

1.0 PURPOSE AND NEED

1.1 PURPOSE OF PROJECT

The purpose of the proposed SR-22/West Orange County Connection project is to improve both existing and future mobility and enhance safety throughout the corridor while minimizing environmental and economic impacts. The study area includes SR-22, bounded by SR-55 and the Los Angeles county line and the interchanges between SR-22 and the connecting freeways within these same boundaries. SR-22 represents a major link to other freeway systems within the Orange County area and is an important component of the county's transportation system.

Under existing conditions, SR-22 does not meet the capacity needs of the area. With projected population and employment growth trends indicating increased transportation volumes, SR-22 can be expected to experience worsening operational deficiencies. There is insufficient capacity with the SR-22 corridor on the freeway and adjacent arterial streets to accommodate existing and projected travel demands between the SR-55 interchange and the Los Angeles County line at I-405 and I-605.

The situation is aggravated by a lack of continuous parallel arterial routes and available arterial/intersection capacity along the SR-22 corridor. In addition, there are no major programs in the SR-22 corridor to implement Transportation System Management (TSM), Transportation Demand Management (TDM), and Intelligent Transportation System (ITS) strategies. SR-22 is the only freeway in central Orange County that has not been the subject of a recent corridor-specific planning effort and is the one freeway in Orange County that does not have HOV facilities.

Some portions of existing SR-22 do not conform to current State and federal highway design standards. Existing shoulder widths and vertical clearances, for example, are non-standard in some areas. Providing standard features where possible would improve safety on the highway mainline and ramps. Narrow lanes reduce clearance in adjacent lanes which cause drivers to reduce speed that results in a reduction in speed and capacity that is caused by slower speed. Furthermore, congestion-related accidents are linked to these problems.

Addressing the capacity deficiency problem, which is also associated with congestion-related accidents, can help in reducing rear-end and sideswipe type of accidents. Operational improvements which include geometric improvements, on-&-off ramps improvements, resurfacing or new pavements, and upgrading existing roadways can help reduce accidents. For instance, geometric improvements to the freeway and on-&-off ramps are generally expected to reduce run-off-the-road and hit-object type accidents. Furthermore, upgrading the existing roadways could help reduce accidents by improving lighting, lane delineation, merging and sight distances, and ease of driver visibility by removal of fixed objects.

Information compiled by Caltrans' Traffic Accident Surveillance and Analysis System (TASAS) Table C – High Accident Concentration Locations shows those areas where the incidence of accidents is high compared to the statewide average. The TASAS Accident Rate Summary provides information for SR-22 for a three-year period, between January 1, 1995 to December 30, 1997. This data reveals fifteen areas of high accident concentrations spanning from 15 percent above the expected rate of accidents at Post Mile 2.58 to 486 percent above the expected rate of accidents at the eastbound on-ramp at Beach Boulevard. This is a clear indication that portions of the freeway experience periods of operation that do not meet the average operational levels for similar facilities. Areas defined as High Accident Concentration Locations are mostly near interchanges, many in the vicinity of The City Drive. Freeway congestion, weaving difficulties, and high volumes along the mainline are factors contributing to the higher than average accident rates for these locations.

Congestion, high accident rates, and reduced travel speeds currently experienced on SR-22 are a result of several contributing factors. The most significant causative factors stem from the limited number of lanes to handle vehicle volumes, closely spaced on-/off-ramps, merging of multiple freeways, non-standard lane and shoulder widths, and non-standard weaving distances/auxiliary lanes. Five key areas

of concern are: 1) limited lane availability on SR-22 and the lack of continuity between HOV and non-HOV facilities; 2) inadequate weaving distances along the freeway due to the close proximity of on/off-ramps along the mainline; 3) high traffic volumes at the interchange where the I-5, SR-57, and SR-22 meet; and 4) an outdated four-quadrant cloverleaf (L-10) interchange configuration at Beach Boulevard which creates a low-speed, low-capacity condition with short weave sections, and 5) non-standard lane and shoulder widths at spot locations along the corridor.

To address congestion and meet future traffic demand, the following set of project goals were established during the Major Investment Study (MIS) process by OCTA, Caltrans, and the SR-22/West Orange County Connection Steering Committee. The SR-22/West Orange County Connection seeks to accomplish the following goals:

- Improve mobility and enhance safety in the SR-22/West Orange County Connection study area
- Maximize cost-effectiveness of the SR-22/West Orange County Connection improvements
- Minimize adverse and maximize beneficial environmental impacts to SR-22/West Orange County Connection communities
- Minimize negative and maximize positive economic impacts to SR-22/West Orange County Connection communities

1.2 NEED FOR PROJECT

1.2.1 Existing Facilities and Services

SR-22 is a freeway with six general-purpose lanes (three in each direction) that provides connections to five major freeways: Interstate 605 (I-605), Interstate 405 (I-405), Interstate 5 (I-5), State Route 57 (SR-57), and State Route 55 (SR-55). Built in the 1960s, SR-22 is one of only two east/west freeways in Orange County. SR-22 provides accessibility for commuters between Orange and Los Angeles Counties, and indirect links to major arterial links to San Diego, San Bernardino and Riverside Counties. As a result of its unique orientation, it crosses most of the major north/south arterial corridors in central Orange County and, consequently, has become a vital link in providing mobility to residents, workers, and visitors. Figure 1.2-1, Regional Location Map, provides the regional location of the SR-22/West Orange County Connection. Figure 1.2-2, Project Study Area Map, shows the SR-22/West Orange County Connection study area, including portions of SR-55, SR-57, I-5, I-405, and I-605 in Orange County.

SR-22 has controlled access with a fenced right-of-way, separated by grade from crossing traffic, with vehicular access limited to interchanges. There is no pedestrian or bicycle access to SR-22. In Orange County, SR-22 extends 21 kilometers (13 miles) from just west of I-405 eastward to SR-55. SR-22 is the only freeway in Orange County that does not have HOV facilities such as “carpool lanes”. An HOV system is in place on the other routes (SR-55 SR-57, I-5, I-405, I-605) in the County. Under existing conditions, SR-22 does not meet the capacity needs of the area. With projected population and employment growth trends indicating increased transportation volumes, SR-22 can be expected to experience worsening operational deficiencies.

SR-22 does not include dedicated facilities for transit. The availability of dedicated transit facilities could result in indirect relief of traffic congestion. Bus service in the area is provided by OCTA.

1.2.2 Existing Capacity Problems

The SR-22 corridor has insufficient capacity on both the freeway and major adjacent surface streets to handle existing and projected 2020 travel demand between the SR-55 interchange and the Los Angeles County line, and to and from destinations within the proposed project area. The situation is aggravated by a lack of continuous parallel arterial routes and available arterial/intersection capacity.

The ability of a highway to accommodate traffic is typically measured in terms of levels of service (LOS). Based on the ratio of traffic volume to the design capacity of the facility, LOS is expressed as a range from LOS A (free traffic flow with low volumes and high speeds resulting in low densities) to LOS F (traffic volumes exceed capacity and result in forced flow operations at low speeds resulting in high densities). Refer to Figure 1.2-3 for a pictorial representation of the six levels of service.

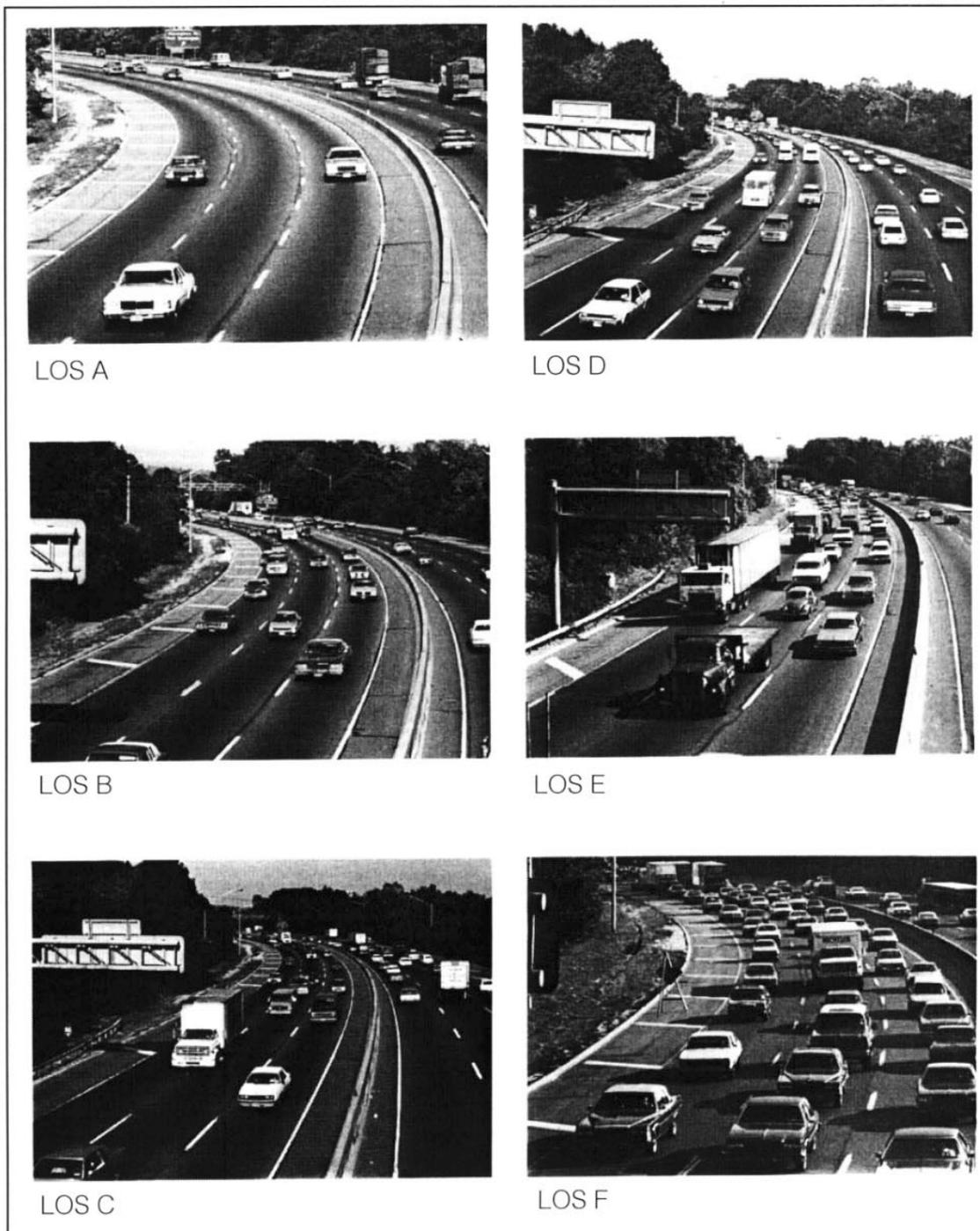
Caltrans Office of Traffic Data analysis indicate 1996 traffic volumes experienced on SR-22 range from 135,000 to 206,000 vehicles daily¹. The 1996 average daily traffic (ADT) on other freeway facilities include 327,000 along I-405, 166,000 on I-605, and 245,000 vehicles on SR-55. Current peak-hour operating conditions along SR-22 are at LOS D to F (very high congestion levels, very low mobility) in each direction of travel throughout most of the freeway's length. Traffic forecasts for 2020 in the study area indicate that daily traffic volumes are expected to increase by 8.1 to 19.8 percent along the freeway. Peak-hour LOS in 2020 is forecasted at LOS F in 15 of 30 segments studied, LOS E in six segments, and acceptable LOS (D or better) in the other nine segments. For more information on traffic, refer to Sections 3.7 and 4.7 of this document.

2020 Traffic forecasts for SR-22, performed as part of Orange County Transportation Authority's (OCTA) The Corridor Major Investment Study Final Evaluation Report (June 1997), indicate that traffic volumes are expected to increase approximately 8-20 percent along most segments. Other freeway facilities would also experience an increase in weekday traffic, ranging from an increase in ADT of two percent on I-405 to an increase of 24 percent on SR-55. The Corridor Major Investment Study Final Evaluation Report is available at Caltrans, OCTA, and libraries (see Table of Contents for the list of libraries).

¹ Available at Caltrans District 12

Figure 1.2-1
Regional Location

Figure 1.2-2
SR-22/WOCC Study Area



***SR-22 / West Orange County Connection Project
Levels of Service***

Figure 1.2-3

1.2.3 Projected Traffic Demands

A. POPULATION GROWTH TRENDS

Data contained in the 1980 and 1990 U.S. Censuses and Orange County Projections 1996 (up to 2020) (OCP 96)² provide information on current and forecasted population growth trends within the SR-22/West Orange County Connection study area. 2000 Census Data are available, but breakdown of some of these data such as distribution of income in different geographical areas are not yet available. Additionally, available 2000 population data remain reasonably similar to that of the 1990 Census Data. This data is presented in Table 1.2-1 and summarized below.

**Table 1.2-1
POPULATION PROJECTIONS AND GROWTH TRENDS**

Jurisdiction	1980 ^a	1990 ^a	2000 ^b	2010 ^b	2020 ^b
Seal Beach	25,975	25,098	32,478	32,969	32,964
Annual Growth Rate	—	-0.34%	2.94%	0.15%	0.00%
Westminster	71,133	78,118	91,045	95,302	106,895
Annual Growth Rate	—	0.98%	1.65%	0.47%	1.22%
Garden Grove	123,307	143,050	163,963	169,588	171,116
Annual Growth Rate	—	1.60%	1.46%	0.34%	0.09%
Santa Ana	203,713	293,742	350,585	361,631	372,943
Annual Growth Rate	—	4.42%	1.94%	0.32%	0.31%
Orange	91,788	110,658	145,195	153,564	157,124
Annual Growth Rate	—	2.06%	3.12%	0.58%	0.23%
Tustin	32,317	50,689	73,341	87,507	89,641
Annual Growth Rate	—	5.68%	4.47%	1.93%	0.24%
Subtotal Study Area	548,233	701,355	856,607	900,561	930,683
Annual Growth Rate	—	2.79%	2.21%	0.51%	0.33%
Orange County	1,932,709	2,410,556	2,865,828	3,105,324	3,224,062
Annual Growth Rate	—	2.47%	1.89%	0.84%	0.38%

Note: Unincorporated area of Rossmore is included in Seal Beach totals.

Sources: ^a 1980 and 1990 U.S. Census of Population and Housing

^b Orange County, 1996

Historic population figures documented between 1980 and 1990 reveal that the Cities of Tustin and Santa Ana had annual growth rates significantly higher than the overall Orange County average of 2.47 percent (5.68 and 4.42 percent, respectively). Annual population growth rates in all of the other cities within the project study area were below the county average, ranging from -0.34 to 2.06 percent.

Between 1990 and 2020, the population in the corridor cities is predicted to grow by 32.7 percent. Orange County's population as a whole will grow by 33.7 percent. These population estimates through 2020 show that, although Orange County as a whole will continue to grow, annual population growth rates will begin to slow down. Growth will continue to be focused on those areas where there is still undeveloped land, particularly in south Orange County. In most of the corridor cities, the annual rate of growth will peak around 2000, and then growth will slow for the next 20 years. A few cities (Garden Grove, Santa Ana, and Tustin) are predicted to show reduced annual growth rates by 2000.

² Available at OCTA.

B. EMPLOYMENT TRENDS

According to OCP 96, the 1995 total employment in Orange County was 1,241,897 persons (Table 1.2-2). The corridor cities had a total employment of 396,474 in 1995. Over the next 20 years, annual growth in Orange County employment is projected to range from 2.25 to 2.43 percent, while the aggregate employment growth in the corridor cities will range from 2.00 to 2.50 percent, annually. This represents an increase in employment of 53.2 percent for the county as a whole and 44.6 percent for the corridor cities. However, by 2020, cities within the corridor are predicted to have nearly the same rate of employment growth as the county as a whole. Redevelopment efforts on the part of some of the corridor cities are a contributing factor to this employment trend.

**Table 1.2-2
EMPLOYMENT PROJECTIONS**

Jurisdiction	1995	2000	2010	2020
Los Alamitos	10,211	10,833	12,023	12,676
<i>Growth Rate</i>	—	6.09%	10.98%	5.43%
Seal Beach	7,781	8,166	8,946	10,443
<i>Growth Rate</i>	—	4.95%	9.55%	16.73%
Westminster	24,357	26,414	33,960	37,730
<i>Growth Rate</i>	—	8.45%	28.57%	11.10%
Garden Grove	42,901	45,320	47,297	49,637
<i>Growth Rate</i>	—	5.64%	4.36%	4.95%
Santa Ana	182,631	193,099	232,843	307,197
<i>Growth Rate</i>	—	5.73%	20.58%	31.93%
Orange	86,100	94,267	109,996	128,586
<i>Growth Rate</i>	—	9.49%	16.69%	16.90%
Tustin	42,493	47,785	58,864	69,631
<i>Growth Rate</i>	—	12.45%	23.19%	18.29%
Sum of Corridor Cities	396,474	425,884	503,929	615,900
<i>Growth Rate</i>	—	7.42%	18.33%	22.22%
Orange County	1,241,897	1,381,692	1,717,280	2,116,560
<i>Growth Rate</i>	—	11.26%	24.29%	23.25%

Source: Orange County, 1996

C. FUTURE OPERATION LEVELS

According to OCP 96 projections, population is expected to grow by 22 percent (despite slowing growth rates) and employment by 70 percent between 1995 and 2020. (Note: OCP 96 uses 1995 as the base year for calculating growth.) This projected increase in future economic growth will result in increased traffic and congestion, causing reduced travel speeds and longer commute times. With the anticipated county growth, future transportation systems are expected to experience an increase in travel delays of 114 percent and work-related travel durations will increase by 15 minutes.

1.2.4 Safety Issues

Based on information compiled by Caltrans for the *Traffic Accident Surveillance and Analysis System (TASAS) Table B*, it is known that there were a total of 2,722 accidents with 726 injuries and 8 fatalities along the length of SR-22 from its junction with I-405 to the interchange at SR-55 during a three-year period, between January 1, 1996 to December 30, 1998. Using this accident data, the accident rates on SR-22 compare favorably with the average accident rates for facilities of this type. The rate of fatalities is less than half that found on similar facilities statewide, and the total accident rate is just below the average statewide total accident rate for highway facilities similar to SR-22.

This accident data does not mean, however, that safety improvements are not warranted. Some portions of SR-22 do not conform to state and federal highway design standards (although they are within the range of acceptable deviations from the standard). Providing standard lane widths would improve safety on the highway mainline. Narrow lanes tend to reduce driver confidence and create “side friction” that slows traffic and risks accidents. Also, some portions of the freeway do not have standard shoulder areas. Other portions of the freeway are old and could be improved through installation of more up-to-date technology.

1.2.5 Local Access

Improving interchange efficiency would provide a higher level of operation and throughput for entering and exiting traffic along SR-22. Short sight lines or ramps with insufficient storage can result in accidents and vehicles backed up onto the freeway and the surface streets. Improving intersection efficiency would provide a higher level of operation and throughput for local street and ramp traffic.

1.2.6 Regional Access

Because SR-22 provides an east/west connection to the primary north/south freeways in the region – I-5, SR-405, SR-605 (via SR-405), SR-55, and SR-57 – it is an important link to the regional transportation network. Only State Route 91 provides a similar east/west connection in Orange County. This means that SR-22 provides an important transportation route for people commuting from all over Orange County as well as portions of Los Angeles County, Riverside County, San Diego County, and San Bernardino County (via Los Angeles or Riverside County) into the heart of Orange County, especially to large employment areas in the corridor cities.

Unlike all of the freeways listed above, SR-22 does not have HOV facilities, representing a discontinuity for regional HOV traffic. Vehicles using the HOV lanes on the connecting freeways must exit the HOV facilities and use general-purpose lanes on SR-22. There is little incentive or opportunity for individual drivers to switch from single-occupancy vehicles (SOVs) to carpooling or transit without dedicated facilities for this purpose. That is, if SOV drivers cannot decrease their commute times because there are no dedicated lanes for HOVs or buses only, they are more likely to forego carpooling or using transit in favor of driving alone. In addition, there are no major programs in the SR-22 corridor to implement TSM, Transportation Demand Management (TDM), and Intelligent Transportation System (ITS) strategies.

Regional transit is available in the area. Metrolink and Amtrak provide rail service. Metrolink connects Orange County with Los Angeles, Riverside, San Bernardino, Ventura, and San Diego Counties. Amtrak provides some duplication of this service (especially to Los Angeles County), but, more importantly, more distant access to the remainder of California and throughout the United States. There is no rail within the SR-22/West Orange County Connection study area, however.

Bus service provided by OCTA is available within cities along the SR-22 corridor, but it is limited by the lack of HOV facilities on SR-22.

1.2.7 Project Status/Project History

SR-22 is an east-west transportation corridor that provides connections to five major freeways (I-605, I-405, I-5, SR-57, and SR-55) and that crosses most of the major north-south arterial corridors in Central

Orange County. SR-22 is one of the few remaining freeways in Orange County that does not have HOV lanes and therefore is not part of the region's HOV transportation network. In September 1989, a Project Study Report (PSR) (SR-22 HOV and General Purpose Lane Improvements Final Report; DKS Associates, August 3, 1989) was approved. The PSR proposed increasing freeway capacity and reducing congestion and passenger delay through expansion of the "triangular" network of HOV lanes located on adjacent routes. Improvement alternatives for SR-22 included options for mixed flow and HOV lanes. Direct freeway-to-freeway HOV connectors were not evaluated in the PSR.

In 1997, the Orange County Transportation Authority (OCTA) initiated a Major Investment Study (MIS) as a first step toward evaluating a variety of alternatives for the SR-22 transportation corridor to improve mobility in the SR-22/West Orange County Connection study area. In coordination with affected local, State, and federal agencies, OCTA formed a Steering Committee to assist in guiding the development of the study to address the transportation needs and problems in the study area.

On August 10, 1998, the OCTA Board met to review the process and consider the next actions in the environmental compliance and preliminary engineering for the study alternatives. The Board agreed to proceed with preparation of the draft environmental document and preliminary engineering. This decision was based on recommendations from OCTA staff. There were ten original alternatives that were examined. These were refined into a set of six (see Section 2.1.2 for details). On November 9, 1998, the OCTA Board recommended three of the MIS alternatives to be carried forward as the "build alternative" for further study, along with the No Build Alternative and the TSM/Expanded Bus Service Alternative.

In January 2000, during technical analyses for this DEIR/EIS, the identification of potential environmental impacts associated with the Full Build Alternative (then known as the Build Alternative) led to the decision to study an additional build alternative in an attempt to avoid or minimize certain impacts, thereby bringing the total number of alternatives for the DEIR/EIS phase of project analysis to four: the No Build Alternative, the TSM/Expanded Bus Service Alternative, the Full Build Alternative, and the Reduced Build Alternative.

On February 12, 2001, SCAG released a Letter of Completion for the SR-22 West Orange County Connection Final MIS. According to the SCAG letter, "the range of alternatives studied in the SR-22 West Orange County Connection Final MIS Evaluation Report is sufficient to meet the requirements of the regionally significant transportation investments study (RSTIS) guidelines. Adequate public involvement was utilized in the planning process through workshops and public hearings. Moreover, public agency involvement was facilitated through numerous meetings and RSTIS Peer Review Group Meetings." (MIS available at Caltrans and OCTA)

The OCTA Board also requested that the Southern California Association of Governments (SCAG) include improvements to the study area in the 1998 Regional Transportation Plan (RTP). As a result, the SCAG 98 RTP includes the addition of HOV lanes on SR-22 between Valley View Street and SR-55. It is anticipated that the entire SR-22 West Orange County Connection proposed project will be included in the 2001 RTP (currently included in the 2001 Draft RTP).

The West Orange County Connection portion of the study was evaluated for system connectivity and included the portion of I-405 between I-605 and SR-22 and the portion of I-605 between I-405 and Katella Avenue. The complexity of the highway system (the number of freeways and choices for travel) in the western part of the county makes travel difficult for unfamiliar drivers. More direct traffic flow can be realized by capitalizing on opportunities to improve connectivity among the freeways.

The benefits of utilizing a former rail transit corridor, the former Pacific Electric right-of-way, to relieve congestion on existing facilities and improve mobility in the central part of the county were also considered in the MIS. The former Pacific Electric right-of-way extends south of SR-22 in a southeast direction toward central Santa Ana. Access to governmental offices, including the county seat and many federal government offices in central Santa Ana is currently hindered by a lack of direct routes from the many surrounding freeways. Redevelopment of the former Pacific Electric right-of-way as a transportation facility would

provide an opportunity for a direct link between the state highway system and a major destination / employment center.

No Right of Way has yet been acquired for the project. OCTA owns the former Pacific Electric right-of-way.

1.3 PLANNING CONTEXT

The purpose of this section is to provide information regarding the relationship between state, regional, and local transportation plans and the proposed facility improvements. How well the proposed facility improvements would operate in conjunction with these plans and how they would serve to complement goals identified within the plans can be facilitated by a description of these plans.

1.3.1 Air Quality Management Plan

The South Coast Air Quality Management District (SCAQMD) is a regional regulatory agency with the primary responsibility for improving air quality in the South Coast Air Basin, which includes Orange County. The SCAQMD is a co-lead agency, along with the Southern California Association of Governments (SCAG), in preparing the Air Quality Management Plan (AQMP), which identifies a number of air pollution reduction goals and policies and emission-control measures. The AQMP is required to meet the requirements of the federal Clean Air Act (CAA) and the air quality planning requirements of the California Clean Air Act (CCAA), for attaining federal and state ambient air quality standards (AAQS). The AQMP is part of the State Implementation Plan (SIP), which demonstrates that AAQS will be met by 2020. The CAA contains provisions to ensure that transportation plans, programs, and projects approved or funded by Federal Highway Administration (FHWA) or Federal Transit Administration (FTA) in air quality non-attainment or maintenance areas are in conformity with the SIP.

Implementation of the AQMP requires a cooperative partnership between governmental agencies at the federal, state, regional, and local levels. At the federal level, the Environmental Protection Agency (EPA) is responsible for oversight of state air quality planning and implementation to meet CAA requirements. On the state level, the California Air Resources Board (CARB) is responsible for regulating mobile source emissions and fuels, oversight of local and regional air quality planning and implementation, and CAA planning for state air quality requirements. The SCAQMD directly regulates stationary sources of pollution, plans for mobile and area source emissions reductions, and ensures regional air quality plan conformance. SCAG, as the regional Metropolitan Planning Organization (MPO), is responsible for developing a Regional Transportation Plan (RTP) that identifies how the AQMP's transportation and land use emissions reduction budget targets will be met.

The 1997 AQMP,³ adopted by the SCAQMD Governing Board on November 15, 1996, incorporates a combination of technical and policy provisions developed in cooperation with the EPA, CARB, and SCAG. Air pollutant emission control strategies outlined within the AQMP include a number of transportation-related measures. Two of the measures contained in the AQMP which directly relate to the proposed SR-22 improvements are the introduction of HOV lanes and HOV connectors to help improve traffic flow. Improved traffic flow in turn increases vehicle engine efficiencies and emissions characteristics, improving air quality at both the regional and local scales.

1.3.2 SCAG Regional Transportation Plan

As the federally designated MPO for a major portion of Southern California, SCAG adopts and periodically updates a long-range RTP for Los Angeles, Orange, San Bernardino, Riverside, Ventura, and Imperial Counties. The SCAG RTP is required by the CAA and federal transportation statutes. It is part of the AQMP, providing detailed planning information for transportation project implementation. The RTP is revised on a periodic basis for inclusion in AQMP revisions.

³ Available at OCTA.

Goals for the 1998 RTP⁴ include transit restructuring, providing HOV lanes, mixed-flow lanes, increased Metrolink service, park-and-ride facilities, and the preservation and management of regional and local roadways. Construction of HOV lanes along the eastbound and westbound lanes of SR-22 are specifically included in the RTP Constrained Project/Program.

1.3.3 OCTA – 1998 *FastForward* Plan

In 1998, OCTA's Board of Directors approved a long-range transportation plan called *FastForward: Transportation Solutions for the Next Generation (FastForward)*.⁵ Two of *FastForward's* eight goals were:

- To create a balanced and integrated transportation system that enhances mobility for a growing population employment base
- To develop and maintain an effective street and freeway network to support the efficient movement of people and goods

In addition, several overarching policies were adopted:

- Provide transportation choices
- Optimize the present transportation system
- Link land use and transportation planning
- Meet intercounty travel needs
- Address expanded tourism and recreational travel

FastForward also identified what travel would be like in the year 2020 if investment was limited to only improvements included in the short-term Regional Transportation Improvement Program (RTIP). This was called the Baseline Scenario. In 1998, baseline assumptions included:

- Measure M Transportation Improvements
 - Freeway projects on I-5, State Route 91 (SR-91), and SR-57
 - Regional street and road projects
 - Local street and road projects
 - Transit projects
- OCTA Board-adopted Corridor Locally Preferred Strategy (LPS)
 - Forty-nine-percent increase in weekday fixed route bus service by 2015
 - One thousand more commuter rail seats
 - Street improvements to support expanded bus service
 - Study of a future urban rail system
- OCTA ACCESS paratransit service to meet the mandates of the Americans with Disabilities Act (ADA)

The Baseline Scenario assumed the following projects would be completed:

- Combined Transportation Funding Program projects
- Widening of I-5 northward to SR-91 and adding HOV lanes northward to the Los Angeles County line
- An HOV system along SR-91 and SR-57 to the Los Angeles County line
- Widening SR-55 from 17th Street to SR-91
- I-405/SR-55 transitway
- I-405/State Route 73 (SR-73) freeway-to-freeway connectors
- SR-55/SR-73 freeway-to-freeway connectors
- Widening Laguna Canyon Road north of El Toro Road
- Foothill, Eastern, and San Joaquin Hills Transportation Corridors
- Beach Boulevard, Moulton Parkway, Imperial Highway, and Katella Avenue Smart Streets

⁴ Available at OCTA.

⁵ Available at OCTA.

This constrained Baseline Scenario revealed that, by 2020, average peak-period travel speeds would decline and it would take an average 13 more minutes to make a one-way work trip. SR-22 would be especially congested.

The *FastForward* long-range plan included projects and services to meet goals. Among the improvements were HOV lanes along SR-22. *FastForward* also called for a study of direct HOV-lane connectors at freeway-to-freeway interchanges and of a direct-access expressway from SR-22 at Newhope Street to the Santa Ana Civic Center, using the OCTA-owned former Pacific Electric right-of-way.

1.3.4 OCTA – Master Plan of Arterial Highways

The purpose of the 1995 *Master Plan of Arterial Highways* (MPAH)⁶ is to effectively serve existing and projected traffic demands throughout Orange County by establishing a comprehensive network of arterial highway systems. Originally part of Orange County's Advance Planning Program (General Plan) Transportation Element, the MPAH is now administered by OCTA. As part of the county's general plan, the MPAH was supported by text and information necessary to comply with statutory requirements for general plans. Under OCTA's administration, the policies and procedures of the MPAH are communicated through the *Guidance for the Administration of the Master Plan of Arterial Highways* (OCTA, 1995).

As a key component of Orange County's transportation policy, the MPAH provides classification and definition of countywide circulation systems. These systems play a major role in regional travel by connecting to and complementing the state highway system and local street network. The MPAH map depicts a network of major thoroughfares comprising freeways, transportation corridors, and five main arterial highway classifications. The MPAH classifications are a statement of policy intended to reserve adequate right-of-way for future highway improvements. Consistency with the MPAH is necessary to maintain the integrity of the regional highway network.

Improvements identified on the MPAH for the SR-22 study area include the following:

- A proposed primary arterial to downtown Santa Ana along the former Pacific Electric right-of-way
- Build-out of Metropolitan Avenue in the City of Orange
- Beach Boulevard eight-lane Smart Street designation
- Upgrades to major arterials: Los Alamitos Boulevard, Seal Beach Boulevard, Valley View Street, Brookhurst Street, Harbor Boulevard, Fairview Street, Bristol Street, Main Street, Grand Avenue (south of SR-22), and Tustin Avenue
- Upgrades to primary arterials: Knott Street, Beach Boulevard, Magnolia Street, Euclid Street, Haster Street, The City Drive, Grand Avenue (north of SR-22), Garden Grove Boulevard, La Veta Avenue, and Westminster Boulevard

1.3.5 Local Planning Context

Local jurisdictions (cities and counties) have sole jurisdiction over land use and zoning. They support regional transportation plans through local implementation programs. Local governments participate in the Clean Cities program, acting to include air quality considerations in their local decision-making whenever possible. Individual cities also provide support in developing and implementing the transportation control measures outlined in the AQMP. SCAG is responsible for helping local governments coordinate their efforts and for ensuring that the region's transportation projects, programs, and plans conform to the AQMP. Local jurisdictions provide fair share reduction of vehicle pollution through adoption of a series of optimal Transportation Control Measures (TCMs). TCMs include such capital-based actions as HOV lanes, transit improvements, and traffic flow improvements.

Local transportation-related planning decisions, as well as improvements outlined in the general plan circulation elements of local cities, generally recognize the related transportation needs and planning activities of the surrounding county, region, and state, and provide support to these plans through implementa-

⁶ Available at OCTA.

tion of transportation improvement-based goals and policies. The following is a list of some of the relevant policies in local planning documents:

- The circulation system shall be implemented in a manner that achieves the established traffic level of service policy (County of Orange, *Transportation Element*, August 1995).
- Comprehensive traffic improvement programs shall be established to ensure that all new development provides necessary transportation facilities and intersection improvements as a condition of development approval (County of Orange, *Transportation Element*, August 1995).
- The county shall take all actions possible to ensure that the implementation of the general plan is consistent with the provisions of the Measure M Countywide Growth Management Program in order to bring about improved regional coordination in the areas of growth management, traffic improvements, and public service (County of Orange, *Land Use Element*, March 1995).
- Consider development of freeways and/or rapid transit systems and endorse such proposals when it is considered to be in the community's best interest (City of Seal Beach, *General Plan, Circulation Element*, 1997).
- Utilize TDM measures, where appropriate, to discourage the single-occupant vehicle, particularly during the peak hours. Potential TDM policies include, but are not limited to: ridesharing, carpooling and vanpooling, flexible work schedules, and telecommuting (City of Westminster, *General Plan*, 1996).
- Investigate all federal, state, and OCTA programs that may be beneficial to the City of Westminster (City of Westminster, *General Plan*, 1996).
- Coordinate with Caltrans, and all other appropriate jurisdictions, to evaluate and implement feasible freeway crossing and access improvements (City of Westminster, *General Plan*, 1996).
- Use the former Pacific Electric right-of-way in a beneficial manner that does not preclude the use of the property for alternative transportation purposes in the future (*Garden Grove General Plan Land Use Element*, 1995).
- Coordinate roadway improvements with applicable regional, state and federal transportation plans and proposals (*Tustin General Plan*, 1994).
- Support the completion of the Orange County MPAH (*Tustin General Plan*, 1994).
- Support capacity and noise mitigation improvements such as HOV lanes, general-purpose lanes, auxiliary lanes and noise barriers on the I-5 and SR-55 freeways (*Tustin General Plan*, 1994).
- Monitor and coordinate with Caltrans freeway work as it affects Tustin's roadway and require modifications as necessary (*Tustin General Plan*, 1994).

Section 4.6.1 of this document includes an analysis of each project alternative's consistency with planning documents within the study area.⁷

⁷ The local planning documents cited herein are available at OCTA.

1.4 CONCLUSIONS

As previously discussed, the purpose of the proposed SR-22/West Orange County Connection project is to improve mobility (both existing and future) and enhance safety, while minimizing environmental and economic impacts. SR-22 represents a major link to other freeway systems within the Orange County area and is an important component of the county's transportation system. Under existing conditions, SR-22 does not meet the capacity needs of the area. With projected population and employment growth trends indicating increased transportation volumes, SR-22 can be expected to experience worsening operational deficiencies.

As one of eight key transportation facilities in central Orange County, SR-22 is included in the goals and policies of the various jurisdictions within the study area. Most of these are general policies such as the following:

- Promoting the safe and efficient movement of people and goods
- Establishing comprehensive traffic-improvement programs
- Working with the local and regional agencies to facilitate freeway improvements
- Coordinating local improvements with regional plans

These policies, as they relate to SR-22 and proposed transportation improvements, are discussed throughout this document, especially in Section 3.6.2, Land Use and Development and Section 4.6, Community Impact Assessment.

Section 2.0 presents the alternatives proposed to address the purpose of and need for the SR-22/West Orange County Connection project. The beneficial and adverse impacts of each of the alternatives are addressed in Section 4.0.

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