2.2 Circulation Element

Goal:

Provide a multi-modal transportation system consisting of highways, streets, and transit networks adequate to serve subregional transportation needs at an acceptable level of service.

2.2.1 Introduction

The Circulation Element sets the planning framework and provides a safe, convenient and efficient circulation system.

The Circulation Element of the Specific Plan and the General Plan set the planning framework to provide a safe, convenient and efficient circulation system. The East Otay Mesa Specific Plan identifies transportation facilities capable of supporting the anticipated growth in this area, consistent with policies presented in the Land Use Element of the Specific Plan and the County's General Plan.

Figure 2.2-1, Circulation Plan, shows the roadway classifications for the East Otay Mesa Specific Plan. Roadway classifications by roadway segments are shown in Table 2.2-1, East Otay Mesa Roadway Network.

In preparation of this element, coordination occurred with the City of Chula Vista, the City of San Diego, the California Department of Transportation (CalTrans), the San Diego Association of Governments (SANDAG), the Metropolitan Transit Development Board (MTDB) and the City of Tijuana, Mexico.

Figure 2.2-1 Circulation Plan

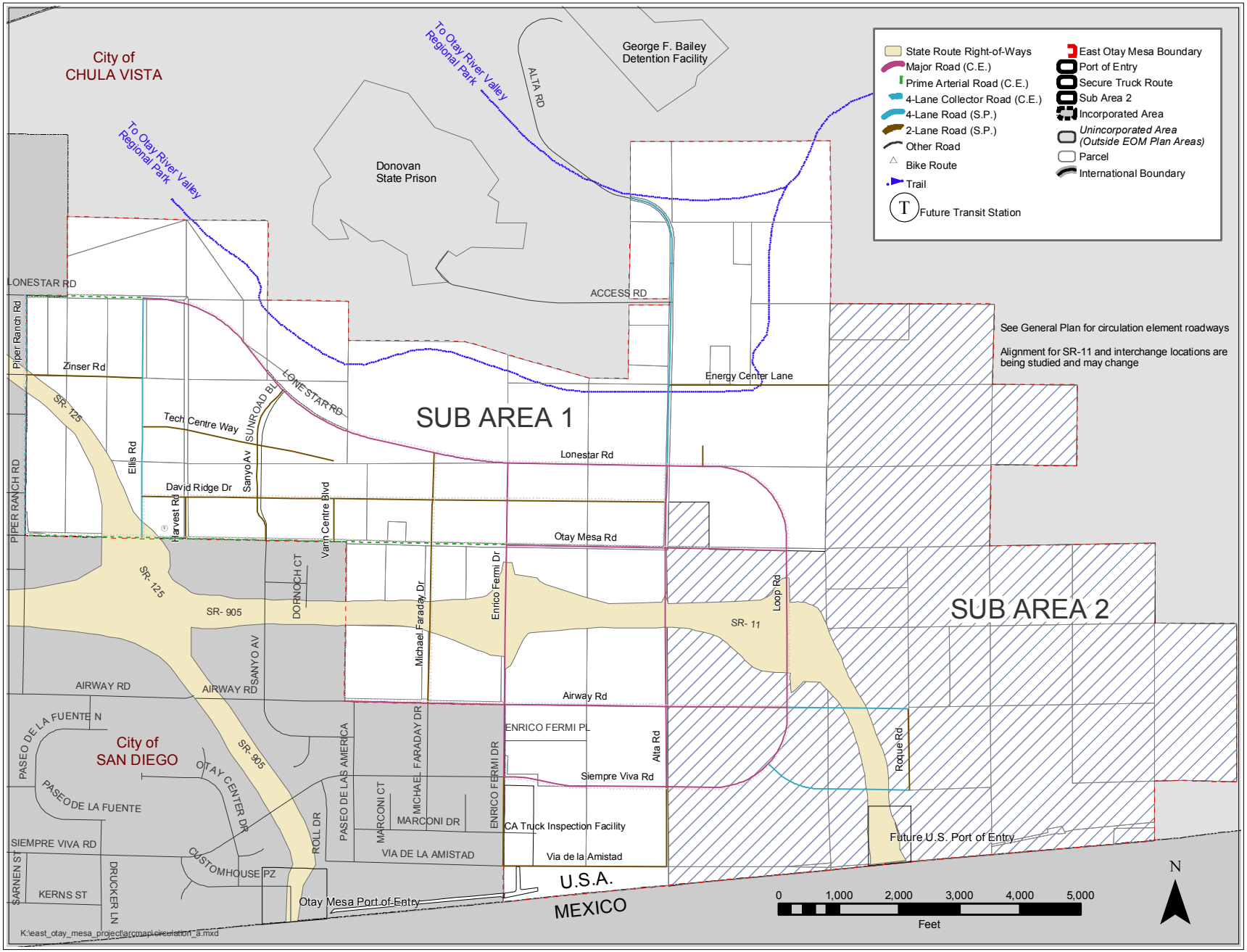

Table 2.2-1
East Otay Mesa Sub Area 1 Roadway Network

ROAD NAME	FROM	TO	CLASSIFICATION *	Bicycle Network Route
Lonestar Road	City of San Diego	Ellis Road	6L-Prime Arterial	Yes
Lonestar Road	Ellis Road	Alta Road	4L-Major	Yes
Otay Mesa Road	City of San Diego	Enrico Fermi Road	6L-Prime Arterial	Yes
Otay Mesa Road	Enrico Fermi Road	Alta Road	4L-Major	Yes
Otay Mesa Road	Alta Road	Loop Road	4L-Major	Yes
Loop Road	Alta Road (North)	Otay Mesa Road	4L-Major	Yes
Airway Road	City of San Diego	Alta Road	4L-Major	Yes
Enrico Fermi Road	Lonestar Road	Siempre Viva Road	4L-Major	No
Enrico Fermi Road	Siempre Viva Road	Via de la Amistad	2L-I/C Collector	No
Siempre Viva Road	City of San Diego	Alta Road	4L-Major	Yes
Via de la Amistad	City of San Diego	Alta Road	2L-I/C Collector	No
Piper Ranch Road	Lonestar Road	Otay Mesa Road	4L-Collector	Yes
Harvest Road	David Ridge Drive	Otay Mesa Road	2L-I/C Collector	Yes
Michael Faraday Road	Lonestar Road	Airway Road	2L-I/C Collector	Yes
Alta Road	Specific Plan Boundary	Lonestar Road	4L-IC Collector	No
Alta Road	Lonestar Road	Otay Mesa Road	4L-Major	Yes
Alta Road	Otay Mesa Road	Siempre Viva Road	4L-Major	No
Alta Road	Siempre Viva Road	Via de la Amistad	2L-I/C Collector	No
Tech Centre Way	Ellis Road	Vann Centre Blvd.	2L-I/C Collector	No
Ellis Road	Lonestar Road	Tech Centre Way	4L-I/C Collector	No
Ellis Road	Tech Centre Way	Otay Mesa Road	4L-I/C Collector	Yes
Sanyo Avenue	Lonestar Road	Otay Mesa Road	2L-I/C Collector	No
Zinser Road	Piper Ranch Road	Ellis Road	2L-I/C Collector	No
David Ridge Drive	Ellis Road	Alta Road	2L-I/C Collector	Yes
Vann Centre Blvd.	Otay Mesa Road	David Ridge Drive	2L-I/C Collector	No
Energy Center Way	Alta Road	East end of E.C. Way	2L-I/C Collector	No
State Route 11	City of San Diego	Alta Road	Freeway	No
State Route 125	City of San Diego	City of San Diego	Freeway	No
*All Industrial/Commercial (I/C) Collectors are Non-Circulation Element Specific Plan roads.				

2.2.2 Regional Access

Future regional thoroughfares play an important role in the development of East Otay Mesa. Planned State Routes (SR-125 and SR-11), along with the extension of SR-905 to the Otay Mesa Border crossing, are critical to accommodating the future development of the entire Otay Mesa area. In addition to freeways, planned local roads within East Otay Mesa will play an important role in the area's future. Planned improvements to regional highway system in the area include:

- **State Route 905 (SR-905):** The ultimate plan for the extension of SR-905 is to provide eight single occupancy vehicle (SOV) lanes and two high occupancy vehicle (HV) lanes between Interstate 805 (I-805) and SR-125/Harvest Road. The planned extension would travel east to SR-125 and then curve south to the border. Within Otay Mesa, interchanges are planned at Caliente Boulevard, Heritage Road, Britannia Boulevard, Le Media Road, and SR-125. The southern terminus of SR-905 would be the Otay Mesa Border crossing and would include a local access road to Enrico Fermi Road. An interchange is also planned at Siempre Viva Road.

- **State Route 125 (SR-125):** SR-125 is planned for construction as an eight-lane facility, or six lanes with provisions for two High Occupancy Vehicle (HOV) lanes, south from its present terminus at SR-94 to the future extension of the SR-905 Freeway. For the portion from San Miguel Road to the future extension of the SR-905 freeway, California Transportation Ventures (CTV), a private entity, has entered into an agreement with CalTrans to construct SR-125 as a private toll way. The Federal Highway Administration (FHA), in an act known as issuing a Record of Decision, gave final approval for the SR-125 Environmental Impact Report (EIR) on June 9, 2000.

A new freeway, SR-11, is planned to extend easterly of the SR-905 and SR-125 interchange to connect with the future border crossing east of Alta Road.

- **Future Border Crossing and State Route 11 (SR-11):** State Route 11 is planned as a new freeway to extend easterly of SR-905 and Enrico Fermi Drive to connect with the future third border crossing east of Alta Road. The extension would revise the SR-905/125 interchange and provide two new interchanges at Enrico Fermi Drive and Airway Road. CalTrans approved the Project Study Report/Project Development Support (PSR/PDS) for SR-11 September 2000. They are currently working on the Project Report (PR) and Environmental Documents (ED) for this project.

2.2.3 Local Access Road Network

To plan for future travel demand to and from as well as within East Otay Mesa, traffic forecasts were generated for build-out of the Specific Plan. The traffic forecasts incorporate the type and density of future land uses, the location and potential interaction of various land use types, as well as specific characteristics and the capacity of each of the area's future roads. The East Otay Mesa Specific Plan's roadways are forecasted to operate at an acceptable Level of Service (LOS) at buildout (EIR Addendum No. 6).

Major Roads and Local Industrial Commercial Collector Roads provide through access into the center of development areas and the Activity Nodes.

The East Otay Mesa Specific Plan is based on a hierarchy of circulation roads as designated on the County's General Plan Circulation Element, and non-Circulation Element Local Industrial/Commercial Collectors designated on the Specific Plan as indicated in Table 2.2-1. Prime Arterial, Major and Industrial/Commercial Collector Roads provide the regional connections through the Specific Plan and beyond. Major Roads and Industrial/Commercial Collector Roads provide through access into the center of the development areas and the Activity Nodes. Figure 2.2-1, Circulation Plan, shows the proposed road classifications. These classifications have been designated to serve Specific Plan build-out traffic needs. These classifications (Circulation Element and/or Specific Plan Roads) have been designated to accommodate build-out traffic volumes assessed through the preparation of traffic forecasts for the land use development pattern and circulation network identified in this plan. Implementation of this circulation network shall be through the incremental approval and eventual development of individual public and/or private projects.

It is the intent of this Specific Plan that all private discretionary projects shall be required to:

- Dedicate and improve all adjacent rights-of-way necessary to provide access to the project and to complete the Specific Plan circulation system,

- Dedicate and agree to construct, through means acceptable to the Director of Public Works, all adjacent rights-of-way necessary to further implement the Specific Plan circulation system, including where the rights-of-way do not provide

direct access to the site. The purpose of this requirement is to implement the circulation system of the Specific Plan, and

- Acquire and construct (or agree to construct if acceptable to the Director of Public Works) all off-site circulation element roads necessary to provide access to the site and to ensure off-site road access will meet County standards.

The Board of Supervisors may adopt a Development Impact Fee (DIF) to replace or supplement these requirements.

Principal County arterials in the circulation network are described below:

- **Otay Mesa Road:** Otay Mesa Road is shown in the City of San Diego's most recent Circulation Element for the Otay Mesa Community as a four-lane Major between the terminus of SR-905 and SR-125/Harvest Road. The County General Plan includes the road as a six-lane Prime Arterial between Piper Ranch Road and Enrico Fermi Drive. The road continues east to Loop Road as a four-lane Major.

- **Lonestar Road and Loop Road:** In the City of San Diego Lonestar Road is classified as a four-lane Major. In the County it becomes a six-lane Prime Arterial east to Ellis Road where it transitions into a four-lane Major. This roadway will carry traffic from SR-125 east into the northern portions of the Specific Plan. As Lonestar Road travels east past Alta Road, it transitions into Loop Road, a four-lane Major Road. Loop Road then heads south to Siempre Viva Road in SubArea 2 of the Specific Plan.

- **Airway Road, Siempre Viva Road and Via de la Amistad:** The City of San Diego's Circulation Element shows Airway Road as four-lane Major Road, Siempre Viva Road as a six-lane Prime Arterial Road and Via de la Amistad as a four-lane Collector Road. These roads continue east from Enrico Fermi Drive, a north/south Major located on the border between the City of San Diego and the County to Alta Road as four-lane Major Roads to serve SubArea 1. Airway Road and Siempre Viva Road are planned to extend east into SubArea 2 terminating at Roque Road. Via de la Amistad will continue east from Enrico Fermi Road to Alta Road as a two-lane Industrial/Commercial Collector Road.

- **Piper Ranch, Harvest and Michael Faraday Roads:** Piper Ranch Road, Harvest Road and Michael Faraday Road are all north-south Major Roads in the City of San Diego that provide access into the Specific Plan Area. Within the County of San Diego's Specific Plan Area, Piper Ranch Road is planned as four-lane Industrial/Commercial Collector Road. Michael Faraday Road is planned as a two-lane Industrial/Commercial Collector between Lonestar and Airway Roads. Harvest Road will terminate at Tech Centre Way as a two-lane Industrial/Commercial Collector Road.

- **Enrico Fermi Drive:** In the City of San Diego, Enrico Fermi Drive is classified as a four-lane Major Road. In the County of San Diego's East Otay Mesa Specific Plan Area, it is also planned as a north-south four-lane Major Road between Lonestar Road and Siempre Viva Road. It continues south to Via de la Amistad as a two-lane Industrial/Commercial Collector Road.

- **Alta Road:** Alta Road is an existing north/south four-lane Industrial/Commercial Collector Road extending north from Otay Mesa Road. North of Lonestar Road, its main function is to provide access for planned adjacent development and to the detention facilities to the north. It is not proposed to be extended over the Otay Valley. South of Lonestar Road it is planned as a four-lane Major Road to Siempre Viva Road. Alta Road will continue south as a two-lane Industrial/Commercial Collector Road to Via de la Amistad.

- **Tech Centre Way, Ellis Road, Sanyo Avenue and Energy Center Way:** These roads will be located entirely within the Specific Plan Area and are planned Industrial/Commercial Collector Roads.

- **Zinser Road, Van Centre Boulevard and David Ridge Drive:** Zinser Road and David Ridge Drive are planned two-lane Collector Roads between Lonestar and Otay Mesa Roads within the Specific Plan Area.

2.2.4 Road Operation

Truck Routes

Through trucks are expected to follow the Prime Arterial, Major, Collector and (non-Circulation Element) selected Local Industrial/Commercial Road street system. Due to the industrial character of the Specific Plan Area, all streets shall be designed to accommodate truck traffic.

In order to minimize impediments for truck operation and allow access for each of the land uses in East Otay Mesa SubArea 1, the circulation network shall be designed according to the County Public Road Standards. The needs of truck traffic, access, and loading activities shall be incorporated in the design of the roadways. In addition, on-street parking shall be prohibited on all Prime Arterial, Major and four-lane Industrial/Commercial Collector public roads within the Specific Plan Area.

It should be noted that CalTrans may also designate truck only routes to accommodate the future Port of Entry.

2.2.5 Alternative Modes of Transportation

Public Transit

Public transit represents an opportunity to provide a convenient and inexpensive transportation choice for employees.

Public transit represents an opportunity to provide a convenient and inexpensive transportation choice for employees, help achieve air quality enhancement goals and reduce vehicular traffic. The development of public transportation facilities, while considered highly desirable for East Otay Mesa, will take place over a period of time. The County of San Diego will continue to work with the MTDB to extend public transit facilities into East Otay Mesa.

The MTDB is currently refining the transit network for the South Bay and once this study is complete, they expect to have a reasonably well-defined network for this area. The MTDB Plan will include a light rail transit (LRT) line to serve the Otay Mesa. A 29-mile light rail loop line would connect the existing light rail station at 24th Street in National City with the Otay Ranch area, the Otay Mesa International Border Crossing, and the

Iris Street station in San Ysidro. Future developments will be required to coordinate with MTDB and the County to ensure that transit is a consideration when planning their development. When the County Board of Supervisors adopts a Transit Plan, including development standards and route locations, all development within East Otay Mesa shall be required to comply with that plan and its implementation including the dedication of right-of-way for light rail and/or bus facilities.

The north-south line would generally follow the SR-125 alignment to provide access between Chula Vista, Otay Ranch, and the International Border. The east-west LRT line would follow Otay Mesa Road and potentially continue along this road into the Specific Plan Area to the proposed third border crossing. If this should occur, then a transit station at SR-125/Otay Mesa Road interchange, a station at the border, and possibly one intervening station would be feasible. Figure 2.2-1 shows a “T” (potential transit center site).

MTDB is currently undertaking a South Bay Transit First (SBTF) study. This study has identified preliminary Transit First Red Car services that may replace the LRT alignments discussed above. There are two Red Car services that have been identified in the plan that pertain to East Otay Mesa. Route 628 has a similar routing to the LRT alignment. It would originate in downtown San Diego and terminate at the Otay Mesa Border Crossing. The route would operate along Interstate 805 (I-805), through Otay Ranch, then along SR-125, and terminate at the Otay Mesa Border Crossing. The second route is an east-west route (Route 625), which would link the San Ysidro Border Crossing and the Otay Mesa Border Crossing. This route would likely operate along Otay Mesa Road. Both of these routes would have a station within the boundaries of SubArea 1 at the site that is designated in the Specific Plan.

Bicycle Routes

Use of the bicycle as a commuting mode of transportation is focused to direct bicycle traffic to and from key locations. It is the intent of the plan to link all transit, commercial, and employment locations via certain Circulation Element roads and Specific Plan roads that would allow bicycling commuters the ability to access East Otay Mesa in a direct manner (Table 2.2-1). The General Plan bike routes are shown on Sheet 6 of the

General Plan Circulation Element. Additional bike routes are provided in the Specific Plan (Table 2.2-1 and Figure 2.2-1).

It is likely that the vast majority of workers within East Otay Mesa will be traveling from areas outside of the Mesa, such as Otay Ranch, portions of the City of San Diego, and Chula Vista, and possibly from the International Border Crossing. However, to encourage use of the bicycle within the Specific Plan Area, a loop system of roads suitable for bicycle traffic has been designated for the Mesa. This system of bike routes is detailed on Figure 2.2-1. The Class III Bikeway (Bike Routes) provides a restricted right-of-way designated by signs or permanent markings and shared with pedestrians or motorists. The State of California, Department of Transportation publication, Planning and Design Criteria for Bikeways in California, is the bikeway standard of San Diego County. These regulations shall also apply to the East Otay Mesa Specific Plan.

Pedestrian Circulation

The amount of projected employees in the Specific Plan Area that would take mid-day lunches and shopping trips necessitates the establishment of a pedestrian circulation and trails system that will support and encourage walking as a mode of transportation.

The amount of projected employees in the Specific Plan Area that would take mid-day lunches and shopping trips necessitates the establishment of a pedestrian circulation and trails system that will support and encourage walking as a mode of transportation. To create safe and attractive pedestrian travel, it is necessary to keep sidewalk areas free of obstructions and allow for the flow of pedestrians. Crosswalks and signal timing help reduce pedestrian/auto conflicts and improve safety conditions. Sidewalks are required on both sides of all public streets. Sidewalks shall meet the guidelines of the County of San Diego Public Road Standards except that sidewalks shall be 4-feet wide and shall be separated from the traveled way by a 3-foot landscaped parkway (Section 2.3.5). Sidewalks shall meet the Americans with Disabilities Act (ADA) standards. The Director of Public Works may waive sidewalk requirements if the applicant can demonstrate that no pedestrian movement or connectivity would result.

All development adjacent to the Otay Valley Regional Park shall improve a 10-foot wide trail for passive viewing and as a potential connection to the regional park trail system (Figure 2.2-1). The trail shall be open to the public and shall connect to a public sidewalk or an alternative location acceptable to the County.