The nearest sensitive receptors are the residences directly to the east of the project site approximately 20 feet from the active construction zone.

Table 16 Typical Construction Equipment Vibration Levels

Equipment	Peak Particle Velocity at 25 Feet (in/sec)	Peak Particle Velocity at 20 Feet (in/sec)
Large Bulldozer	0.089	0.1915
Loaded Trucks	0.076	0.1635
Rock Breaker	0.059	0.1269
Jackhammer	0.035	0.0753
Small Bulldozer/Tractors	0.003	0.0065

Notes: Calculated using the following formula: $PPV_{equip} = PPV_{ref} \times (25/D)^{1.5}$, where: PPV_{equip} = the peak particle velocity in in/sec of the equipment adjusted for the distance; PPV_{ref} = the reference vibration level in in/sec from Table 7-4 of the Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual*, 2018; D = the distance from the equipment to the receiver.

Source: Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual*, September 2018.

The highest vibration levels are achieved with the large bulldozer operations. This construction activity is expected to take place during grading. However, the project does not include demolition and only minor grading and site preparation. Therefore, the project is not anticipated to utilize large bulldozers. Project construction would be more than 20 feet from the closest structure. Therefore, construction equipment vibration velocities would not exceed the FTA's 0.20 PPV threshold. In general, other construction activities would occur throughout the project site and would not be concentrated at the point closest to the nearest residential structure. Therefore, vibration impacts associated with the project would be less than significant.

Operation

As a residential housing project, the project will not create a source of on-going vibration that could have significant effects on adjacent land uses. The project will generate minor groundborne vibration and noise during construction. However, the project is not located near any historic buildings; unreinforced masonry buildings; or use any pile driving or heaving equipment that could have significant effects.

With implementation of Mitigation Measure N3, above, impacts are Less than Significant with Mitigation Incorporated.

Source: (4) (31)

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?

There are no airports within two miles of the project site. Metz Private Airport lies 2.85 miles to the east and is the nearest airport. There are no noise contours from any airport that impact the subject property.

There is no impact in this regard.

Source: (4) (14) (31)

3.15 Population and Housing

Issues	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
XIV. Population and Housing. Would the project:				
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?			X	
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?				X

According to the California Department of Finance (DOF) (2020), the 2019 population of Greenfield was 18,284. Data from DOF shows the City has 3,981 housing units and 4.95 persons per household for 2019. The proposed project would be located in an area designated for Medium Density Residential uses in the City of Greenfield General Plan.

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)?

Development of the proposed project could potentially increase population in the City. As shown in **Table 17**, the project is a residential development of 222 units with an anticipated population between 633 and 844 persons. For analysis purposes, this document analyzes an anticipated population of up to 844 persons. This would result in a moderate population increase on the east side of the City.

Table 17 Estimated Project Occupancy

Residential Unit Mix (Bedrooms)	Number of Occupants per Applicant's Standard (1.5 person per bedroom)	Maximum Occupancy per State ¹ Standards
1-Bedroom (78 units)	117	156
2-Bedroom (88 units)	264	352

Residential Unit Mix (Bedrooms)	Number of Occupants per Applicant's Standard (1.5 person per bedroom)	Maximum Occupancy per State ¹ Standards
3-Bedroom (56 units)	252	336
Total Range	633	844

¹ State of California Tax Credit Allocation Committee (TCAC)

² The maximum occupancy per TCAC is 2 persons per bedroom.

According to the 2014-2035 Greenfield Housing Element, AMBAG provided population projections for the City to the year 2035. By 2035, the population of Greenfield is projected to have 23,609 people.⁷ The Housing Element also anticipated the 2020 population of Greenfield to be approximately 21,341. Thus, the addition of up to 844 people as a result of the development of the project would not increase the population of the City beyond the anticipated 2035 population or the 2020 population. The persons per household figure of 4.95⁸ is also representative of the City's inventory of single-family homes. The multi-family units proposed by the project is anticipated to increase population by up to 844 people and would be anticipated to have fewer persons per household, consistent with housing statistics throughout the State for housing for farmworkers.

For these reasons, the project will not induce substantial growth either directly or indirectly.

Impact are *less than significant*.

Source: (1) (4)

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

The site is currently vacant and will not displace any residents or businesses. There is no net loss in housing anticipated as a result of the project.

There is no impact in this regard.

Source: (4)

⁷ City of Greenfield. 2014-2035 Greenfield Housing Element, page 6-29.

⁸ It is important to note that the rate, 4.95 pph, is for the average household size in the City of Greenfield. This project is a new affordable housing development with units ranging from one to three bedrooms. It is assumed that a portion of the units will be occupied by farmworkers alone and at least 65 percent (two-bedroom and three-bedroom) of the units will be occupied by workers and their families as provided in the project application materials. Thus, the potential population of 844 persons may be conservatively overstated based on the project demographics.

3.16 Public Services

Issues	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
XV. Public Services. Would the project:				
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?			X	
Police protection?			X	
Schools?			X	
Parks?			X	
Other public facilities			X	

Fire Protection and Emergency Medical Response

The Greenfield Fire Protection Department (GFD) provides fire protection and emergency medical response services in the City, including the project site and other outlying areas. The GFD participates in mutual aid throughout the County and maintains automatic aid agreements with the City of Soledad for structure fires, wildland fires, and freeway accidents.

The GFD currently operates one station located near the corner of Oak Avenue and 4th Street, approximately one mile southwest of the project site. The station was acquired in 1998 and according to a recent audit is listed in “good” condition. The GFD has two Type I engines, one Type-6 engine, and two command vehicles and is staffed 24 hours a day with a combination of full time and part time personnel. Currently the GFD employs three full time Captains, three full time Engineers, 20 part time Firefighters, a part time Assistant Chief and a full time Fire Chief. In 2018, the GFD responded to 1,437 calls for emergency service with an average response time of four minutes and 37 seconds.

Law Enforcement

The Greenfield Police Department (GPD) provides law enforcement services in the City. The GPD currently operates from the station located at the Greenfield Civic Center at 599 El Camino Real, approximately 0.67 miles west of the project site. The GPD currently has 23 sworn officers, 6 civilian employees and 1 crossing guard dedicated to serving the City of Greenfield. In addition, the GPD has 2 volunteers who volunteer their time to provide translation, crime analysis, and other services to the City. Currently, the Police Department conducts patrols within the City limit and up to one mile outside the City limit.

The General Plan identifies a goal of 1.25 sworn officers per 1,000 residents. At buildout of the General Plan (approximately 36,000 total population), it had been estimated that the GPD will need up to 23 additional officers to achieve its ratio goal. Development impact fees, including public facilities impact fees are collected to fund expansion of the police force and investments in related equipment and facilities as a condition of project approval.

Schools

The Greenfield Union School District and the South Monterey County Joint Union High School District provide educational services in the City and surrounding areas. The Greenfield School District serves students from kindergarten through eighth grade. It operates four elementary schools and one middle school. The nearest elementary school to the project site is Cesar Chavez Elementary School, located at 250 Apple Avenue, directly south of the project site. Vista Verde Middle School, located at 1199 Elm Avenue, is approximately 1.3 miles southwest of the project site. During the 2019-2020 school year, district-wide enrollment was 3,550 as identified in the 2019-2020 school accountability report cards.

The South Monterey County Joint Union High School District includes four high schools, serving students in the cities of Greenfield, King City, and surrounding areas. The nearest high school to the project site is Greenfield High School located within the City limits at 225 South El Camino Real, approximately 1.3 mile from the project site. The three other high schools within the District are located in King City. During the 2019-2020 school year, Greenfield High School enrolled 1,283 students as identified in the school accountability report cards.

Parks and Recreation

The City has a total of 19 parks and two indoor recreation facilities. There are two basic park types in Greenfield: neighborhood parks and community parks. Parks in the City are mostly located in neighborhoods. Neighborhood parks in the City make up 8.9 acres and community parks make up 19.16 acres. The General Plan requires that all residential uses are within a quarter mile walking distance to a neighborhood park. The nearest park to the project site is Rotary Centennial Park, located approximately 0.15-mile northeast of the project site at the corner of Thorp Avenue and Borzini Circle. Other parks located within 0.25-mile of the project site are Tuscany Park and Apple Community Park.

In 2012, the City was awarded Proposition 84 grant funding from the State of California for the development of a 3-acre new community park to be located at Apple Avenue and 3rd Street. The City completed development of the new three-acre neighborhood park, Apple Community Park, in June 2019.

This new park includes a tennis court, basketball courts, play area, turf play area, gazebo, restroom, water play feature, landscaping, and other community amenities.

Other Public Facilities, Libraries

The Greenfield Branch Library in Greenfield is located at 315 El Camino Real, approximately 0.70 mile southwest of the project site. In the 2018-2019 fiscal year, the Greenfield Branch Library provided library services to 17,648 people.

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 following public services:

Fire protection?

Currently, the average response time of the GFD within the City is under six minutes, which is considered to be “acceptable” and the condition of the District facility is “good.” Some additional staffing may be needed to continue to provide acceptable levels of service. The project would intensify development on the project site by adding 222 residential units. As a result, the increase in population associated with the proposal (up to 844 persons) would incrementally increase the number of residents in the City (and this specific location) and cause an incremental increase in demand for fire protection services and facilities.

According to the General Plan EIR, buildout of the General Plan would likely increase medical calls and fire alarms given the increased number of residents in the City. The General Plan EIR acknowledged that buildout of the General Plan could require additional staff, equipment, and possibly a new station. However, the project itself would not trigger the need for a new station or related infrastructure, and therefore, would not result in physical adverse environmental impacts.

To ensure there are sufficient funds to accommodate the City’s future safety needs from cumulative development, the General Plan contains a number of policies and programs to address the provision of adequate services and facilities including emergency services such as police and fire. New development is normally subject to its fair share of costs for fire protection services and facilities through payment of development impact fees. While project applicants are typically required to pay the City’s impact fees at the time of project approval, this affordable housing project has requested a deferral of fees as a concession under the density bonus program. If impact fees are deferred for an extended period of time, the City may experience an incremental fiscal impact; however, environmental effects would remain *less than significant*.

Source: (2) (4) (5) (34)

Police protection?

Police protection services to the project would be provided by the GPD. The project would intensify development on the project site by adding 222 residential units. As a result, the increase in population associated with the proposal (up to 844 persons) would incrementally increase the number of residents in the City (and this specific location) and cause an incremental, concentrated increase in demand for police

protection services and facilities. However, the project is not anticipated to increase response times to the project site or vicinity, nor would the project trigger the need for new or physically altered police protection facilities, the construction of which would cause adverse environmental impacts.

According to the General Plan EIR, the City has plans to build a new police station in the future to provide sufficient space for an expanded police force. Similar to fire protection services, the project would be subject to payment of development impact fees as a standard condition of project approval to address the project's cumulative contribution to incremental increases in demand for services. While project applicants are typically required to pay the City's impact fees at the time of project approval, this affordable housing project has requested a deferral of fees as a concession under the density bonus program. If impact fees are deferred for an extended period of time, the City may experience an incremental fiscal impact; however, environmental effects would remain *less than significant*.

Source: (2) (4) (5)

Schools?

The project site is located within the Greenfield Union School District and the South Monterey County Joint Union High School District. According to Table 4 in the 2014-2023 Housing Element Background Report, the age range 5-14 represented approximately 17 percent of the City's population, while age range 15-19 represented 8 percent of the population in 2013. Based on an anticipated project resident population of 844 people, the project could increase student population in the elementary/middle school ages by 143 students and in the high school ages by approximately 67 students. As noted under Population and Housing, however, the project's population – and therefore the potential student population – is conservatively estimated considering the size of the proposed multi-family units and the project demographics. The actual number of students generated is likely to be lower.

While the proposed project would increase the student population in the City, which in turn could affect the capacity of existing school facilities, Section 65995(h) of the California Government Code has been adopted by the State to mitigate school facilities impacts. Section 65995(h) states that the payment of statutory fees "is deemed to be full and complete mitigation of the impacts of any legislative or adjudicative act, or both, involving, but not limited to, the planning, use, or development of real property, or any change in governmental organization or reorganization as defined in Section 56021 or 56073, on the provision of adequate school facilities." In addition, future developers of new residential developments would be subject to school impact fees at the time of building permit issuance to mitigate impacts on public school facilities. This requirement is identified in General Plan Policy 4.6.2. These fees are used by the school districts to fund construction of new school facilities as may be needed to meet cumulative demand as new students are added to the enrollment with both school districts. With developer impact fees paid for school services, impacts would be *less than significant*. New facilities, if and when required by the school districts, would be developed and analyzed independent of this project review.

Source: (2) (4) (5) (34) (35)

Parks?

The proposed project includes open space areas in the form of outdoor common space, gathering spaces, and flexible meeting spaces as shown in **Figure 7**. In addition, there will be outdoor dining areas, turfs, tot lots, and multiple gardens constructed with the project. Per Section 17.30.040, Table 17.30-3 (Multiple-Family Residential Zoning District Development Standards) of the Greenfield Municipal Code, the required open space lot coverage is a minimum of 40 percent. The project would exceed the required amount of open space. However, this open space provided by the project is not considered formal park space and would be intended for use by the project residents.

As noted above, there are three parks within less than 0.25-mile of the project site – Centennial Rotary Park, Tuscany Park, and Apple Community Park. The project site is also immediately adjacent to Cesar Chavez Elementary School, which has open fields that could be used outside of school hours for recreation by the public. As such, these nearby park facilities would likely be able to accommodate the increase in population as a result of the project. The project would also be subject to park impact fees imposed by the City for all new residential development in the City. The project would be required to comply with the payment of in-lieu fees, or parkland dedication, or a combination of both. The open space provided by the project, in combination with payment of impact fees as determined by the City, and the nearby park facilities would not result in the need for new or physically altered parks in the project. While project applicants are typically required to pay the City’s impact fees at the time of project approval, this affordable housing project has requested a deferral of fees as a concession under the density bonus program. If impact fees are deferred for an extended period of time, the City may experience an incremental fiscal impact; however, environmental effects would remain *less than significant*.

Impacts are *less than significant*.

Source: (4) (13) (37) (38)

Other Public Facilities?

The project proposes the construction of 222 residential units which could lead to a demand on other public facilities such as libraries within the City. Projects consistent with the General Plan and complying with programs and policies within the General Plan would have less than significant impacts (such as Community Building and Services Policy 4.3.4). Therefore, the project would not require the construction of other public facilities which might have an adverse physical effect on the environment, and there would be a less than significant impact.

Impacts are *less than significant*.

Source: (4) (39)

3.17 Recreation

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

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?

A population of up to 844 persons is expected as after development of 222 residential units. This will cause an increased demand for recreational facilities and parks; however, the expected demand can be met with existing facilities. The City’s on-going park operation and maintenance plans (for which this proposed project would contribute to by way of property taxes) would avoid substantial physical deterioration to existing parks or other recreation facilities. While project applicants are typically required to pay the City’s impact fees at the time of project approval, this affordable housing project has requested a deferral of fees as a concession under the density bonus program. If impact fees are deferred for an extended period of time, the City may experience an incremental fiscal impact; however, environmental effects on existing park facilities would remain *less than significant*.

In addition, the City recently developed a new neighborhood park, Apple Community Park, approximately 0.20 mile southwest of the proposed project site, which could serve as another resource for future project residents. The park includes a tennis court, basketball court, play area, turf play area, gazebo, restroom, water play feature, landscaping, and other features. Given the variety of existing park facilities near the project site, the recreational amenities proposed for the project site, and the City’s maintenance program for parks, substantial project-caused physical deterioration of existing parks is not anticipated. The proposed project would have a less than significant impact on existing park facilities.

Impacts are *less than significant*.

Source: (4) (13)

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?

Refer to the Public Services Discussion, Impact A (Parks). As discussed above, the project site itself would provide shared green space and open spaces for the project residents. The project site is proposed for residential development, and while the additional residents will cause an increase in demand for recreational facilities, this increase in demand can be met by a combination of the proposed on-site recreational amenities and the variety of nearby, existing public parks. The project would not require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

There is no impact in this regard.

Source: (4) (28)

3.18 Transportation

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

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

A traffic technical memo was prepared by Kittelson & Associates to analyze the project's potential impacts to traffic in July 2019. A summary follows, and the report is attached in **Appendix H**.

Trip generation is usually computed using the rates provided by the Institute of Transportation Engineers (ITE). The project would provide 222 new multi-family apartments, a portion of which would be available for farmworkers. Since ITE does not have a specific category for farmworker residential developments, the Multifamily Housing (Low-Rise) ITE Code 220 was used as the closest category. However, it is known that farmworker trip making is different to standard suburban multifamily and hence could be much lower given a number of factors. These factors include: time of day travel with residents departing earlier than the AM peak and returning before the PM peak, car-pooling, van pooling, bussing, and lower car ownership. Since the ITE Code 220 is used to analyze a standard suburban multifamily, this category may be too conservative and could end up with higher trips than a typical farmworker residential site. For these reasons, traffic impacts may be overstated for a more conservative approach. In addition, the location of the project site is adjacent to a school and within 0.4 mile of a shopping center, with additional commercial development anticipated for the Walnut Avenue Specific Plan Area, which is one block immediately the west of the project site. The proximity of these other uses would likely contribute

to higher mode choice towards walking and biking trips beyond typical suburban amounts. As a result, Kittelson proposed additional reduction factors to account for this unique travel characteristic, as follows:

1. 10% of units reserved for high needs residents – 10% trip reduction.
2. Time of day departure/arrival – 10% reduction in the peak hours.
3. Vanpool/carpool/Bussing – 10% reduction in the peak hours.
4. Walk/Bike mode choice – 5% reduction in the peak hours.
5. School aftercare on site – 5% reduction in the PM peak hour.

The projected weekday daily, a.m., and p.m. peak-hour vehicle trips for the proposed development were based on the adjustments to the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 10th Edition described previously. The table below summarizes the anticipated number of trips that will be generated by the proposed development and the specific trip reductions associated with the trip adjustments.

Table 18 Estimated 41206 Walnut Avenue Development Trip Generation

Land Use	ITE Code	Size	Daily Rate/ Trips	Weekday AM Peak Hour Rates/ Trips			Weekday PM Peak Hour Rates/ Trips		
				Total	In	Out	Total	In	Out
Multifamily (low rise) - Rates	220	222	7.32	0.46	23%	77%	0.56	63%	37%
Multifamily (low rise) - Trips	220	222	1,625	102	23	79	124	78	46
Adjustments									
10% of units reserved for High Needs < 10% trips			-163	-10	-2	-8	-12	-8	-5
Time of day departure/arrival travel < 10% trips			0	-10	-2	-8	-12	-8	-5
Vanpools/Carpools < 10% trips			-163	-10	-2	-8	-12	-8	-5
Walk/Bike mode choice < 5% trips			-81	-5	-1	4	-6	-4	-2
School Aftercare on site (PM only) < 5% trips			0	0	0	0	-6	-4	-2
Total Reduction									
			-406	-35	-7	-28	-50	-31	-18
Total Net New Trips									
			1,219	66	15	51	75	47	28

The table above shows that after applying trip adjustments, the proposed development is estimated to generate 1,219 total net new daily vehicle trips; 66 net new weekday a.m. peak hour vehicle trips (15 inbound, 51 outbound) and 75 net new weekday p.m. peak hour vehicle trips (47 inbound, 28 outbound).

The project is not anticipated to have truck activity beyond regular waste truck pickup or moving vans.

The Circulation Element of the Greenfield General Plan provides the goals and policies future developments are required to comply with to maintain safe and pedestrian and vehicle access and movement along City streets. Policy 3.2.3 in the General Plan Circulation Element sets a standard for roadways in the City to maintain an acceptable Levels of Service (LOS) C for intersections and roadways during peak periods and accept LOS D only when unavoidable and at identified locations. Table 3-1 in the

General Plan lists the City’s LOS standards, mitigated LOS at buildout of the General Plan, and the roadway type.

Given the low number of anticipated project trips during the weekday peak hour periods, it is not expected – in the professional opinion of the project’s traffic engineer - there will be any additional operational impacts beyond those identified in the *Walnut Avenue Specific Plan* and Draft Environmental Impact Report (DEIR), prepared for the City of Greenfield in January 2014. All project trips from the Greenfield Commons project would be accommodated within the Capital Improvement Projects (CIP) improvements and the mitigation improvements identified by the Specific Plan, and therefore would be consistent with the City’s adopted plans, program, ordinances and policies.

Beyond the trip generation analysis, no additional traffic impact assessment has been conducted or warranted due to the findings above and a shift in CEQA analysis requirements to vehicle miles traveled (VMT) metrics that took place in July 2020.

Impacts are *less than significant*.

Source: (31) (Appendix G)

b) Conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)?

In 2018, the California state legislature, in approving SB 743, directed the Office of Planning and Research to develop guidelines for assessing transportation impacts based on VMT. In response to SB 743, CEQA guidelines were significantly amended regarding the methods by which lead agencies are to evaluate a project’s transportation impacts.

Under SB 743, over 50 percent of development within the State could forego transportation analysis and mitigation entirely. This includes affordable housing, housing within ½-mile of transit, housing projects generating fewer than 110 trips per day, and new housing in existing low-VMT neighborhoods, including rural and suburban areas. Based upon the Technical Advisory on Evaluating Transportation Impacts in CEQA (Governors’ Office of Planning and Research, 2018), affordable residential development projects such as Greenfield Commons are presumed to have a less than significant impact with respect to VMT. Adding affordable housing to infill locations generally improves jobs-housing match, in turn shortening commutes and reducing VMT. Further, lower wage workers in particular would be more likely to choose a residential location close to their workplace if one is available. These assumptions are further supported given that the proposed project includes a farmworker housing component, with farmworker residents expected to have off-peak commute patterns and more frequent ridesharing to job sites.

For all these reasons, impacts are *less than significant*.

Source: (31)

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

A review of the detailed project site plan was conducted as part of the traffic memo to identify any issues related to access, internal circulation, pedestrian crossings and truck circulation.

The site plan shows a layout of nine main buildings that includes the residences, community support building, and laundry and bike rooms.

The site plan indicates there are two access driveways off Walnut Avenue, a west access and an east access. All vehicle and truck trips will enter and exit via gates at these driveways. The addition of appropriate stop control signage at the two driveway access points should improve safety and minimize conflicts with traffic entering or exiting to Walnut Avenue.

An internal road provides two-way circulation within the site. Per City Municipal Code, the roadway is 25 feet wide and is adequate for two-way traffic and sufficiently wide enough for trucks to circulate without obstruction of buildings and parking lot structures.

There is a pedestrian crossing designated via separate pavement markings at the west gate leading from the Zone 1 Buildings on the east side to the Community Support Center on the west side. This could be a potential conflict point between cars and pedestrians. Therefore, it is recommended that appropriate signage per City Municipal Code be installed there indicating “Caution Pedestrian Crossing” to improve safety and minimize conflicts with traffic entering or exiting to Walnut Avenue.

Along the Walnut Avenue project frontage, the project would complete the sidewalk pattern from the adjacent neighborhood to the east, to the intersection of 3rd Street and Walnut Avenue, where there are existing ADA compliant sidewalk ramps and intersection improvements. However, further west along Walnut Avenue (approaching the Walnut Avenue bridge), the sidewalk ends because this portion of the Walnut Avenue Specific Plan has not been constructed. The result is a narrow shoulder. With the primary commercial uses across and west of Highway 101, project residents – particularly those using modes of transportation other than automobile – may use this route to access goods and services. While this condition is not a geometric design feature of the project, increased pedestrian and bicycle traffic from the project and other new development on the east side of the highway should be monitored by the City over time. Temporary facilities to connect the sidewalk route, such as an asphalt pathway, should be considered until such time that the Specific Plan is constructed with full frontage and sidewalks. However, improvements in this location are not the direct responsibility of the project.

Implementation of the following mitigation measure would reduce the impact at the project frontage to a less than significant level by installing appropriate signage to improve safety and to minimize conflicts between cars and pedestrians when entering or exiting Walnut Avenue.

Impacts are *less than significant with mitigation*.

Mitigation Measure:

TRA1. Prior to the approval of final improvement plans, the applicant shall work with the City of Greenfield to install appropriate signage per City Municipal Code, Chapter 17.62 to indicate “Caution Pedestrian Crossing” where appropriate.

Source: (31)

d) Result in inadequate emergency access?

As mentioned above, a review of the project site plan was performed as part of the traffic memo to determine whether adequate site access would be provided. Vehicle access will be via the two main access gates along Walnut Avenue and follow the same circulation pattern as residents.

Truck traffic is anticipated to be limited to moving vans, waste trucks and emergency vehicles (EVA's). Trash enclosures are situated at various locations on the site. Waste trucks will be able to circulate and maneuver around the site to access the trash enclosures. Truck turning templates based on the largest anticipated truck, a standard aerial fire truck (ladder truck), were tested to ensure circulation around the site is not compromised. This should also be adequate for a standard waste truck. With the proposed internal roadway layout and adherence to City roadway design and site design standards, emergency truck vehicle access and circulation within the project site would be adequate. Therefore, the proposed project would have a less than significant impact regarding emergency access.

Source: (31)

3.19 Tribal Cultural Resources

Issues	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
XVIII. Tribal Cultural Resources.				
<p>a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code § 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:</p> <ul style="list-style-type: none"> i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code § 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code § 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe. 		X		

As described in the Cultural Resources section, a cultural resources assessment was prepared in July 2019 (Material Culture Consulting, 2019). Please see this full report in **Appendix C** to this Initial Study for more detailed information.

Ethnography

The Salinas Valley is in the ethnographically shared territory of the Salinan, Esselen, and Costanoan Esselen groups. The Salinan inhabited areas south of Soledad, while the Esselen inhabited areas north of

Soledad along the Salinas River and west over the Santa Lucia Range towards the coast. The Ohlone Costanoan Esselen Nation (OCEN) (2018) provided historical documentation of multiple native villages along the Salinas river within the Salinas Valley (see Figures 4 and 5 in **Appendix C**). The Project Area lies within the area that has been historically occupied by the Salinan group.

Salinan

The traditional territory occupied by the Salinan group spans from just south of Soledad to the east of San Luis Obispo. The Salinan group spoke a form of Hokan language. Trade was a major factor in relationships between the Salinan, who maintained a positive trade network with the Yokuts. According to Kroeber (1925), it was this strong relationship with the Yokuts that influenced other Salinan customs such as basketry and language. Villages or village groups were considered the major sociopolitical unit of the Salinan culture (City of Greenfield, 2005). These were headed by chiefs which often feuded amongst one another. There is evidence of patrilineal family descent among the Salinan, with a combined office of ordinary chief and war chief, which is a unique role for California tribes. The Salinan were hunter gatherers and their technology primarily highlighting exploitation of terrestrial resources, although both coastal and inland groups engaged in fishing (Hester 1978). Hunting weaponry and facilities included: sinew-backed and self-bows; wooden arrow shafts; projectile points and other flaked stone tools; and nets. Salinan utilitarian tools and facilities included: baskets, both coiled and twined, for food and water collection, food storage, and food preparation; bowl mortars; pestles; metates; stone bowls; and bone awls. Clothing included tule aprons, rabbitskin or otterskin cloaks, and basket hats. While Salinan generally experienced friendly relations with neighboring cultural groups to the East and South, hostile relations existed between the Salinan and the Costanoan groups, most presumably stemming from trade competition (City of Greenfield 2005). The southern Costanoan groups were considered to be the Salinan’s “tribal foes” (Hester 1978). Both groups vying for the rich inland trade market where marine resources were desired.

Source: (17) (Appendix C)

- a) *Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code § 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:*
- b) *Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or*
- c) *A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code § 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code § 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.*

A Sacred Lands File search was requested by Material Culture Consulting (MCC) from the Native American Heritage Commission (NAHC) on May 17, 2019. The Commission responded on May 21, 2019, stating that there are no known/known sacred lands within a one-half mile of the Project Area. The NAHC requested

that 12 Native American tribes or individuals be contacted for further information regarding the general Project vicinity. MCC subsequently sent letters to the 12 Native American contacts on May 29, 2019, requesting any information related to cultural resources or heritage sites within or adjacent to the Project Area. Additional attempts at contact by letter, email, or phone call were made on June 18, 2019 and July 3, 2019.

On June 13, 2019, MCC President Tria Belcourt, M.A., RPA, received a phone call from Mr. Fredrick Segobia, Tribal Representative from the Salinan Tribe of Monterey, San Luis Obispo Counties. Mr. Segobia requested a copy of the Phase I report when it is completed and noted that if the project is near Arroyo Seco, there would be a greater potential of encountering Tribal Cultural Resources. Mr. Segobia did not have concerns regarding the project at prior to reviewing the report. No other additional groups or individuals have responded with information about the Project Area as of July 9, 2019.

There are no known tribal resources anticipated to be affected by the proposed project. Mitigation measures CR1 and CR2 will adequately address protection of buried cultural resources or human remains during construction.

Impacts are *less than significant with mitigation*.

Source: (17) (Appendix C)

3.20 Utilities and Service Systems

Issues	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
XIX. Utilities and Service Systems. Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?			X	
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?			X	
c) Result in a determination by the waste water 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?			X	
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?			X	
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?			X	

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?

Water Supply and Conveyance

The City of Greenfield Public Works Department is responsible for water supply and delivery in the City. As discussed in the Hydrology and Water Quality section above, the City currently obtains its water supply exclusively from groundwater. Currently, three wells operate to extract water from the underlying groundwater basin and pump it to two storage tanks. The three wells produce an average of 1,815 acre feet per year (afy) of groundwater. The two storage tanks are able to hold up to a combined capacity of 2.5 million gallons. In the City's 2016 Water Master Plan, the City identified a supply deficit under both existing and future maximum day demand conditions. The existing system lacks redundant capacity during peak usage. If a well is taken out of operation for servicing or repairs, there is a possibility that usage restrictions could be temporarily mandated by the City. Additional wells are needed to meet the minimum criteria set forth by the California Water Works Standards. This is a city-wide issue being addressed by the City as noted above, and not specific to the project. The City has plans to address this by adding one well with additional storage. Funding for the project is pending an application to the State for matching funds.

Based on correspondence with the City Engineer, there is an existing 12-inch distribution line in Walnut Avenue with adequate capacity to serve the site, and there is adequate water supply available with all wells operating.

With existing infrastructure available to service the project site and adequate water supplies available, the project will not require the relocation or construction of new water infrastructure other than the direct connection to the project itself. Construction-related impacts would be less than significant.

Wastewater Conveyance and Treatment

The City is responsible for the maintenance and operation of the sewer collection system and wastewater treatment facilities serving the residences and businesses in the City. The City's wastewater treatment plant (WWTP) is regulated by the California Regional Water Quality Control Board, Central Coast Region, and Waste Discharge Requirements (WDR) Order Number R3-2002-0062. The Order was adopted May 31, 2002, for WWTP operations of 1 million gallons per day (mgd). The WWTP currently operates at approximately 930,000 gallons per day (gpd), which is near capacity. Presently, staff is moving forward with plans to expand the plant to a capacity of 2 mgd in order to handle existing and anticipated future flows such as the Greenfield Commons project. The City is also preparing a long-term Wastewater Master Plan update which is anticipated to be completed in draft form in January 2021.

The project would connect to the existing 24-inch wastewater collection line in Walnut Avenue and therefore would not require the extension of sewer infrastructure except the direct connection to service the property. All sewer pipelines on the project site would be installed in the project roadways during construction and are the responsibility of the project applicant.

The 222-unit project would generate approximately 31,080 gallons per day (140⁹ gallons per day per dwelling unit X 222 dwelling units). Based on correspondence with the City Engineer, the WWTP currently has adequate remaining capacity to serve the project. With capacity available, the project itself would not require the construction or expansion of the WWTP.

City staff is aware that a new order from the Regional Water Quality Control Board is expected to be issued in the near future. Depending on the new order, there may be compliance issues regarding city-wide treatment capacity and disposal requirements. At the present time, the addition of wastewater flows from the project would not cause an exceedance of the operational or permitted capacity at the City's WWTP. Impacts would be less than significant.

Stormwater

Greenfield is a 100 percent retention City, which means that the City has no discharge from up to a 100-year event to surrounding creeks and rivers. The City acknowledges that there is no regional retention facility available to serve the project site. Therefore, the site would be required to construct on-site retention basins designed to capture and infiltrate 100 percent of run-off generated by the 100-year event. As shown in **Figure 10**, new on-site storm water retention basins will be included and are designed into the project.

The proposed basins would be owned, maintained and operated by the City. Because the project would construct an internal drainage and capture system to serve the project and would include infiltration facilities for water quality sized according to City standards, the project would not require new or the expansion of existing storm drainage facilities. With implementation of a Stormwater Control Plan consistent with RWQCB and compliance with the City's regulatory policies pertaining to stormwater runoff, operation of the proposed project would not require or result in the relocation or construction of new stormwater drainage facilities beyond those within the project footprint and therefore would result in a less than significant impact.

Electric Power, Natural Gas, and Telecommunications Facilities

As the project site is currently located in a developed area of the City and is surrounded by urban uses, infrastructure on the project site is already established. Buildout of the project would increase demand for telecommunication and electrical services and would likely require new hookups to existing infrastructure, but not create a need to construct new or expanded physical facilities. PG&E is the main electricity and natural gas provider for the City. PG&E would continue to provide electric services to the project site, although the project is designed to be net zero in terms of electrical consumption. No natural gas services are required. Telecommunications would continue to be provided by AT&T, Comcast, and Spectrum. Therefore, the proposed project would not require or result in the relocation or construction

⁹ Based on other wastewater district rates, apartments typically generate about 140 gallons per day per dwelling unit.

of new or expanded electric power, natural gas, or telecommunications facilities, and there would be no impact.

Source: (4) (40) (42)

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

Please see the discussion of water in a) above. Water service is provided by the City of Greenfield Public Works Department. The City has acknowledged there is sufficient capacity within the groundwater basin to serve the project site during normal, dry, and multiple dry years.

In addition, development of the site with 222 residential units is expected to result in marginally lower demand for groundwater than does the historic agricultural use of the site. Implementation of General Plan policies, existing regulations and local programs would also ensure that the proposed project would reduce water consumption and implement water conservation measures. Thus, impacts would be less than significant.

Impacts are considered *less than significant*.

Source: (4) (5)

c) Result in a determination by the waste water 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?

Project-generated wastewater would be treated by the City's WWTP, which currently has sufficient capacity as noted in the discussion of threshold question a), above, and as determined by the wastewater treatment provider (City of Greenfield).

Impacts are *less than significant*.

Source: (4) (5)

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?

Solid waste generated in the City is transferred to the Johnson Canyon Landfill located near the City of Gonzales, approximately 17 miles north, where it is processed and landfilled. Tri-Cities Disposal and Recycling, Inc. provides solid waste, recycling and yard waste collection for residential and commercial uses in the City. The Salinas Valley Solid Waste Authority is responsible for ensuring secure long-term solid waste disposal service to the City and other Salinas Valley communities. The maximum permitted capacity of the landfill is 13,834,328 cubic yards (cy). According to the CalRecycle Solid Waste Facility Permit (27-AA-0005), as of July 1, 2007, The Landfill is estimated to have a remaining refuse disposal capacity of 6,923,297 cy through the year 2055. The estimated closure date for the landfill is based on a disposal volume of 1,574 tons per day (tpd).

The proposed project would generate approximately 1,198.8¹⁰ pounds per day (ppd) or approximately 0.59 tpd of solid waste. The General Plan EIR concluded that the increase in solid waste generated by full buildout under the General Plan (including the project site) would not cause the City to exceed the capacities of the operating landfills that serve the City. In addition, other regional disposal facilities, such as the Marina landfill, have indicated excess capacity due to recent successes in mandated recycling goals. The Salinas Valley Solid Waste Authority also has future plans to expand the Johnson Canyon landfill and/or to install waste to energy technology which would reduce demand for landfill capacity. The project's additional solid waste would not increase the tonnage beyond the landfill's permitted amount, cause a need for expansion, or result in the closure of the landfill prior to the anticipated 2055 date.

Impacts are *less than significant*.

Source: (4) (5) (41)

e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

See threshold question d), above. The proposed project would be required to comply with all federal, State, and local statutes and regulations related to solid waste. As a result, the project would have a less than significant impact regarding existing statutes and regulations.

Impacts are *less than significant*.

Source: (4) (5)

¹⁰ Estimated solid waste generation rates were obtained from CalRecycle. Total ppd generated by proposed project = 222 residential units*(5.4 lbs/day/dwelling unit) = 1,198.8 ppd

3.21 Wildfire

Issues	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
XX. Wildfire. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?				X
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?				X
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?				X
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?				X

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

- a) *Substantially impair an adopted emergency response plan or emergency evacuation plan?*
- b) *Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?*

- c) *Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?*
- d) *Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?*

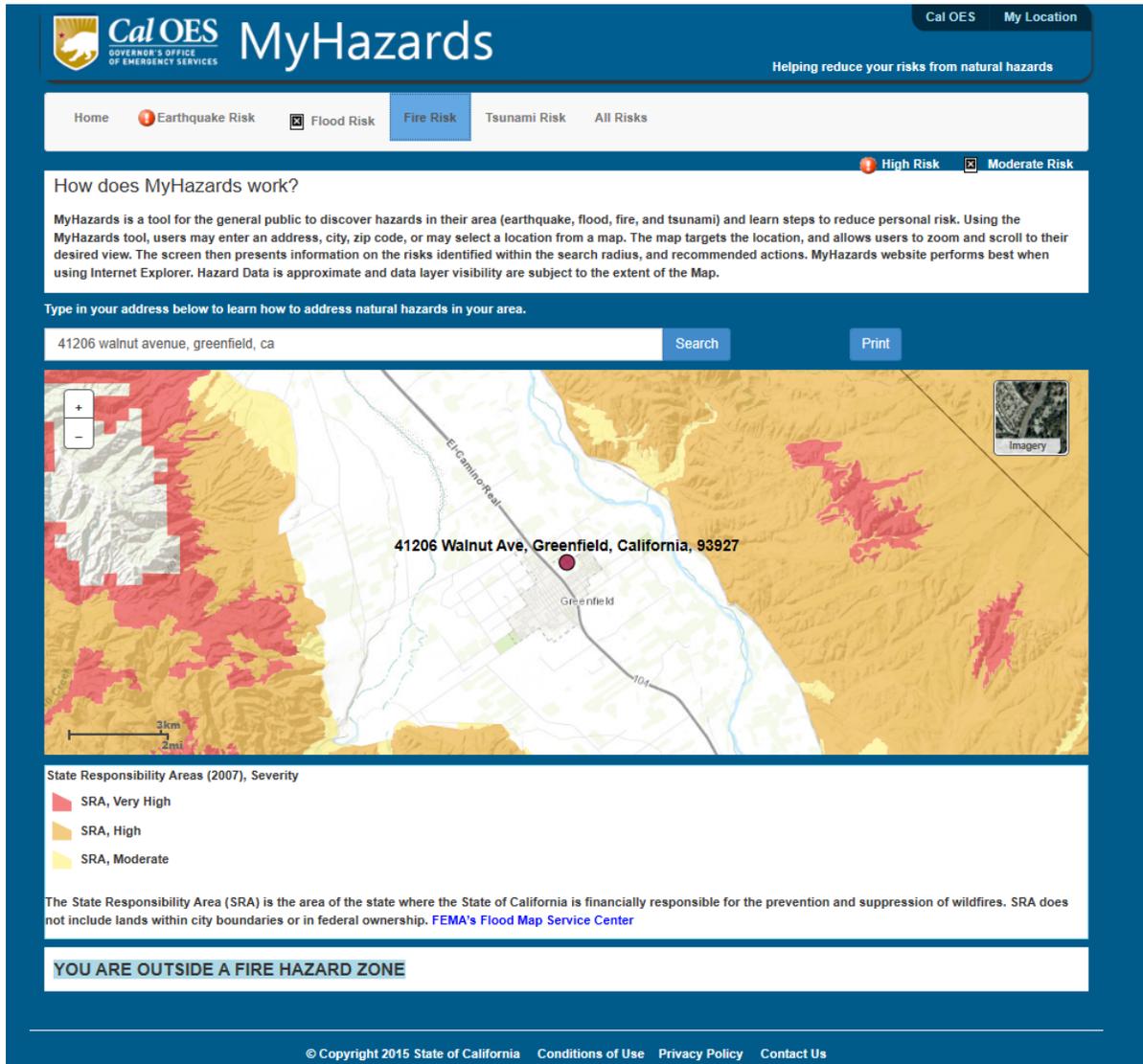


Figure 19 Fire Hazard Map (California)

Per Figure 19 above, the project site is not located within a Moderate, High, or Very High fire hazard area. Therefore, there is no impact in this regard.

Source: (31)

3.22 Mandatory Findings of Significance

Issues	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
XXI. Mandatory Findings of Significance. Would the project:				
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?			X	
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.)			X	
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?				X

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?

This Initial Study has determined that the project, as mitigated, does not have the potential to degrade the quality of the environment, substantially reduce the habitat of fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal

community, reduce the number or restrict the range of a rare or endangered plant or animal. Mitigation measures are provided requiring pre-construction surveys for burrowing owl and nesting birds to avoid impacts to these biological resources.

As discussed in the Cultural Resources section, the potential for the project to disturb important examples of California history or prehistory would be low. However, mitigation measures CR1 and CR2 would ensure appropriate responses and actions if unknown cultural or tribal resources are discovered during construction activities. As such, the proposed project does not adversely affect any cultural resources or human remains. Implementation of these mitigation measures would ensure that the proposed project does not eliminate examples of major periods of California history and prehistory, and would render potential impacts less than significant.

As described in the environmental topic sections of this Initial Study, impacts were found to be less than significant, and the proposed project would not have environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly.

Source: (4)

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.)

Under Section 15065(a)(3) of the CEQA Guidelines, a lead agency shall find that a project may have a significant effect on the environment where there is substantial evidence that the project has potential environmental effects “that are individually limited, but cumulatively considerable.” As defined in Section 15065(a)(3) of the CEQA Guidelines, cumulatively considerable means “that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.” In addition, under Section 15152(f) of the CEQA Guidelines, where a lead agency has determined that a cumulative effect has been adequately addressed in a prior EIR, the effect is not treated as significant for purposes of later environmental review and need not be discussed in detail.

The project would contribute to the continued urbanization of the project area and the east side of the City of Greenfield. Assumptions for cumulative development are the continued buildout of the area consistent with the land uses and policies of the General Plan, including the Walnut Avenue Specific Plan.

The proposed project would result in temporary air quality, water quality, biology, and noise impacts during construction. With the implementation of the identified mitigation measures, Conditions of Project Approval, Standard Permit Conditions, and consistency with adopted City policies, construction impacts would be mitigated to a less than significant level on both a project-specific and cumulative level.

The cumulative effect of development on the east side of the City has been analyzed and disclosed in the General Plan EIR. While most environmental resources are site specific and mitigated on a project by project basis, issues such as traffic, air quality, public services and utilities are more likely to combine with other projects to exacerbate environmental effects. In this case, air quality emissions were found to be

less than significant in the cumulative condition, as were changes in traffic volumes. In terms of utilities (water and sewer systems), the project and other growth will continue to use existing/remaining capacity in these systems in the near future. While water and sewer availability-related impacts are not immediate or acute, they will need to be resolved by City-wide programs and efforts to expand capacity and improve operational performance. Such plans are currently underway and will resolve potential cumulative impacts.

Impacts are *less than significant*.

Source: (4)

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

Consistent with Section 15065(a)(4) of the CEQA Guidelines, a lead agency shall find that a project may have a significant effect on the environment where there is substantial evidence that the proposed project has the potential to cause substantial adverse effects on human beings, either directly or indirectly. Under this standard, a change to the physical environment that might otherwise be minor must be treated as significant if people would be significantly affected. This factor relates to adverse changes to the environment of human beings generally, and not to effects on particular individuals. While changes to the environment that could indirectly affect human beings would be represented by all of the designated CEQA issue areas, those that could directly affect human beings typically include impacts related to air quality, hazardous materials and noise. However, implementation of the identified mitigation measures, and compliance with standard City requirements and General Plan policies would reduce these impacts to a less than significant level. Specifically, the health risk assessment and analysis of agricultural chemical drift conducted for the project also confirms that existing environmental conditions would have a less than significant effect on new project residents. No other direct or indirect adverse effects on human beings have been identified.

Impacts are *less than significant*.

Source: (4)

4.0 REPORT PREPARERS

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