

Initial Study/Mitigated Negative
Declaration for the
City of Arroyo Grande General Plan
Circulation Element Update,
Arroyo Grande, San Luis Obispo
County, California

APRIL 2021

PREPARED FOR
City of Arroyo Grande

PREPARED BY
SWCA Environmental Consultants

**INITIAL STUDY/MITIGATED NEGATIVE DECLARATION
FOR THE
CITY OF ARROYO GRANDE GENERAL PLAN
CIRCULATION ELEMENT UPDATE,
ARROYO GRANDE, SAN LUIS OBISPO COUNTY,
CALIFORNIA**

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1 INTRODUCTION

The City of Arroyo Grande (City) is proposing a comprehensive update of the *City of Arroyo Grande General Plan Circulation Element* to adequately anticipate and plan transportation infrastructure to meet future needs of the City. The Circulation Element—one of eight mandatory elements of the City of Arroyo Grande General Plan—identifies the general location and extent of existing and proposed major roads, transit routes, terminals, and public utilities and facilities, and seeks to make policies governing circulation consistent with the *City of Arroyo Grande General Plan Land Use Element* (LUE). The City's Circulation Element sets standards for developing streets and highways, levels of service, multi-modal circulation, and transportation systems. It also coordinates land use and circulation and provides the basis for planning and prioritizing transportation improvement projects and funding.

Significant work has been completed over the past several years, as time and resources permitted, that inform the *City of Arroyo Grande General Plan Circulation Element Update* (GPCEU), including preparation of existing transportation conditions, corridor and operational studies, transportation model updates, and initial draft policies. On May 14, 2019, the City Council authorized a consultant services agreement with GHD to update the City's Circulation Element. The process of updating the Circulation Element began with obtaining updated traffic counts at various locations throughout the City in September and October 2019. This process also included review of existing Circulation Element programs, an evaluation of existing conditions, and development of a report reflecting current facilities that have been constructed since the Circulation Element was last updated in 2012. GHD, in conjunction with City staff, then prepared the *Final Existing Conditions and Background Report* (Appendix A) that would be incorporated into the GPCEU. The Circulation Element policies and maps are also being updated. The GPCEU effort also includes updates to the City's *Transportation Impact Analysis Report Guidelines*. Additionally, the City is in the process of updating the City's Capital Improvement Program and Impact Fee Program.

Following receipt of feedback from the City Planning Commission and the public during this study session, the Draft GPCEU will be finalized. The final document would return to the Planning Commission seeking a recommendation for adoption by the City Council. The process would conclude with a City Council meeting to consider adoption of the Circulation Element.

1.1 Project Location

The project location includes the entire incorporated City of Arroyo Grande (also referred to as the study area) in San Luis Obispo County, California (Figure 1).

1.2 Existing Conditions

The City of Arroyo Grande is an incorporated community located within the "Five Cities" area of San Luis Obispo County. The City is approximately 200 miles south of the San Francisco Bay Area and 150 miles north of Los Angeles. The City is 5.45 square miles in area and is at an elevation of approximately 114 feet above mean sea level. Arroyo Grande is located approximately 10 miles south of the City of San Luis Obispo, along the U.S. Route 101 (US 101) coastal corridor. The City is contiguous with the incorporated areas of the City of Pismo Beach to the northwest and the City of Grover Beach to the west.

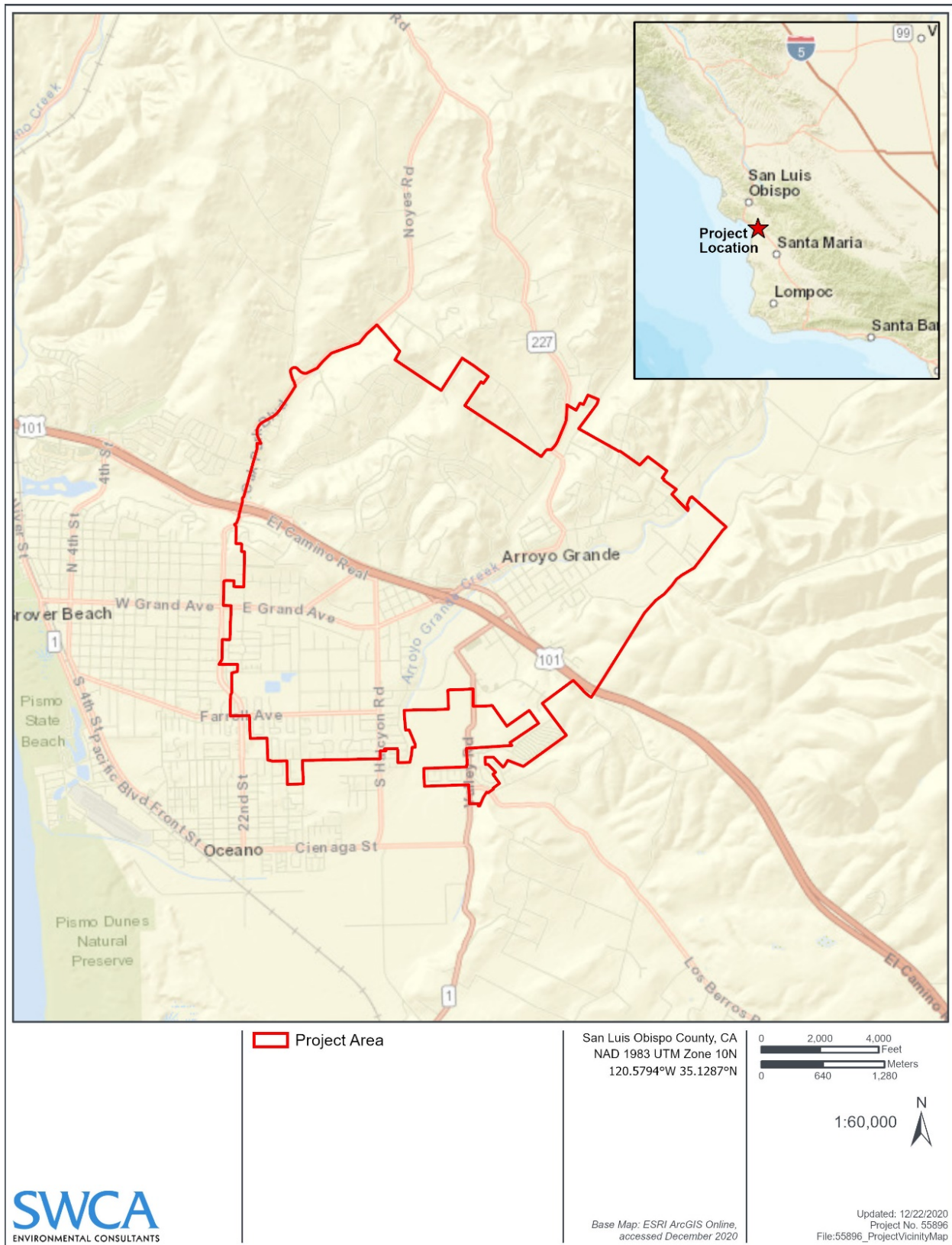


Figure 1. Project vicinity map.

US 101 runs diagonally through the middle of the City in a northwest to southeast direction. US 101 is the primary state highway providing regional access, connecting the City with other parts of San Luis Obispo County and the state. State Route (SR) 227 also provides more localized access to and from the City to surrounding local communities.

1.2.1 Roadway System

A hierarchy of streets provides access to and from residential, commercial, and industrial uses throughout the City and beyond. A route's design, including the number of lanes needed, is determined by its functional classification and its projected traffic levels to achieve "safe and convenient movement at the development intensity anticipated in the Land Use Element" (City of Arroyo Grande 2021b). The study area and existing roadway functional classifications are presented in Figure 2 and described in further detail below.

STATE FREEWAYS

Controlled access facilities with junctions free of at-grade crossing with other roads, railways, or pedestrian pathways, and served by interchanges are classified as freeways. Freeways can either be toll or non-toll roads, with speed limits usually ranging from 60 to 70 miles per hour (mph). The following freeway services the surrounding Arroyo Grande community.

US 101 is a major north–south freeway facility that traverses along coastal California. US 101 serves as the principal inter-regional auto and truck travel route that connects San Luis Obispo County (and other portions of the Central Coast) with the San Francisco Bay Area to the north and the Los Angeles urban basin to the south. Within San Luis Obispo County, US 101 provides major connection between and through several cities. Through the "Five Cities" area of San Luis Obispo County, US 101 represents a major recreational as well as commuter travel route and has a general four-lane divided freeway cross-section with 65 mph posted speed limits. Within the City of Arroyo Grande, US 101 forms full-access interchanges with Oak Park Boulevard, Brisco Road/Halcyon Road, and Grand Avenue/Branch Street, as well as directional interchange access at Traffic Way and Fair Oaks Avenue.

STATE HIGHWAYS

Controlled access facilities with junctions with cross streets characterized by at-grade intersections rather than interchanges are classified as highways. Highways can either be divided or undivided roadways, with speed limits usually ranging from 40 to 55 mph. The following highway services the surrounding Arroyo Grande community.

State Route (SR) 227 is a state highway route that runs predominantly in a north–south direction connecting the cities of San Luis Obispo and Arroyo Grande. SR 227 has a general two-lane highway-type cross-section through most segments. SR 227 represents a significant parallel commuter route to US 101, as well as a recreational travel route serving the City of Arroyo Grande.

ARTERIAL STREETS

Arterial streets serve to connect areas of major activity within the urban area and function primarily to distribute cross-town traffic from freeways and highways to collector streets. The City's Standard Specifications and Engineering Standards define two categories: primary arterials and arterials. Primary arterials feature four lanes with a turn lane, and arterials feature two lanes with a turn lane. Within the City of Arroyo Grande, arterial streets are mostly two-lane facilities with maximum operating speeds ranging from 30 to 45 mph. In addition, arterial facilities generally have limited access to adjacent land uses. The following arterials are identified in the City's General Plan circulation system.

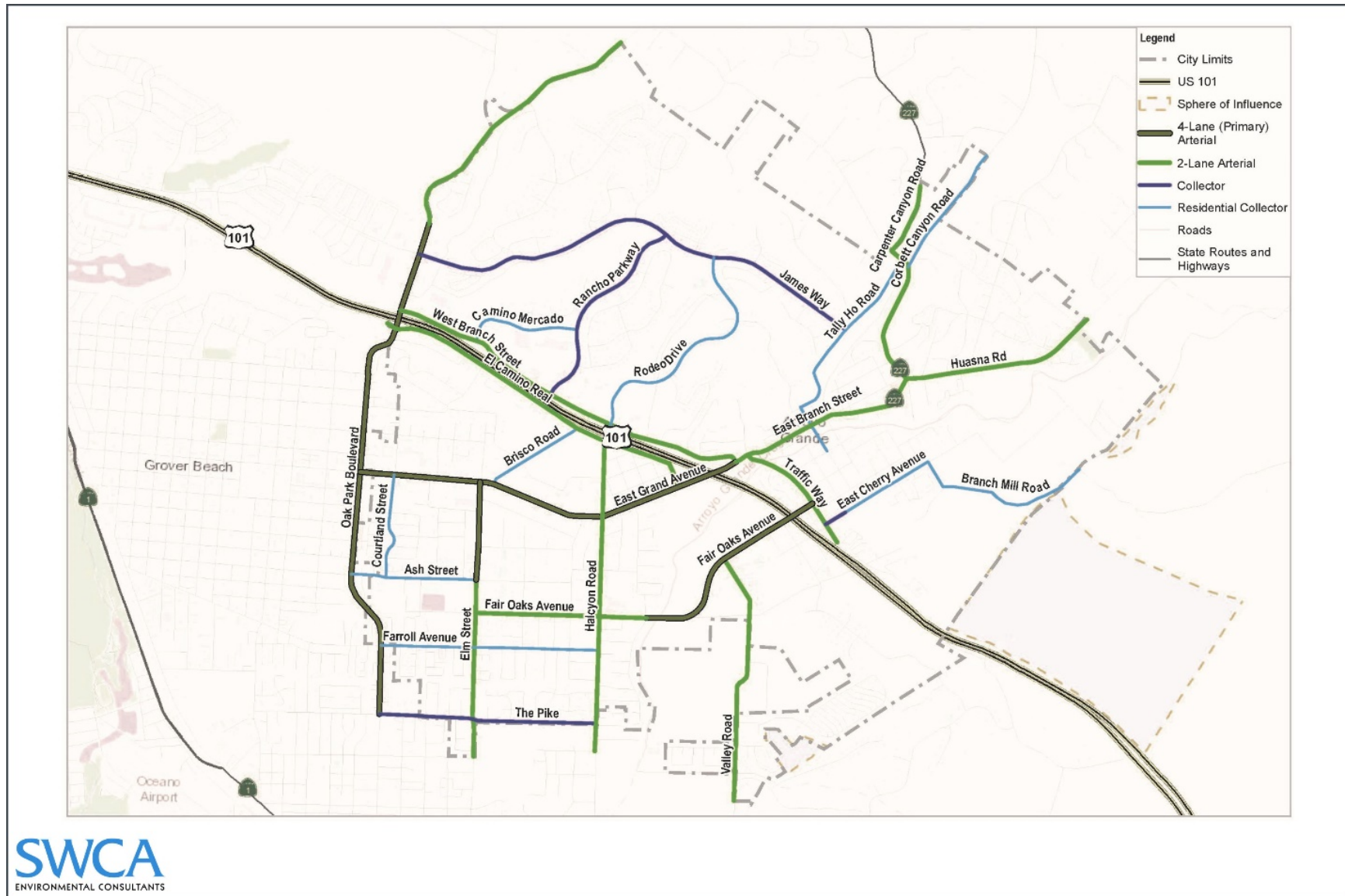


Figure 2. Existing roadway functional classification map.

East Branch Street extends Grand Avenue to the east and serves as the City's main downtown commercial thoroughfare, as well as a commuter connection between US 101 and SR 227. The duality of purpose of this three-lane arterial road with on-street parking creates safety and capacity concerns. The high volume of traffic (18,500 average daily trips [ADT]) at times conflicts with the community's desire to have a pedestrian-friendly downtown.

Elm Street is a two-to-four-lane arterial road that runs north-south between SR 1 in the south and Brighton Avenue in the north. The four-lane portion of Elm Street is located between Ash Street and Grand Avenue.

Fair Oaks Avenue is a two-to-four-lane arterial road that provides important east-west connectivity across US 101 in the southern portion of the City. It extends from Traffic Way in the east to Elm Street in the west. East of Valley Road, Fair Oaks Avenue is not built to full arterial facility design standards.

Grand Avenue is a four-to-five-lane east-west primary arterial through and within the City (two travel lanes per direction with a two-way left-turn median lane along several segments within the City). West of the City of Arroyo Grande, Grand Avenue extends into the City of Grover Beach and extends farther west to the coastline. East of the full-access interchange with US 101, Grand Avenue becomes East Branch Street, which extends farther east to Corbett Canyon Road and SR 227. Grand Avenue represents one of the "gateway" routes for recreational travelers headed westwards from US 101 to the Pacific coastline.

Halcyon Road is a two-to-four-lane north-south arterial road that connects between US 101 in the City of Arroyo Grande and SR 1 in the Halcyon area located to the south of the City, with the southernmost terminus at Zenon Way. Between Grand Avenue and Fair Oaks Avenue, Halcyon Road is a four-lane primary arterial road. Halcyon Road, in conjunction with Brisco Road and El Camino Real, forms a full-access interchange with US 101, just north of the US 101/Grand Avenue interchange.

Oak Park Boulevard is a two-to-five-lane north-south arterial road that runs along the northwestern City limit line, defining Arroyo Grande's boundary with the adjacent cities of Grover Beach and Pismo Beach. Oak Park Boulevard forms a full-access interchange with US 101 and extends south of US 101 as a four-lane primary arterial into the City of Grover Beach, continuing south beyond The Pike at 22nd Street. North of the City of Arroyo Grande, Oak Park Boulevard forks into Old Oak Park Road, which extends north into county lands, and Noyes Road, which extends in a northeasterly direction to connect with SR 227.

Traffic Way is a two-to-four-lane arterial road serving local commercial developments. It extends from East Branch Street (SR 227) in the north and terminates into ramp junctions with US 101 to the south.

Valley Road is a two-lane arterial road that extends south from Fair Oaks Avenue, connecting to SR 1 south of the City limits.

West Branch Street is a two-lane arterial road and frontage road east of US 101 with both commercial and residential frontage. It extends from Oak Park Boulevard to West Branch Street and provides important circulation and commercial accessibility east of US 101.

COLLECTORS

Collectors function as connector routes between local and arterial streets and provide access to residential, commercial, and industrial property. The City's Standard Specifications and Engineering Standards define two categories: collectors and residential collectors. Collectors feature turn lanes at intersections and may feature a two-way left-turn lane, while residential collectors do not have turn lanes.

James Way is a predominantly east–west two-lane road serving as a residential collector between Oak Park Boulevard and Tally Ho Road.

Printz Road is a predominantly east–west two-lane collector that runs just north of the City’s northern limits. Printz Road connects between SR 227 and Noyes Road, and provides access for several small local roads.

The Pike is a two-lane east–west collector. It runs between 13th Street and Halcyon Road. A portion of The Pike runs adjacent to part of the southern City limits.

Rancho Parkway is a two-lane north–south collector that runs between West Branch Street and James Way. Rancho Parkway provides access to the large shopping centers along West Branch Street, including the Walmart and residential areas north.

Ash Street, Branch Mill Road, Brisco Road, Courtland Street, East Cherry Avenue, El Camino Mercado, Farroll Avenue, Huasna Road, Mason Street, North Corbett Canyon Road, Rodeo Drive, and Tally Ho Road are other important roadways serving Residential Collector functions within the City (residential collectors are hereafter referred to as local collectors in the GPCEU and in this document).

LOCAL STREETS

Local streets provide direct access to abutting properties and allow for localized movement of traffic. Local streets are characterized by low daily traffic volumes and low travel speeds. All roadways not identified in the Roadway Functional Classifications Map (see Figure 2) as freeways, highways, arterials, or collectors are designated as local streets.

1.2.2 Existing Traffic Operations

Intersection facilities were evaluated on an AM and PM peak hour basis using peak hour turning movement counts collected on Thursday, November 14, 2019, and Thursday, November 21, 2019. These counts were collected while school was in session. The AM peak hour is defined as the one continuous hour of peak traffic flow counted between 7:00 AM and 9:00 AM, and the PM peak hour is defined as the one continuous hour of peak traffic flow counted between 4:00 PM and 6:00 PM under typical weekday conditions.

EXISTING CONDITIONS INTERSECTION OPERATIONS AND DEFICIENCIES

Existing weekday AM and PM peak hour intersection traffic operations were quantified using existing traffic volumes, lane geometrics, and intersection controls. Table 1 presents a summary of the level of service (LOS) and delay (in seconds per vehicle) at each study intersection under existing conditions.

Table 1. Existing Conditions Intersection Operations

#	Intersection	Control Type	Target LOS	AM Peak		PM Peak		Warrant 3 Met?
				Delay	LOS	Delay	LOS	
1	James Way & Oak Park Blvd	Signal	C	29.4	C	18.6	B	-
2	James Way & Rodeo Dr	AWSC	C	8.3	A	9.1	A	-
3	James Way & Tally Ho Rd	AWSC	C	8.6	A	8.8	A	-
4	W Branch St / US 101 NB Ramp & Oak Park Ave	Signal	C	8.3	A	10.6	B	-

#	Intersection	Control Type	Target LOS	AM Peak		PM Peak		Warrant 3 Met?
				Delay	LOS	Delay	LOS	
5	El Camino Real & Oak Park Ave	Signal	C	12.1	B	13.4	B	-
6	W Branch St & Camino Mercado / US 101 NB Ramps	Signal	C	15.1	B	17.4	B	-
7	W Branch St & Rancho Parkway	Signal	C	6.4	A	8.3	A	-
8	W Branch St & Brisco Rd	Signal	C	12.0	B	22.9	C	-
9	US 101 NB Ramps & Brisco Rd	Signal	C	41.2	D	51.6	D	-
10	El Camino Real & Brisco Rd	Signal	C	43.8	D	51.8	D	-
11	W Branch St & Rodeo Dr	TWSC	C	11.8	B	10.8	B	-
12	El Camino Real & US 101 SB Ramps / Halcyon Rd	Signal	C	19.9	B	23.1	C	-
13	E Grand Ave & Oak Park Blvd	Signal	C	16.2	B	22.9	C	-
14	E Grand Ave & Courtland St	Signal	C	9.7	A	11.2	B	-
15	E Grand Ave & Elm St	Signal	C	9.6	A	12.2	B	-
16	E Grand Ave & Brisco Road	TWSC	C	12.8	B	18.8	C	-
17	E Grand Ave & Halcyon Rd	Signal	C	23.2	C	23.6	C	-
18	E Grand Ave & El Camino Real	TWSC	C	50.6	F	41.1	E	No
19	E Grand Ave & US 101 SB Ramps	Signal	C	9.7	A	13.2	B	-
20	E Grand Ave & US 101 NB Ramps	Signal	C	11.3	B	28.0	C	-
21	E Grand Ave & E Branch St & W Branch St	TWSC	C	104.0	F	111.5	F	Yes
22	E Branch St & Wesley St / Traffic Way	Signal	C	17.7	B	17.1	B	-
23	E Branch St & Nevada St / Bridge St	TWSC	C	42.8	E	23.0	C	Yes
24	E Branch St & Short St	None	C	-	-	-	-	-
25	E Branch St & Mason St	Signal	C	11.4	B	11.1	B	-
26	E Branch St / Huasna Rd & Corbett Canyon Rd / Stanley	AWSC	C	21.2	C	20.3	C	-
27	S Traffic Way & Traffic Way / US 101 Ramps	TWSC	C	11.2	B	12.8	B	-
28	Fair Oaks Ave & Traffic Way	Signal	C	13.5	B	12.7	B	-
29	Fair Oaks Ave & US 101 SB Ramp / Orchard Ave	AWSC	C	39.8	E	16.9	C	Yes
30	Fair Oaks Ave & Valley Rd	Signal	C	12.2	B	8.1	A	-
31	Fair Oaks Ave & Halcyon Rd	Signal	C	54.2	D	17.0	B	-
32	Farroll Ave & Halcyon Rd	TWSC	C	109.0	F	37.9	E	No
33	The Pike & Halcyon Rd	AWSC	C	22.3	C	13.3	B	-

Notes:

1. AWSC = All Way Stop Control; TWSC = Two Way Stop Control; RNDT = Roundabout
2. LOS = Delay based on worst minor street approach for TWSC intersections, average of all approaches for AWSC,
3. Warrant = Based on California Manual on Uniform Traffic Control Devices (MUTCD) Warrant 3
4. **Bold** = Unacceptable Conditions
5. OVR = Delay over 300 seconds

Source: GHD 2020.

The City's current Circulation Element includes a goal to attain and maintain LOS C or better on all streets and controlled intersections. As shown in Table 1, the following study intersections operate at unacceptable LOS¹ (D, E, or F) during the AM or PM peak hours under existing conditions:

- 9: US 101 Northbound Ramps & Brisco Road (at LOS D)
- 10: El Camino Real & Brisco Road (at LOS D)
- 18: East Grand Avenue & El Camino Real (at LOS F [AM]/E [PM])
- 21: East Grand Avenue / East Branch Street & West Branch Street (at LOS F)
- 23: East branch Street & Nevada Street / Bridge Street (at LOS E [AM only])
- 29: Fair Oaks Avenue & US 101 Southbound Ramp / Orchard Avenue (at LOS E [AM only])
- 31: Fair Oaks Avenue & Halcyon Road (at LOS D [AM only])
- 32: Farroll Avenue & Halcyon Road (at LOS F [AM]/E [PM])

Of the locations listed above, several are unsignalized intersections that meet peak hour traffic signal warrant criteria, as follows:

- 21: East Grand Avenue / East Branch Street & West Branch Street
- 23: East branch Street & Nevada Street / Bridge Street
- 29: Fair Oaks Avenue & US 101 Southbound Ramp / Orchard Avenue

EXISTING CONDITIONS ROADWAY OPERATIONS

New daily roadway traffic counts (two weekday counts at each location) were taken in November 2019 and compared to daily roadway counts taken in May 2012. Table 2 presents a summary of the prior 2012 ADT and current (2019) roadway volumes and LOS at each roadway segment. As presented in Table 2, all study roadway segments operate at acceptable LOS under Existing Conditions. There are no roadway segment deficiencies at 2019 count locations.

Table 2. Existing Conditions Roadway Operations

#	Street	Segment	Facility Type	2012 Past ADT	2019	
					Average ADT	LOS
1	E Grand Ave	West of Courtland St	Four Lane (with turning lane) Arterial	21,630	19,770	A
2	E Grand Ave	East of Courtland St	Four Lane (with turning lane) Arterial	18,600	19,220	A
3	E Grand Ave	West of Halcyon Rd	Four Lane (with turning lane) Arterial	18,630	15,710	A

¹ It should be noted that the GPCEU includes a change that would make LOS D an acceptable LOS compared to the current Circulation Element, which considers LOS D an unacceptable LOS. Senate Bill (SB) 743 amends the California Environmental Quality Act (CEQA) transportation impact analysis for projects by replacing auto delay (LOS) as a basis for determining significant impacts under CEQA with average vehicle miles traveled (VMT). The legislation in SB 743 does not preclude agencies from adopting the use of auto LOS outside of CEQA in the local transportation planning and policy set forth in the Circulation Element; however, it is no longer used as a threshold for evaluating environmental impacts related to transportation under CEQA.

#	Street	Segment	Facility Type	2012 Past ADT	2019	
					Average ADT	LOS
4	E Grand Ave	East of Halcyon Rd	Four Lane (with turning lane) Arterial	19,610	17,400	A
5	E Grand Ave	East of US 101 NB Ramps	Four Lane (with turning lane) Arterial	24,090	19,650	A
6	E Branch St	East of Traffic Way	Two Lane (with turning lane) Arterial	18,4900	13,700	C
7	E Branch St	East of Crown Hill	Two Lane (no turning lane) Arterial	11,410	10,980	C
8	Huasna Road	East of SR 227	Two Lane Collector	6,600	8,190	C
9	Huasna Rd	East of City Limits	Two Lane Collector	-	5,080	A
10	SR 227	South of Talley Ho Rd	Two Lane Hwy	3,300	3,860	B
11	SR 227	South of Royal Oak Place	Two Lane Hwy	1,880	1,950	A
12	Corbett Canyon Rd	North of SR 227	Two Lane (no turning lane) Arterial	1,500	3,610	A
13	N Halcyon Rd	North of E Grand Ave	Two Lane (no turning lane) Arterial	8,900	9,740	B
14	Elm St	South of E Grand Ave	Four Lane (with turning lane) Arterial	-	10,250	A
15	El Camino Real	North of E Grand Ave	Two Lane (with turning lane) Arterial	-	2,310	A
16	S Halcyon Rd	South of East Grand Ave	Four Lane (no turning lane) Arterial	17,280	14,360	A
17	S Halcyon Rd	North of Farroll Ave	Four Lane (with tuning lane) Arterial	-	12,920	A
18	S Halcyon Rd	South of The Pike	Two Lane (with turning lane) Arterial	67,00	8,530	A
19	Fair Oaks Ave	East of S Halcyon Rd	Two Lane (with turning lane) Arterial	11,220	8,800	A
20	Fair Oaks Ave	East of Valley Rd	Four Lane (no turning lane) Arterial	8,800	11,350	A
21	Valley Rd	South of Fair Oaks Ave	Two Lane (no turning lane) Arterial	5,900	7,620	A
22	Traffic Way	South of Branch St	Four Lane (no turning lane) Arterial	13,180	10,770	A
23	W Branch St	North of E Grand Ave	Two Lane (with turning lane) Arterial	3,900	3,180	A
24	W Branch St	West of Brisco Rd	Four Lane (with turning lane) Arterial	13,900	12,810	A
25	W Branch St	East of Oak Park Blvd	Two Lane (with turning lane) Arterial	12,000	13,540	C
26	Rancho Pkwy	North of W Branch St	Two Lane (with turning lane) Arterial	8,400	8,390	A
27	Old Oak Park Rd	North of Noyes Rd	Two Lane (no turning lane) Arterial	4,090	1,470	A
28	Noyes Rd	North of Old Oak Park Rd	Two Lane (no turning lane) Arterial	4,960	6,210	A

#	Street	Segment	Facility Type	2012 Past ADT	2019	
					Average ADT	LOS
29	Oak Park Blvd	South of El Camino Real	Four Lane (no turning lane) Arterial	20,400	16,060	A
30	Oak Park Blvd	South of E Grand Ave	Four Lane (with turning lane) Arterial	12,490	11,030	A
31	Oak Park Blvd	North of Farroll Ave	Four Lane (with turning lane) Arterial	8,850	9,350	A
32	James Way	West of Oak Park Blvd	Four Lane (with turning lane) Arterial	7,710	6,160	A
33	James Way	East of Oak Park Blvd	Two Lane (no turning lane) Arterial	6,340	6,110	A
34	James Way	West of Talley Ho Rd	Two Lane Collector	3,470	3,570	A
35	El Camino Real	West of Brisco Rd	Two Lane (no turning lane) Arterial	4,630	4,610	A
36	Farroll Ave	East of Oak Park Blvd	Two Lane Collector	4,820	4,850	A
37	Branch Mill Rd	East of E Cherry Ave	Two Lane Collector	1,710	1,690	A

Source: GHD 2020.

TRUCK ROUTES

Truck routes are intended to carry heavyweight commercial, industrial, and agricultural vehicles through and around the community with minimum disruption to local auto traffic and minimum annoyance to residential areas. The 1982 Surface Transportation Assistance Act set standards for large trucks, known as STAA Trucks, and set minimum truck sizes that states must allow on the National Network, including the Interstate System and other defined routes. The US 101 freeway through the City of Arroyo Grande and statewide is a National Truck Network. SR 1 is a California Legal Truck Network north of the City of Arroyo Grande, passing through San Luis Obispo County. The last truck route to access Arroyo Grande is SR 227. SR 227 north of Arroyo Grande is a combination of California Legal Truck Network and the California Legal Advisory Truck Route. The following street segments are the approved truck routes in Arroyo Grande:

- Barnett Street, from El Camino Real to East Grand Avenue
- Branch Mill Road, from East Cherry Avenue to the Easterly City Limit
- Brisco Road, from El Camino Real to East Grand Avenue
- Corbett Canyon Road, from East Branch Street/Crown Hill to the Easterly City Limit
- East Branch Street, from US 101 Overpass to East Branch Street/Crown Hill
- East Cherry Avenue, from Traffic Way to Branch Mill Road
- East Grand Avenue, from US 101 Overpass to the Westerly City Limit
- El Camino Real, from Oak Park Boulevard to Barnett Street
- Fair Oaks Avenue, from Halcyon Road to Traffic Way
- Halcyon Road, from El Camino Real to the Southerly City Limit
- Huasna Road, from East Branch Street/Crown Hill to the Easterly City Limit

- Nelson Street, from Traffic Way to South Mason Street
- Oak Park Boulevard, from El Camino Real to City Limit
- South Elm Street, from East Grand Avenue to the Southerly City Limit
- South Mason Street, from Nelson Street to East Branch Street
- The Pike, from the Westerly City Limit to Halcyon Road
- Traffic Way, from East Branch Street to US 101
- Valley Road, from Fair Oaks Avenue to the Southerly City Limit

BICYCLE AND PEDESTRIAN FACILITIES

The City previously adopted the 2012 Bicycle & Trails Master Plan, which encourages walking and bicycling through proposed bicycle and pedestrian trails, as well as on-street bicycle facilities to complete the partial network already in place in the City and County. The following functional classifications of bicycle facilities are utilized within the GPCEU.

Class I Bike Path. Class I facilities are multi-use facilities that provide a completely separated right-of-way for the exclusive use of bicycles and pedestrians with minimized cross flows of motorized traffic. Class I bikeways must be compliant with provisions of the Americans with Disabilities Act (ADA). These bikeways are intended to provide superior safety, connectivity, and recreational opportunities as compared to facilities that share right-of-way with motor vehicles.

Class II Bike Lane. Class II facilities provide a striped and signed lane for one-way bicycle travel on each side of a street or highway within the paved area of a roadway. The minimum width for bike lanes ranges between 4 and 6 feet depending on the edge of roadway conditions (curb and gutter). Bike lanes are demarcated by a 6-inch white stripe, signage, and pavement legends.

Class III Bike Route. Class III facilities provide signs for shared use with motor vehicles within the same travel lane on a street or highway. Bike routes may be enhanced with warning or guide signs and shared lane marking pavement stencils. While Class III routes do not provide measures of separation, they have an important function in providing continuity to the bikeway network. By law, bicycles are allowed on all roadways in California except on freeways when a suitable alternate route exists. However, Class III bikeways serve to identify roads that are more suitable for bicycles.

Shared Roadway (No Bikeway Designation). A roadway that permits bicycle use but is not officially designated as a bikeway. This generally occurs in rural areas by touring bicyclists and recreation. In some instances, entire street systems may be fully adequate for safe and efficient bicycle travel, where signing and pavement marking for bicycle use may be unnecessary. In other cases, prior to designation as a bikeway, routes may need improvements for bicycle travel.

Class IV Separated Bikeways. Known as separated bikeways or cycle tracks, Class IV bikeways provide a separate travel way that is designated exclusively for bicycle travel adjacent to the roadway and are protected from vehicular traffic by physical separation. The separation may include, but is not limited to, grade separation, planters, flexible posts, inflexible posts, physical barriers, or on-street parking.

The above five definitions are consistent with the California Department of Transportation (Caltrans) *Highway Design Manual* (HDM; Caltrans 2020a). It is emphasized that the designation of bikeways as Class I, II, III, and IV should not be construed as a hierarchy of bikeways; that one is better than the other. Each class of bikeway has its appropriate application.

In addition, the American Association of State Highway and Transportation Officials (AASHTO) *Guide for the Development of Bicycle Facilities* (AASHTO 2012) and National Association of City Transportation Officials (NACTO) *Urban Bikeway Design Guide* (NACTO 2004) are used as resources to identify the following bicycle facilities.

Bicycle Boulevard. Bicycle boulevards are streets where the following conditions are created in order to prioritize bicycle safety and optimize through travel for bicycles rather than automobiles:

- Slow traffic speed and low volume.
- Use of diverters and roundabouts to discourage through and non-local motor vehicle traffic.
- Improved travel for bicyclists by assigning the right-of-way priority to the bicycle boulevard at intersections with other roads wherever possible.
- Traffic controls that help bicyclists cross major arterial roads.
- Signage and street design that encourages use by bicyclists and informs motorists that the roadway is a priority route for bicyclists.

Bicycle boulevards use a variety of traffic calming elements to achieve a safe environment. For instance, diverters with bicycle cut-outs allow cyclists to continue to the next block but discourage through traffic by motor vehicles. Typically, these modifications will also calm traffic and improve pedestrian safety, as well as encourage bicycling. Bicycle boulevards are generally applicable to local roadways.

Buffered Bike Lanes. Buffered bike lanes are conventional bicycle lanes (Class II) paired with a designated buffer space separating the bicycle lane from the adjacent motor vehicle travel lane and/or parking lane. A buffered bike lane is allowed as per Federal Highway Administration (FHWA) *Manual on Uniform Traffic Control Devices* (MUTCD; FHWA 2012) guidelines for buffered preferential lanes (section 3D-01). Buffered bike lanes provide space between bicyclists and the traveled way, allow room for bicyclists to pass without encroaching into the vehicle travel lane, and can be used to provide a buffer between on-street parking and the bike lane. Buffered bike lanes are ideal for streets with extra lanes or extra lane width, and along roadways with higher travel speeds, higher traffic, and truck volume.

Green-Colored Bike Facilities. Green-colored bike facilities may be installed within bicycle lanes or the extension of the bicycle lane through an intersection or transition through a conflict area as a supplement to bike lane markings. The FHWA issued an Interim Approval (IA-14) on April 15, 2011, for the optional use of green-colored pavement for marked bicycle lanes.

Bike Boxes. Bike boxes designate an area for bicyclists to queue in front of automobiles but behind the crosswalk at signalized intersections. Bike boxes provide cyclists a safe way to be visible to motorists by getting ahead of the queue during the red signal phase, and they reduce vehicle incursion into crosswalks. Bike boxes also improve safety for conflicts with right-turning vehicles when the traffic signal turns green. Bike boxes can be utilized to facilitate left-turn positioning and gives priority to cyclists.

Shared Lane Markings (“Sharrows”). Sharrows help remind motorists that bicyclists are allowed to use the full lane and remind bicyclists to avoid riding too close to parked cars for safety. The shared lane markings help bicyclists with lateral positioning in lanes that are too narrow for a motor vehicle and a bicycle to travel side by side within the same traffic lane. These markings are primarily recommended on low-speed streets.

Existing Bicycle and Pedestrian Facility Conditions

The current bicycle and trail network consists mainly of on-street facilities that are identified as Class II and Class III bikeways. The City also has short segments of off-street trails typically consisting of soft

surface (decomposed granite) materials. The trails are typically situated in open space along a creek tributary. The two exceptions are trails located along Equestrian Way and Grace Lane, which are decomposed granite paths located behind the curb. These do not meet Class I Bike Path standards (10-foot paved path with 2-foot shoulders, or 12-foot paved path).

There are gaps in the sidewalk network; a Pedestrian Safety Review conducted by ITS Berkeley in 2010 and the *Draft Halcyon Road Complete Streets Plan* identify some areas where there are opportunities for improvement. The Pedestrian Safety Review focused on key intersections throughout the City and suggested recommendations that could improve the pedestrian safety crossing large streets with many lanes of traffic. The *Draft Halcyon Road Complete Streets Plan* focused on multimodal improvements along the Halcyon Road corridor, connecting Arroyo Grande Hospital, residences, and the elementary school. Locations near and between residences, schools, parks, retail centers, and City services should provide adequate sidewalks and marked crossings.

There are gaps in the network of bicycle facilities. Arterials and collectors that are north–south roadways that do not have bicycle facilities include portions of Elm Street, Halcyon Road, Corbett Canyon Road, Tally Ho Road, Ash Street, and Oak Park Boulevard. Arterials and collectors that are east–west roadways that do not have bicycle facilities include portions of Farroll Avenue, East Grand Avenue, East Branch Street, and East Cherry Avenue. Subsequent bicycle Level of Traffic Stress (LTS) analysis is included.

Safe, convenient, and continuous access needs to be provided along major routes throughout the City for active transportation modes. As part of the GPCEU, roadway facilities will be identified where it is possible to modify the existing cross section and increase the active transportation components for pedestrians and bicyclists. Included in the proposed GPCEU policies are requirements to prepare a Pedestrian Master Plan and update the existing Bicycle and Trails Master Plan. It is proposed for the bicycle portion of the plan that an assessment of bicycle LTS will be required to specifically evaluate the performance of the existing bicycle system and to help identify bicycle facility improvements.

Mineta Transportation Institute criteria was applied to roadway segments with bike lanes (with and without on-street parking) and roadway segments without bike lanes (mixed traffic segments) to determine existing Bicycle LTS. As shown, the majority of segments along major roads (arterials and collectors) within the City of Arroyo Grande can be considered high stress (LTS 3 or 4). Even with the presence of bike lanes, the high stress nature of roadway segments within the City are primarily due to roadway speed limits of 35 mph or greater, and roadways with three or more total travel lanes. For those roadways with speed limits lower than 35 mph, lack of adequate bike lane striping or physical separation between cyclists and vehicles (i.e., buffers) results in high stress conditions. In addition, lack of adequate bicycle protection (i.e., bike pockets) at intersections with lengthy vehicle right-turn pockets, or gaps in bike lane striping at intersection approaches, result in high stress conditions at all intersections along major roads within the City of Arroyo Grande.

Other factors were noted as contributing to high stress conditions, including quality and condition of existing bike lane striping and gaps in striping along segments on either side of the roadway. Segments with significant bike lane striping fading along existing Class II bicycle routes were noted at the following locations:

- West Branch Street between Oak Park Boulevard and Camino Mercado
- El Camino Real between Hillcrest Drive and Brisco Road
- Oak Park Boulevard Between Ash Street and The Pike
- The Pike between Oak Park Boulevard and Elm Street
- Valley Road between Fair Oaks Avenue and Castillo Del Mar

Major gaps along existing Class II bicycle routes (i.e., roadway segments with incomplete bike lanes, or bike lanes only in one direction) occur at the following locations:

- East Grand Avenue: eastbound approach at Halcyon Road
- East Grand Avenue: between Elm Street and Grande Foods Market
- Traffic Way: northbound segment between Nelson Street and Bridge Street
- Oak Park Boulevard: southbound segment between Farroll Road and The Pike
- Oak Park Boulevard: southbound between Manhattan Avenue and Ash Street
- Fair Oaks Avenue: westbound segment between California Street and Traffic Way

Vehicle on-street parking is also a contributor to high stress conditions for cyclists and is allowed on the majority of the City's arterials and collectors.

PUBLIC TRANSPORTATION

The City's public transportation is provided by South County Transit (SoCo Transit), a branch of the San Luis Obispo Regional Transit Authority (SLORTA); SoCo Transit will merge with SLORTA early 2021. Routes 21, 24, 27, and 28 serve major arterial roadways in the City. The Avila-Pismo Trolley connects to SoCo Transit Routes at the Pismo Premium Outlets. All SoCo Transit Routes make stops at the Town Center/Walmart, and Ramona Gardens Park and Routes 21 and 24 make stops at the Pismo Premium Outlets. The following route descriptions are from the *San Luis Obispo South County Transit Short-Range Transit Plan* (LSC Transportation Consultants 2019).

Route 21 provides hourly service between 6:29 AM and 7:29 PM on weekdays, 7:29 AM and 7:29 PM on Saturdays, and 7:29 AM and 6:29 PM on Sundays. The route consists of a large clockwise loop traveling south on James Way and West Branch Street serving Arroyo Grande, west on Grand Avenue serving Grover Beach, and north on Price Street and US 101 to complete a smaller counter-clockwise loop serving Pismo Beach and Shell Beach. This route connects with SLORTA Route 10 at the top of the hour at the Pismo Beach Premium Outlets (Pismo Beach Outlets), and with Routes 24, 27, and 28 at Ramona Garden Park Transit Center in Grover Beach at 29 minutes after the hour.

Route 24 provides service hourly from 6:29 AM to 7:29 PM on weekdays, 7:29 AM to 7:29 PM on Saturdays, and 7:29 AM to 6:29 PM on Sundays. This loop route serves the core of Pismo Beach, Grover Beach, and Arroyo Grande, primarily in a counter-clockwise direction. It is largely aligned with Route 21, except that Route 24 adds service to downtown Arroyo Grande but does not serve the Shell Beach area of Pismo Beach. From the Pismo Beach Outlets, the route travels northwest towards Pismo Beach circling south down Highway 1 to Ramona Garden Park Transit Center in Grover Beach. The route then travels east on Grand Avenue, north towards Arroyo Grande, and west looping back towards the Town Center/Walmart stop before returning to the Pismo Beach Outlets.

Route 27 provides hourly service from 6:03 AM to 8:13 PM on weekdays only. This route travels in clockwise direction serving Arroyo Grande, Oceano, and the eastern portions of Grover Beach. This route connects with Routes 21 and 24 at Ramona Gardens at 29 minutes after the hour and with Route 28 at 32 minutes after the hour.

Route 28 provides hourly service from 6:20 AM to 8:14 PM on weekdays, 7:32 AM to 8:14 PM on Saturdays, and 7:32 AM to 7:14 PM on Sundays. This route travels in a counter-clockwise direction serving the same route as Route 27 in reverse order (except for one block around Long Branch Avenue and Oak Park Boulevard). This route connects with Routes 21 and 24 at Ramona Garden Park at 29 minutes after the hour and with Route 27 at 32 minutes after the hour.

Avila-Pismo Trolley runs April through September during holidays, weekends, and Fridays. Hourly service is generally provided from 10:00 AM to 6:00 PM with hours extending to 9:00 PM in June, July, and August. The trolley connects with SoCo Transit Routes 21 and 24 and SLORTA 10 at the Pismo Beach Outlets at the top of each hour. No fare is charged on this service.

RTA Route 10 provides hourly regional service between San Luis Obispo and Santa Maria. SoCo Transit is connected to other cities by SLORTA Route 10, which makes stops in Arroyo Grande at East Grand Avenue at El Camino Real and El Camino Real at Halcyon Park and Ride.

RAIL

No commuter rail transportation (Amtrak) is currently located in the City of Arroyo Grande. The nearest Amtrak station is located in the City of Grover Beach, 2.2 miles west of Arroyo Grande. The primary access to the station is on West Grand Avenue east of SR 1. The SoCo Transit Bus Route 21 provides service to the railway station for the City of Arroyo Grande.

AIR

The Oceano County Airport is the closest airport to the City, located in the unincorporated community of Oceano in San Luis Obispo County, southwest of Arroyo Grande. SoCo Transit Route 21 provides service to this airport for the City of Arroyo Grande. The airport is mainly used for recreational activities and is accessible by SR 1 via West Grand Avenue.

The San Luis Obispo County Regional Airport, also known as McChesney Field, is located in the City of San Luis Obispo, about 9 miles north of Arroyo Grande. It is served by three commercial airlines providing services to Dallas/Fort Worth, Denver, Phoenix, San Francisco, and Seattle. It is also home to full service general aviation and corporate facilities. McChesney Field is located on the west side of SR 227, about 2 miles east of US 101.

1.3 Proposed Improvements

The City's GPCEU goals and policies will provide the overall direction the City desires in planning and implementing the expansion of the circulation system to meet the changing travel demands of the community. The implementing policies will establish the link between the City's goals and the implementing programs, and guide how the programs will actually be implemented. The programs are the specific action items that will accomplish the improvement or plan that will meet and serve the expanded community need. The guiding and implementing policies reflect the City's vision for a comprehensive circulation system that is safe and efficient for pedestrians, bicycles, trucks, automobiles, and public transportation.

1.3.1 Proposed Circulation Plan

The City's proposed Circulation Plan, shown on Figures 3 through 5, following the listed policies, was developed through transportation analysis and public input to guide the future circulation planning and improvements to the Arroyo Grande circulation system. The Circulation Plan includes the following policies.

AUTOMOBILE POLICIES

Street and Highway Standards

- CT1** Schedule and implement the Circulation system identified in the Circulation Map (Circulation Element Update Figure 2-2) as development occurs and as part of the City's Capital Improvement Program. Make efficient use of existing transportation facilities, improve these facilities, and build new facilities as necessary in accordance with the Circulation Map.
- CT1-1** **Standards:** Streets shall be constructed in conformance with the City and State's adopted Engineering Standards, Plans, and Policies that apply to each classification. Variations and modifications in Standards and planned alignments may be permitted with City Council approval or City Engineer / Public Works Director approval where delegated.
- CT1-1.1** Consider specific design guidelines and landscaping standards appropriate to a designated connected system of "Scenic Streets & Highways" for resident and visitor enjoyment.
- CT1-1.2** Update City's Engineering Standards, Plans, and Policies to be consistent with the Proposed Standard Cross Sections shown in Table 2-2 (reference).
- CT1-2** **Intersections:** Roundabouts should be considered when evaluating new or modified intersection controls as an alternative to intersection signalization. Protected active transportation intersection elements should be considered when intersections are improved along a protected (Class I or Class IV) bikeway route.
- CT1-3** **State Facilities:** State facilities are to be designed and constructed per Caltrans design standards or as mutually approved.
- CT1-4** **Primary Arterial Streets:** 4 lanes with or without median / two-way left turn lane, access management, optional parkways, optional on-street parking, bike & pedestrian facilities per adopted plan, transit turnouts and other design features: minimum 110' right of way.
- CT1-5** **Arterial Streets:** 2 lanes with or without median/center turn lane, optional landscaped parkways, optional on-street parking, bike and pedestrian facilities per adopted plan, some transit and other design features; minimum 86' of right-of-way.
- CT1-6** **Collector Streets:** 2 lanes with or without turn lane; access management, bike and pedestrian facilities per adopted plan, some transit and other design features, optional landscaped parkways & on-street parking where feasible; minimum 78' of right-of-way.
- CT1-7** **Local Collector Streets:** 2 lanes without a turn lane; bike and pedestrian facilities per adopted plan, some transit and other design features, optional landscaped parkways and on-street parking where feasible; minimum 60' right-of-way.
- CT1-8** **Local Streets:** 2 lanes, on-street parking; bike and pedestrian facilities per adopted plan, sidewalks on one or both sides, other design variables in hillside, cul-de-sac, or other special conditions; minimum 52' right-of-way.
- CT1-9** **Complete Streets:** Complete streets are roadways designed and operated to enable safe access for all users, including pedestrians, bicyclists, motorists and transit riders of all

ages and abilities. All street standards should be periodically reviewed and revised for design, construction, operation and maintenance to achieve a network of complete streets. Optional features include landscaped medians, curb bulbouts and parkways and/or street trees and similar design amenities when approved by the City.

When constructing or modifying transportation facilities, strive to provide for the movement of vehicles, commercial trucks, alternative and low energy vehicles, transit, bicyclists, and pedestrians in a manner that is appropriate for the road classification and adjacent land use.

CT1-9.1 Evaluate projects to ensure that the safety, comfort, and convenience of pedestrians, bicyclists, and transit users are given an equal level of consideration to automobiles.

CT1-9.2 Use roadway rehabilitation and maintenance projects as opportunities to introduce or enhance multimodal facilities and amenities by making the best use of available right of way, including narrowing travel lanes to standard dimensions, striping new or enhanced bikeways, adding or enhancing crosswalks, improving intersection markings, and other transportation “best practices”.

CT1-9.3 Consider ways to increase and improve travel choices when reviewing development or transportation infrastructure projects by closing gaps in multimodal networks and enhancing the quality of multimodal facilities and amenities.

CT1-9.4 Improve the existing street network to minimize nonmotorized and transit travel times and improve the mobility experience of transit, bicycle, and walking trips between new projects and surrounding land uses in an effort to reduce vehicle trips.

CT1-9.5 Recognize and meet the mobility needs of pedestrians and bicyclists all skill levels and ages, persons using wheelchairs, and those with other mobility limitations.

CT1-10 **Alternative Improvements:** Consider alternative improvements to traditional street, highway, and intersection construction that may vary from City standards, which maximize access to active transportation modes and/or provide equivalent mobility to all roadway users. These improvements may include treatments that improve the safety and/or comfort of active transportation and transit users, such as consideration of travel lane reductions (road diets), green paint for conflict markings, buffered bicycle lanes, bicycle boxes for two-stage turns, and other alternative striping, signage, or physical design. Alternatives may be permitted with City Council approval or City Engineer / Public Works Director Approval where delegated.

CT1-11 **Auto Circulation:** Provide efficient citywide automobile circulation by maintaining and, where necessary, improving local and regional roadway facilities.

CT1-12 **Signal Operations:** Provide and maintain coordinated traffic control systems that move traffic within and through the City in an efficient and orderly manner. Upgrade systems as technology evolves.

CT1-13 **Safety:** Maintain and periodically update a local roadway safety plan consistent with state and federal Highway Safety Improvement Program requirements.

- CT1-14** **Access Management:** Minimize, to the maximum extent feasible, the number of access points along arterial roadways, including by consolidating or relocating driveways to provide for more efficient traffic movement.

Vehicle Miles Traveled

- CT2** Maintain & reduce vehicle miles traveled (VMT) in accordance with SB 743 and the City's adopted Policy.
- CT2-1** **Reduce VMT:** Periodically update VMT baselines and thresholds of significance, as established in the City's VMT Policy, for evaluating transportation impacts under CEQA pursuant to SB 743.

Automobile Level of Service (LOS)

- CT3** Attain and maintain automobile Level of Service LOS "D" or better on all street segments and controlled intersections to the maximum extent feasible.
- CT3-1** **Degradation of LOS:** New development, which is projected to degrade conditions to a LOS E or below or further exacerbate conditions already below LOS D, shall be required to make transportation improvements that offset the level of degradation to the maximum extent feasible. Improvements to non-automobile modes of transportation at the same segment or intersection may also be considered as an offset to degradation of automobile LOS.
- CT3-2** **Transportation Monitoring:** The City should conduct periodic traffic counts, monitor selected streets and model arterial and collector street network.
- CT3-2.1** The City should periodically review actual system performance to consider Capital Improvement Programs, operational improvements, and/or policy revision and refinement.
- CT3-3** **Transportation Study Requirements:** Require that General Plan Amendments, Specific Plans, Rezoning Applications, and development projects that generate 100 or more peak hour trips are studied in accordance with the City's adopted Transportation Impact Study Guidelines. Transportation Studies may also be required at the discretion of the City's Public Works and/or Planning Departments.

Parking

- CT4** Establish and manage on street parking to serve the primary purposes of the uses of each street while balancing the interferences that on-street parking may have on the primary purposes of those streets.
- CT4-1** **On-Street Parking:** The City shall manage curb parking in business & commercial districts to provide for high turnover & short-term use to those visiting businesses and public facilities.
- CT4-1.1** Management of on-street parking shall not preclude consideration of converting on-street parking spaces to parklets.
- CT4-2** **Village Core Parking Lots:** Develop adequate public or shared off-street parking lots conveniently located behind and beside buildings in the Village Core and East Grand Avenue corridor, consistent with area design guidelines.

- CT4-3** **Parking in-lieu districts:** Support parking district(s) to collect in-lieu fees from new development to construct public parking where parking requirements cannot be met.
- CT4-4** **Parking in Industrial Areas:** Encourage secure off-street parking for tractor-trailer rigs in industrial land use areas where feasible.
- CT4-5** **Parking in Agricultural Areas:** Discourage on-street parking in Agricultural areas to enhance visibility and minimize trespassing.

Coordinated Land Use and Circulation

- CT5** Ensure compatibility and complimentary relationships between the circulation system and existing and planned land uses, promoting environmental objectives such as safe and uncongested neighborhoods, energy conservation, reduction of greenhouse as, air, and noise pollution, and access bicycle, pedestrian, and transit facilities.
- CT5-1** **Government Code Consistency:** Provide and maintain a citywide circulation system that is correlated with planned land uses in the City and surrounding areas in the region consistent with Government Code §65302.
- CT5-2** **Transit Oriented Development:** Promote “Transit-Oriented Developments” and coordinated, compatible land use patterns by encouraging multiple family residential and special needs housing in Mixed Use Corridors, the Village Core, and near Office, Regional Commercial, Business Park, and major Community Facility areas.
- CT5-2.1** Work with RTA to continue to support and expand transit routes that serve regional destinations within the City like the Regional Commercial areas and the Village Core, E. Grand Avenue, and W. Branch Street missed use and commercial corridors.
- CT5-2.2** Work with RTA to continue to support and expand transit loops to serve Halcyon Road / Fair Oaks Boulevard, local office buildings, James Way and Rancho Parkway residential areas, and the Village Core, E. Grand Avenue, and W. Branch Street corridors.
- CT5-3** **High Density Development:** Consider higher density allowance and reduced parking requirements within one-quarter mile of transit routes when updating Development Code.
- CT5-4** **Community Design:** Utilize the circulation system as a positive element of community design, including street trees and landscaped parkways and medians, special streetscape features in Mixed Use corridors and Village Core, and undergrounding of utilities, particularly along major streets.
- CT5-5** **Provision of Rights of Way:** When new development occurs in the vicinity of adopted “Study Areas” as shown in Circulation Map (Figure 2-2) or “Plan Lines”, and where legally and financially feasible, require installation or funding of all or a portion of right-of-way and improvements associated with new development.
- CT5-6** **Building Code Bicycle Facility Requirements:** Update Building Code to include requirements for enhanced bicycle facilities such as, showers, repair stations, ebike chargers, lockers, etc., for buildings that support large employers.
- CT5-6.1** Update Development Code to include bicycle-parking requirements for new development.

- CT5-7 Building Setback Lines:** The City shall amend its municipal code enabling adoption of official building setback lines for the City, and to provide for the designation, recording, enforcement of, and appeal from such official building setback lines for the purposes of conveying planned multimodal transportation infrastructure. The amended Municipal Code shall prohibit issuance of building permits for structures within designated setback areas.
- CT5-8 Priority Multimodal Corridors:** Plan and prioritize Village Core and E. Grand Avenue corridor improvements that reduce congestion and promote non-motorized travel between nearby complimentary uses.
- CT5-9 Travel Demand Management:** Consider ways to shift travel demand away from the peak period using Transportation Demand Management (TDM) strategies, especially in situations where peak traffic problems result from a few major generators (e.g., large retail developments on highway corridor). Strategies to consider include:
- a) Requiring employer-sponsored incentives for transit, bike, or carpool use;
 - b) Requiring shuttle service to major events and destinations;
 - c) Requiring events to occur at off-peak hours;
 - d) Coordinating centralized TDM programs that serve multiple tenants at large shopping or office centers; and
 - e) Performing periodic evaluations of the City's (and Caltrans) traffic control system with emphasis on traffic signal timing, phasing, and coordination to optimize flow along arterial corridors.

Planning and Funding

- CT6** Coordinate circulation and transportation planning and funding of collector and arterial street and highway improvements with other local, County, SLOCOG, State and federal agencies. Request contribution to major street improvement projects from other jurisdictions that generate traffic within the City.
- CT6-1 Priority Multimodal Corridors:** Coordinate and support SLOCOG updates to the Regional Transportation Plan (RTP) to maintain consistency with the City of Arroyo Grande's General Plan.
- CT6-2 Interchange Priorities:** Coordinate and support progress on the Brisco Road/Halcyon Road and Traffic Way/Fair Oaks Avenue interchange improvements to US Route 101.
- CT6-3 County Impact Fee Program Support:** Encourage the County to establish a "Road Impact Fee" within Arroyo Grande Fringe areas of the County to fund new development's proportional share of transportation improvements.
- CT6-4 City Transportation Impact Fee Program:** Maintain & periodically update a Multimodal City circulation and transportation impact fee program for new or intensified development in Arroyo Grande to ensure proportional share developer participation and implementation of the City's adopted multimodal infrastructure plans, programs, and policies.
- CT6-5 Right of Way Acquisition:** Pursue acquisition of public street right-of-way as opportunity for dedication and/or purchase arises. Attempt to obtain ultimate right-of-

way for street improvements at the time of development, except when lesser right-of-way will avoid significant social, neighborhood, or environmental impacts and will perform equivalent traffic movement function.

CT6-5.1 Plan lines establish planned right-of-way acquisitions necessary to implement future roadway improvements, plan lines are intended to prevent development from obstructing or precluding planned infrastructure. Adopt plan lines, or planned right-of-way acquisitions, as necessary to accommodate planned widening, extension, or realignment improvements and include Right-of-Way acquisition costs into Transportation Impact Fee Program.

CT6-6 **Regional Travel Demand Model Consistency:** Encourage Caltrans, SLOCOG, and the County to refine and maintain a regional transportation demand model to be consistent with adopted City plans and policies and to assist in regional and local circulation and transportation planning, CIP funding, and new development project environmental and impact analysis.

CT6-7 **County MOU for Development Review:** Pursue MOU with the County for referral of development projects and long-range plans in the County's Nipomo Mesa area.

CT6-8 **Supplemental Private Funding:** Utilize assessment and improvement districts and other supplemental private funding to correct local area deficiencies such as inadequate parking, transit and streetscape enhancement, or completion of local street or trail segments that benefit the area.

CT6-9 **Regional Coordination:** As both City and regional travel increase transportation demand, work cooperatively with regional partner agencies, including Caltrans, San Luis Obispo Council of Governments, San Luis Obispo County, and others, to plan and fund improvement projects that increase roadway capacity while maintaining or improving access to multi-modal facilities following the City's community & circulation priorities.

CT6-9.1 Coordinate local actions with State, regional, County, and neighboring agencies to ensure consistency between local and regional actions.

CT6-9.2 Coordinate with partner agencies to implement regional transit solutions as part of the SB 375 Sustainable Communities Strategy.

CT6-10 **Debit Financing:** Consider debt financing for projects identified in the Transportation Impact Fee Program to advance high priority improvements such as but not limited to the Brisco Interchange project.

Neighborhood Traffic Management

CT7 Provide safe and well-connected neighborhood streets that balance automotive circulation needs with neighborhood context and bicycle and pedestrian users' safety.

CT7-1 **Local Streets:** On residential, Local Streets strive to achieve an average daily (ADT) automobile volume of 1,500 or less.

CT7-2 **Local Collector Streets:** On Local Collector Streets strive to achieve an average daily (ADT) automobile volume of 3,000 or less.

- CT7-3** **Degradation of Neighborhood Traffic Conditions:** New development that causes Local Streets to exceed 1,500 ADT, Local Collector streets to exceed 3,000 ADT, or further exacerbates streets already exceeding these thresholds shall be required to implement traffic calming measures on those affected neighborhood streets to the maximum extent feasible.
- CT7-4** **Neighborhood Traffic Management Guidelines:** The City shall maintain and periodically updates its Neighborhood Traffic Calming Guidelines in accordance with industry best practices.
- CT7-5** **Non-Automobile Connections:** Design new street network and modify existing street network where possible to enable direct physical connections within and between residential areas, shopping destinations, employment centers, and neighborhood parks/open spaces, including, where appropriate, connections accessible only by pedestrians and bicycles.

BICYCLE AND PEDESTRIAN POLICIES

Bicycle Transportation

- CT8** Schedule and implement the Bicycle network identified in the Bicycle Improvements Map (Figure 3-3) as development occurs and as part of the City's Capital Improvement Program. Make efficient use of existing transportation facilities, improve these facilities, and build new facilities as necessary in accordance with the Bicycle & Trails Master Plan.
- CT8-1** **Prioritization:** Promote and improve bicycle circulation facilities to serve all areas of the City as a priority system. Link with regional systems and prioritize connections with schools, parks, transit, and major public facilities.
- CT8-1.1:** The City should strive to include implementation of planned bicycle facilities as part of its Capital Improvement Budget.
- CT8-2** **Bicycle Network Connectivity:** New development that lacks connectivity to the existing bicycle network beyond the project frontage shall be required to complete missing offsite gaps per the City's Bicycle and Trails Master plan to the maximum extent feasible. Improvements maybe facilitated through reimbursement agreements.
- CT8-2.1** New development adjacent to planned bicycle infrastructure shall not obstruct or otherwise preclude future construction of bicycle infrastructure.
- CT8-3** **Standards & Guidance:** Implement the Bicycle & Trails Master Plan and proposed improvements (Figure 3-3 and 3-4) in accordance with the City's Standard Specifications & Engineering Standards, State Engineering Standards & Specifications, and the National Association of Transportation Officials (NACTO) Urban Bikeway Design Guide.
- CT8-3.1** Update the City's Bicycle & Trails Master Plan in the form of an Active Transportation Plan, to incorporate pedestrian travel, in accordance with State guidelines and industry best practices.
- CT8-3.2** Ensure that the future updates to the adopted Bicycle & Trails Master Plan maintains consistency with the requirements of the Streets and Highway Code in order to be eligible for further funding for

improvements from the State, such as the Active Transportation Program (ATP).

- CT8-4** **Class I Bike Path:** An essential part of developing a low-stress bicycle network, these off-street paths and trails are designated for both pedestrian and bicycle use.
- CT8-5** **Class II Bike lanes:** On-Street lanes designated for bicycle use and delineated from automobile lanes by roadway markings. Where ROW permits, class II bike lanes shall be provided to the maximum extent feasible with buffers between adjacent auto lanes.
- When Class II bike lanes exceed LTS 3 (or operate low-stress network LTS standard), the facility shall be converted to protected Class IV bikeway or a parallel Class I to the maximum extent feasible.
- CT8-6** **Class III Bike Route:** On-street auto lanes shared by both bicycles and automobiles. In order to increase awareness and visibility of bicyclists sharing the roadway with motorized vehicles, Class III bicycle facilities shall include respective signage (Bikes May Use Full Lane) and markings such as shared lane markings (sharrows) to the maximum extent feasible.
- When Class III bike facilities exceed LTS 3 (or operative low-stress network LTS standard), the facility shall be converted to dedicated Class II lanes if determined feasible.
- CT8-7** **Class III Bike Boulevard:** On local collectors where Class II bike lanes are not present, on local streets where LTS 3 is exceeded, Class III bike routes should be upgraded to the maximum extent feasible with features commensurate with a bicycle boulevard.
- When Class III bike facilities exceed LTS 3 (or operative low-stress network LTS standard), the facility shall be converted to dedicated Class II lanes if determined feasible.
- CT8-8** **Class IV Protected Bike Lanes:** On-street separated bikeways reserved for use by bicyclists only, with physical separation between the bikeway, travel lanes, and sidewalks.
- Class IV facilities can be one-way facilities on both sides of the street or two-way facilities on one side of the street. Physical separation can include concrete curbs, landscaping, parking lanes, bollards, or other vertical elements.

Bicycle Level of Traffic Stress (LTS)

- CT9** Strive to attain and maintain a bicycle Level of Traffic Stress (LTS) of 3 or better on all bicycle facilities. Strive to attain and maintain designated low-stress network.
- CT9-1** **Designation of LTS Standards:** The City shall designate and adopt context-specific LTS standards that exceed the general LTS 3 goal, including designation of a low-stress bicycle network of complimentary LTS 1 and LTS 2 facilities, as part of an Active Transportation Plan, and/or through Safe Routes to School Plan(s).
- CT9-2** **Degradation of LTS:** New development which is projected to degrade bicycle LTS below the designated standard, or further exacerbate conditions already below the standard shall be required to make transportation improvements that offset the level of degradation to the maximum extent feasible.

Pedestrian Transportation

- CT10** Schedule and complete projects to fulfill gaps in City's sidewalk network and construct new connections identified in the Pedestrian and Transit Infrastructure Improvements Map (Figure 3-4) as development occurs and as part of the City's Capital Improvement Program.
- CT10-1** **Prioritization:** Promote and improve pedestrian circulation facilities to serve all areas of the City as a priority system, prioritize connections with schools, parks, transit, and major public facilities.
- CT10-1.1** The City should strive to include implementation of planned pedestrian facilities as part of its Capital Improvement Budget.
- CT10-2** **Pedestrian Network Connectivity:** New development that lacks connectivity to the existing pedestrian network beyond the project frontage shall be required to complete missing offsite gaps. Improvements maybe facilitated through reimbursement agreements.
- CT10-2.1** New development adjacent to planned pedestrian infrastructure shall not obstruct or otherwise preclude future construction of bicycle infrastructure
- CT10-3** **Standards & Guidance:** Implement pedestrian infrastructure in accordance with City and State Engineering Standards & Specifications.
- CT10-3.1** Provide pedestrian facilities that are accessible to persons with disabilities and ensure that roadway improvement projects address accessibility by employing universal design concepts consistent with ADA requirements.
- CT10-3.2** Strive to attain an effective walkway width (continuous clear path of travel) of 8' or more in high pedestrian traffic areas.
- CT10-3.3** Pedestrian walkways on roadways with speed limits above 35 mph shall be buffered (i.e., on-street parking, bike lanes, landscape strips, etc.) from the adjacent travel lane to the maximum extent feasible.
- CT10-4** **Active Transportation Plan:** Expand the City's Bicycle & Trails Master Plan into a Citywide Active Transportation Plan including pedestrian mode improvement plan and policies.

Safe Routes to School Policies

- CT11** Create safe and inviting environments for students, families, and staff to walk, bicycle, and use public transportation to and from school.
- CT11-1** **Develop Safe Routes to School Plan(s):** Develop a focused Safe Routes to School Plan (or Plans) for all K-12 schools in Arroyo Grande to improve safe and convenient walking and biking to school.
- CT11-2** **Designate Low-Stress Bicycle Network:** Designate a low-stress bicycle network that supports safe bicycle access to schools for all ages and abilities. A network of LTS 1 and LTS 2 facilities should be designated in the vicinity of schools when preparing and updating Safe Routes to School Plans and/or the City's Active Transportation Plan.

- CT11-3** **Prioritize Active Transportation Network Improvements:** Prioritize the closure of gaps in the pedestrian network (sidewalks, crosswalks) and low-stress bicycle network. Seek connections and paths between homes and schools, especially where dead-end streets, cul-de-sacs, and other street patterns impede circulation. Identify, improve, and formalize “shortcuts” and “goat paths” where feasible and implement wayfinding.

PUBLIC TRANSIT POLICIES

Transit Service

- CT12** Maintain and improve transit services and facilities in cooperation with transit operators and providers.
- CT12-1** **Transit Stops:** Strive to establish transit stops within ¼ mi walking distance of all residential and non-residential uses within the City.
- CT12-1.1** New development outside ¼ mi walking distance of existing transit stops shall be required to install transit stops and facilities to achieve a maximum ¼ mi walking distance to transit for the proposed development to the maximum extent feasible.
- CT12-1.2** Where transit stop locations conflict with protected bikeways, consider “best practices” referenced in the NACTO Urban Bikeway Design Guide, Urban Street Design Guide, and/or Transit Street Design Guide, such as floating transit islands, to minimize conflicts between modes.
- CT12-1.3** Along high-quality transit routes, improve stops to include stop elements such as transit shelters, bicycle parking, lighting, and level boarding, consistent with “best practices” referenced in the NACTO Transit Street Design Guide, Urban Bikeway Design Guide, and/or Urban Street Design Guide.
- CT12-2** **Transit Providers/Operators:** In cooperation with the Regional Transit Authority (RTA) or other transit operators, provide for a safe and efficient transit system for local and regional travel, particularly for youth, elderly, low-income or disabled persons.
- CT12-2.1** The City should encourage convenient routes and schedules on arterial and/or collector streets including stops, shelters, bus benches, turnouts, park and ride, transfer and other facilities or features to be provided in connection with new developments
- CT12-2.2** Work with transit operators to identify opportunities to implement transit intelligent transportation systems (ITS) elements such as transit signal priority, queue jump, and live passenger information and wayfinding.
- CT12-3** **Employers:** The City should encourage major employers to promote use of public transit and/or provide van/carpools, private shuttles or other trip reduction (flex time, telecommuting, bike) and transportation demand management measures.
- CT12-4** **School Districts:** Collaborate with Lucia Mar Unified School District and other educational institutions to plan improved school bus transportation system, including parking and loading areas, bus stop amenities, links with other transit providers, public

parks, and maintenance and storage facilities, and coordination with safe bicycle and sidewalk facilities.

- CT12-5 *Marketing:*** Encourage ridership on public transit systems through marketing and promotional efforts. Provide information to residents and employees on transit services available for local and regional trips.

TRUCK AND GOODS MOVEMENT POLICIES

Truck and Emergency Services Transportation

- CT13 Design** and designate efficient truck and emergency access routes utilizing the arterial and collector street network to minimize impact on local streets, particularly residential neighborhoods.
- CT13-1 *Truck Routes:*** Truck routes should coordinate with County and adjoining City's designated routes and avoid traversing residential areas.
- CT13-1.1 Continue** to sign truck routes and ensure that clear signage is provided from regional gateways to truck routes in the City.
- CT13-2 *Deliveries:*** Promote off-peak truck deliveries within the village core.
- CT13-3 *Emergency Access Design:*** Emergency access design standards shall limit cul-de-sac lengths to the maximum extent feasible, provide a logical grid or connected system of local streets providing at least two directions of neighborhood access, and minimize through traffic on local streets, particularly traversing single-family residential neighborhoods.

1.3.2 *Proposed Future Improvements*

The GPCEU identifies areas for future improvements to the City's circulation system. Some future improvements identified in the GPCEU and listed below are included in the City's existing 2012 Circulation Element as proposed improvements and some improvements listed below are newly proposed in the GPCEU. The improvements included in the 2012 Circulation Element and listed below have not been constructed yet; therefore, for analysis purposes, the following improvements are considered collectively as potential future improvements in the GPCEU and throughout this document.

PROPOSED IMPROVEMENTS

1. Brisco Road Interchange Project: relocate northbound ramps and roundabout at Rodeo Drive; realign Grace Lane/Rodeo Drive; changes to Brisco Road/El Camino Real); and realignment of southbound onramp at East Branch Street
2. East Branch Street at Huasna Road/Corbett Canyon Road: new roundabout
3. Fair Oaks Ave/Halcyon Road: new roundabout
4. Halcyon Road/Farroll Avenue: intersection improvements (possibly a new signal or roundabout)
5. Halcyon Road road diet (lane reduction or road rechannelization)
6. Fair Oaks Avenue road diet (lane reduction or road rechannelization)

7. East/West Branch Street at East Grand Avenue: restrict turns to be right-out only, allowing left turns in, in conjunction with roundabouts at Traffic Way/East Branch Street and at East Grand Avenue/US 101 northbound ramps
8. East Branch Street/Bridge Street/Nevada: intersection improvements (anticipated to be additional turn restrictions)
9. Castillo Del Mar extension east to Valley Road to Traffic Way
10. Castillo Del Mar extension west from Valley to Fair Oaks Avenue
11. Proposed pedestrian improvements:
 - a. Controlled crossings include marked crossings at signalized or stop-controlled intersection where the approach with intersection control is proposed for a marked crossing or improved crossing.
 - b. Midblock crossings include marked crossings at uncontrolled locations and may necessitate the need for advance warning, higher visibility, signage, flashing beacons, bulb-outs, and/or median refuges.
12. Bikeway improvements:
 - a. new Class IV facilities on arterials and all arterials and collectors improved with Class II facilities except for East Branch Street;
 - b. new bike boulevards at Linda Drive and at Mason Street south of East Branch Street; and
 - c. new bikeways across new road extensions.

1.4 Required Discretionary Approvals

As proposed, the project is expected to require authorizations/permits from the agencies shown in Table 3.

Table 3. Agency Permits/Authorizations

Agency	Applicable Permit or Authorization
City of Arroyo Grande (Lead Agency)	California Environmental Quality Act Lead Agency Environmental Clearance/Adoption
California Department of Transportation	Environmental Clearance Encroachment Permit
San Luis Obispo County Air Pollution Control District	Authority to Construct, Portable Engine Permit, Diesel Engine Permit

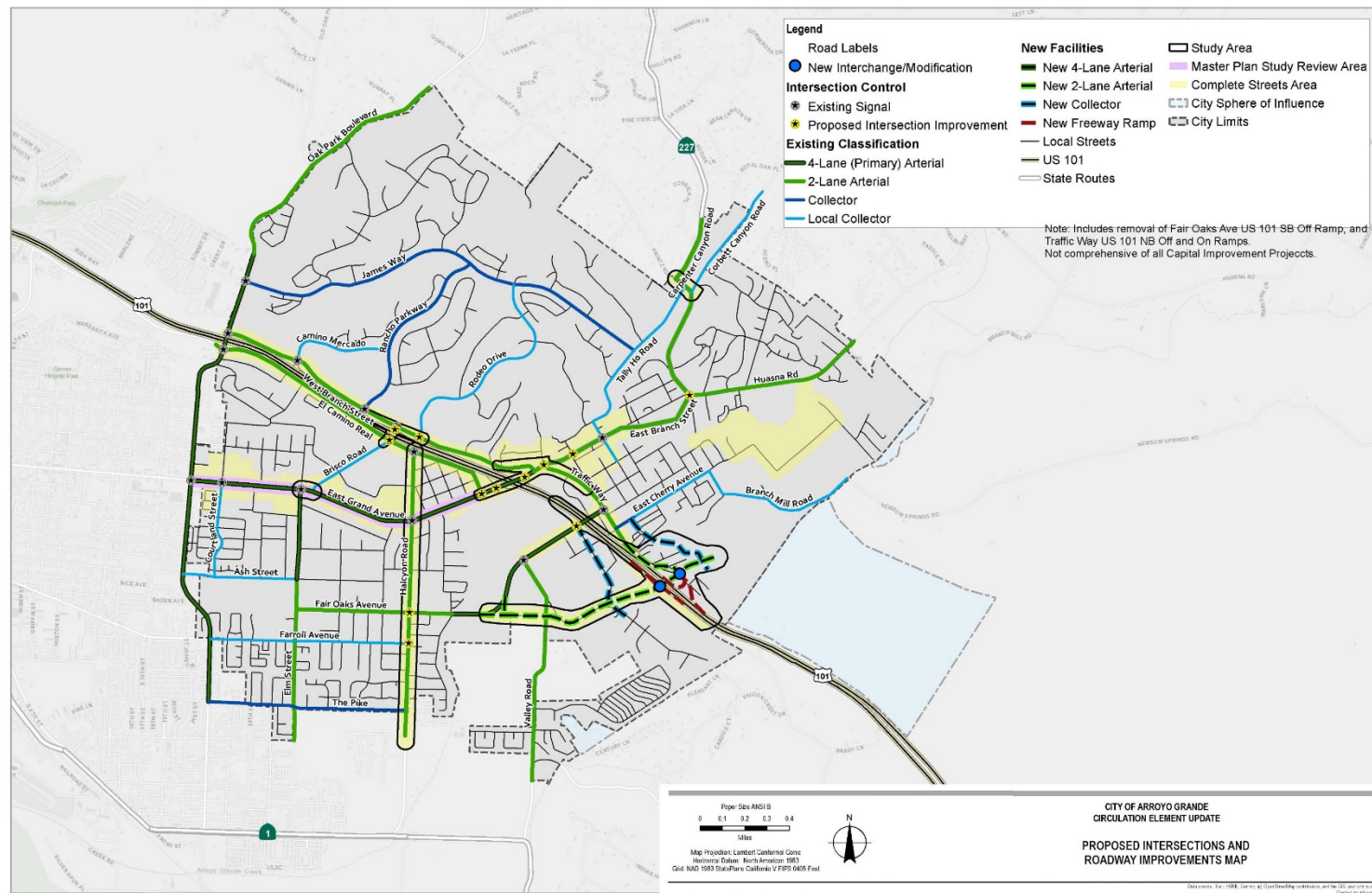


Figure 3. Proposed intersections and roadway improvements.

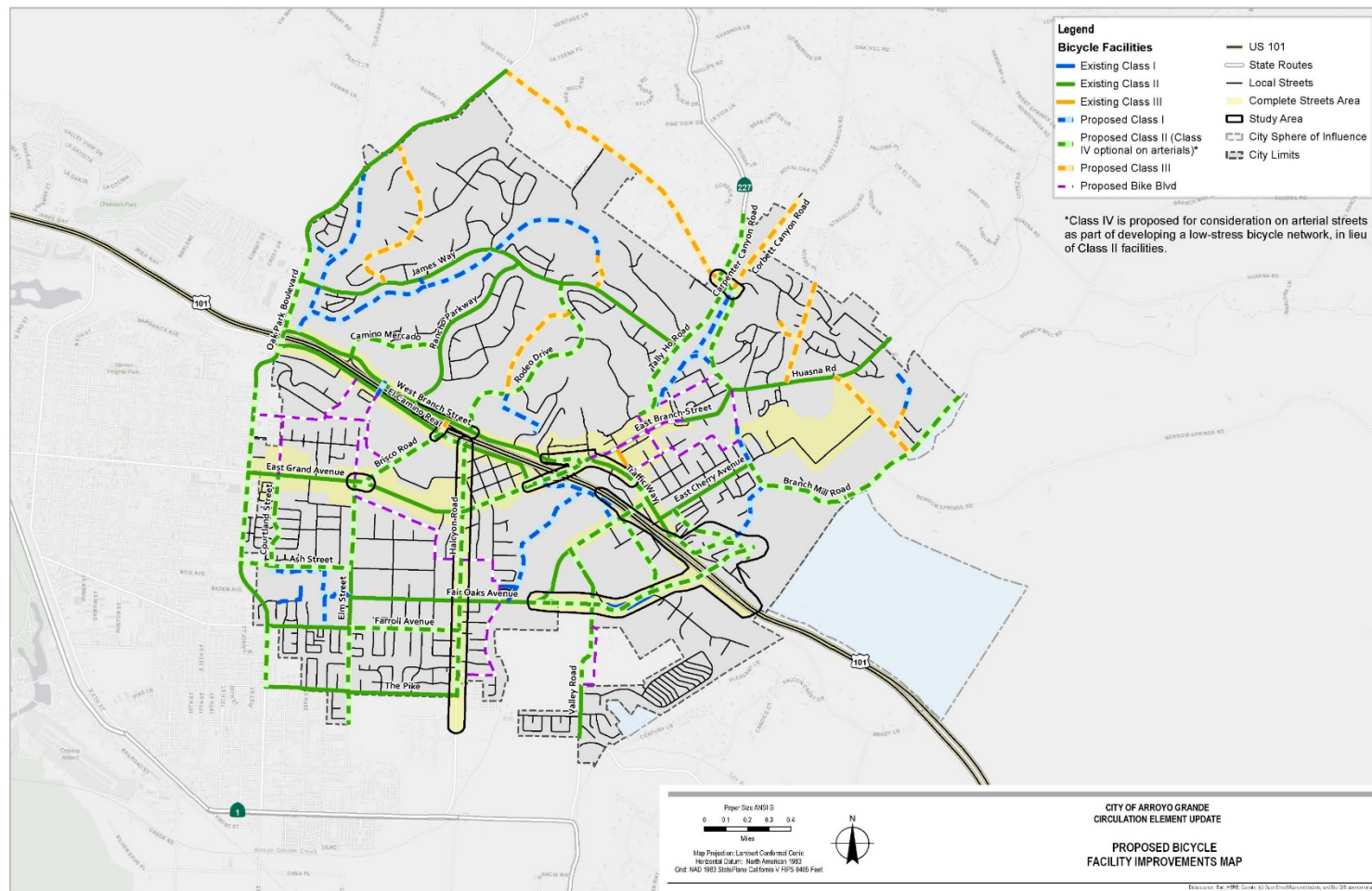


Figure 4. Proposed bicycle facility improvements.

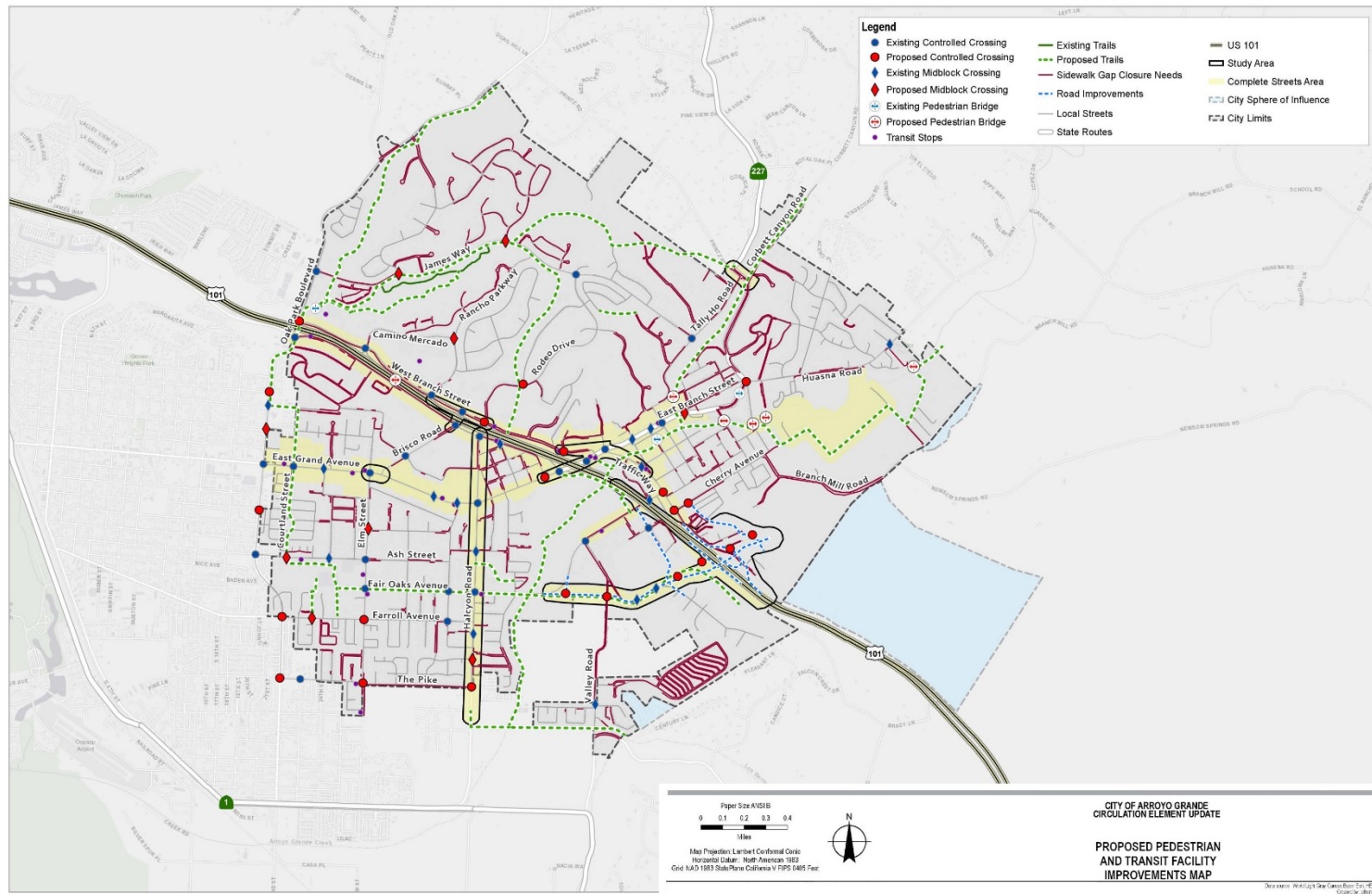


Figure 5. Proposed pedestrian and transit facility improvements.

2 ENVIRONMENTAL CHECKLIST AND ENVIRONMENTAL EVALUATION

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The proposed project could have a “Potentially Significant Impact” for environmental factors checked below. Please refer to the attached pages for discussion on mitigation measures or project revisions to either reduce these impacts to less than significant levels or require further study.

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

ENVIRONMENTAL DETERMINATION

On the basis of this initial evaluation:

- ☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- ☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- ☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- ☐ I find that the proposed project MAY have a “potentially significant impact” or “potentially significant unless mitigated” impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measure based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- ☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Date:

Signed:

I. Aesthetics

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

Setting

The California Environmental Quality Act (CEQA) establishes that it is the policy of the state to take all action necessary to provide people of the state “with... enjoyment of aesthetic, natural, scenic and historic environmental qualities” (California Public Resources Code [PRC] Section 21001(b)). A scenic vista is generally defined as a high-quality view displaying good aesthetic and compositional values that can be seen from public viewpoints. Some scenic vistas are officially or informally designated by public agencies or other organizations. A substantial adverse effect on a scenic vista would occur if the project would significantly degrade the scenic landscape as viewed from public roads or other public areas. A proposed project’s potential effect on a scenic vista is largely dependent on the degree to which it would complement or contrast with the natural setting, the degree to which it would be noticeable in the existing environment, and whether it detracts from or complements the scenic vista.

The California Scenic Highway Program was created by the State Legislature in 1963 with the intention of protecting and enhancing the natural scenic beauty of California highways and adjacent corridors. A highway may be designated scenic depending on how much of the natural landscape can be seen by travelers, the scenic quality of the landscape, and the extent to which development intrudes upon the traveler’s enjoyment of the view. Designated and eligible Scenic Highways within San Luis Obispo County include US 101, SR 46, portions of SR 41, SR 1, and Lake Nacimiento Drive. A portion of US 101 extends northwest to southwest through the City of Arroyo Grande.

The *City of Arroyo Grande Agriculture, Conservation and Open Space Element (ACOSE)* includes goals and policies intended to protect visually accessible scenic resources. Scenic resources protected under the City’s ACOSE may include agricultural land, open spaces, hillsides, ridgelines, canyons, valleys, landmark trees, woodlands, wetlands, streambeds, and banks, as well as aspects of the built environment of historic nature or that are unique to the City (City of Arroyo Grande 2007).

The City of Arroyo Grande is comprised of 3,388 acres of land along US 101 that is predominantly urban and built up with agricultural areas located in the southern and southeastern portions of the City and conservation and open space areas located in the eastern and southern portions of the City. The City is

surrounded by developed land in all directions, including the cities of Pismo Beach and Grover Beach and other unincorporated communities in the county. Land in the northern and eastern portions of the City are comprised of hilly terrain and the central, southern, and western portions of the City are comprised of relatively flat alluvial plains.

Environmental Evaluation

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

For CEQA purposes, a scenic vista is generally defined as a viewpoint that provides expansive views of a highly valued landscape or scenic resource for the benefit of the general public. A substantial adverse effect on a scenic vista would occur if the proposed project would significantly degrade the scenic landscape as viewed from public roads or other public areas. As described above, the City's ACOSE identifies scenic resources as agricultural land, open spaces, hillsides, ridgelines, canyons, valleys, landmark trees, woodlands, wetlands, streambeds, and banks, as well as aspects of the built environment of historic nature or that are unique to the City. Visual quality of the area is characterized by urban and built-up land with agricultural and open space conservation areas scattered throughout the City, predominantly located in the southeastern and northeastern portions of the City and along portions of the western side of the US 101, located in the southern portion of the City (City of Arroyo Grande 2007).

The GPCEU proposes goals and policies intended to create an optimal multi-modal transportation system for the City and adequately anticipate and plan transportation infrastructure to meet future needs of the City. Proposed updates to the objectives and policies included in the Circulation Element would allow future development of improvements to the circulation system, but improvements facilitated by the objective and policy updates are not anticipated to have a substantial adverse effect on a scenic vista.

In addition to objective and policy updates, the GPCEU identifies specific planned improvements for the City's circulation system. As shown on Figures 3 through 5, the GPCEU identifies future improvements to freeway ramps, roadways and intersections, bicycle lanes, and transit facilities. Proposed improvements that are specifically identified in the GPCEU would generally be limited to the realignment of on/off ramps, construction of new roundabouts, lane and intersection improvements (road diets, turn modifications, etc.), roadway extensions, pedestrian improvements (controlled and midblock crossings), and bikeway improvements (Class IV and II facilities, bike boulevards, and new bikeways). These improvements are anticipated to be mostly at ground level and are not expected to have the potential to compromise views of scenic resources. Future construction activities associated with the buildout of identified improvements have the potential to result in short-term construction-related impacts to local views; however, these impacts are anticipated to be short term in nature and would not result in any permanent impacts to scenic vistas. Future design and buildout of improvements to the circulation system would be required to comply with objectives and policies of the City's ACOSE, specifically Objective C/OS1-1 and corresponding policies intended to protect visually accessible scenic resources; therefore, buildout of future improvements is not anticipated to have a substantial adverse effect on a scenic vista and impacts would be *less than significant*.

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

US 101 runs in a northwest–southwest direction through the City of Arroyo Grande and is considered an eligible state scenic highway by Caltrans (Caltrans 2020b). There are no other eligible or designated state scenic highways in the City of Arroyo Grande. The proposed GPCEU objective and policy updates do not identify specific improvements that would result in adverse effects to scenic resources. Proposed updates to the objectives and policies included in the Circulation Element would allow future development of

improvements to the circulation system; however, improvements facilitated by the objective and policy updates are not anticipated to have a substantial adverse effect on a scenic resource because the improvements are anticipated to be located within existing developed areas within the City to modify existing transportation infrastructure.

Proposed improvements that are specifically identified in the GPCEU would generally be limited to the realignment of on/off ramps, construction of new roundabouts, lane and intersection improvements (road diets, turn modifications, etc.), roadway extensions, pedestrian improvements (controlled and midblock crossings), and bikeway improvements (Class IV and II facilities, bike boulevards, and new bikeways). These improvements would be located within existing developed areas to modify existing transportation infrastructure and would not result in substantial damage to scenic resources.

As described previously, the City's ACOSE includes goals and policies intended to protect visually accessible scenic resources. Scenic resources protected under the City's ACOSE may include agricultural land, open spaces, hillsides, ridgelines, canyons, valleys, landmark trees, woodlands, wetlands, streambeds, and banks, as well as aspects of the built environment of historic nature or that are unique to the City (City of Arroyo Grande 2007). Future development of improvements to the transportation system would be required to comply with the City's ACOSE, specifically Objective C/OS1-1 and corresponding policies intended to protect visually accessible scenic resources. If future development of improvements to the transportation system has the potential to result in substantial damage to scenic resources, subsequent environmental review would be required; therefore, for the purposes of this analysis, buildout of future improvements is not anticipated to have a substantial adverse effect on a scenic vista and impacts would be *less than significant*.

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

The City of Arroyo Grande is an urbanized area and the City's ACOSE includes Objective C/OS1-1 and corresponding policies intended to protect visual resources within the City. The GPCEU proposes objectives and policies related to existing and future transportation needs of the City. The proposed GPCEU objectives and policies would not result in changes to existing land use or zoning designations; damage a scenic resource, viewshed, or scenic corridor; or result in other substantial impacts to the visual character of the City; therefore, the objectives and policies would not conflict with applicable zoning or other regulations governing scenic quality.

In addition to objective and policy updates, the GPCEU identifies specific future improvements to the City's circulation network. Proposed improvements that are specifically identified in the GPCEU would generally be limited to the realignment of on/off ramps, construction of new roundabouts, lane and intersection improvements (road diets, turn modifications, etc.), roadway extensions, pedestrian improvements (controlled and midblock crossings), and bikeway improvements (Class IV and II facilities, bike boulevards, and new bikeways). These improvements would be located within developed areas and would include improvements to existing transportation infrastructure. The improvements would not result in changes to existing land use or zoning designations; damage a scenic resource, viewshed, or scenic corridor; or result in other substantial permanent impacts to the visual character of the City; therefore, the improvements identified in the GPCEU would not conflict with applicable zoning or other regulations governing scenic quality. If future improvements would conflict with applicable zoning or other regulations governing scenic quality, they would be subject to subsequent environmental review; therefore, for the purposes of this analysis, buildout of future improvements is not anticipated to conflict

with applicable zoning or other regulations governing scenic quality and impacts would be *less than significant*.

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

The GPCEU includes proposed objectives, policies, and specific improvements related to the City's transportation system. The only source of new light or glare associated with improvements identified in the proposed GPCEU would be the installation of new traffic signals at intersections. Any new traffic signals or lighting installed would be required to comply with the lighting regulations identified in Section 16.48.090 of the City's Municipal Code to prevent light pollution from degrading nighttime views of the area. The GPCEU does not include other objectives, policies, or specific improvements that would create a new source of substantial light or glare capable of adversely affecting day or nighttime views; therefore, impacts would be *less than significant*.

Conclusion

The GPCEU identifies objectives, policies, and specific improvements related to the City's circulation system. Future improvements made to the existing roadways, bicycle and pedestrian facilities, and public transit are anticipated to be mostly at ground level and are not expected to have the potential to compromise vistas of scenic resources, damage scenic resources, compromise scenic quality, or create a new source of substantial light or glare. Additionally, future development would be required to comply with applicable land use and zoning designations, the policies identified in the City's ACOSE for the protection of scenic resources, and lighting regulations identified in Section 16.48.090 of the City's Municipal Code. Therefore, impacts would be less than significant, and mitigation is not necessary.

Mitigation Measures

Mitigation is not necessary.

II. Agriculture and Forestry Resources

Environmental Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>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:</i>				
(a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☒	☐
(b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☒	☐

Environmental Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
(d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
(e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☒	☐

Setting

The California Department of Conservation (DOC) Farmland Mapping and Monitoring Program (FMMP) develops maps and statistical data used for analyzing impacts on California's agricultural resources. Agricultural land is rated according to soil quality and current land use. For environmental review purposes under CEQA, the FMMP categories of Prime Farmland, Farmland of Statewide Importance, Unique Farmland, Farmland of Local Importance, and Grazing Land are considered "farmland." Other non-agricultural designations include Urban and Built-up Land, Other Land, and Water. According to the FMMP, Arroyo Grande is primarily comprised of land designated as Urban and Built-up Land with areas of Prime Farmland and Unique Farmland located in the southern and northeastern portions of the City.

The City's General Plan Land Use Map identifies areas north and south of US 101 as Agricultural land use in the southern and northeastern portions of the City. The City's ACOSE includes Objectives Ag1 through Ag6 and corresponding policies for the protection of agricultural resources, including, but not limited to, the conservation of prime agricultural land and soils, conservation of groundwater for agricultural operations, and the promotion of the coexistence of agricultural and urban land uses (City of Arroyo Grande 2007).

Environmental Evaluation

a) *Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?*

According to the DOC FMMP, the City of Arroyo Grande is primarily comprised of land designated as Urban and Built-up land with areas designated Prime Farmland and Unique Farmland located in the southern and northeastern portions of the City (DOC 2020). The proposed GPCEU does not include goals, policies, or specific future improvements that would result in the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. Future improvements and development activities related to the City's circulation system are anticipated to be within existing developed and disturbed areas and are not expected to have the potential to result in the conversion of farmland. Future development would be required to comply with applicable land use and zoning designations and the policies identified in the City's ACOSE for the protection of agricultural resources. If future development has the potential to conflict with land use or zoning designations or result in the conversion of farmland, subsequent environmental review would be required. Therefore, impacts would be *less than significant*.

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

The City of Arroyo Grande includes land that is currently under a Williamson Act contract in the southern and northeastern portions of the City along Valley, Branch Mill, and Corbett Canyon Roads (County of San Luis Obispo 2016b). The GPCEU does not include objectives, policies, or specific future improvements that would result in changes to existing land use or zoning designations for agricultural use or conflict with a Williamson Act contract. Buildout of future improvements is anticipated to occur within existing developed areas within the City and be limited to improvements to existing transportation infrastructure. Future development would be required to comply with applicable land use and zoning designations and the policies identified in the City's ACOSE for the protection of agricultural resources. If future improvements have the potential to conflict with existing zoning for agricultural use or a Williamson Act contract, they would be subject to subsequent environmental review. Therefore, impacts would be *less than significant*.

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

According to the City's Zoning map, there is no designated forest land or timberland within the City limits. The GPCEU does not include objectives, policies, or specific future improvements that would conflict with existing zoning standards or alter the physical environment in a manner that would result in the loss of forest land or timberland; therefore, *no impact* would occur.

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

According to the City's Land Use and Zoning maps, there is no designated forest land within the City limits. The GPCEU does not include objectives, policies, or specific future improvements that would result in the loss or conversion of forest land to non-forest uses; therefore, *no impact* would occur.

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

As discussed previously, the GPCEU includes objectives, policies, and specific improvements related to the City's transportation system. The objectives, policies, and specific improvements would not result in changes to existing land use or zoning for agricultural resources or result in the conversion of Farmland. Future improvements associated with buildout of the GPCEU are anticipated to be located in existing developed areas and include improvements to existing transportation infrastructure. Improvements would be required to comply with existing land use and zoning designations and the objectives and policies pertaining to the protection of agricultural resources included in the City's ACOSE; therefore, future improvements would not result in the conversion of Farmland to non-agricultural use or forest land to non-forest use. If future improvements have the potential to result in the conversion of Farmland to non-agricultural use, they would be subject to subsequent environmental review. Therefore, impacts would be *less than significant*.

Conclusion

The GPCEU does not include goals, policies, or specific future improvements that would result in changes to existing land use or zoning designations, conflicts with zoning for agricultural use, the

conversion of Farmland, conflicts with a Williamson Act contract, or the conversion of forest land or timberland. Future improvements made to the existing roadways, bicycle and pedestrian facilities, and public transit are anticipated to be located within existing developed and disturbed areas and are not expected to result in the conversion of farmland, conflict with existing zoning for agricultural use or a Williamson Act contract, or conflict with zoning or result in the conversion or loss of timberland or forest land. Additionally, future development would be required to comply with applicable land use and zoning designations and the policies identified in the City's ACOSE for the protection of agricultural resources. Therefore, impacts would be less than significant, and mitigation is not necessary.

Mitigation Measures

Mitigation is not necessary.

III. Air Quality

Environmental Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>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:</i>				
(a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
(b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☒	☐	☐
(c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☒	☐	☐
(d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

Setting

San Luis Obispo County is part of the South Central Coast Air Basin, (SCCAB), which also includes Santa Barbara and Ventura Counties. Air quality within the SCCAB is regulated by several jurisdictions including the U.S. Environmental Protection Agency (USEPA), California Air Resources Board (CARB), and San Luis Obispo County Air Pollution Control District (SLOAPCD). Each of these jurisdictions develops rules, regulations, and policies to attain the goals or directives imposed upon them through legislation. The CARB is the agency responsible for coordination and oversight of state and local air pollution control programs in California and for implementing the California Clean Air Act (CCAA) of 1988. The State Department of Public Health established California Ambient Air Quality Standards (CAAQS) in 1962 to define the maximum amount of a pollutant (averaged over a specified period of time) that can be present without any harmful effects on people or the environment. The CARB adopted the CAAQS developed by the Department of Public Health in 1969, which had established CAAQS for 10 criteria pollutants: particulate matter (under 10 microns [PM₁₀] and under 2.5 microns [PM_{2.5}]), ozone (O₃), nitrogen dioxide (NO₂), sulfate, carbon monoxide (CO), sulfur dioxide (SO₂), visibility reducing particles, lead (Pb), hydrogen sulfide (H₂S), and vinyl chloride.

The Federal Clean Air Act (FCAA) later required the USEPA to establish National Ambient Air Quality Standards (NAAQS) for pollutants considered harmful to public health and the environment, and also set

deadlines for their attainment. The USEPA has established NAAQS for six criteria pollutants (all of which are also regulated by CAAQS): CO, lead, NO₂, ozone, PM₁₀ and PM_{2.5}, and SO₂. California law continues to mandate compliance with CAAQS, which are often more stringent than national standards. However, California law does not require that CAAQS be met by specified dates as is the case with NAAQS. Rather, it requires incremental progress toward attainment. The SLOAPCD is the agency primarily responsible for ensuring that NAAQS and CAAQS are not exceeded and that air quality conditions within the county are maintained.

The state and national attainment status designations pertaining to San Luis Obispo County are summarized in Table 4. San Luis Obispo County is currently designated as a nonattainment area with respect to the state ozone and PM₁₀ standards. In addition, the eastern portion of the county is designated nonattainment for the national ozone standards. The county is designated attainment or unclassified for the remaining state and national standards.

Table 4. Summary of Ambient Air Quality Standards and Attainment Designations

Pollutant	Averaging Time	California Standards*		National Standards*	
		Concentration	Attainment Status	Primary	Attainment Status
Ozone (O ₃)	1-hour	0.09 ppm (180 µg/m ³)	Non-Attainment	--	Non-Attainment Eastern San Luis Obispo County
	8-hour	0.070 ppm (137 µg/m ³)		0.070 ppm (137 µg/m ³)	Attainment Western San Luis Obispo County**
Respirable Particle Matter (PM ₁₀)	24-hour	50 µg/m ³	Non-Attainment	150 µg/m ³	Unclassified/ Attainment
	AAM	20 µg/m ³		—	
Fine Particulate Matter (PM _{2.5})	24-hour	No State Standard	Attainment	35 µg/m ³	Unclassified/ Attainment
	AAM	12 µg/m ³		12 µg/m ³	
Carbon Monoxide (CO)	1-hour	20 ppm (23 mg/m ³)	Attainment	35 ppm (40 mg/m ³)	Unclassified
	8-hour	9 ppm (10 mg/m ³)		9 ppm (10 mg/m ³)	
Nitrogen Dioxide (NO ₂)	1-hour	0.18 ppm (339 µg/m ³)	Attainment	100 ppb (188 µg/m ³)	Unclassified
	AAM	0.030 ppm (57 µg/m ³)		0.053 ppm (100 µg/m ³)	
Sulfur Dioxide (SO ₂)	1-hour	0.25 ppm (655 µg/m ³)	Attainment	75 ppb (196 mg/m ³)	Unclassified
	3-hour	—		Secondary: 0.5 ppm (1,300 µg/m ³)	
	24-hour	0.04 ppm (105 µg/m ³)		0.14 ppm (for certain areas)	
	AAM	—		0.030 ppm (for certain areas)	
Lead	30-day Average	1.5 µg/m ³	Attainment	—	No Attainment Information
	Calendar Quarter	—		—1.5 µg/m ³ (for certain areas)	

Pollutant	Averaging Time	California Standards*		National Standards*	
		Concentration	Attainment Status	Primary	Attainment Status
	Rolling 3-Month Average	—		0.15 µg/m ³	
Visibility-Reducing Particle Matter	8-hour	Extinction of 0.23 per kilometer	Attainment		
Sulfates	24-hour	25 µg/m ³	Attainment		
Hydrogen Sulfide	1-hour	0.03 ppm (42 µg/m ³)	Attainment		No Federal Standards
Vinyl Chloride	24-hour	0.01 ppm (26 µg/m ³)	No Attainment Information		

Notes:

µg/m³ = micrograms per cubic meter, pp, = parts per million, AAM = Annual Arithmetic Mean

* Unclassified (USEPA/federal definition): Any area that cannot be classified on the basis of available information as meeting or not meeting the national primary or secondary ambient air quality standard for that pollutant.

** San Luis Obispo County has been designated non-attainment east of the -120.4 degree longitude line, in areas of San Luis Obispo County that are south of latitude 35.45 degrees, and east of the -120.3 degree longitude line, in areas of San Luis Obispo County that are north of latitude 35.45 degrees.

*** Any project with a grading area greater than 4.0 acres of worked area can exceed the 2.5-ton PM10 quarterly threshold.

Source: SLOAPCD 2019.

Naturally Occurring Asbestos (NOA) is identified as a toxic air contaminant by the CARB. Serpentine and other ultramafic rocks are fairly common throughout the county and may contain NOA. If these areas are disturbed during construction, NOA-containing particles can be released into the air and have an adverse impact on local air quality and human health. According to the SLOAPCD's NOA map, the southeastern portion of the City is located in an area the SLOAPCD has identified as having the potential for NOA to be present (SLOAPCD 2021).

The SLOAPCD's San Luis Obispo County 2001 Clean Air Plan (CAP) is a comprehensive planning document intended to evaluate long-term air pollutant emissions and cumulative effects and provide guidance to the SLOAPCD and other local agencies on how to attain and maintain the state standards for ozone and PM₁₀. The CAP presents a detailed description of the sources and pollutants that impact the jurisdiction's attainment of state standards, future air quality impacts to be expected under current growth trends, and an appropriate control strategy for reducing ozone precursor emissions, thereby improving air quality.

The SLOAPCD has developed and updated their CEQA Air Quality Handbook (most recently updated with a November 2017 Clarification Memorandum) to help local agencies evaluate project-specific impacts and determine if air quality mitigation measures are needed, or if potentially significant impacts could result. General screening criteria is used by the SLOAPCD to determine the type and scope of air quality assessment required for a particular project (Table 1-1 in the SLOAPCD's CEQA Air Quality Handbook). These criteria are based on project size in an urban setting and are designed to identify those projects with the potential to exceed the SLOAPCD's significance thresholds. A more refined analysis of air quality impacts specific to a given project is necessary for projects that exceed the screening criteria below or are within 10% of exceeding the screening criteria.

The county's air quality is measured by a total of 10 ambient air quality monitoring stations, and pollutant levels are measured continuously and averaged each hour, 24 hours a day. The significance of a given pollutant can be evaluated by comparing its atmospheric concentration to federal and state air quality standards. These standards represent allowable atmospheric containment concentrations at which the public health and welfare are protected and include a factor of safety. The SLOAPCD prepares an Annual

Air Quality Report detailing information on air quality monitoring and pollutant trends in the county. The 2019 Annual Air Quality Report is the most recent available Air Quality Report (SLOAPCD 2020).

Sensitive Receptors

One of the most important reasons for air quality standards is the protection of those members of the population who are most sensitive to the adverse health effects of air pollution, termed “sensitive receptors.” The term “sensitive receptors” refers to specific population groups, as well as the land uses where individuals would reside for long periods. Commonly identified sensitive population groups include children, the elderly, the acutely ill, and the chronically ill. Commonly identified sensitive land uses would include facilities that house or attract children, the elderly, people with illnesses, or others who are especially sensitive to the effects of air pollutants. Residential dwellings, schools, parks, playgrounds, childcare centers, convalescent homes, and hospitals are examples of sensitive land uses.

Health Risk from a Nearby High-Volume Roadway

Diesel-fueled trucks and cars travel on US 101, which is considered a high-volume roadway, so future residents living in any proposed residential units near US 101 could be exposed to diesel particulate matter (DPM), which has been classified by the state as a toxic air contaminant and a carcinogen.

San Luis Obispo County Air Pollution Control District Thresholds

The SLOAPCD thresholds for determining the significance of impacts for total emissions expected from a project’s construction activities are provided in Table 5, below. The SLOAPCD has discretion to require mitigation for projects that would not exceed the mitigation thresholds if those projects would result in special impacts, such as the release of DPM emissions or asbestos near sensitive receptors.

Table 5. APCD Thresholds of Significance for Construction Operations

Pollutant	Threshold ¹		
	Daily	Quarterly Tier 1	Quarterly Tier 2
Reactive Organic Gases (ROG) + Nitrogen Oxides (NOx) (combined)	137 lbs	2.5 tons	6.3 tons
Diesel Particulate Matter (DPM)	7 lbs	0.13 tons	0.32 tons
Fugitive Particulate Matter (PM ₁₀), Dust ²	--	2.5 tons	--

Notes:

1. Daily and quarterly emission thresholds are based on the California Health and Safety Code and the CARB Carl Moyer Guidelines.

2. Any project with a grading area greater than 4.0 acres of worked area can exceed the 2.5-ton PM10 quarterly threshold.

Source: APCD 2012.

Environmental Evaluation

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

As part of the CCAA, the SLOAPCD is required to develop a plan to achieve and maintain the state ozone standard by the earliest practicable date. The SLOAPCD’s 2001 CAP addresses the attainment and maintenance of federal and state ambient air quality standards. The CAP was adopted by the SLOAPCD on March 26, 2002.

The CAP outlines the SLOAPCD's strategies to reduce ozone-precursor pollutants (i.e., reactive organic gases [ROG] and nitrogen oxides [NOx]) from a wide variety of sources. The CAP includes a stationary-source control program, which includes control measures for permitted stationary sources, as well as transportation and land use management strategies to reduce motor vehicle emissions and use. The stationary-source control program is administered by the SLOAPCD. Transportation and land use control measures are implemented at the local or regional level by promoting and facilitating the use of alternative transportation options, increased pedestrian access and accessibility to community services and local destinations, reductions in vehicle miles traveled (VMT), and promotion of congestion management efforts. In addition, local jurisdictions also prepare population forecasts, which are used by SLOAPCD to forecast population-related emissions and air quality attainment, including those contained in the CAP.

In July 2005, SLOAPCD also adopted the Particulate Matter Report (PM Report). The PM Report identifies various measures and strategies to reduce public exposure to particulate matter emitted from a wide variety of sources, including emissions from permitted stationary sources and fugitive sources, such as construction activities.

The proposed GPCEU is not considered a large development project that would have the potential to result in a substantial increase in population or employment. Furthermore, based on the traffic modeling and VMT analysis prepared for this project (Appendix C), the proposed GPCEU is anticipated to result in an overall reduction in VMT by approximately 783 miles (Table 6). It is also important to note that circulation network improvements in the proposed GPCEU would be anticipated to improve system-wide circulation and result in additional reductions in vehicle congestion and delay.

Table 6. Daily Vehicle Miles Traveled

Year	Land Use ¹	Network	Net VMT
2015 ²	2015 Existing Land Uses	2015 Existing	296,012
2015 ³	2015 Existing Land Uses	2015 + GPCEU	294,717
Net VMT Difference			-1,294
2045 ⁴	2045 Land Use Element	2045 Land Use Element	340,173
2045 ⁵	2045 Land Use Element	2045 Land Use Element + GPCEU	339,391
Net VMT Difference			-783

Notes:

¹ Applied the San Luis Obispo Council of Governments (SLOCOG) model.

² 2015 Conditions represent existing land uses and existing transportation network.

³ 2015 + GPCEU represent existing land uses with the proposed circulation element improvements.

⁴ 2045 Conditions represent 30-year Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) scenario

⁵ 2045 Conditions + GPCEU represent 30-year RTP/SCS scenario plus the proposed circulation element improvements

VMT modelling methodology is boundary-based total Citywide VMT using the SLOCOG Model VMT postprocessor (includes Residential VMT, Retail VMT, and Work VMT)

Model does not reflect GPCEU's full potential to decrease VMT as the policies are not reflected (Ex: Complete Streets policies, bicycle/pedestrian improvements, safe routes to school, etc.)

Source: GHD 2020

APPLICABLE GENERAL PLAN CIRCULATION ELEMENT POLICIES

Applicable policies related to air quality contained in the proposed GPCEU are summarized in Table B-1 (Appendix B). As depicted, the proposed GPCEU includes numerous policies that would support alternative means of transportation, including improvements to transit, pedestrian, and bicycling networks. Additional policies are included to support reductions in VMT, including traffic-flow improvements and improved pedestrian and bicyclist safety.

In summary, the proposed GPCEU would not result in an increase in population or employment. In addition, policies contained in the GPCEU are consistent with the control measures identified in the CAP. Therefore, this impact is considered *less than significant*.

b) Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

SHORT-TERM CONSTRUCTION EMISSIONS

Construction-generated emissions are short term and of temporary duration, lasting only as long as activities occur, but possess the potential to represent a significant air quality impact. Construction activities that typically result in short-term emissions may include, but are not limited to, demolition, site grading and excavation, road paving, motor vehicle exhaust associated with construction equipment and worker trips, and the movement of construction equipment, especially on unpaved surfaces. Emissions of airborne particulate matter are largely dependent on the amount of ground disturbance associated with site preparation activities.

The specific construction-related requirements associated with future development of the proposed improvements are not known at this time. As a result, no modeling of potential construction emissions was performed. However, future development would be anticipated to result in an increase in short-term construction-generated emissions. Depending on the activities conducted, emissions associated with individual construction projects may exceed the SLOAPCD's significance thresholds. As a result, construction of future transportation improvements would be considered to have a potentially significant short-term air quality impact. Implementation of mitigation measures provided below would reduce potential impacts to be less than significant.

APPLICABLE GENERAL PLAN CIRCULATION ELEMENT POLICIES

The proposed GPCEU does not include any policies related to short-term construction-generated emissions. Air quality impacts associated with proposed construction-related projects would be analyzed in more detail in subsequent project-specific environmental review (if applicable) and mitigation measures would be recommended to reduce significant construction-related air quality impacts. The level of mitigation would be project- and site-specific and would include measures normally required by the City and/or SLOAPCD. With implementation of emission reduction measures and compliance with applicable SLOAPCD rules and regulations, this impact would be considered *less than significant with mitigation*.

LONG-TERM OPERATIONAL EMISSIONS

As noted in Impact III(a), the proposed GPCEU includes numerous policies that would support alternative means of transportation, including improvements to transit, pedestrian, and bicycle networks. Additional policies are included to support reductions in VMT, including traffic-flow improvements and improved pedestrian and bicyclist safety. Although construction of future transportation improvements may result in a redistribution of local vehicle traffic, these improvements are proposed for purposes of improving overall circulation system performance and reducing VMT, congestion, and idling. It is also important to note that implementation of the proposed GPCEU would not result in changes to existing designated truck routes or construction of major transportation facilities near sensitive receptors. As a result, implementation of the proposed GPCEU is anticipated to result in overall reductions in mobile source emissions. This impact is considered *less than significant*.

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

As noted in Impact III(b), future development of proposed circulation improvements would be anticipated to result in short-term increases in emissions, including emissions of fugitive dust and diesel-exhaust particulate matter. Depending on the activities conducted, emissions associated with individual construction projects may exceed the SLOAPCD's significance thresholds. As a result, construction of future transportation improvements would be considered to have a potentially significant short-term air quality impact. Refer to Impact III(b) for additional discussion of air quality impacts. Impacts related to the construction of future transportation improvements and associated short-term air quality impacts are considered to be *less than significant with mitigation*.

As previously discussed, construction of future transportation improvements may result in a redistribution of local vehicle traffic. However, these improvements are proposed for purposes of improving overall circulation system performance and reducing VMT, congestion, and idling. As a result, implementation of the proposed GPCEU would not result in a worsening of existing or projected future intersection or roadway levels of service. It is also important to note that implementation of the proposed GPCEU would not result in changes to existing designated truck routes. Based on the traffic analysis prepared for this project, implementation of the proposed GPCEU would also result in an overall reduction in VMT. For these reasons, implementation of the proposed GPCEU is anticipated to result in overall reductions in long-term exposure of sensitive land uses to localized concentrations of mobile source pollutants. This impact is considered *less than significant*. Refer to Impacts III(a) and III(b) for additional discussion of consistency with applicable air quality plans and long-term air quality impacts.

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

NOA is identified as a toxic air contaminant by the CARB. NOA-containing particles released into the air during construction could have an adverse impact on local air quality and human health. According to the SLOAPCD NOA map, the southeastern portion of the City is located in an area identified as containing NOA. Future improvement projects located within the southeastern portion of the City have the potential to release NOA and would be required to comply with SLOAPCD regulations for construction activity within areas identified as containing NOA.

The occurrence and severity of odor impacts depends on numerous factors, including: the nature, frequency, and intensity of the source; wind speed and direction; and the sensitivity of the receptors. While offensive odors rarely cause any physical harm, they still can be very unpleasant, leading to considerable distress among the public and often generating citizen complaints to local governments and regulatory agencies. Projects with the potential to frequently expose members of the public to objectionable odors would be deemed to have a significant impact.

The proposed GPCEU would not result in the development of odorous emission sources. However, construction of proposed future transportation improvements may result in short-term increases in odors commonly associated with roadway construction, such as asphalt paving. Odorous emissions associated with construction projects would be short-term, limited to the duration of the construction activity, and would dissipate rapidly at increased distance from the source. As a result, construction of proposed future transportation improvements would not result in odors that would affect a substantial number of people. This impact is considered *less than significant*.

Conclusion

The GPCEU proposes goals, policies, and objectives aimed at reducing VMT by promoting the creation of complete streets and an increase in pedestrian, bicycle, and transit access throughout the City. Implementation of the GPCEU would be consistent with applicable air quality management plans and is anticipated to reduce vehicle-related emissions throughout the City. Future buildout of improvements identified in the GPCEU has the potential to result in the generation of emissions during short-term construction activities that could exceed SLOAPCD thresholds. Future physical improvements to the circulation system, as allowed by the GPCEU, would be subject to applicable General Plan and SLOAPCD regulations, as well as identified mitigation. Certain future improvement projects may also be subject to subsequent environmental review and possibly additional mitigation measures to address any potentially significant impacts related to air quality. Therefore, impacts would be less than significant with mitigation.

Mitigation Measures

Future projects would be evaluated on a case-by-case basis for appropriate environmental review and would include project-specific mitigation measures as determined appropriate; however, implementation of the following measure to the maximum extent feasible is recommended to avoid potential impacts.

AQ/MM-1 Future development projects that are subject to discretionary review shall be evaluated in comparison to SLOAPCD-recommended thresholds of significance and shall incorporate emission-reduction measures sufficient to reduce potentially significant short-term air quality impacts to a less-than-significant level. Examples of such measures may include, but are not necessarily limited to, the following:

1. Implementation of SLOAPCD-recommended measures to reduce construction-related emissions, including emissions from construction vehicles, off-road equipment, and fugitive dust.
2. For any project located within an area identified as potentially containing NOA, compliance with the measures outlined in CARB's *Air Toxics Control Measure (NOA ATCM) for Construction, Grading, Quarrying, and Surface Mining Operations* shall be required.
3. Use of low- or zero-emission construction equipment and use of existing electrical power, to the extent locally available.
4. Increased diversion of demolition and construction-generated waste for recycling/reuse.
5. Use of low- or zero-volatile organic compound (VOC) content architectural coatings.
6. If hydrocarbon-contaminated soil is encountered during any project, the SLOAPCD should be notified as soon as possible.

IV. Biological Resources

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

Setting

Arroyo Grande is an urbanized, developed city located 1 mile inland from the Pacific Ocean. Arroyo Grande Creek is located in the southern portion of the City, serves as a wildlife corridor, and extends east to west, draining at the Pacific Ocean through way of Pismo Beach. There are freshwater/forested shrub wetlands associated with Arroyo Grande Creek and there are other wetland resources located throughout the City (U.S. Fish and Wildlife Service [USFWS] 2020). The City has designated conservation and open space areas in the southeastern and northeastern portions of the City and along portions of the western edge of US 101 located in the southern portion of the City (City of Arroyo Grande 2018). Open space and wetland areas would serve as prime habitat for several plant and wildlife species.

Environmental Evaluation

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

SPECIAL-STATUS PLANT SPECIES

Based on a review of the USFWS Information for Planning and Consultation (IPaC) database and the California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDB), the following special-status plant species either have documented occurrences within the City or are considered to have the potential to occur within the City (Appendix D):

- California jewelflower (*Caulanthus californicus*); Federally Endangered, State Endangered, California Native Plant Society (CNPS) Rare Plant Rank 1B.1
- Chorro Creek bog thistle (*Cirsium fontinale* var. *obispoense*); Federally Endangered, State Endangered, CNPS Rare Plant Rank 1B.2
- coastal goosefoot (*Chenopodium littoreum*); CNPS Rare Plant Rank 1B.2; CNDDB Occurrence (Occ.) 5
- Gambel's water cress (*Nasturtium gambelii*); Federally Endangered, State Threatened, CNPS Rare Plant Rank 1B.1; CNDDB Occ. 16
- Kellogg's horkelia (*Horkelia cuneata* var. *sericea*); CNPS Rare Plant Rank 1B.1; CNDDB Occ. 48
- La Graciosa thistle (*Cirsium loncholepis*); Federally Endangered, State Threatened, CNPS Rare Plant Rank 1B.1
- marsh sandwort (*Arenaria paludicola*); Federally Endangered, State Endangered, Rare Plant Rank 1B.1
- Nipomo Mesa lupine (*Lupinus nipomensis*); Federally Endangered, State Endangered, CNPS Rare Plant Rank 1B.1
- Pismo clarkia (*Clarkia speciosa* ssp. *immaculata*); Federally Endangered, State Rare, CNPS Rare Plant Rank 1B.1; CNDDB Occ. 7 and 8
- salt marsh bird's beak (*Cordylanthus maritimus* ssp. *maritimus*); Federally Endangered, State Endangered, CNPS Rare Plant Rank 1B.2
- San Luis Obispo owl's-clover (*Castilleja densiflora* var. *obispoensis*); CNPS Rare Plant Rank 1B.2; CNDDB Occ. 19
- Santa Margarita manzanita (*Arctostaphylos pilosula*); CNPS Rare Plant Rank 1B.2; CNDDB Occ. 31
- southern curly-leaved monardella (*Monardella sinuata* ssp. *sinuata*); CNPS Rare Plant Rank 1B.2; CNDDB Occ. 29 and 38
- spreading navarretia (*Navarretia fossalis*); Federally Threatened, CNPS Rare Plant Rank 1B.1
- straight-awned spineflower (*Chorizanthe rectispina*); CNPS Rare Plant Rank 1B.3; CNDDB Occ. 21, 22, and 26

The GPCEU identifies objectives, policies, and specific improvements for the City's circulation system. Proposed GPCEU objectives and policies do not include specific improvements that have the potential to result in habitat modification or other adverse impacts to special-status plant species. Future buildout of the GPCEU is not anticipated to result in habitat modification or adverse impacts to special-status plants because improvements are anticipated to be located within developed and disturbed areas. Similarly, specific future improvements that are identified in the GPCEU are anticipated to occur in developed areas and are not expected to result in habitat modification or other adverse impacts to special-status plant species. Proposed improvements that are specifically identified in the GPCEU would generally be limited to the realignment of on/off ramps, construction of new roundabouts, lane and intersection improvements (road diets, turn modifications, etc.), roadway extensions, pedestrian improvements (controlled and midblock crossings), and bikeway improvements (Class IV and II facilities, bike boulevards, and new bikeways). These future improvements would be located within existing developed and disturbed areas and would not result in habitat modification or other adverse impacts to special-status plant species.

If special-status plants are present within the undeveloped portions of the project impact area, implementation of construction activities could result in direct and indirect impacts to special-status species. Direct impacts could include destruction or removal of special-status plants as a result of the movement or use of construction equipment, materials, and workers within the undeveloped project impact areas. Indirect impacts to special-status plants could occur through habitat modification, ground disturbance, and erosion. Development of future improvements would be required to comply with existing land use and zoning designations, as well as the City's ACOSE, specifically Objective C/OS2 and corresponding policies intended to protect important environmental and sensitive biological resources. Future development of improvements that has the potential to result in adverse impacts to special-status plants would be subject to subsequent environmental review. Mitigation has been provided to avoid and/or minimize potential adverse impacts to special-status plants, if present, through botanical surveys, avoidance, preservation, and relocation. Therefore, impacts to special-status plants are expected to be *less than significant with mitigation*.

SPECIAL-STATUS ANIMAL SPECIES

Based on a review of the USFWS IPaC database and the CDFW CNDDDB, the following special-status animal species either have documented occurrences within the City or are considered to have the potential to occur within the City (see Appendix D):

- American badger (*Taxidea taxus*); Species of Special Concern (SSC); Occ. 200
- blunt-nosed leopard lizard (*Gambelia silus*); Federally Endangered, State Endangered, CDFW Fully Protected
- California clapper rail (*Rallus longirostris obsoletus*); Federally Endangered
- California condor (*Gymnogyps californianus*); Federally Endangered, State Endangered, CDFW Fully Protected
- California least tern (*Sterna antillarum browni*); Federally Endangered, State Endangered, CDFW Fully Protected
- California red-legged frog (*Rana draytonii*); Federally Threatened, CDFW SSC; CNDDDB Occ. 319, 418, and 459
- California tiger salamander (*Ambystoma californiense*); Federally Threatened, State Threatened
- giant kangaroo rat (*Dipodomys ingens*); Federally Endangered, State Endangered
- Kern primrose sphinx moth (*Euproserpinus euterpe*); Federally Threatened

- least Bell's vireo (*Vireo bellii pusillus*); Federally Endangered, State Endangered
- marbled murrelet (*Brachyramphus marmoratus*); Federally Threatened, State Endangered
- monarch – California overwintering population (*Danaus plexippus* pop. 1); Special Animal; CNDDDB Occ. 249, 251, 320, and 399
- Northern California legless lizard (*Anniella pulchra*); CDFW SSC
- obscure bumble bee (*Bombus caliginosus*); Special Animal; CNDDDB Occ. 164 and 165
- southwestern willow flycatcher (*Empidonax traillii extimus*); Federally Endangered, State Endangered
- steelhead – south-central California coast Distinct Population Segment (DPS) (*Oncorhynchus mykiss irideus* pop. 9); Federally Threatened; CNDDDB Occ 17
- tidewater goby (*Eucyclogobius newberryi*); Federally Endangered
- vernal pool fairy shrimp (*Branchinecta lynchi*); Federally Threatened
- western pond turtle (*Emys marmorata*); SSC; CNDDDB Occ. 1143 and 1165
- western snowy plover (*Charadrius nivosus nivosus*); Federally Threatened, SSC; CNDDDB Occ. 171, 172, and 173

The GPCEU includes objectives, policies, and specific improvements related to the City's circulation system. As discussed previously, proposed GPCEU objectives and policies do not include specific improvements that have the potential to result in habitat modification or other adverse impacts to special-status animal species. Future buildout of the GPCEU is not anticipated to result in habitat modification or adverse impacts to special-status animal species because improvements are anticipated to be located within developed and disturbed areas.

As shown on Figures 3 through 5, specific future improvements that are identified in the GPCEU are anticipated to occur in developed areas and are not expected to result in habitat modification or other adverse impacts to special-status animal species. Proposed improvements that are specifically identified in the GPCEU would generally be limited to the realignment of on/off ramps, construction of new roundabouts, lane and intersection improvements (road diets, turn modifications, etc.), roadway extensions, pedestrian improvements (controlled and midblock crossings), and bikeway improvements (Class IV and II facilities, bike boulevards, and new bikeways). Proposed improvements located within existing developed areas would generally not require building demolition or tree or vegetation removal; therefore, impacts to special-status animal species in these areas are not anticipated. However, additional special-status animals included in the species lists in Appendix D are considered to have the potential to occur within undeveloped areas in the City. Implementation of proposed improvements in these areas have the potential to result in direct and indirect impacts to special-status animal species in the form of injury or mortality resulting from the use and/or movement of construction equipment, and disturbance from noise, dust, and habitat modification resulting from construction activities.

Development of future improvements would be required to comply with existing land use and zoning designations, as well as the City's ACOSE, specifically Objective C/OS2 and corresponding policies intended to protect important environmental and sensitive biological resources. Implementation of the avoidance and minimization measures, such as appropriate timing of vegetation removal, preconstruction surveys, and exclusion zones, would reduce the potential for adverse effects to special-status animal species. Therefore, potential impacts to sensitive species would be *less than significant with mitigation*.

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

There are numerous surface water resources and associated riparian habitat present within the City, including Arroyo Grande Creek, which is located in the southern portion of the City. The GPCEU identifies objectives, policies, and specific improvements related to the City's circulation system. Proposed GPCEU objectives and policies do not include specific improvements that have the potential to result in riparian habitat modification or other adverse impacts to sensitive natural communities. Proposed improvements that are specifically identified in the GPCEU would generally be limited to the realignment of on/off ramps, construction of new roundabouts, lane and intersection improvements (road diets, turn modifications, etc.), roadway extensions, pedestrian improvements (controlled and midblock crossings), and bikeway improvements (Class IV and II facilities, bike boulevards, and new bikeways). These proposed improvements would generally be located within existing developed areas and are not anticipated to result in impacts to riparian habitat or other sensitive natural communities. Future improvements would be required to avoid alteration of riparian corridors, implement erosion control and drainage measures, implement vegetation management within riparian corridors, and maintain setbacks in accordance with the City's ACOSE, specifically Objective C/OS2 and corresponding policies. Mitigation has also been included to avoid impacts to riparian habitat to the maximum extent feasible. If future improvements have the potential to result in adverse impacts to riparian habitat or other sensitive natural communities, those improvements would be subject to subsequent environmental review. Therefore, impacts would be *less than significant with mitigation*.

c) Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

According to the National Wetlands Inventory (NWI) surface waters and wetlands mapping tool, there is a freshwater forested/shrub wetland associated with Arroyo Grande Creek located in the southern portion of the City and several other wetland areas located throughout the City. Proposed GPCEU objectives and policies do not include specific improvements that have the potential to result in a substantial adverse effect on federally or state-protected wetlands. Proposed improvements that are specifically identified in the GPCEU would generally be limited to the realignment of on/off ramps, construction of new roundabouts, lane and intersection improvements (road diets, turn modifications, etc.), roadway extensions, pedestrian improvements (controlled and midblock crossings), and bikeway improvements (Class IV and II facilities, bike boulevards, and new bikeways). These proposed improvements would generally be located within existing developed areas and are not anticipated to result in impacts to federally or state-protected wetlands. Future improvements would be required to avoid alteration of riparian corridors, implement erosion control and drainage measures, implement vegetation management within riparian corridors, and maintain setbacks in accordance with the City's ACOSE, specifically Objective C/OS2 and corresponding policies. Mitigation has also been included to avoid impacts to wetlands to the maximum extent feasible. If future improvements have the potential to result in adverse impacts to wetlands, those improvements would be subject to subsequent environmental review. Therefore, impacts would be *less than significant with mitigation*.

d) Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Arroyo Grande Creek serves as a wildlife corridor, is located in the southern portion of the City, and flows east to west, emptying in the Pacific Ocean through Pismo Beach. The City is predominately

comprised of developed land with limited connectivity opportunities. However, there is an area of land located in the northwestern portion of the City that has connection with implementation flexibility, meaning that there are areas identified as having connectivity importance, but have not been identified as channelized areas, species corridors, or habitat linkages at this time (CDFW 2021).

Proposed GPCEU objectives and policies do not include specific improvements that have the potential to 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. Proposed improvements that are specifically identified in the GPCEU would generally be limited to the realignment of on/off ramps, construction of new roundabouts, lane and intersection improvements (road diets, turn modifications, etc.), roadway extensions, pedestrian improvements (controlled and midblock crossings), and bikeway improvements (Class IV and II facilities, bike boulevards, and new bikeways). These proposed improvements would generally be located within existing developed areas and are not anticipated to interfere with the movement of wildlife or otherwise impact wildlife migration corridors. Future improvements would be required to comply with Section 13.24.120 (Erosion and Sedimentation Control Plan Requirements) and Section 13.24.130 (Stormwater Pollution Prevention Plan Requirements) of the City's Municipal Code, which require that all construction and grading permit projects prepare an erosion and sedimentation control plan for all project phases, and require projects that result in site disturbance of 1 acre or more prepare and implement a Stormwater Pollution Prevention Plan (SWPPP) with Best Management Practices (BMPs) to reduce or avoid construction-related pollution to water resources. Future improvement and development projects would be required to comply with the City's ACOSE, Municipal Code, and State Water Resources Control Board (SWRCB) water discharge requirements. Mitigation has been included to avoid further avoid impacts to riparian corridors and migratory birds to the maximum extent feasible. Any future improvements that have the potential to interfere with the movement of wildlife or result in other impacts to migration corridors or nursery sites would be subject to subsequent environmental review. Therefore, impacts would be *less than significant with mitigation*.

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

Section 12.16 of the City's Municipal Code is designed to preserve, enhance, and revitalize the City's urban forest. The Community Tree Program sets forth guidelines and policies with regards to:

- Street tree requirements for new development;
- Landmark trees;
- Responsibility for tree-damaged sidewalks and public improvements;
- Privately owned trees affecting the public right-of-way;
- Tree removal in residential, mixed-use, and commercial zones;
- Public utility company requirements; and
- Installation, maintenance, and removal of trees relating to property development.

Regulated trees include street trees within the public right-of-way fronting the property, landmark trees, and any oak trees with a trunk width over 12 inches in diameter when measured 4.5 feet from the base. Removing them is prohibited without first obtaining a permit. The permit is available when the removal is deemed appropriate. Any removal of a regulated tree without a permit is considered to be a misdemeanor violation with a minimum \$150.00 tree replacement fee.

Proposed GPCEU objectives and policies would not conflict with the City's Municipal Code. Proposed improvements that are specifically identified in the GPCEU would generally be limited to the realignment of on/off ramps, construction of new roundabouts, lane and intersection improvements (road diets, turn modifications, etc.), roadway extensions, pedestrian improvements (controlled and midblock crossings), and bikeway improvements (Class IV and II facilities, bike boulevards, and new bikeways). These proposed improvements would generally be located within existing developed areas and are not anticipated to conflict with any local policies or ordinances protecting biological resources. Future improvements would be required to comply with the City's ACOSE, specifically Objective C/OS-2 and corresponding policies, which is intended to safeguard important environmental and sensitive biological resources contributing to a healthy, functioning ecosystem. Future improvements would also be required to comply with the City's Municipal Code, specifically the Community Tree Program. Future improvements that would conflict with the City's ACOSE or the Community Tree Program would be subject to subsequent environmental review. Therefore, impacts would be *less than significant*.

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

A Habitat Conservation Plan (HCP) was prepared for Arroyo Grande Creek in 2004 to address protection of habitat for steelhead and California red-legged frog. The HCP extends approximately 10 miles and its boundaries include Arroyo Grande Creek downstream from Lopez Dam to the flood control channel at Fair Oaks Boulevard.

Proposed GPCEU objectives and policies would not conflict with the HCP prepared for Arroyo Grande Creek. Proposed improvements that are specifically identified in the GPCEU would generally be limited to the realignment of on/off ramps, construction of new roundabouts, lane and intersection improvements (road diets, turn modifications, etc.), roadway extensions, pedestrian improvements (controlled and midblock crossings), and bikeway improvements (Class IV and II facilities, bike boulevards, and new bikeways). These proposed improvements would generally be located within existing developed areas and are not anticipated to conflict with any HCP policies or ordinances protecting biological resources. Future improvements would be required to comply with the City's ACOSE, specifically Objective C/OS-2 and corresponding policies, which is intended to safeguard important environmental and sensitive biological resources contributing to a healthy, functioning ecosystem. Future improvements would also be required to comply with the HCP prepared for Arroyo Grande Creek. Mitigation has been included to further avoid potential adverse impacts to biological resources to the maximum extent feasible. Future improvements that would conflict with the City's ACOSE or an applicable HCP would be subject to subsequent environmental review. Therefore, impacts would be *less than significant with mitigation*.

Conclusion

The City of Arroyo Grande supports special-status plant and wildlife species, surface water resources, wetland resources, wildlife corridors, and other sensitive biological communities. Proposed GPCEU objectives and policies do not include specific improvements that have the potential to result in habitat modification or other adverse impacts to special-status species, riparian habitat or sensitive natural communities, wetlands, wildlife corridors or nursery sites, or conflict with applicable policies, ordinances, or HCPs intended to protect biological resources. Future buildout of the GPCEU is not anticipated to result in impacts to these resources because improvements are anticipated to be located within developed and disturbed areas. Proposed improvements that are specifically identified in the GPCEU would generally be limited to the realignment of on/off ramps, construction of new roundabouts, lane and intersection improvements (road diets, turn modifications, etc.), roadway extensions, pedestrian improvements (controlled and midblock crossings), and bikeway improvements (Class IV and II facilities, bike boulevards, and new bikeways). These future improvements would be located within existing

developed and disturbed areas and are not anticipated to result in substantial adverse impacts to these species. Future improvements would be required to comply with the City's ACOSE, Municipal Code, Community Tree Program, applicable HCPs, and associated policies intended to protect biological resources. Mitigation has also been included to further avoid potential impacts to sensitive biological resources. Therefore, impacts would be less than significant with mitigation.

Mitigation Measures

Future projects would be evaluated on a case-by-case basis for appropriate CEQA review and would include project-specific mitigation measures as determined appropriate; however, implementation of the following measures to the maximum extent feasible is recommended to avoid potential adverse impacts to biological resources.

- BIO/MM-1** Prior to commencement of construction activities within undeveloped areas that could contain special-status plants, the City shall retain a qualified biologist to conduct an appropriately timed protocol-level botanical survey. If special-status plants are observed within the project impact area, the following measures shall be implemented:
1. An environmental training program shall be developed to educate construction personnel about special-status plant species with potential to be encountered during construction, and the avoidance and minimization measures being employed to prevent or reduce impacts to these species.
 2. If federally listed plant species are determined to occur within the project area and cannot be avoided, the project must obtain incidental take authorization from the USFWS through a Federal Endangered Species Act (FESA) Section 7 Biological Opinion and Incidental Take Statement.
 3. If feasible, avoid disturbance in areas with special-status plant species. Areas with special-status plant species to be avoided shall be marked on project plans and marked in the field with flagging and/or brightly colored fencing to facilitate plant recognition and avoidance.
 4. If plant species listed by the state as endangered or threatened are determined to occur within the project area and cannot be avoided, the project must obtain incidental take authorization from CDFW through a California Endangered Species Act (CESA) Section 2081 Incidental Take Permit. Species that are considered State Rare by CDFW must be completely avoided since CDFW currently does not have a legal mechanism to allow for "take."
 5. Plants listed as rare by the CNPS that have no federal or state status are not protected under CESA. During CEQA project analysis, CDFW may require implementation of specific mitigation measures for impacts to rare plants found within the project area.
 6. If it is determined by the City that impacts to special-status plant species exceed the levels that are authorized by the affected regulatory agency, they will notify the project contractor immediately. The project contractor will resolve the situation immediately by eliminating the cause of the identified effect to special-status species or require that all actions that are causing these effects are halted until coordination with the appropriate resource agency is completed. No work will resume until the issue is resolved.

- BIO/MM-2** During construction, the project contractor shall implement the following measures, as appropriate to avoid the spread of invasive species:
1. To avoid the spread of invasive species, the contractor shall stockpile topsoil and redeposit the stockpiled soil within the excavated trenches after construction of the new project component is complete, or transport topsoil to a certified landfill for disposal.
 2. During construction, the project contractor will make all reasonable efforts to limit the use of imported soils for fill. Soils currently existing on-site should be used for fill material. If the use of imported fill material is necessary, the imported material must be obtained from a source that is known to be free of invasive plant species; or the material must consist of purchased clean material such as crushed aggregate, sorted rock, or similar.
 3. Any landscape and/or restoration planting plans, if proposed, must emphasize the use of native species expected to occur in the area. Project plans must avoid the use of plant species that the California Invasive Plant Council (Cal-IPC), California Exotic Pest Plant Council (Cal-EPPC), CDFW, or other resource organizations considers to be invasive or potentially invasive. Prior to issuance of grading permits, all project landscape and restoration plans shall be verified to ensure that the plans do not include the use of any species considered invasive by the Cal-IPC, Cal-EPPC, or CDFW.
 4. Use of rodenticides and herbicides shall be prohibited.
- BIO/MM-3** Prior to construction in any undeveloped area that contains a potential wetland, seep, drainage, or other surface water feature, the City shall retain a qualified biologist or wetland delineation specialist to conduct a biological survey and/or wetland delineation within the project impact area and shall implement the following measures, as applicable:
1. Prior to project implementation, the project area shall be clearly flagged or fenced so that the contractor is aware of the limits of allowable site access and disturbance. Areas within the designated project site that do not require regular access shall be clearly flagged as off-limit areas to avoid unnecessary damage to sensitive habitats or existing vegetation within the project area.
 2. Prior to project implementation, a project Erosion Control Plan shall be prepared. During project activities, erosion control measures shall be implemented. Silt fencing, fiber rolls, and barriers (e.g., hay bales) shall be installed to establish a minimum 25-foot setback distance between the project impact areas and adjacent wetlands and other waters. At a minimum, silt fencing shall be checked and maintained on a daily basis throughout the construction period. The contractor shall also apply adequate dust control techniques, such as site watering, during construction.
 3. Prior to construction, the City shall prepare and submit to the Regional Water Quality Control Board (RWQCB) or SWRCB a Notice of Intent (NOI) and prepare a SWPPP in accordance with the requirements of the State General Order related to construction projects. The SWPPP shall identify the selected stormwater management procedures, pollution control technologies, spill response procedures, and other means that will be used to minimize erosion and sediment production and the release of pollutants to surface water during construction. The City shall ensure that sedimentation and erosion control measures are installed prior to any ground-disturbing activities.

4. Prior to the commencement of site preparation, ground-disturbing, or construction activities, the City will identify required BMPs on all construction plans. These practices will be implemented prior to, during, and following construction activities as necessary to ensure their intended efficacy. Measures may include, but not necessarily be limited to, the placement of silt fencing along the down-slope side of the construction zone, on-site storage of a spill and clean-up kit at all times, and employment of both temporary and permanent erosion and sedimentation control measures (e.g., silt fencing, hay bales, straw wattles).
5. During project activities, if work within stream channels is necessary, it shall be conducted during the dry season if possible (April 15–October 15).
6. Prior to construction within 50 feet of any stream or other surface water resource, the City shall prepare project-specific plans for crossings. If construction activities require any earthwork within the banks of the drainage (including beneath the bed of the channel), the City shall coordinate with the U.S. Army Corps of Engineers (USACE), CDFW, and RWQCB to obtain the appropriate permits for direct impacts to the jurisdictional features.
7. Prior to construction within 50 feet of any stream or other surface water resource, the City shall ensure preparation and implementation of a Spill Prevention and Contingency Plan that includes provisions for avoiding and/or minimizing impacts to sensitive habitat areas, including wetland and riparian areas and waterbodies due to equipment-related spills during project implementation. The City shall ensure contamination of habitat does not occur during such operations. Prior to the onset of work, the City shall ensure that the plan allows a prompt and effective response to any accidental spills. All workers shall be informed of the importance of preventing spills and of the appropriate measure to take should a spill occur. The plan shall include the following provisions:
 - a. All equipment fueling shall be conducted within the designated staging areas of the project site. Such areas shall consist of roadway or ruderal habitat. At no time shall any equipment fueling be conducted within 100 feet of any wetland and riparian habitat area, or waterbody;
 - b. An overview of the containment measures to appropriately store and contain all fuels and associated petroleum products during the project shall be included in the plan. This shall include provisions for equipment staging areas, such as the need for drip pans underneath parked equipment and designated storage areas for fuel dispensing equipment with visqueen lining or similar and secondary containment; and
 - c. A description of the response equipment that would be on-site during construction and exact procedures for responding to any inadvertent spills, including miscellaneous fuel and/or lubricant spills from construction equipment and vehicles during operations. Final specifications of the Spill Prevention and Contingency Plan shall be reviewed and approved by the City prior to project implementation.
8. If impacts to wetlands or other surface water resources would occur as a result of proposed project activities and are unavoidable, a mitigation, monitoring, and reporting plan shall be prepared and approved by the City and other jurisdictional agencies, as appropriate (i.e., USACE, CDFW, and RWQCB). Wetland mitigation will increase the aerial extent of wetland habitat on site at a 2:1 ratio (created wetland area to impacted wetland area), or other ratio determined by the

permitting agency. Mitigation implementation and success will be monitored for a minimum of 3 years, depending on the jurisdictional agencies' requirements.

BIO/MM-4 Prior to commencement of construction activities, the City shall retain a qualified biologist that is familiar with the special-status species that have documented occurrences within the City and that have the potential to occur within the City.

BIO/MM-5 Prior to commencement of site preparation, ground-disturbing, or construction activities, the City will retain a biologist to prepare and deliver a worker orientation and training program for all construction staff. This program will include information on the protection of trees, riparian and wetland habitat, special-status plant and animal species that have the potential to occur in the project area, and nesting birds. The training shall also include any applicable regulatory policies and provisions regarding species protection and minimization measures to be implemented. The point of contact appointed by the City will be identified. Any employee or contractor who might detect the presence of or inadvertently injure or kill a special-status species or who finds a dead, injured, or entrapped animal will report their observation to this point of contact.

BIO/MM-7 Prior to the commencement of site preparation, ground-disturbing, or construction activities, the City will obtain all necessary permits, approvals, and authorizations from regulatory agencies.

BIO/MM-8 A preconstruction survey by the qualified biologist shall be conducted no more than 30 days and no less than 14 days prior to the commencement of any site preparation and/or construction activities in previously undisturbed areas. If any evidence of occupation of that portion of the project site by listed or other special-status plant or animal species is observed, the following measures shall be implemented:

1. A buffer shall be established by a qualified biologist that results in sufficient avoidance to comply with applicable regulations. If sufficient avoidance cannot be established, the USFWS and CDFW shall be contacted for further guidance and consultation on additional measures.
2. The City shall obtain any required permits from the appropriate wildlife agency. Copies of the preconstruction survey and results, as well as all permits and evidence of compliance with applicable regulations, shall be maintained by the City.

BIO/MM-9 Prior to the commencement of construction activities, the City shall retain a qualified biologist to conduct a preconstruction nesting bird survey. Within 1 week (7 days) prior to construction activities taking place during the avian breeding season (February 1–August 31) the approved qualified biologist shall conduct a nesting bird survey within the project disturbance areas and a 500-foot buffer surrounding all project disturbance areas (wherever legal access is available). At a minimum, nesting surveys shall be conducted prior to construction occurring between February 1 and August 31. A qualified biologist will determine if nesting activity is occurring either prior to or after this February–August period and nesting surveys will be performed accordingly.

If an active nest is found, an avoidance buffer shall be established around the nest in which no construction work is permitted. The size of the buffer will be adequate to ensure that the nest, nesting birds, and chicks (including fledglings and precocial chicks) are not disturbed. For nests of raptors and special-status bird species, the size of the buffer will be determined based on a project-specific nesting bird management plan approved by the

appropriate resource agencies or consultation with the appropriate resource agencies. For all other nests, the size of the buffer will be determined by a qualified biologist. Construction monitors will ensure that work crews are aware of the buffer and related work restrictions. The buffer zone will remain in place until the young have fledged and are no longer dependent on the nest or the nest is no longer active, as determined by a qualified biologist.

An active nest is defined as a nest with eggs or chicks, or as otherwise defined by the CDFW. If an active nest must be moved during the nesting season, the City shall coordinate with the USFWS and CDFW to obtain approval prior to moving the nest. Prior to the start of construction, the City shall prepare a draft Nesting Bird Management Plan, in consultation with CDFW, describing measures to detect birds that may nest on and adjacent to the project corridor or facilities and to avoid impacts to or take of those birds or their nests during project construction. The draft Nesting Bird Management Plan shall be submitted to the City for review and approval in consultation with the USFWS and CDFW. The Nesting Bird Management Plan will be finalized by the City prior to issuance of CDFW's Notification to Proceed. The Nesting Bird Management Plan will describe avoidance measures, such as buffer distances from active nests, based on the specific nature of project activities, noise, or other disturbance of those activities, the bird species and conservation status, and other pertinent factors. The plan will specify species' (or groups of species) appropriate buffer distances based on tolerance of human activities. Standard nest buffers shall be 300 feet, and 500 feet for raptor species, or as specified in the CDFW-approved Nesting Bird Management Plan.

- BIO/MM-10** Prior to the commencement of site preparation, ground-disturbing, or construction activities, the perimeter of these activity areas will be delineated with construction fencing to avoid inadvertent egress into habitat intended to remain undisturbed. Verification that this fencing has been installed will be conveyed to the City by the contractor. The contractor will be responsible for fence maintenance throughout the entire construction process.

With the incorporation of these measures, residual impacts to biological resources would be less than significant.

V. Cultural Resources

Environmental Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
(a) Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?	☐	☒	☐	☐
(b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?	☐	☒	☐	☐
(c) Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☐	☒	☐

Setting

San Luis Obispo County possesses a rich and diverse cultural heritage and has an abundance of historic and prehistoric cultural resources dating as far back as 9,000 B.C. The County of San Luis Obispo (County) protects and manages cultural resources in accordance with the provisions detailed by CEQA and local ordinances. PRC Section 5024.1 requires that any properties that can be expected to be directly or indirectly affected by a proposed project be evaluated for California Register of Historical Resources (CRHR) eligibility. The purpose of the CRHR is to maintain listings of the state's historical resources and to indicate what properties are to be protected, to the extent prudent and feasible, from material impairment and substantial adverse change.

As defined by CEQA, a historical resource includes:

1. A resource listed in or determined to be eligible for listing in the CRHR.
2. Any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant or significant. The architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural records of California may be considered to be a historical resource, provided the lead agency's determination is supported by substantial evidence.

The earliest inhabitants of Arroyo Grande Valley were the northern or Obispeño Chumash Indians. The Arroyo Grande area was still occupied by Chumash Indians at the time of contact with the first Spanish explorer, Juan Rodríguez Cabrillo. During the colonial settlement of California, the Arroyo Grande Valley became separated into two major ranchos, which were granted by the Mexican government around 1840. In the mid-1860s, a severe drought decimated the cattle population, forcing the large ranchos to subdivide property and sell smaller parcels to new settlers for agricultural uses. In 1863 the County Board of Supervisors established the township of Arroyo Grande. The town of Arroyo Grande was founded in 1897 in southern San Luis Obispo County (City of Arroyo Grande Police Department [AGPD] 2020).

Beginning in the late 1800s, inhabitants of Arroyo Grande utilized its location and soils for agriculture production. Others came to Arroyo Grande to drill oil. Commercial and residential areas began growing as more inhabitants came to the City. Arroyo Grande Creek supported irrigation needs and its periodic flooding and drought was critical for agricultural practices (Page & Turnbull 2013).

Environmental Evaluation

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

The City contains buildings that are designated as Historical Resources by the California Office of Historic Preservation (OHP). These resources include Former City Hall (214 East Branch Street), Conrad House (208 East Branch Street), a residence (145 West Branch Street), an office (139 West Branch Street), Santa Manuela Schoolhouse (Heritage Square/Nelson Green), Ruby's House (134 South Mason Street), Heritage House (126 South Mason Street), Swinging Bridge (Short Street, spanning Arroyo Grande Creek), Bridge Street Bridge (Bridge Street, south of Olohan Alley), Paulding House (551 Crown Hill Street), and 100F Hall (128 Bridge Street) (Page & Turnbull 2013).

The GPCEU proposes goals and policies intended to create a multi-modal transportation system for the City and adequately anticipate and plan future transportation infrastructure to meet future needs of the City. Construction activities required for the implementation of proposed GPCEU improvements have the potential to affect historical resources. Future development would be required to comply with goals and policies of the City's ACOSE, specifically Objective C/OS4 and corresponding policies, which are

intended to preserve historic and cultural resources of public interest that reflect the legacy of earlier human settlement. Compliance with Policies C/OS4-3 and C/OS4-4 would require avoiding disturbance to archaeological and culturally sensitive sites and protecting the character of significant historical features and settings by C/OS designation. Mitigation in the form of avoidance measures has been included to ensure impacts to known CRHR-eligible properties and historic and archaeologically sensitive areas would be minimized. Therefore, potential impacts would be *less than significant with mitigation*.

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

Arroyo Grande has a rich heritage of both with numerous Chumash Indian sites dating back more than 9,000 years. Given the abundance of historic and prehistoric archaeological resources known to be located in the City of Arroyo Grande, and comments expressed by interested Native American parties, the City is considered sensitive for the presence of known and previously unidentified historic-era and Chumash affiliated archaeological sites. As such, it is possible that intact archaeological deposits may be present below paved and/or developed portions of the study area. Early development may have served as a means of “capping” any resources that may have been present in the currently obscured portions of the City. While these paved areas are planned to be subject to varying levels of potential disturbance, any excavations into native soils below prior disturbance would have a heightened potential for discovery of previously undiscovered, subsurface archaeological resources.

Construction activities required for the implementation of proposed GPCEU improvements have the potential to affect archaeological resources. Future development would be required to comply with goals and policies of the City’s ACOSE, specifically Objective C/OS4 and corresponding policies, which are intended to preserve historic and cultural resources of public interest that reflect the legacy of earlier human settlement. Compliance with Policies C/OS4-3 and C/OS4-4 would require avoiding disturbance to archaeological and culturally sensitive sites and protecting the character of significant historical features and settings by C/OS designation. Avoidance is the most effective mitigation; early, meaningful consultation with locally affiliated Native American representatives would assist in the avoidance of sacred sites and significant resources.

Although the uppermost 2 to 3 feet within the road prism of developed areas have largely been disturbed by excavation from the placement of utilities and associated infrastructure, it is possible that intact native soils remain capped at greater depth. Where excavations for the proposed improvements occur in unpaved areas or exceed 2 to 3 feet in paved areas, there is increased potential to encounter buried archaeological deposits. Mitigation is provided to ensure impacts to any unknown resources that may be encountered during project development would be minimized. Therefore, potential impacts would be *less than significant with mitigation*.

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

Arroyo Grande Cemetery is a dedicated cemetery within the City’s limits and is located on the western side of the US 101 between West Branch Street and North Halcyon Road. No human remains are known to exist within the GPCEU improvement areas, and the likelihood for unknown human remains to exist is low within the uppermost 2 to 3 feet of the soil horizon where construction activities would be expected to occur, due to the extent of previous disturbance. However, the discovery of unknown human remains is always a possibility during ground disturbance. Protocol for properly responding to the inadvertent discovery of human remains is identified in the State of California Health and Safety Code Section 7050.5(b). This code section states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to PRC Section 5097.98. The County Coroner must be notified of the find immediately. If the human remains are determined to be prehistoric, the

Coroner will notify the California Native American Heritage Commission (NAHC), which will determine and notify a most likely descendant. The potential for discovery of unknown buried human remains within locations of proposed GPCEU improvements is low due to the extent of previous disturbance and limited depth of grading that would be required for most of the proposed improvements, and compliance with existing state law requirements would minimize adverse impacts. Therefore, potential impacts associated with the disturbance of human remains would be *less than significant*.

Conclusion

The GPCEU proposes objectives, policies, and specific improvements to the City's circulation system to meet the existing and future transportation needs of the City. Any future development within the City resulting from buildout of GPCEU improvements would be subject to applicable state and local policies and regulations, including Objective C/OS4 and corresponding policies in the City's ACOSE, and State of California Health and Safety Code Section 7050.5(b). Implementation of Mitigation Measures CUL/MM-1 through CUL/MM-4 would further ensure potential impacts would be avoided.

Mitigation Measures

Future projects would be evaluated on a case-by-case basis for appropriate CEQA review, would be required to comply with the objectives and policies in the City's ACOSE, and would include project-specific mitigation measures as determined appropriate; however, implementation of the following measures to the maximum extent feasible is recommended to avoid potential impacts.

CUL/MM-1 Prior to commencement of construction activities that will require ground disturbance at more than a surficial depth (e.g., outside of the developed road prism [asphalt, road base]), including activities within paved areas and landscaped areas, the City shall retain a City-approved archaeologist to conduct a review of existing records search data to determine if the site of new improvements has been previously subject to archaeological study, and whether the study adequately addresses the potential for archaeological resources to occur within the disturbance area associated with construction. The City and/or the approved archaeologist shall coordinate with locally affiliated Native American representative(s) in determining archaeological sensitivity for proposed projects.

If it is determined a study has not been conducted or existing research is inadequate, a City-approved archaeologist shall prepare a Phase I Archaeological Survey Report of the project area. The study shall identify cultural resources that have the potential to be impacted by future development and provide mitigation measures to avoid and/or minimize potential impacts.

If the City determines that the construction of a proposed improvement has the potential to result in direct or indirect impacts to a significant historic resource, the City shall retain a qualified architectural historian who meets the Secretary of the Interior's Professional Qualification Standards to evaluate the resource(s) and provide recommendations for avoidance or mitigation measure to reduce impacts.

To the extent feasible, sensitive resources shall be avoided during all ground-disturbing site preparation and construction activities. If impacts to sensitive archaeological areas are unavoidable, additional tasks such as additional Native American coordination, Phase II archaeological testing, Phase III data recovery, and historic research shall also be conducted, as necessary. Archaeological and Native American monitoring may also be required during project construction in sensitive areas.

- CUL/MM-2** Prior to commencement of construction activities that will require ground disturbance at more than a surficial depth (e.g., outside of the developed road prism [asphalt, road base]), including activities within paved areas and landscaped areas, project contractors and their staff shall have cultural resources sensitivity training and be made aware of the potential for cultural resources being unearthed, the process for such discoveries, and proper treatment of significant cultural resources. This information may be presented to contractors and their staff through the use of “tail-gate” meetings or other mechanisms (e.g., handouts).
- CUL/MM-3** If a potentially significant cultural resource is encountered during subsurface earthwork activities, and an archaeological and/or Native American monitor is not present, all construction activities within a 100-foot radius of the find shall cease and the City shall be notified immediately. Work shall not continue until a qualified archaeologist, in conjunction with locally affiliated Native American representative(s) as necessary, determines whether the uncovered resource requires further study. A standard inadvertent discovery clause shall be included in every grading and construction contract to inform contractors of this requirement. Any previously unidentified resources found during construction shall be recorded on appropriate California Department of Parks and Recreation (DPR) forms and evaluated for significance in terms of CEQA criteria by a qualified archaeologist. Potentially significant cultural resources consist of, but are not limited to, stone, bone, glass, ceramic, wood, or shell artifacts; fossils; or features including hearths, structural remains, or historic dumpsites.
- If the resource is determined significant under CEQA, the qualified archaeologist shall prepare and implement a research design and archaeological data recovery plan, in conjunction with locally affiliated Native American representative(s) as necessary, that will capture those categories of data for which the site is significant. The archaeologist shall also perform appropriate technical analysis, prepare a comprehensive report, and file it with the Central Coast Information Center (CCIC), located at the University of California, Santa Barbara, and provide for the permanent curation of the recovered materials.
- CUL/MM-4** All project-related ground disturbance that may disturb geologic units that are considered to have a high paleontological sensitivity (i.e., previously undisturbed native soils) will be monitored by a qualified paleontological monitor on a full-time basis. However, the frequency of monitoring may be reduced at the discretion of the qualified paleontologist if the disturbed geologic units are determined to have a low potential to yield significant fossils resources upon further examination of the geologic units during grading operations. Where excavations for the project exceed 2 to 3 feet, monitoring by a qualified paleontological monitor shall be required.

With the incorporation of these measures, residual impacts related to cultural resources would be less than significant.

VI. Energy

Environmental Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
(a) Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐
(b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☒	☐

Setting

Pacific Gas & Electric Company (PG&E) has historically been the primary electricity provider for the City. On August 13, 2019, the City Council adopted a resolution joining Monterey Bay Community Power (MBCP) under a joint powers agreement (JPA) implementing the community choice aggregation program authorized by Ordinance No. 700. Through that resolution, the City Council committed to joining Central Coast Community Energy (3CE; formerly Monterey Bay Community Power) and, beginning in January 2020, 3CE became the City's primary electricity provider. 3CE is striving to provide 100% carbon-free energy mix to the City by 2030.

The City's ACOSE establishes objectives and policies to achieve energy conservation. These goals include development standards and design guidelines that consider refinement to minimize unnecessary energy use. The *City of Arroyo Grande Climate Action Plan* (City of Arroyo Grande 2013) identifies transportation as the largest contributor of greenhouse gas (GHG) emissions at 44%. The City's Climate Action Plan includes climate action measures intended to conserve energy, reduce VMT, divert solid waste from landfills, reduce water consumption, and plant trees to reduce GHG emissions.

Environmental Evaluation

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

The GPCEU proposes objectives, policies, and specific improvements for the City's transportation network, including objectives aimed at maintaining compatibility between the circulation system and existing and planned land uses to promote energy conservation in the form of fossil fuel use. Future development facilitated by the GPCEU is expected to be limited to transportation infrastructure and would not result in the development of new buildings that would be subject to energy-efficient building design or permanently increase energy demand within the City. Future improvements that require the long-term use of energy, including traffic signals, would be supplied by 3CE, is striving to provide 100% carbon-free energy mix to the City by 2030. During construction of future improvements, fossil fuels, electricity, and natural gas would be used by construction vehicles and equipment. The energy consumed during construction would be temporary in nature and would be typical of other similar construction activities in the City. Federal and state regulations in place require fuel-efficient equipment and vehicles and prohibit wasteful activities, such as diesel idling; therefore, potential impacts associated with construction energy use would be *less than significant*.

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

The GPCEU identifies objectives, policies, and future improvements related to the City's transportation system. Specific goals include the reduction of VMT throughout the City through the creation of complete streets, increasing pedestrian, bicycle, and transit accessibility and ensuring compatibility between the circulation system and existing and planned land uses to promote energy conservation in the form of fossil fuel use. Future improvements would be designed in a manner that is consistent with relevant energy conservation plans designed to encourage development that results in the efficient use of energy resources. Future improvements are anticipated to result in the construction of permanent buildings that would need to comply with green building codes or substantial new sources of energy demand. As concluded in Impact VI(a), the GPCEU would not result in impacts associated with wasteful, inefficient, or unnecessary use of energy; additionally, with the implementation of the energy efficiency policies listed above, energy usage associated with future improvements would be minimized. The GPCEU would not conflict with other goals and policies set forth in the SLOAPCD's CAP related to renewable energy or energy efficiency. Therefore, the GPCEU would not result in a conflict with or obstruction of a state or local plan for renewable energy or energy efficiency, and impacts would be *less than significant*.

Conclusion

Future improvements would be required to comply with state and local energy efficiency standards during construction. Additionally, the GPCEU would be consistent with the goals and policies set forth in the SLOAPCD's CAP related to renewable energy or energy efficiency. Therefore, impacts would be less than significant, and mitigation is not necessary.

Mitigation Measures

Mitigation is not necessary.

VII. Geology and Soils

Environmental Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
(a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
(i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐
(ii) Strong seismic ground shaking?	☐	☐	☒	☐
(iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
(iv) Landslides?	☐	☐	☒	☐

Environmental Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
(c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐
(d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐
(e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒
(f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐

Setting

The City of Arroyo Grande is located within the Coast Ranges geomorphic province, which is characterized by its many elongated mountain ranges and valleys extending 600 miles along the coast of California from the Oregon border south to the Santa Ynez River in Santa Barbara County. The City is situated along the interface of the coastal range and the gently sloping coastal terrace, which extends to the shoreline. The City encompasses an urban landscape in the southern portion of San Luis Obispo County at an elevation of approximately 50–400 feet above mean sea level (msl).

There are a number of active or potentially active fault systems throughout San Luis Obispo County and, given the past history of earthquakes in the area, experts agree that the probability of a damaging earthquake occurring is high. Mapped faults within the City of Arroyo Grande include the potentially active Wilmar Avenue Fault and the inactive Pismo Fault. The Wilmar Avenue Fault is exposed in the sea cliff near Pismo Beach and the buried trace of the fault is inferred to strike northwest–southeast parallel and adjacent to US 101 beneath portions of Arroyo Grande. The potentially active fault presents a moderate potential fault rupture hazard to the City. The inactive Pismo Fault presents a very low potential fault rupture hazard. Further studies to evaluate the activity of the faults are warranted, prior to placing structures near the mapped fault traces (Mathe 2015).

Liquefaction potential increases with earthquake magnitude and ground shaking duration. Low-lying areas adjacent to creeks, rivers, beaches, and estuaries underlain by unconsolidated alluvial soil are most likely to be vulnerable to liquefaction. The portions of the City with high liquefaction potential are those areas underlain by younger alluvium (Qa), which includes most of the low-lying downtown areas south of Branch Street and along Grand Avenue. Higher elevation at the west end of the City, and north of Highway 101 and Branch Street, are underlain by older Quaternary sediments comprised of sand dune deposits (Qos) and the Paso Robles Formation (QTp) that have moderate liquefaction potential (City of Arroyo Grande 2001b).

The U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey was used to estimate the erodibility of the City. The erosion factor within the City ranges from slight to severe throughout the City (NRCS 2021). Landslides and slope instability can occur as a result of wet weather, weak soils, improper grading, improper drainage, steep slopes, adverse geologic structure,

earthquakes, or a combination of these factors. Despite current codes and policies that discourage development in areas of known landslide activity or high risk of landslide, there is a considerable amount of development that is impacted by landslide activity in the county each year. A majority of the existing development in Arroyo Grande is located on gently inclined alluvial valley sediments, which has low to very low potential for slope stability hazards. However, the residences located on the hilly terrain north of Branch Street have greater potential for landslide activity (City of Arroyo Grande 2001b).

Shrink/swell potential is the extent to which the soil shrinks as it dries out or swells when it gets wet. Extent of shrinking and swelling is influenced by the amount and kind of clay in the soil. Shrinking and swelling of soils can cause damage to building foundations, roads and other structures. A high shrink/swell potential indicates a hazard to maintenance of structures built in, on, or with material having this rating. Moderate and low ratings lessen the hazard accordingly.

The *City of Arroyo Grande General Plan Safety Element* includes objectives for reducing the potential for loss of life and property resulting from geologic and seismic hazards (City of Arroyo Grande 2001b).

Paleontological resources are fossilized remains of ancient environments, including fossilized bone, shell, and plant parts; impressions of plant, insect, or animal parts preserved in stone; and preserved tracks of insects and animals. Paleontological resources are considered nonrenewable resources under federal and state law. Paleontological sensitivity is defined as the potential for a geologic unit to produce scientifically significant fossils, as determined by rock type, past history of the rock unit in producing fossil materials, and fossil sites that have been recorded in the unit. Paleontological resources are generally found below ground surface in sedimentary rock units. The boundaries of the sedimentary rock unit are used to define the limits of paleontological sensitivity in a given region. In the county, the Coastal Franciscan domain generally lies along the mountains and hills associated with the Santa Lucia Range. Fossils recorded from the Coastal Franciscan formation include trace fossils (preserved tracks or other signs of the behaviors of animals), mollusks, and marine reptiles. Nonmarine or continental deposits are more likely to contain vertebrate fossil sites. Occasionally vertebrate marine fossils such as whale, porpoise, seal, or sea lion can be found in marine rock units such as the Miocene Monterey Formation and the Pliocene Sisquoc Formations known to occur throughout Central and Southern California. Vertebrate fossils of continental material are usually rare, sporadic, and localized.

The City's ACOSE does not identify goals or policies related to the preservation of paleontological resources; however, the *County of San Luis Obispo General Plan Conservation and Open Space Element* (COSE) identifies a policy for the protection of paleontological resources from the effects of development by avoiding disturbance where feasible. Where substantial subsurface disturbance is proposed in paleontologically sensitive units, Implementation Strategy CR 4.5.1 (Paleontological Studies) requires a paleontological resource assessment and mitigation plan be prepared to identify the extent and potential significance of resources that may exist within the proposed development and provide mitigation measures to reduce potential impacts to paleontological resources.

Environmental Evaluation

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

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

a-iv) Landslides?

As discussed above, the City is located in a seismically active area and the potential for erosion, liquefaction, and landslides is present within and surrounding the City (City of Arroyo Grande 2001b). The placement of structures within these soil conditions poses a moderate risk for structure instability, damage, failure, and/or collapse.

Development of future improvements facilitated by the proposed GPCEU would be required to meet or exceed the most current AASHTO requirements, which have been developed to establish the minimum requirements necessary for design to safeguard the public health, safety, and general welfare through structural strength, stability, access, and other standards. Seismic design is based on *Caltrans Seismic Design Criteria* (SDC), Version 2.0 (Caltrans 2019). Roadway, pedestrian, and bicycle path elements would comply with AASHTO's *A Policy on Geometric Design of Highways and Streets* ("The Green Book;" AASHTO 2018) and relevant City standards.

Compliance with AASHTO, the Caltrans HDM, and other applicable standards would typically indicate that people and structures, including those related to unstable soil conditions, were properly safeguarded against possible risks. The GPCEU does not propose development of any habitable structures; therefore, no risk of injury or death resulting from damage or collapse of a habitable structure would occur. Through compliance with applicable standards, the structural components of the proposed improvements would be designed to withstand anticipated seismic and geologic stresses according to current established engineering practices. Therefore, impacts would be *less than significant*.

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

As discussed above, erosion hazards within the City are considered to vary from slight to severe (NRCS 2021). Future improvements facilitated by the GPCEU would generally occur within existing developed and disturbed areas and would include modifications to existing transportation infrastructure. Construction activities required for the development of future improvements could result in soil erosion or the loss of topsoil. Future improvements facilitated by the proposed GPCEU would be required to comply with the City's ACOSE, which requires erosion control measures to protect riparian areas and other water resources (see Policies C/OS2-1.4, C/OS2-1.6, and C/OS-1.12), and Section 13.24.120 (Erosion and Sedimentation Control Plan Requirements) and Section 13.24.130 (Stormwater Pollution Prevention Plan Requirements) of the City's Municipal Code, which require that all construction and grading permit projects prepare an erosion and sedimentation control plan for all project phases, and require projects that result in site disturbance of 1 acre or more prepare and implement a SWPPP with BMPs to reduce or avoid construction-related pollution to water resources. BMPs would be intended to control stormwater runoff and prevent pollution and would include measures to prevent soil erosion; therefore, compliance with these policies and regulations would ensure impacts would be *less than significant*.

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

Refer to Impact Discussion VII(a), above. The City is located in a seismically active area and is underlain with soils that may become unstable. Development of future improvements facilitated by the proposed GPCEU would be required to meet or exceed the most current AASHTO requirements and comply with the Caltrans SDC (Caltrans 2019), The Green Book (AASHTO 2018), and relevant City standards. Compliance with AASHTO, the Caltrans HDM, and other applicable standards would typically indicate that people and structures, including those related to unstable soil conditions, were properly safeguarded

against possible risks. The GPCEU does not propose development of any habitable structures; therefore, no risk of injury or death resulting from damage or collapse of a habitable structure would occur. Through compliance with applicable standards, the structural components of the proposed improvements would be designed to withstand anticipated seismic and geologic stresses according to current established engineering practices. Therefore, impacts would be *less than significant*.

d) Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

Refer to Impact Discussion VII(a), above. The City is underlain with numerous soil types, some of which are considered expansive. Development of future improvements facilitated by the proposed GPCEU would be required to meet or exceed the most current AASHTO requirements and comply with the Caltrans SDC (Caltrans 2019), The Green Book (AASHTO 2018), and relevant City standards. Compliance with AASHTO, the Caltrans HDM, and other applicable standards would typically indicate that people and structures, including those related to unstable soil conditions, were properly safeguarded against possible risks. The GPCEU does not propose development of any habitable structures; therefore, no risk of injury or death resulting from damage or collapse of a habitable structure would occur. Through compliance with applicable standards, the structural components of the proposed improvements would be designed to withstand anticipated seismic and geologic stresses according to current established engineering practices. Therefore, impacts would be *less than significant*.

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

Implementation of the GPCEU would not result in the construction of septic tanks or alternative wastewater disposal systems; therefore, *no impact* would occur.

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

According to U.S. Geologic Survey (USGS), Arroyo Grande is underlain by the Pismo Formation, which is primarily comprised of massive gray or white arkosic sandstone that is fine- to medium-grained, moderately well sorted, soft to hard, and friable. Based on marine megafossils from the area, the formation is from the late Pliocene era (USGS 2020).

The proposed GPCEU improvement areas are largely comprised of engineered fill associated with the development of existing roadways, where presence of paleontological resources is very low. Although the uppermost 2 to 3 feet within the road prism have largely been disturbed by excavation for previous utilities, it is possible that intact native soils remain capped at greater depth. Where excavations for the construction of future improvements exceed 2 to 3 feet, there is increased potential to encounter buried paleontological resources. Mitigation is provided to minimize the potential for disturbance of paleontological resources to less-than-significant levels. Therefore, impacts would be *less than significant with mitigation*.

Conclusion

Development of future improvements facilitated by the proposed GPCEU would be required to meet or exceed the most current AASHTO requirements and comply with the Caltrans SDC, the Caltrans HDM, The Green Book, relevant City standards, and other applicable standards. Mitigation has been included to

avoid potential impacts to paleontological resources if excavation exceeds 2 to 3 feet; therefore, impacts would be less than significant with mitigation.

Mitigation Measures

Future projects would be evaluated on a case-by-case basis for appropriate environmental review, and would be required to meet or exceed the most current AASHTO requirements and comply with the Caltrans SDC, The Green Book, relevant City standards, and other applicable standards. Additionally, implementation of the following measures to the maximum extent feasible is recommended to avoid potential impacts to paleontological resources.

GEO/MM-1 For any projects that require excavation or other ground-disturbing activities that would exceed 2 to 3 feet below ground surface, the following measures shall be implemented:

1. All project-related ground disturbance that may disturb geologic units that are considered to have a high paleontological sensitivity (i.e., previously undisturbed native soils) will be monitored by a qualified paleontological monitor on a full-time basis. However, the frequency of monitoring may be reduced at the discretion of the qualified paleontologist if the disturbed geologic units are determined to have a low potential to yield significant fossil resources upon further examination of the geologic units during grading operations. Where excavations for the project exceed 2 to 3 feet, monitoring by a qualified paleontological monitor shall be required.
2. Paleontological resource monitoring will include inspection of exposed rock units during active excavations within sensitive geologic deposits. The monitor will have authority to temporarily divert grading away from exposed fossils to professionally and efficiently recover the fossil specimens and collect associated data. All efforts to avoid delays in project schedules will be made. Monitors will be equipped with the necessary tools for the rapid removal of fossils and retrieval of associated data to prevent construction delays. This equipment will include handheld Global Positioning System (GPS) receivers, digital cameras, and cellular phones, as well as a tool kit containing specimen containers and matrix sampling bags, field labels, field tools (e.g., awls, hammers, chisels, shovels, etc.), and plaster kits.
3. In the event that a subsurface fossil is discovered within the project corridor, field data forms will be used to record pertinent geologic data, stratigraphic sections will be measured at the fossil locality, and appropriate sediment samples will be collected and submitted for analysis.
4. Any recovered fossils will be prepared to the point of curation, identified by qualified experts, listed in a database to facilitate analysis, and repositied in a designated paleontological curation facility. The qualified paleontologist will prepare a paleontological mitigation and monitoring report to be filed with the City, as lead agency, and the repository. The report will include, but will not be limited to, a discussion of the results of the mitigation and monitoring program, an evaluation and analysis of the fossils collected (including an assessment of their significance, age and geologic context), an itemized inventory of fossils collected, a confidential appendix of locality and specimen data with locality maps and photographs, an appendix of curation agreements and other appropriate communications, and a copy of the project-specific paleontological mitigation plan.

VIII. Greenhouse Gas Emissions

Environmental Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
(a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
(b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

Setting

GHGs are any gases that absorb infrared radiation in the atmosphere, and are different from the criteria pollutants discussed in Section III, Air Quality, above. The primary GHGs that are emitted into the atmosphere as a result of human activities are carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), and fluorinated gases. These are most commonly emitted through the burning of fossil fuels (oil, natural gas, and coal), agricultural practices, decay of organic waste in landfills, and a variety of other chemical reactions and industrial processes (e.g., the manufacturing of cement).

CO₂ is the most abundant GHG and is estimated to represent approximately 80–90% of the principal GHGs that are currently affecting the earth's climate. According to the CARB, transportation (vehicle exhaust) and electricity generation are the main sources of GHG in the state.

The passage of Assembly Bill (AB) 32, the California Global Warming Solutions Act (2006), recognized the need to reduce GHG emissions and set the GHG emissions reduction goal for the State of California into law. The law required that by 2020, state emissions must be reduced to 1990 levels. This is to be accomplished by reducing GHG emissions from significant sources through regulation, market mechanisms, and other actions. Subsequent legislation (i.e., Senate [SB] Bill 97, Greenhouse Gas Emissions bill) directed the CARB to develop statewide thresholds.

In March 2012, the SLOAPCD approved thresholds for GHG emission impacts, and these thresholds have been incorporated into the SLOAPCD's *CEQA Air Quality Handbook* (SLOAPCD 2012). The SLOAPCD determined that a tiered process for land use development projects was the most appropriate and effective approach for assessing the GHG emission impacts. The tiered approach includes three methods, any of which can be used for any given project:

1. Qualitative GHG Reduction Strategies (i.e., Climate Action Plans): A qualitative threshold that is consistent with AB 32 Scoping Plan measures and goals; or
2. Bright-Line Threshold: Numerical value to determine the significance of a project's annual GHG emissions; or
3. Efficiency-Based Threshold: Assesses the GHG impacts of a project on an emissions per capita basis.

SAN LUIS OBISPO COUNTY REGIONAL TRANSPORTATION PLAN/SUSTAINABLE COMMUNITIES STRATEGY

San Luis Obispo County's 2014 *Regional Transportation Plan/Sustainable Communities Strategy* (RTP/SCS) was adopted by the San Luis Obispo Council of Governments (SLOCOG) in 2015. The GHG reduction target designated for this region is 8% per capita by 2035. Implementation of the strategies identified in the 2014 RTP/SCS is anticipated to achieve a projected 10% per capita GHG reduction by 2035. Mobile source related GHG reduction strategies contained in the RTP/SCS include the following:

- Provide a variety of transportation options
- Improve accessibility: bring people closer to products & services
- Encourage mixed land uses
- Encourage more compact building design
- Strengthen and direct development towards existing communities
- Prioritize funding to improve connectivity & Target Development Areas
- Encourage preservation of agricultural lands
- Encourage preservation of open space and critical environmental areas

The 2014 RTP/SCS includes numerous policies intended to achieve the above-noted strategies. Table B-2 (Appendix B) provides a summary of the proposed GPCEU consistency with the applicable policies identified in the 2014 RTP/SCS. As depicted, the proposed GPCEU is consistent with applicable GHG reduction measures identified in the 2014 RTP/SCS.

CITY OF ARROYO GRANDE CLIMATE ACTION PLAN

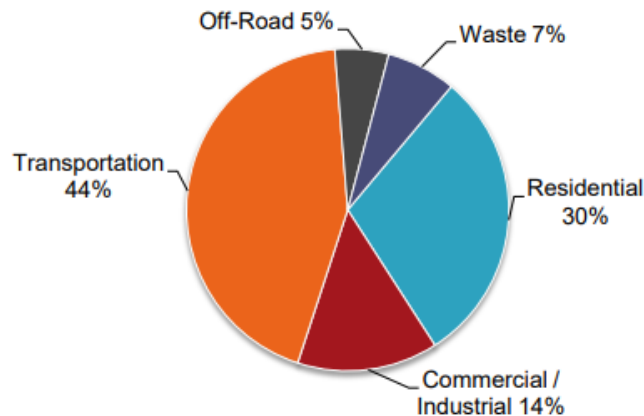
The City's Climate Action Plan (City of Arroyo Grande 2013) is a long-range plan aimed to reduce GHG emissions from City operations, developments, and community activities throughout the City in anticipation of the effects of climate change. The primary purposes of the Climate Action Plan are the following:

- Summarizes the results of the *City of Arroyo Grande 2005 Greenhouse Gas Emissions Inventory Update*, which identifies the major sources and quantities of GHG emissions produced within Arroyo Grande and forecasts how these emissions may change over time.
- Identifies the quantity of GHG emissions that Arroyo Grande will need to reduce to meet its target of 15% below 2005 levels by the year 2020, consistent with AB 32.
- Sets forth City government and community-wide GHG reduction measures, including performance standards which, if implemented, would collectively achieve the specified emission reduction target.
- Identifies proactive strategies that can be implemented to help Arroyo Grande prepare for anticipated climate change impacts.
- Sets forth procedures to implement, monitor, and verify the effectiveness of the Climate Action Plan measures and adapt efforts moving forward as necessary.

The Climate Action Plan is designed as a Qualified GHG Reduction Plan, consistent with State CEQA Guidelines Section 15183.5(b). This allows for the streamlining of the GHG analysis on a project level by using a programmatic GHG reduction plan meeting certain criteria. Project-specific analysis of GHG

emissions is required if GHG emissions from a project would be cumulatively considerable notwithstanding compliance with the Climate Action Plan.

The Climate Action Plan included an inventory of community-wide GHG emissions. The inventory was prepared for purposes of identifying major sources and quantities of GHG emissions produced in Arroyo Grande in 2005 and to forecast how these emissions may change over time. Based on the GHG emissions inventory prepared in 2005, the City emitted approximately 84,399 metric tons of carbon dioxide equivalent (MTCO₂e). As shown in Figure 6, the largest contributors of community-wide GHG emissions were the transportation (44%), residential energy (30%), and commercial/industrial energy (14%) sectors. The remainder of emissions resulted from the solid waste (7%) and off-road (5%) sectors.



Source: City of Arroyo Grande 2013.

Figure 6. City of Arroyo Grande 2005 GHG emissions inventory by sector.

With implementation of GHG reduction efforts implemented by the state, including Pavley fuel efficiency regulations, low-carbon fuel standards, Title 24 energy efficiency standards, and renewable portfolio standards for energy production, the City's community-wide GHG emissions inventory is projected to decrease by 17,860 MTCO₂e by year 2020. Additional GHG reduction measures implemented by the City are projected to result in additional reductions of approximately 920 MTCO₂e in 2020. Overall, community-wide GHG emissions are projected to decrease to 75,653 MTCO₂e (approximately 19% below the projected business-as-usual [BAU] scenario of 93,513 MTCO₂e).

Environmental Evaluation

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

The proposed GPCEU includes numerous policies that would support alternative means of transportation, including improvements to transit, pedestrian and bicycle facilities. Additional policies are included to support reductions in VMT. Although construction of future transportation improvements may result in a redistribution of local vehicle traffic, these improvements are proposed for purposes of improving overall circulation system performance and reducing VMT, congestion, and idling. As previously noted in Table 6, the proposed GPCEU would result in overall reductions in VMT, which would result in overall reductions in mobile-source GHG emissions. Because the proposed GPCEU would not result in increased population, these anticipated reductions in mobile-source GHG emissions would result in overall reductions in GHG emissions on a per capita basis. This impact would be considered *less than significant*.

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

AB 32 SCOPING PLAN AND SB 375

In 2017, the CARB published *California's 2017 Climate Change Scoping Plan*, which is the state's plan to achieve GHG reductions in California required by AB 32 (CARB 2017). This scoping plan contained the main strategies to be implemented in order to achieve the target emission levels identified in AB 32. The scoping plan states that land use planning and urban growth decisions will play important roles in the state's GHG reductions because local governments have primary authority to plan, zone, approve, and permit how land is developed to accommodate population growth and the changing needs of their jurisdictions.

With regard to land use planning, the scoping plan expects approximately 5 million metric tons of carbon dioxide equivalent (MMTCO₂e) will be achieved associated with implementation of SB 375. SB 375 supports the state's climate action goals to reduce GHG emissions through coordinated transportation and land use planning with the goal of developing more sustainable communities. Under SB 375, the CARB sets regional targets for GHG emissions reductions associated with passenger vehicle use. Each of California's metropolitan planning organizations must prepare an SCS as an integral part of its RTP. The SCS contains land use, housing, and transportation strategies that, if implemented, would allow the region to meet its GHG emission reduction targets. The Sustainable Communities Act of 2019 also establishes incentives to encourage local governments and developers to implement the identified GHG reduction strategies.

As stated in the Setting discussion, implementation of the strategies identified in the 2014 RTP/SCS are anticipated to achieve a projected 10% per capita GHG reduction by 2035. Table B-2 provides a summary of the proposed GPCEU consistency with the applicable policies identified in the 2014 RTP/SCS. As depicted, the proposed GPCEU is consistent with applicable GHG reduction measures identified in the 2014 RTP/SCS; therefore, impacts would be less than significant.

CITY OF ARROYO GRANDE CLIMATE ACTION PLAN

The transportation sector constituted roughly 44% of the City's baseline GHG emissions. Factors affecting transportation emissions include fuel economy, the type of fuel used, and VMT. The City's Climate Action Plan included various GHG reduction measures, which were projected to result in overall reductions in VMT and associated mobile-source GHG emissions. In total, these GHG reduction measures were projected to reduce community-wide GHG emissions by approximately 17,860 MTCO₂e in 2020. Table B-2 provides a summary of the proposed GPCEU consistency with applicable GHG reduction measures identified in the City's Climate Action Plan. As depicted, the proposed GPCEU is consistent with applicable GHG reduction measures identified in the City's Climate Action Plan; therefore, impacts would be *less than significant*.

Conclusion

The proposed GPCEU includes numerous policies that would support alternative means of transportation, including improvements to transit, pedestrian, and bicycle facilities. Additional policies are included to support reductions in VMT. Although construction of future transportation improvements may result in a redistribution of local vehicle traffic, these improvements are proposed for purposes of improving overall circulation system performance and reducing VMT, congestion, and idling. The proposed GPCEU would result in overall reductions in VMT, which would result in overall reductions in mobile-source GHG emissions. Because the proposed GPCEU would not result in increased population, these anticipated reductions in mobile-source GHG emissions would result in overall reductions in GHG emissions on a

per capita basis. Additionally, the GPCEU is consistent with applicable GHG reduction measures identified in the City's RPT/SCS and Climate Action Plan; therefore, impacts would be *less than significant*.

Mitigation Measures

Mitigation is not necessary.

IX. Hazards and Hazardous Materials

Environmental Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
(a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
(b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☒	☐	☐
(c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐
(d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☒	☐
(e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☒	☐
(f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☒	☐	☐
(g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☒	☐

Setting

According to the California Department of Toxic Substance Control (DTSC) EnviroStor database, there are no active hazardous materials sites within the City of Arroyo Grande. The nearest hazardous materials site is a military evaluation site located in Grover Beach, approximately 1.5 miles northwest (DTSC 2021). In addition, the SWRCB Geotracker database indicates that previously active leaking underground storage tank and other hazardous materials sites are inactive and there are no currently active sites located within the City of Arroyo Grande (SWRCB 2021). Given the developed condition of the majority of the City, it is highly likely that the surface soils along existing roadways are affected by deposition of contaminants, including aerial lead, oils, fuels, and other lubricants.

The purpose of the City's Safety Element is to be prepared for disaster and to manage development to reduce risk. Hazards identified in the City's Safety Element include flooding, dam inundation, dam failure, fire, geologic and seismic hazards, landslides, hazardous trees, and radiation hazards (City of Arroyo Grande 2001b).

Environmental Evaluation

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

Although US 101 and local roadways within the City are commonly used for the routine transport of potentially hazardous materials, the GPCEU would not change existing land uses or cause a routine or permanent increase in the transport of hazardous substances within the project area. The GPCEU does not include any changes to existing haul routes, and includes the following policies related to truck and goods movement:

- CT13** Design and designate efficient truck and emergency access routes utilizing the arterial and collector street network to minimize impact on local streets, particularly residential neighborhoods.
- CT13-1** **Truck Routes:** Truck routes should coordinate with County and adjoining City's designated routes and avoid traversing residential areas.
 - CT13-1.1** Continue to sign truck routes and ensure that clear signage is provided from regional gateways to truck routes in the City.
- CT13-2** **Deliveries:** Promote off-peak truck deliveries within the village core.
- CT13-3** **Emergency Access Design:** Emergency access design standards shall limit cul-de-sac lengths to the maximum extent feasible, provide a logical grid or connected system of local streets providing at least two directions of neighborhood access, and minimize through traffic on local streets, particularly traversing single-family residential neighborhoods.

No adverse change in the transport or handling of hazardous materials within proximity to adjacent schools would occur outside of construction activities; therefore, impacts would be *less than significant*.

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

As discussed previously, it is highly likely that the surface soils along these roadways are affected by deposition of contaminants, including aerial lead, oils, fuels, and other lubricants. Aerially deposited lead (ADL) is often found along unpaved areas adjacent to highways as a result of tailpipe emissions occurring during years that lead was used as an additive in gasoline. When present in high enough concentrations, it is possible for ADL to cause soils to be classified as a hazardous waste, which could become a health hazard for people exposed to the soil. The soil would be classified as hazardous waste if total lead concentrations exceed 1,000 milligrams/kilogram or soluble lead concentrations exceed 5 milligrams/liter. If ADL is present at high concentrations in the soil that would be exposed during construction of future improvements, it could present a significant impact associated with hazardous materials. Therefore, mitigation has been provided to reduce the potential impacts associated with exposure to soil containing ADL during construction of the proposed project.

Oils, gasoline, lubricants, fuels, and other potentially hazardous substances would be used and stored on-site during construction activities. Should a spill or leak of these materials occur during construction activities, sensitive resources within the vicinity could be adversely affected. Stormwater runoff flows down gradient into the Pacific Ocean, and any unrestricted contaminants may be washed downslope during a rain event. Mitigation would be implemented to ensure potential impacts are reduced to less than significant, including compliance with standard requirements for the handling of hazardous materials, preparation and implementation of a Hazardous Material Spill Prevention and Contingency Plan, and implementation of a SWPPP.

The GPCEU does not propose new operational use, storage, or discharge of any hazardous substances and would not change the existing land use or substantially increase the potential use of hazardous materials in the City. Future construction activity would use common household materials including fuels, gasoline, paints, solvents, oils, etc. and would be transported, handled, stored, and cleaned according to Title 22, Division 4.5 of the California Code of Regulations (CCR). Therefore, implementation of the GPCEU would not create a significant hazard to the public through foreseeable accident or upset and potential impacts would be *less than significant with mitigation*.

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

There are numerous public and private elementary and high schools located throughout the City. As discussed previously, construction activities have the potential to emit hazardous emissions or result in the accidental release of hazardous materials within 0.25 mile of an existing school. Future improvements and construction activities are not expected to use hazardous materials that would create a significant hazard to the public in the event of accidental release. Construction activities are expected to use commonly used household materials and would be required to comply with state requirements and regulations regarding hazardous material transportation, handling, storage, and potential clean-up. Future construction activities within 0.25 mile of a school would be required to comply with 22 CCR Division 4.5 and PRC Section 21151.8. The GPCEU would not facilitate the use of dangerous hazardous materials that could lead to foreseeable upset, and future work would be subject to applicable state and local regulations; therefore, impacts would be *less than significant*.

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

There are no active/open hazardous material sites within the vicinity of proposed improvements. Therefore, impacts would be *less than significant*.

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?

The nearest airport to the project site is the Oceano County Airport, located approximately 0.8 mile southwest from the southwestern border of the City of Arroyo Grande. According to the *Airport Land Use Plan for the Oceano County Airport* (ALUP), the City of Arroyo Grande is not located within the planning area of the ALUP (County of San Luis Obispo 2007). However, the City is located within 2 miles of the Oceano County Airport. The GPCEU proposes objectives, policies, and improvements for the City's circulation system. Future improvements facilitated by the GPCEU would be limited to transportation infrastructure and are not anticipated to result in the development of new buildings or

structures that have the potential to expose people to excessive noise as a result of being placed within close proximity to an airport; therefore, impacts would be *less than significant*.

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

The project would improve existing transportation infrastructure to improve long-term operation of the local circulation system in the City. Construction of the proposed improvements may temporarily restrict certain access routes in the City; however, future construction activities would be temporary in nature and would be required to use proper detour signage and give notice of temporary traffic controls in accordance with the City's Safety Element and the Multi-Jurisdictional Local Hazard Mitigation Plan (LHMP). Detours around the site would be made available during the temporary road closure; however, partial road closures could result in temporary impacts associated with public access during construction of the proposed improvements. Therefore, impacts would be *less than significant with mitigation*.

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

According to the California Department of Forestry and Fire Protection (CAL FIRE) Fire Hazard Severity Zone (FHSZ) map, the City of Arroyo Grande and other cities included in the Five Cities area are located within a Local Responsibility Area (LRA). Land surrounding the northern edge of the City is designated as a moderate FHSZ, land surrounding the eastern edge of the City is designated as a high FHSZ, and land surrounding the southern edge of the City is designated as a very high FHSZ (CAL FIRE 2020). The proposed GPCEU improvements would be located in an urban area and would not expose people or structures to a substantial risk of wildfires. The Five Cities Fire Authority (FCFA) is located within the City and response times would be within acceptable levels. Future improvements are not expected to result in new buildings that would be applicable to the California Fire Code. In addition, the GPCEU would be consistent with the City's Safety Element, the Multi-Jurisdictional LHMP, and CAL FIRE standards for road development in order to reduce the risk of loss, injury, or death in the event of a wildfire; therefore, impacts would be *less than significant*.

Conclusion

The GPCEU identifies objectives, policies, and future improvements to roadways, intersections, freeway ramps, pedestrian and bicycle facilities, and public transit that would be subject to applicable state and local regulations regarding the use of hazardous materials during construction to avoid upset to the public. In addition, improvements are not expected to result in the development of new buildings that would be at risk of excessive noise, be located in close proximity to an airport, or be at risk of being located within a high FHSZ. The GPCEU would be consistent with the City's Safety Element, the Multi-Jurisdictional LHMP, and CAL FIRE standards for road development to prevent the public from hazards involving the use of hazardous materials or wildfire. Mitigation is included to ensure impacts related to the accidental release of hazardous materials are avoided. Therefore, impacts would be less than significant with mitigation.

Mitigation Measures

Future projects would be evaluated on a case-by-case basis for appropriate CEQA review and would include project-specific mitigation measures as determined appropriate; however, implementation of the following measures to the maximum extent feasible is recommended to avoid potential impacts. In addition to Mitigation Measure BIO/MM-3, implementation of the following measure would reduce potential impacts to be less than significant.

HAZ/MM-1 Prior to construction, the City shall prepare a Phase I Environmental Site Assessment (ESA) to identify areas of existing hazardous materials. Based on the findings of the Phase I ESA, recommended sampling or testing shall be implemented to avoid inadvertent disturbance and/or release of hazardous materials.

With the incorporation of this measure, residual impacts related to hazards and hazardous materials would be less than significant.

X. Hydrology and Water Quality

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

Setting

The City of Arroyo Grande is located approximately 1 mile inland from the Pacific Ocean; however, the City is not located within a coastal zone. The City is located in the Central Coast Watershed (Watershed number: 18060006). Arroyo Grande Creek runs east-west in the southern portion of the City and terminates at the Pacific Ocean. In addition, the City is comprised of wetland areas associated with Arroyo Grande Creek and numerous other wetland and surface water areas throughout the City. There are no Wild and Scenic River System features located within the City; the closest system is located more than 30 miles from the City.

The City of Arroyo Grande is located within the Santa Maria River Valley Groundwater Basin – Arroyo Grande Subbasin (No. 3-12.02). The Arroyo Grande Subbasin is approximately 7 miles long, oriented in a northeastern to southwestern direction. The Arroyo Grande Subbasin is not considered a high-priority basin and has ample water supply to meet the water demand of the City. However, a groundwater sustainability plan (GSP) for the subbasin is being prepared to facilitate sustainable groundwater management and use (County of San Luis Obispo 2020).

Environmental Evaluation

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

Based on the highway stormwater runoff data collected by the Caltrans Stormwater Research and Monitoring Program, untreated runoff from Caltrans facilities may contain materials such as heavy metals, sediment, and litter (Caltrans 2008). Caltrans has a well-developed stormwater program that, under most circumstances, addresses all potentially significant impacts to water quality during storm events. This program is primarily intended to comply with the Caltrans Statewide National Pollutant Discharge Elimination System (NPDES) Stormwater Permit and ensures that all construction, design, and treatment BMPs are implemented and comply with RWQCB requirements. Construction of the proposed GPCEU improvements would include the upgrading of existing facilities, could result in a minor increase in impervious surfaces, and could contribute to an increase in runoff. Additionally, improvements facilitated by the GPCEU could require crossing of Arroyo Grande Creek or other local creek features.

Future improvements would require construction activities that have the potential to degrade water quality due to erosive, polluted, or other degraded sources of runoff. Future improvements would be required to comply with the City's ACOSE, which identifies goals and policies for protection of biological resources, including water resources and associated habitat. Future improvements would also be required to comply with Section 13.24.120 (Erosion and Sedimentation Control Plan Requirements) and Section 13.24.130 (Stormwater Pollution Prevention Plan Requirements) of the City's Municipal Code, which require that all construction and grading permit projects prepare an erosion and sedimentation control plan for all project phases, and require projects that result in site disturbance of 1 acre or more to prepare and implement a SWPPP with BMPs to reduce or avoid construction-related pollution to water resources. Compliance with the City's ACOSE and Municipal Code would ensure potential impacts to water quality associated with future improvements facilitated by the SWPPP would be minimized. Mitigation would be implemented to require preparation and implementation of a Hazardous Material Spill Prevention and Contingency Plan; therefore, impacts would be *less than significant with mitigation*.

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

The GPCEU improvements would require minimal short-term construction-related water demands, which would be served by the City's municipal water supply. Implementation of the GPCEU would not require long-term water demand and would not deplete groundwater supplies; therefore, impacts would be *less than significant*.

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

c-i) *Result in substantial erosion or siltation on- or off-site?*

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

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

c-iv) Impede or redirect flood flows?

Refer to Impact Discussion X(a), above. Construction activities associated with buildout of improvements identified in the GPCEU could alter existing drainages, result in erosion or siltation, increase surface runoff, create polluted runoff, and impede flood flows associated with Arroyo Grande Creek. It is anticipated that construction pollutants would primarily consist of sediment, construction debris from demolished structures, and dust generated during excavation, grading, hauling, demolition, and various other activities. The impacts of these activities would vary each day as construction progresses and on-site conditions change. Potential sources of temporary surface water impacts include construction materials, contaminants in the existing roadway, and vehicle leaks. Future improvements would require construction activities that have the potential to degrade water quality due to erosive, polluted, or other degraded sources of runoff. Future improvements would be required to comply with the City's ACOSE, which identifies goals and policies for protection of biological resources, including water resources and associated habitat. Future improvements would also be required to comply with Section 13.24.120 (Erosion and Sedimentation Control Plan Requirements) and Section 13.24.130 (Stormwater Pollution Prevention Plan Requirements) of the City's Municipal Code, which require that all construction and grading permit projects prepare an erosion and sedimentation control plan for all project phases, and require projects that result in site disturbance of 1 acre or more to prepare and implement a SWPPP with BMPs to reduce or avoid construction-related pollution to water resources. Therefore, impacts related to the alteration of drainage patterns, erosion, siltation, runoff, and flood flows would be *less than significant*.

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

Arroyo Grande Creek runs through the southern portion of the City, is oriented in an east-west direction, and supports a 500-year flood hazard zone. Additionally, the mouth of Arroyo Grande Creek terminates at the Pacific Ocean and is potentially at risk for inland tsunami (County of San Luis Obispo 2016a). Future construction activities associated with the buildout of improvements identified in the GPCEU could risk release of pollutants and, if improvement areas are located within a flood zone or near areas of potential inland tsunami, pollutants from the project site could be released in the event of project inundation. Future improvements would be required to comply with the City's ACOSE, which identifies goals and policies for protection of biological resources, including water resources and associated habitat. Future improvements would also be required to comply with Section 13.24.120 (Erosion and Sedimentation Control Plan Requirements) and Section 13.24.130 (Stormwater Pollution Prevention Plan Requirements) of the City's Municipal Code, which require that all construction and grading permit projects prepare an erosion and sedimentation control plan for all project phases, and require projects that result in site disturbance of 1 acre or more to prepare and implement a SWPPP with BMPs to reduce or avoid construction-related pollution to water resources. Therefore, impacts related to the alteration of drainage patterns, erosion, siltation, runoff, and flood flows would be *less than significant*.

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

The Arroyo Grande Subbasin is not considered a high-priority basin; however, a GSP is being prepared for the sustainable management of the Arroyo Grande Subbasin. Future improvements to roads, bicycle

and pedestrian facilities, and public transit, as facilitated by the GPCEU, are not anticipated to result in new buildings or connections to the groundwater basin that could increase water demand or substantially deplete groundwater resources. Future construction activities would likely require short-term water demand for dust control and related construction needs; however, water is anticipated to be from the City's municipal water supply. Construction water demand would be temporary in nature and would be conducted in accordance with applicable regulations for construction water use; therefore, the GPCEU would not interfere with a groundwater management plan and impacts would be *less than significant*.

Conclusion

Future improvements would be required to comply with the City's ACOSE, which identifies goals and policies for protection of biological resources, including water resources and associated habitat. Future improvements would also be required to comply with Section 13.24.120 (Erosion and Sedimentation Control Plan Requirements) and Section 13.24.130 (Stormwater Pollution Prevention Plan Requirements) of the City's Municipal Code, which require that all construction and grading permit projects prepare an erosion and sedimentation control plan for all project phases, and require projects that result in site disturbance of 1 acre or more to prepare and implement a SWPPP with BMPs to reduce or avoid construction-related pollution to water resources. Future improvements are not anticipated to result in new buildings or connections to the groundwater basin that could deplete groundwater supply or interfere with a groundwater management plan. Mitigation would be implemented to require preparation and implementation of a Hazardous Material Spill Prevention and Contingency Plan to minimize potential water quality impacts; therefore, impacts would be less than significant with mitigation.

Mitigation Measures

Future projects would be evaluated on a case-by-case basis for appropriate CEQA review and would include project-specific mitigation measures as determined appropriate; however, implementation of Mitigation Measure BIO/MM-3 would reduce potential impacts to be less than significant. With the incorporation of this measure, residual impacts related to hydrology and water quality would be less than significant.

XI. Land Use and Planning

Environmental Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
(a) Physically divide an established community?	☐	☐	☒	☐
(b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☒	☐	☐

Setting

The City's General Plan consists of nine elements, including the Agriculture, Conservation and Open Space; Land Use; Circulation; Housing; Safety; Noise; Economic Development; and Parks and Recreation Elements, which guide and facilitate planning and development in the City (City of Arroyo Grande 2001b). The City's LUE identifies zoning and land use designations for the City and includes goals and policies intended to guide growth and development. The City is comprised of a developed urban area with agricultural land located in the eastern and southeastern portions of the City.

Environmental Evaluation

a) Would the project physically divide an established community?

The proposed GPCEU would be consistent with the 2014 RTP/SCS (SLOCOG 2014b) and the City's General Plan (City of Arroyo Grande 2018). Implementation of the GPCEU would not physically divide an established community; instead, the improvements facilitated by the GPCEU would improve vehicle, bicycle, pedestrian, and public transit connectivity throughout the City and with surrounding communities. Therefore, impacts would be *less than significant*.

b) Would the project 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 proposed GPCEU would be consistent with the 2014 RTP/SCS (SLOCOG 2014) and the City's Grande General Plan (City of Arroyo Grande 2018). The GPCEU would not result in any conflicts with existing land use or zoning designations. As previously discussed, the GPCEU policies are intended to promote compatibility between existing and planned land uses and the City's circulation system to promote safe and uncongested neighborhoods; energy conservation; reduction of GHG, air, and noise pollution; and access to bicycle, pedestrian, and transit facilities, which is consistent with the City's General Plan. Future improvements would be required to comply with land use and zoning designations, the City's ACOSE, the City's Municipal Code, and the mitigation measures included throughout this Initial Study; therefore, impacts would be *less than significant with mitigation*.

Conclusion

The GPCEU would not conflict with existing land use or zoning designations or result in the development of an improvement to the circulation network that would divide an established community. Development of future improvements would be required to comply with existing land use and zoning designations, the City's General Plan, the City's ACOSE, the City's Municipal Code, and the additional mitigation measures included throughout this Initial Study; therefore, impacts would be less than significant with mitigation.

Mitigation Measures

Future projects would be evaluated on a case-by-case basis for appropriate CEQA review and would include project-specific mitigation measures as determined appropriate; however, implementation of the measures included throughout this Initial Study, in addition to the following measures, to the maximum extent feasible is recommended to avoid potential impacts.

- LU/MM-1** Prior to commencement of construction activities required for proposed improvements located within a Caltrans right-of-way, the City shall obtain an encroachment permit.
- LU/MM-2** Prior to commencement of construction activities, the City shall prepare circulation and traffic plans, which shall identify how temporary construction activities would avoid conflicts with existing bike and pedestrian access ways to the greatest extent feasible. If construction activities would interfere with existing bike or pedestrian routes, temporary access shall be provided to all areas of the project area to ensure continued access to commercial businesses in the project area during construction of the proposed project. The plan shall be approved by the City Public Works Director prior to the start of construction.

With the incorporation of these measures, residual impacts related to land use and planning would be less than significant.

XII. Mineral Resources

Environmental Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
(a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
(b) Result in the loss of availability of a locally- important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

Setting

The California Surface Mining and Reclamation Act (SMARA) of 1975 requires that the State Geologist classify land into mineral resource zones (MRZ) according to the known or inferred mineral potential of the land (PRC Sections 2710–2796).

The three MRZs used in the SMARA classification-designation process in the San Luis Obispo-Santa Barbara Production-Consumption Region are defined below (California Geological Survey [CGS] 2015):

- MRZ-1: Areas where available geologic information indicates that little likelihood exists for the presence of significant mineral resources.
- MRZ-2: Areas where adequate information indicates that significant mineral deposits are present, or where it is judged that a high likelihood for their presence exists. This zone shall be applied to known mineral deposits or where well-developed lines of reasoning, based on economic–geologic principles and adequate data, demonstrate that the likelihood for occurrence of significant mineral deposits is high.
- MRZ-3: Areas containing known or inferred aggregate resources of undetermined significance.

According to the DOC CGS Information Warehouse: Mineral Land Classification map, the City is located within a SMARA Study area (CGS 2015). The 1990 General Plan did not identify any Mineral Resource Zones within the City. According to the General Plan Integrated Program Environmental Impact Report (EIR), the 1990 General Plan does not identify any mineral resource zones within the City limits (City of Arroyo Grande 2001a).

Environmental Evaluation

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

The City is located within a SMARA study area; however, there are no identified mineral resource zones within the City (CGS 2015; City of Arroyo Grande 2001a). The GPCEU would not result in the loss of availability of a known mineral resource that would be of value to the region; therefore, *no impact* would occur.

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

The City's General Plan Integrated Program EIR does not identify any mineral resource zones within the City. The GPCEU would not result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan; therefore, *no impact* would occur.

Conclusion

The City is located within a SMARA study area; however, there are no identified mineral resource zones within the City (CGS 2015; City of Arroyo Grande 2001a). The GPCEU would not result in the loss of availability of a known mineral resource and future improvements would be required to comply with state and local regulations to ensure the protection of unknown mineral resources. Therefore, impacts would be less than significant, and mitigation is not necessary.

Mitigation Measures

Mitigation is not necessary.

XIII. Noise

Environmental Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project result in:</i>				
(a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☒	☐	☐
(b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☒	☐	☐
(c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☒	☐

Setting

The *City of Arroyo Grande General Plan Noise Element* provides policy framework for addressing potential noise impacts. The Noise Element establishes maximum allowable noise exposure levels for transportation and non-transportation noise sources. The standards applied to transportation noise sources are based on average-daily noise exposure levels (in A-weighted decibels [dBA] Community Noise Equivalent Level/day-night equivalent level [CNEL/L_{dn}]). For noise-sensitive land uses exposed to non-transportation noise, the maximum allowable noise exposure standards vary depending on the duration of exposure and time of day. The City's noise standards for determining the compatibility for new development near transportation noise sources are summarized in Table 7.

City Municipal Code Section 9.16.030 (Exceptions to Noise Standards) allow exceptions to construction-related noise throughout the City so long as construction occurs between the hours of 7:00 a.m. and 10:00 p.m., Monday through Friday, and 8:00 a.m. and 5:00 p.m., Saturday and Sunday.

Table 7. General Plan Land Use Compatibility Guidelines Near Transportation Noise Sources

Land Use	Land Use Compatibility		
	Acceptable	Conditionally Acceptable	Unacceptable
Residential, Theaters, Auditoriums, Music Halls, Meeting Halls, Churches	<60	60–70	>70
Transient Lodging: Hotels and Motels	<60	60–75	>75
Schools, Libraries, Museums, Hospitals, Nursing Homes	<60	60–75	>75
Playgrounds and Parks	<70	70–75	>75
Office Buildings	<60	60–75	>75

Notes:

Acceptable: Specified land use is satisfactory. No noise mitigation measures are required.

Conditionally Acceptable: Use should be permitted only after careful study and inclusion of protective measures as needed to satisfy the policies of the Noise Element.

Unacceptable: Development is usually not feasible in accordance with the goals of the Noise Element.

Source: City of Arroyo Grande 2001b

In areas where the noise environment is acceptable, new development may be permitted without requiring noise mitigation. For areas where the noise environment is conditionally acceptable, new development should be allowed only after noise mitigation has been incorporated into the design of the project to reduce noise exposure. For areas where the noise environment is unacceptable, new development in compliance with Noise Element policies is usually not feasible. New development of noise-sensitive land uses shall not be permitted in areas exposed to existing or projected future levels of noise from transportation noise sources which exceed 60 dB CNEL or L_{dn} (70 CNEL/ L_{dn} for playgrounds and neighborhood parks) unless the project design includes mitigation measures to reduce noise to or below levels identified in Table 8 (City of Arroyo Grande 2001b).

US 101 runs northeast–southeast through Arroyo Grande and is the primary source of transportation-related ambient noise within the City. Other sources of transportation-related ambient noise are from other local roads throughout the City.

Table 8. City of Arroyo Grande General Plan Maximum Allowable Noise Exposure Standards for Transportation Noise Sources

Land Use	Outdoor Activity Areas ¹ (dBA CNEL/ L_{dn})	Interior Spaces (dBA CNEL/ L_{dn})	Interior Spaces ² (dBA L_{eq})
Residential (except temporary dwellings and residential accessory uses)	60 ³	45	--
Transient Lodging	60 ³	45	--
Hospitals, Nursing Homes	60 ³	45	--
Theaters, Auditoriums, Music Halls	--	--	35
Churches, Meeting Halls, Office Buildings Restaurants	60 ³	--	45
Schools, Libraries, Museums, Preschools, Child Care Facilities		--	45
Playgrounds (including school playgrounds)	70	--	--

Land Use	Outdoor Activity Areas ¹ (dBA CNEL/L _{dn})	Interior Spaces (dBA CNEL/L _{dn})	Interior Spaces ² (dBA L _{eq})
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Notes:

¹ Where the location of outdoor activity areas is unknown, the exterior noise level standard shall be applied to the property line of the receiving land use.

² As determined for a typical worst-case hour during periods of use.

³ Where it is not possible to reduce noise in outdoor activity areas to 60 dB CNEL/L_{dn} or less using a practical application of the best-available noise reduction measures, an exterior noise level of up to 65 dB CNEL/L_{dn} may be allowed provided that available exterior noise level reduction measures have been implemented and interior noise levels are in compliance with this table. This determination will be made as the result of an acoustical study.

Source: City of Arroyo Grande 2001b

GROUNDBORNE VIBRATION

Various criteria have been established to assist in the evaluation of vibration impacts. For instance, Caltrans has developed vibration criteria based on potential structural damage risks and human annoyance. Caltrans-recommended criteria for the evaluation of groundborne vibration levels, with regard to structural damage and human annoyance, are summarized in Tables 9 and 10, respectively. The criteria differentiate between transient and continuous/frequent sources. Transient sources of groundborne vibration include intermittent events, such as blasting, whereas, continuous and frequent events would include the operations of equipment, including construction equipment, and vehicle traffic on roadways (Caltrans 2019).

The groundborne vibration criteria recommended by Caltrans for evaluation of potential structural damage is based on building classifications, which take into account the age and condition of the building. For newer residential structures and buildings, Caltrans considers a minimum peak-particle velocity (ppv) threshold of 0.5 inches per second (in/sec) for continuous/frequent sources to be sufficient to protect against building damage. With the exception of fragile buildings, ruins, and ancient monuments, continuous groundborne vibration levels below approximately 0.3 in/sec ppv are unlikely to cause structural damage. In terms of human annoyance, continuous vibrations in excess of 0.1 in/sec ppv and transient sources in excess of 0.9 in/sec ppv are identified by Caltrans as being “strongly perceptible” and considered to result in increased levels of annoyance. Within buildings, short periods of ground vibration in excess of 0.2 in/sec ppv are generally considered to result in increased levels of annoyance (Caltrans 2019).

Table 9. Damage Potential to Buildings at Various Groundborne Vibration Levels

Structure and Condition	Vibration Level (in/sec ppv)	
	Transient Sources	Continuous/Frequent Intermittent Sources
Extremely Fragile Historic Buildings, Ruins, Ancient Monuments	0.12	0.08
Fragile Buildings	0.2	0.1
Historic and Some Old Buildings	0.5	0.25
Older Residential Structures	0.5	0.3
New Residential Structures	1.0	0.5
Modern Industrial/Commercial Buildings	2.0	0.5

Note: Transient sources create a single, isolated vibration event, such as blasting or drop balls. Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.

Source: Caltrans 2013

Table 10. Annoyance Potential to People at Various Groundborne Vibration Levels

Human Response	Vibration Level (in/sec ppv)	
	Transient Sources	Continuous/Frequent Intermittent Sources
Barely Perceptible	0.04	0.01
Distinctly Perceptible	0.25	0.04
Strongly Perceptible	0.9	0.10
Severe	2.0	0.4

Note: Transient sources create a single, isolated vibration event, such as blasting or drop balls. Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.

Source: Caltrans 2013

Environmental Evaluation

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

The proposed GPCEU includes various roadway improvements. The operation of heavy equipment during the construction of infrastructure improvements would result in temporary increases in noise in the immediate vicinity of individual construction sites. During construction of the proposed improvements, noise from construction activities may intermittently dominate the noise environment in the immediate area of construction. Table 11 summarizes noise levels produced by off-road equipment commonly used on roadway construction projects.

Table 11. Construction Equipment Noise Levels

Equipment	Typical Noise Level (dBA) at 50 feet from Source*		Distance to Noise Contours (feet, dBA L _{eq})		
	L _{max}	L _{eq}	70	65	60
Air Compressor	80	76	105	187	334
Backhoe/Front End Loader	80	76	105	187	334
Boring Hydraulic Jack/Power Unit	80	77	118	210	374
Compactor (Ground)	80	73	74	133	236
Concrete Mixer Truck	85	81	187	334	594
Concrete Mixer (Vibratory)	80	73	74	133	236
Concrete Pump Truck	82	75	94	167	297
Concrete Saw	90	83	236	420	748
Crane	85	77	118	210	374
Dozer/Grader/Excavator/Scraper	85	81	187	334	594
Generator	82	79	149	265	472
Gradall	85	81	187	334	594
Hydraulic Break Ram	90	80	167	297	529

Equipment	Typical Noise Level (dBA) at 50 feet from Source*		Distance to Noise Contours (feet, dBA L _{eq})		
	L _{max}	L _{eq}	70	65	60
Jack Hammer	85	78	133	236	420
Impact Hammer/Hoe Ram (Mounted)	90	83	236	420	748
Pavement Scarifier/Roller	85	78	133	236	420
Paver	85	82	210	374	667
Pile Driver (Impact/Vibratory)	95	88	420	748	1,330
Pneumatic Tools	85	82	210	374	667
Pumps	77	74	83	149	265
Truck (Dump/Flat Bed)	84	80	167	297	529

Notes: Distances to noise contours are approximate

* L_{max} = maximum sound level; L_{eq} = equivalent continuous sound pressure level

Source: AMBIENT Air Quality and Noise Consulting 2018.

As indicated in Table 11, maximum intermittent noise levels associated with construction equipment typically range from approximately 77 to 95 dBA maximum sound level (L_{max}) at 50 feet. Pile driving and demolition activities involving the use of pavement breakers and jackhammers are among the noisiest activities associated with transportation improvement and construction projects. For most transportation improvement projects, excluding pile driving activities, average-hourly equipment noise levels typically range from approximately 73 to 83 dBA equivalent continuous sound pressure level (L_{eq}) at 50 feet. For activities requiring pile driving, average hourly noise levels can reach levels of approximately 88 dBA L_{eq} at 50 feet. Noise levels from point sources such as construction sites typically attenuate at a rate of about 6 dBA per doubling of distance. Based on this attenuation rate and assuming a maximum noise level of 88 dBA L_{eq} at 50 feet, average construction noise levels would decrease to 65 dBA L_{eq} at approximately 700 feet from the construction site. Predicted noise levels would vary depending on multiple factors, such as the number and type of equipment used, equipment usage rates, area of activity, and shielding provided by intervening terrain and structures. Delivery vehicles, construction employee vehicle trips, and haul truck trips may also contribute to overall construction noise levels.

Although construction-generated noise levels associated with road improvement projects would be short term, significant increases in ambient noise levels at nearby land uses could potentially occur. For noise-sensitive land uses, such as residential dwellings, activities occurring during the more noise-sensitive evening and nighttime hours are of particular concern. Construction activities occurring during these more noise-sensitive hours may result in increased levels of annoyance and potential sleep disruption to occupants of nearby residential dwellings. For these reasons, potential impacts would be *less than significant with mitigation*.

Goals and policies included in the GPCEU would promote compatibility between the circulation system and existing and planned land uses with the goal of reducing traffic-related noise pollution. The GPCEU identifies areas for future improvements and development related to the City's circulation system. Future construction activities have the potential to temporarily increase ambient noise levels within public areas and would be required to comply with noise regulations and thresholds included in the City's Noise Element and allowable construction hours identified in Section 9.16.030 (Exceptions to Noise Standards) of the City's Municipal Code. As long as construction occurs between the hours of 7:00 a.m. and 10:00 p.m. on weekdays and 8:00 a.m. and 5:00 p.m. on weekends, noise from construction activities is exempt from standards established in Chapter 9.16 of the City's Municipal Code. Future development of transportation infrastructure has the potential to permanently increase ambient traffic-related noise as a result of moving transportation noises closer to sensitive receptor locations and increasing transportation

noise levels in the vicinity of sensitive receptor locations. Future development would be subject to subsequent environmental review and would be required to comply with the City's Noise Element and LUE to ensure new sources of traffic-related noise do not result in adverse effects to the public; therefore, impacts would be *less than significant*.

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

Construction activities would require the use of various tractors, trucks, and jackhammers, which could adversely affect nearby land uses. Groundborne vibration levels commonly associated with construction equipment are summarized in Table 12. As indicated, the highest groundborne vibration levels would be generated by the use of pile drivers and vibratory rollers. For most road construction and improvement projects, excluding those involving the use of pile drivers, groundborne vibration levels at nearby land uses would not typically exceed commonly applied criteria for structural damage or human annoyance. However, depending on the equipment required and distance between the source and receptor, groundborne vibration levels associated with some proposed roadway construction and improvement projects could potentially exceed recommended criteria for structural damage and/or human annoyance (0.2 and 0.1 in/sec ppv, respectively) at nearby land uses. However, proposed mitigation measures would reduce potentially significant impacts to short- and long-term construction noise to less-than-significant levels. Therefore, impacts would be *less than significant with mitigation*.

Table 12. Representative Vibration Source Levels for Construction Equipment

Equipment		Peak Particle Velocity at 25 Feet (in/sec)
Pile Driver (Impact)	Upper Range	1.518
	Typical	0.644
Pile Driver (Sonic)	Upper Range	0.734
	Typical	0.170
Vibratory Roller		0.210
Hoe Ram		0.089
Large Bulldozers		0.089
Loaded Trucks		0.076
Jackhammer		0.035
Small Bulldozers		0.003

Source: FTA 2006, Caltrans 2004

Groundborne vibration impacts associated with proposed GPCEU would be analyzed in more detail in subsequent project-specific CEQA and National Environmental Policy Act (NEPA) (if applicable) environmental impact assessments. Mitigation measures would be recommended to reduce significant groundborne vibration impacts. The level of mitigation would be project and site specific and would include measures normally required by Caltrans and/or applicable requirements of local jurisdictions. With mitigation, this impact would be considered *less than significant*.

c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

The nearest airport to the City is the Oceano County Airport, located approximately 0.8 mile southwest of the City of Arroyo Grande. According to the ALUP, the City of Arroyo Grande is not located within the planning area of the ALUP (County of San Luis Obispo 2007); however, the City is located within 2 miles of the Oceano County Airport. The GPCEU proposes policies and goals for the City's circulation system and identifies areas for future improvements and development of roadways, intersection, freeway ramps, pedestrian and bicycle facilities, and public transit. Future improvements facilitated by the GPCEU are not anticipated to result in the construction of new buildings or residential units or other improvements that could expose people to excessive noise as a result of residing or working within 2 miles of an airport; therefore, impacts would be *less than significant*.

Conclusion

Future improvements are expected to be conducted in compliance with the City's Municipal Code and Noise Element; however, mitigation is included to further reduce potential impacts related to noise and groundborne vibration to be less than significant. Arroyo Grande is not located within an ALUP; however, it is located in close proximity to Oceano Airport. Future improvements would not result in the development of buildings that could be placed in close proximity to an airport and expose people to excessive noise. Therefore, noise impacts would be less than significant with mitigation.

Mitigation Measures

Future projects would be evaluated on a case-by-case basis for appropriate CEQA review and would include project-specific mitigation measures as determined appropriate; however, implementation of the following measures to the maximum extent feasible is recommended to avoid potential impacts.

- NOI/MM-1** The City shall ensure that, where residences or other noise-sensitive uses are located near construction sites, appropriate measures shall be implemented to reduce construction-related noise impacts to a less-than-significant level. Specific techniques may include, but are not limited to, restrictions on construction timing, use of sound control devices on construction equipment, and the use of temporary walls and noise barriers to block and deflect noise.
- NOI/MM-2** If a particular project located adjacent to sensitive receptors requires pile driving, the City shall require the use of pile drilling techniques instead, where feasible, to reduce the physical impact and associated noise generation from pile driving. This shall be accomplished through the placement of conditions on the project during its individual environmental review.
- NOI/MM-3** The City shall ensure that proposed new transportation projects are analyzed, in accordance with applicable CEQA and/or NEPA (if applicable) requirements, for potential noise and groundborne vibration impacts to nearby noise-sensitive land uses. Noise and groundborne vibration studies shall be conducted in accordance with applicable federal, state, and local requirements. Where significant impacts are identified, mitigation measures shall be implemented to reduce identified adverse impacts. Noise-reduction measures may include, but are not necessarily limited to, the following:
1. Site/project design and use of buffers to ensure that future development is compatible with transportation facilities.

2. Construction of acoustic barriers to shield nearby noise-sensitive land uses. For aesthetic concerns, the use of sound barriers, or any other architectural feature that could block views from scenic highway or other view corridors, shall be discouraged to the extent possible. Long expanses of walls or fences should be interrupted with offsets and provided with accents to prevent monotony. Whenever possible, a combination of construction elements should be used, including solid fences, walls, and landscaped berms.
3. Changes to transportation facility design, if feasible. Examples may include changes in proposed roadway alignment or construction of roadways so that they are depressed below-grade of nearby sensitive land uses to create an effective barrier between the roadway and sensitive receptors.
4. Where practical, use of low-noise pavements (e.g., rubberized asphalt).

With the incorporation of these measures, residual impacts related to noise would be less than significant.

XIV. Population and Housing

Environmental Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
(a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☒	☐
(b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☒	☐

Setting

The City's population has grown from 17,252 in 2010 to an estimated 17,976 in 2019, based on the 2010 Census. According to the Census Quickfacts for the City of Arroyo Grande, the City's population is 84.8% White, 14.2% Hispanic and Latino, 4.2% Asian, 1.7% American Indian or Alaska Native, 1.0% Black or African American, and 0.4% Native Hawaiian or other Pacific Islander (U.S. Census Bureau 2010). Approximately 21.8% of the population is aged 65 years and older, approximately 19.2% of the population is aged 18 years and under, and approximately 4.9% of the population is aged 5 years and under (U.S. Census Bureau 2010). Between 2015 and 2019, there were 7,026 households with an average of 2.53 persons per household and 67.5% owner-occupied housing unit rate (U.S. Census Bureau 2010).

Environmental Evaluation

- a) *Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?***

The purpose of the GPCEU is to relieve congestion and safety issues associated with current conditions. The proposed improvements are designed to improve existing traffic conditions within the local transportation network based on existing and proposed land uses within the City, along with regional growth in adjacent cities, throughout San Luis Obispo County, and along the US 101 north/south corridor

that has occurred since the *City of Arroyo Grande General Plan Circulation Element* was last updated in 2012. Future improvements would be built out as needed to accommodate planned growth, consistent with the General Plan. Implementation of the GPCEU and associated improvements are intended to serve the existing population and planned growth within the City and would not result in changes to land use or zoning designations or induce unplanned population growth directly or indirectly; therefore, impacts would be *less than significant*.

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

The GPCEU includes improvements to the City's circulation system that are not anticipated to displace existing people or housing. Any future improvements that would have the potential to displace substantial numbers of existing people or housing would require subsequent environmental review. The GPCEU is not expected to necessitate the construction of replacement housing elsewhere and impacts would be *less than significant*.

Conclusion

The GPCEU includes policies intended to address existing and future transportation planning needs of the City. Future improvements are not anticipated to result in the construction of new buildings or residential units or other improvements that could contribute to population growth. Implementation of the GPCEU and associated improvements are intended to serve the existing population and planned growth within the City and would not result in changes to land use or zoning designations, induce unplanned population growth directly or indirectly, or displace substantial numbers of existing people or housing; therefore, impacts would be *less than significant*.

Mitigation Measures

Mitigation is not necessary.

XV. Public Services

Environmental Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
(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?	☐	☐	☒	☐
Police protection?	☐	☐	☒	☐
Schools?	☐	☐	☒	☐
Parks?	☐	☐	☒	☐
Other public facilities?	☐	☐	☒	☐

Setting

FIRE PROTECTION SERVICES

The FCFA is a JPA between the City of Arroyo Grande, City of Grover Beach, and Oceano Community Services District, serving a population of 37,000 in a 10-square-mile service area (City of Arroyo Grande 2020). The FCFA was created to increase service levels to citizens and visitors, to ensure consistent and professional training standards and to increase operational efficiencies. The FCFA currently operates out of three stations with an average response time of 6 minutes.

POLICE PROTECTION SERVICES

The AGPD provides public safety services for the City of Arroyo Grande. The AGPD is located at 200 North Halcyon Road in Arroyo Grande and consists of 29 full-time employees (AGPD 2021). The crime rate in the region is among the lowest in California. The AGPD responded to 17,137 documented incidents in 2016 and 17,925 documented incidents in 2017. At the same time, the Department has been able to maintain a response time for emergency calls at less than two minutes. The California Highway Patrol (CHP) office, located at 4115 Broad Street in San Luis Obispo, serves South County, including the City of Arroyo Grande.

SCHOOLS

Arroyo Grande students in grades K–12 are served by two school districts: San Luis Obispo Coastal Unified School District and Lucia Mar Unified School District (LMUSD). LMUSD covers 550 square miles and serves the adjoining communities of Arroyo Grande, Grover Beach, Nipomo, Oceano, Pismo Beach, and Shell Beach.

PARKS

Arroyo Grande has 13 City parks, several sports facilities, and open space and wildlife preserve areas.

LIBRARIES

The City does not provide library services to City residents. This service is provided by the San Luis Obispo City-County Library system, which presently maintains the Arroyo Grande Library located at 800 West Branch Street in Arroyo Grande.

Environmental Evaluation

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

The GPCEU does not include and would not result in the provision of or need for new or physically altered governmental facilities. Additionally, the proposed GPCEU does not have the potential to induce unplanned growth, as it does not involve changes to land use or zoning designations or the construction of new housing or businesses. As such, it would not have the potential to increase demand for fire or police protection, schools, parks, libraries, or other public facilities. Therefore, impacts would be *less than significant*.

Conclusion

The GPCEU does not propose changes to land use or zoning designations or other development that could result in unplanned population growth or otherwise contribute to demand for public services in a manner that would require the provision of new or physically altered public services or facilities; therefore, impacts related to public services would be less than significant and mitigation is not necessary.

Mitigation Measures

Mitigation is not necessary.

XVI. Recreation

Environmental Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☒	☐
(b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☒	☐

Setting

The *City of Arroyo Grande General Plan Parks and Recreation Element* states that it is the overall goal of the City to adequately provide for the recreational needs of residents and visitors of Arroyo Grande. The Parks and Recreation Element acts as a guide for the development of additional park and recreation facilities. The City currently funds public recreational facilities through the Quimby Act, federal and state grants, land dedications and easements, trail easements, development impact fees, user fees, general obligation bonds, revenue bonds, and cooperation with other agencies (City of Arroyo Grande 2001b).

Arroyo Grande prides itself on its beautiful array of parks, open space, and community recreational facilities. The City provides and maintains recreational facilities, including 12 parks, the Soto Sports Complex, fields and courts, and the James Way Oak Habitat open space and wildlife preserve (City of Arroyo Grande 2021c).

Environmental Evaluation

- 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?***

The proposed GPCEU would not create a new use that would generate unplanned population growth or increase demand on existing recreational facilities. Deterioration of existing facilities would not occur as a result of the proposed GPCEU; therefore, this impact would be considered *less than significant*.

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?

The City adopted the *City of Arroyo Grande Bicycle & Trails Master Plan* (BTMP) (City of Arroyo Grande 2012b), which was prepared in accordance with the California Bicycle Transportation Act and includes all the requirements for Bicycle Transportation Account (BTA) eligibility and the necessary information for pedestrian and beach access grant applications and projects. The BTMP provides the implementation tools for many General Plan/Local Coastal Plan directives. Future projects identified in the BTMP are included in the SLOCOG 2014 RTP/SCS, the basis for identifying potentially fundable projects in the next 25 years.

The goal of this local and regional planning effort is to interconnect the surrounding communities with a seamless bicycle and pedestrian network for recreational and commuter use. The plan includes proposed bicycle and pedestrian trails, as well as on-street bicycle facilities to complete the multimodal network throughout the City.

The GPCEU encourages the use of walking and bicycling through proposed bicycle and pedestrian trails, as well as on-street bicycle facilities to complete the partial network already in place in the City and county. The GPCEU includes policies that would facilitate future improvements to the bicycle network, promote and improve bicycle circulation facilities and connectivity, promote and improve pedestrian circulation facilities to serve all areas of the City as a priority system, and prioritize connections with schools, parks, transit, and major public facilities. The GPCEU does not include other recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment. Any future improvements to recreational facilities would be subject to subsequent environmental review and would be required to avoid or mitigate adverse physical effects on the environment; therefore, impacts would be *less than significant*.

Conclusion

The GPCEU proposes a comprehensive update of goals and policies of the City's current Circulation Element and would not result in new development that could increase demand on recreational facilities. In addition, the GPCEU does not include the construction or expansion of existing recreational facilities that would result in adverse physical effects on the environment that are not evaluated in this Initial Study or subject to subsequent environmental review; therefore, impacts would be less than significant, and mitigation is not necessary.

Mitigation Measures

Mitigation is not necessary.

XVII. Transportation

Environmental Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
(a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☒	☐	☐

Environmental Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☐	☐	☒	☐
(c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
(d) Result in inadequate emergency access?	☐	☒	☐	☐

Setting

As discussed in the Project Description, the GPCEU provides objectives and policy guidance for long-term planning and implementation of the transportation system needed to serve the City's projected development. The objectives and policies in the GPCEU are closely correlated with the City's LUE and other elements that comprise the General Plan and are intended to enhance travel choices for current and future residents, visitors, and workers. The GPCEU also defines a preferred transportation system that reflects the City's financial resources and broader goals, including providing safe and convenient access for all modes of travel while preserving the local character of the community.

The 2019 RTP/SCS, adopted on June 5, 2019, is a long-term blueprint of San Luis Obispo County's transportation system. The plan identifies and analyzes transportation needs of the region and creates a framework for project priorities. SLOCOG represents and works with the County and the cities within the county in facilitating the development of the RTP/SCS.

Environmental Evaluation

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

As discussed in the Project Description, the GPCEU objectives and policies would provide the overall direction the City desires in planning and implementing the expansion of the circulation system to meet the changing travel demands of the community. The implementing policies would establish the link between the City's goals and the implementing programs, and guide how the programs would actually be implemented. The guiding and implementing policies reflect the City's vision for a comprehensive circulation system that is safe and efficient for pedestrians, bicycles, trucks, automobiles, and public transportation. The objectives, policies, and improvements proposed in the GPCEU are intended to reduce VMT, enhance circulation, improve safety, and reduce congestion. The GPCEU is intended to improve circulation infrastructure within the City and bring the circulation system capacity into consistency with the intensity of surrounding land uses, the RTP/SCS, the City's LUE, and the City's BTMP. It should be noted that the GPCEU includes a change that would make LOS D an acceptable LOS compared to the current Circulation Element, which considers LOS D an unacceptable LOS. Senate Bill (SB) 743 amends the CEQA transportation impact analysis for projects by replacing auto delay (LOS) as a basis for determining significant impacts under CEQA with average VMT. The legislation in SB 743 does not preclude agencies from adopting the use of auto LOS outside of CEQA in the local transportation planning and policy set forth in the Circulation Element; however, it is no longer used as a threshold for evaluating environmental impacts related to transportation under CEQA.

The City adopted the 2012 BTMP, which includes proposed bicycle and pedestrian trails, as well as on-street bicycle facilities to complete the partial network already in place in the City and County. The GPCEU identifies goals and policies for existing and planned land uses to be connected to the City's bicycle network and would require any separately proposed development that has a gap in the network to implement improvements to allow for connectivity to the network. In addition, the GPCEU would allow for pedestrian accessibility and would promote future development to be located within a walkable distance to surrounding land uses. Therefore, the GPCEU would be consistent with the 2012 BTMP.

The GPCEU also includes policies that require coordination with the SLORTA to promote regional and local public transit. Therefore, the GPCEU would not conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system or a congestion management plan.

Short-term construction activities would likely cause increased congestion in the vicinity of the construction area; however, these impacts would be short term and minimized to the extent feasible through adherence to standard Caltrans road construction standards and BMPs contained in the Caltrans 2018 Standard Plans and Standard Specifications (Caltrans 2018) and City measures contained in the General Plan. Mitigation measures have been recommended to minimize construction-related traffic impacts. Therefore, impacts would be *less than significant with mitigation*.

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

The GPCEU proposes objectives and policies intended to create an optimal multi-modal transportation system for the City and adequately anticipate and plan transportation infrastructure to meet future needs of the City. The objectives and policies of the GPCEU are intended to reduce VMT throughout the City. The proposed GPCEU is not considered a large development project that would have the potential to result in a substantial increase in population or employment. Furthermore, based on the traffic analysis prepared for this project (see Appendix C), the proposed GPCEU is anticipated to result in an overall reduction of 783 VMT (see Table 6). It is also important to note that circulation network improvements in the proposed GPCEU would be anticipated to improve system-wide circulation and result in reductions in vehicle congestion and delay.

The GPCEU does not propose specific development for improvement of roadways, bicycle and pedestrian facilities, and public transit; however, it would allow for future identification and buildout of improvements to the City's transportation infrastructure. Future improvements would require construction activity that would require worker and equipment trips to and from future project sites; however, vehicle trips are not expected to exceed the current threshold of 110 trips per day and would be considered less than significant. The GPCEU would promote VMT-reduction strategies for existing and planned land uses and would be consistent with SB 743; therefore, impacts would be *less than significant*.

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

The GPCEU identifies goals, policies, and future improvements related to the circulation system. As discussed in the Project Description, the proposed roadway alignments and improvements identified in the GPCEU are conceptual and subject to further engineering and environmental review. Street designs for the proposed roads shall conform to the typical street widths and design elements. The roadway design standards for the City are based on engineering standards and on evolving policies and practices regarding the City's transportation infrastructure. The roadway design standards meet both nationally and state acceptable design criteria. While these roadway design standards provide a template for construction, it is

not a substitute for professional engineering judgment and close coordination with the City Engineer during project development and plan preparations. All street improvements within the City would be subject to the approval of the City Engineer; furthermore, these improvements would be subject to the standards of the latest adopted edition of the Caltrans HDM. Therefore, none of the improvements would be designed to substantially increase hazards due to a design feature. Any design features that are inconsistent with these standards would require City Council or City Engineer or Public Works Director approval; therefore, impacts would be *less than significant*.

d) Would the project result in inadequate emergency access?

Construction of the proposed improvements included in the GPCEU could require temporary street closures to accommodate construction vehicles and equipment during the installation of new infrastructure and during the modification of existing roadways and intersections; however, detours would be provided. Temporary closures of roadways and associated detours could result in temporary delays in emergency response in the City by the AGPD; however, long-term congestion relief resulting from implementation of the GPCEU would improve emergency access throughout the City for police, fire, and emergency protection services. The proposed improvements would be subject to all applicable Caltrans road design and construction standards and City measures contained in the General Plan. Therefore, no dangerous design components would occur.

Implementation of mitigation measures would minimize short-term construction delays in emergency response and, following construction, the proposed GPCEU improvements would accommodate the access requirements of emergency vehicles. Potential impacts would be *less than significant with mitigation*.

Conclusion

The GPCEU proposes policies, goals, and objectives to create an optimal multi-modal transportation system for the City and adequately anticipate and plan transportation infrastructure to meet future needs of the City. Implementation of the GPCEU would result in comprehensive updates to goals and policies and a reduction of VMT through several strategies outlined in the GPCEU. The GPCEU would allow for future improvements of roads, bicycle and pedestrian facilities, and public transit. Improvements would be subject to goals and policies of the GPCEU and other General Plan Elements. In addition, goals and policies of the GPCEU would be consistent with the City's General Plan and other applicable transportation plans. Mitigation is included to reduce potential impacts related to temporary road closures during construction activities; therefore, impacts would be less than significant with mitigation.

Mitigation Measures

Future projects would be evaluated on a case-by-case basis for appropriate CEQA review and would include project-specific mitigation measures as determined appropriate; however, implementation of the following measures to the maximum extent feasible is recommended to avoid potential impacts.

- TR/MM-1** Prior to the initiation of construction activities, the City shall prepare a Construction Timing, Access, and Circulation Plan, which shall include the following measures. This plan shall be approved by the City Public Works Director prior to the start of construction and made available for local residents to review and comment on prior to the onset of construction activities.
1. Methods for ensuring permanent access to the commercial/retail centers and private residents is preserved and/or improved to the maximum extent feasible through implementation of the proposed improvements.

2. A signage plan and other methods, if feasible, for increasing the visibility of businesses blocked by construction activities and educating travelers that businesses adjacent to the construction activities are to remain open during construction.
3. Clearly marked detour routes for alternate access to any businesses that are made inaccessible or difficult to access due to construction activities.
4. Hours of haulage (8:00 a.m. to 5:00 p.m.).
5. Designation of truck routes that avoid residential areas to the extent possible.
6. Methods of traffic control on adjacent streets within the project area.
7. Adequate safety signage regarding traffic control.
8. Designated construction staging areas for construction personnel vehicles, supplies, and equipment.
9. A telephone number for local residents to call if there are issues or complaints.
10. Measures to resolve potential conflicts between construction activities and adjacent businesses.
11. Business owners directly adjacent to the project area shall be directly notified of the availability of and allowed to comment on the plan.

TR/MM-2 Traffic control plans affecting state facilities shall be reviewed and approved by Caltrans, and traffic control plans affecting City facilities shall be reviewed and approved by the City Public Works Director through consultation with affected emergency responders and service providers prior to construction activities.

With the incorporation of these measures, as well as measures LU/MM-1 and LU/MM-2, residual impacts associated with transportation and traffic would be less than significant.

XVIII. Tribal Cultural Resources

Environmental Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
(i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	☐	☒	☐	☐

Environmental Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☒	☐	☐

Setting

Approved in 2014, AB 52 added tribal cultural resources to the categories of resources that must be evaluated under CEQA. Tribal cultural resources are defined as either of the following:

1. Sites, features, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:
 - a. Included or determined to be eligible for inclusion in the CRHR; or
 - b. Included in a local register of historical resources as defined in PRC Section 5020.1(k).
2. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in PRC Section 5024.1(c). In applying these criteria for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American Tribe.

Recognizing that tribes have expertise with regard to their tribal history and practices, AB 52 requires lead agencies to provide notice to tribes that are traditionally and culturally affiliated with the geographic area of a proposed project if they have requested notice of projects proposed within that area. If the tribe requests consultation within 30 days upon receipt of the notice, the lead agency must consult with the tribe regarding the potential for adverse impacts on tribal cultural resources as a result of a project. Consultation may include discussing the type of environmental review necessary, the presence and/or significance of tribal cultural resources, the level of significance of a project's impacts on the tribal cultural resources, and available project alternatives and mitigation measures recommended by the tribe to avoid or lessen potential impacts on tribal cultural resources.

The earliest inhabitants of Arroyo Grande Valley were the northern or Obispeño Chumash Indians. The Arroyo Grande area was still occupied by Chumash Indians at the time of contact with the first Spanish explorer, Juan Rodríguez Cabrillo (AGPD 2020). Archaeological evidence indicates that the Chumash and their ancestors inhabited the California Coast for over 11,000 years. Their lifestyle was closely connected to marine and terrestrial habitats where the diversity of the land allowed for complex sociopolitical and technological culture. In 1542, at the time Spanish explorers arrived in California, the Chumash had a population of approximately 20,000 and was one of the largest and most advanced tribes in the region (Page & Turnbull 2013).

Environmental Evaluation

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

Given the abundance of prehistoric archaeological resources known to be located in the study area, and interest expressed by interested Native American parties, the City is considered sensitive for the presence of buried (i.e., obscured) resources. The City has sent the notices required for consideration of tribal cultural resources consistent with AB 52. The City received a request for consultation on this project from the Northern Chumash Tribal Council and has commenced consultation with this tribe. Standard mitigation has been proposed to ensure impacts to any unknown resources that may be encountered during project development would be avoided and/or minimized. Therefore, potential impacts would be *less than significant with mitigation*.

Conclusion

The GPCEU proposes objectives, policies, and specific improvements to the City's circulation system to meet the existing and future transportation needs of the City. Any future development within the City resulting from buildout of GPCEU improvements would be subject to applicable state and local policies and regulations, including Objective C/OS4 and corresponding policies in the City's ACOSE, and State of California Health and Safety Code Section 7050.5(b). Implementation of Mitigation Measures CUL/MM-1 through CUL/MM-4 would further ensure potential impacts would be avoided.

Mitigation Measures

Future projects would be evaluated on a case-by-case basis for appropriate CEQA review, would be required to comply with the objectives and policies in the City's ACOSE, and would include project-specific mitigation measures as determined appropriate; however, implementation of the following measures to the maximum extent feasible is recommended to avoid potential impacts. With the incorporation of Mitigation Measures CUL/MM-1 through CUL/MM-4, residual impacts related to cultural resources would be less than significant.

XIX. Utilities and Service Systems

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

Setting

Utilities would be served by both the City and other regional entities. Conoco Phillips 66 oil lines; overhead electrical, telephone, and cable utility lines; water lines; water hydrants; and other utilities are located within the developed areas of the City. Water and wastewater services within the City are provided by the City Public Works Department. The City has a franchise agreement with South County Sanitary Service for collection, diversion, and disposal of solid waste and is served by the Cold Canyon Landfill, located approximately 2 miles north of the City in unincorporated San Luis Obispo County. The Cold Canyon Landfill currently has a daily capacity of 1,650 tons per day and an estimated remaining capacity of 13,000,000 cubic yards. Currently, the estimated closure date for this landfill is December 31, 2040 (California Department of Resources Recycling and Recovery [CalRecycle] 2020).

Environmental Evaluation

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

The GPCEU proposes a comprehensive update of the City's current Circulation Element and identifies areas for future improvements and development. Future improvements would be limited to roads, intersections, freeway ramps, pedestrian and bicycle facilities, and public transit facilities and would not result in the development of buildings or residential units that would require or result in the relocation or

construction of new or expanded water, wastewater treatment, electric power, natural gas, or telecommunications facilities.

The existing stormwater drainage system in the City consists of City and Caltrans drains and outlets in the developed portions of the City. Future improvements would also be required to comply with Section 13.24.120 (Erosion and Sedimentation Control Plan Requirements) and Section 13.24.130 (Stormwater Pollution Prevention Plan Requirements) of the City's Municipal Code, which require that all construction and grading permit projects prepare an erosion and sedimentation control plan for all project phases, and require projects that result in site disturbance of 1 acre or more to prepare and implement a SWPPP with BMPs to reduce or avoid construction-related pollution to water resources. The GPCEU improvements would not result in substantial changes; therefore, no permanent or substantially altered effects associated with discharge into or contamination of surface waters would result above that which currently exists. Therefore, impacts would be *less than significant*.

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

The proposed GPCEU would require water supply during construction activities for uses such as dust suppression and vehicle washing. The GPCEU would not result in a long-term increase in water demand. The existing water supply is the City's existing municipal water system. This water source is expected to be capable of meeting the short-term water demands of the proposed improvements included in the City's GPCEU; therefore, potential impacts would be *less than significant*.

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

The GPCEU does not propose use or development of any on-site wastewater disposal systems or connection to any community wastewater system. Implementation of the proposed improvements would not require wastewater discharge, except for short-term construction activities that would be serviced by on-site portable restroom and hand-washing facilities and/or existing facilities within the project area. Therefore, potential impacts would be *less than significant*.

d) Would the project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

The GPCEU would result in construction activities that would generate solid waste materials, including cut volumes and demolition of existing road infrastructure. Future GPCEU improvements would be served by the Cold Canyon Landfill, which has adequate permitted capacity to serve the project. Upon completion of the proposed improvements, operation of the improvements would not generate any solid waste. Short-term solid waste generated by construction activities would be disposed of in accordance with state and local solid waste regulations; therefore, impacts would be *less than significant*.

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

Refer to Impact Discussion XIX(d). Short-term solid waste produced by construction activities would be disposed of in accordance with state and local solid waste regulations. Implementation of the GPCEU is not anticipated to generate long-term solid waste that would be subject to applicable plans for the reduction and regulation of solid waste; therefore, impacts would be *less than significant*.

Conclusion

The GPCEU includes goals and policies intended to guide future improvements to the City’s transportation, bicycle and pedestrian, and public transit facilities within the City’s circulation system. Future improvements would not result in the development of new business, residential units, or other buildings that would require new or expanded utility connections, new long-term water demand, or increase the generation of wastewater or solid waste. Therefore, impacts would be less than significant, and mitigation is not necessary.

Mitigation Measures

Mitigation is not necessary.

XX. Wildfire

Environmental Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:</i>				
(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?	☐	☐	☒	☐

Setting

In central California, the fire season usually extends from May through October; however, recent events indicate that wildfire behavior, frequency, and duration of the fire season are changing in California. FHSZs are defined by CAL FIRE based on the presence of fire-prone vegetation, climate, topography, assets at risk (e.g., high population centers), and a fire protection agency’s ability to provide service to the area (CAL FIRE 2007). FHSZs throughout the county have been designated as “Very High,” “High,” or “Moderate.” In San Luis Obispo County, most of the area that has been designated as a “Very High Fire Hazard Severity Zone” is located in the Santa Lucia Mountains, which extend parallel to the coast along the entire length of the county. The Moderate FHSZ designation does not mean the area cannot experience a damaging fire; rather, it indicates that the probability is reduced, generally because the number of days a year that the area has “fire weather” is less than in high or very high FHSZs. The City of Arroyo Grande is located within an LRA (CAL FIRE 2020)

The City’s Safety Element includes the objective of reducing the threat to life, structures, and the environment caused by fire and includes specific policies related to pre-fire management; availability of

facilities, equipment, and personnel; readiness and response; and loss prevention (City of Arroyo Grande 2001b).

The Multi-Jurisdictional LHMP was originally adopted in 2013 and modified in 2015. The intention of the LHMP is to implement practical mitigation solutions to minimize risk of hazards within each City covered by the LHMP. The plan includes specific action items related to fire hazard mitigation within each jurisdiction (Mathe 2015).

Environmental Evaluation

a) *If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project substantially impair an adopted emergency response plan or emergency evacuation plan?*

According to the CAL FIRE FHSZ Viewer, the City is located in an LRA and is not located in a State Responsibility Area (SRA). The GPCEU includes goals, policies, and future improvements related to the City's circulation system and future planning needs. Future improvements would be required to comply with the City's Safety Element, City's Municipal Code, and Multi-Jurisdictional LHMP to ensure that any temporary traffic controls and roadway designs are consistent with emergency response and evacuation plans.

Construction of the proposed improvements included in the GPCEU could require temporary street closures to accommodate construction vehicles and equipment during the installation of new infrastructure and the modification of existing roadways and intersections; however, detours would be provided. Temporary closures of roadways and associated detours could result in temporary delays in emergency response and evacuation in the City; however, long-term congestion relief resulting from implementation of the GPCEU would improve emergency access throughout the City. The proposed improvements would be subject to all applicable Caltrans road design and construction standards and City measures contained in the General Plan. Therefore, no dangerous design components would occur. Implementation of mitigation measures would minimize short-term construction delays in emergency response and, following construction, the proposed GPCEU improvements would accommodate the access requirements of emergency vehicles. Potential impacts would be *less than significant with mitigation*.

b) *Due to slope, prevailing winds, and other factors, if located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?*

The City of Arroyo Grande is comprised of developed urban areas and is not designated as a FHSZ. The City's Safety Element designates wildland-urban interface (WUI) areas in the northern and eastern portions of the City. The northern and eastern portions of the City consist of hilly areas and support parcels within grassland or forested areas (City of Arroyo Grande 2001b). In Arroyo Grande, the windier part of the year occurs between November and June and has average wind speeds of 8.3 miles per hour. The other months of the year have an average wind speed of 7 miles per hour (Weather Spark 2020). Future improvements to the circulation system would improve overall circulation but would not result in the development of new buildings that could be placed within or adjacent to a high FHSZ or otherwise exacerbate wildfire risks; therefore, impacts would be *less than significant*.

- c) If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project 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?**

According to the CAL FIRE FHSZ Viewer, the City of Arroyo Grande is not located within an SRA. The GPCEU includes goals, policies, and future improvements for the City's circulation system. Future roadway and other transportation infrastructure improvements would be required to comply with the City's Safety Element and CAL FIRE standards to ensure public safety involving wildfire hazard; therefore, impacts would be *less than significant*.

- d) If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project 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?**

According to the CAL FIRE FHSZ viewer, the City of Arroyo Grande is not located within a SRA. The GPCEU includes goals, policies, and future improvements for the City's circulation network. Future improvements to the City's circulation system would not result in the development of new buildings that could be placed within or adjacent to an area at high risk for wildfire or post-fire hazards. Future improvements would be required to comply with the City's Safety Element and CAL FIRE standards to ensure public safety; therefore, impacts would be *less than significant*.

Conclusion

The GPCEU proposes objectives to design and designate efficient emergency access routes throughout the City, which is consistent with the City's Safety Element. Future improvements are not anticipated to increase fire risk or place people or structures within a high FHSZ. Implementation of mitigation measures would minimize short-term construction delays in emergency response and, following construction, the proposed GPCEU improvements would accommodate the access requirements of emergency vehicles. Potential impacts would be less than significant with mitigation.

Mitigation Measures

Future projects would be evaluated on a case-by-case basis for appropriate CEQA review and would include project-specific mitigation measures as determined appropriate; however, implementation of Mitigation Measures TR/MM-1 and TR/MM-2 to the maximum extent feasible is recommended to avoid potential impacts. With the incorporation of these measures, as well as measures LU/MM-1 and LU/MM-2, residual impacts associated with transportation and traffic would be less than significant.

XXI. Mandatory Findings of Significance

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

Environmental Evaluation

- 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?**

The GPCEU has the potential to substantially degrade the quality of the environment. Implementation of recommended mitigation measures would ensure that future buildout of the GPCEU would not substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels or threaten to eliminate a plant or animal community, or substantially reduce the number or restrict the range of a rare or endangered plant or animal. The GPCEU would not contribute significantly to GHG emissions, significantly increase energy consumption, or eliminate important examples of the major periods of California history or prehistory. Therefore, impacts would be *less than significant with mitigation* described within each issue area.

- 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)?**

Because the GPCEU does not propose a new or significantly different use than the existing use, the project's impacts would be limited in extent and duration and could be generally minimized through application of standard control measures. The GPCEU does not have impacts that would be individually limited but cumulatively considerable with implementation of identified mitigation. There are no proposed or planned projects in the area that would create similar impacts, which, when considered

together with the project-related impacts, would be considerable, or which compound or increase other environmental impacts. Therefore, impacts would be *less than significant with mitigation* described within each issue area.

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

The GPCEU would not create environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly. The GPCEU would improve existing infrastructure providing beneficial impacts on the existing traffic and circulation systems. Adverse project effects would generally be limited to the construction phase of the project and minimized through identified mitigation measures. Therefore, impacts would be *less than significant with mitigation* described within each issue area.

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APPENDIX A

Circulation Element Update Existing Conditions Background Report



Circulation Element Update

Existing Conditions Background Report

Prepared for:
City of Arroyo Grande

Final Report





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Appendix A Traffic Counts

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1. Introduction

The City of Arroyo Grande has retained GHD to complete updates to the City's General Plan Circulation Element (CE), associated Transportation Impact Fee (TIF) and nexus study, and finalization of the Traffic Impact Analysis (TIA) guidelines. As part of the CE update, this Existing Conditions Background Report has been prepared in order to document available background data, vehicle miles traveled (VMT), existing traffic operations, multimodal facilities, transit services, and other pertinent transportation information describing the City's transportation baseline. This report summarizes the City's existing roadway facilities in the context of a regional setting and existing service levels on critical facilities. Daily and peak hour traffic volumes are presented and analyzed, and facilities with deficit capacity are identified. The Existing Conditions sets the transportation baseline and will be utilized as the groundwork for forecasting transportation conditions, which will then be utilized to assess future transportation needs.

The City's ultimate objective is to update their Circulation Element to include policies, goals, and objectives that will create an optimal multi-modal transportation system for the City. Policies goals, and objectives will be consistent with the requirements of AB 1358, "The California Complete Street Act", and SB 743, the change from Level of Service to VMT as the measure of transportation impacts under the California Environmental Quality Act (CEQA), to provide integrated smart growth planning. The updated Circulation Element and TIF will also bring the City's planning efforts in compliance with the goals set forth in San Luis Obispo Council of Governments (SLOCOG) 2019 Regional Transportation Plan / Sustainable Communities Strategy (RTP/SCS) as required by SB 375, "The Sustainable Communities and Climate Protection Act of 2008", authorized by AB 32, "The Global Warming Solutions Act of 2006".

1.1 Existing Setting

The City of Arroyo Grande is an incorporated community located within the "Five Cities" area of San Luis Obispo County, California. The City lies about 200 miles south of the San Francisco Bay Area and 150 miles north of Los Angeles. The City is 5.45 square miles in area and is at an elevation of 114 feet. The City of Arroyo Grande is located approximately 10 miles south of the City of San Luis Obispo, along the US 101 coastal corridor. The City is located contiguous with the incorporated areas of the City of Pismo Beach to the northwest and the City of Grover Beach to the west.

US 101 runs diagonally through the middle of the City in a northwest to southeast direction. US 101 is the primary State highway providing regional access, connecting the City with other parts of San Luis Obispo County and the State. State Route 227 also provides more localized access to/from the City, connecting Arroyo Grande with the City of San Luis Obispo and surrounding County community.

1.2 Demographics and Commute Trends

Data from the United States Census Bureau's 2009-2013 (2013) and 2013-2017 (2017) American Community Survey (ACS) 5-year estimates, form the basis of the following demographic analysis. Based on the ACS data, the population in the City has increased by roughly 560 from 17,411 in 2013 to 17,971 in 2017, approximately a 3.2% increase.



Prior to examining the various transportation modes in the City, the following sub-section will examine some recent trends and current facts concerning commuter mode-choice and travel times in the City. Table 1.1 presents the various means of transportation reported in the City of Arroyo Grande between 2013 and 2017 ACS estimates.

Table 1.1 Means of Transportation and Carpooling Statistics

Means of Transportation	2009-2013 ACS		2013-2017 ACS	
	Number	Percent	Number	Percent
Workers 16 and over	35,401	-	36,196	-
Car, Truck or Van	31,188	88.1%	32,070	88.6%
Drove Alone	27,082	76.5%	28,124	77.7%
Carpooled	4,107	11.6%	3,945	10.9%
Public Transportation (excludes taxi)	389	1.1%	398	1.1%
Motocycle, taxi, or other	354	1.0%	290	0.8%
Bicycle	389	1.1%	434	1.2%
Walked	991	2.8%	688	1.9%
Worked at Home	2,089	5.9%	2,317	6.4%

Sources: U.S. Census American Community Survey (ACS) 5-year estimates

As presented in Table 1.1, the number of workers in the City did not increase significantly between the two five year estimates. This increase in workers is approximately 2.2%. Overall, these statistics indicate a consistent trend of a large percentage of commuters driving alone. Carpooling, motorcycle use, and walking decreased between 2013 and 2017, while biking and working at home increased. Public transit use remained consistent.

Table 1.2 and Figure 1.1 present the reported travel times from the 2013 and 2017 ACS. As presented in Table 1.2 and Figure 1.1, the average travel time to work for all workers increased by 1.6 minutes, a 7% increase from the 2013 ACS.

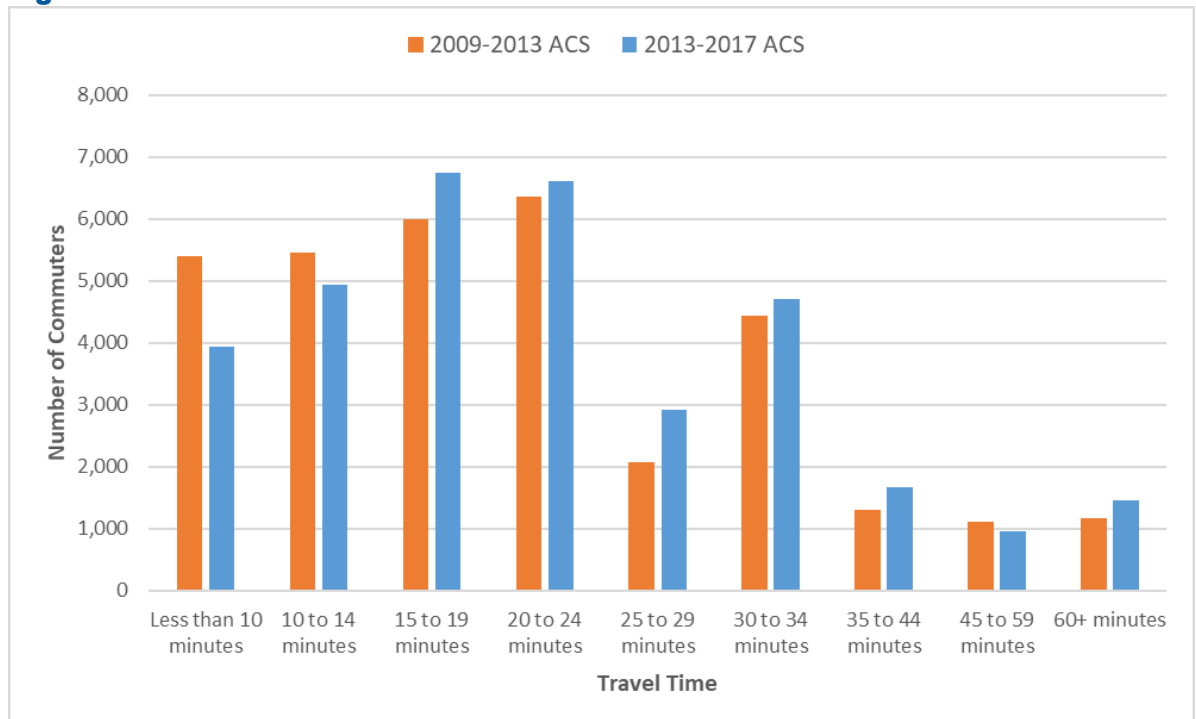


Table 1.2 Travel Time to Work

Travel Time	2009-2013 ACS		2013-2017 ACS	
	Number	Percent	Number	Percent
Did not work at home	33,312	-	33,879	-
Less than 10 minutes	5,397	16.2%	3,930	11.6%
10 to 14 minutes	5,463	16.4%	4,946	14.6%
15 to 19 minutes	5,996	18.0%	6,742	19.9%
20 to 24 minutes	6,363	19.1%	6,606	19.5%
25 to 29 minutes	2,065	6.2%	2,914	8.6%
30 to 34 minutes	4,430	13.3%	4,709	13.9%
35 to 44 minutes	1,299	3.9%	1,660	4.9%
45 to 59 minutes	1,099	3.3%	949	2.8%
60+ minutes	1,166	3.5%	1,457	4.3%
Mean Travel Time (minutes)	21.6		23.2	

Sources: U.S. Census American Community Survey (ACS) 5-year estimates

Figure 1.1 Travel Time to Work





As summarized in Table 1.2 and Figure 1.1, more commuters are experiencing longer travel times to work (15+ minutes) in 2017 than in 2013. A large majority of commuters, about 70%, spent less than 25 minutes commuting. Approximately 40% of commuters had a commute time of 20-25 minutes, indicating a presumably high amount of non-localized employment.

1.3 Roadway System

A hierarchy of streets provides access to and from residential, commercial, and industrial uses throughout the City and beyond. A route's design, including number of lanes needed, is determined by its functional classification and its projected traffic levels to achieve "safe and convenient movement at the development intensity anticipated in the Land Use Element." The study area and existing roadway functional classifications are presented in Figure 1.2.

1.3.1 State Freeways

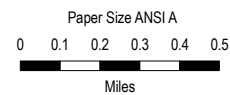
Controlled access facilities whose junctions are free of at-grade crossing with other road, railways or pedestrian pathway, and instead are served by interchange are classified as highways. Highways can either be toll or non-toll roads, with speed limits usually ranging from 60 to 70 mph. The following freeways service the surrounding Arroyo Grande community.

US 101 is a major north-south freeway facility that traverses along coastal California. US 101 serves as the principal inter-regional auto and truck travel route that connects San Luis Obispo County (and other portions of the Central Coast) with the San Francisco Bay Area to the north and the Los Angeles urban basin to the south. Within San Luis Obispo County, US 101 provides major connection between and through several cities. Through the "Five Cities" area of San Luis Obispo County, US 101 represents a major recreational as well as commuter travel route and has a general four-lane divided freeway cross-section with 65 mph posted speed limits. Within the City of Arroyo Grande, US 101 forms full-access interchanges with Oak Park Boulevard, Brisco Road/Halcyon Road and Grand Avenue/Branch Street as well as directional interchange access at Traffic Way and Fair Oaks Avenue.

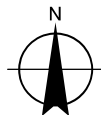
1.3.2 State Highways

Controlled access facilities whose junctions with cross streets are characterized by at grade intersections rather than interchanges are classified as highways. Highways can either be divided or undivided roadways, with speed limits usually ranging from 40 to 55 mph. The following highways service the surrounding Arroyo Grande community.

State Route 227 (SR 227) is a state highway route that runs predominantly in a north-south direction connecting the City of San Luis Obispo and the City of Arroyo Grande. SR 227 has a general two-lane highway type cross-section through most segments. SR 227 represents a significant parallel commuter route to US 101, as well as a recreational travel route serving the City of Arroyo Grande.



Map Projection: Lambert Conformal Conic
Horizontal Datum: North American 1983
Grid: NAD 1983 StatePlane California V FIPS 0405 Feet



**CITY OF ARROYO GRANDE
CIRCULATION ELEMENT UPDATE
BACKGROUND REPORT**

**ROADWAY FUNCTIONAL
CLASSIFICATION**

Project No. 11144936
Revision No. 4
Date 11/02/2020

FIGURE 1.2



1.3.3 Arterial Streets

Arterial facilities serve to connect areas of major activity within the urban area and function primarily to distribute cross-town traffic from freeways / highways to collector streets. The City's Standard Specifications and Engineering Standards define two categories: Primary Arterials and Arterials. Primary Arterials feature four lanes with a turn lane, and Arterials feature two lanes with a turn lane. Within the City, arterial streets are mostly two-lane facilities with maximum operating speeds ranging from 30 to 45 mph. In addition, arterial facilities generally have limited access to adjacent land uses. The following arterials are identified in the City's General Plan circulation system.

East Branch Street extends Grand Avenue to the east and serves as the City's main downtown commercial thoroughfare as well as a commuter connection between US 101 and SR 227. The duality of purpose of this three-lane arterial road with on-street parking does create safety and capacity concerns. The high volume of traffic (18,500 ADT) at times conflicts with the community's desire to have a pedestrian-friendly downtown.

Elm Street is a two-to-four-lane arterial road that runs north-south between State Route 1 (SR 1) in the south, and Brighton Avenue in the north. The four-lane portion of Elm Street is located between Ash Street and Grand Avenue.

Fair Oaks Avenue is a two-to-four-lane arterial road that provides important east-west connectivity across US 101 in the southern portion of the City. It extends from Traffic Way in the east to Elm Street in the west. East of Valley Road, Fair Oaks Avenue is not built to full arterial facility design standards.

Grand Avenue is a four-to-five-lane east-west Primary arterial through and within the City (two travel lanes per direction with a two-way left-turn median lane along several segments within the City). West of the City of Arroyo Grande, Grand Avenue extends into the City of Grover Beach and extends further west to the coastline. East of the full-access interchange with US 101, Grand Avenue becomes East Branch Street, which extends further east to Corbett Canyon Road and SR 227. Grand Avenue represents one of the "gateway" routes for recreational travelers headed westwards from US 101 to the Pacific coastline.

Halcyon Road is a two-to-four-lane north-south arterial road that connects between US 101 in the City of Arroyo Grande and State Route 1 (SR 1) in the Halcyon area located to the south of the City, with the southernmost terminus at Zenon Way. Between Grand Avenue and Fair Oaks Avenue, Halcyon Road is a four-lane primary arterial road. Halcyon Road, in conjunction with Brisco Road and El Camino Real, forms a full-access interchange with US 101, just north of the US 101/Grand Avenue interchange.

Oak Park Boulevard is two-to-five-lane north-south arterial road that runs along the northwestern City limit line, defining Arroyo Grande's boundary with the adjacent Cities of Grover Beach and Pismo Beach. Oak Park Boulevard forms a full-access interchange with US 101, and extends south of US 101 as a four-lane primary arterial into the City of Grover Beach, continuing south beyond The Pike as 22nd Street. North of the City of Arroyo Grande, Oak Park Boulevard forks into Old Oak Park Road, which extends north into County lands, and Noyes Road, which extends in a northeasterly direction to connect with SR 227.



Traffic Way is a two-to-four-lane arterial road serving local commercial developments. It extends from East Branch Street (SR 227) in the north and terminates into ramp junctions with US 101 to the south.

Valley Road is a two-lane arterial road that extends south from Fair Oaks Avenue, connecting to State Route 1 (SR 1) south of the City limits.

West Branch Street is a two-lane arterial road, and also a frontage road east of US 101 with both commercial and residential frontage. It extends from Oak Park Boulevard to West Branch Street, and provides important circulation and commercial accessibility east of the freeway.

1.3.4 Collectors

Collectors function as connector routes between local and arterial streets and provide access to residential, commercial, and industrial property. The City's Standard Specifications and Engineering Standards define two categories: Collectors and Residential Collectors. Collectors feature turn lanes at intersections and may feature a two-way left turn lane (TWLTL), while residential collectors do not have turn lanes.

James Way is a predominantly-east-west two-lane road serving as a residential collector between Oak Park Boulevard and Tally Ho Road.

Printz Road is a predominantly-east-west two-lane collector that runs just north of the City's northern limits. Printz Road connects between SR 227 and Noyes Road, and provides access for several small local roads.

The Pike is a two-lane east-west collector. It runs between 13th Street and Halcyon Road. A portion of The Pike runs adjacent to part of the southern City limits.

Rancho Parkway is a two-lane north-south collector that runs between West Branch Street and James Way. Rancho Parkway provides access to the large shopping centers along W Branch Street, including the Walmart, and residential areas north.

Ash Street, Branch Mill Road, Brisco Road, Courtland Street, East Cherry Avenue, El Camino Mercado, Farroll Avenue, Huasna Road, Mason Street, North Corbett Canyon Road, Rodeo Drive, and Tally Ho Road are other important roadways serving Residential Collector functions within the City.

1.3.5 Local Streets

Local streets provide direct access to abutting properties and allow for localized movement of traffic. Local streets are characterized by low daily traffic volumes and low travel speeds. All roadways not identified in the Roadway Functional Classifications map (Figure 1.2) as freeways, highways, arterials, or collectors are designated as local streets.



2. Technical Analysis Methodologies and Parameters

The following section outlines the analysis parameters and methodologies that will be used to quantify the measures of circulation system effectiveness.

2.1 Vehicle Miles Traveled (VMT)

SB 743 was signed into law in 2013, with the intent to better align CEQA practices with statewide sustainability goals related to infill development, active transportation, and greenhouse gas (GHG) emissions. SB 743 required the Governor's Office of Planning and Research (OPR) to identify new metrics for identifying and mitigating transportation impacts within CEQA. Among the changes to the State CEQA Guidelines was removal of vehicle delay and Level of Service (LOS) from consideration as environmental impacts under CEQA. For land use projects, OPR identified Vehicle Miles Traveled (VMT) per capita (for residential), VMT per employee (for office), and net VMT (for retail) as new metrics for transportation analysis. For transportation projects, lead agencies for roadway capacity projects have discretion, consistent with CEQA and planning requirements, to choose which methodology to use to evaluate transportation impacts.

2.1.1 VMT Methodologies

Various methodologies are currently available to calculate VMT. Travel demand models, sketch models or planning tools, spreadsheet models, research, and data can all be used to calculate and estimate VMT. GHD is investigating local VMT further and will update this section based on the results of additional analysis and validation.

Boundary-Based and Project-Based VMT

Not all VMT is measured equally, and not all models are equally equipped to assess VMT. Boundary-based VMT is calculated by multiplying traffic volumes on all roadway segments in a study area by each segment's length. This type of VMT is easily calculated, but is not adequate for CEQA analysis under SB 743. Project-based (or tour-based) VMT is more challenging to calculate, as it requires estimating or measuring the length of individual trips by purpose, where trips cross study area and jurisdictional boundaries.

SB 743 generally requires project-based VMT to be estimated, since boundary-based VMT approaches do not account for the full lengths of trips that leave a particular study area (whether that be a City, County, or State). For this reason, regional travel demand models, "big data", and household travel surveys that are not limited by local jurisdictional boundaries are the preferred tools to estimate VMT under SB 743.

Published Data

The San Luis Obispo Council of Governments' Staff Report dated October 2, 2019 states baseline and recommended VMT for incorporated Cities and County communities, based on the regional Travel Demand Model. This information is presented below.



- The Baseline Regional VMT per capita (SLOCOG 2018 results) is 13.43
 - *Recommended threshold is 15% below baseline at 11.42*
- The Baseline Regional VMT per employee (SLOCOG 2018 results) is 8.59
 - *Recommended threshold is at 15% below baseline at 7.3*
- No baseline or threshold set for Retail.
- The Staff Report shows an average daily VMT per capita for Arroyo Grande of approximately 9.5 for residents, and 7 for employees.

2.1.2 VMT Policies

With the adopted CEQA Guidelines (revised, January 20, 2016), transportation impacts are to be evaluated based on a project's effect on vehicle miles travelled (VMT). The new guidelines became effective statewide on July 1, 2020. GHD has assisted the City in establishing a VMT Policy, which the City has adopted on September 8, 2020, and establishes the thresholds of significance and screening criteria for VMT. Per the City's Policy, and consistent with OPR's *Technical Advisory on Evaluating Transportation Impacts in CEQA*, the target for VMT reduction is 15% below baseline for residential and office projects, and no net increase in total regional VMT for retail, industrial, and other projects. The City's baseline VMT and significance thresholds are listed below.

- Baseline Residential VMT per capita: 20.2
 - 15% reduction in baseline VMT per capita: 17.2
- Baseline Office VMT per employee: 14.0
 - 15% reduction in baseline VMT per employee: 11.9
- Retail, Industrial, & Other: No Net increase in total regional VMT
- Mixed-Use: Evaluate components independently considering internal capture, and compare to the corresponding threshold. Alternatively, analyze only the project's the dominant use.
- Redevelopment: If a project leads to a net overall increase in VMT, then the thresholds above apply.
- A general plan, area plan, or community plan may have a significant impact on transportation if proposed new residential, office, or retail land uses would in aggregate exceed the respective thresholds recommended above.

Screening Criteria

The City has also identified screening thresholds for projects that are presumed to be less than significant impact. The following are examples (not inclusive) of land use and transportation projects that are identified exempt by OPR, therefore should not require VMT analysis:

- A)** Small Projects – less than 110 vehicle trips per day
- B)** Projects that are within ½ mile of a transit stop at the intersection of two transit routes with 15 minute headways or less, unless the project:



- i) Has floor-area-ratio of less than 0.75;
 - ii) Includes more parking than required by the City's zoning code;
 - iii) Is inconsistent with the region's Sustainable Communities Strategy, City Zoning Code, or City Land Use Policies, including the City's General Plan or any applicable Specific Plan; or
 - iv) Replaces affordable housing with a smaller number of moderate- or high-income residential units.
- C)** Local-serving retail projects, which are generally defined as projects within the City that are less than 50,000 square feet in size. The determination of whether a retail project is local-serving or regional-serving shall be made by City staff on a case by case basis to determine whether they are likely to attract regional trips. For instance, auto dealerships and specialty retailers may propose less than 50,000 square feet of retail space but be deemed regionally serving.
- D)** Transportation projects that are expected to reduce or have no impact on VMT will not require a quantitative analysis. These projects include, but are not limited to, road diets, roundabouts, roadway rehabilitation and maintenance, safety improvements that do not substantially increase auto capacity, installation or reconfiguration of lanes not for through traffic, timing of traffic signals, removal of on-street parking, addition or enhancement of pedestrian, bicycle and transit facilities and services.

2.2 Level of Service & Traffic Operations

Although VMT will be used to determine CEQA transportation impacts, the City intends, by policy, to continue to use Level of Service as a metric to evaluate traffic operations to assess need, type, and timing of transportation improvements.

Traffic operations were quantified through the determination of "Level of Service" (LOS). Level of Service is a qualitative measure of traffic operating conditions, whereby a letter grade "A" through "F" is assigned to an intersection, or roadway segment, representing progressively worsening traffic conditions. LOS "A" represents free-flow operating conditions and LOS "F" represents over-capacity conditions. Levels of Service was calculated for all intersection control types, and freeway ramp merge and diverge sections using the methods documented in the Transportation Research Board Publication *Highway Capacity Manual, Sixth Edition, A Guide for Multimodal Mobility Analysis, 2016* (HCM 6).

2.2.1 Intersection Operations

The Synchro 10 (Trafficware) software program was used to implement the HCM 6 analysis methodologies for signalized and stop-controlled intersections. Intersection Level of Service (LOS) was calculated for all control types using the methods documented in HCM 6, excluding the clustered intersections and locations with non-NEMA-standard phasing, due to limitations within HCM 6 methodology. The specific locations include the Brisco Road / US 101 partial interchange and Brisco / El Camino Real, which used Synchro Timing methodology to determine intersection



delay. For signalized or all-way stop-controlled (AWSC) intersections, an LOS determination is based on the calculated averaged delay for all approaches and movements. For two-way or side-street stop controlled (TWSC) intersections, an LOS determination is based upon the calculated average delay for all movements of the worst performing approach. The vehicular-based LOS criteria for different types of intersection controls are presented in Table 2.1.

2.2.2 Traffic Signal Warrant Analysis

A supplemental traffic signal “warrant” analysis was completed. The term “signal warrants” refers to the list of established criteria used by Caltrans and other public agencies to quantitatively justify or ascertain the need for installation of a traffic signal at an otherwise unsignalized intersection. This study employed the signal warrant criteria presented in the latest edition of the *2014 California Manual on Uniform Traffic Control Devices (2014 CA MUTCD, Revision 5)*. The signal warrant criteria are based upon several factors including volume of vehicular and pedestrian traffic, frequency of accidents, location of school areas etc. The *CA MUTCD* indicates that the installation of a traffic signal should be considered if one or more of the signal warrants are met. The ultimate decision to signalize an intersection should be determined after careful analysis of all intersection and area characteristics.

This traffic operations analysis specifically utilized the Peak-Hour-Volume based Warrant 3 as one representative type of traffic signal warrant analysis. Signal warrant analyses were only conducted for non-signalized intersections which are projected to operate beyond the LOS thresholds. Section 3.1 of this Report further discusses which intersections are evaluated for the peak hour signal warrant. The Signal Warrant analysis worksheets are provided in Appendix C.



Table 2.1 Level of Service (LOS) Criteria for Intersections

Level of Service	Type of Flow	Delay	Maneuverability	Stopped Delay/Vehicle (sec)	
				Signalized	Un-signalized
A	Stable Flow	Very slight delay. Progression is very favorable, with most vehicles arriving during the green phase not stopping at all.	Turning movements are easily made, and nearly all drivers find freedom of operation.	≤10.0	≤10.0
B	Stable Flow	Good progression and/or short cycle lengths. More vehicles stop than for LOS A, causing higher levels of average delay.	Vehicle platoons are formed. Many drivers begin to feel somewhat restricted within groups of vehicles.	>10.0 and ≤20.0	>10.0 and ≤15.0
C	Stable Flow	Higher delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant, although many still pass through the intersection without stopping.	Back-ups may develop behind turning vehicles. Most drivers feel somewhat restricted	>20.0 and ≤35.0	>15.0 and ≤25.0
D	Approaching Unstable Flow	The influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high volume-to-capacity ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.	Maneuverability is severely limited during short periods due to temporary back-ups.	>35.0 and ≤55.0	>25.0 and ≤35.0
E	Unstable Flow	Generally considered to be the limit of acceptable delay. Indicative of poor progression, long cycle lengths, and high volume-to-capacity ratios. Individual cycle failures are frequent occurrences.	There are typically long queues of vehicles waiting upstream of the intersection.	>55.0 and ≤80.0	>35.0 and ≤50.0
F	Forced Flow	Generally considered to be unacceptable to most drivers. Often occurs with over saturation. May also occur at high volume-to-capacity ratios. There are many individual cycle failures. Poor progression and long cycle lengths may also be major contributing factors.	Jammed conditions. Back-ups from other locations restrict or prevent movement. Volumes may vary widely, depending principally on the downstream back-up conditions.	>80.0	>50.0

Source: *Highway Capacity Manual Sixth Edition, A Guide for Multimodal Mobility Analysis*, 2016 (HCM 6)



2.2.3 Roadway Segment Operations

Existing roadway LOS was determined on a daily basis with counts collected on weekdays in November, 2019. The LOS for 37 roadway segments throughout Arroyo Grande were established using the capacities in Table 2.2

Table 2.2 Roadway Segment ADT Operational Thresholds

Roadway Type	Average Daily Traffic (ADT) – Total of Both Directions				
	A	B	C	D	E
Four Lane Freeway	28,000	43,200	61,600	74,400	80,000
Two Lane Highway	2,400	4,800	7,900	13,500	22,900
Four Lane (With Turning Lane) Arterial	22,000	25,000	29,000	33,000	36,000
Four Lane (No Turning Lane) Arterial	18,000	21,000	24,000	27,000	30,000
Two Lane (With Turning Lane) Arterial	11,000	12,500	14,500	16,500	18,000
Two Lane (No Turning Lane) Arterial	9,000	10,500	12,000	13,500	15,000
Two Lane Collector	6,000	7,500	9,000	10,500	12,000

Note: All volumes are approximate and assume ideal roadway characteristics. Actual threshold volumes for each Level of Service listed above may vary depending on a variety of factors including (but not limited to) roadway curvature and grade, intersection or interchange spacing, driveway spacing, percentage of trucks and other heavy vehicles, travel lane widths, signal timing characteristics, on-street parking, volume of cross traffic and pedestrians, etc.

2.2.4 Technical Analysis Parameters

This evaluation of Existing conditions incorporates appropriate heavy vehicle adjustment factors, peak hour factors, and signal lost time factors and reports the resulting operational analysis as estimated using the HCM 6 based analysis methodologies.

Table 2.3 presents the technical parameters that were utilized for the evaluation of the study intersections and ramp segments for the analysis scenarios. All parameters not listed should be assumed as default values or calculated based on parameters listed.

Table 2.3 Technical Analysis Parameters

	Technical Parameter	Assumption
1	Intersection Peak Hour Factor	Based on counts, intersection overall
2	Intersection Heavy Vehicle %	Based on counts, intersection overall, minimum 2%
3	Pedestrian & Bicycle Volumes	Based on counts
4	Grades	2% or less, level terrain
5	Signal Timings	Based on Caltrans and City signal timing plans

2.2.5 Level of Service Policies

City of Arroyo Grande

The City of Arroyo Grande's current LOS policy is identified in the General Plan Circulation Element (October 2001), and specifies the following minimum LOS standards for all streets and intersections within the City's jurisdiction:

- CT2. *Attain and maintain Level of Service (LOS)'C' or better on all streets and controlled intersections.*



CT2-1 Where deficiencies exist, mitigate to an LOS 'D' at a minimum and plan improvement to achieve LOS 'C' (Los 'E' or 'F' unacceptable = significant adverse impact unless Statement of Overriding Considerations or CEQA Findings approved). The design and funding for such planned improvements shall be sufficiently definite to enable construction within a reasonable period of time.

Based on the current City policy, **LOS C** will be utilized as the acceptable threshold for the evaluation of intersection and roadway operations in this report.

It should be noted however, as part of the update to the Circulation Element, the City is proposing to change the LOS policy to the following:

- CT3. Strive to attain and maintain automobile Level of Service LOS 'D' or better on all street segments and controlled intersections.*
- CT3-1. New development that is projected to degrade conditions to a LOS E or below or further exacerbate conditions already below LOS D should be conditioned to make transportation improvements that offset the level degradation. Improvements to non-automobile modes of transportation at the same segment or intersection may also be considered as an offset to degradation of automobile LOS.*

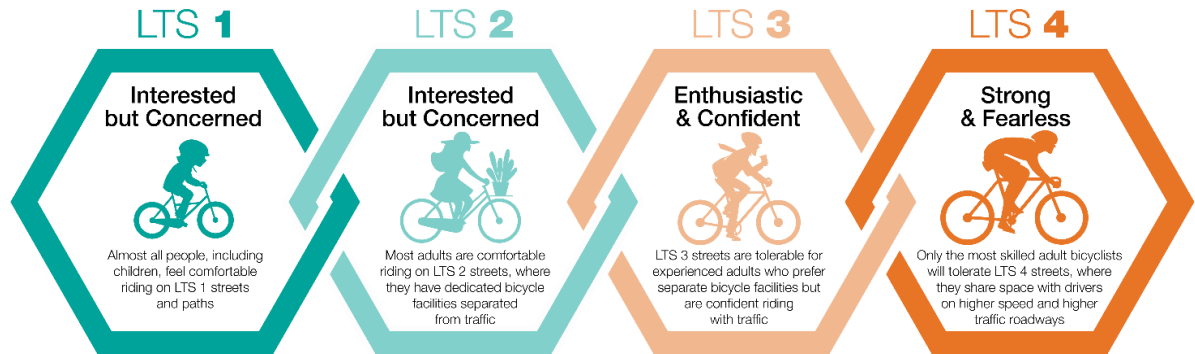
If the City decides to adopt this change in LOS policy to **LOS D** as the threshold, this will change the findings of deficient locations identified within this report.

2.3 Bicycle Level of Traffic Stress

Bicycle operations are quantified through a determination of "Level of Traffic Stress" (LTS). LTS must be calculated for roadway segments and intersections using the methods documented in the paper, *Low Stress Bicycling and Network Connectivity*, Mineta Transportation Institute, Report 11-19, May 2012. Bicycle LTS quantifies the stress level of a given roadway segment by considering a variety of criteria, including street width (number of lanes), speed limit or prevailing speed, presence and width of bike lanes, and the presence and width of parking lanes. Bicycle LTS is a suitability rating system of the safety, comfort, and convenience of transportation facilities from the perspective of the user. Moreover, the methodology allows planning practitioners to assess gaps in connectivity that may discourage active users from traversing roadways.

Bicycle LTS scores roadway facilities into one of four classifications or ratings for measuring the effects of traffic-based stress on bicycle riders, with 1 being the lowest stress or most comfortable, and 4 being the highest stress or least comfortable. Generally, LTS score of 1 indicates the facility provides a traffic stress tolerable by most children and less experienced riders, such as multi-use paths that are separated from motorized traffic. An LTS score of 4 indicates a stress level tolerable by only the most experienced cyclists who are comfortable with high-volume and high-speed, mixed traffic environments. The figure below presents the four scoring classifications, subsequent tables show the criteria associated with determining the LTS score.

Figure 2.1 Bicycle Level of Traffic Stress (LTS) Definitions



2.3.1 Bicycle LTS Criteria

The Bicycle LTS methodology is comprised of three scoring categories: roadway segments, intersection approaches where right turn lanes exist, and unsignalized intersection crossings. The Bicycle LTS scoring criteria for intersection approaches where right turn lanes exist, for roadway segments with mixed traffic, and for roadway segments where bike lanes exist are provided in the Tables below.

Table 2.4 LTS Criteria for Intersection Approaches with Right Turn Lanes

Right-turn Lane Configuration	Right-turn lane length (ft)	Bike Lane Approach Alignment ²	Vehicle Turning Speed (mph) ³	LTS Score
With Pocket Bike Lane				
Single	≤ 150	Straight	≤ 15	LTS 2
Single	>150	Straight	≤ 20	LTS 3
Single	Any	Left	≤ 15	LTS 3
Single ¹ or Dual Exclusive/Shared	Any	Any	Any	LTS 4
Without a Pocket Bike Lane				
Single	≤ 75		≤ 15	(no effect on LTS)
Single	75-150		≤ 15	LTS 3
Otherwise				LTS 4

¹ Any other single right turn lane configuration not shown above.

² The right turn criteria are based on whether the bike lane stays straight or shifts to the left.

³ This is vehicle speed at the corner, not the speed crossing the bike lane. Corner radius can also be used as a proxy for turning speeds.

⁴ There is no effect on LTS if the bikeway is physically separated from traffic, as on a shared-use path.



Table 2.5 LTS Criteria for Mixed Traffic

	Street Width		
Speed Limit	2-3 lanes	4-5 lanes	6+ lanes
Up to 25 mph	LTS 1 or 2 ¹	LTS 3	LTS 4
30 mph	LTS 2 or 3 ¹	LTS 4	LTS 4
35+ mph	LTS 4	LTS 4	LTS 4

¹Use lower value for streets without marked centerlines or classified as residential and with fewer than 3 lanes; use higher value otherwise.

Table 2.6 LTS Criteria for Bike Lanes

Lane Factor	LTS Score			
	LTS 1	LTS 2	LTS 3	LTS 4
Alongside a Parking Lane				
Street width (through lanes per direction)	1	(no effect)	2 or more	(no effect)
Sum of bike lane and parking lane width (includes marked buffer and paved gutter)	15 ft. or more	14 or 14.5 ft. ²	13.5 ft. or less	(no effect)
Speed limit or prevailing speed	25 mph or less	30 mph	35 mph	40 mph or more
Bike lane blockage (typically applies in commercial areas)	rare	(no effect)	frequent	(no effect)
Not Alongside a Parking Lane				
Street width (through lanes per direction)	1	2, if directions are separated by a raised median	more than 2, or 2 without a separating median	(no effect)
Bike Lane Width (includes marked buffer and paved gutter)	6 ft. or more	5.5 ft. or less	(no effect)	(no effect)
Speed limit or prevailing speed	30 mph or less	(no effect)	35 mph	40 mph or more
Bike lane blockage (typically applies in commercial areas)	rare	(no effect)	frequent	(no effect)

Note: ¹ (no effect) = factor does not trigger an increase to this level of traffic stress.

² If speed limit < 25 mph or Class = residential, then any width is acceptable for LTS 2.

2.3.2 Bicycle LTS Policy

As part of the update to the Circulation Element, the City is proposing to adopt the following Policy related to thresholds for Bicycle LTS:



Inconsistency Criteria: Project causes bicycle level of traffic stress to exceed or exacerbates approaches or crossings that already exceed LTS 3 at intersections with Class II or Class III facilities.

Inconsistency Criteria: Project causes bicycle level of traffic stress to exceed or exacerbates segments that already exceed LTS 3 on Class II or Class III routes.

This Report contains the analysis of Bicycle LTS of arterial and collector roadways, and approaches of major intersections to review current bicycle connectivity throughout the City.

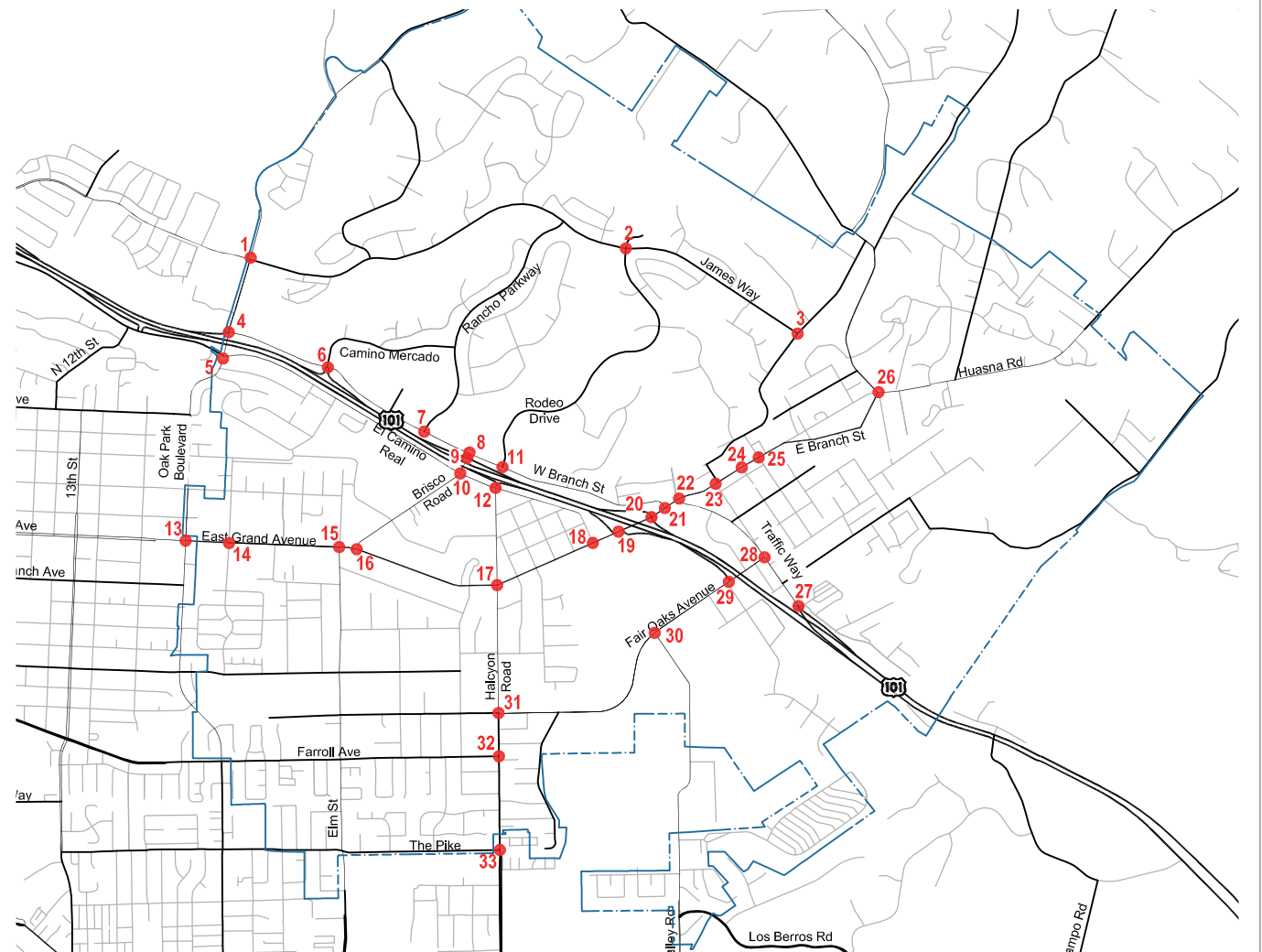
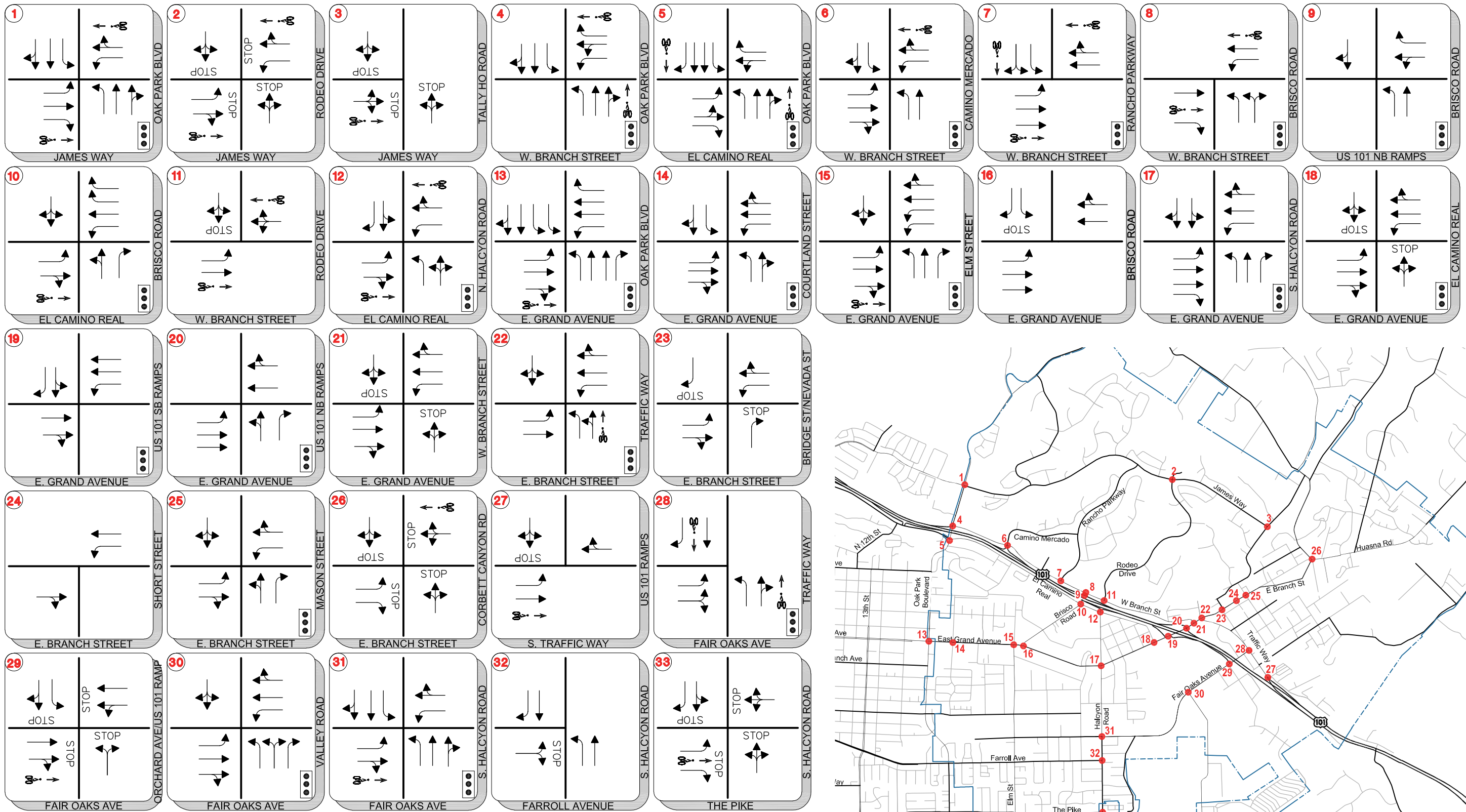


3. Existing Traffic Operations

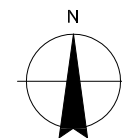
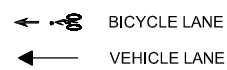
Intersection facilities were evaluated on an AM and PM peak hour basis using peak hour turning movement counts collected on Thursday, November 14, 2019 and Thursday, November 21, 2019. These counts were collected while school was in session. The AM peak hour is defined as the one continuous hour of peak traffic flow counted between 7:00 AM and 9:00 AM, and the PM peak hour is defined as the one continuous hour of peak traffic flow counted between 4:00 PM and 6:00 PM under typical weekday conditions.

3.1 Existing Conditions Intersection Operations & Deficiencies

Existing weekday AM and PM peak hour intersection traffic operations were quantified using existing traffic volumes, lane geometrics, and intersection controls. Figure 3.1 presents the existing lane geometrics and intersection control types that are currently in place at the study intersections. Figure 3.2 presents the existing weekday AM and PM peak hour volumes at the study intersections.



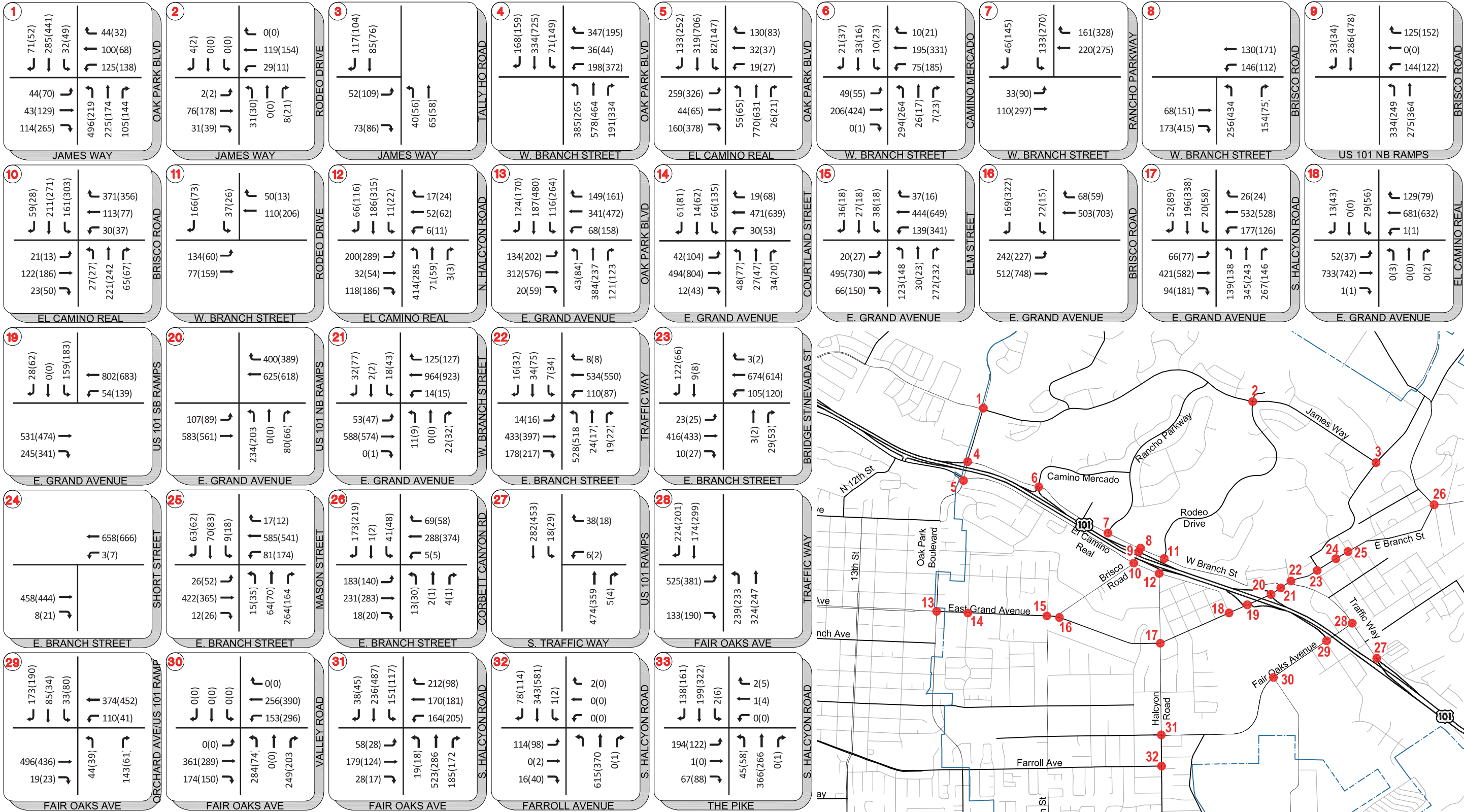
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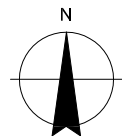
City of Arroyo Grande
CIRCULATION ELEMENT UPDATE
BACKGROUND REPORT
EXISTING LANE GEOMETRICS
AND CONTROL

Project No. 11144936
Report No. R1584RPT007
Date January 2020

FIGURE 3.1



LEGEND:
 XX - AM PEAK HOUR TRAFFIC VOLUMES
 (XX) - PM PEAK HOUR TRAFFIC VOLUMES



City of Arroyo Grande
 CIRCULATION ELEMENT UPDATE
 BACKGROUND REPORT
 EXISTING PEAK HOUR
 TRAFFIC VOLUMES

Project No. 11144936
 Report No. R1584RPT007
 Date January 2020

FIGURE 3.2



Table 3.1 presents a summary of the LOS and delay (in sec/veh) at each study intersection under Existing conditions.

Table 3.1 Existing Conditions Intersection Operations

#	Intersection	Control Type ^{1,2}	Target LOS	AM Peak		PM Peak		Warrant 3 Met?
				Delay	LOS	Delay	LOS	
1	James Way & Oak Park Blvd	Signal	C	29.4	C	18.6	B	-
2	James Way & Rodeo Dr	AWSC	C	8.3	A	9.1	A	-
3	James Way & Tally Ho Rd	AWSC	C	8.6	A	8.8	A	-
4	W Branch St / US 101 NB Ramp & Oak Park Ave	Signal	C	8.3	A	10.6	B	-
5	El Camino Real & Oak Park Ave	Signal	C	12.1	B	13.4	B	-
6	W Branch St & Camino Mercado / US 101 NB Ramps	Signal	C	15.1	B	17.4	B	-
7	W Branch St & Rancho Parkway	Signal	C	6.4	A	8.3	A	-
8	W Branch St & Brisco Rd	Signal	C	12.0	B	22.9	C	-
9	US 101 NB Ramps & Brisco Rd	Signal	C	41.2	D	51.6	D	-
10	El Camino Real & Brisco Rd	Signal	C	43.8	D	51.8	D	-
11	W Branch St & Rodeo Dr	TWSC	C	11.8	B	10.8	B	-
12	El Camino Real & US 101 SB Ramps / Halcyon Rd	Signal	C	19.9	B	23.1	C	-
13	E Grand Ave & Oak Park Blvd	Signal	C	16.2	B	22.9	C	-
14	E Grand Ave & Courtland St	Signal	C	9.7	A	11.2	B	-
15	E Grand Ave & Elm St	Signal	C	9.6	A	12.2	B	-
16	E Grand Ave & Brisco Rd	TWSC	C	12.8	B	18.8	C	-
17	E Grand Ave & Halcyon Rd	Signal	C	23.2	C	23.6	C	-
18	E Grand Ave & El Camino Real	TWSC	C	50.6	F	41.1	E	No
19	E Grand Ave & US 101 SB Ramps	Signal	C	9.7	A	13.2	B	-
20	E Grand Ave & US 101 NB Ramps	Signal	C	11.3	B	28.0	C	-
21	E Grand Ave / E Branch St & W Branch St	TWSC	C	104.0	F	111.5	F	Yes
22	E Branch St & Wesley St / Traffic Way	Signal	C	17.7	B	17.1	B	-
23	E Branch St & Nevada St / Bridge St	TWSC	C	42.8	E	23.0	C	Yes
24	E Branch St & Short St	none	C	-	-	-	-	-
25	E Branch St & Mason St	Signal	C	11.3	B	11.1	B	-
26	E Branch St / Huasna Rd & Corbett Canton Rd / Stanley	AWSC	C	21.2	C	20.3	C	-
27	S Traffic Way & Traffic Way / US 101 Ramps	TWSC	C	11.2	B	12.8	B	-
28	Fair Oaks Ave & Traffic Way	Signal	C	13.5	B	12.7	B	-
29	Fair Oaks Ave & US 101 SB Ramp / Orchard Ave	AWSC	C	39.8	E	16.9	C	Yes
30	Fair Oaks Ave & Valley Rd	Signal	C	12.2	B	8.1	A	-
31	Fair Oaks Ave & Halcyon Rd	Signal	C	54.2	D	17.0	B	-
32	Farroll Ave & Halcyon Rd	TWSC	C	109.0	F	37.9	E	No
33	The Pike & Halcyon Rd	AWSC	C	22.3	C	13.3	B	-

Notes:

1. AWSC = All Way Stop Control; TWSC = Two Way Stop Control; RNDT = Roundabout
2. LOS = Delay based on worst minor street approach for TWSC intersections, average of all approaches for AWSC,
3. Warrant = Based on California MUTCD Warrant 3
4. **Bold** = Unacceptable Conditions
5. OVR = Delay over 300 seconds



As presented in Table 3.1, the following study intersections operate at unacceptable LOS during the AM or PM peak hours under Existing conditions:

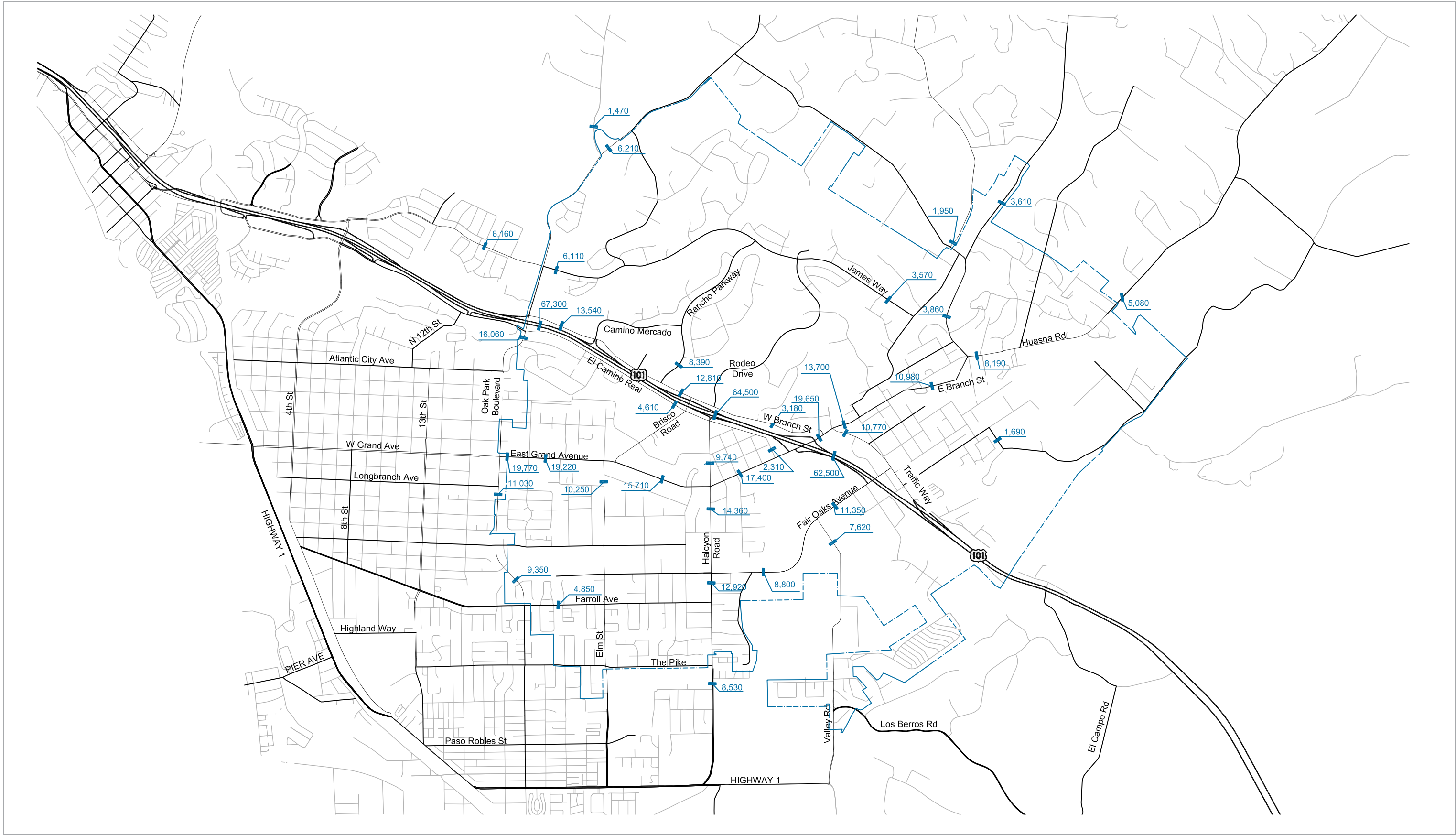
- 9 – US 101 Northbound Ramps & Brisco Road (at LOS D)
- 10 – El Camino Real & Brisco Road (at LOS D)
- 18 – East Grand Avenue & El Camino Real
- 21 – East Grand Avenue / East Branch Street & West Branch Street
- 23 – East branch Street & Nevada Street / Bridge Street
- 29 – Fair Oaks Avenue & US 101 Southbound Ramp / Orchard Avenue
- 31 – Fair Oaks Avenue & Halcyon Road (at LOS D)
- 32 – Farroll Avenue & Halcyon Road

Of the locations listed above, several are unsignalized intersections that meet peak hour traffic signal warrant criteria, as follows:

- 21 – East Grand Avenue / East Branch Street & West Branch Street
- 23 – East branch Street & Nevada Street / Bridge Street
- 29 – Fair Oaks Avenue & US 101 Southbound Ramp / Orchard Avenue

3.2 Existing Conditions Roadway Operations

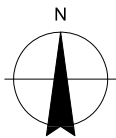
New daily roadway traffic counts were taken in November 2019, two weekday counts at each location, and compared to daily roadway counts taken in May 2012. Figure 3.3 presents the existing daily roadway volumes at the study intersections.



LEGEND:

X,XXX - Average Daily Traffic Count Location (2019)

- Arroyo Grande City Limit



City of Arroyo Grande
CIRCULATION ELEMENT UPDATE
BACKGROUND REPORT
EXISTING DAILY ROADWAY
TRAFFIC VOLUMES

Project No. 11144936
Report No. R1584RPT007
Date February 2020

FIGURE 3.3



Table 3.2 presents a summary of the prior 2012 average daily traffic (ADT) and current 2019 roadway volumes and LOS at each roadway segment.

Table 3.2 Existing Conditions Roadway Operations

#	Street	Segment	Facility Type	2012 Past ADT	2019	
					Average ADT	LOS
1	E. Grand Avenue	west of Courtland Street	Four Lane (With Turning Lane) Arterial	21,630	19,770	A
2	E. Grand Avenue	east of Courtland Street	Four Lane (With Turning Lane) Arterial	18,600	19,220	A
3	E. Grand Avenue	west of Halcyon Road	Four Lane (With Turning Lane) Arterial	18,630	15,710	A
4	E. Grand Avenue	east of Halcyon Road	Four Lane (With Turning Lane) Arterial	19,610	17,400	A
5	E. Grand Avenue	east of US 101 NB Ramps	Four Lane (With Turning Lane) Arterial	24,090	19,650	A
6	East Branch Street	east of Traffic Way	Two Lane (With Turning Lane) Arterial	18,490	13,700	C
7	East Branch Street	east of Crown Hill	Two Lane (No Turning Lane) Arterial	11,410	10,980	C
8	Huasna Road	east of SR 227	Two Lane Collector	6,600	8,190	C
9	Huasna Road	east of City Limits	Two Lane Collector	-	5,080	A
10	SR 227	south of Tally Ho Road	Two Lane Highway	3,300	3,860	B
11	SR 227	south of Royal Oak Place	Two Lane Highway	1,880	1,950	A
12	Corbert Canyon Road	north of SR 227	Two Lane (No Turning Lane) Arterial	1,500	3,610	A
13	North Halcyon Road	north of E. Grand Avenue	Two Lane (No Turning Lane) Arterial	8,900	9,740	B
14	Elm Street	south of E. Grand Avenue	Four Lane (With Turning Lane) Arterial	-	10,250	A
15	El Camino Real	north of E. Grand Avenue	Two Lane (With Turning Lane) Arterial	-	2,310	A
16	S. Halcyon Road	south of E. Grand Avenue	Four Lane (No Turning Lane) Arterial	17,280	14,360	A
17	S. Halcyon Road	north of Farroll Avenue	Four Lane (With Turning Lane) Arterial	-	12,920	A
18	S. Halcyon Road	south of The Pike	Two Lane (With Turning Lane) Arterial	6,700	8,530	A
19	Fair Oaks Avenue	east of S. Halcyon Road	Two Lane (With Turning Lane) Arterial	11,220	8,800	A
20	Fair Oaks Avenue	east of Valley Road	Four Lane (No Turning Lane) Arterial	8,800	11,350	A
21	Valley Road	south of Fair Oaks Avenue	Two Lane (No Turning Lane) Arterial	5,900	7,620	A
22	Traffic Way	south of Branch Street	Four Lane (No Turning Lane) Arterial	13,180	10,770	A
23	West Branch Street	north of E. Grand Avenue	Two Lane (With Turning Lane) Arterial	3,900	3,180	A
24	West Branch Street	west of Brisco Road	Four Lane (With Turning Lane) Arterial	13,900	12,810	A
25	West Branch Street	east of Oak Park Boulevard	Two Lane (With Turning Lane) Arterial	12,000	13,540	C
26	Rancho Pkwy.	north of W. Branch Street	Two Lane (With Turning Lane) Arterial	8,400	8,390	A
27	Old Oak Park	north of Noyes Road	Two Lane (No Turning Lane) Arterial	4,090	1,470	A
28	Noyes Road	north of Old Oak Park	Two Lane (No Turning Lane) Arterial	4,960	6,210	A
29	Oak Park Boulevard	south of El Camino Real	Four Lane (No Turning Lane) Arterial	20,400	16,060	A
30	Oak Park Boulevard	south of E. Grand Avenue	Four Lane (With Turning Lane) Arterial	12,490	11,030	A
31	Oak Park Boulevard	north of Farroll Avenue	Four Lane (With Turning Lane) Arterial	8,850	9,350	A
32	James Way	west of Oak Park Boulevard	Four Lane (With Turning Lane) Arterial	7,710	6,160	A
33	James Way	east of Oak Park Boulevard	Two Lane (No Turning Lane) Arterial	6,340	6,110	A
34	James Way	west of Talley Ho Road	Two Lane Collector	3,470	3,570	A
35	El Camino Real	west of Brisco Road	Two Lane (No Turning Lane) Arterial	4,630	4,610	A
36	Farroll Avenue	east of Oak Park Street	Two Lane Collector	4,820	4,850	A
37	Branch Mill Road	east of E. Cherry Avenue	Two Lane Collector	1,710	1,690	A

As presented in Table 3.2, all study roadway segments operate at acceptable LOS under Existing Conditions. There are no roadway segment deficiencies at 2019 count locations.



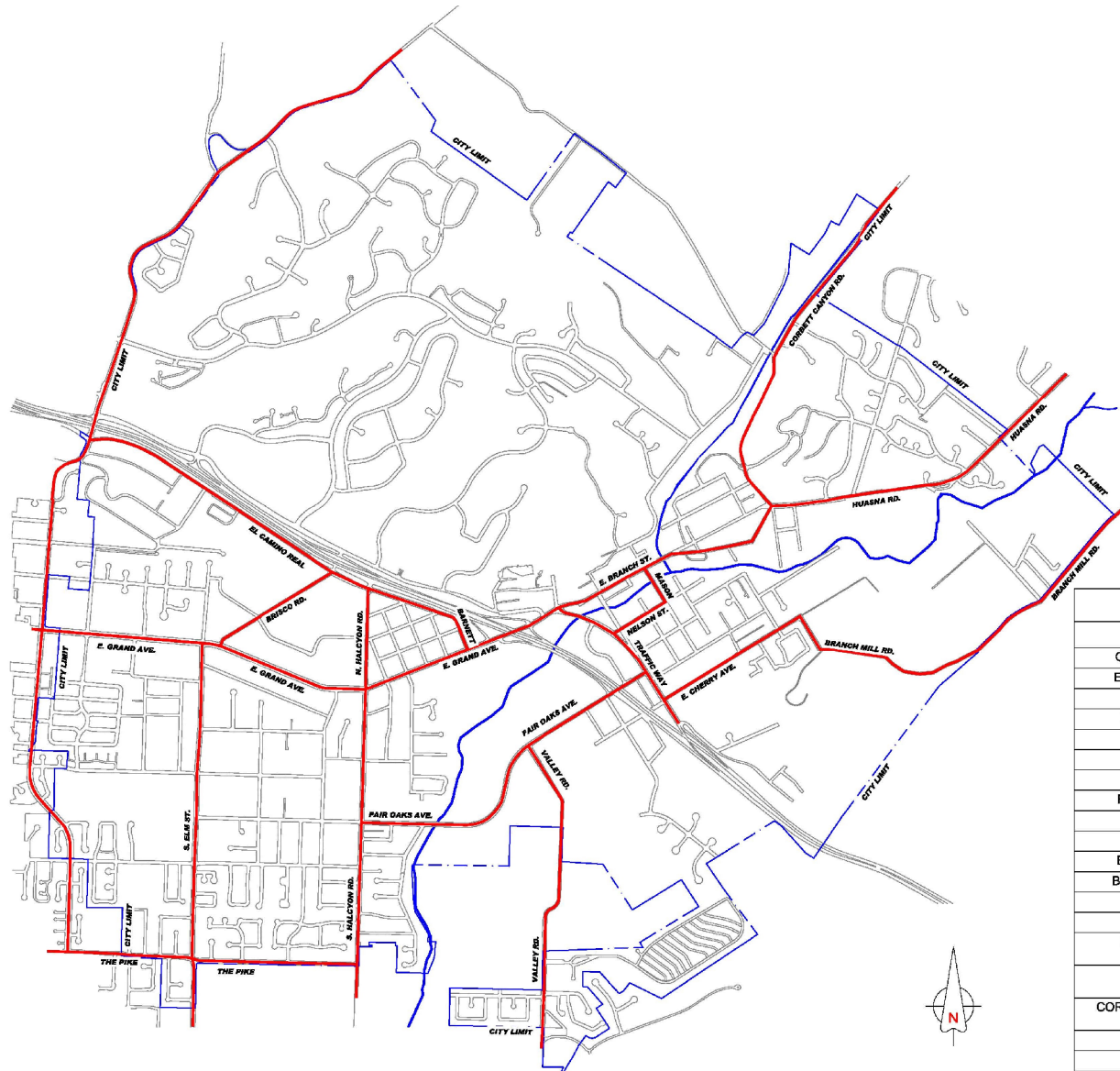
3.3 Truck Routes

Truck routes are intended to carry heavyweight commercial, industrial, and agricultural vehicles through and around the community with minimum disruption to local auto traffic and minimum annoyance to residential areas. The 1982 Surface Transportation Assistance Act set standards for large trucks, known as STAA trucks, and set minimum truck sizes that states must allow on the National Network including the Interstate System and other defined routes. The US 101 highway through the City of Arroyo Grande and statewide is a National Truck Network. California State Route 1 is a California Legal Truck Network, north of City of Arroyo Grande passing through the San Luis Obispo County. The last truck route to access Arroyo Grande is SR 227. SR 227 north of Arroyo Grande is a combination of California Legal Truck Network and the California Legal Advisory Truck Route. The following list of streets is the approved Truck Routes in Arroyo Grande:

- Barnett Street, from El Camino Real to East Grand Avenue
- Branch Mill Road, from East Cherry Avenue to the Easterly City Limit
- Brisco Road, from El Camino Real to East Grand Avenue
- Corbett Canyon Road, from East Branch Street/Crown Hill to the Easterly City Limit
- East Branch Street, from Highway 101 Overpass to East Branch Street/Crown Hill
- East Cherry Avenue, from Traffic Way to Branch Mill Road
- East Grand Avenue, from Highway 101 Overpass to the Westerly City Limit
- El Camino Real, from Oak Park Boulevard to Barnett Street
- Fair Oaks Avenue, from Halcyon Road to Traffic Way
- Halcyon Road, from El Camino Real to the Southerly City Limit
- Huasna Road, from East Branch Street/Crown Hill to the Easterly City Limit
- Nelson Street, from Traffic Way to South Mason Street
- Oak Park Boulevard, from El Camino Real to City Limit
- South Elm Street, from East Grand Avenue to the Southerly City Limit
- South Mason Street, from Nelson Street to East Branch Street
- The Pike, from the Westerly City Limit to Halcyon Road
- Traffic Way, from East Branch Street to Highway 101
- Valley Road, from Fair Oaks Avenue to the Southerly City Limit

Figure 3.4 presents a map of approved truck routes, provided by the City.

MAP OF TRUCK ROUTES IN THE CITY OF ARROYO GRANDE



APPROVED TRUCK ROUTES

STREET	FROM	TO
OAK PARK BLVD.	EL CAMINO REAL	CITY LIMIT
EL CAMINO REAL	OAK PARK BLVD.	BARNETT ST.
BARNETT ST.	EL CAMINO REAL	E. GRAND AVE.
E. GRAND AVE.	HWY. 101 OVERPASS	WESTERLY CITY LIMIT
HALCYON RD.	EL CAMINO REAL	SOUTHERLY CITY LIMIT
BRISCO RD.	EL CAMINO REAL	E. GRAND AVE.
S. ELM ST.	E. GRAND AVE.	SOUTHERLY CITY LIMIT
FAIR OAKS AVE.	HALCYON RD.	TRAFFIC WAY
VALLEY RD.	FAIR OAKS AVE.	SOUTHERLY CITY LIMIT
TRAFFIC WAY	E. BRANCH ST.	HWY. 101
E. CHERRY AVE.	TRAFFIC WAY	BRANCH MILL RD.
BRANCH MILL RD.	E. CHERRY AVE.	EASTERLY CITY LIMIT
NELSON ST.	TRAFFIC WAY	S. MASON ST.
S. MASON ST.	NELSON ST.	E. BRANCH ST.
E. BRANCH ST.	HWY. 101 OVERPASS	E. BRANCH / CROWN HILL INTERSECTION
HUASNA RD.	E. BRANCH / CROWN HILL INTERSECTION	EASTERLY CITY LIMIT
CORBETT CANYON RD.	E. BRANCH / CROWN HILL INTERSECTION	EASTERLY CITY LIMIT
THE PIKE	WESTERLY CITY LIMIT	HALCYON RD.

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TRUCK ROUTES

FIGURE 3.4



3.4 Bicycle & Pedestrian Facilities

The City of Arroyo Grande adopted the 2012 Bicycle & Trails Master Plan, presented in Figure 3.5. The plan includes proposed bicycle and pedestrian trails, as well as on-street bicycle facilities to complete the partial network already in place in the City and County. The plan encourages the use of walking and bicycling. The following functional classifications of bicycle facilities are utilized within this document.

Class I Bike Path. Class I facilities are multi-use facilities that provide a completely separated right-of-way for the exclusive use of bicycles and pedestrians with cross flows of motorized traffic minimized. Class I bikeways must be compliant with provisions of the Americans with Disabilities Act (ADA). These bikeways are intended to provide superior safety, connectivity, and recreational opportunities as compared to facilities that share right-of-way with motor vehicles.

Class II Bike Lane. Class II facilities provide a striped and signed lane for one-way bicycle travel on each side of a street or highway within the paved area of a roadway. The minimum width for bike lanes ranges between four and six feet depending upon the edge of roadway conditions (curb and gutter). Bike lanes are demarcated by a six-inch white stripe, signage and pavement legends.

Class III Bike Route. Class III facilities provide signs for shared use with motor vehicles within the same travel lane on a street or highway. Bike routes may be enhanced with warning or guide signs and shared lane marking pavement stencils. While Class III routes do not provide measures of separation, they have an important function in providing continuity to the bikeway network. By law, bicycles are allowed on all roadways in California except on freeways when a suitable alternate route exists. However, Class III bikeways serve to identify roads that are more suitable for bicycles.

Shared Roadway. (No Bikeway Designation). A roadway that permits bicycle use but is not officially designated as a bikeway. This generally occurs in rural areas by touring bicyclists and recreation. In some instances, entire street systems may be fully adequate for safe and efficient bicycle travel, where signing and pavement marking for bicycle use may be unnecessary. In other cases, prior to designation as a bikeway, routes may need improvements for bicycle travel.

Class IV Separated Bikeways. Known as separated bikeways or cycle tracks, Class IV bikeways provide a separate travel way that is designated exclusively for bicycle travel adjacent to the roadway and are protected from vehicular traffic by physical separation. The separation may include, but is not limited to, grade separation, planters, flexible posts, inflexible posts, physical barriers, or on-street parking.

The above five definitions are consistent with the California Highway Design Manual (HDM, July 2020). It is emphasized that the designation of bikeways as Class I, II, III, and IV should not be construed as a hierarchy of bikeways; that one is better than the other. Each class of bikeway has its appropriate application.

3.0 Bicycle & Trails Network Plan

BICYCLE & TRAIL NETWORK PLAN

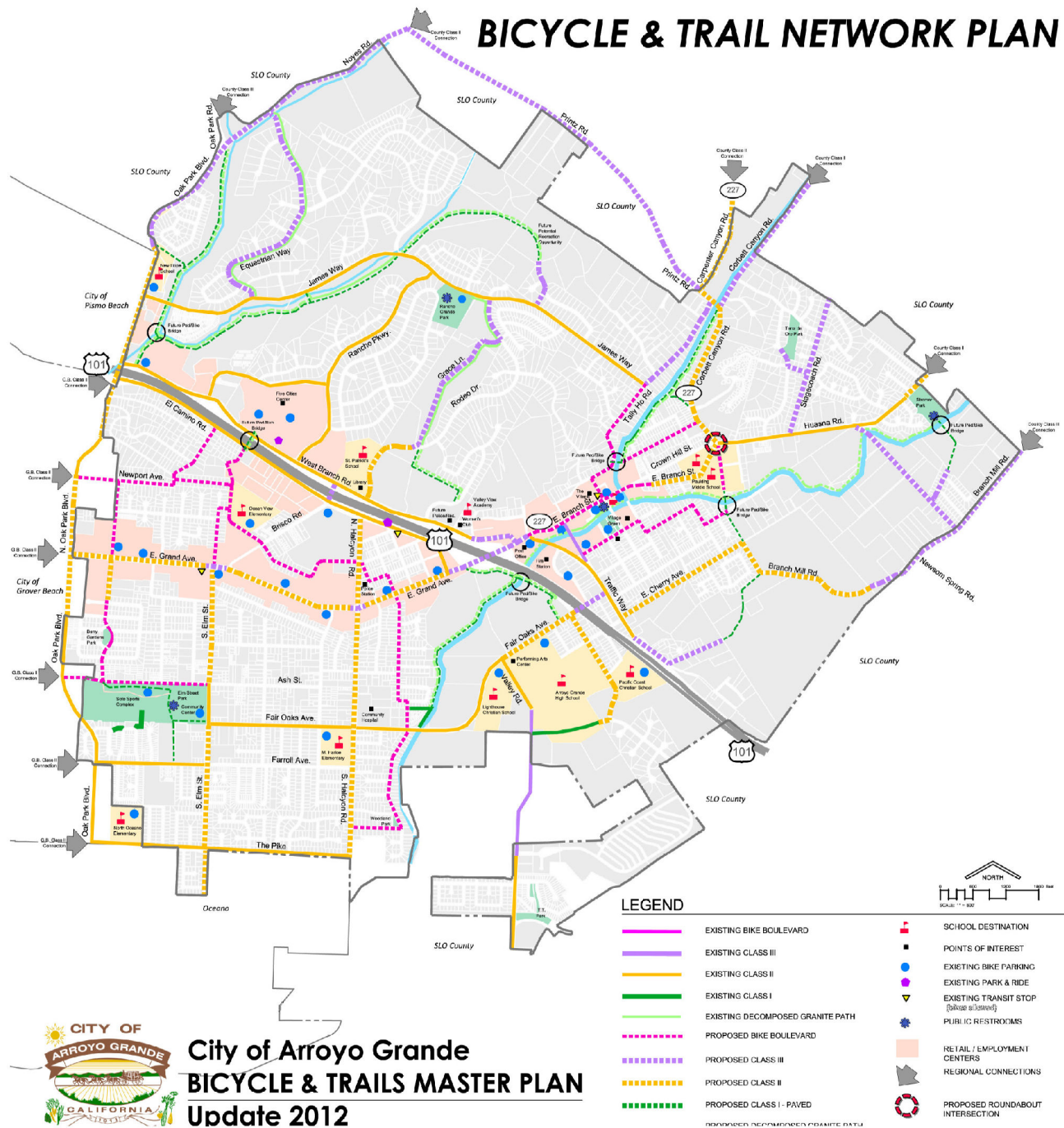


Figure 6: Bicycle and Trail Network Plan

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2012 BICYCLE & TRAILS
 MASTER PLAN

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FIGURE 3.5



In addition, the American Association of State Highway and Transportation Officials “Guide for the Development of Bicycle Facilities” (2012) and National Association of City Transportation Officials “Urban Bikeway Design Guide” are used as resources to identify the following bicycle facilities.

Bicycle Boulevard. Bicycle Boulevards are streets where the following conditions are created in order to prioritize bicycle safety and optimize through travel for bicycles rather than automobiles:

- Slow traffic speed and low volume.
- Use of diverters and roundabouts to discourage through and non-local motor vehicle traffic.
- Improved travel for bicyclists by assigning the right-of-way priority to the bicycle boulevard at intersections with other roads wherever possible.
- Traffic controls that help bicyclists cross major arterial roads.
- Signage and street design that encourages use by bicyclists and informs motorists that the roadway is a priority route for bicyclists.

Bicycle boulevards use a variety of traffic calming elements to achieve a safe environment. For instance, diverters with bicycle cut-outs allow cyclists to continue to the next block, but discourage through traffic by motor vehicles. Typically, these modifications will also calm traffic and improve pedestrian safety as well as encourage bicycling. Bicycle Boulevards are generally applicable to local roadways.

Buffered Bike Lanes. Buffered bike lanes are conventional bicycle lanes (Class II) paired with a designated buffer space separating the bicycle lane from the adjacent motor vehicle travel lane and/or parking lane. A buffered bike lane is allowed as per MUTCD guidelines for buffered preferential lanes (section 3D-01). Buffered bike lanes provide space between bicyclists and the traveled way, allow room for bicyclists to pass without encroaching into the vehicle travel lane, and can be used to provide a buffer between on-street parking and the bike lane. Buffered bike lanes are ideal for streets with extra lanes or extra lane width, and along roadways with higher travel speeds, higher traffic, and truck volume.

Green Colored Bike Facilities may be installed within bicycle lanes or the extension of the bicycle lane through an intersection or transition through a conflict area as a supplement to bike lane markings. The Federal Highway Administration has issued an Interim Approval (IA-14) on April 15, 2011 for the optional use of green colored pavement for marked bicycle lanes.)

Bike Boxes designate an area for bicyclists to queue in front of automobiles, but behind the crosswalk at signalized intersections. Bike boxes provide cyclists a safe way to be visible to motorists by getting ahead of the queue during the red signal phase, and they reduce vehicle incursion into crosswalks. Bike Boxes also improve safety for conflicts with right-turning vehicles when the traffic signal turns green. Bike boxes can be utilized to facilitate left turn positioning and gives priority to cyclists.

Shared Lane Markings (“Sharrows”) help remind motorists that bicyclists are allowed to use the full lane and remind bicyclists to avoid riding too close to parked cars for safety. The shared lane markings help bicyclists with lateral positioning in lanes that are too narrow for a motor vehicle and



a bicycle to travel side by side within the same traffic lane. These markings are primarily recommended on low-speed streets.

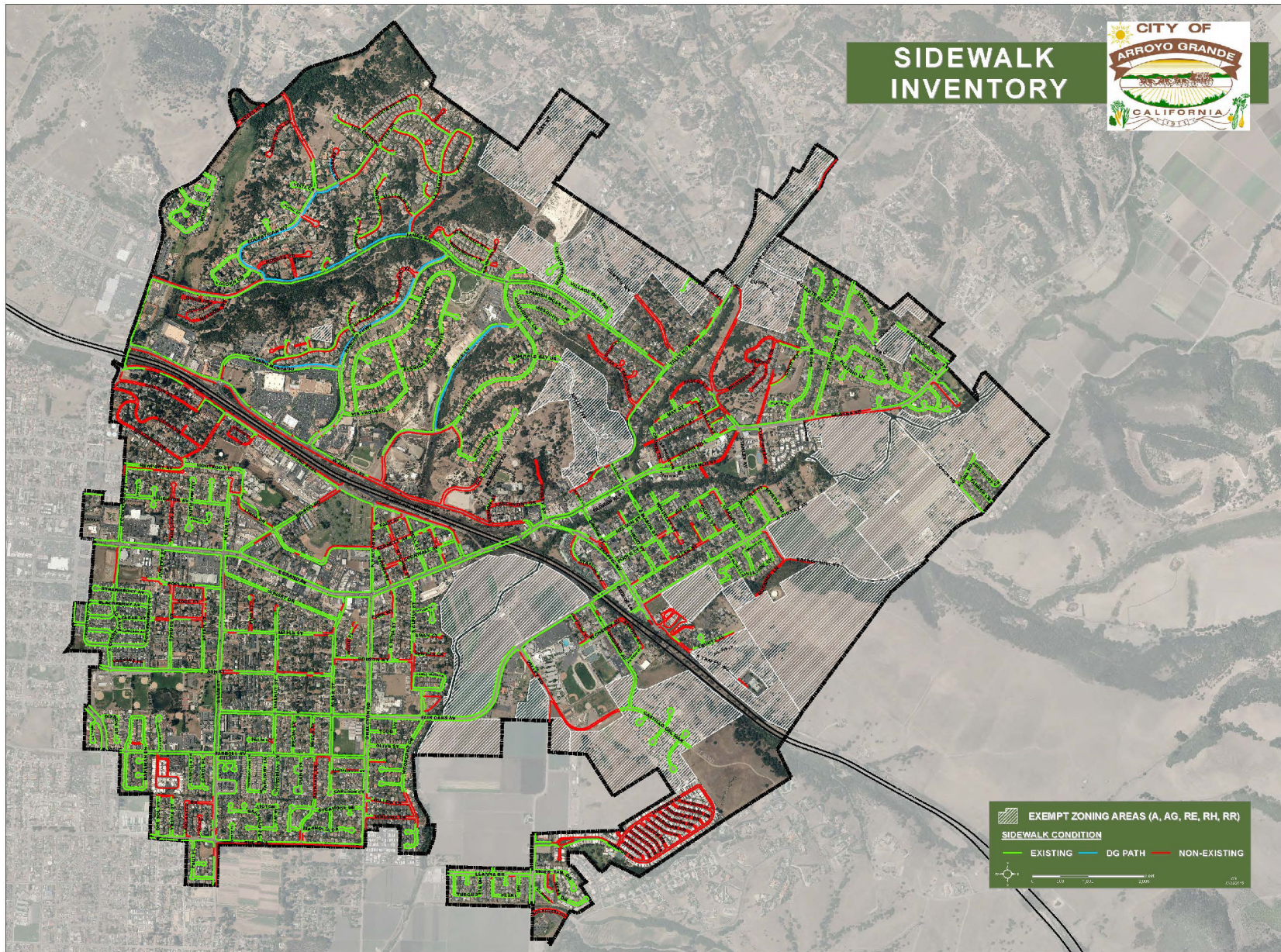
3.5 Existing Bicycle & Pedestrian Facility Conditions

The current bicycle and trail network consists mainly of on-street facilities that are identified as Class II and Class III bikeways. The city also has short segments of off-street trails typically consisting of soft surface (decomposed granite) materials. The trails are typically situated in open space along a creek tributary. The two exceptions are trails located along Equestrian Way and Grace Lane which are decomposed granite paths located behind the curb. These do not meet Class I Bike Path standards (10-foot paved path with 2-foot shoulders, or 12-foot paved path).

Figure 3.6 presents the existing sidewalk inventory, provided by the City. There are gaps in the sidewalk network; a Pedestrian Safety Review conducted by ITS Berkeley in 2010 and the Draft Halcyon Road Complete Streets Plan identifies some areas where there are opportunities for improvement. The ITS study focused on key intersections throughout the City and suggested recommendations that could improve the pedestrian safety crossing large streets with many lanes of traffic. The Draft Halcyon Road Complete Streets Plan focused on multimodal improvements along the Halcyon Road corridor, connecting Arroyo Grande Hospital, residences, and the elementary school. Locations near and between residences, schools, parks, retail centers, and City services should provide adequate sidewalks and marked crossings.

Figure 3.7 presents the existing bikeway by classification along arterial and collector roadways throughout the City. There are gaps in the network of bicycle facilities. Arterials and collectors that are north-south roadways which do not have bicycle facilities, include portions of Elm Street, Halcyon Road, Corbett Canyon Road, Tally Ho Road, Ash Street, and Oak Park Boulevard. Arterials and collectors that are east-west roadways which do not have bicycle facilities include portions of Farroll Avenue, E. Grand Avenue, E. Branch Street, and E. Cherry Avenue. Subsequent Bicycle LTS analysis is included.

Safe, convenient, and continuous access needs to be provided along major routes throughout the City for active transportation modes. As part of this Circulation Element update, roadway facilities will be identified where it is possible to modify the existing cross-section and increase the active transportation components for pedestrians and bicyclists. Included in the proposed Draft Circulation Element Policies are requirements to prepare a Pedestrian Master Plan and update the existing Bicycle and Trails Master Plan. It is proposed for the bicycle portion of the plan that an assessment of bicycle Level of Traffic Stress (LTS) will be required to specifically evaluate the performance of the existing bicycle system and to help identify bicycle facility improvements.



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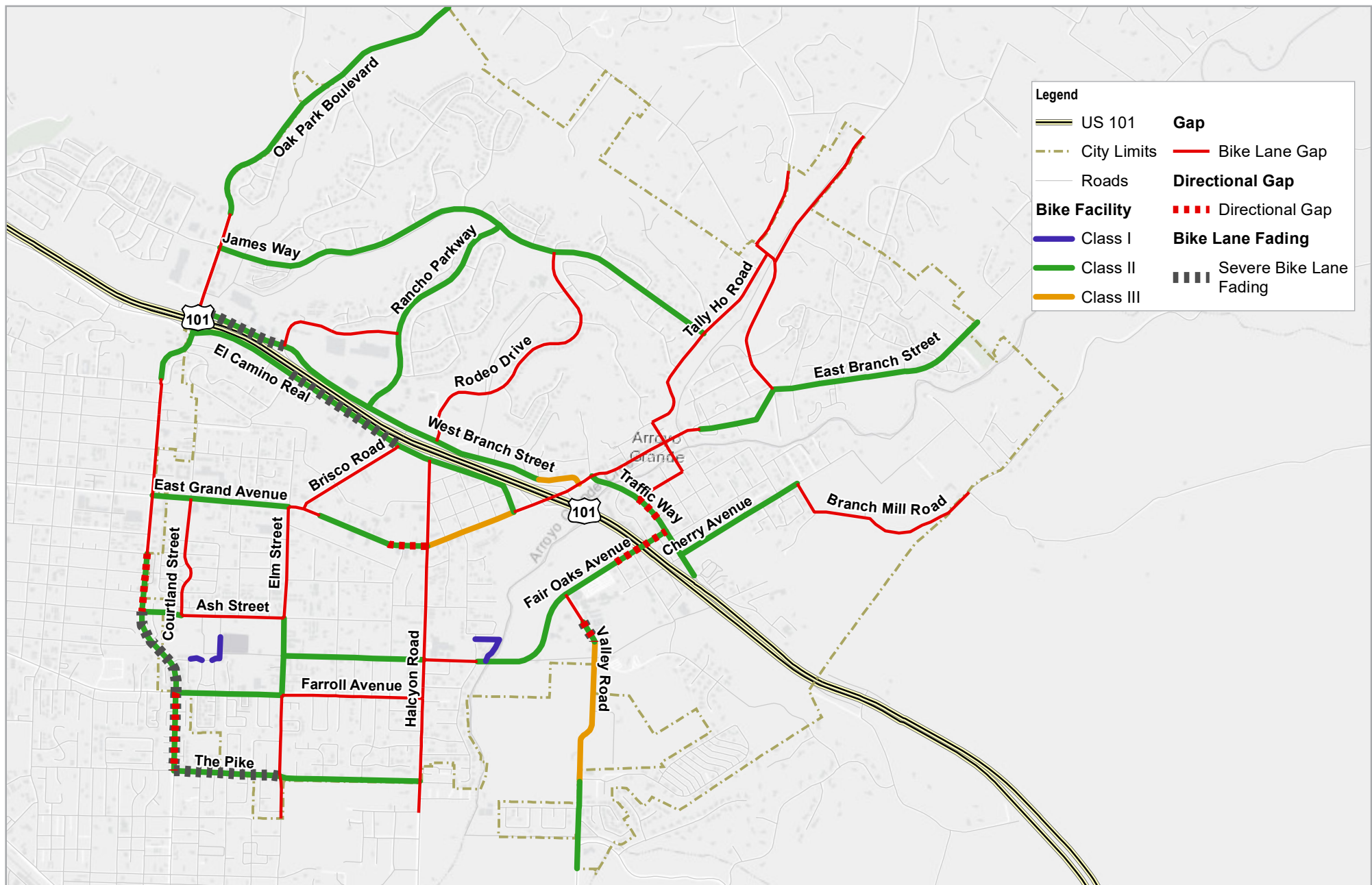


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SIDEWALK INVENTORY

FIGURE 3.6



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Miles

Map Projection: Lambert Conformal Conic
Horizontal Datum: North American 1983
Grid: NAD 1983 StatePlane California V FIPS 0405 Feet



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**EXISTING BIKEWAYS
AND GAPS MAP**

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FIGURE 3.7



3.5.1 Bicycle Level of Traffic Stress (LTS) Analysis

Mineta Transportation Institute criteria was applied to roadway segments with bike lanes (with and without on-street parking) and roadway segments without bike lanes (mixed traffic segments) to determine existing Bicycle Level of Traffic Stress, presented in Figure 3.8. As shown, the majority of segments along major roads (arterials and collectors) within the City of Arroyo Grande can be considered high stress (LTS 3 or 4). Even with the presence of bike lanes, the high stress nature of roadway segments within the City are primarily due to roadway speed limits of 35 miles per hour or greater, and roadways with three or more total travel lanes. For those roadways with speed limits lower than 35 mph, lack of adequate bike lane striping or physical separation between cyclists and vehicles (i.e., buffers) results in high stress conditions. In addition, lack of adequate bicycle protection (i.e., bike pockets) at intersections with lengthy vehicle right turn pockets, or gaps in bike lane striping at intersection approaches, result in high stress conditions at all intersections along major roads within the City of Arroyo Grande.

Other factors were noted as contributing to high stress conditions, including quality and condition of existing bike lane striping and gaps in striping along segments on either side of the roadway.

Segments with significant bike lane striping fading along existing Class II bicycle routes were noted at the following locations:

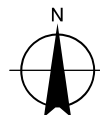
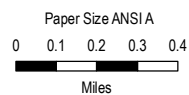
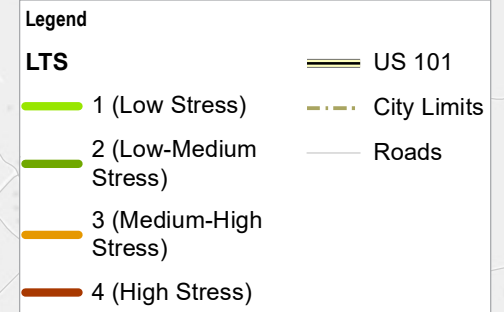
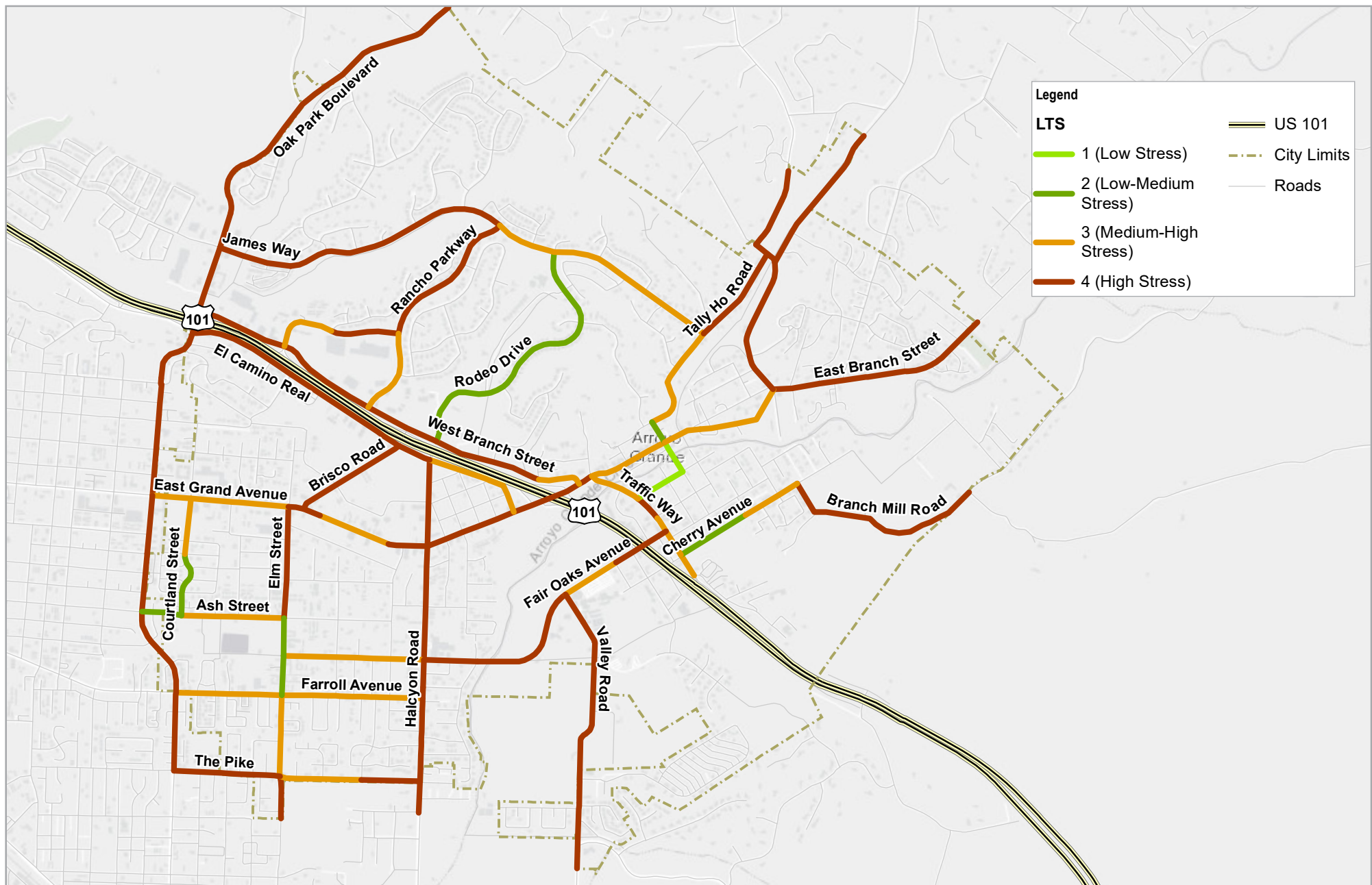
- West Branch Street between Oak Park Boulevard and Camino Mercado
- El Camino Real between Hillcrest Drive and Brisco Road
- Oak Park Boulevard Between Ash Street and The Pike
- The Pick between Oak Park Boulevard and Elm Street
- Valley Road between Fair Oaks Avenue and Castillo Del Mar

Major gaps along existing Class II bicycle routes (i.e., roadway segments with incomplete bike lanes, or bike lanes only in one direction) occur at the following locations:

- East Grand Avenue: eastbound approach at Halcyon Road
- East Grand Avenue: between Elm Street and Grande Foods Market
- Traffic Way: northbound segment between Nelson Street and Bridge Street
- Oak Park Boulevard: southbound segment between Farroll Road and The Pike
- Oak Park Boulevard: southbound between Manhattan Avenue and Ash Street
- Fair Oaks Avenue: westbound segment between California Street and Traffic Way

Vehicle on-street parking is also a contributor to high stress conditions for cyclists, and is allowed on the majority of the City's arterials and collectors.

LTS inputs and scores are provided in Appendix D.



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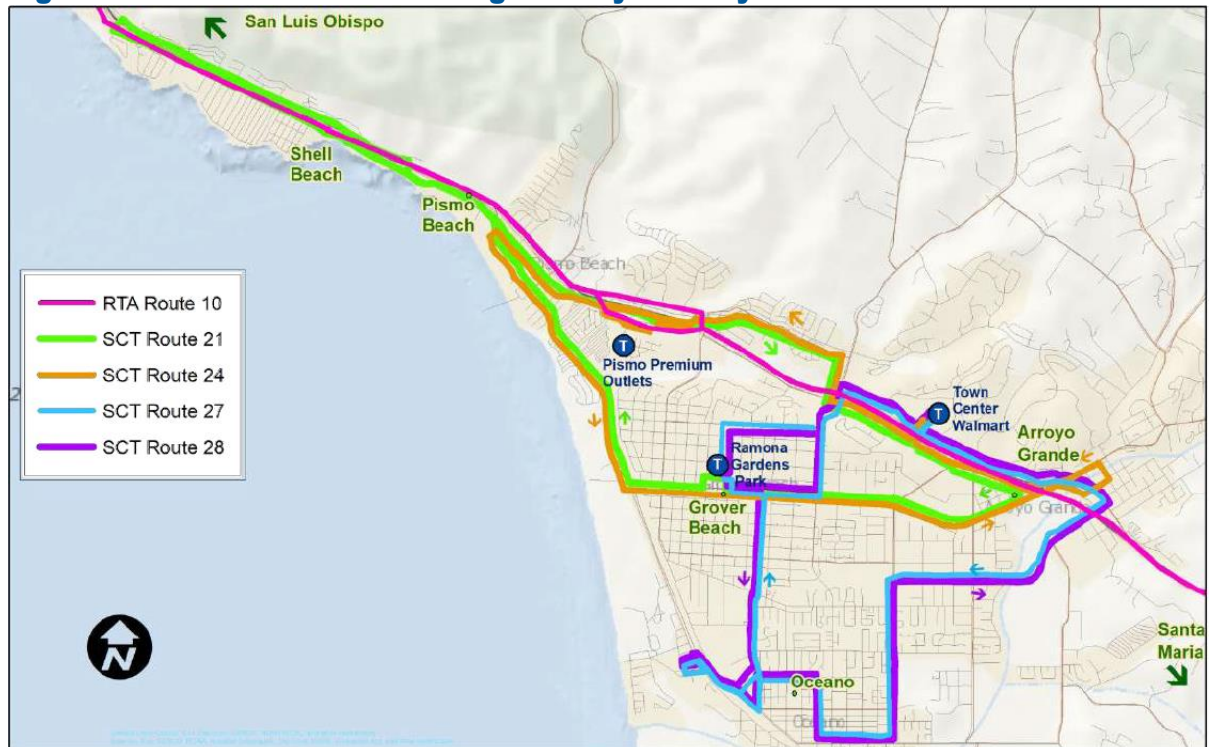
**MAJOR ROADS BICYCLE
LEVEL OF TRAFFIC STRESS (LTS)**

FIGURE 3.8

3.6 Public Transportation

The City of Arroyo Grande public transportation is provided by South County Transit (SoCoTransit), a branch of San Luis Obispo Regional Transit Authority's (SLORTA). SoCo Transit will merge with SLORTA early 2021. Routes 21, 24, 27, and 28 serve major arterial roadways in the City as shown in Figure 3.9. The Avila-Pismo Trolley (not shown on Figure) connects to SoCo Transit Routes at the Pismo Premium Outlets. All SoCo Transit Routes make stops at the Town Center/Walmart, and Ramona Gardens Park, and Routes 21 and 24 make stops at the Pismo Premium Outlets.

Figure 3.9 Transit Routes Serving the City of Arroyo Grande



The following Route descriptions, and the above Figure, are from the South County Transit Short-Range Transit Plan (December 23, 2019).

Route 21 provides hourly service between 6:29 AM and 7:29 PM on Weekdays, 7:29 AM and 7:29 PM on Saturdays, and 7:29 AM and 6:29 PM on Sundays. The route consists of a large clockwise loop traveling south on James Way and West Branch serving Arroyo Grande, west on Grand Avenue serving Grover Beach, and north on Price Street and US 101 to complete a smaller counter-clockwise loop serving Pismo and Shell Beach. This route connects with RTA Route 10 at the top of the hour at the Pismo Beach Premium Outlets (Pismo Beach Outlets), and with Routes 24, 27, and 28 at Ramona Garden Park Transit Center in Grover Beach at 29 minutes after the hour.

Route 24 provides service hourly from 6:29 AM to 7:29 PM on weekdays, 7:29 AM to 7:29 PM on Saturdays, and 7:29 AM to 6:29 PM on Sundays. This loop route serves the core of Pismo Beach, Grover Beach, and Arroyo Grande primarily in a counter-clockwise direction. It is largely aligned with Route 21, except that Route 24 adds service to downtown Arroyo Grande but does not serve



the Shell Beach area of Pismo Beach. From the Pismo Beach Outlets, the route travels northwest towards Pismo Beach circling south down Highway 1 to Ramona Garden Park Transit Center in Grover Beach. The route then travels east on Grand Avenue, north towards Arroyo Grande, and west looping back towards the Town Center/Walmart stop before returning to the Pismo Beach Outlets.

Route 27 provides hourly service from 6:03 AM to 8:13 PM on weekdays only. This route travels in clockwise direction serving Arroyo Grande, Oceano and the eastern portions of Grover Beach. This route connects with Routes 21 and 24 at Ramona Gardens at 29 minutes after the hour and with Route 28 at 32 minutes after the hour.

Route 28 provides hourly service from 6:20 AM to 8:14 PM on weekdays, 7:32 AM to 8:14 PM on Saturdays, and 7:32 AM to 7:14 PM on Sundays. This route travels in a counter-clockwise direction serving the same route as Route 27 in reverse order (except for one block around Long Branch Avenue and Oak Park Boulevard). This route connects with Routes 21 and 24 at Ramona Garden Park at 29 minutes after the hour and with Route 27 at 32 minutes after the hour.

Avila-Pismo Trolley runs April through September during holidays, weekends, and Fridays. Hourly service is generally provided between 10:00 AM to 6:00 PM with hours extending to 9:00 PM during June, July, and August. The trolley connects with SoCo Transit Routes 21 and 24 and RTA 10 at the Pismo Beach Outlets at the top of each hour. No fare is charged on this service.

RTA Route 10 provides hourly regional service between San Luis Obispo to Santa Maria. SoCo Transit is connected to other cities by RTA Route 10. RTA Route 10 makes stops in Arroyo Grande at E. Grand Avenue at El Camino Real and El Camino Real at Halcyon Park and Ride.

3.7 Rail

No commuter rail transportation (Amtrak) is currently located in the City of Arroyo Grande. The nearest Amtrak station is located in City of Grover Beach, 2.2 miles west of the City of Arroyo Grande. The primary access to the station is on W. Grand Avenue east of Highway 1. The SoCo Transit Bus Route 21 provides service to the railway station for City of Arroyo Grande.

3.8 Air

Oceano County Airport is the closest airport to the City, located in the unincorporated community of Oceano in San Luis Obispo County, southwest of Arroyo Grande. The SoCo Transit Bus route 21 provides service to this airport for City of Arroyo Grande. The airport is mainly used for recreational activities and is accessible by Highway 1 via W. Grand Avenue.

The San Luis Obispo County Regional Airport, also known as McChesney Field, is located in the City of San Luis Obispo about 9 miles north of Arroyo Grande. It is served by two commercial airlines providing services to Dallas/Fort Worth, Denver, Los Angeles, Phoenix, San Francisco, and Seattle. It is also home to full service general aviation and corporate facilities. McChesney Field is located on the west side of SR 227, about 2 miles east of US 101.



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APPENDIX B

Air Quality and Greenhouse Gas Emissions Policy Consistency Tables

Table B-1. Proposed General Plan Circulation Element Update Consistency with the Clean Air Plan

Applicable SLOAPCD CAP Transportation Control Measures	Proposed General Plan Circulation Element Update Guiding Policies	Consistency with SLOAPCD CAP Transportation Control Measures
T-2B. Regional Transit Improvements. Improving transit service and facilities can attract individuals to use public transit instead of a private automobile. As transit ridership increases, roadway congestion and emissions decrease.	CT1-9 Complete Streets. Complete streets are roadways designed and operated to enable safe access for all users, including pedestrians, bicyclists, motorists and transit riders of all ages and abilities. All street standards should be periodically reviewed and revised for design, construction, operation and maintenance to achieve a network of complete streets. Optional features include landscaped medians, curb bulbouts and parkways and/or street trees and similar design amenities when approved by the City. When constructing or modifying transportation facilities, strive to provide for the movement of vehicles, commercial trucks, alternative and low energy vehicles, transit, bicyclists, and pedestrians in a manner that is appropriate for the road classification and adjacent land use. CT1-10 Alternative Improvements. Consider alternative improvements to traditional street, highway, and intersection construction that may vary from City standards, which maximize access to active transportation modes and/or provide equivalent mobility to all roadway users. These improvements may include treatments that improve the safety and/or comfort of active transportation and transit users, such as consideration of travel lane reductions (road diets), green paint for conflict markings, buffered bicycle lanes, bicycle boxes for two-stage turns, and other alternative striping, signage, or physical design. Alternatives may be permitted with City Council approval or City Engineer / Public Works Director Approval where delegated. CT5. Ensure compatibility and complimentary relationships between the circulation system and existing and planned land uses, promoting environmental objectives such as safe and uncongested neighborhoods, energy conservation, reduction of greenhouse as, air, and noise pollution, and access bicycle, pedestrian, and transit facilities. CT5-2 Transit Oriented Development. Promote “Transit-Oriented Developments” and coordinated, compatible land use patterns by encouraging multiple family residential and special needs housing in Mixed Use Corridors, the Village Core, and near Office, Regional Commercial, Business Park, and major Community Facility areas. CT5-2.1 Work with RTA to continue to support and expand transit routes that serve regional destinations within the City like the Regional Commercial areas and the Village Core, E. Grand Avenue, and W. Branch Street missed use and commercial corridors. CT5-2.2 Work with RTA to continue to support and expand transit loops to serve Halcyon Road / Fair Oaks Boulevard, local office buildings, James Way and Rancho Parkway residential areas, and the Village Core, E. Grand Avenue, and W. Branch Street corridors. CT5-9 Travel Demand Management. Consider ways to shift travel demand away from the peak period using Transportation Demand Management (TDM) strategies, especially in situations where peak traffic problems result from a few major generators (e.g., large retail developments on highway corridor). Strategies to consider include:	Consistent. The GPCEU guiding policies include numerous implementing policies designed to improve transit service and facilities. Implementation of these policies, along with various other policies contained in the GPCEU, would support implementation of measure T-2B.

Applicable SLOAPCD CAP Transportation Control Measures	Proposed General Plan Circulation Element Update Guiding Policies	Consistency with SLOAPCD CAP Transportation Control Measures
	(a) Requiring employer-sponsored incentives for transit, bike, or carpool use; (b) Requiring shuttle service to major events and destinations; (c) Requiring events to occur at off-peak hours; (d) Coordinating centralized TDM programs that serve multiple tenants at large shopping or office centers; and (e) Performing periodic evaluations of the City's (and Caltrans) traffic control system with emphasis on traffic signal timing, phasing, and coordination to optimize flow along arterial corridors. CT12. Maintain and improve transit services and facilities in cooperation with transit operators and providers. CT12-1 Transit Stops. Strive to establish transit stops within ¼ mi walking distance of all residential and non-residential uses within the City. CT12-1.1. New development outside ¼ mi walking distance of existing transit stops shall be required to install transit stops and facilities to achieve a maximum ¼ mi walking distance to transit for the proposed development to the maximum extent feasible. CT12-1.2. Where transit stop locations conflict with protected bikeways, consider "best practices" referenced in the NACTO Urban Bikeway Design Guide, Urban Street Design Guide, and/or Transit Street Design Guide, such as floating transit islands, to minimize conflicts between modes. CT12-1.3. Along high-quality transit routes, improve stops to include stop elements such as transit shelters, bicycle parking, lighting, and level boarding, consistent with "best practices" referenced in the NACTO Transit Street Design Guide, Urban Bikeway Design Guide, and/or Urban Street Design Guide. CT12-2 Transit Providers/Operators. In cooperation with the Regional Transit Authority (RTA) or other transit operators, provide for a safe and efficient transit system for local and regional travel, particularly for youth, elderly, low-income or disabled persons. CT12-2.1. The City should encourage convenient routes and schedules on arterial and/or collector streets including stops, shelters, bus benches, turnouts, park and ride, transfer and other facilities or features to be provided in connection with new developments CT12-2.2. Work with transit operators to identify opportunities to implement transit intelligent transportation systems (ITS) elements such as transit signal priority, queue jump, and live passenger information and wayfinding. CT12-3 Employers. The City should encourage major employers to promote use of public transit and/or provide van/carpools, private shuttles or other trip reduction (flex time, telecommuting, bike) and transportation demand management measures. CT12-4 School Districts. Collaborate with Lucia Mar Unified School District and other educational institutions to plan improved school bus transportation system, including parking and loading areas, bus stop amenities, links with other transit	

Applicable SLOAPCD CAP Transportation Control Measures	Proposed General Plan Circulation Element Update Guiding Policies	Consistency with SLOAPCD CAP Transportation Control Measures
T-3. Bicycling and Bikeway Enhancements. This measure improves air quality in two ways. First, it supports the Voluntary Trip Reduction Program (T1C) by providing a safe and inexpensive way for employees to commute to work or school. In addition, bike infrastructure improvements will increase safety and convenience for those commuters not affected by T1C. The measure also facilitates cycling for shopping and other trip purposes.	providers, public parks, and maintenance and storage facilities, and coordination with safe bicycle and sidewalk facilities. CT12-5 Marketing. Encourage ridership on public transit systems through marketing and promotional efforts. Provide information to residents and employees on transit services available for local and regional trips. CT1-9 Complete Streets. Complete streets are roadways designed and operated to enable safe access for all users, including pedestrians, bicyclists, motorists and transit riders of all ages and abilities. All street standards should be periodically reviewed and revised for design, construction, operation and maintenance to achieve a network of complete streets. Optional features include landscaped medians, curb bulbouts and parkways and/or street trees and similar design amenities when approved by the City. When constructing or modifying transportation facilities, strive to provide for the movement of vehicles, commercial trucks, alternative and low energy vehicles, transit, bicyclists, and pedestrians in a manner that is appropriate for the road classification and adjacent land use. CT1-10 Alternative Improvements. Consider alternative improvements to traditional street, highway, and intersection construction that may vary from City standards, which maximize access to active transportation modes and/or provide equivalent mobility to all roadway users. These improvements may include treatments that improve the safety and/or comfort of active transportation and transit users, such as consideration of travel lane reductions (road diets), green paint for conflict markings, buffered bicycle lanes, bicycle boxes for two-stage turns, and other alternative striping, signage, or physical design. Alternatives may be permitted with City Council approval or City Engineer / Public Works Director Approval where delegated. CT5 Ensure compatibility and complimentary relationships between the circulation system and existing and planned land uses, promoting environmental objectives such as safe and uncongested neighborhoods, energy conservation, reduction of greenhouse as, air, and noise pollution, and access bicycle, pedestrian, and transit facilities. CT8 Schedule and implement the Bicycle network identified in the Bicycle Improvements Map (Figure 3-3) as development occurs and as part of the City's Capital Improvement Program. Make efficient use of existing transportation facilities, improve these facilities, and build new facilities as necessary in accordance with the Bicycle & Trails Master Plan. CT8-1 Prioritization. Promote and improve bicycle circulation facilities to serve all areas of the City as a priority system. Link with regional systems and prioritize connections with schools, parks, transit, and major public facilities. CT8-1.1. The City should strive to include implementation of planned bicycle facilities as part of its Capital Improvement Budget. CT8-2 Bicycle Network Connectivity. New development that lacks connectivity to the existing bicycle network beyond the project frontage shall be required to complete	Consistent. The GPCEU guiding policies include numerous implementing policies designed to improve promote bicycle access within the community and surrounding areas. Implementation of these policies, along with various other policies contained in the GPCEU, would support implementation of measure T-3.

Applicable SLOAPCD CAP Transportation Control Measures	Proposed General Plan Circulation Element Update Guiding Policies	Consistency with SLOAPCD CAP Transportation Control Measures
	missing offsite gaps per the City's Bicycle and Trails Master plan to the maximum extent feasible. Improvements maybe facilitated through reimbursement agreements. CT8-2.1 New development adjacent to planned bicycle infrastructure shall not obstruct or otherwise preclude future construction of bicycle infrastructure. CT8-3 Standards & Guidance. Implement the Bicycle & Trails Master Plan and proposed improvements (Figure 3-3 and 3-4) in accordance with the City's Standard Specifications & Engineering Standards, State Engineering Standards & Specifications, and the National Association of Transportation Officials (NACTO) Urban Bikeway Design Guide. CT8-3.1. Update the City's Bicycle & Trails Master Plan in the form of an Active Transportation Plan, to incorporate pedestrian travel, in accordance with State guidelines and industry best practices. CT8-3.2. Ensure that the future updates to the adopted Bicycle & Trails Master Plan maintains consistency with the requirements of the Streets and Highway Code in order to be eligible for further funding for improvements from the State, such as the Active Transportation Program (ATP). CT8-4 Class I Bike Path. An essential part of developing a low-stress bicycle network, these off-street paths and trails are designated for both pedestrian and bicycle use. CT8-5 Class II Bike lanes. On-Street lanes designated for bicycle use and delineated from automobile lanes by roadway markings. Where ROW permits, class II bike lanes shall be provided to the maximum extent feasible with buffers between adjacent auto lanes. When Class II bike lanes exceed LTS 3 (or operate low-stress network LTS standard), the facility shall be converted to protected Class IV bikeway or a parallel Class I to the maximum extent feasible. CT8-6 Class III Bike Route. On-street auto lanes shared by both bicycles and automobiles. In order to increase awareness and visibility of bicyclists sharing the roadway with motorized vehicles, Class III bicycle facilities shall include respective signage (Bikes May Use Full Lane) and markings such as shared lane markings (sharrows) to the maximum extent feasible. When Class III bike facilities exceed LTS 3 (or operative low-stress network LTS standard), the facility shall be converted to dedicated Class II lanes if determined feasible. CT8-7 Class III Bike Boulevard. On local collectors where Class II bike lanes are not present, on local streets where LTS 3 is exceeded, Class III bike routes should be upgraded to the maximum extent feasible with features commensurate with a bicycle boulevard. When Class III bike facilities exceed LTS 3 (or operative low-stress network LTS standard), the facility shall be converted to dedicated Class II lanes if determined feasible. CT8-8 Class IV Protected Bike Lanes. On-street separated bikeways reserved for use by bicyclists only, with physical separation between the bikeway, travel lanes, and sidewalks. Class IV facilities can be one-way facilities on both sides of the street or two-way facilities on one side of the street. Physical separation can include concrete curbs, landscaping, parking lanes, bollards, or other vertical elements.	

Applicable SLOAPCD CAP Transportation Control Measures	Proposed General Plan Circulation Element Update Guiding Policies	Consistency with SLOAPCD CAP Transportation Control Measures
	CT9. Strive to attain and maintain a bicycle Level of Traffic Stress (LTS) of 3 or better on all bicycle facilities. Strive to attain and maintain designated low-stress network. CT9-1 Designation of LTS Standards. The City shall designate and adopt context-specific LTS standards that exceed the general LTS 3 goal, including designation of a low-stress bicycle network of complimentary LTS 1 and LTS 2 facilities, as part of an Active Transportation Plan, and/or through Safe Routes to School Plan(s). CT9-2 Degradation of LTS. New development which is projected to degrade bicycle LTS below the designated standard, or further exacerbate conditions already below the standard shall be required to make transportation improvements that offset the level of degradation to the maximum extent feasible. CT10-2.1. New development adjacent to planned pedestrian infrastructure shall not obstruct or otherwise preclude future construction of bicycle infrastructure CT10-4 Active Transportation Plan. Expand the City's Bicycle & Trails Master Plan into a Citywide Active Transportation Plan including pedestrian mode improvement plan and policies. CT11. Create safe and inviting environments for students, families, and staff to walk, bicycle, and use public transportation to and from school. CT11-1 Develop Safe Routes to School Plan(s). Develop a focused Safe Routes to School Plan (or Plans) for all K-12 schools in Arroyo Grande to improve safe and convenient walking and biking to school. CT11-2 Designate Low-Stress Bicycle Network. Designate a low-stress bicycle network that supports safe bicycle access to schools for all ages and abilities. A network of LTS 1 and LTS 2 facilities should be designated in the vicinity of schools when preparing and updating Safe Routes to School Plans and/or the City's Active Transportation Plan. CT11-3 Prioritize Active Transportation Network Improvements. Prioritize the closure of gaps in the pedestrian network (sidewalks, crosswalks) and low-stress bicycle network. Seek connections and paths between homes and schools, especially where dead-end streets, cul-de-sacs, and other street patterns impede circulation. Identify, improve, and formalize "shortcuts" and "goat paths" where feasible and implement wayfinding. CT12-1 Transit Stops. Strive to establish transit stops within ¼ mi walking distance of all residential and non-residential uses within the City. CT12-1.1. New development outside ¼ mi walking distance of existing transit stops shall be required to install transit stops and facilities to achieve a maximum ¼ mi walking distance to transit for the proposed development to the maximum extent feasible. CT12-1.2. Where transit stop locations conflict with protected bikeways, consider "best practices" referenced in the NACTO Urban Bikeway Design Guide, Urban Street Design Guide, and/or Transit Street Design Guide, such as floating transit islands, to minimize conflicts between modes.	

Applicable SLOAPCD CAP Transportation Control Measures	Proposed General Plan Circulation Element Update Guiding Policies	Consistency with SLOAPCD CAP Transportation Control Measures
T-4. Park and Ride Lots. Designed to support the Trip Reduction Program, Park and Ride (P&R) lots provide a staging area for ridesharing activities	CT12-1.3. Along high-quality transit routes, improve stops to include stop elements such as transit shelters, bicycle parking, lighting, and level boarding, consistent with “best practices” referenced in the NACTO Transit Street Design Guide, Urban Bikeway Design Guide, and/or Urban Street Design Guide. CT12-4 School Districts. Collaborate with Lucia Mar Unified School District and other educational institutions to plan improved school bus transportation system, including parking and loading areas, bus stop amenities, links with other transit providers, public parks, and maintenance and storage facilities, and coordination with safe bicycle and sidewalk facilities. CT2. Maintain & reduce vehicle miles traveled (VMT) in accordance with SB 743 and the City’s adopted Policy. CT2-1. Reduce VMT. Periodically update VMT baselines and thresholds of significance, as established in the City’s VMT Policy, for evaluating transportation impacts under CEQA pursuant to SB 743. CT12. Maintain and improve transit services and facilities in cooperation with transit operators and providers. CT12-1 Transit Stops. Strive to establish transit stops within ¼ mi walking distance of all residential and non-residential uses within the City. CT12-1.1. New development outside ¼ mi walking distance of existing transit stops shall be required to install transit stops and facilities to achieve a maximum ¼ mi walking distance to transit for the proposed development to the maximum extent feasible. CT12-1.2. Where transit stop locations conflict with protected bikeways, consider “best practices” referenced in the NACTO Urban Bikeway Design Guide, Urban Street Design Guide, and/or Transit Street Design Guide, such as floating transit islands, to minimize conflicts between modes. CT12-1.3. Along high-quality transit routes, improve stops to include stop elements such as transit shelters, bicycle parking, lighting, and level boarding, consistent with “best practices” referenced in the NACTO Transit Street Design Guide, Urban Bikeway Design Guide, and/or Urban Street Design Guide. CT12-2 Transit Providers/Operators. In cooperation with the Regional Transit Authority (RTA) or other transit operators, provide for a safe and efficient transit system for local and regional travel, particularly for youth, elderly, low-income or disabled persons. CT12-2.1. The City should encourage convenient routes and schedules on arterial and/or collector streets including stops, shelters, bus benches, turnouts, park and ride, transfer and other facilities or features to be provided in connection with new developments CT12-2.2. Work with transit operators to identify opportunities to implement transit intelligent transportation systems (ITS) elements such as transit signal priority, queue jump, and live passenger information and wayfinding.	Consistent. The GPCEU guiding policies include numerous implementing policies that support ride sharing and coordination with other agencies, such as the SLORTA and other transit operators, to promote vehicle trip reduction. Implementation of these policies, along with various other policies contained in the GPCEU, would support implementation of measure T-4.

Applicable SLOAPCD CAP Transportation Control Measures	Proposed General Plan Circulation Element Update Guiding Policies	Consistency with SLOAPCD CAP Transportation Control Measures
T-6. Traffic Flow Improvements. The goal of this measure is to improve the road system and infrastructure in a way that increases its efficiency, reduces emissions, and supports the other Transportation Control Measures in this Plan. Peak hour traffic management should also increase pedestrian and bicyclist safety.	CT12-3 Employers. The City should encourage major employers to promote use of public transit and/or provide van/carpools, private shuttles or other trip reduction (flex time, telecommuting, bike) and transportation demand management measures. CT12-4 School Districts. Collaborate with Lucia Mar Unified School District and other educational institutions to plan improved school bus transportation system, including parking and loading areas, bus stop amenities, links with other transit providers, public parks, and maintenance and storage facilities, and coordination with safe bicycle and sidewalk facilities. CT1. Schedule and implement the Circulation system identified in the Circulation Map (Circulation Element Update Figure 2-2) as development occurs and as part of the City's Capital Improvement Program. Make efficient use of existing transportation facilities, improve these facilities, and build new facilities as necessary in accordance with the Circulation Map. CT1-1 Standards. Streets shall be constructed in conformance with the City and State's adopted Engineering Standards, Plans, and Policies that apply to each classification. Variations and modifications in Standards and planned alignments may be permitted with City Council approval or City Engineer / Public Works Director approval where delegated. CT1-1.1. Consider specific design guidelines and landscaping standards appropriate to a designated connected system of "Scenic Streets & Highways" for resident and visitor enjoyment. CT1-1.2. Update City's Engineering Standards, Plans, and Policies to be consistent with the Proposed Standard Cross Sections shown in Table 2-2 (reference). CT1-2 Intersections. Roundabouts should be considered when evaluating new or modified intersection controls as an alternative to intersection signalization. Protected active transportation intersection elements should be considered when intersections are improved along a protected (Class I or Class IV) bikeway route. CT1-3 State Facilities. State facilities are to be designed and constructed per Caltrans design standards or as mutually approved. CT1-4 Primary Arterial Streets. 4 lanes with or without median / two-way left turn lane, access management, optional parkways, optional on-street parking, bike & pedestrian facilities per adopted plan, transit turnouts and other design features: minimum 110' right of way. CT1-5 Arterial Streets. 2 lanes with or without median/center turn lane, optional landscaped parkways, optional on-street parking, bike and pedestrian facilities per adopted plan, some transit and other design features; minimum 86' of right-of-way. CT1-6 Collector Streets. 2 lanes with or without turn lane; access management, bike and pedestrian facilities per adopted plan, some transit and other design features, optional landscaped parkways & on-street parking where feasible; minimum 78' of right-of-way.	Consistent. The GPCEU guiding policies include numerous implementing policies designed to reduce vehicle congestion and improve vehicle flow within the community. Additional measures have also been included to increase pedestrian and bicyclist safety. Implementation of these policies, along with various other policies contained in the GPCEU, would support implementation of measure T-6.

Applicable SLOAPCD CAP Transportation Control Measures	Proposed General Plan Circulation Element Update Guiding Policies	Consistency with SLOAPCD CAP Transportation Control Measures
	CT1-7 Local Collector Streets. 2 lanes without a turn lane; bike and pedestrian facilities per adopted plan, some transit and other design features, optional landscaped parkways and on-street parking where feasible; minimum 60' right-of-way. CT1-8 Local Streets. 2 lanes, on-street parking; bike and pedestrian facilities per adopted plan, sidewalks on one or both sides, other design variables in hillside, cul-de-sac, or other special conditions; minimum 52' right-of-way. CT1-9 Complete Streets. Complete streets are roadways designed and operated to enable safe access for all users, including pedestrians, bicyclists, motorists and transit riders of all ages and abilities. All street standards should be periodically reviewed and revised for design, construction, operation and maintenance to achieve a network of complete streets. Optional features include landscaped medians, curb bulbouts and parkways and/or street trees and similar design amenities when approved by the City. When constructing or modifying transportation facilities, strive to provide for the movement of vehicles, commercial trucks, alternative and low energy vehicles, transit, bicyclists, and pedestrians in a manner that is appropriate for the road classification and adjacent land use. CT1-9.1. Evaluate projects to ensure that the safety, comfort, and convenience of pedestrians, bicyclists, and transit users are given an equal level of consideration to automobiles. CT1-9.2. Use roadway rehabilitation and maintenance projects as opportunities to introduce or enhance multimodal facilities and amenities by making the best use of available right of way, including narrowing travel lanes to standard dimensions, striping new or enhanced bikeways, adding or enhancing crosswalks, improving intersection markings, and other transportation "best practices." CT1-9.3. Consider ways to increase and improve travel choices when reviewing development or transportation infrastructure projects by closing gaps in multimodal networks and enhancing the quality of multimodal facilities and amenities. CT1-9.4. Improve the existing street network to minimize nonmotorized and transit travel times and improve the mobility experience of transit, bicycle, and walking trips between new projects and surrounding land uses in an effort to reduce vehicle trips. CT1-9.5. Recognize and meet the mobility needs of pedestrians and bicyclists all skill levels and ages, persons using wheelchairs, and those with other mobility limitations. CT1-10 Alternative Improvements. Consider alternative improvements to traditional street, highway, and intersection construction that may vary from City standards, which maximize access to active transportation modes and/or provide equivalent mobility to all roadway users. These improvements may include treatments that improve the safety and/or comfort of active transportation and transit users, such as consideration of travel lane reductions (road diets), green paint for conflict markings, buffered bicycle lanes, bicycle boxes for two-stage turns, and other alternative	

Applicable SLOAPCD CAP Transportation Control Measures	Proposed General Plan Circulation Element Update Guiding Policies	Consistency with SLOAPCD CAP Transportation Control Measures
	striping, signage, or physical design. Alternatives may be permitted with City Council approval or City Engineer / Public Works Director Approval where delegated. CT1-11 Auto Circulation. Provide efficient citywide automobile circulation by maintaining and, where necessary, improving local and regional roadway facilities. CT1-12 Signal Operations. Provide and maintain coordinated traffic control systems that move traffic within and through the City in an efficient and orderly manner. Upgrade systems as technology evolves. CT1-13 Safety. Maintain and periodically update a local roadway safety plan consistent with state and federal Highway Safety Improvement Program requirements. CT1-14 Access Management. Maintain and periodically update a local roadway safety plan consistent with state and federal Highway Safety Improvement Program requirements. CT2. Maintain & reduce vehicle miles traveled (VMT) in accordance with SB 743 and the City's adopted Policy. CT2-1. Reduce VMT. Periodically update VMT baselines and thresholds of significance, as established in the City's VMT Policy, for evaluating transportation impacts under CEQA pursuant to SB 743.	

Table B-2. Proposed General Plan Circulation Element Update Consistency with the SLOCOG 2014 RTP/SCS

Applicable 2014 SCS Policies	Proposed General Plan Circulation Element Update Guiding Policies	Consistency with 2014 SCS Policies
SCS 1. Improve mobility through a combination of strategies and investments to accommodate anticipated growth in transportation demand and reduce current and projected levels of congestion.	CT1. Schedule and implement the Circulation system identified in the Circulation Map (Circulation Element Update Figure 2-2) as development occurs and as part of the City's Capital Improvement Program. Make efficient use of existing transportation facilities, improve these facilities, and build new facilities as necessary in accordance with the Circulation Map. CT1-1 Standards. Streets shall be constructed in conformance with the City and State's adopted Engineering Standards, Plans, and Policies that apply to each classification. Variations and modifications in Standards and planned alignments may be permitted with City Council approval or City Engineer / Public Works Director approval where delegated. CT1-1.1. Consider specific design guidelines and landscaping standards appropriate to a designated connected system of "Scenic Streets & Highways" for resident and visitor enjoyment. CT1-1.2. Update City's Engineering Standards, Plans, and Policies to be consistent with the Proposed Standard Cross Sections shown in Table 2-2 (reference). CT1-2 Intersections. Roundabouts should be considered when evaluating new or modified intersection controls as an alternative to intersection signalization. Protected active transportation intersection elements should be considered when intersections are improved along a protected (Class I or Class IV) bikeway route. CT1-3 State Facilities. State facilities are to be designed and constructed per Caltrans design standards or as mutually approved. CT1-4 Primary Arterial Streets. 4 lanes with or without median / two-way left turn lane, access management, optional parkways, optional on-street parking, bike & pedestrian facilities per adopted plan, transit turnouts and other design features: minimum 110' right of way. CT1-5 Arterial Streets. 2 lanes with or without median/center turn lane, optional landscaped parkways, optional on-street parking, bike and pedestrian facilities per adopted plan, some transit and other design features; minimum 86' of right-of-way. CT1-6 Collector Streets. 2 lanes with or without turn lane; access management, bike and pedestrian facilities per adopted plan, some transit and other design features, optional landscaped parkways & on-street parking where feasible; minimum 78' of right-of-way. CT1-7 Local Collector Streets. 2 lanes without a turn lane; bike and pedestrian facilities per adopted plan, some transit and other design features, optional landscaped parkways and on-street parking where feasible; minimum 60' right-of-way. CT1-8 Local Streets. 2 lanes, on-street parking; bike and pedestrian facilities per adopted plan, sidewalks on one or both sides, other design variables in hillside, cul-de-sac, or other special conditions; minimum 52' right-of-way. CT1-9 Complete Streets. Complete streets are roadways designed and operated to enable safe access for all users, including pedestrians, bicyclists, motorists and transit	Consistent. The GPCEU guiding policies include numerous implementing policies and measures designed to implement transportation improvements to address existing and future planned growth. Implementation of these measures, as well as various other policies contained in the GPCEU, would support implementation of measure SCS 1.

Applicable 2014 SCS Policies	Proposed General Plan Circulation Element Update Guiding Policies	Consistency with 2014 SCS Policies
	riders of all ages and abilities. All street standards should be periodically reviewed and revised for design, construction, operation and maintenance to achieve a network of complete streets. Optional features include landscaped medians, curb bulbouts and parkways and/or street trees and similar design amenities when approved by the City. When constructing or modifying transportation facilities, strive to provide for the movement of vehicles, commercial trucks, alternative and low energy vehicles, transit, bicyclists, and pedestrians in a manner that is appropriate for the road classification and adjacent land use. CT1-10 Alternative Improvements. Consider alternative improvements to traditional street, highway, and intersection construction that may vary from City standards, which maximize access to active transportation modes and/or provide equivalent mobility to all roadway users. These improvements may include treatments that improve the safety and/or comfort of active transportation and transit users, such as consideration of travel lane reductions (road diets), green paint for conflict markings, buffered bicycle lanes, bicycle boxes for two-stage turns, and other alternative striping, signage, or physical design. Alternatives may be permitted with City Council approval or City Engineer / Public Works Director Approval where delegated. CT5 Ensure compatibility and complimentary relationships between the circulation system and existing and planned land uses, promoting environmental objectives such as safe and uncongested neighborhoods, energy conservation, reduction of greenhouse as, air, and noise pollution, and access bicycle, pedestrian, and transit facilities. CT5-2 Transit Oriented Development. Promote "Transit-Oriented Developments" and coordinated, compatible land use patterns by encouraging multiple family residential and special needs housing in Mixed Use Corridors, the Village Core, and near Office, Regional Commercial, Business Park, and major Community Facility areas. CT5-2.1 Work with RTA to continue to support and expand transit routes that serve regional destinations within the City like the Regional Commercial areas and the Village Core, E. Grand Avenue, and W. Branch Street missed use and commercial corridors. CT5-2.2 Work with RTA to continue to support and expand transit loops to serve Halcyon Road / Fair Oaks Boulevard, local office buildings, James Way and Rancho Parkway residential areas, and the Village Core, E. Grand Avenue, and W. Branch Street corridors. CT5-9 Travel Demand Management. Consider ways to shift travel demand away from the peak period using Transportation Demand Management (TDM) strategies, especially in situations where peak traffic problems result from a few major generators (e.g., large retail developments on highway corridor). Strategies to consider include: (a) Requiring employer-sponsored incentives for transit, bike, or carpool use; (b) Requiring shuttle service to major events and destinations; (c) Requiring events to occur at off-peak hours;	

Applicable 2014 SCS Policies	Proposed General Plan Circulation Element Update Guiding Policies	Consistency with 2014 SCS Policies
	(d) Coordinating centralized TDM programs that serve multiple tenants at large shopping or office centers; and (e) Performing periodic evaluations of the City's (and Caltrans) traffic control system with emphasis on traffic signal timing, phasing, and coordination to optimize flow along arterial corridors. CT8. Schedule and implement the Bicycle network identified in the Bicycle Improvements Map (Figure 3-3) as development occurs and as part of the City's Capital Improvement Program. Make efficient use of existing transportation facilities, improve these facilities, and build new facilities as necessary in accordance with the Bicycle & Trails Master Plan. CT8-1 Prioritization. Promote and improve bicycle circulation facilities to serve all areas of the City as a priority system. Link with regional systems and prioritize connections with schools, parks, transit, and major public facilities. CT8-1.1. The City should strive to include implementation of planned bicycle facilities as part of its Capital Improvement Budget. CT8-2 Bicycle Network Connectivity. New development that lacks connectivity to the existing bicycle network beyond the project frontage shall be required to complete missing offsite gaps per the City's Bicycle and Trails Master plan to the maximum extent feasible. Improvements may be facilitated through reimbursement agreements. CT8-2.1. New development adjacent to planned bicycle infrastructure shall not obstruct or otherwise preclude future construction of bicycle infrastructure. CT8-3 Standards & Guidance. Implement the Bicycle & Trails Master Plan and proposed improvements (Figure 3-3 and Figure 3-4) in accordance with the City's Standard Specifications & Engineering Standards, State Engineering Standards & Specifications, and the National Association of Transportation Officials (NACTO) Urban Bikeway Design Guide. CT8-3.1. Update the City's Bicycle & Trails Master Plan in the form of an Active Transportation Plan, to incorporate pedestrian travel, in accordance with State guidelines and industry best practices. CT8-3.2. Ensure that the future updates to the adopted Bicycle & Trails Master Plan maintains consistency with the requirements of the Streets and Highway Code in order to be eligible for further funding for improvements from the State, such as the Active Transportation Program (ATP). CT8-4 Class I Bike Path. An essential part of developing a low-stress bicycle network, these off-street paths and trails are designated for both pedestrian and bicycle use. CT8-5 Class II Bike Lanes. On-Street lanes designated for bicycle use and delineated from automobile lanes by roadway markings. Where ROW permits, class II bike lanes shall be provided to the maximum extent feasible with buffers between adjacent auto lanes. When Class II bike lanes exceed LTS 3 (or operate low-stress network LTS standard), the facility shall be converted to protected Class IV bikeway or a parallel Class I to the maximum extent feasible.	

Applicable 2014 SCS Policies	Proposed General Plan Circulation Element Update Guiding Policies	Consistency with 2014 SCS Policies
	CT8-6 Class III Bike Route. On-street auto lanes shared by both bicycles and automobiles. In order to increase awareness and visibility of bicyclists sharing the roadway with motorized vehicles, Class III bicycle facilities shall include respective signage (Bikes May Use Full Lane) and markings such as shared lane markings (sharrows) to the maximum extent feasible. When Class III bike facilities exceed LTS 3 (or operative low-stress network LTS standard), the facility shall be converted to dedicated Class II lanes if determined feasible. CT8-7 Class III Bike Boulevard. On Local Collectors where Class II bike lanes are not present, on local streets where LTS 3 is exceeded, Class III bike routes should be upgraded to the maximum extent feasible with features commensurate with a bicycle boulevard. When Class III bike facilities exceed LTS 3 (or operative low-stress network LTS standard), the facility shall be converted to dedicated Class II lanes if determined feasible. CT8-8 Class IV Protected Bike Lanes. On-street separated bikeways reserved for use by bicyclists only, with physical separation between the bikeway, travel lanes, and sidewalks. Class IV facilities can be one-way facilities on both sides of the street or two-way facilities on one side of the street. Physical separation can include concrete curbs, landscaping, parking lanes, bollards, or other vertical elements. CT9. Strive to attain and maintain a bicycle Level of Traffic Stress (LTS) of 3 or better on all bicycle facilities. Strive to attain and maintain designated low-stress network. CT9-1 Designation of LTS Standards. The City shall designate and adopt context-specific LTS standards that exceed the general LTS 3 goal, including designation of a low-stress bicycle network of complimentary LTS 1 and LTS 2 facilities, as part of an Active Transportation Plan, and/or through Safe Routes to School Plan(s). CT9-2 Degradation of LTS. New development which is projected to degrade bicycle LTS below the designated standard, or further exacerbate conditions already below the standard shall be required to make transportation improvements that offset the level of degradation to the maximum extent feasible. CT10-2.1. New development adjacent to planned pedestrian infrastructure shall not obstruct or otherwise preclude future construction of bicycle infrastructure CT10-4 Active Transportation Plan. Expand the City's Bicycle & Trails Master Plan into a Citywide Active Transportation Plan including pedestrian mode improvement plan and policies. CT11. Create safe and inviting environments for students, families, and staff to walk, bicycle, and use public transportation to and from school. CT11-1 Develop Safe Routes to School Plan(s). Develop a focused Safe Routes to School Plan (or Plans) for all K-12 schools in Arroyo Grande to improve safe and convenient walking and biking to school. CT11-2 Designate Low-Stress Bicycle Network. Designate a low-stress bicycle network that supports safe bicycle access to schools for all ages and abilities. A network of LTS 1 and LTS 2 facilities should be designated in the vicinity of schools when preparing and updating Safe Routes to School Plans and/or the City's Active Transportation Plan.	

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	CT11-3 Prioritize Active Transportation Network Improvements. Prioritize the closure of gaps in the pedestrian network (sidewalks, crosswalks) and low-stress bicycle network. Seek connections and paths between homes and schools, especially where dead-end streets, cul-de-sacs, and other street patterns impede circulation. Identify, improve, and formalize “shortcuts” and “goat paths” where feasible and implement wayfinding. CT12. Maintain and improve transit services and facilities in cooperation with transit operators and providers. CT12-1 Transit Stops. Strive to establish transit stops within ¼ mi walking distance of all residential and non-residential uses within the City. CT12-1.1. New development outside ¼ mi walking distance of existing transit stops shall be required to install transit stops and facilities to achieve a maximum ¼ mi walking distance to transit for the proposed development to the maximum extent feasible. CT12-1.2. Where transit stop locations conflict with protected bikeways, consider “best practices” referenced in the NACTO Urban Bikeway Design Guide, Urban Street Design Guide, and/or Transit Street Design Guide, such as floating transit islands, to minimize conflicts between modes. CT12-1.3. Along high-quality transit routes, improve stops to include stop elements such as transit shelters, bicycle parking, lighting, and level boarding, consistent with “best practices” referenced in the NACTO Transit Street Design Guide, Urban Bikeway Design Guide, and/or Urban Street Design Guide. CT12-2 Transit Providers/Operators. In cooperation with the Regional Transit Authority (RTA) or other transit operators, provide for a safe and efficient transit system for local and regional travel, particularly for youth, elderly, low-income or disabled persons. CT12-2.1. The City should encourage convenient routes and schedules on arterial and/or collector streets including stops, shelters, bus benches, turnouts, park and ride, transfer and other facilities or features to be provided in connection with new developments CT12-2.2. Work with transit operators to identify opportunities to implement transit intelligent transportation systems (ITS) elements such as transit signal priority, queue jump, and live passenger information and wayfinding. CT12-3 Employers. The City should encourage major employers to promote use of public transit and/or provide van/car pools, private shuttles or other trip reduction (flex time, telecommuting, bike) and transportation demand management measures. CT12-4 School Districts. Collaborate with Lucia Mar Unified School District and other educational institutions to plan improved school bus transportation system, including parking and loading areas, bus stop amenities, links with other transit providers, public parks, and maintenance and storage facilities, and coordination with safe bicycle and sidewalk facilities.	

Applicable 2014 SCS Policies	Proposed General Plan Circulation Element Update Guiding Policies	Consistency with 2014 SCS Policies
SCS 2. Facilitate the development and economic viability of communities in ways that reduce trips and travel distances.	CT12-5 Marketing. Encourage ridership on public transit systems through marketing and promotional efforts. Provide information to residents and employees on transit services available for local and regional trips.	Consistent. The GPCEU guiding policies include numerous implementing policies and measures designed to facilitate improvements that would reduce VMT. Implementation of these measures, as well as various other policies contained in the GPCEU, would support implementation of measure SCS 2.
	CT2. Maintain & reduce vehicle miles traveled (VMT) in accordance with SB 743 and the City's adopted Policy. CT2-1. Reduce VMT. Periodically update VMT baselines and thresholds of significance, as established in the City's VMT Policy, for evaluating transportation impacts under CEQA pursuant to SB 743. CT12-1 Transit Stops. Strive to establish transit stops within ¼ mi walking distance of all residential and non-residential uses within the City. CT12-1.1. New development outside ¼ mi walking distance of existing transit stops shall be required to install transit stops and facilities to achieve a maximum ¼ mi walking distance to transit for the proposed development to the maximum extent feasible. CT12-1.2. Where transit stop locations conflict with protected bikeways, consider "best practices" referenced in the NACTO Urban Bikeway Design Guide, Urban Street Design Guide, and/or Transit Street Design Guide, such as floating transit islands, to minimize conflicts between modes. CT12-1.3. Along high-quality transit routes, improve stops to include stop elements such as transit shelters, bicycle parking, lighting, and level boarding, consistent with "best practices" referenced in the NACTO Transit Street Design Guide, Urban Bikeway Design Guide, and/or Urban Street Design Guide. CT12-2 Transit Providers/Operators. In cooperation with the Regional Transit Authority (RTA) or other transit operators, provide for a safe and efficient transit system for local and regional travel, particularly for youth, elderly, low-income or disabled persons. CT12-2.1. The City should encourage convenient routes and schedules on arterial and/or collector streets including stops, shelters, bus benches, turnouts, park and ride, transfer and other facilities or features to be provided in connection with new developments CT12-2.2. Work with transit operators to identify opportunities to implement transit intelligent transportation systems (ITS) elements such as transit signal priority, queue jump, and live passenger information and wayfinding. CT12-3 Employers. The City should encourage major employers to promote use of public transit and/or provide van/car pools, private shuttles or other trip reduction (flex time, telecommuting, bike) and transportation demand management measures. CT12-4 School Districts. Collaborate with Lucia Mar Unified School District and other educational institutions to plan improved school bus transportation system, including parking and loading areas, bus stop amenities, links with other transit providers, public parks, and maintenance and storage facilities, and coordination with safe bicycle and sidewalk facilities.	

Applicable 2014 SCS Policies	Proposed General Plan Circulation Element Update Guiding Policies	Consistency with 2014 SCS Policies
SCS 3. Maintain and improve the regional transportation system in a manner which assists development and implementation of local general plans that support livable community concepts and efforts.	CT1. Schedule and implement the Circulation system identified in the Circulation Map (Circulation Element Update Figure 2-2) as development occurs and as part of the City's Capital Improvement Program. Make efficient use of existing transportation facilities, improve these facilities, and build new facilities as necessary in accordance with the Circulation Map. CT1-1 Standards. Streets shall be constructed in conformance with the City and State's adopted Engineering Standards, Plans, and Policies that apply to each classification. Variations and modifications in Standards and planned alignments may be permitted with City Council approval or City Engineer / Public Works Director approval where delegated. CT1-1.1. Consider specific design guidelines and landscaping standards appropriate to a designated connected system of "Scenic Streets & Highways" for resident and visitor enjoyment. CT1-1.2. Update City's Engineering Standards, Plans, and Policies to be consistent with the Proposed Standard Cross Sections shown in Table 2-2 (reference). CT1-2 Intersections. Roundabouts should be considered when evaluating new or modified intersection controls as an alternative to intersection signalization. Protected active transportation intersection elements should be considered when intersections are improved along a protected (Class I or Class IV) bikeway route. CT1-3 State Facilities. State facilities are to be designed and constructed per Caltrans design standards or as mutually approved. CT1-4 Primary Arterial Streets. 4 lanes with or without median / two-way left turn lane, access management, optional parkways, optional on-street parking, bike & pedestrian facilities per adopted plan, transit turnouts and other design features: minimum 110' right of way. CT1-5 Arterial Streets. 2 lanes with or without median/center turn lane, optional landscaped parkways, optional on-street parking, bike and pedestrian facilities per adopted plan, some transit and other design features; minimum 86' of right-of-way. CT1-6 Collector Streets. 2 lanes with or without turn lane; access management, bike and pedestrian facilities per adopted plan, some transit and other design features, optional landscaped parkways & on-street parking where feasible; minimum 78' of right-of-way. CT1-7 Local Collector Streets. 2 lanes without a turn lane; bike and pedestrian facilities per adopted plan, some transit and other design features, optional landscaped parkways and on-street parking where feasible; minimum 60' right-of-way. CT1-8 Local Streets. 2 lanes, on-street parking; bike and pedestrian facilities per adopted plan, sidewalks on one or both sides, other design variables in hillside, cul-de-sac, or other special conditions; minimum 52' right-of-way. CT1-9 Complete Streets. Complete streets are roadways designed and operated to enable safe access for all users, including pedestrians, bicyclists, motorists and transit riders of all ages and abilities. All street standards should be periodically reviewed and revised for design, construction, operation and maintenance to achieve a network	Consistent. The GPCEU guiding policies include numerous implementing policies and measures to improve regional transportation. Implementation of these measures, as well as various other policies contained in the GPCEU, would support implementation of measure SCS 3.

Applicable 2014 SCS Policies	Proposed General Plan Circulation Element Update Guiding Policies	Consistency with 2014 SCS Policies
	of complete streets. Optional features include landscaped medians, curb bulbouts and parkways and/or street trees and similar design amenities when approved by the City. When constructing or modifying transportation facilities, strive to provide for the movement of vehicles, commercial trucks, alternative and low energy vehicles, transit, bicyclists, and pedestrians in a manner that is appropriate for the road classification and adjacent land use. CT1-9.1. Evaluate projects to ensure that the safety, comfort, and convenience of pedestrians, bicyclists, and transit users are given an equal level of consideration to automobiles. CT1-9.2. Use roadway rehabilitation and maintenance projects as opportunities to introduce or enhance multimodal facilities and amenities by making the best use of available right of way, including narrowing travel lanes to standard dimensions, striping new or enhanced bikeways, adding or enhancing crosswalks, improving intersection markings, and other transportation “best practices.” CT1-9.3. Consider ways to increase and improve travel choices when reviewing development or transportation infrastructure projects by closing gaps in multimodal networks and enhancing the quality of multimodal facilities and amenities. CT1-9.4. Improve the existing street network to minimize nonmotorized and transit travel times and improve the mobility experience of transit, bicycle, and walking trips between new projects and surrounding land uses in an effort to reduce vehicle trips. CT1-9.5. Recognize and meet the mobility needs of pedestrians and bicyclists all skill levels and ages, persons using wheelchairs, and those with other mobility limitations. CT1-10 Alternative Improvements. Consider alternative improvements to traditional street, highway, and intersection construction that may vary from City standards, which maximize access to active transportation modes and/or provide equivalent mobility to all roadway users. These improvements may include treatments that improve the safety and/or comfort of active transportation and transit users, such as consideration of travel lane reductions (road diets), green paint for conflict markings, buffered bicycle lanes, bicycle boxes for two-stage turns, and other alternative striping, signage, or physical design. Alternatives may be permitted with City Council approval or City Engineer / Public Works Director Approval where delegated. CT1-11 Auto Circulation. Provide efficient citywide automobile circulation by maintaining and, where necessary, improving local and regional roadway facilities. CT1-12 Signal Operations. Provide and maintain coordinated traffic control systems that move traffic within and through the City in an efficient and orderly manner. Upgrade systems as technology evolves. CT1-13 Safety. Maintain and periodically update a local roadway safety plan consistent with state and federal Highway Safety Improvement Program requirements.	

Applicable 2014 SCS Policies	Proposed General Plan Circulation Element Update Guiding Policies	Consistency with 2014 SCS Policies
SCS 4. Reduce vehicle miles of travel related emissions by encouraging the use of public transit and other alternative forms of transportation and by supporting and encouraging the adoption of general plans and zoning that promote more compact communities. SCS 6. Provide more transportation choices. Develop safe, reliable and economical transportation choices to decrease household transportation costs, reduce our nation's dependence on foreign oil, improve air quality, reduce greenhouse gas emissions and promote public health.	CT1-14 Access Management. Minimize, to the maximum extent feasible, the number of access points along arterial roadways, including by consolidating or relocating driveways to provide for more efficient traffic movement. CT2. Maintain & reduce vehicle miles traveled (VMT) in accordance with SB 743 and the City's adopted Policy. CT2-1 Reduce VMT. Periodically update VMT baselines and thresholds of significance, as established in the City's VMT Policy, for evaluating transportation impacts under CEQA pursuant to SB 743. CT2. Maintain & reduce vehicle miles traveled (VMT) in accordance with SB 743 and the City's adopted Policy. CT2-1. Reduce VMT. Periodically update VMT baselines and thresholds of significance, as established in the City's VMT Policy, for evaluating transportation impacts under CEQA pursuant to SB 743. CT12. Maintain and improve transit services and facilities in cooperation with transit operators and providers. CT12-1 Transit Stops. Strive to establish transit stops within ¼ mi walking distance of all residential and non-residential uses within the City. CT12-1.1. New development outside ¼ mi walking distance of existing transit stops shall be required to install transit stops and facilities to achieve a maximum ¼ mi walking distance to transit for the proposed development to the maximum extent feasible. CT12-1.2. Where transit stop locations conflict with protected bikeways, consider "best practices" referenced in the NACTO Urban Bikeway Design Guide, Urban Street Design Guide, and/or Transit Street Design Guide, such as floating transit islands, to minimize conflicts between modes. CT12-1.3. Along high-quality transit routes, improve stops to include stop elements such as transit shelters, bicycle parking, lighting, and level boarding, consistent with "best practices" referenced in the NACTO Transit Street Design Guide, Urban Bikeway Design Guide, and/or Urban Street Design Guide. CT12-2 Transit Providers/Operators. In cooperation with the Regional Transit Authority (RTA) or other transit operators, provide for a safe and efficient transit system for local and regional travel, particularly for youth, elderly, low-income or disabled persons. CT12-2.1. The City should encourage convenient routes and schedules on arterial and/or collector streets including stops, shelters, bus benches, turnouts, park and ride, transfer and other facilities or features to be provided in connection with new developments CT12-2.2. Work with transit operators to identify opportunities to implement transit intelligent transportation systems (ITS) elements such as transit signal priority, queue jump, and live passenger information and wayfinding.	Consistent. The GPCEU guiding policies include numerous implementing policies and measures to promote alternative means of transportation and reduce VMT. Implementation of these measures, as well as various other policies contained in the GPCEU, would support implementation of measures SCS 4 and SCS 6.

Applicable 2014 SCS Policies	Proposed General Plan Circulation Element Update Guiding Policies	Consistency with 2014 SCS Policies
	CT12-3 Employers. The City should encourage major employers to promote use of public transit and/or provide van/car pools, private shuttles or other trip reduction (flex time, telecommuting, bike) and transportation demand management measures. CT12-4 School Districts. Collaborate with Lucia Mar Unified School District and other educational institutions to plan improved school bus transportation system, including parking and loading areas, bus stop amenities, links with other transit providers, public parks, and maintenance and storage facilities, and coordination with safe bicycle and sidewalk facilities.	
SCS 13. Maintain and enhance quality aesthetic experiences along transportation corridors and surrounding landscapes through mitigation planting, urban streetscape improvements, removal of billboards, and other visual enhancements.	CT1-1 Standards. Streets shall be constructed in conformance with the City and State's adopted Engineering Standards, Plans, and Policies that apply to each classification. Variations and modifications in Standards and planned alignments may be permitted with City Council approval or City Engineer / Public Works Director approval where delegated. CT1-1.1. Consider specific design guidelines and landscaping standards appropriate to a designated connected system of "Scenic Streets & Highways" for resident and visitor enjoyment. CT1-1.2. Update City's Engineering Standards, Plans, and Policies to be consistent with the Proposed Standard Cross Sections shown in Table 2-2 (reference). CT5-4 Community Design. Utilize the circulation system as a positive element of community design, including street trees and landscaped parkways and medians, special streetscape features in Mixed Use corridors and Village Core, and undergrounding of utilities, particularly along major streets.	Consistent. The GPCEU guiding policies include numerous implementing policies and measures to improve the circulation system, including specific design guidelines and landscaping standards. Implementation of these measures, as well as various other policies contained in the GPCEU, would support implementation of measure SCS 13.
TL-3. Expand Transit Network. Work with the Regional Transit Authority (RTA) and transit service providers to expand the local transit network (i.e., additional routes or stops, and/or expanded hours of operation) based on the greatest demand for service. TL-4. Increase Transit Service Frequency/Speed. Work with the RTA and transit services providers to increase transit service frequency (i.e., reducing headways) by identifying routes where increased bus frequency would improve service.	CT2. Maintain & reduce vehicle miles traveled (VMT) in accordance with SB 743 and the City's adopted Policy. CT2-1 Reduce VMT. Periodically update VMT baselines and thresholds of significance, as established in the City's VMT Policy, for evaluating transportation impacts under CEQA pursuant to SB 743. CT12. Maintain and improve transit services and facilities in cooperation with transit operators and providers. CT12-1 Transit Stops. Strive to establish transit stops within ¼ mi walking distance of all residential and non-residential uses within the City. CT12-1.1. New development outside ¼ mi walking distance of existing transit stops shall be required to install transit stops and facilities to achieve a maximum ¼ mi walking distance to transit for the proposed development to the maximum extent feasible. CT12-1.2. Where transit stop locations conflict with protected bikeways, consider "best practices" referenced in the NACTO Urban Bikeway Design Guide, Urban Street Design Guide, and/or Transit Street Design Guide, such as floating transit islands, to minimize conflicts between modes.	Consistent. The GPCEU guiding policies include numerous implementing policies and measures designed to improve transit service and facilities. Implementation of these policies, along with various other policies contained in the GPCEU, would support implementation of measures TL-3 and TL-4.

Applicable 2014 SCS Policies	Proposed General Plan Circulation Element Update Guiding Policies	Consistency with 2014 SCS Policies
TL-1. Bicycle Network. Continue to improve and expand the City's bicycle network and infrastructure. TL-2. Pedestrian Network. Continue to improve and expand the City's pedestrian network.	CT12-1.3. Along high-quality transit routes, improve stops to include stop elements such as transit shelters, bicycle parking, lighting, and level boarding, consistent with "best practices" referenced in the NACTO Transit Street Design Guide, Urban Bikeway Design Guide, and/or Urban Street Design Guide. CT12-2 Transit Providers/Operators. In cooperation with the Regional Transit Authority (RTA) or other transit operators, provide for a safe and efficient transit system for local and regional travel, particularly for youth, elderly, low-income or disabled persons. CT12-2.1. The City should encourage convenient routes and schedules on arterial and/or collector streets including stops, shelters, bus benches, turnouts, park and ride, transfer and other facilities or features to be provided in connection with new developments CT12-2.2. Work with transit operators to identify opportunities to implement transit intelligent transportation systems (ITS) elements such as transit signal priority, queue jump, and live passenger information and wayfinding. CT12-3 Employers. The City should encourage major employers to promote use of public transit and/or provide van/car pools, private shuttles or other trip reduction (flex time, telecommuting, bike) and transportation demand management measures. CT12-4 School Districts. Collaborate with Lucia Mar Unified School District and other educational institutions to plan improved school bus transportation system, including parking and loading areas, bus stop amenities, links with other transit providers, public parks, and maintenance and storage facilities, and coordination with safe bicycle and sidewalk facilities.	Consistent. The GPCEU guiding policies include numerous implementing policies designed to promote improved bicycling and pedestrian access within the community and surrounding areas. Implementation of these policies, along with various other policies contained in the GPCEU, would support implementation of measures TL-1 and TL-2.
	CT1-9 Complete Streets. Complete streets are roadways designed and operated to enable safe access for all users, including pedestrians, bicyclists, motorists and transit riders of all ages and abilities. All street standards should be periodically reviewed and revised for design, construction, operation and maintenance to achieve a network of complete streets. Optional features include landscaped medians, curb bulbouts and parkways and/or street trees and similar design amenities when approved by the City. When constructing or modifying transportation facilities, strive to provide for the movement of vehicles, commercial trucks, alternative and low energy vehicles, transit, bicyclists, and pedestrians in a manner that is appropriate for the road classification and adjacent land use. CT1-9.1. Evaluate projects to ensure that the safety, comfort, and convenience of pedestrians, bicyclists, and transit users are given an equal level of consideration to automobiles. CT1-9.2. Use roadway rehabilitation and maintenance projects as opportunities to introduce or enhance multimodal facilities and amenities by making the best use of available right of way, including narrowing travel lanes to standard dimensions, striping new or enhanced bikeways, adding or enhancing crosswalks, improving intersection markings, and other transportation "best practices".	

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	CT1-9.3. Consider ways to increase and improve travel choices when reviewing development or transportation infrastructure projects by closing gaps in multimodal networks and enhancing the quality of multimodal facilities and amenities. CT1-9.4. Improve the existing street network to minimize nonmotorized and transit travel times and improve the mobility experience of transit, bicycle, and walking trips between new projects and surrounding land uses in an effort to reduce vehicle trips. CT1-9.5. Recognize and meet the mobility needs of pedestrians and bicyclists all skill levels and ages, persons using wheelchairs, and those with other mobility limitations. CT8. Schedule and implement the Bicycle network identified in the Bicycle Improvements Map (Figure 3-3) as development occurs and as part of the City's Capital Improvement Program. Make efficient use of existing transportation facilities, improve these facilities, and build new facilities as necessary in accordance with the Bicycle & Trails Master Plan. CT8-1 Prioritization. Promote and improve bicycle circulation facilities to serve all areas of the City as a priority system. Link with regional systems and prioritize connections with schools, parks, transit, and major public facilities. CT8-1.1. The City should strive to include implementation of planned bicycle facilities as part of its Capital Improvement Budget. CT8-2 Bicycle Network Connectivity. New development that lacks connectivity to the existing bicycle network beyond the project frontage shall be required to complete missing offsite gaps per the City's Bicycle and Trails Master plan to the maximum extent feasible. Improvements maybe facilitated through reimbursement agreements. CT8-2.1. New development adjacent to planned bicycle infrastructure shall not obstruct or otherwise preclude future construction of bicycle infrastructure. CT8-3 Standards & Guidance. Implement the Bicycle & Trails Master Plan and proposed improvements (Figure 3-3 and Figure 3-4) in accordance with the City's Standard Specifications & Engineering Standards, State Engineering Standards & Specifications, and the National Association of Transportation Officials (NACTO) Urban Bikeway Design Guide. CT8-3.1. Update the City's Bicycle & Trails Master Plan in the form of an Active Transportation Plan, to incorporate pedestrian travel, in accordance with State guidelines and industry best practices. CT8-3.2. Ensure that the future updates to the adopted Bicycle & Trails Master Plan maintains consistency with the requirements of the Streets and Highway Code in order to be eligible for further funding for improvements from the State, such as the Active Transportation Program (ATP). CT8-4 Class I Bike Path. An essential part of developing a low-stress bicycle network, these off-street paths and trails are designated for both pedestrian and bicycle use.	

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	CT8-5 Class II Bike lanes. On-Street lanes designated for bicycle use and delineated from automobile lanes by roadway markings. Where ROW permits, class II bike lanes shall be provided to the maximum extent feasible with buffers between adjacent auto lanes. When Class II bike lanes exceed LTS 3 (or operate low-stress network LTS standard), the facility shall be converted to protected Class IV bikeway or a parallel Class I to the maximum extent feasible. CT8-6 Class III Bike Route. On-street auto lanes shared by both bicycles and automobiles. In order to increase awareness and visibility of bicyclists sharing the roadway with motorized vehicles, Class III bicycle facilities shall include respective signage (Bikes May Use Full Lane) and markings such as shared lane markings (sharrows) to the maximum extent feasible. When Class III bike facilities exceed LTS 3 (or operative low-stress network LTS standard), the facility shall be converted to dedicated Class II lanes if determined feasible. CT8-7 Class III Bike Boulevard. On Local Collectors where Class II bike lanes are not present, on local streets where LTS 3 is exceeded, Class III bike routes should be upgraded to the maximum extent feasible with features commensurate with a bicycle boulevard. When Class III bike facilities exceed LTS 3 (or operative low-stress network LTS standard), the facility shall be converted to dedicated Class II lanes if determined feasible. CT8-8 Class IV Protected Bike Lanes. On-street separated bikeways reserved for use by bicyclists only, with physical separation between the bikeway, travel lanes, and sidewalks. Class IV facilities can be one-way facilities on both sides of the street or two-way facilities on one side of the street. Physical separation can include concrete curbs, landscaping, parking lanes, bollards, or other vertical elements. CT9. Strive to attain and maintain a bicycle Level of Traffic Stress (LTS) of 3 or better on all bicycle facilities. Strive to attain and maintain designated low-stress network. CT9-1 Designation of LTS Standards. The City shall designate and adopt context-specific LTS standards that exceed the general LTS 3 goal, including designation of a low-stress bicycle network of complimentary LTS 1 and LTS 2 facilities, as part of an Active Transportation Plan, and/or through Safe Routes to School Plan(s). CT9-2 Degradation of LTS. New development which is projected to degrade bicycle LTS below the designated standard, or further exacerbate conditions already below the standard shall be required to make transportation improvements that offset the level of degradation to the maximum extent feasible. CT10-2.1. New development adjacent to planned pedestrian infrastructure shall not obstruct or otherwise preclude future construction of bicycle infrastructure CT10-4 Active Transportation Plan. Expand the City's Bicycle & Trails Master Plan into a Citywide Active Transportation Plan including pedestrian mode improvement plan and policies. CT11. Create safe and inviting environments for students, families, and staff to walk, bicycle, and use public transportation to and from school.	

Applicable 2014 SCS Policies	Proposed General Plan Circulation Element Update Guiding Policies	Consistency with 2014 SCS Policies
	CT11-1 Develop Safe Routes to School Plan(s). Develop a focused Safe Routes to School Plan (or Plans) for all K-12 schools in Arroyo Grande to improve safe and convenient walking and biking to school. CT11-2 Designate Low-Stress Bicycle Network. Designate a low-stress bicycle network that supports safe bicycle access to schools for all ages and abilities. A network of LTS 1 and LTS 2 facilities should be designated in the vicinity of schools when preparing and updating Safe Routes to School Plans and/or the City's Active Transportation Plan. CT11-3 Prioritize Active Transportation Network Improvements. Prioritize the closure of gaps in the pedestrian network (sidewalks, crosswalks) and low-stress bicycle network. Seek connections and paths between homes and schools, especially where dead-end streets, cul-de-sacs, and other street patterns impede circulation. Identify, improve, and formalize "shortcuts" and "goat paths" where feasible and implement wayfinding.	
TL-6. Parking Supply Management. Reduce parking requirements in areas such as the downtown where a variety of uses and services are planned in close proximity to each other and to transit. TL-7. Public Parking Pricing. Establish market-based pricing for public parking spaces, where appropriate.	CT4. Establish and manage on street parking to serve the primary purposes of the uses of each street while balancing the interferences that on-street parking may have on the primarily purposes of those streets. CT4-1 On-Street Parking. The City shall manage curb parking in business & commercial districts to provide for high turnover & short-term use to those visiting businesses and public facilities. CT4-1.1. Management of on-street parking shall not preclude consideration of converting on-street parking spaces to parklets. CT4-2 Village Core Parking Lots. Develop adequate public or shared off-street parking lots conveniently located behind and beside buildings in the Village Core and East Grand Avenue corridor, consistent with area design guidelines. CT4-3 Parking in-lieu districts. Support parking district(s) to collect in-lieu fees from new development to construct public parking where parking requirements cannot be met. CT4-4 Parking in Industrial Areas. Encourage secure off-street parking for tractor-trailer rigs in industrial land use areas where feasible. CT4-5 Parking in Agricultural Areas. Discourage on-street parking in Agricultural areas to enhance visibility and minimize trespassing.	Consistent. The GPCEU policies include numerous measures that support parking supply management, including use of alternative parking strategies, travel demand management strategies, and a parking incentive program (in-lieu fees). Implementation of these policies, along with various other policies contained in the GPCEU, would support implementation of measures TL-6 and TL-7.
TL-8. Electric Vehicle Network and Alternative Fueling Stations. Continue to work with the APCD, Central Coast Clean Cities Coalition, and neighboring jurisdictions to create and implement the electric vehicle readiness plan. TL-9. Smart Growth. Facilitate mixed-use, higher density, and infill development near existing or planned transit stops, in existing	CT1-9 Complete Streets. Complete streets are roadways designed and operated to enable safe access for all users, including pedestrians, bicyclists, motorists and transit riders of all ages and abilities. All street standards should be periodically reviewed and revised for design, construction, operation and maintenance to achieve a network of complete streets. Optional features include landscaped medians, curb bulbouts and parkways and/or street trees and similar design amenities when approved by the City. When constructing or modifying transportation facilities, strive to provide for the movement of vehicles, commercial trucks, alternative and low energy vehicles, transit,	Consistent. The GPCEU policies include numerous measures that support coordination with other agencies, such as the SLORTA, related to smart growth and the promotion of alternative means of transportation. Implementation of these policies, along with various other policies contained in the GPCEU, would support

Applicable 2014 SCS Policies	Proposed General Plan Circulation Element Update Guiding Policies	Consistency with 2014 SCS Policies
community centers/downtown, and in other designated areas.	bicyclists, and pedestrians in a manner that is appropriate for the road classification and adjacent land use. CT5. Ensure compatibility and complimentary relationships between the circulation system and existing and planned land uses, promoting environmental objectives such as safe and uncongested neighborhoods, energy conservation, reduction of greenhouse as, air, and noise pollution, and access bicycle, pedestrian, and transit facilities. CT5-1 Government Code Consistency. Provide and maintain a citywide circulation system that is correlated with planned land uses in the City and surrounding areas in the region consistent with Government Code §65302. CT5-2 Transit Oriented Development. Promote “Transit-Oriented Developments” and coordinated, compatible land use patterns by encouraging multiple family residential and special needs housing in Mixed Use Corridors, the Village Core, and near Office, Regional Commercial, Business Park, and major Community Facility areas. CT5-2.1. Work with RTA to continue to support and expand transit routes that serve regional destinations within the City like the Regional Commercial areas and the Village Core, E. Grand Avenue, and W. Branch Street missed use and commercial corridors. CT5-2.2. Work with RTA to continue to support and expand transit loops to serve Halcyon Road / Fair Oaks Boulevard, local office buildings, James Way and Rancho Parkway residential areas, and the Village Core, E. Grand Avenue, and W. Branch Street corridors. CT5-3 High Density Development. Consider higher density allowance and reduced parking requirements within one-quarter mile of transit routes when updating Development Code.	implementation of measures TL-8 and TL-9.

APPENDIX C

Vehicle Miles Traveled Analysis and TAZ Modelling Output Files

Memorandum

12 April 2021

To	Emily Creel, SWCA Environmental Consultants		
Copy to			
From	Rosanna Southern, EIT Todd Tregenza, AICP	Tel	916-782-8688
Subject	Vehicle Miles Traveled (VMT) Methodology for IS/MND	Project no.	11144936

Introduction

This memorandum has been prepared to present a brief summary of the methodology for evaluating the change in vehicle miles traveled (VMT) for the update of the City of Arroyo Grande Circulation Element. This memorandum will serve as technical documentation within the environmental document, pursuant to SB 743. Under SB 743, automobile delay, traditionally measured as level of service (LOS), is no longer considered as the metric for environmental transportation impacts under the California Environmental Quality Act (CEQA), but rather VMT. VMT measures the number and length of vehicle trips made on a daily basis. VMT is a useful indicator of overall land use and transportation efficiency, where the most efficient system is one that minimizes VMT by encouraging shorter vehicle trip lengths, more walking and biking, or increased carpooling and transit.

Methodology

The net change in total VMT Citywide has been evaluated for the proposed Circulation Element against the baseline conditions and against the “base” forecasted scenario utilizing the San Luis Obispo Council of Governments (SLOCOG) Regional Travel Demand Model VMT post-processor. The model’s VMT post-processor includes residential VMT, work VMT, and retail VMT. The SLOCOG model forecast land use data was modified to include approved/pending development projects in coordination with City staff. To estimate total VMT for each scenario, a boundary-based VMT assessment was conducted. The boundary-based methodology is quantified by the length of the vehicle trips that occur within the City region. Project impacts on transportation are determined based on an increase in total VMT with the proposed plan. This methodology is consistent with the Office of Planning and Research’s *Technical Advisory on Evaluating Transportation Impacts in CEQA* (OPR Technical Advisory, December 2018) and CEQA Guidelines.

Results

The list below describes the scenarios analyzed. Table 1 presents the summary of the VMT results.

- “2015 Base” scenario represents existing land uses and existing transportation network
- “2015 + AG CEU” scenario represents existing land uses with the proposed Circulation Element improvements
- “2045 Base” scenario represent 30-year RTP/SCS scenario
- “2045 + AG CEU” represent 30-year RTP/SCS scenario plus the proposed Circulation Element improvements

Table 1 **VTM Results Summary**

Year/Land Use Scenario	Network Scenario	Net VMT
2015	2015 Base	296,012
2015	2015 + AG CEU	294,717
<i>Net VMT Difference</i>		<i>-1,294</i>
2045	2045 Base	340,173
2045	2045 + AG CEU	339,391
<i>Net VMT Difference</i>		<i>-783</i>

The VMT results show a net decrease in both base and forecast years with the proposed Circulation Element improvements, and therefore does not have a significant impact on transportation. Additionally, the model does not reflect the proposed Circulation Element's full potential to decrease VMT related to proposed active transportation policies (i.e. complete streets policies, bicycle/pedestrian improvements, safe routes to school, etc.)

2015_Base

Zone1	RES_VMT	OFF_VMT	RET_VMT	Total VMT
101	208.87	7.03	55.62	271.52
102	0.00	0.00	0.00	0.00
103	0.00	220.26	567.23	787.48
104	418.07	222.97	1740.49	2381.54
105	1110.37	754.66	3233.32	5098.35
106	2958.97	65.07	569.10	3593.14
107	2172.16	4.05	231.59	2407.80
108	1740.38	6.63	210.58	1957.59
109	0.00	3768.59	7637.24	11405.83
110	2780.21	10.29	344.29	3134.79
111	0.00	0.00	0.00	0.00
112	1150.43	14.39	179.39	1344.22
113	58.01	282.70	2694.60	3035.30
115	579.75	0.00	55.09	634.84
116	1037.18	5.20	121.90	1164.28
117	1047.41	55.63	349.27	1452.31
118	1801.48	259.53	1051.75	3112.76
119	633.25	6.77	90.19	730.21
120	551.20	2.01	60.72	613.94
121	97.64	1.96	17.60	117.20
122	7.59	161.69	813.79	983.07
123	1799.05	39.17	598.53	2436.74
124	433.96	4.03	56.18	494.18
125	4043.50	75.77	770.07	4889.34
126	0.00	27.13	166.36	193.48
127	928.26	1.67	92.17	1022.10
128	2880.71	3.32	272.16	3156.19
129	594.84	0.00	53.62	648.46
130	1273.51	28.88	251.92	1554.32
131	775.51	344.38	1754.16	2874.05
132	4851.32	89.54	879.64	5820.50
133	1364.49	2.85	136.41	1503.75
134	204.51	231.54	1057.02	1493.07
135	0.00	0.00	0.00	0.00
136	572.75	0.00	51.21	623.96
137	207.76	124.28	599.15	931.20
138	703.88	66.87	1049.73	1820.48
139	1205.09	9.00	153.36	1367.45
140	160.37	19.23	105.48	285.07
141	951.14	39.71	269.21	1260.05
142	718.09	56.26	312.04	1086.39
143	1369.82	9.71	168.01	1547.54
144	2414.78	89.55	631.73	3136.06
145	623.42	9.17	98.12	730.71
146	691.55	69.40	542.76	1303.71
147	1120.95	1.87	110.00	1232.82
148	3237.15	4.13	320.72	3562.00
149	2453.68	22.54	330.05	2806.27
150	0.00	227.16	531.96	759.12
151	1233.18	1.13	120.13	1354.43
152	3246.53	28.13	445.98	3720.64

2015_Base

Zone1	RES_VMT	OFF_VMT	RET_VMT	Total VMT
153	2196.04	21.57	343.01	2560.62
154	3085.02	8.00	338.73	3431.74
155	1128.73	2.76	117.79	1249.27
156	942.89	0.00	86.08	1028.98
157	924.46	53.55	356.34	1334.35
158	1746.74	3.19	186.96	1936.89
159	313.70	20.52	139.60	473.82
160	386.43	2.82	52.11	441.36
161	792.18	27.80	246.08	1066.05
162	83.04	0.00	6.17	89.20
163	578.52	1.97	70.76	651.25
164	369.13	0.00	39.23	408.36
165	2747.60	24.57	423.56	3195.73
166	1096.88	0.00	109.20	1206.08
167	1676.17	7.81	209.87	1893.85
168	3657.38	22.35	469.70	4149.44
169	851.22	7.03	118.03	976.28
170	135.03	46.33	336.55	517.91
171	0.00	0.00	0.00	0.00
172	494.38	135.43	816.46	1446.27
173	1788.66	24.87	285.63	2099.16
174	530.45	0.00	54.02	584.47
175	320.89	61.91	709.73	1092.54
176	459.67	11.82	94.40	565.89
177	560.06	24.36	160.31	744.74
178	238.67	275.16	1117.98	1631.81
179	902.73	0.00	89.38	992.12
180	423.06	6.61	70.68	500.35
181	1212.43	3.10	138.15	1353.68
182	195.08	0.00	18.77	213.85
183	351.64	0.00	34.49	386.13
184	282.47	254.19	1039.57	1576.23
185	447.35	0.00	43.98	491.32
186	260.04	1.66	33.01	294.70
187	0.00	456.34	2114.24	2570.58
188	1000.96	7.41	128.05	1136.41
189	108.70	883.94	5285.64	6278.27
190	0.00	25.03	414.94	439.97
191	597.14	14.97	130.46	742.57
192	180.20	0.00	17.26	197.47
193	100.97	229.53	917.19	1247.69
194	83.75	344.43	1862.67	2290.86
195	201.35	349.82	1508.69	2059.87
196	529.55	0.00	52.16	581.72
197	289.98	282.73	1178.50	1751.21
198	0.00	481.80	1574.61	2056.41
199	106.13	58.21	475.94	640.28
200	0.00	88.43	394.91	483.34
201	1435.97	3.60	161.94	1601.51
202	2457.26	13.82	307.73	2778.80
203	0.00	0.00	0.00	0.00

2015_Base

Zone1	RES_VMT	OFF_VMT	RET_VMT	Total VMT
204	388.29	222.68	1496.98	2107.94
205	255.77	187.57	817.47	1260.82
206	1158.86	0.00	108.92	1267.77
207	1427.57	39.56	298.20	1765.33
208	395.27	261.50	1079.30	1736.06
209	421.63	159.97	1120.57	1702.17
210	190.80	265.98	1369.58	1826.37
211	3355.61	875.47	4197.20	8428.29
212	2565.28	216.60	1220.17	4002.06
213	0.00	363.34	1771.30	2134.64
214	0.00	0.00	0.00	0.00
215	0.00	0.00	0.00	0.00
216	12.71	0.00	2.28	14.99
217	0.00	0.00	0.00	0.00
218	851.64	7.79	128.84	988.27
219	52.29	0.00	3.86	56.15
220	1378.98	74.18	446.83	1899.99
221	4954.12	83.83	1033.14	6071.10
222	2296.87	0.00	242.30	2539.17
223	2600.56	17.56	347.96	2966.08
224	12.14	298.24	1330.30	1640.69
225	0.00	0.00	0.00	0.00
226	2130.36	2.59	227.36	2360.31
227	1869.42	0.00	183.13	2052.55
228	1954.26	5.70	218.82	2178.79
229	101.65	0.00	8.68	110.33
230	261.02	0.00	24.99	286.01
231	2493.49	15.68	320.21	2829.38
232	1843.22	2.61	190.90	2036.73
233	0.00	0.00	0.00	0.00
234	365.59	10.65	86.82	463.06
235	1873.63	26.03	350.42	2250.08
236	1908.42	14.43	237.36	2160.22
237	237.17	0.00	23.12	260.30
238	1003.76	1.50	107.29	1112.55
239	244.57	0.00	23.03	267.60
240	994.27	0.00	97.41	1091.68
241	1483.87	18.12	226.52	1728.51
242	0.00	47.64	196.87	244.50
243	399.95	0.00	38.10	438.06
244	338.99	0.00	32.70	371.70
245	507.76	23.96	155.39	687.11
246	1576.22	4.85	181.18	1762.25
247	2692.83	28.83	431.47	3153.12
248	994.98	3.00	114.18	1112.16
249	0.00	0.00	0.00	0.00
250	0.00	871.69	5192.93	6064.63
251	0.00	159.49	727.87	887.36
252	0.00	98.34	407.61	505.95
253	1182.09	1.70	125.07	1308.87
254	0.00	1138.42	11818.17	12956.59

2015_Base

Zone1	RES_VMT	OFF_VMT	RET_VMT	Total VMT
255	366.39	0.00	36.54	402.93
256	4786.10	15.20	549.30	5350.60
257	0.00	644.53	4092.01	4736.55
258	918.15	82.85	417.61	1418.61
259	0.00	0.00	0.00	0.00
260	0.00	117.68	580.17	697.85
261	0.00	0.00	0.00	0.00
262	0.00	0.00	0.00	0.00
263	1704.01	9.69	213.70	1927.40
264	289.21	0.00	28.90	318.11
265	13.73	0.00	2.52	16.25
266	0.00	0.00	0.00	0.00
267	1348.75	11.90	200.80	1561.44
268	2748.03	440.51	2122.16	5310.70
269	386.59	14.68	105.45	506.72
270	2844.87	127.87	888.28	3861.01
271	0.00	0.00	0.00	0.00
272	5933.61	82.48	1023.03	7039.12
273	1158.85	2.41	124.72	1285.98
274	103.79	0.00	10.42	114.22
275	749.15	0.00	72.66	821.81
276	12.35	6.34	20.43	39.12
278	868.78	59.37	343.93	1272.08
892	795.65	16.91	148.76	961.32
Total VMT	170,487	18,947	106,577	296,012

2015_AG_CEU

Zone1	RES_VMT	OFF_VMT	RET_VMT	Total VMT
101	210.01	7.08	56.59	273.68
102	0.00	0.00	0.00	0.00
103	0.00	219.18	566.17	785.35
104	409.16	220.80	1723.79	2353.75
105	1087.98	750.58	3239.27	5077.83
106	2897.81	64.97	566.05	3528.82
107	2154.74	4.05	232.49	2391.28
108	1772.32	6.62	211.63	1990.56
109	0.00	3771.93	7547.74	11319.66
110	2715.73	10.02	335.25	3061.00
111	0.00	0.00	0.00	0.00
112	1165.78	14.40	179.69	1359.87
113	58.09	280.68	2685.53	3024.30
115	586.65	0.00	55.16	641.81
116	1035.96	5.18	121.97	1163.12
117	1048.70	55.15	348.71	1452.56
118	1820.40	259.70	1053.59	3133.69
119	639.29	6.74	90.29	736.32
120	555.94	2.01	60.86	618.81
121	97.84	1.96	17.60	117.40
122	7.62	160.84	812.27	980.74
123	1802.78	39.26	598.94	2440.99
124	434.64	4.02	56.22	494.87
125	4065.66	75.99	772.98	4914.63
126	0.00	27.01	165.98	192.98
127	929.63	1.67	92.34	1023.64
128	2884.51	3.30	272.48	3160.29
129	596.41	0.00	53.66	650.07
130	1280.13	28.86	252.22	1561.21
131	780.33	344.76	1757.43	2882.51
132	4859.44	89.23	879.84	5828.50
133	1366.28	2.84	136.52	1505.63
134	204.49	230.96	1055.62	1491.08
135	0.00	0.00	0.00	0.00
136	574.55	0.00	51.22	625.77
137	205.67	123.13	593.98	922.77
138	696.23	66.01	1039.08	1801.32
139	1193.34	8.97	153.33	1355.64
140	157.79	19.08	105.19	282.07
141	939.86	39.45	267.48	1246.79
142	710.77	56.04	311.12	1077.93
143	1343.53	9.70	167.49	1520.72
144	2354.72	89.29	628.84	3072.85
145	614.75	9.09	97.68	721.52
146	682.58	68.76	538.38	1289.72
147	1096.93	1.86	109.42	1208.21
148	3220.75	4.11	321.88	3546.73
149	2426.73	22.64	328.87	2778.24
150	0.00	225.47	527.76	753.23
151	1221.64	1.12	120.69	1343.45
152	3183.96	28.02	445.18	3657.15

2015_AG_CEU

Zone1	RES_VMT	OFF_VMT	RET_VMT	Total VMT
153	2168.75	21.53	344.18	2534.46
154	3079.50	8.02	340.03	3427.56
155	1110.19	2.76	117.52	1230.47
156	943.17	0.00	86.35	1029.51
157	925.97	53.52	357.00	1336.49
158	1747.53	3.19	187.09	1937.81
159	315.71	20.67	141.47	477.85
160	399.81	2.86	53.63	456.30
161	791.43	27.43	242.59	1061.45
162	82.77	0.00	6.07	88.84
163	577.18	1.95	70.40	649.53
164	367.65	0.00	39.02	406.67
165	2741.64	24.42	420.84	3186.90
166	1095.14	0.00	109.10	1204.24
167	1677.02	7.81	209.58	1894.42
168	3659.94	22.37	469.53	4151.85
169	849.92	7.03	117.90	974.85
170	134.18	45.84	335.67	515.70
171	0.00	0.00	0.00	0.00
172	490.49	134.01	806.96	1431.46
173	1778.08	24.50	281.38	2083.96
174	528.93	0.00	52.96	581.89
175	318.39	61.25	695.49	1075.12
176	457.90	11.62	93.30	562.81
177	556.01	23.81	157.86	737.68
178	237.99	274.78	1110.04	1622.81
179	894.81	0.00	88.10	982.91
180	421.05	6.54	69.96	497.55
181	1211.23	3.04	136.86	1351.13
182	194.18	0.00	18.53	212.72
183	349.95	0.00	34.31	384.26
184	281.17	253.26	1034.95	1569.38
185	442.73	0.00	42.96	485.69
186	260.00	1.66	32.94	294.60
187	0.00	449.52	2097.96	2547.48
188	997.67	7.36	127.42	1132.44
189	108.45	886.12	5271.59	6266.16
190	0.00	25.00	413.79	438.79
191	596.82	14.95	130.52	742.29
192	179.97	0.00	17.19	197.17
193	100.95	229.46	921.16	1251.57
194	83.39	344.34	1855.73	2283.46
195	201.17	350.37	1513.89	2065.43
196	529.68	0.00	52.03	581.71
197	290.56	283.05	1179.62	1753.23
198	0.00	482.75	1572.60	2055.35
199	105.90	58.41	476.38	640.69
200	0.00	88.45	395.00	483.45
201	1429.42	3.56	158.24	1591.22
202	2458.72	13.83	307.69	2780.25
203	0.00	0.00	0.00	0.00

2015_AG_CEU

Zone1	RES_VMT	OFF_VMT	RET_VMT	Total VMT
204	392.12	220.97	1492.47	2105.56
205	247.80	186.56	812.50	1246.86
206	1134.50	0.00	108.72	1243.22
207	1394.57	39.35	297.17	1731.08
208	394.44	260.02	1075.33	1729.78
209	413.38	158.49	1109.81	1681.67
210	186.43	265.21	1365.99	1817.63
211	3305.84	868.67	4171.42	8345.94
212	2555.39	215.28	1217.46	3988.14
213	0.00	361.36	1773.08	2134.44
214	0.00	0.00	0.00	0.00
215	0.00	0.00	0.00	0.00
216	12.18	0.00	2.13	14.31
217	0.00	0.00	0.00	0.00
218	828.03	7.58	124.25	959.87
219	53.29	0.00	3.87	57.16
220	1375.57	75.10	451.69	1902.36
221	4783.96	81.24	989.27	5854.47
222	2215.86	0.00	232.12	2447.97
223	2502.65	17.01	337.62	2857.28
224	12.20	300.63	1317.53	1630.36
225	0.00	0.00	0.00	0.00
226	2114.20	2.57	227.98	2344.75
227	1819.53	0.00	178.77	1998.30
228	1950.99	5.71	218.55	2175.25
229	101.71	0.00	8.68	110.38
230	260.64	0.00	24.97	285.60
231	2494.74	15.67	320.00	2830.41
232	1839.78	2.61	190.50	2032.88
233	0.00	0.00	0.00	0.00
234	364.95	10.67	86.77	462.40
235	1872.81	26.06	351.09	2249.97
236	1908.36	14.46	236.12	2158.94
237	237.64	0.00	23.07	260.71
238	1001.85	1.50	107.04	1110.40
239	243.39	0.00	22.97	266.36
240	994.48	0.00	97.08	1091.56
241	1485.20	18.10	226.68	1729.98
242	0.00	47.53	196.31	243.84
243	398.60	0.00	38.02	436.61
244	338.36	0.00	32.64	371.00
245	508.10	24.00	155.34	687.44
246	1577.18	4.86	181.16	1763.20
247	2693.65	28.83	430.84	3153.33
248	995.41	3.00	114.13	1112.54
249	0.00	0.00	0.00	0.00
250	0.00	868.78	5194.06	6062.83
251	0.00	159.41	730.12	889.53
252	0.00	98.74	408.61	507.35
253	1182.87	1.70	125.18	1309.75
254	0.00	1135.65	11869.72	13005.38

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Zone1	RES_VMT	OFF_VMT	RET_VMT	Total VMT
255	365.59	0.00	36.51	402.10
256	4799.70	15.18	549.95	5364.83
257	0.00	644.41	4092.02	4736.43
258	923.09	82.85	417.52	1423.46
259	0.00	0.00	0.00	0.00
260	0.00	117.70	581.09	698.78
261	0.00	0.00	0.00	0.00
262	0.00	0.00	0.00	0.00
263	1709.48	9.64	213.94	1933.06
264	288.84	0.00	28.87	317.71
265	13.79	0.00	2.52	16.32
266	0.00	0.00	0.00	0.00
267	1351.68	11.89	201.25	1564.81
268	2751.31	441.69	2127.54	5320.55
269	386.90	14.69	105.44	507.03
270	2851.04	127.79	888.92	3867.74
271	0.00	0.00	0.00	0.00
272	5947.56	82.34	1023.65	7053.55
273	1163.68	2.41	124.86	1290.94
274	104.94	0.00	10.56	115.50
275	748.35	0.00	72.57	820.92
276	12.31	6.32	20.20	38.83
278	870.20	59.16	343.76	1273.12
892	796.41	16.95	148.86	962.23
Total VMT	169,543	18,904	106,271	294,717

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Zone1	RES_VMT	OFF_VMT	RET_VMT	Total VMT
101	307.30	6.82	77.43	391.55
102	0.00	0.00	0.00	0.00
103	0.00	222.69	605.80	828.50
104	395.81	328.79	2383.45	3108.05
105	1349.22	768.04	3571.24	5688.49
106	2865.14	66.86	625.15	3557.15
107	2151.86	4.11	257.26	2413.23
108	1673.48	6.76	227.26	1907.49
109	0.00	3492.49	7797.34	11289.83
110	2755.83	10.31	383.02	3149.15
111	0.00	101.29	861.85	963.14
112	1150.15	14.61	194.92	1359.68
113	68.08	294.76	2950.70	3313.55
115	758.43	0.00	79.84	838.27
116	1006.24	5.28	132.94	1144.47
117	1025.52	56.38	376.25	1458.15
118	2300.83	361.28	2501.35	5163.46
119	603.14	6.84	95.32	705.30
120	525.95	2.04	64.34	592.33
121	92.71	2.00	18.71	113.42
122	61.73	262.44	1721.01	2045.18
123	1689.23	40.23	648.87	2378.33
124	412.22	4.13	59.96	476.31
125	3789.63	76.85	817.75	4684.23
126	0.00	27.82	184.83	212.65
127	876.55	1.70	98.16	976.41
128	2769.34	3.41	294.78	3067.52
129	593.10	0.00	60.16	653.26
130	1201.79	29.47	269.68	1500.94
131	745.85	387.27	2240.50	3373.62
132	4652.66	92.26	962.86	5707.78
133	1387.57	2.92	155.83	1546.33
134	194.13	237.35	1146.28	1577.76
135	0.00	0.00	0.00	0.00
136	541.33	0.00	54.11	595.44
137	697.69	125.52	699.85	1523.05
138	753.41	67.13	1137.38	1957.92
139	1347.39	9.19	186.00	1542.58
140	574.96	19.47	158.59	753.02
141	1066.36	40.44	307.30	1414.09
142	1311.81	57.42	399.16	1768.39
143	1335.87	9.93	184.46	1530.26
144	2302.71	92.00	684.96	3079.67
145	610.81	9.32	106.53	726.66
146	656.06	70.07	596.55	1322.68
147	1084.89	1.91	120.30	1207.10
148	3420.90	4.20	392.22	3817.32
149	2434.56	22.99	369.65	2827.20
150	0.00	230.64	566.25	796.89
151	1235.91	1.15	136.03	1373.09
152	3095.63	28.55	481.67	3605.84

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Zone1	RES_VMT	OFF_VMT	RET_VMT	Total VMT
153	2096.74	21.98	379.51	2498.22
154	2929.30	8.17	363.34	3300.81
155	1053.36	2.81	128.30	1184.47
156	913.07	0.00	94.33	1007.40
157	878.22	54.67	384.29	1317.17
158	1663.90	3.23	197.05	1864.18
159	598.87	20.37	189.36	808.60
160	367.02	2.72	55.26	425.00
161	807.75	170.32	858.90	1836.97
162	2353.86	0.00	279.17	2633.03
163	544.81	1.93	76.65	623.39
164	370.82	0.00	44.04	414.86
165	2564.03	24.23	458.70	3046.96
166	1113.90	0.00	123.20	1237.10
167	1606.79	7.82	230.52	1845.13
168	3684.30	22.33	522.77	4229.40
169	818.81	6.99	130.90	956.69
170	398.69	73.25	595.74	1067.68
171	1223.47	0.00	137.03	1360.50
172	657.92	147.49	979.65	1785.07
173	1742.55	24.16	310.02	2076.74
174	528.34	0.00	59.65	587.98
175	426.22	60.78	753.13	1240.12
176	442.64	11.50	99.37	553.52
177	533.26	23.81	170.10	727.17
178	496.59	295.46	1404.58	2196.63
179	1059.28	0.00	115.70	1174.98
180	476.46	6.48	82.77	565.71
181	1188.48	3.01	150.87	1342.36
182	186.76	0.00	19.87	206.62
183	401.36	0.00	41.92	443.28
184	460.23	281.59	1338.81	2080.63
185	423.62	0.00	46.88	470.50
186	288.38	1.64	39.47	329.48
187	386.90	447.31	2275.74	3109.95
188	1064.57	7.26	146.09	1217.92
189	414.64	1006.85	6688.79	8110.28
190	0.00	24.51	439.24	463.75
191	602.01	14.64	142.45	759.10
192	290.07	0.00	31.72	321.79
193	231.12	245.51	1145.71	1622.34
194	167.75	353.89	2079.07	2600.71
195	321.16	341.24	1614.71	2277.11
196	508.60	0.00	55.56	564.16
197	848.24	306.32	1532.89	2687.45
198	0.00	477.21	1663.70	2140.91
199	1015.49	586.75	4066.75	5668.99
200	0.00	87.82	427.90	515.73
201	1689.50	3.53	212.31	1905.35
202	2369.84	13.73	332.74	2716.31
203	0.00	0.00	0.00	0.00

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Zone1	RES_VMT	OFF_VMT	RET_VMT	Total VMT
204	371.89	223.76	1583.47	2179.12
205	241.71	192.16	881.64	1315.51
206	1239.22	0.00	129.56	1368.78
207	1537.87	45.19	372.74	1955.79
208	381.62	364.24	1833.70	2579.56
209	510.78	176.93	1310.05	1997.76
210	523.58	297.40	1735.20	2556.18
211	3242.35	1083.12	5536.43	9861.89
212	2563.14	221.56	1340.28	4124.99
213	0.00	414.73	2276.87	2691.60
214	588.81	0.00	68.39	657.20
215	0.00	0.00	0.00	0.00
216	150.57	0.00	17.05	167.62
217	0.00	0.00	0.00	0.00
218	822.40	7.69	140.02	970.10
219	50.42	414.65	1784.44	2249.52
220	1340.69	73.19	475.79	1889.67
221	4719.52	113.33	1283.82	6116.67
222	2207.56	0.00	257.49	2465.06
223	2500.13	17.69	372.56	2890.39
224	11.80	298.28	1415.41	1725.50
225	0.00	0.00	0.00	0.00
226	2146.51	2.63	258.86	2408.00
227	1802.09	0.00	201.83	2003.91
228	1968.29	5.69	252.08	2226.06
229	98.13	0.00	9.37	107.50
230	251.34	0.00	26.91	278.25
231	2478.87	15.63	352.66	2847.17
232	1761.95	2.58	202.68	1967.21
233	0.00	0.00	0.00	0.00
234	373.75	10.59	96.57	480.91
235	2002.76	25.90	397.48	2426.14
236	1817.75	14.21	252.09	2084.05
237	507.84	0.00	55.41	563.25
238	1009.97	1.49	120.56	1132.03
239	231.26	0.00	24.12	255.38
240	974.13	0.00	105.35	1079.48
241	1456.18	17.98	244.72	1718.87
242	0.00	46.73	206.97	253.70
243	377.88	0.00	40.13	418.01
244	322.14	0.00	34.15	356.29
245	537.25	23.84	172.39	733.48
246	1595.02	4.81	200.95	1800.78
247	2546.27	28.84	468.83	3043.94
248	958.11	2.98	125.32	1086.42
249	0.00	0.00	0.00	0.00
250	0.00	866.47	5446.50	6312.97
251	90.00	230.51	1210.47	1530.98
252	0.00	97.45	432.58	530.03
253	1176.90	1.69	139.53	1318.13
254	0.00	1133.20	12646.97	13780.17

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Zone1	RES_VMT	OFF_VMT	RET_VMT	Total VMT
255	572.12	0.00	63.68	635.81
256	4769.96	15.32	613.72	5399.00
257	0.00	868.14	8326.67	9194.81
258	867.78	83.45	439.24	1390.47
259	0.00	0.00	0.00	0.00
260	0.00	118.51	623.89	742.40
261	0.00	0.00	0.00	0.00
262	0.00	0.00	0.00	0.00
263	1686.86	9.69	233.50	1930.06
264	400.33	0.00	44.47	444.80
265	13.08	0.00	2.68	15.76
266	0.00	0.00	0.00	0.00
267	1325.56	11.96	221.56	1559.09
268	2596.82	617.60	3133.79	6348.21
269	402.27	14.71	116.86	533.83
270	3309.19	128.60	1113.72	4551.51
271	0.00	0.00	0.00	0.00
272	5823.40	83.96	1153.14	7060.50
273	1132.92	2.43	135.73	1271.09
274	2994.98	0.00	388.73	3383.71
275	758.13	0.00	82.42	840.55
276	11.97	6.31	21.87	40.15
278	838.75	60.82	369.03	1268.59
892	739.62	17.33	153.16	910.10
Total VMT	182,816	21,416	135,941	340,173

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Zone1	RES_VMT	OFF_VMT	RET_VMT	Total VMT
101	306.14	6.85	77.18	390.17
102	0.00	0.00	0.00	0.00
103	0.00	222.49	605.90	828.39
104	391.97	325.67	2373.56	3091.20
105	1343.69	762.37	3583.54	5689.60
106	2844.39	66.67	623.65	3534.71
107	2151.33	4.09	259.10	2414.53
108	1703.47	6.74	229.17	1939.39
109	0.00	3487.00	7712.89	11199.89
110	2692.38	10.03	370.78	3073.19
111	0.00	101.23	860.32	961.55
112	1159.65	14.61	195.36	1369.62
113	68.18	292.07	2923.60	3283.85
115	765.52	0.00	80.01	845.54
116	1008.62	5.26	133.12	1147.00
117	1027.34	55.87	374.89	1458.10
118	2314.30	360.98	2505.78	5181.06
119	608.55	6.81	95.38	710.73
120	530.15	2.04	64.51	596.70
121	92.91	1.99	18.72	113.62
122	61.78	261.30	1714.70	2037.78
123	1691.27	40.33	649.39	2380.99
124	412.92	4.13	60.00	477.05
125	3808.18	77.29	823.69	4709.16
126	0.00	27.59	184.39	211.98
127	877.88	1.71	98.28	977.87
128	2770.52	3.39	294.87	3068.79
129	593.79	0.00	60.28	654.07
130	1211.57	29.36	270.33	1511.25
131	747.09	388.85	2254.19	3390.13
132	4657.98	91.81	962.19	5711.97
133	1389.32	2.92	155.99	1548.23
134	194.38	236.98	1146.42	1577.78
135	0.00	0.00	0.00	0.00
136	542.80	0.00	54.16	596.96
137	701.22	124.49	696.92	1522.64
138	747.76	66.19	1125.56	1939.51
139	1348.39	9.15	186.51	1544.06
140	571.97	19.23	157.85	749.05
141	1056.01	40.12	305.73	1401.85
142	1310.97	57.36	399.54	1767.87
143	1330.60	9.92	184.54	1525.06
144	2273.51	91.48	682.18	3047.17
145	606.03	9.24	106.15	721.41
146	661.08	69.65	592.19	1322.92
147	1069.49	1.90	119.78	1191.17
148	3442.95	4.18	392.06	3839.20
149	2419.66	22.91	369.89	2812.46
150	0.00	228.64	562.60	791.23
151	1235.29	1.14	136.98	1373.41
152	3042.47	28.55	481.63	3552.65

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Zone1	RES_VMT	OFF_VMT	RET_VMT	Total VMT
153	2055.97	21.95	380.03	2457.95
154	2931.60	8.22	365.47	3305.29
155	1044.02	2.81	128.34	1175.17
156	914.42	0.00	94.69	1009.11
157	880.55	54.60	385.23	1320.38
158	1658.99	3.24	196.96	1859.19
159	590.68	20.99	187.61	799.28
160	379.77	2.78	56.54	439.10
161	803.29	170.61	852.62	1826.51
162	2360.99	0.00	275.68	2636.67
163	543.50	1.93	76.17	621.60
164	370.57	0.00	43.83	414.40
165	2558.07	24.13	456.64	3038.84
166	1113.50	0.00	123.03	1236.53
167	1632.16	7.80	229.98	1869.94
168	3685.49	22.31	521.48	4229.29
169	817.67	6.98	130.56	955.21
170	395.36	73.14	595.88	1064.38
171	1220.83	0.00	136.38	1357.21
172	653.71	147.45	978.02	1779.18
173	1736.85	24.14	306.10	2067.09
174	530.11	0.00	59.26	589.37
175	424.50	60.70	751.94	1237.14
176	442.48	11.45	98.91	552.84
177	531.06	23.54	168.14	722.74
178	494.16	295.64	1402.03	2191.83
179	1053.64	0.00	114.46	1168.10
180	474.14	6.47	82.70	563.31
181	1181.73	3.02	149.76	1334.51
182	186.10	0.00	19.69	205.79
183	399.20	0.00	41.94	441.15
184	457.65	279.84	1333.80	2071.28
185	421.78	0.00	45.62	467.41
186	287.94	1.64	39.13	328.71
187	384.74	447.92	2275.58	3108.25
188	1064.99	7.23	145.81	1218.03
189	413.53	1010.29	6676.56	8100.38
190	0.00	24.53	438.31	462.83
191	606.29	14.56	142.36	763.21
192	287.37	0.00	31.39	318.76
193	230.56	245.32	1147.28	1623.15
194	167.06	355.02	2068.72	2590.79
195	320.21	340.19	1614.55	2274.95
196	508.61	0.00	55.21	563.82
197	845.57	306.03	1532.03	2683.63
198	0.00	477.04	1658.45	2135.49
199	1011.54	585.36	4051.50	5648.40
200	0.00	87.51	426.87	514.38
201	1685.72	3.53	206.93	1896.18
202	2370.25	13.74	331.80	2715.79
203	0.00	0.00	0.00	0.00

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Zone1	RES_VMT	OFF_VMT	RET_VMT	Total VMT
204	375.36	222.24	1579.52	2177.13
205	236.10	191.07	876.92	1304.09
206	1241.60	0.00	130.28	1371.88
207	1527.94	45.00	373.77	1946.72
208	383.91	361.94	1828.91	2574.76
209	505.03	175.94	1304.68	1985.65
210	516.90	296.18	1732.12	2545.19
211	3247.94	1075.63	5517.56	9841.13
212	2585.25	219.86	1338.95	4144.06
213	0.00	413.08	2277.95	2691.02
214	563.26	0.00	66.63	629.89
215	0.00	0.00	0.00	0.00
216	147.79	0.00	16.11	163.89
217	0.00	0.00	0.00	0.00
218	808.47	7.49	133.81	949.77
219	51.48	414.50	1795.28	2261.26
220	1338.06	73.94	480.31	1892.30
221	4647.77	110.03	1237.19	5994.99
222	2180.87	0.00	248.89	2429.75
223	2459.46	17.12	359.41	2835.99
224	11.90	298.77	1405.40	1716.08
225	0.00	0.00	0.00	0.00
226	2157.35	2.60	260.75	2420.70
227	1778.32	0.00	198.15	1976.47
228	1964.45	5.67	251.44	2221.57
229	98.20	0.00	9.34	107.54
230	250.96	0.00	26.85	277.81
231	2423.50	15.62	351.70	2790.82
232	1758.36	2.59	202.02	1962.97
233	0.00	0.00	0.00	0.00
234	372.84	10.58	96.35	479.76
235	2003.69	25.93	397.26	2426.88
236	1810.53	14.24	250.58	2075.34
237	506.87	0.00	55.22	562.09
238	1007.98	1.49	120.21	1129.69
239	230.77	0.00	24.06	254.84
240	973.43	0.00	104.42	1077.85
241	1457.10	17.99	244.34	1719.43
242	0.00	46.97	206.70	253.66
243	377.40	0.00	40.00	417.40
244	321.52	0.00	34.08	355.59
245	537.39	23.84	172.16	733.39
246	1595.75	4.82	200.59	1801.15
247	2540.31	28.86	467.91	3037.08
248	958.50	2.98	125.14	1086.63
249	0.00	0.00	0.00	0.00
250	0.00	863.19	5441.56	6304.75
251	90.35	231.07	1209.72	1531.15
252	0.00	97.73	433.79	531.52
253	1182.04	1.69	139.49	1323.22
254	0.00	1128.37	12608.60	13736.97

2045_AG_CEU

Zone1	RES_VMT	OFF_VMT	RET_VMT	Total VMT
255	574.67	0.00	63.69	638.36
256	4787.52	15.31	614.65	5417.47
257	0.00	872.38	8363.14	9235.52
258	872.06	83.55	440.24	1395.85
259	0.00	0.00	0.00	0.00
260	0.00	118.77	626.50	745.27
261	0.00	0.00	0.00	0.00
262	0.00	0.00	0.00	0.00
263	1692.55	9.70	233.88	1936.13
264	399.64	0.00	44.37	444.02
265	13.11	0.00	2.68	15.79
266	0.00	0.00	0.00	0.00
267	1325.70	11.99	222.32	1560.02
268	2589.20	620.30	3138.06	6347.56
269	401.31	14.70	116.69	532.70
270	3318.36	128.39	1113.91	4560.65
271	0.00	0.00	0.00	0.00
272	5826.56	83.64	1153.26	7063.47
273	1133.68	2.44	135.75	1271.88
274	2982.71	0.00	392.03	3374.74
275	758.13	0.00	82.25	840.38
276	11.94	6.32	21.78	40.05
278	840.03	60.70	369.28	1270.00
892	739.39	17.32	153.19	909.89
Total VMT	182,408	21,371	135,612	339,391

APPENDIX D

Species Lists

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

San Luis Obispo County, California



Local office

Ventura Fish And Wildlife Office

☎ (805) 644-1766

📠 (805) 644-3958

2493 Portola Road, Suite B
Ventura, CA 93003-7726

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species¹ and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information. IPaC only shows species that are regulated by USFWS (see FAQ).
2. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Mammals

NAME

STATUS

Giant Kangaroo Rat *Dipodomys ingens*

Endangered

Wherever found

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/6051>

Birds

NAME

STATUS

California Clapper Rail *Rallus longirostris obsoletus*

Endangered

Wherever found

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/4240>California Condor *Gymnogyps californianus*

Endangered

There is **final** critical habitat for this species. The location of the critical habitat is not available.<https://ecos.fws.gov/ecp/species/8193>California Least Tern *Sterna antillarum browni*

Endangered

Wherever found

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/8104>Least Bell's Vireo *Vireo bellii pusillus*

Endangered

Wherever found

There is **final** critical habitat for this species. The location of the critical habitat is not available.<https://ecos.fws.gov/ecp/species/5945>Marbled Murrelet *Brachyramphus marmoratus*

Threatened

There is **final** critical habitat for this species. The location of the critical habitat is not available.<https://ecos.fws.gov/ecp/species/4467>Southwestern Willow Flycatcher *Empidonax traillii extimus*

Endangered

Wherever found

There is **final** critical habitat for this species. The location of the critical habitat is not available.<https://ecos.fws.gov/ecp/species/6749>Western Snowy Plover *Charadrius nivosus nivosus*

Threatened

There is **final** critical habitat for this species. The location of the critical habitat is not available.<https://ecos.fws.gov/ecp/species/8035>

Reptiles

NAME	STATUS
Blunt-nosed Leopard Lizard <i>Gambelia silus</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/625	Endangered

Amphibians

NAME	STATUS
California Red-legged Frog <i>Rana draytonii</i> Wherever found There is final critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/2891	Threatened
California Tiger Salamander <i>Ambystoma californiense</i> There is final critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/2076	Threatened

Fishes

NAME	STATUS
Tidewater Goby <i>Eucyclogobius newberryi</i> Wherever found There is final critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/57	Endangered

Insects

NAME	STATUS
Kern Primrose Sphinx Moth <i>Euproserpinus euterpe</i> Wherever found There is proposed critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/7881	Threatened

Crustaceans

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

Flowering Plants

NAME	STATUS
California Jewelflower <i>Caulanthus californicus</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/4599	Endangered
Chorro Creek Bog Thistle <i>Cirsium fontinale</i> var. <i>obispoense</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/5991	Endangered
Gambel's Watercress <i>Rorippa gambellii</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/4201	Endangered
La Graciosa Thistle <i>Cirsium loncholepis</i> Wherever found There is final critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/6547	Endangered
Marsh Sandwort <i>Arenaria paludicola</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/2229	Endangered
Nipomo Mesa Lupine <i>Lupinus nipomensis</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/5480	Endangered
Pismo Clarkia <i>Clarkia speciosa</i> ssp. <i>immaculata</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/5936	Endangered
Salt Marsh Bird's-beak <i>Cordylanthus maritimus</i> ssp. <i>maritimus</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/6447	Endangered

Spreading Navarretia *Navarretia fossalis***Threatened**

Wherever found

There is **final** critical habitat for this species. The location of the critical habitat is not available.

<https://ecos.fws.gov/ecp/species/1334>

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>
- Measures for avoiding and minimizing impacts to birds <http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>
- Nationwide conservation measures for birds <http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf>

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern](#) (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird

species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME

BREEDING SEASON (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. "BREEDS ELSEWHERE" INDICATES THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)

Allen's Hummingbird *Selasphorus sasin*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9637>

Breeds Feb 1 to Jul 15

Bald Eagle *Haliaeetus leucocephalus*

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

<https://ecos.fws.gov/ecp/species/1626>

Breeds Jan 1 to Aug 31

Black Oystercatcher *Haematopus bachmani*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9591>

Breeds Apr 15 to Oct 31

Black Skimmer *Rynchops niger*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/5234>

Breeds May 20 to Sep 15

Black Turnstone *Arenaria melanocephala*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds elsewhere

California Thrasher <i>Toxostoma redivivum</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Jan 1 to Jul 31
Clark's Grebe <i>Aechmophorus clarkii</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Jan 1 to Dec 31
Common Yellowthroat <i>Geothlypis trichas sinuosa</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/2084	Breeds May 20 to Jul 31
Costa's Hummingbird <i>Calypte costae</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9470	Breeds Jan 15 to Jun 10
Golden Eagle <i>Aquila chrysaetos</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680	Breeds Jan 1 to Aug 31
Lawrence's Goldfinch <i>Carduelis lawrencei</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9464	Breeds Mar 20 to Sep 20
Long-billed Curlew <i>Numenius americanus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/5511	Breeds elsewhere
Marbled Godwit <i>Limosa fedoa</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9481	Breeds elsewhere
Nuttall's Woodpecker <i>Picoides nuttallii</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9410	Breeds Apr 1 to Jul 20

Oak Titmouse <i>Baeolophus inornatus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9656	Breeds Mar 15 to Jul 15
Rufous Hummingbird <i>Selasphorus rufus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8002	Breeds elsewhere
Short-billed Dowitcher <i>Limnodromus griseus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9480	Breeds elsewhere
Song Sparrow <i>Melospiza melodia</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds Feb 20 to Sep 5
Spotted Towhee <i>Pipilo maculatus clementae</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/4243	Breeds Apr 15 to Jul 20
Tricolored Blackbird <i>Agelaius tricolor</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3910	Breeds Mar 15 to Aug 10
Whimbrel <i>Numenius phaeopus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9483	Breeds elsewhere
Willet <i>Tringa semipalmata</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere
Wrentit <i>Chamaea fasciata</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 10
Yellow-billed Magpie <i>Pica nuttalli</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9726	Breeds Apr 1 to Jul 31

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (—)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.









Spotted Towhee
BCC - BCR (This is a
Bird of
Conservation
Concern (BCC) only
in particular Bird
Conservation
Regions (BCRs) in
the continental
USA)



Tricolored
Blackbird
BCC Rangewide
(CON) (This is a
Bird of
Conservation
Concern (BCC)
throughout its
range in the
continental USA
and Alaska.)



Whimbrel
BCC Rangewide
(CON) (This is a
Bird of
Conservation
Concern (BCC)
throughout its
range in the
continental USA
and Alaska.)



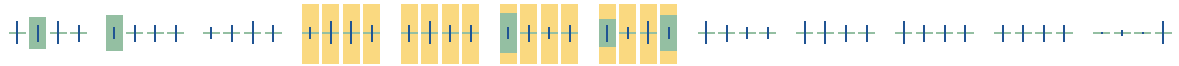
Willet
BCC Rangewide
(CON) (This is a
Bird of
Conservation
Concern (BCC)
throughout its
range in the
continental USA
and Alaska.)



Wrentit
BCC Rangewide
(CON) (This is a
Bird of
Conservation
Concern (BCC)
throughout its
range in the
continental USA
and Alaska.)



Yellow-billed
Magpie
BCC Rangewide
(CON) (This is a
Bird of
Conservation
Concern (BCC)
throughout its
range in the
continental USA
and Alaska.)



Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [AKN Phenology Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the [Probability of Presence Summary](#) and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: [The Cornell Lab of Ornithology All About Birds Bird Guide](#), or (if you are unsuccessful in locating the bird of interest there), the [Cornell Lab of Ornithology Neotropical Birds guide](#). If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

FRESHWATER EMERGENT WETLAND

[PEM1C](#)

[PEM1A](#)

[PEM1B](#)

FRESHWATER FORESTED/SHRUB WETLAND

[PFO1C](#)

[PSS1A](#)

[PFOA](#)

[PFO1A](#)

[PSS/FOC](#)

[PSSA](#)

[PSSC](#)

[PSSCh](#)

[PFOCh](#)

[PSSCx](#)[PSSAh](#)

FRESHWATER POND

[PUBHx](#)[PUBFh](#)[PUBF](#)

RIVERINE

[R4SBA](#)[R3UBH](#)[R4SBCx](#)[R4SBj](#)[R4SBAx](#)[R4SBC](#)[R5UBF](#)

A full description for each wetland code can be found at the [National Wetlands Inventory website](#)

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

Scientific_Name	Common_Name	Occ_Number	Federal_Status	State_Status	Rare_Plant_Rank	CDFW_Status
Anniella pulchra	Northern California legless lizard	172	None	None		SSC
Anniella pulchra	Northern California legless lizard	173	None	None		SSC
Anniella pulchra	Northern California legless lizard	171	None	None		SSC
Arctostaphylos pilosula	Santa Margarita manzanita	31	None	None	1B.2	
Arctostaphylos pilosula	Santa Margarita manzanita	32	None	None	1B.2	
Bombus caliginosus	obscure bumble bee	164	None	None		
Bombus caliginosus	obscure bumble bee	165	None	None		
Castilleja densiflora var. obispoensis	San Luis Obispo owl's-clover	19	None	None	1B.2	
Chenopodium littoreum	coastal goosefoot	5	None	None	1B.2	
Chorizanthe rectispina	straight-awned spineflower	21	None	None	1B.3	
Chorizanthe rectispina	straight-awned spineflower	26	None	None	1B.3	
Chorizanthe rectispina	straight-awned spineflower	22	None	None	1B.3	
Clarkia speciosa ssp. immaculata	Pismo clarkia	7	Endangered	Rare	1B.1	
Clarkia speciosa ssp. immaculata	Pismo clarkia	8	Endangered	Rare	1B.1	
Danaus plexippus pop. 1	monarch - California overwintering population	249	None	None		
Danaus plexippus pop. 1	monarch - California overwintering population	251	None	None		
Danaus plexippus pop. 1	monarch - California overwintering population	320	None	None		
Danaus plexippus pop. 1	monarch - California overwintering population	399	None	None		
Emys marmorata	western pond turtle	1143	None	None		SSC
Emys marmorata	western pond turtle	1165	None	None		SSC
Horkelia cuneata var. sericea	Kellogg's horkelia	48	None	None	1B.1	
Monardella sinuata ssp. sinuata	southern curly-leaved monardella	29	None	None	1B.2	
Monardella sinuata ssp. sinuata	southern curly-leaved monardella	38	None	None	1B.2	
Nasturtium gambelii	Gambel's water cress	16	Endangered	Threatened	1B.1	
Oncorhynchus mykiss irideus pop. 9	steelhead - south-central California coast DPS	17	Threatened	None		
Rana draytonii	California red-legged frog	319	Threatened	None		SSC
Rana draytonii	California red-legged frog	418	Threatened	None		SSC
Rana draytonii	California red-legged frog	459	Threatened	None		SSC
Taxidea taxus	American badger	200	None	None		SSC