

4.4 TRAFFIC AND CIRCULATION

This section of the Draft Environmental Report (“Draft EIR”; “DEIR”) describes the existing transportation system in the General Plan Planning Area (Planning Area) and addresses the potential impacts to the circulation system from the proposed project. The impact analysis evaluates the local and regional roadway, transit, bicycle, pedestrian, and aviation components of the overall transportation system. This section identifies environmental impacts associated with the proposed General Plan update and its associated project components, and appropriate mitigation measures are identified to reduce, lessen, or eliminate the proposed project’s impacts.

4.4.1 ENVIRONMENTAL SETTING

EXISTING CONDITIONS

The existing physical conditions of the transportation system serving the City of Ione (City) are discussed below. Although automobile travel is the primary function of the roadway network, it also serves a variety of other modes such as goods movement via trucks, transit, bicycling, and walking. According to the 2000 U.S. Census, approximately 89 percent of all working City residents traveled from home to work by automobile, of which 11 percent traveled by carpool. Travel by transit, bicycling, and walking combined accounted for approximately 6.6 percent, working at home accounted for approximately 1.5 percent, while travel by other means accounted for approximately 2.8 percent.

Work, shopping, recreation, school, and goods movement trips are responsible for most of the travel demand on the transportation system. Through traffic resulting from the seasonal recreation attractions in the Foothills and Sierra Nevada also contributes to traffic in the City of Ione.

ROADWAY NETWORK

Ione’s circulation system consists of a series of state routes, parkways, arterials, collectors, and local streets. Downtown Ione is based on a traditional grid style street system while a curvilinear style street system serves the surrounding uses.

The proposed General Plan Circulation Plan classifies streets according to their function. The existing and proposed roadway Circulation System is described below and illustrated on **Figure 4.4-1**.

State Routes

State Route (SR) 104 and SR 124 are the backbone of Ione’s roadway network providing local access through town and across Sutter Creek. Both SR 104 and SR 124 provide direct access to local streets and adjacent land uses. SR 104 and SR 124 also connect residents to the City of Sutter Creek, Amador County (County), Galt, and other destinations via SR 88 and SR 16.

State Route (SR) 104 enters the City of Ione from Galt in Sacramento County and continues southeast to Sutter Creek in Amador County. SR 104 is functionally classified as a Major Collector and is a two-lane expressway between the Sacramento County line and Sutter Lane. SR 104 is constructed as a two-lane conventional highway between Sutter Lane and SR 88. Intersections along the SR 104 corridor are primarily side-street stop controlled and all-way stop controlled at major intersections (e.g., SR 124). SR 104 has a posted speed limit of 25 miles per hour (mph)

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within the City limits and 45 mph outside the City limits. Within the city limits, SR 104 is referred to as Preston Avenue, South Ione Street, and Main Street.

State Route (SR) 124 enters the City of Ione from SR 16 near Plymouth and continues south to SR 88. SR 124 and SR 104 follow the same alignment through downtown Ione. SR 124 is functionally classified as a Minor Arterial and is a two-lane expressway between SR 16 and SR 104 and transitions to a two-lane conventional highway between SR 104 and SR 88. SR 124 has a posted speed limit of 25 miles per hour (mph) within the City limits and 45 mph outside the City limits. SR 124 is referred to as South Church Street, Main Street, Preston Avenue, and Plymouth Highway.

Parkways

Parkways serve both local and regional travel and provide for more expedient vehicular travel than most arterials, collectors, and local roads due to greater access control (i.e., less driveway access). Golf Links Drive and the WIRIS roadway segments are classified as Parkways. It should be noted that Golf Links Drive is not currently a through road and will only connect to Shakeley at Village 4 when constructed. However, it is planned as a parkway under the proposed project.

Arterials

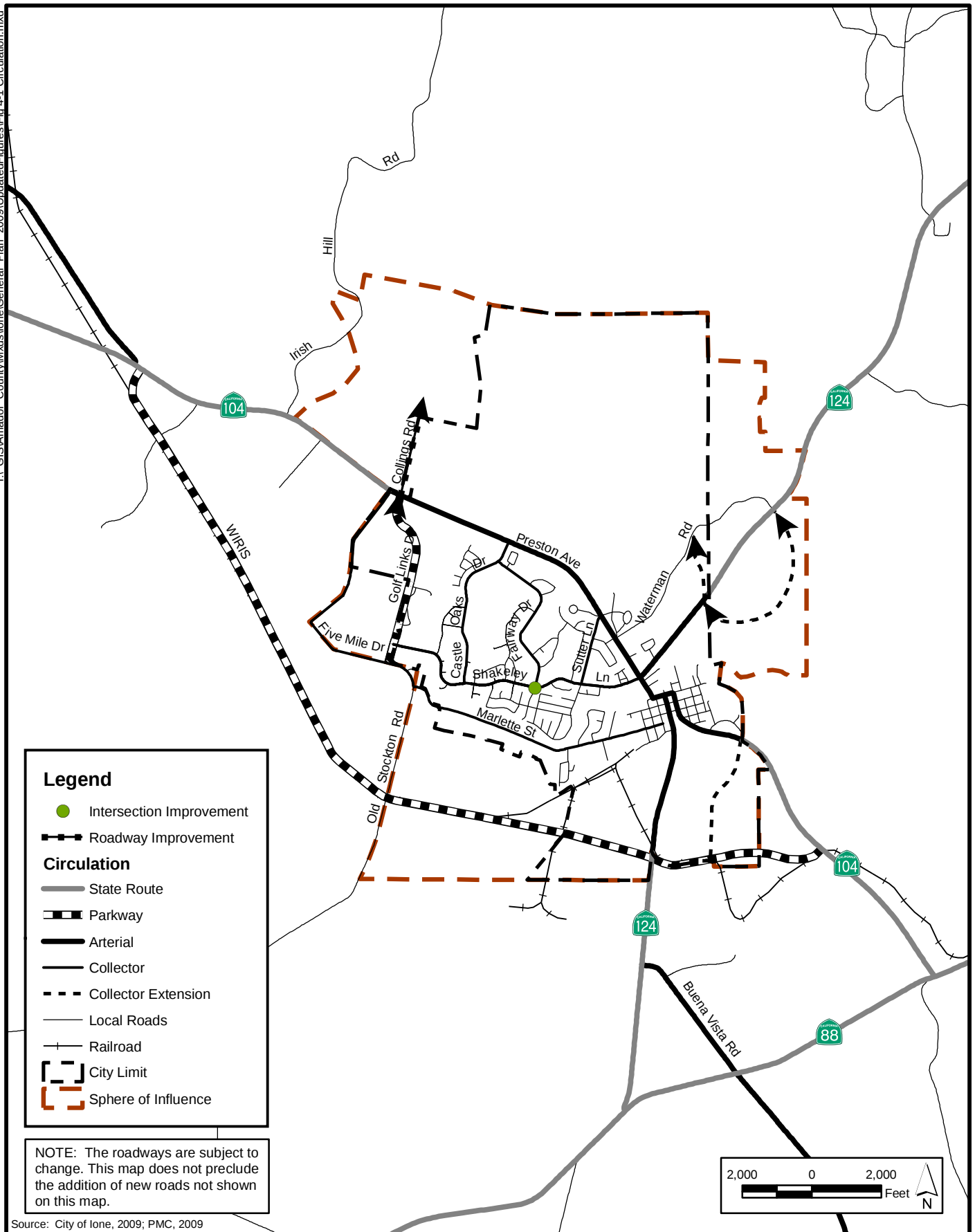
Arterials provide for cross-town and regional travel and carry heavy volumes of traffic. Major arterials within the City include SR 104 and 124. In the Planning Area, arterials include Michigan Bar Road and Buena Vista Road. SR 104 and SR 124 have posted speed limits of 25 miles-per-hour (mph) inside the City limits and 25 mph outside the City limits.

Collector Roads

Collector roads link different parts of the City with one another. Generally, collector roads carry light to moderate traffic volumes and have speed limits in the 25 to 35 mph range. In the City, collector roads include West Marlette Street, Shakeley Lane, Castle Oaks Drive, and Fairway Drive, Sutter Lane. Five Mile Drive, which is outside of the city limits but within the Planning Area, is also a collector road.

Local Roads

Local roads provide for circulation within neighborhoods and are generally posted at 25 mph. A few examples of local roads include Albatross Drive, Glenbrook Drive, West Jackson Street, Old Stockton Road, and Raymond Drive.



Study Roadway Segments

The following roadway segments were examined as part of the General Plan Circulation assessment due to their role in facilitating travel of the existing development within the City, through travel on the state highways, and future growth areas:

- SR 104 – Michigan Bar Road to Five Mile Drive
- SR 104 – Five Mile Drive to Sutter Lane
- SR 104 – Sutter Lane to SR 124 north
- SR 104 – SR 124 north to E Main Street
- SR 104 – SR 124 south to Foothills Boulevard
- SR 124 – E. Main Street to Washington Street
- SR 124 – Washington Street to WIRIS (future roadway)
- SR 124 – WIRS (future roadway) to Buena Vista Road
- SR 124 – Raymond Drive to City Limits
- SR 124 – City Limits to Waterman Road
- SR 124 – Waterman Road to Sutter lone Road
- Five Mile Drive – SR 104 to W. Marlette Street
- Old Stockton Road –W. Marlette Street to Cook Road
- Waterman Road – Preston Avenue (SR 104) to City Limits
- Waterman Road – City Limits to SR 124
- Sutter Lane – Preston Avenue (SR 104) to Shakeley Lane
- W. Marlette Street – Mill Street to Violet Lane
- Castle Oaks Drive – Fairway Drive to SR 104
- Golf Links Drive – SR 104 to Five Mile Drive
- WIRIS (future roadway) – SR 104 to Five Mile Drive / Old Stockton Road
- WIRIS (future Roadway) – Old Stockton Road to SR 124 (Future Roadway)

TRAFFIC OPERATIONS METHODOLOGY

The analysis methodology used to analyze roadway facilities is described below. The operations of roadway facilities are described with the term *level of service*. Level of service (LOS) is a qualitative description of traffic flow from the perspective of motorists based on factors such as speed, travel time, delay, freedom to maneuver, volume, and capacity. Six levels are defined from LOS A, as the least congested operating conditions, to LOS F, or the most congested operating conditions. LOS E represents “at-capacity” operations. When volumes exceed capacity, stop-and-go conditions result and operations are designated as LOS F.

LOS Thresholds

Table 4.4-1 presents the general characteristics of each level of service grade on roadway segments within the Planning Area.

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TABLE 4.4-1
LEVEL OF SERVICE DEFINITIONS/CHARACTERISTICS

Level of Service	Description
A	Represents free flow. Individual users are virtually unaffected by the presence of other vehicles in the traffic stream
B	Stable flow, but the presence of others in the traffic stream begins to be noticeable.
C	Stable flow, but marks the beginning of the range of flow in which the operation of individual users becomes significantly affected by interaction with others in the traffic stream.
D	Represents high density, but stable flow.
E	Represents operating conditions at or near the capacity level.
F	Represents forced or a breakdown in traffic flow.

Note: Forced breakdown is the result of the vehicle demand exceeding the capacity of the roadway.

Source: Highway Capacity Manual - Transportation Research Board, 2000.

For this General Plan analysis, LOS was determined by comparing existing and forecasted daily traffic volumes for selected roadway segments with daily LOS capacity thresholds. These thresholds are shown in **Table 4.4-2** and are consistent with capacities used in the 2004 Amador County Regional Transportation Plan Update. The key factors associated with the roadway capacities shown in **Table 4.4-2** reflect the roadway's travel lane width, shoulder width, general terrain, percentage of the route in which passing is not allowed, and pavement condition. This methodology also correlates to the 2000 Highway Capacity Manual (HCM) (Transportation Research Board, 2000). The 2000 HCM is the prevailing methodology for evaluating roadway operations.

TABLE 4.4-2
LEVEL OF SERVICE THRESHOLDS FOR ROADWAY SEGMENTS

Functional Classification	Daily Service Volumes (vehicles per day)				
	LOS A	LOS B	LOS C	LOS D	LOS E
Arterial, Class I	2,600	5,900	10,300	16,900	20,200
Arterial, Class II	2,200	5,200	9,300	15,300	18,900
Arterial, Class III	1,600	4,500	8,600	14,200	18,600
Arterial, Class IV	1,200	3,300	6,400	11,000	15,500
Arterial, Class V	1,000	3,000	5,900	10,200	14,300
Arterial (with climbing lane)	N/A	12,200	16,500	22,200	25,100
Arterial (2 lanes each direction)	N/A	24,900	30,800	32,700	34,900
Collector, Class I-III	1,300	3,900	7,500	12,600	16,900
Collector, Class IV	1,000	3,000	5,500	8,750	11,200
Collector, Class V	600	2,000	3,500	4,900	5,500

Source: 2004 Amador County Regional Transportation Plan Update.

Caltrans prepares a Transportation Concept Report (TCR) for each of its freeways and highways. The *SR 104 Transportation Concept Report* (Caltrans District 10, October 2003) and the *SR 124 Transportation Concept Report* (Caltrans District 10, December 2003) each have a route concept LOS of D. The route concept is the LOS that Caltrans strives to maintain.

Amador County's Circulation Element Roadway System Goal 1A (2) establishes a minimum LOS D on roadway segments for incorporated cities.

The City of Ione has an existing General Plan policy requiring LOS C. Policy 1.1 from the 2003 General Plan states,

"Policy 1.1

The City shall maintain a minimum Level Service "C" (LOS C) for major arterial, collector streets, and intersections and implement circulation improvements prior to deterioration in levels of service below LOS C for arterial and collectors. Table 2 of this Element identifies levels of service traffic volumes for roadways in Ione."

Policy CIR-1.3 from the City's proposed Circulation Element sets forth LOS standards for the City. The policy states:

*Seek to maintain operations on all roadways and intersections at Level of Service (LOS) E or better at all times, with the exceptions listed in **Policy CIR-1.4**. LOS E should be maintained even during peak travel times, unless maintaining this LOS would, in the City's judgment, be infeasible and/or conflict with the achievement of other goals or unless maintaining this LOS would not, in the City's judgment, adequately serve the City's circulation needs, per **Policy CIR-1.4**. (Cross reference CIR 1.3, CIR 1.4)*

Policy CIR-1.4 further states:

*In addition, exceptions to Policy CIR-1.3 may be allowed by the City Council where requiring a higher LOS or allowing a lower LOS would result in clear public benefits. Specific exceptions granted by the City Council shall be added to the list of exceptions below, depicted in **Figure 4-4**, and updated as needed (Cross reference CIR 1.3:*

- *Main Street, Church Street, Preston Avenue and Ione Street – LOS F;*
- *All Parkways (Golf Links Drive, WIRIS segments F, G, H, and I) – LOS D*

EXISTING TRAFFIC VOLUMES AND CONDITIONS

Existing traffic counts were assembled from several sources. In May 2008, 24-hour roadway segment counts for maintained roadways in the City of Ione were conducted. Existing 2008 daily traffic counts for SR 120 and SR 124 were obtained from Caltrans District 10 Traffic Census Data Branch. **Figure 4.4-2** shows existing daily roadway segment traffic volumes for roadways in the Planning Area.

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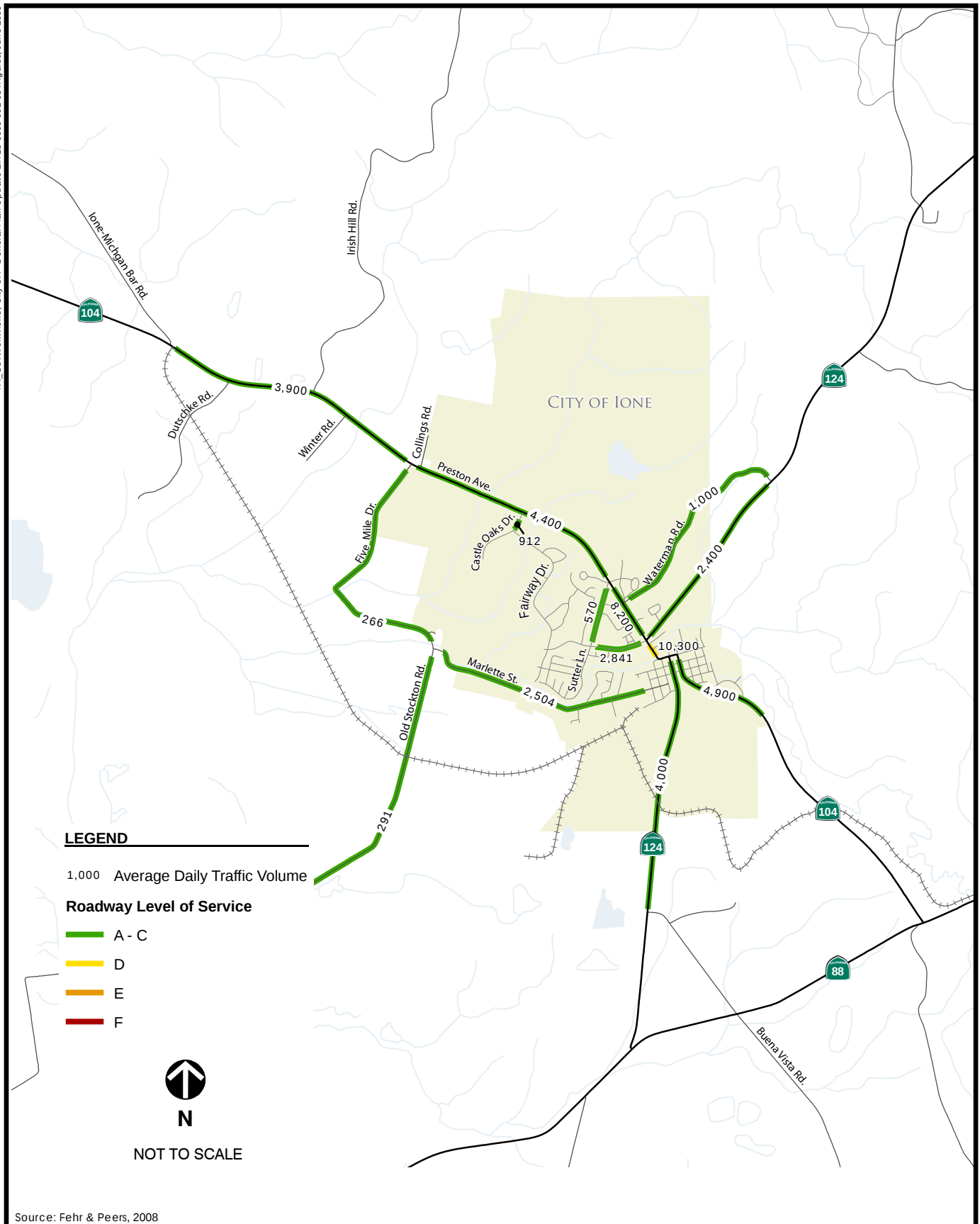
Existing Daily Traffic Volumes

As shown in **Table 4.4-3**, the current daily traffic volume on most of the study roadway segments and freeways indicates LOS C or better conditions. Of the study roadway segments, SR 104 (Preston Avenue) from SR 124 North to E. Main Street operates at LOS D, which is considered acceptable.

TABLE 4.4-3
CURRENT LEVELS OF SERVICE BASED ON DAILY TRAFFIC VOLUMES

Road	Location from	To	Existing Conditions			
			Lanes	Functional Classification	Volume	LOS
SR 104	Michigan Bar Road	Five Mile Drive	2	Arterial, Class II	3,900	B
	Five Mile Drive	Sutter Lane	2	Arterial, Class II	4,400	B
	Sutter Lane	SR 124 North	2	Arterial, Class II	8,200	C
	SR 124 North	E Main Street	2	Arterial, Class III	10,300	D
	SR 124 South	Foothills Boulevard	2	Arterial, Class III	4,900	C
SR 124	E Main Street	Washington Street	2	Arterial, Class II	4,000	B
	Washington Street	WIRIS	2	Arterial, Class II	4,000	B
	WIRIS	Buena Vista Road	2	Arterial, Class II	4,000	B
	Raymond Drive	City Limits	2	Arterial, Class II	2,400	B
	City Limits	Waterman Road	2	Arterial, Class II	2,400	A
	Waterman Road	Sutter lone Road	2	Arterial, Class II	2,400	A
Five Mile Drive	SR 104	W Marlette Street	2	Collector, Class IV	266	A
Old Stockton Road	W Marlette Street	Cook Road	2	Collector, Class I-III	291	A
Waterman Road	Preston Avenue (SR 104)	City Limits	2	Collector, Class IV	1,000	A
	City Limits	SR 124	2	Collector, Class IV	1,000	A
Sutter Lane	Preston Avenue (SR 104)	Shakeley Lane	2	Collector, Class IV	570	A
Shakeley Lane	Preston Avenue (SR 104)	Sutter Lane	2	Collector, Class IV	2,841	B
W. Marlette Street	Mills Street	Violet Lane	2	Collector, Class IV	2,504	B
Castle Oaks Drive	Fairway Drive	SR 104	2	Collector, Class IV	912	A

Source: Fehr & Peers, 2009.



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Figure 4.4-2
Existing Daily Roadway
Segment Traffic Volumes

The LOS methodology contained in **Table 4.4-2** reflects the daily capacity of a roadway and does not identify impacts on segments affected by downstream bottlenecks occurring during the peak commute periods. For example, a roadway may have sufficient capacity to accommodate the vehicular demand over the course of a day, but a motorist traveling during the peak hours may perceive that the roadway is more congested than shown in **Table 4.4-2** due the congestion experienced during a one or two hour period during the day.

Bicycle and Pedestrian Facilities

Bicycle facilities include Class I (off-street facilities), Class II (on-street bicycle lanes identified with signage and markings), and Class III (on-street bicycle routes identified by signage). Pedestrian facilities are comprised of paths, sidewalks and pedestrian crossings.

The City does not have any designated Class I bike paths. Shakeley Lane, between Fairway Drive to just east of Oak Street, is striped with a Class II bike lane. Pedestrian facilities in the City of Ione are comprised of sidewalks and pedestrian crossings. Although sidewalks are provided in many parts of the City, gaps in the sidewalk system exist.

The City of Ione *Proposed Bikeway and Sidewalk Project List* (City of Ione, 2008) contains 31 sidewalk and 20 bike lane improvement projects. **Figure 4.4-3** identifies the existing and proposed bikeways and trails contained in the proposed Circulation Element.

The proposed Circulation Element describes the existing and proposed bicycle and pedestrian facilities and contains policies guiding the implementation of an interconnected pedestrian and bicycle network. The proposed bicycle facilities consist of Class I bike paths and Class II bike lanes, which are defined as below:

- *Class I Bike Path – Off-street bikeways contained in a separate right-of-way designated for the exclusive use of bicycles and pedestrians.*
- *Class II Bike Lane – On-street bikeways within the paved roadway designated for the exclusive or semi-exclusive use of bicycles by pavement markings and signage.*

Transit Service

Amador County Transportation Commission (ACTC) operates the Amador Regional Transit System (ARTS). ARTS operates seven fixed-route lines and provides demand responsive bus service within one half mile of the designated route. ARTS also operates an express bus service from Amador County to downtown Sacramento.

Currently, one route serves the City of Ione. Route I connects Ione to Sutter Hill and Buena Vista/Comanche six times per day, Monday through Friday.

The City has one park-n-ride lot that facilitates mode shifts between single occupant vehicles to public transit. The park-n-ride lot is located on the northwest corner of the West Main Street (SR 104) / South Sacramento Street intersection.

Figure 4.4-4 identifies the existing transit system in the City of Ione.

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Aviation

There are no airports within or adjacent to the City of Ione. The nearest airport is Westover Field located near Martell (approximately 11 miles east). Westover Field is owned by Amador County and is the only public airport in the County. In addition, there is one other private airfield located in the County – Eagles Nest Airport off of Carbondale and Lambert Roads in north-west Amador County.

Rail/Highway Freight

The City of Ione is served by the Union Pacific Railway and several smaller spur lines accessing the industrial area south of town. Freight movement between the City of Ione and Galt occur approximately three times per week¹. There is no direct rail passenger service in Ione. The nearest Amtrak passenger service is located in Stockton.

With limited rail freight service, trucks handle most of the freight transport via the State Highway System. SR 104 and SR 124 are classified as California Legal Network with California Legal Advisory Route Kingpin to Rear Axle (KPRA) Advisory of 30 feet in downtown Ione. This means that trucks up to 40 feet are permitted to travel on SR 104 and SR 124, but trucks over 30 feet in downtown Ione are not advised due to roadway constraints (e.g., tight turning radius downtown Ione).

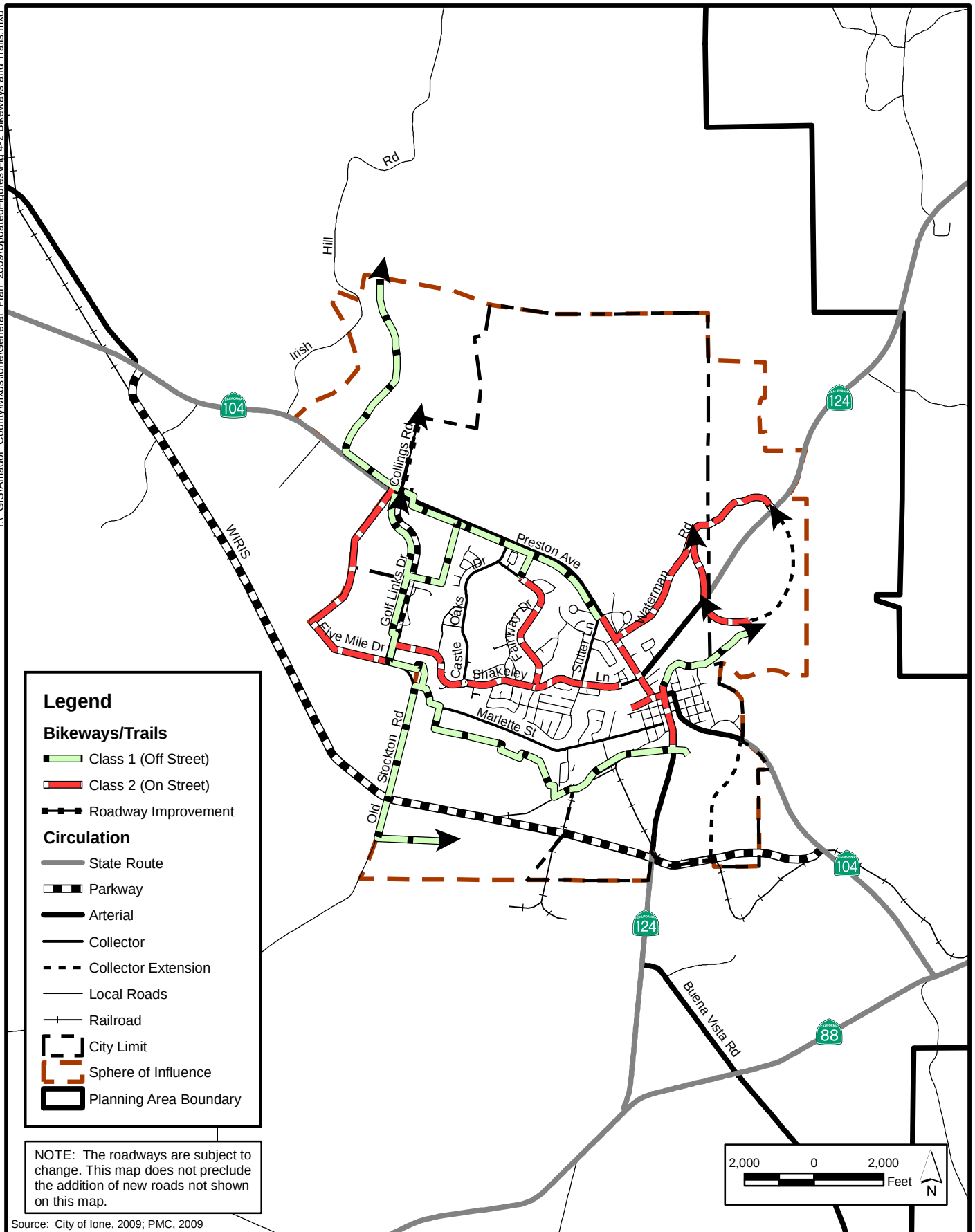
Truck traffic on SR 104 and SR 124 ranges between four and nine percent of the annual average daily traffic² as shown below:

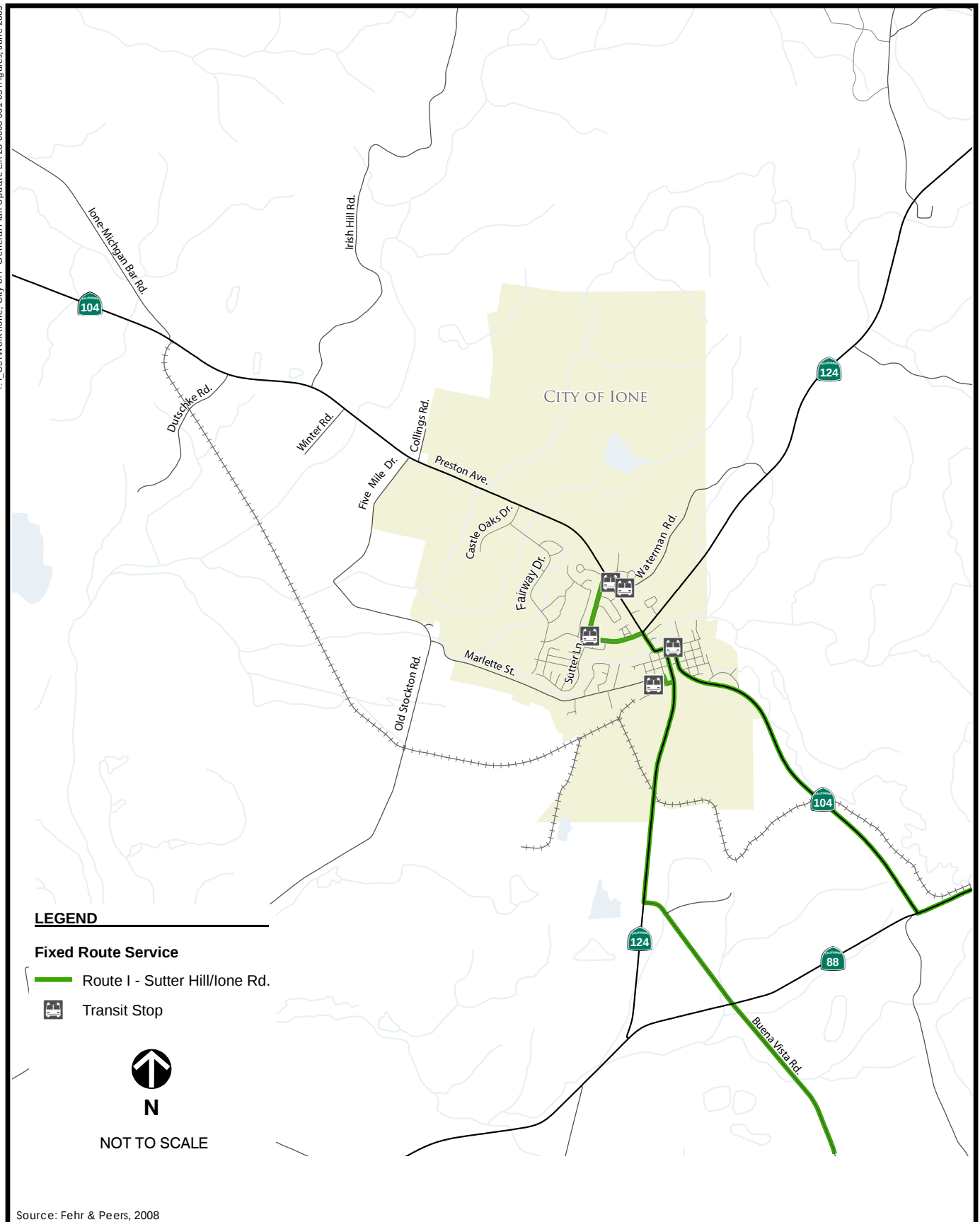
- SR 104 from City Limits to SR 124 north – 7.51 percent truck traffic
- SR 104 from SR 124 north to SR 124 south – 6.19 percent truck traffic
- SR 104 from SR 124 south to SR 88 – 4.19 percent truck traffic SR 124 from SR 88 to SR 104 south – 8.8 percent truck traffic
- SR 124 from SR 104 west to SR 16 – 5.0 percent truck traffic

Figure 4.4-5 illustrates the existing Goods movement facilities.

¹ 2004 Amador County Regional Transportation Plan

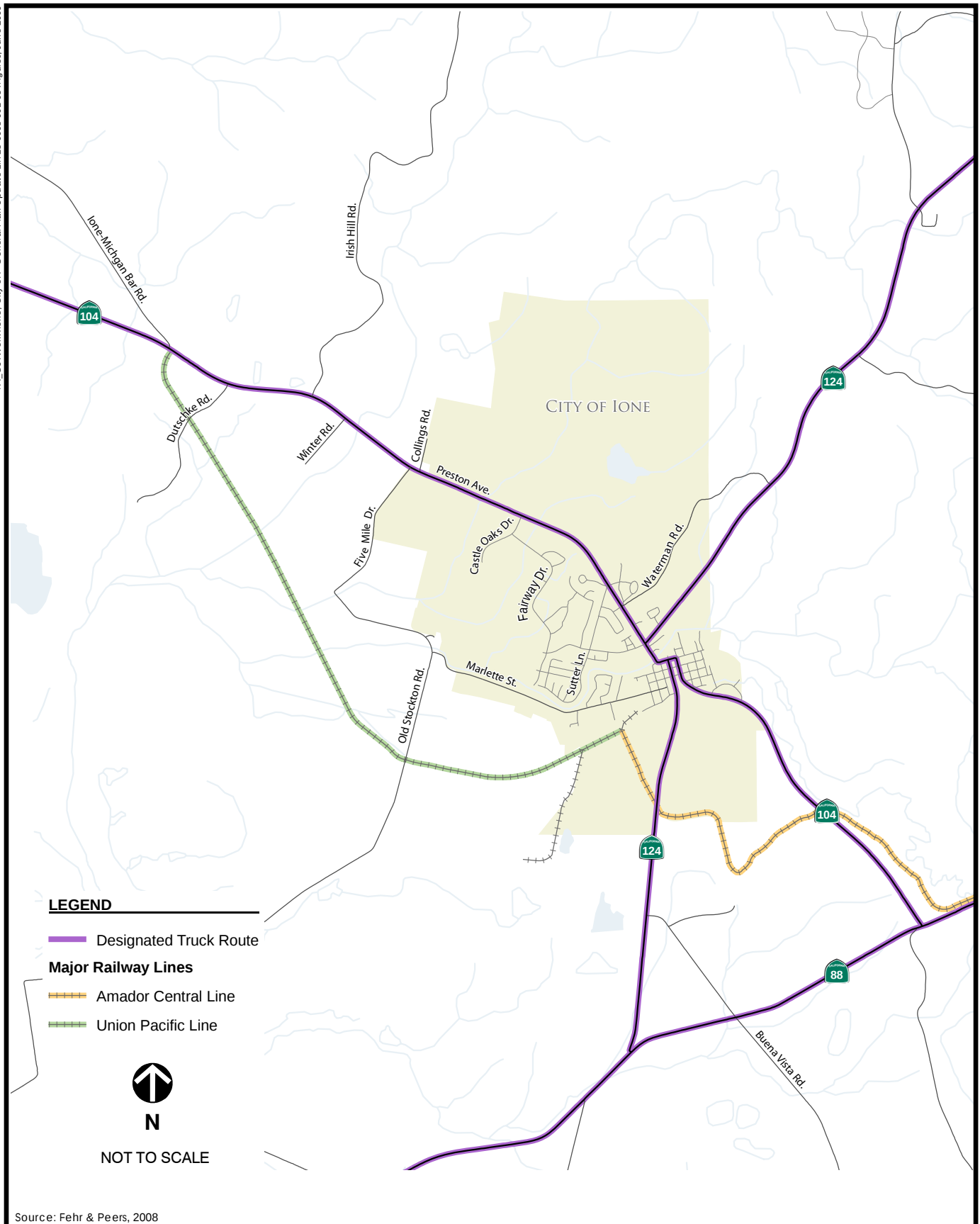
² 2007 Annual Average Daily Truck Traffic on the California State Highway System, Caltrans





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Figure 4.4-4
Existing Transit System



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Figure 4.4-5
Existing Goods Movement Facilities

4.4.2 REGULATORY FRAMEWORK

STATE

State of California Transportation Concept Reports

The California Department of Transportation (Caltrans) prepares various planning documents for facilities throughout the state. The state is divided into 12 Caltrans districts. Amador County, including the City of Ione, is within District 10. The goals established for specific highways are documented in Transportation Concept Reports (TCR).

The TCR is a long-term planning document that each Caltrans district prepares for every state highway or portion thereof in its jurisdiction. This document usually represents the first step in Caltrans' long-range corridor planning process. The purpose of a TCR is to determine how a highway will be developed and managed so that it delivers the targeted LOS and quality of operations that are feasible to attain over a 20-year period. These are indicated in the "route concept." In addition to the 20-year route concept level, the TCR includes an "ultimate concept," which is the ultimate goal for the route beyond the 20-year planning horizon. Ultimate concepts should be cautiously considered, however, because unforeseen changes in land use and other variables make forecasting beyond 20 years difficult.

State Route Concept Summary/Rationale

The TCR's concept LOS for the 20-year planning horizon for SR 104 and SR 124 is D. **Table 4.4-4** summarizes the concept LOS and concept facility (i.e., long term plan) for SR 104 and SR 124.

TABLE 4.4-4
CONCEPT LOS FOR STATE ROUTE 104 AND SR 124

Segment	Post Mile	Location	Current Facility	2025 Concept LOS ¹	2025 Concept Facility
SR 104					
1	0.0-4.42/ 0.0-7.11	County Line to Ione City Limit	2-lane expressway	D	2-lane expressway
2	4.42-5.36/ 7.11-8.63	Ione City Limit to Sutter Lane	2-lane expressway	D	* + 2-lane exp./conv.
3	5.36-5.77/ 8.63-9.28	Sutter Lane to North Junc. SR-124	2-lane conventional	D	* + 2-lane exp./conv.
4	5.77-5.96/ 9.28-9.59	North Junc. SR-124 to South Junc. SR-124	2-lane conventional	D	* + 2-lane exp./conv.
5	5.96-6.01/ 9.59-9.67	South Junc. SR-124 to Ione Street	2-lane conventional	D	* + 2-lane exp./conv.
6	6.01-6.33/ 9.67-10.19	Ione Street to Ione City Limit	2-lane conventional	D	* + 2-lane exp./conv.
7	6.33-8.20/ 10.19-13.20	Ione City Limit to west Junc. SR-88	2-lane conventional	D	* - 2-lane exp./conv.

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Segment	Post Mile	Location	Current Facility	2025 Concept LOS ¹	2025 Concept Facility
SR 124					
1	0.0-2.29/ 0.0-3.69	SR-88 to SR-104	2-lane conventional	D	2-lane conventional**
Route Break	2.29-2.30/ 3.69-10.34	Concurrent with SR-104			
2	2.3-10.34/ 3.7-16.64	SR-104 to SR-16	2-lane conventional	D	2-lane expressway**

Notes:

¹ The horizon year of the SR 104 and SR 124 Transportation Concept report is 2025.

+ with operational improvements on the existing highway within the City of Lone

- with possible intersection safety improvements at west junction SR-88 & SR-104

* on a new bypass alignment

**with right turn lanes and operational improvements within the City of Lone

Source: SR 104 Transportation Concept Report (Caltrans District 10, October 2003) and the SR 124 Transportation Concept Report (Caltrans District 10, December 2003)

LOCAL

Amador County General Plan

Amador County is conducting a comprehensive update of the County General Plan. The individual elements of the current General Plan were adopted over the past 30 years beginning with the *Land Use, Open Space, Conservation, and Scenic Highways Elements (1974)*. The Housing and Circulation elements were recently updated in 2005 and 2006, respectively.

Amador County is directly responsible for the construction and maintenance of all roads in the County, other than those within the four incorporated cities (Lone, Jackson, Plymouth, and Sutter Creek) and the State Routes. The *Circulation Element of the Amador County General Plan* (April 2006) is based on the *Amador County Regional Transportation Plan (RTP) Update* (September 2004). The RTP Policy Element establishes roadway classifications, minimum level of service (LOS) for County roads, and criteria for determining traffic impacts. The minimum LOS for County roads is contained in *Roadway System Goal 1A (2)*, which states:

Maintain a level of service (LOS) of "C" or better for average daily conditions on all State highways and local streets and roads outside of incorporated cities and other developed communities. It is the County's goal to maintain LOS D or better for average daily conditions within incorporated cities and other developed communities. LOS C and D may not be achievable on certain sections of the State highway and local road system because of prohibitive costs and/or environmental impacts and lower LOS shall not require denial of any development project provided the County or City finds that a project's benefits are sufficient to override the project contribution to a LOS other than C or D.

Amador County Regional Transportation Plan

The *Amador County Regional Transportation Plan* is a long-range planning document used for identifying and prioritizing long-range transportation improvements over a 25-year period. The RTP includes programs and policies for congestion management, transit, bicycles and pedestrians, roadways, freight and finances. The RTP must be revised at least every four years, as the County is designated as non-attainment for federal air quality standards.

As stated above, the RTP also contains goals and policies directing the vision and implementation of long-range transportation improvements. The goals and policies address the following elements of the transportation system:

- Roadway
- Aviation
- Rail and Goods Movement
- Air Quality
- Public Transit
- Bicycle and Pedestrians
- Transportation systems management (TSM)
- Transportation demand management (TDM)
- Intelligent Transportation System (ITS)

The Action Element of the RTP contains the prioritized transportation improvements. Transportation improvements contained in the RTP are separated into either a Tier 1 or Tier 2 category. Tier 1 projects are considered fully fundable by local traffic mitigation fees and other funding programs. Tier 2 projects either have no identified source of funding or are not fully funded. The Financial Element summarizes the projected costs to construct the improvements, anticipated revenue sources, and a funding strategy.

Amador County Pedestrian and Bicycle Transportation Plan

The *Amador County Pedestrian and Bicycle Transportation Plan (April 2006)* identifies future pedestrian and bicycle improvement countywide. The Transportation Plan also serves as an Americans with Disability Act (ADA) Transition Plan and contains design guidelines to assist in the design and construction of projects. The Transportation Plan categorized pedestrian and bicycle improvement projects into High and Low Priority Projects. A total of 7 high and 41 low priority improvement projects totaling approximately \$2 million and \$8.2 million, respectively, were identified. The County's Pedestrian and Bicycle Transportation Plan is relevant for the City's proposed Circulation Element because it predates the City's bikeways and the City's proposed pedestrian and bicycle facilities should be considered for consistency with the County's plan.

Amador County Transit Development Plan

The *Amador County Transit Development Plan (June 2008)* is a five year plan to improve and enhance transit services within the County. The County's transit system is described on page 4.4-9. The Transit Development Plan (TDP) includes 28 recommendations addressing the following elements of the TDP: service plan, capital plan, short-range institutional and management plan, and financial plan. Recommendations range from route modifications, bus stop improvements, enhanced marketing to replacement of vehicles, modifications to fares, and pursuit of new grant sources.

Specific recommendations that affect transit service to the City of Ione consist of the following:

- **Eliminate Route R** – This route has been eliminated since the adoption of the TDP. Route R previously connected the City of Ione to Plymouth via SR 124.
- **Revise and Expand Route I Schedule to Better Serve a Wider Range of Passengers** – This recommendation sought to eliminate the 10:00 AM departure from Sutter Hill and provide additional morning and evening commute runs.

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4.4.3 IMPACTS AND MITIGATION MEASURES

This subsection describes the transportation analysis of the proposed project, and identifies potential impacts and mitigation measures that would be associated with the implementation of the various components of the proposed project.

SIGNIFICANCE CRITERIA

The impact analysis provided below is based on the following State CEQA Guidelines Appendix G. A transportation/traffic impact is considered significant if implementation of the proposed project would result in any of the following:

- 1) Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume-to-capacity ratio on roads, or congestion at intersections).
- 2) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways.
- 3) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.
- 4) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).
- 5) Result in inadequate emergency access.
- 6) Conflict with adopted policies, plans or programs supporting alternative transportation e.g., bus turnouts, bicycle racks).

Given the distance to Westover Field Airport located near Martell (approximately 11 miles east), the proposed General Plan is not expected to result in a change to air traffic patterns because the facility does not provide commuter or connecting flights. Therefore, threshold of significance (3) above is not applicable.

The proposed General Plan Update would conflict with the provisions or standards set forth below:

- 1) Conflict with circulation provisions or standards of the City, County, and Caltrans that would result in physical effect to the environment (threshold of significance [1], [2] and [6]). This would include conflicts with the Amador County Circulation Element LOS standards (LOS D for roadways of incorporated Cities and developed communities). For Caltrans facilities (SR 104 and SR 124), a significant impact would include causing a facility to operate at an unacceptable level based on the Route Concept Report (LOS D for both SR 104 and SR 124).
- 2) Degrade LOS based on the following criteria for significance (threshold of significance [1]
 - a. Degrade LOS below LOS E for City roadways, with the following exceptions:

1. Degrade LOS below LOS D for roadways designated as Parkways in the Circulation Map
2. Exacerbate LOS F conditions on Main Street (SR 104), Church Street (SR 124), and Lone Street (SR 104)
- 3) Result in a significant effect on bike and pedestrian facilities by adversely affecting existing bikeways or pedestrian facilities that would discourage their use and result in safety issues (thresholds of significance [4] and [6] above.
- 4) Result in an impact on emergency access (thresholds of significance [5]).
- 5) Conflict with policies, plans, or programs supporting alternative transportation or increase demands for transit facilities greater than planned capacity (e.g., transit service, carpooling, bicycling, walking) (threshold of significance [6])

METHODOLOGY

The transportation impact analysis is focused on potential LOS impacts that would occur from increased travel demand associated with new land development under the proposed General Plan.

Quantitative transportation/traffic impact analyses were conducted for the Year 2025 land use scenario as described under Transportation Analysis Methodology and Results below.

For other components of the transportation system such as transit, bike, and pedestrian facilities, the policies and implementation measures were evaluated against the significance thresholds.

The City of Lone General Plan is intended to be a “self-mitigating” document, in that the General Plan policies are designed to mitigate or avoid impacts on the environment resulting from implementation of the proposed project. To that end, the relevant General Plan policies providing mitigation have been identified for each significant impact in this section. If the applicable General Plan policies were determined not to fully mitigate or avoid impacts, then additional mitigation measures have been provided. These additional mitigation measures have been written as policy statements that can be incorporated into the final General Plan. Each impact discussion includes a determination as to whether the impacts would be mitigated to a less than significant level or would remain significant and unavoidable after implementation of the updated General Plan policies.

Analysis Methodology and Results

Quantitative transportation/traffic impact analyses were conducted for the Year 2030 land use scenario as described below:

Year 2030 Conditions – This development scenario is based on the expected development within the City of Lone Planning Area, as proposed in the General Plan, by 2030. The analysis incorporates the circulation system identified in the proposed General Plan Circulation Element as being implemented by year 2030 (see **Figure 4.4-1**).

The Alpine/Amador County Transportation Commission (ACTC) travel demand forecasting (TDF) model was used to develop future traffic volume forecasts to adequately size (i.e., number of travel lanes) the circulation system and evaluate potential circulation impacts of the proposed General Plan Update. The

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evaluation of roadway segments is a common approach in addressing the long-term circulation system needs where specific parcel level data (e.g., trip generation differences between a convenience store and a automobile repair shop) and access information are unknown. Detailed analysis of intersection configurations are commonly conducted at the project level for a specified development project. The ACTC TDF model is a two-county regional model consisting of Amador and Alpine Counties. The TDF model is a tool that estimates future traffic volumes and roadway sizing (i.e., number of lanes) for major roadway segments based on anticipated future growth. The TDF model has been used for a variety of transportation planning processes such as the Regional Transportation Plan, circulation element updates, regional impact fee programs, and transportation impact studies. The TDF model was updated to reflect the most up-to-date information regarding transportation projects and countywide approved and pending development.

Land use estimates outside of the City limits (i.e., within Amador County) are based on data contained in the ACTC Travel Demand Forecasting (TDF) model that has a horizon year of 2025. The ACTC 2025 TDF model represents the most up-to-date information regarding transportation projects and countywide approved and pending development. A comparison of the 2025 and 2030 land use projections revealed that the 2025 projections reflect a more conservative level of growth than the 2030 projections due to the inclusion of both approved and pending projects in the 2025 data set. For purposes of this General Plan EIR, the ACTC 2025 TDF model conservatively represents land use projections beyond the 2025 horizon year and is the most up-to-date tool to evaluate the potential traffic impacts to the circulation network, given the slowed development market and economic climate. Preparation of the transportation analysis for the roadway system followed the steps described below:

TDF Model Development

The ACTC TDF model was used to develop Year 2025 daily traffic volume forecasts for select roadway segments. The TDF model was regionally calibrated and validated³ based on Amador County trip generation and travel patterns to Caltrans TDF model standards⁴. The TDF model contains two model years; the base year (2000) and future year (2025).

A sub-area TDF model for the proposed City of Ione General Plan Update was developed to more accurately reflect the roadway network and land use detail in the City than the regional Amador/Alpine County TDF model. Development of the sub-area TDF model consisted of disaggregating the Traffic Analysis Zone (TAZ) structure in the City of Ione from 9 to 17 zones and adding local roadway detail to more accurately reflect the location and loading of existing land uses onto the roadway network. TAZs are defined as groupings of land use bound by natural and man made borders such as waterways, topography, and roadways that represent homogenous travel behavior.

Following the completion of the sub-area TDF model of the City Ione, a sub-area validation was conducted to verify how closely the base year (2000) TDF model replicates existing daily traffic counts in the Ione area. The ability of the TDF model to replicate existing traffic counts is compared against the following four Caltrans' criterion and one Fehr & Peers criteria for TDF model development:

- Percent of Links within Maximum Deviation – Percent of roadway links within the model that should be within the maximum desirable deviation. The deviation is the difference between the model volume and the count, divided by the count.

³ Amador/Alpine County Travel Demand Model, Fehr & Peers, July 2005.

⁴ JHK & Associates. Travel Forecasting Guidelines. California Department of Transportation. November 1992.

- Percent of Screenlines within Maximum Deviation – The number of roadway screenlines that should be within the maximum desirable deviation.
- Model to County Ratio – The model to count ratio is computed by dividing the traffic volume estimated from the model by the actual traffic volume counted on various road segments.
- Correlation Coefficient – The correlation coefficient between the actual ground counts and the estimated traffic volumes should be greater than 88 percent.
- Root Mean Square Error (RMSE) - is a measure similar to standard deviation in that it assesses the accuracy of the entire model. RMSE is the square root of the model volume minus the actual count squared, divided by the number of counts.

Fourteen study roadway segments were selected for comparison. As noted previously, these roadway segments were examined as part of the General Plan Circulation assessment due to their role in facilitating travel of the existing development within the City, through travel on the state highways, and future growth areas. Eleven of the fourteen study roadway segments are within the maximum allowable deviation according to Caltrans TDF model standards. The three roadway segments that exceed the maximum allowable deviation have daily traffic volumes less than 500. Generally low volume roadways are less sensitive to changes in the TDF model and are more likely to have more stringent requirements for the allowable deviation.

Table 4.4-5 compares Caltrans criterion for TDF model validation and the City of Ione sub-area TDF model's performance. As shown in **Table 4.4-5** the City of Ione sub-area TDF model validation results meet or exceed the criterion specified by Caltrans. Therefore, the sub-area TDF model is deemed to be accurate for projecting future year traffic volumes.

**TABLE 4.4-5
BASE YEAR (2000) TDF MODEL VALIDATION RESULTS**

Validation Item	Caltrans TDF Model Minimum Validation Criterion	City of Ione Sub-Area TDF Model Results
% Links Within Maximum Deviation	At least 75%	79%
% Screenlines Within Maximum Deviation	100%	100%
Model/Count Ratio	Within 10%	7%
Correlation Coefficient	Greater than 88%	96%
Root Mean Square Error (RMSE)	40% or less ¹	26%

Note: ¹Fehr & Peers criterion for acceptance as Caltrans does not have such a guideline.
Source: Caltrans, 1992

Land Use Data

Land use data (dated March 20, 2009) was provided by TAZ within the Planning Area for Year 2030 conditions by Pacific Municipal Consultants (PMC). Land use data outside the planning area is consistent with ACTC land use projections for 2030. The land use projections include both approved and pending projects within Amador County.

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The General Plan proposes a much higher land use densities and mixture of uses within the downtown and downtown transition zones (see land use zoning map). Typical trip generation estimates, such as those used by the ACTC TDF model, do not fully consider the effects of built environment variables such as density and diversity of land uses, and design elements that can reduce a project's vehicle trip generation and vehicle miles of travel. The characteristics related to the **density** of development, the **diversity** of development, the **design** of the transportation infrastructure, and the accessibility to local and regional **destinations** have become known as the 4D's. These smart growth characteristics are used to estimate a development's potential to generate fewer vehicle trips due to increased trips via walking, biking, and transit use.

An independent calculation of the project's expected average daily trip generation was prepared to assess the potential trip generation reduction associated with the 4D's (density, diversity, design, and destinations). For example, the calculation considered the amount on trips occurring between the mix of uses within the Downtown and Downtown Transition Zones, potential for retail pass-by trips, potential for walk trips to adjacent areas, and potential for transit trips (via the Amador Regional Transit).

Based on the proposed land use densities and mixture of uses, the 4D's characteristics have the potential to reduce automobile use by up to 24 percent by providing more opportunities for short walking and biking trips, and trip chaining within the Downtown and Downtown Transition Zone. The resulting reduction in automobile trips was used to adjust the TDF model land use inputs. The land use in the downtown and downtown transition zone was reduced to reflect 24 percent less traffic entering and exiting downtown lone. A select zone analysis was conducted to verify the generation and assignment of trips.

Roadway Network Modifications

The circulation network in the base year (2000) and future year (2025) models were refined to more accurately reflect the local circulation system and study segments in the City of lone. The following arterial and collector roadways were incorporated into the models:

- Shakeley Lane (2-lanes)
- Sutter Lane (2-lanes)
- Waterman Road (2-lanes)
- Castle Oaks Drive (2-lanes)
- Fairway Drive (2-lanes)
- Golf Links Drive (2-lane future)

The future year model also reflects probable roadway infrastructure improvements contemplated in the *2004 Amador County Regional Transportation Plan Update* (September 15, 2004). Within the City' Sphere of Influence, this consists of the Western lone Roadway Improvement Study (WIRIS) that is envisioned to relieve traffic congestion, improve the quality of life, and divert heavy vehicles out of downtown lone (see **Figure 4.4-1**). The Western lone Roadway Improvement Strategy (WIRIS) *Technical Memorandum #2, Preliminary Alternatives* (Dokken Engineering, August 4, 2008) assesses conceptual alignment alternatives. Based on direction received from the City, the following two segments of WIRIS identified were included in this analysis:

- SR 104 to Five Mile Drive/Old Stockton Road (Segment I)
- Five Mile Drive/Old Stockton Road to SR 124 (Segments F and G)

The timing for the third and eastern most segments of the WIRIS between SR 124 to SR 104 (Segment H) is not expected to occur within the time period planned for in this General Plan and consequently was not included in this analysis.

The modifications to the roadway network reflect the proposed circulation map illustrated in **Figure 4.4-1**.

Daily Traffic Volume Forecast Development

Year 2025 daily traffic volume forecasts were developed by running the base year (2000) and future year (2025) TDF models. The resulting traffic volumes were analyzed through a postprocessor spreadsheet developed specifically for the City of Lone General Plan Update. This postprocessor tool reads raw traffic volumes from the TDF model and then adjusts the volumes to account for under- or overestimates that may have occurred in the base year model. This process is known as the difference method. The difference method adds the incremental growth between the base and future year models to existing traffic counts.

Figure 4.4-6 and **Table 4.4-6** summarize the future 2025 forecast daily traffic volumes and LOS for roadways in the planning area. **Figure 4.4-7** presents the required number of travel lanes on study roadway segments by 2025 to meet the adopted LOS policies.

TABLE 4.4-6
DAILY TRAFFIC VOLUMES AND LEVELS OF SERVICE
EXISTING CONDITIONS AND PROPOSED GENERAL PLAN UPDATE

Road	Location from	To	Functional Classification	Existing Conditions			Future Conditions (2025)		
				Lanes	Volume	LOS	Lanes	Volume	LOS
SR 104	Michigan Bar Road	Five Mile Drive	Arterial, Class II	2	3,900	B	2	11,100	D
	Five Mile Drive	Sutter Lane	Arterial, Class II	2	4,400	B	2	15,100	D
	Sutter Lane	SR 124 north	Arterial, Class II	2	8,200	C	2	17,800	E¹
	SR 124 north	E Main Street	Arterial, Class III	2	10,300	D	2	33,800	F¹
	SR 124 south	Foothills Boulevard	Arterial, Class III	2	4,900	C	2	19,300	F¹
SR 124	E Main Street	Washington Street	Arterial, Class II	2	4,000	B	2	24,700	F¹
	Washington Street	WIRIS	Arterial, Class II	2	4,000	B	2	24,700	F¹
	WIRIS	Buena Vista Road	Arterial, Class II	2	4,000	B	2	19,500	F¹
	Raymond Drive	City Limits	Arterial, Class II	2	2,400	B	2	15,600	E¹
	City Limits	Waterman Road	Arterial, Class II	2	2,400	A	2	14,700	D
	Waterman Road	Sutter Lone Road	Arterial, Class II	2	2,400	A	2	13,500	D
Five Mile Drive	SR 104	W Marlette Street	Collector, Class IV	2	266	A	2	1,200	B
Old Stockton Road	W Marlette Street	Future WIRIS Alignment	Collector, Class I-III	2	291	A	2	9,600	C
	South of WIRIS Alignment	Cook Road	Collector, Class I-III	2	291	A	2	3,300	C
Waterman Road	Preston Avenue (SR 104)	City Limits	Collector, Class IV	2	1,000	A	2	10,800	E²

4.4 TRAFFIC AND CIRCULATION

Road	Location from	To	Functional Classification	Existing Conditions			Future Conditions (2025)		
				Lanes	Volume	LOS	Lanes	Volume	LOS
	City Limits	SR 124	Collector, Class IV	2	1,000	A	2	4,600	C
Sutter Lane	Preston Avenue (SR 104)	Shakeley Lane	Collector, Class IV	2	570	A	2	1,300	B
Shakeley Lane	Preston Avenue (SR 104)	Sutter Lane	Collector, Class IV	2	2,841	B	2	6,200	D
W. Marlette Street	Mills Street	Violet Lane	Collector, Class IV	2	2,504	B	2	6,700	D
Castle Oaks Drive	Fairway Drive	SR 104	Collector, Class IV	2	912	A	2	5,100	C
Golf Links Drive	SR 104	Five Mile Drive	Arterial II	2	N/A	N/A	2	10,800	D
WIRIS	SR 104/Michigan Bar Rd	Old Stockton Road	Arterial II	2	N/A	N/A	2	5,200	B
	Old Stockton Road	One Half Mile West of SR 124	Arterial II	N/A	N/A	N/A	2	13,600	D
	One Half Mile West of SR 124	SR 124	Arterial II	N/A	N/A	N/A	4	23,200	B

Note: ¹ Although acceptable by Policy CIR 1.4, the LOS conflicts with the adopted LOS contained in the Transportation Concept Reports for SR 104 and SR 124.

² Although acceptable by Policy CIR 1.3 and CIR 1.4, the LOS conflicts with the ACTC RTP.

Bold text indicates an unacceptable LOS.

Source: Fehr & Peers, 2009.

Impact Identification

The postprocessor tool also calculates roadway segment LOS based on the volumes thresholds as shown in **Table 4.4-2**. The postprocessor uses the daily LOS to determine whether a LOS deficiency occurs. Deficiencies occur when projected traffic volumes on a roadway segment exceed the established LOS policies. The policies contained in the proposed Circulation Element were developed in connection with the future transportation needs. The intent of the process was to develop policies that would either mitigate or avoid the potential for future impacts, within reason. For example, the minimum acceptable LOS threshold for City roadways under the proposed General Plan was established at LOS E (**Policy CIR 1.3**), due to the limited ROW and financial burden on the City to increase capacity on existing roadways. However, the desire and ability to move traffic efficiently along future roadways (e.g., WIRIS) resulted in adoption of a minimum LOS D threshold on all parkways (**Policy CIR 1.4**).

Each impact discussion includes a determination as to whether the impacts would be mitigated to a less than significant level or would remain significant and unavoidable after implementation of the proposed policies in the General Plan update.

TIMING OF DEVELOPMENT AND PLANNED ROADWAY IMPROVEMENTS

As noted in **Table 4.4-6**, implementation of the proposed project would provide service levels consistent with the City's proposed LOS policies (**CIR 1.3** and **CIR 1.4**). However, it should be noted that the proposed land use and circulation maps would not be consistent with existing

Policy 1.1 from the 2003 General Plan, which requires LOS C for major arterial, collector streets, and intersections.

However, potential issues with funding, the effect of regional traffic through the City, timing of required permits and coordination with Amador County, ACTC, and Caltrans could result in some roadways within the Planning Area experiencing unacceptable LOS conditions prior to the implementation of necessary roadway improvements that would ultimately make the roadways consistent with LOS standards. As noted in the proposed General Plan policies and action items below, the proposed General Plan includes provisions that attempt to keep similar timing for development and the provision of roadway improvements. However, the City cannot ensure these improvements will be timely in all circumstances (for the reasons noted above).

Environmental Effects of Proposed Project's Circulation Improvements

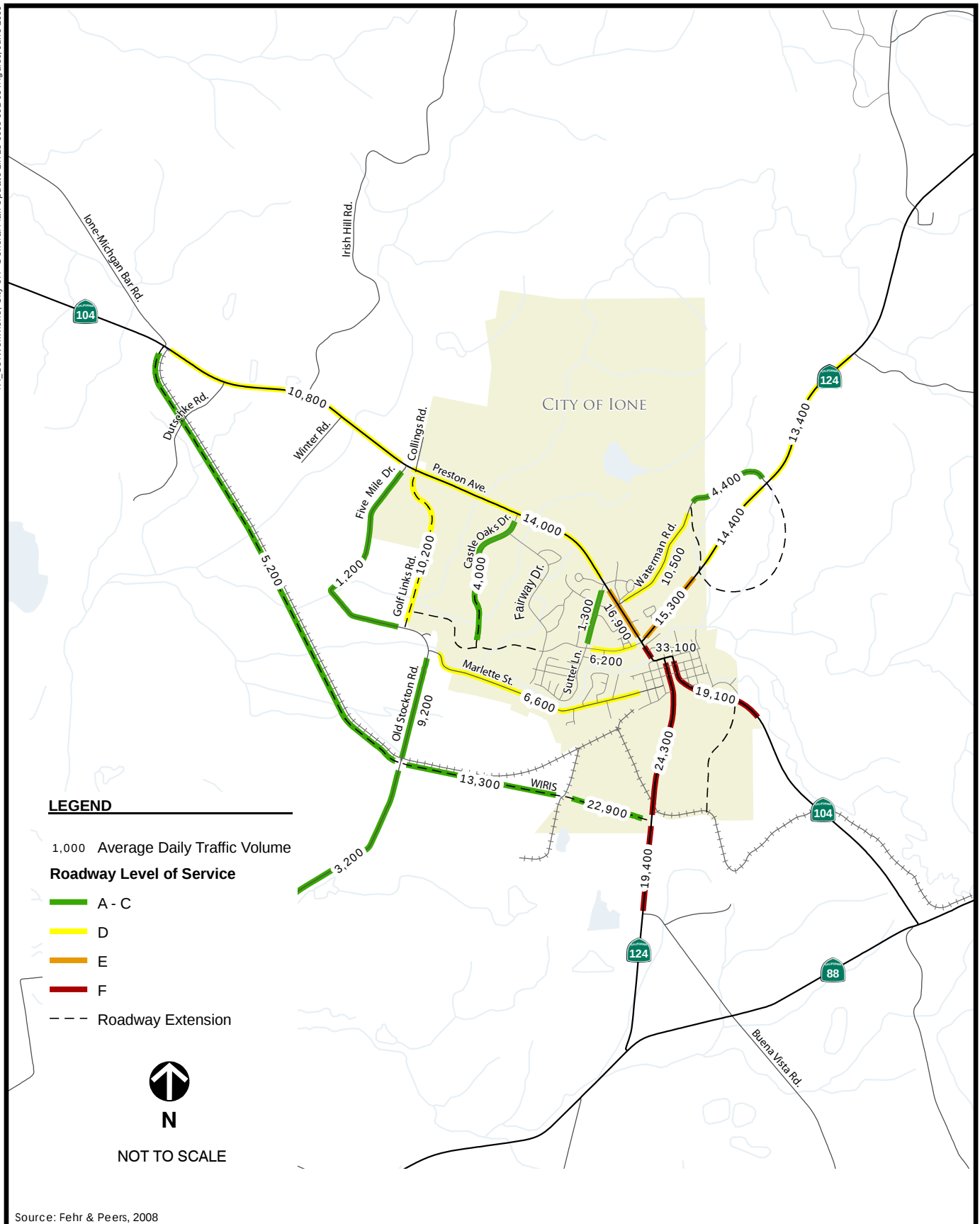
As noted above and in Section 3.0 (Project Description), the proposed project includes roadway expansion and capacity improvements (see **Figure 4.4-7**) and bikeway and trail improvements (see **Figure 4.4-3**). The anticipated environmental effects of these circulation improvements are programmatically considered in this EIR based on available environmental documentation, field review at a reconnaissance level and review of aerial photography. The anticipated environmental effects are listed below and are discussed in each applicable topical chapter. Subsequent site-specific environmental review of circulation improvements would be conducted once the improvements have been designed and precise alignments have been established.

- Temporary construction-related land use conflicts on adjacent uses associated with noise, construction traffic/access conflicts and visual impacts.
- Conversion of agricultural land from roadway extension and widening.
- Temporary construction traffic impacts from construction vehicles and construction traffic control.
- Hazardous material exposure impacts from construction of facilities (roadways, trails and transit).
- Air quality impacts from construction and operation of facilities (roadways, trails and transit).
- Noise impacts from construction and operation of facilities (roadways, trails and transit).
- Soil erosion and geologic stability impacts from construction and operation of facilities (roadways, trails and transit).
- Water quality (surface and groundwater) and drainage impacts from construction and operation of facilities (roadways, trails and transit).
- Biological resource impacts associated with construction and operation of facilities (roadways, trails and transit). This would include direct and indirect impacts to special-status species, vernal pools and wildlife corridors.
- Cultural and paleontological resource impacts associated with construction activities that could impact undiscovered resources.
- Conflicts with existing and planned alignments of infrastructure facilities (water supply, wastewater conveyance, electrical distribution, natural gas, telephone and cable).

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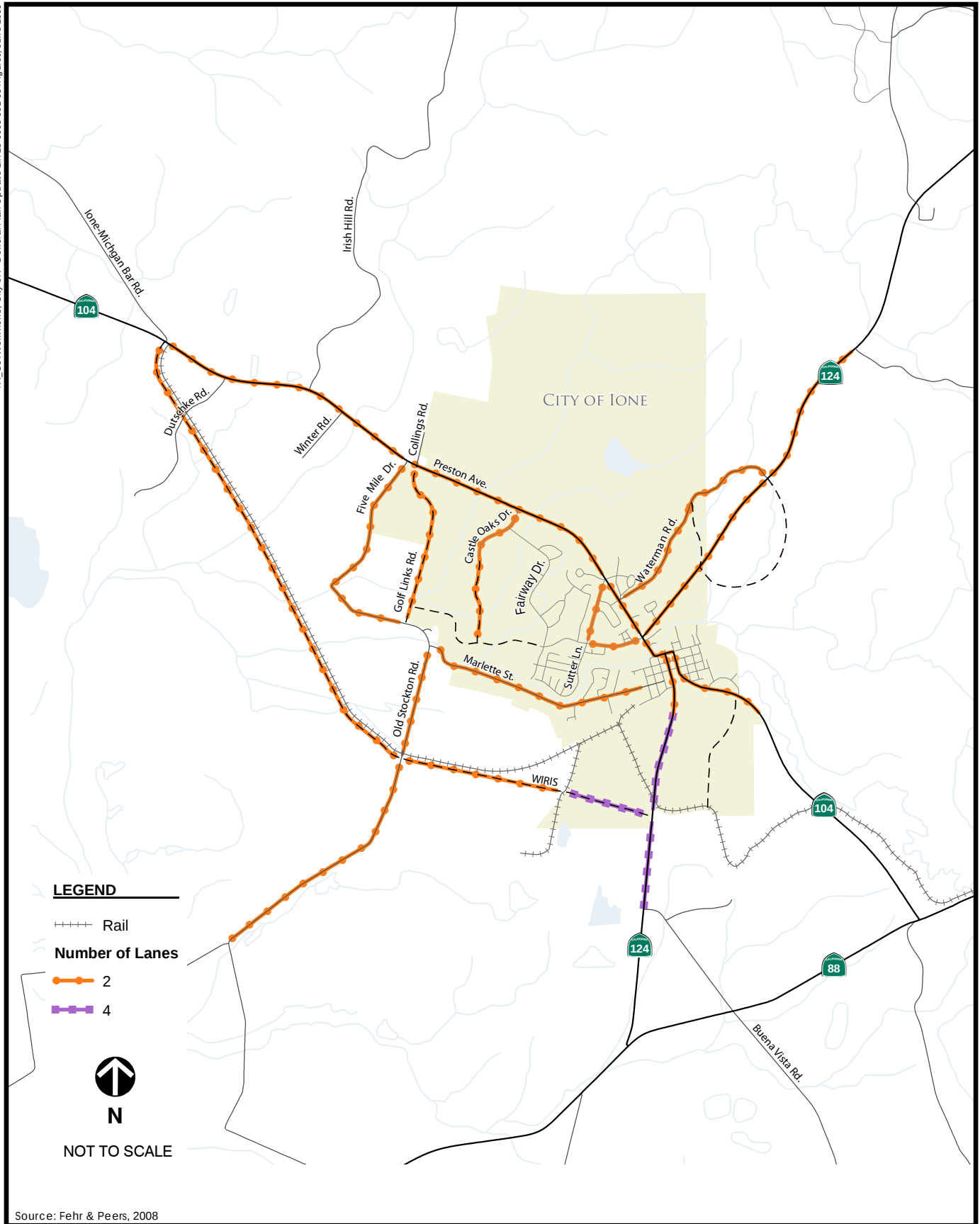
- Visual impacts with the construction of urban-type circulation improvements (e.g., 4-lane and larger roadways, transit facilities, urban interchanges).

Mitigating policies and action items in the proposed project identified in Sections 4.1 through 4.13 of this EIR would be applied (where applicable) to minimize these environmental effects.



City of Ione
Planning Department

Figure 4.4-6
2025 Forecast Daily Traffic Volumes
and Roadway Levels of Service



City of Ione
Planning Department

Figure 4.4-7
2025 Required Travel Lanes

Analysis Results

Operations of the study area roadways, transit system, and bicycle/pedestrian facilities are discussed below.

PROJECT IMPACTS AND MITIGATION

Deficient LOS Conditions on Study Roadway Segments

Impact 4.4.1 Implementation of the proposed project would result in an increase in traffic volumes beyond traffic volumes associated with the existing General Plan that would result in deficient level of service conditions and conflict with Amador County and Caltrans standards for level of service. This is a **significant** impact.

Implementation of the proposed project and specifically proposed Policies CIR-1.3 and CIR-1.4 would reduce the minimum acceptable LOS from C to E in the City of Ione. Existing Policy 1.1 states, "The City shall maintain a minimum Level of Service "C" (LOS C) for major arterials, collector streets and intersections and implement circulation improvements prior to deterioration in levels of service below LOS C for arterials and collectors. Table 2 of this element identifies levels of service traffic volumes for roadways in Ione." This would result in a decline in service created by potentially greater congestion and delay along the roadway segments as shown in **Table 4.4-6**. The proposed General Plan Update and circulation plan would result in LOS E and F on eight roadway segments (see **Table 4.4-6**). Seven of the segments are within the city limits.

Additionally, proposed Policies-CIR 1.3 and CIR-1.4 conflict with the Concept LOS "D" identified in the respective Caltrans' *Transportation Concept Reports* for SR 104 and SR 124 and Amador County's Circulation Element Roadway System Goal 1A (2) that establishes a minimum LOS D on roadway segments for incorporated cities. The following roadway improvements would be required to meet the LOS D policy of the Amador County RTP and Caltrans TCR for state routes:

- Waterman Road between SR 104 to the City Limits – Widen to four-lanes
- SR 104 between Sutter Lane to SR 124 north – Widen to four-lanes
- SR 104 between SR 124 north to SR 124 south – Widen to four-lanes
- SR 104 between SR 124 south to Foothills Boulevard – Widen to four-lanes
- SR 124 between SR 104 (East Main Street) to Washington Boulevard – Widen to four-lanes

However, the implementation of these improvements to achieve LOS D is not feasible because specific improvements may require significant acquisition of additional right-of-way that may impact adjacent development, may financially preclude expanding the roadways, and/or are undesirable and inconsistent with the City's desire to keep SR 104 and SR 124 as two lane roads through downtown. The widening of SR 104 and SR 124 to four lanes through downtown Ione would potentially require elimination of adjacent buildings and/or on-street parking.

The following is a discussion of the potential LOS impacts on study roadways associated with each aspect of the proposed project.

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General Plan Land Use Map

Areas Within Existing City Limits

The central portion of lands within the existing city limits of Lone is largely built out with retail and commercial businesses in the downtown core and residential uses surrounding the core. The areas that comprise the north/northwestern and south/southeastern lands within the city limits are still largely undeveloped. The proposed General Plan update allows for the intensification of retail, office, and residential uses in the downtown core area, as well as new residential and commercial development in the undeveloped areas within the existing city limits. As discussed above, the proposed General Plan update and circulation plan would result in LOS E and F on seven roadway segments. Seven of the segments are within the city limits. This is a **significant** impact.

Areas Outside of Existing City Limits

Lands within the Planning Area that are outside the existing city limits are largely undeveloped, with some agricultural land (primarily grazing lands) and three mining operations. The proposed General Plan update would primarily designate these areas as General Agriculture (AG), Open Space (OS), or Surface Mining (SM). Therefore, areas outside of the existing city limits would, to a significant extent, maintain current land uses. However, to the west of the city limits at the northern boundary, the proposed General Plan designates residential use and a small portion of heavy industrial land uses to the northwest. In addition, the Triangle Policy Area in the southeast is designated industrial, office, and commercial uses in addition to the existing mining operations. As discussed above, the proposed General Plan Update and circulation plan would result in LOS E and F on seven roadway segments. Only one of these segments is outside of the city limits – SR 124 from WRIS to Buena Vista Road, which would operate at LOS F under the proposed General Plan Update (see **Table 4.4-6**). This is a **significant** impact.

Sphere of Influence Amendment (SOI)/Annexations

As part of the proposed project, the City plans to amend its Sphere of Influence (SOI) to include the site of the Castle Oaks Water Reclamation Plant (COWRP), the City Corporation Yard and adjacent land and to expand the Old Stockton Road and Industrial Park Special Planning Areas. In addition, the City is proposing to annex three areas currently located outside the city limits. These areas are identified on Figure 3.0-6 in Section 3.0 and are referred to as (1) the Collins Road Annexation Area consisting of about 1 acre; (2) the Wastewater Treatment Plant Annexation Area consisting of about 9.7 acres; and (3) the State Property Annexation Area consisting of about 3.7 acres. The northwest parcel (Collins Road Annexation Area) will be rezoned C-3 Heavy Commercial, while the 3.7-acre parcel to the northeast (State Property Annexation Area), and the 9.7 acre Wastewater Treatment Plant Annexation Area will be rezoned PF Public Facilities. Both annexation areas are along roadway segments within the Planning Area. Five Mile Drive would operate at LOS B, Old Stockton Road would operate at LOS C, and West Marlette Street would operate at LOS D under the proposed project (see **Table 4.4-6**). This would be a **less than significant** impact.

Zoning Code Update

The proposed project also includes several updates to the City's Zoning Code. These updates involve the addition of new zoning districts, as well as amendments to development standards for several existing zoning districts as discussed in Section 3.0, Project Description, of this Draft EIR.

The proposed Zoning Code updates are largely administrative and are intended to clarify the types of uses that are permitted under a particular land use designation. This would not impact level of service and is thus a **less than significant** impact.

West lone Roadway Improvement Strategy

The proposed project includes the West lone Roadway Improvement Strategy (WIRIS), which consists of both improvements to existing roadways and the construction of new roadway segments in order to create a bypass to provide traffic relief through downtown. The WIRS envisioned to relieve traffic congestion, improve the quality of life, and divert heavy vehicles out of downtown lone (see **Figure 4.4-1**). As shown in **Table 4.4-7**, the WIRIS would meet LOS standards with LOS B and D on the three roadway segments. This would be a **less than significant** impact.

Proposed General Plan Policies and Action Items That Provide Mitigation

The proposed General Plan update incorporates the following policies and actions that provide mitigation and guide the development of the proposed circulation system and reduce potential LOS impacts to study roadway segments.

Circulation Element

- | | |
|-------------------|--|
| Policy CIR-1.1: | Implement the Circulation Plan, shown as Figure 4-1 and Figure 4-2. (Cross reference: LU 1.3, LU 1.4, LU 1.14) |
| Action CIR-1.1.1: | For development projects, require the dedication of right-of way and the installation of roadway improvements as part of the review and approval of development projects. |
| Action CIR-1.1.2: | Require that prior to issuance of building permits, all development projects that must perform new roadway construction or road widening complete the roadways necessary for all phases of the development project such that adequate transportation infrastructure is available prior to the arrival of the first resident, unless otherwise approved by the City Engineer. |
| Action CIR-1.1.3: | For major roadway projects, allow for improvement phasing such that roadway lanes are constructed based on traffic demand, with planned additional lanes being constructed once traffic demand reaches levels that require the additional lanes to be constructed in order to meet Level of Services specified in Policy CIR-1.3 . (Cross reference CIR 1.3) |
| Action CIR-1.1.5: | Require development projects to provide funding or to construct roadway/intersection improvements to implement the City's Circulation Plan and Bikeways & Trails Plan. At the City's discretion, consider the payment of established traffic impact or similar fees to provide compliance with the requirements of this policy with regard to those facilities included in the fee program, provided that the City finds that the fee adequately funds all required roadway and intersection improvements. If payment of established fees is used to provide compliance with this policy, the City may also require the payment of additional fees if necessary to cover the fair share cost of facilities not included in or fully funded by the fee program. |

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Policy CIR-1.2:	Implement the findings and preferred route alignment outlined in the West Lone Roadway Improvement Strategy (WIRIS).
Action CIR-1.2.1:	Work with Amador Transportation Commission (ACTC) and other regional agencies to aggressively pursue funding for WIRIS from all available sources.
Action CIR-1.2.2:	Require development projects along the F and G segments to construct the roadway and pay their fair share of the cost of the improvements.
Policy CIR-1.3:	Seek to maintain operations on all roadways and intersections at Level of Service (LOS) E or better at all times, with the exceptions listed in Policy CIR-1.4 . LOS E should be maintained even during peak travel times, unless maintaining this LOS would, in the City's judgment, be infeasible and/or conflict with the achievement of other goals or unless maintaining this LOS would not, in the City's judgment, adequately serve the City's circulation needs, per Policy CIR-1.4 . (<i>Cross reference CIR 1.1.3, CIR 1.4</i>)
Policy CIR-1.4:	In addition, exceptions to Policy CIR-1.3 may be allowed by the City Council where requiring a higher LOS or allowing a lower LOS would result in clear public benefits. Specific exceptions granted by the City Council shall be added to the list of exceptions below, depicted in Figure 4-4, and updated as needed (<i>Cross reference CIR 1.4</i>): • Main Street, Church Street, Preston Avenue, and Lone Street– LOS F; • All Parkways (Golf Links Drive, WIRIS Segments, F, G, H, and I) – LOS D
Action CIR-1.4.1:	Establish traffic volume thresholds in line with this Policy that once reached, trigger intersection and roadway improvements. Regularly monitor traffic in and adjacent to the City to determine when these traffic volume thresholds are reached.
Policy CIR-1.5:	Encourage the creation of a road system that is easily navigated.
Action CIR-1.5.4:	Work with Caltrans to provide adequate access for properties on State Route 124 and State Route 88, and the future realignment of State Route 104 (segments F and G of the WIRIS roadway system) to provide for additional connectivity (see Figure 4-1).
Policy CIR-1.13:	Evaluate potential crossings of Sutter Creek to alleviate traffic levels on existing roadways.
Action CIR-1.13.1:	Review all new development projects adjacent to Sutter Creek for the potential to provide bridges or other crossings to enhance traffic flow and improve community-wide circulation.
Policy CIR-3.1:	Assess fees sufficient to cover the fair share portion of all new development impacts on the local and regional transportation system and bicycle and pedestrian circulation system, including both development and maintenance of vehicular and non-vehicular circulation facilities.

- Action CIR-3.1.1: Periodically undertake a detailed analysis of the transportation improvements needed as growth occurs and the costs associated with those improvements by reviewing and updating the City's Capital Improvement Plan (CIP). Update development impact fees as necessary to ensure full funding of all required improvements.
- Policy CIR-3.3: When a Redevelopment Area is adopted by the City, set aside a portion of tax increment financing to be allocated toward circulation improvements (vehicular and non-vehicular), in the Redevelopment Area. (*Cross reference ED 3.3*)
- Policy CIR-3.4: Continue to work with ACTC to update development impact fees for regional transportation improvements.
- Policy CIR-3.5: Require proposed new development projects to analyze their contribution to increased traffic and to implement improvements necessary to address their impact on facilities not covered by a fee program.
- Policy CIR-3.6: Aggressively pursue State and federal funding to implement all aspects of the City's Circulation Plan.

Implementation of the above General Plan policies would help to reduce LOS impacts on study area roadway segments. Specifically, Policy CIR-1.1 and associated actions would require dedication of right-of-way and roadway improvements (Action CIR-1.1.1), construction of roadway improvements prior to issuance of building permits (Action CIR-1.1.2), and improvement phasing of roadway lanes based on LOS standards (Action CIR-1.1.3). Policy CIR-1.2 and Action CIR-1.2.1 require coordination with ACTC and other regional agencies to implement the WIRIS findings and route alignment and Action CIR-1.2.2 requires fair share payment and construction of roadways. Policy CIR-1.3 requires maintaining LOS E or better on area roadways with the exception of roadways listed in Policy CIR-1.4, which allows a higher LOS if it would benefit the public. Policy CIR-1.5 and associated actions would ensure a roadway system that is easily navigated and has regional connectivity. Policy CIR-1.13 requires crossings of Sutter Creek to enhance traffic flow and improve circulation. Policy CIR-3.1 and Action CIR-3.1.1 require fair share fees for new development projects for vehicular and non-vehicular facilities including regular review of necessary transportation improvements and review and updates to the City's CIP. Policy CIR-3.3 requires a portion of tax increment financing be allocated to circulation improvements associated with Redevelopment Areas. Policy CIR-3.4 requires coordination with ACTC on updates to development impact fees for regional transportation improvements. Policy CIR-3.5 requires new development to implement improvements based on their contribution to increased traffic. Policy CIR-3.6 requires the City to aggressively pursue State and federal funding. These policies to help to reduce the project's LOS impacts on study area roadway segments; however mitigation would still be required. This is a **significant** impact.

Mitigation Measures

The following policies are recommended as mitigation measures and shall be included in the Circulation Element of the proposed General Plan.

- MM 4.4.1a** The Circulation Element of the General Plan shall be revised to include the following policy:

4.4 TRAFFIC AND CIRCULATION

Coordinate with ACTC on the RTP update to revise the LOS policies consistent with proposed Policies CIR-1.3 and CIR-1.4.

MM 4.4.1b The Circulation Element of the General Plan shall be revised to include the following policy:

Coordinate with Caltrans on the update to the SR 104 and SR 124 Transportation Concept Reports to acknowledge the limitations of widening SR 104 and SR 124 through the City of Lone reflected by a lower LOS policy consistent with proposed Policies CIR-1.3 and CIR-1.4.

MM 4.4.1c The Circulation Element of the General Plan shall be revised to include the following policy:

The City's Capital Improvement Plan (CIP) shall be updated to include costs to widen of SR 124 between Washington Street and WIRIS (Brickyard Road), and SR 124 between WIRIS and Buena Vista Road, to four-lanes to provide LOS E or better operations.

Implementation of the proposed General Plan Policies and Action items in addition to mitigation measures **MM 4.4.1a**, **MM 4.4.1b**, and **MM 4.4.1c** would ensure coordination and a long-term solution is developed to eliminate the conflicting LOS policies and mitigation measures and reduce the potential for significant impacts to circulation system. Furthermore, widening SR 124 to four lanes on the following segments would result in an acceptable LOS B based on Policy CIR-1.3. Although the proposed mitigation measures would require the City to work with ACTC and Caltrans, there is no guarantee that the respective policies will be modified. Additionally, the feasibility of these mitigation measures is uncertain because the Transportation Concept Report (TCR) for SR 124 identifies a concept facility limited to two-lanes. However, the TCR does acknowledge the fact that the next TCR should investigate upgrading SR 124 to four-lanes. SR 124 is outside of the City's jurisdiction and the City cannot ensure resolution of this conflict. Therefore, this impact is considered **significant and unavoidable**.

Roadway Safety and Emergency Access

Impact 4.4.2 Implementation of the proposed project would result in an increase in traffic volumes, which could increase the potential opportunities for safety conflicts as well as potential conflicts with emergency access. This is considered a **less than significant** impact.

While implementation of the proposed project would increase the amount of vehicle traffic and the number of potential safety and emergency access conflicts, implementation of the circulation system improvements proposed under the proposed project would provide for multiple roadway connections that offer more emergency access options and a new north-south and east-west evacuation/emergency routes throughout the Planning Area. The proposed WIRIS bypass improvements would reduce congestion and vehicle/heavy truck conflicts through downtown Lone, which will further reduce the potential for disruption of evacuation/emergency routes. In addition, construction of facilities to City design standards would also result in the provision of facilities without unacceptable safety conflicts. The proposed Circulation Element also contains a number of policies and actions that would address roadway safety and emergency access. As implementation of the circulation system improvements proposed within the proposed project would improve city roadway design, connectivity, and emergency vehicle access for area residents.

The following is a discussion of the potential roadway safety and emergency access impacts associated with each aspect of the proposed project.

General Plan Land Use Map

Areas Within Existing City Limits

The central portion of lands within the existing city limits of Ione is largely built out with retail and commercial businesses in the downtown core and residential uses surrounding the core. The areas that comprise the north/northwestern and south/southeastern lands within the city limits are still largely undeveloped. The proposed General Plan update allows for the intensification of retail, office, and residential uses in the downtown core area, as well as new residential and commercial development in the undeveloped areas within the existing city limits. As stated above, implementation of the proposed roadway system under the General Plan would provide for multiple roadway connections that offer more emergency access options and a new north-south and east-west evacuation/emergency routes throughout the Planning Area. This would be a **less than significant** impact.

Areas Outside of Existing City Limits

Lands within the Planning Area that are outside the existing city limits are largely undeveloped, with some agricultural land (primarily grazing lands) and three mining operations. The proposed General Plan update would primarily designate these areas as General Agriculture (AG), Open Space (OS), or Surface Mining (SM). Therefore, areas outside of the existing city limits would, to a significant extent, maintain current land uses. However, to the west of the city limits at the northern boundary, the proposed General Plan designates residential use and a small portion of heavy industrial land uses to the northwest. In addition, the Triangle Policy Area in the southeast is designated industrial, office, and commercial uses in addition to the existing mining operations. As stated above, implementation of the proposed roadway system under the General Plan would provide for multiple roadway connections that offer more emergency access options and a new north-south and east-west evacuation/emergency routes throughout the Planning Area. This would be a **less than significant** impact.

Sphere of Influence Amendment (SOI)/Annexations

As part of the proposed project, the City plans to amend its Sphere of Influence (SOI) to include the site of the Castle Oaks Water Reclamation Plant (COWRP), the City Corporation Yard and adjacent land and to expand the Old Stockton Road and Industrial Park Special Planning Areas. In addition, the City is proposing to annex three areas currently located outside the city limits. These areas are identified on Figure 3.0-6 in Section 3.0 and are referred to as (1) the Collins Road Annexation Area consisting of about 1 acre; (2) the Wastewater Treatment Plant Annexation Area consisting of about 9.7 acres; and (3) the State Property Annexation Area consisting of about 3.7 acres. The northwest parcel (Collins Road Annexation Area) will be rezoned C-3 Heavy Commercial, while the 3.7-acre parcel to the northeast (State Property Annexation Area), and the 9.7 acre Wastewater Treatment Plant Annexation Area will be rezoned PF Public Facilities.

As stated above, implementation of the proposed roadway system under the proposed project would provide for multiple roadway connections that offer more emergency access options and new north-south and east-west evacuation/emergency routes throughout the Planning Area. This would be a **less than significant** impact.

4.4 TRAFFIC AND CIRCULATION

Zoning Code Update

The proposed project also includes several updates to the City's Zoning Code. These updates involve the addition of new zoning districts, as well as amendments to development standards for several existing zoning districts as discussed in Section 3.0, Project Description, of this Draft EIR. The proposed Zoning Code updates are largely administrative and are intended to clarify the types of uses that are permitted under a particular land use designation. The Zoning Code Update would not impact safety and emergency access. This would be a **less than significant** impact.

West Lone Roadway Improvement Strategy

The proposed project includes the West Lone Roadway Improvement Strategy (WIRIS), which consists of both improvements to existing roadways and the construction of new roadway segments in order to create a bypass to provide traffic relief through downtown. The Western lone Roadway is envisioned to relieve traffic congestion, improve the quality of life, and divert heavy vehicles out of downtown lone (see **Figure 4.4-1**). The WIRIS would improve safety and emergency access. This would be a **less than significant** impact.

Proposed General Plan Policies and Action Items That Provide Mitigation

The proposed General Plan update incorporates the following policies and actions that provide mitigation and standards for safety and emergency access.

Circulation Element

- | | |
|-------------------|--|
| Policy CIR-1.1: | Implement the Circulation Plan, shown as Figure 4-1 and Figure 4-2. (Cross reference: LU 1.3, LU 1.4, LU 1.14) |
| Action CIR-1.1.1: | For development projects, require the dedication of right-of-way and the installation of roadway improvements as part of the review and approval of development projects. |
| Action CIR-1.1.2: | Require that prior to issuance of building permits, all development projects that must perform new roadway construction or road widening complete the roadways necessary for all phases of the development project such that adequate transportation infrastructure is available prior to the arrival of the first resident, unless otherwise approved by the City Engineer. |
| Action CIR-1.1.3: | For major roadway projects, allow for improvement phasing such that roadway lanes are constructed based on traffic demand, with planned additional lanes being constructed once traffic demand reaches levels that require the additional lanes to be constructed in order to meet Level of Services specified in Policy CIR-1.3 . (Cross reference CIR 1.3) |
| Action CIR-1.1.4: | All new roadways and roadways that are being expanded must include sidewalks for pedestrians. In addition, crosswalks adequate to ensure pedestrian safety must be provided as determined by the City Engineer. |
| Action CIR-1.1.5: | Require development projects to provide funding or to construct roadway/intersection improvements to implement the City's Circulation |

Plan and Bikeways & Trails Plan. At the City's discretion, consider the payment of established traffic impact or similar fees to provide compliance with the requirements of this policy with regard to those facilities included in the fee program, provided that the City finds that the fee adequately funds all required roadway and intersection improvements. If payment of established fees is used to provide compliance with this policy, the City may also require the payment of additional fees if necessary to cover the fair share cost of facilities not included in or fully funded by the fee program.

- Policy CIR-1.5: Encourage the creation of a road system that is easily navigated.
- Action CIR-1.5.1: Require development projects to design local road intersections such that roads are perpendicular to each other (at right angles) or round-about intersections, unless there are natural features or special circumstances that prohibit perpendicular or round-about intersection design.
- Action CIR-1.5.2: Require development projects to design local roads that have clear and direct paths, not meandering roadways. Prohibit the use of cul-de-sacs in development projects unless specific circumstances require the use of a cul-de-sac or make a cul-de-sac the most viable option.
- Policy CIR-1.6: Where existing intersections cause traffic flow delays, consider modifying such intersections to round-about intersections if such improvements would improve traffic flows and livability.
- Policy CIR-1.7: Design the circulation system serving the City's industrial areas to safely accommodate heavy truck traffic.
- Policy CIR-1.10: Encourage maximum block lengths that provide multiple vehicular paths and increase pedestrian circulation around the City at the neighborhood level. The City's preferred block length is less than 800 feet. Block lengths between 800 and 1000 feet may be acceptable on a case-by-case basis, and block lengths greater than 1000 feet are generally considered unacceptable.
- Action CIR-1.10.1: Incorporate maximum block length standards into the City's street design and/or improvement standards.
- Action CIR-1.10.2: When blocks are designed at lengths greater than 1000 feet, design shall include mid-block pedestrian and emergency vehicle connections.
- Policy CIR-2.8: Promote bicycling and walking as a safe and attractive activity. Educate all road users to share the road and interact safely. (*Cross reference LU 1.2, NS 2.2.2*)
- Action CIR-2.8.1: Continue Safe Routes to Schools programs and complete associated sidewalk and, crosswalk improvements. (*Cross reference PF 8.3*)
- Action CIR-2.8.2: Maintain roadways and bicycle-related facilities so they provide safe and comfortable conditions for the bike rider, including maintaining lane striping for bike lanes and routes.

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- Action CIR-2.8.3: Minimize road construction impacts by coordinating bike, and pedestrian facilities with roadway construction whenever feasible.
- Action CIR-2.8.4: Ensure traffic-calming projects are appropriate for bicycle and pedestrian users (e.g., address roundabout or bulb-out designs that push cyclists into traffic).
- Action CIR-2.8.5: Provide signage, alternative routes, etc. during construction activities affecting bikeways to ensure the safety of cyclists.
- Action CIR-2.8.6: Enforce traffic laws to improve the safety and comfort of all road users, with a particular focus on behaviors and attitudes that cause motor vehicle/bicycle crashes.
- Action CIR-2.8.7: Identify a funding source that will provide at least one crossing guard for each elementary and middle school in the City. Work with school districts to identify joint funding solutions and other partnership opportunities that facilitate pedestrian safety around schools.
- Policy CIR-4.1: Maintain and repair streets, trails, and other circulation components according to priorities established on an annual basis.
- Action CIR-4.1.1: Develop and implement a comprehensive system to monitor and evaluate the conditions and maintenance needs of the existing transportation network. Inventory and categorize the City-maintained roads by road type and condition using a pavement management system.

Public Facilities Element

- Policy PF-13.2: The City shall require all new developments to provide adequate emergency access features, including secondary access points, as determined by the Lone Fire Department. (*Cross reference: NS 7.1.1*)

Implementation of the proposed General Plan policies and associated actions listed above would require roadways to meet LOS standards (Action CIR-1.1.3), provide sidewalks and crosswalks on roadways that are being expanded (Actions CIR-1.1.4 and CIR-2.8), enforce traffic laws (Action CIR-2.8.6), repair roads and trails and create a funding mechanism (Policy CIR-4.1 and Action CIR-4.1.1). The proposed Public Facilities Element includes a policy that requires adequate emergency access for new development (Policy PF-13.2). Therefore, this impact is considered **less than significant**.

Mitigation Measures

None required.

Transit System Impacts

- Impact 4.4.3** Implementation of the proposed project would result in an increase in the demand for public transit service (e.g., bus service). This is considered a **potentially significant** impact.

As the City of Ione grows under the proposed project, the local demands for non-vehicular transportation will change. While Amador Regional Transit (ARTs) currently provides six in-bound and out-bound trips per day to Sutter Hill and Buena Vista/Comanche, the growth of the City may eventually require greater decreased headway (i.e., more frequent bus trips), additional busses, or additional bus stops. The growth in the population and employment sector proposed by the General Plan may increase ridership beyond what is available or planned.

Regionally, ACTC is responsible for regional transit planning. However, the Transit Plan does not address long term service expansion to/from the City of Ione because the transit development plan only covers a five-year window.

The following is a discussion of the potential transit system impacts associated with each aspect of the proposed project.

General Plan Land Use Map

Areas Within Existing City Limits

The central portion of lands within the existing city limits of Ione is largely built out with retail and commercial businesses in the downtown core and residential uses surrounding the core. The areas that comprise the north/northwestern and south/southeastern lands within the city limits are still largely undeveloped. The proposed General Plan update allows for the intensification of retail, office, and residential uses in the downtown core area, as well as new residential and commercial development in the undeveloped areas within the existing city limits. As discussed above, the growth of the City may eventually require greater frequency of transit trips and even local circulator routes. The growth in the population and employment sector proposed by the General Plan Update may increase ridership beyond what is available or planned. The Short-Range Transit Plan does not address long term service expansion to/from the City of Ione. Therefore, future unmet transit demand in Ione is a **potentially significant** impact.

Areas Outside of Existing City Limits

Lands within the Planning Area that are outside the existing city limits are largely undeveloped, with some agricultural land (primarily grazing lands) and three mining operations. The proposed General Plan update would primarily designate these areas as General Agriculture (AG), Open Space (OS), or Surface Mining (SM). Therefore, areas outside of the existing city limits would, to a significant extent, maintain current land uses. However, to the west of the city limits at the northern boundary, the proposed General Plan designates residential use and a small portion of heavy industrial land uses to the northwest. In addition, the Triangle Policy Area in the southeast is designated industrial, office, and commercial uses in addition to the existing mining operations. As discussed above, the growth of the City may eventually require greater frequency of transit trips and even local circulator routes. The growth in the population and employment sector proposed by the General Plan Update may increase ridership beyond what is available or planned. The Short-Range Transit Plan does not address long term service expansion to/from the City of Ione. Therefore, future unmet transit demand in Ione is a **potentially significant** impact.

Sphere of Influence Amendment (SOI)/Annexations

As part of the proposed project, the City plans to amend its Sphere of Influence (SOI) to include the site of the Castle Oaks Water Reclamation Plant (COWRP), the City Corporation Yard and

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adjacent land and to expand the Old Stockton Road and Industrial Park Special Planning Areas. In addition, the City is proposing to annex three areas currently located outside the city limits. These areas are identified on Figure 3.0-6 in Section 3.0 and are referred to as (1) the Collins Road Annexation Area consisting of about 1 acre; (2) the Wastewater Treatment Plant Annexation Area consisting of about 9.7 acres; and (3) the State Property Annexation Area consisting of about 3.7 acres. The northwest parcel (Collins Road Annexation Area) will be rezoned C-3 Heavy Commercial, while the 3.7-acre parcel to the northeast (State Property Annexation Area), and the 9.7 acre Wastewater Treatment Plant Annexation Area will be rezoned PF Public Facilities. As discussed above, the growth of the City may eventually require greater frequency of transit trips and even local circulator routes. The growth in the population and employment sector proposed by the General Plan may increase ridership beyond what is available or planned. The Short-Range Transit Plan does not address long term service expansion to/from the City of Ione. Therefore, future unmet transit demand in Ione is a **potentially significant** impact.

Zoning Code Update

The proposed project also includes several updates to the City's Zoning Code. These updates involve the addition of new zoning districts, as well as amendments to development standards for several existing zoning districts as discussed in Section 3.0, Project Description, of this Draft EIR. The proposed Zoning Code updates are largely administrative and are intended to clarify the types of uses that are permitted under a particular land use designation. The Zoning Code Update would not impact transit services. This is a **less than significant** impact.

West Ione Roadway Improvement Strategy

The proposed project includes the West Ione Roadway Improvement Strategy (WIRIS), which consists of both improvements to existing roadways and the construction of new roadway segments in order to create a bypass to provide traffic relief through downtown. The WIRIS would not limit transit services. This is a **less than significant** impact.

Proposed General Plan Policies and Action Items That Provide Mitigation

The proposed General Plan update incorporates the following policy that provides mitigation and reduces impacts to transit.

Circulation Element

Policy CIR-1.12: Work with regional agencies and transit providers to support transit programs.

Implementation of the above General Plan policy (Policy CIR-1.12) would reduce transit impacts associated with the proposed project by requiring coordination with regional agencies and transit providers. However, mitigation is required to reduce this impact to a level of less than significant. This would be a **potentially significant** impact without mitigation.

Mitigation Measures

The following policies are recommended as mitigation measures and shall be included in the Circulation Element:

MM 4.4.3a The Circulation Element of the General Plan shall be revised to include the following policy:

Coordinate with ACTC as regular updates to the Amador County Short Range Transit Plan are conducted to determine whether there are unmet transit needs in the City of Ione. Reasonable transit enhancements could include additional busses to existing transit routes or new routes to serve future development.

MM 4.4.3b The Circulation Element of the General Plan shall be revised to include the following policy:

Establish a mechanism to fund additional transit service within the City of Ione as unmet needs are identified by the Amador County Short Range Transit Plan and a subsequent Transit Master Plan.

Implementation of Policy CIR-1.12 and mitigation measures **MM 4.4.3a** and **MM 4.4.3b** would ensure that the continued transit service would meet the increasing demand resulting from implementation of the proposed project. This would reduce the project's transit impacts to **less than significant**.

Bicycle and Pedestrian System Impacts

Impact 4.4.4 Implementation of the proposed project would result in an increase in the demand for bicycle and pedestrian infrastructure. This is considered a **less than significant** impact.

The proposed project provides for a better mix of residential densities and commercial uses, and pedestrian and bicycle facilities to promote options for movement other than the use of motor vehicles. Implementation of the proposed project may lead to increased walking and bicycling for recreation, shopping, and employment purposes. The *Amador County Pedestrian and Bicycle Transportation Plan* and *City of Ione Bikeway and Sidewalk Projects List* include proposed sidewalk projects to complete existing gaps in the sidewalk system and future bikeways and trails that would facilitate biking and walking (see **Figure 4.4-3**).

The following is a discussion of the potential bicycle and pedestrian system impacts associated with each aspect of the proposed project.

General Plan Land Use Map

Areas Within Existing City Limits

The central portion of lands within the existing city limits of Ione is largely built out with retail and commercial businesses in the downtown core and residential uses surrounding the core. The areas that comprise the north/northwestern and south/southeastern lands within the city limits are still largely undeveloped. The proposed General Plan update allows for the intensification of retail, office, and residential uses in the downtown core area, as well as new residential and commercial development in the undeveloped areas within the existing city limits. As discussed above, implementation of the proposed General Plan Update may lead to increased walking and bicycling for recreation, shopping, and employment purposes. The *Amador County Pedestrian and Bicycle Transportation Plan* and *City of Ione Bikeway and Sidewalk Projects List*

4.4 TRAFFIC AND CIRCULATION

include proposed sidewalk projects to complete existing gaps and future bikeways and trails that would facilitate biking and walking (see **Figure 4.4-3**). Additionally the Circulation Element contains numerous policies and actions to guide the implementation of the bicycle and pedestrian system. This would be a Implementation of the proposed General Plan Update may lead to increased walking and bicycling for recreation, shopping, and employment purposes. The *Amador County Pedestrian and Bicycle Transportation Plan* and *City of Lone Bikeway and Sidewalk Projects List* include proposed sidewalk projects to complete existing gaps and future bikeways and trails that would facilitate biking and walking (see **Figure 4.4-3**). Additionally the Circulation Element contains numerous policies and actions to guide the implementation of the bicycle and pedestrian system. This would be a **less than significant** impact.

Areas Outside of Existing City Limits

Lands within the Planning Area that are outside the existing city limits are largely undeveloped, with some agricultural land (primarily grazing lands) and three mining operations. The proposed General Plan update would primarily designate these areas as General Agriculture (AG), Open Space (OS), or Surface Mining (SM). Therefore, areas outside of the existing city limits would, to a significant extent, maintain current land uses. However, to the west of the of the city limits at the northern boundary, the proposed General Plan designates residential use and a small portion of heavy industrial land uses to the northwest. In addition, the Triangle Policy Area in the southeast is designated industrial, office, and commercial uses in addition to the existing mining operations. As discussed above, implementation of the proposed General Plan Update may lead to increased walking and bicycling for recreation, shopping, and employment purposes. The *Amador County Pedestrian and Bicycle Transportation Plan* and *City of Lone Bikeway and Sidewalk Projects List* include proposed sidewalk projects to complete existing gaps and future bikeways and trails that would facilitate biking and walking (see **Figure 4.4-3**). Additionally the Circulation Element contains numerous policies and actions to guide the implementation of the bicycle and pedestrian system. This would be a **less than significant** impact.

Sphere of Influence Amendment/Annexations

As part of the proposed project, the City plans to amend its Sphere of Influence (SOI) to include the site of the Castle Oaks Water Reclamation Plant (COWRP), the City Corporation Yard and adjacent land and to expand the Old Stockton Road and Industrial Park Special Planning Areas. In addition, the City is proposing to annex three areas currently located outside the city limits. These areas are identified on Figure 3.0-6 in Section 3.0 and are referred to as (1) the Collins Road Annexation Area consisting of about 1 acre; (2) the Wastewater Treatment Plant Annexation Area consisting of about 9.7 acres; and (3) the State Property Annexation Area consisting of about 3.7 acres. The northwest parcel (Collins Road Annexation Area) will be rezoned C-3 Heavy Commercial, while the 3.7-acre parcel to the northeast (State Property Annexation Area), and the 9.7 acre Wastewater Treatment Plant Annexation Area will be rezoned PF Public Facilities. The proposed SOI amendments and annexations would not impact the bicycle and pedestrian system. This would be a **less than significant** impact.

Zoning Code Update

The proposed project also includes several updates to the City's Zoning Code. These updates involve the addition of new zoning districts, as well as amendments to development standards for several existing zoning districts as discussed in Section 3.0, Project Description, of this Draft EIR. The proposed Zoning Code updates are largely administrative and are intended to clarify the types of uses that are permitted under a particular land use designation. The Zoning Code

Update would not impact the bicycle and pedestrian system. This would be a **less than significant** impact.

West Ione Roadway Improvement Strategy

The proposed project includes the West Ione Roadway Improvement Strategy (WIRIS), which consists of both improvements to existing roadways and the construction of new roadway segments in order to create a bypass to provide traffic relief through downtown. The Western Ione Roadway is envisioned to relieve traffic congestion, improve the quality of life, and divert heavy vehicles out of downtown Ione (see **Figure 4.4-1**), which would improve opportunities for bicycle and pedestrian facilities. This is a **less than significant** impact.

Proposed General Plan Policies and Action Items That Provide Mitigation

The proposed General Plan update incorporates the following policy that provides mitigation and reduces impacts to bicycle and pedestrian systems:

- Policy CIR-1.1: Implement the Circulation Plan, shown as Figure 4-1 and Figure 4-2. (Cross reference: LU 1.3, LU 1.4, LU 1.14)
- Action CIR-1.1.4: All new roadways and roadways that are being expanded must include sidewalks for pedestrians. In addition, crosswalks adequate to ensure pedestrian safety must be provided as determined by the City Engineer.
- Action CIR-1.1.5: Require development projects to provide funding or to construct roadway/intersection improvements to implement the City's Circulation Plan and Bikeways & Trails Plan. At the City's discretion, consider the payment of established traffic impact or similar fees to provide compliance with the requirements of this policy with regard to those facilities included in the fee program, provided that the City finds that the fee adequately funds all required roadway and intersection improvements. If payment of established fees is used to provide compliance with this policy, the City may also require the payment of additional fees if necessary to cover the fair share cost of facilities not included in or fully funded by the fee program.
- Policy CIR-2.1: Create a system of sidewalks, off-street trails and multi-use paths, as generally illustrated on **Figure 4-3**, that are used for walking, bicycling, and equestrian use that are attractive, natural, and safe transportation corridors. (Cross reference LU 1.10, CO 8.3)
- Policy CIR-2.2: Consider how all plans and projects affect all modes of transportation, including bicyclists and pedestrians. (Cross reference LU 1.2, LU 1.9, LU 1.10)
- Action CIR-2.2.1: Seek to maintain sidewalk pedestrian operations and intersections at Level of Service B or better at all times, including peak travel times, unless maintaining this Level of Service would, in the City's judgment, be infeasible and/or conflict with the achievement of other goals, as generally illustrated on **Figure 4-5**.

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- Action CIR-2.2.2: Seek to maintain Class II bicycle facility operations and intersections at Level of Service C or better at all times, including peak travel times, unless maintaining this Level of Service would, in the City's judgment, be infeasible and/or conflict with the achievement of other goals, as generally illustrated on **Figure 4-6**.
- Action CIR-2.2.3: Seek to maintain off-street trails, multi-use paths, and Class I bicycle facility operations and intersections at Level of Service A or better at all times, including peak travel times, unless maintaining this Level of Service would, in the City's judgment, be infeasible and/or conflict with the achievement of other goals, as generally illustrated on **Figure 4-7**.
- Action CIR-2.2.4: Establish intersection delay thresholds for pedestrians and bicyclists in line with this Policy that once reached, trigger improvements for bicyclists and pedestrians. Regularly monitor intersection delays in and adjacent to the City to determine when these delay thresholds are reached.
- Policy CIR-2.3: Require bicycle and pedestrian connections to public transit systems at stops; carpool/vanpool park-and-ride lots; and activity centers (e.g., schools, community centers, higher-density residential areas, Downtown, parks, employment centers, and commercial centers). (*Cross reference CO 8.3.1, LU 1.2, LU 1.9, PF 8.3*)
- Policy CIR-2.4: In designing development projects, design for the pedestrian first. (*Cross reference LU 1.2, LU 1.9, LU 1.10*)
- Action CIR-2.4.1: Require pedestrian circulation routes to be designed into all land plans and subdivisions to ensure that access for the pedestrian is provided. Pedestrian routes shall be interconnected and may include open spaces, parks, and trails as otherwise required by the City.
- Action CIR-2.4.2: Require and site pedestrian crossings of major roads at key intersections and at locations that provide priority and efficiency to the pedestrian.
- Action CIR-2.4.3: Ensure safe, efficient pedestrian connections are made between the sidewalk, parking areas, and entrances to stores, offices, and other uses as part of development design review. (*Cross reference NS 6.1.1*)
- Policy CIR-2.5: Provide sidewalks throughout the City. Meandering sidewalks are discouraged, except where necessary to accommodate site-specific features such as trees or habitat. (*Cross reference LU 1.2*)
- Action CIR-2.5.1: Complete the sidewalks in the existing community where ROW exists, using grants or other funding sources.
- Policy CIR-2.6: Provide safe and convenient bicycle access to all parts of the community. (*Cross reference LU 1.2*)
- Action CIR-2.6.1: Pursue all available sources of funding for the development and improvement of bicycle facilities. Develop projects and secure funding to improve pedestrian and bicycle safety and access around schools.

- Policy CIR-2.7: Provide bike lanes or other bike facilities along all arterials, connectors, and on local roadways when necessary and feasible to provide for interconnected routes. On-street bike routes may be provided on roadways as deemed necessary by the City. (*Cross reference LU 1.2*)
- Policy CIR-2.8: Promote bicycling and walking as a safe and attractive activity. Educate all road users to share the road and interact safely. (*Cross reference LU 1.2, NS 2.2.2*)
- Action CIR-2.8.1: Continue Safe Routes to Schools programs and complete associated sidewalk and, crosswalk improvements. (*Cross reference PF 8.3*)
- Action CIR-2.8.2: Maintain roadways and bicycle-related facilities so they provide safe and comfortable conditions for the bike rider, including maintaining lane striping for bike lanes and routes.
- Action CIR-2.8.3: Minimize road construction impacts by coordinating bike, and pedestrian facilities with roadway construction whenever feasible.
- Action CIR-2.8.4: Ensure traffic-calming projects are appropriate for bicycle and pedestrian users (e.g., address roundabout or bulb-out designs that push cyclists into traffic).
- Action CIR-2.8.5: Provide signage, alternative routes, etc. during construction activities affecting bikeways to ensure the safety of cyclists.
- Action CIR-2.8.6: Enforce traffic laws to improve the safety and comfort of all road users, with a particular focus on behaviors and attitudes that cause motor vehicle/bicycle crashes.
- Action CIR-2.8.7: Identify a funding source that will provide at least one crossing guard for each elementary and middle school in the City. Work with school districts to identify joint funding solutions and other partnership opportunities that facilitate pedestrian safety around schools.
- Policy CIR-2.9: Consult with ACTC to ensure that local bikeways and trails connect to regional bikeways and trails to provide for a regional bikeway and trail system in support of the Amador County Bicycle and Pedestrian Master Plan.
- Policy CIR-3.1: Assess fees sufficient to cover the fair share portion of all new development impacts on the local and regional transportation system and bicycle and pedestrian circulation system, including both development and maintenance of vehicular and non-vehicular circulation facilities.
- Policy CIR-3.3: When a Redevelopment Area is adopted by the City, set aside a portion of tax increment financing to be allocated toward circulation improvements (vehicular and non-vehicular), in the Redevelopment Area. (*Cross reference ED 3.3*)

4.4 TRAFFIC AND CIRCULATION

- Policy CIR-3.5: Require proposed new development projects to analyze their contribution to increased traffic and to implement improvements necessary to address their impact on facilities not covered by a fee program.
- Policy CIR-3.6: Aggressively pursue State and federal funding to implement all aspects of the City's Circulation Plan.
- Policy CIR-3.7: Continue participation in the Safe Routes To School Program to help fund pedestrian and bicycle improvements that provide routes to schools.

The Circulation Element in the proposed project contains numerous policies and actions to guide the implementation of the bicycle and pedestrian system such as requiring development projects to provide sidewalks and crosswalks in new development areas and on roadways that are being expanded (Policies CIR-1.1 and CIR-2.8 and associated actions), provide funding or to construct roadway/intersection improvements to implement the City's Circulation Plan and Bikeways & Trails Plan (Action CIR-1.1.5), create a system of trails and paths (Policy CIR-2.1), maintain bicycle and pedestrian facilities at acceptable LOS (Policy CIR-2.2 and Actions CIR-2.2.1 - 2.2.4), provide sidewalks throughout the City (Policy CIR-2.5), provide bicycle access and connection to nodes (Policies CIR-2.6 and CIR-2.7), and seek funding for pedestrian and bicycle facilities through assessment and fair share funding agreements, tax increment financing, state and federal funding, and Safe Routes to School (Policies CIR-3.1, CIR-3.5, CIR-3.6, and CIR-3.7). Therefore, this impact would be **less than significant**.

Mitigation Measures

None required.

4.4.4 CUMULATIVE SETTING, IMPACTS AND MITIGATION MEASURES

CUMULATIVE SETTING

The cumulative setting for the proposed project as it relates to transportation and circulation includes buildout of the Planning Area (anticipated to occur beyond year 2030), roadway and transit projects in the City, as described in the proposed General Plan policies and action items, the West Ione Roadway Improvement Strategy's proposed improvements to existing roadways and the construction of new roadway segments in order to create a bypass to provide traffic relief through downtown, future road improvements by Caltrans on State highways including SR 104 and SR 124, road improvement projects in Amador County, as well as existing, proposed and approved projects including those listed in Table 4.0-1 in Section 4.0 of this EIR. Cumulative traffic associated with regional growth is also included.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Cumulative Impacts to Study Roadway Segments

- Impact 4.4.5** When considered with existing, proposed, approved and planned development in the region, implementation of the proposed project has the potential to contribute to an increase in traffic volumes that would result in deficient level of service conditions under cumulative conditions (including buildout of the Planning Area) resulting in significant impacts to the physical environment. This is considered a **cumulatively considerable** impact.

As discussed under Impact 4.4.1 and as shown in **Table 4.4-6**, implementation of the proposed project would result in some service levels exceeding proposed standards and policies of Caltrans and Amador County by resulting in LOS E and F on eight roadway segments within the General Plan planning horizon. This would be true under cumulative conditions as well unless a feasible solution is found to reduce LOS impacts on the state highways.

Potential issues with funding, the effect of regional traffic through the City, timing of required permits and coordination with Amador County and Caltrans could result in delays in delivering roadway improvements prior to deficient LOS conditions having developed in the interim. As noted in the proposed General Plan policies and action items under Impact 4.4.1, the General Plan does include provisions that attempt to keep similar timing for development and the provision of roadway improvements. However, the City cannot ensure these improvements will be timely in all circumstances (for the reasons noted above and as discussed under Impact 4.4.1). Therefore, this is considered a **cumulatively considerable** impact.

Proposed General Plan Policies and Action Items That Provide Mitigation

The proposed General Plan update contains several goals, policies, and action items that would assist in reducing the project's contribution to cumulative impacts to study roadway segments and levels of service. The following list contains those policies and actions that contain specific, enforceable requirements and/or restrictions and corresponding performance standards that assist in reducing (though not eliminating) this impact. Since these policies and actions have been described in detail in prior impact discussions for this section, the following is limited to only listing the policy and action item numbers.

Circulation Element

Policy CIR-1.1; Action CIR-1.1.1; Action CIR-1.1.2; Action CIR-1.1.3; Action CIR-1.1.5; Policy CIR-1.2; Action CIR-1.2.1; Action CIR-1.2.2; Policy CIR-1.3; Policy CIR-1.4; Action CIR-1.4.1; Policy CIR-1.5; Action CIR-1.5.4; Policy CIR-1.13; Action CIR-1.13.1; Policy CIR-3.1; Action CIR-3.1.1; Policy CIR-3.3; Policy CIR-3.4; Policy CIR-3.5; Policy CIR-3.6

Mitigation Measures

Implementation of the proposed General Plan Policies and Action items in addition to mitigation measures **MM 4.4.1a**, **MM 4.4.1b**, and **MM 4.4.1c** would ensure that a long-term solution is developed to eliminate the conflicting LOS policies. For example, **MM 4.4.1a** requires the City of Lone to coordinate with ACTC to minimize inconsistencies between the City's proposed LOS policies (**CIR 1.3 and CIR 1.4**) and those contained in future updates to the Regional Transportation, **MM 4.4.1b** requires the City of Lone to coordinate with Caltrans to minimize inconsistencies between the City's proposed LOS policies (**CIR 1.3 and CIR 1.4**) and those contained in future Transportation Concept Reports for SR 104 and SR 124, **MM 4.4.1c** requires the City to revise its CIP to widen SR 124 between Washington Street and WIRS to four-lanes, and SR 124 between WIRS and Buena Vista Road to four-lanes, in coordination with Caltrans.

Although the proposed mitigation measures would require the City to work with Amador County, ACTC, and Caltrans, there is no guarantee that the respective policies will be modified. Additionally, the feasibility of these mitigation measures is uncertain because the Transportation Concept Report (TCR) for SR 124 identifies a concept facility limited to two-lanes. However, the TCR does acknowledge the fact that the next TCR should investigate upgrading SR 124 to four-lanes. SR 124 is outside of the City's jurisdiction and the City cannot ensure the timely

4.4 TRAFFIC AND CIRCULATION

implementation of these improvements. Therefore, this impact is considered **cumulatively considerable** and **significant and unavoidable**.

Cumulative Impacts to Public Transit Service

Impact 4.4.6 When considered with existing, proposed, approved and planned development in the region, implementation of the proposed project has the potential to contribute to an increase in the demand for public transit service (e.g., bus service). This is considered a **less than cumulatively considerable** impact.

As discussed under Impact 4.4.3, implementation of the proposed project would increase demand for transit services in the Planning Area beyond what is currently provided. The proposed project promotes options for movement beyond the use of motor vehicles providing a mix of residential densities, commercial uses, and pedestrian and bicycle facilities. However, buildout of the proposed project date in combination with other cumulative development would result in an increased demand for transit services within the City and the larger region. While the proposed project does not specifically address contributions to the maintenance and operational requirements of public transit service, these components of public transit are funded mainly through a portion of sales tax revenue. The sales tax revenue is returned to each county through the Transportation Development Act for the purpose of providing transit service. Therefore, the proposed project would contribute towards maintenance and operational requirements of public transit service in the same way as existing development. Furthermore, no conflicts with current transit provisions or plans are expected as a result of implementation of the proposed project even under cumulative conditions. Therefore, this impact is **less than cumulatively considerable**.

Proposed General Plan Policies and Action Items That Provide Mitigation

The proposed General Plan update contains several goals, policies, and action items that would assist in reducing the project's contribution to cumulative impacts to the transit system. The following list contains those policies and actions that contain specific, enforceable requirements and/or restrictions and corresponding performance standards that assist in reducing (though not eliminating) this impact. Since these policies and actions have been described in detail in prior impact discussions for this section, the following is limited to only listing the policy and action item numbers.

Circulation Element

Policy CIR-1.12

Mitigation Measures

Implementation of mitigation measures **MM 4.4.3a** and **MM 4.4.3b** would create a funding mechanism and ensure that the continued transit service would meet the increasing demand resulting from implementation of the proposed General Plan Update. Therefore, the proposed project would contribute towards maintenance and operational requirements of public transit service in the same way as existing development. This would ensure that the project's cumulative contribution to transit impacts would remain **less than cumulatively considerable**.

REFERENCES

DOCUMENTS

California Department of Transportation, District 10
SR 104 Transportation Concept Report, October 2003
SR 124 Transportation Concept Report, December 2003

City of Ione Bikeway and Sidewalk Projects List, 2008

Amador County Transit Development Plan, June 2008

Amador County Pedestrian and Bicycle Transportation Plan, April 2006

Circulation Element of the Amador County General Plan, April 2006

Amador County Regional Transportation Plan Update, September 2004

Highway Capacity Manual. Transportation Research Board, 2000.

The Western Ione Roadway Improvement Strategy (WIRIS) Technical Memorandum #2, Preliminary Alternatives. Dokken Engineering, August 4, 2008.

