

**Draft Environmental Impact Report
City of Imperial Beach
Bicycle Transportation Plan and
ECO Bikeway Palm Avenue Traffic Calming Plan**



Prepared for:

City of Imperial Beach
825 Imperial Beach Boulevard
Imperial Beach, CA 91932

Prepared by:

Tierra Environmental Services
9915 Businesspark Avenue, Suite C
San Diego, CA 92131

June 30, 2008

TABLE OF CONTENTS

1.0	EXECUTIVE SUMMARY	1
1.1	Introduction.....	1
1.2	Project Location and Environmental Setting	1
1.3	Project Objectives	3
1.4	Project History	4
1.5	Project Description.....	4
2.0	INTRODUCTION.....	7
2.1	Intended Uses of This EIR.....	7
2.2	Issues to be Resolved.....	7
3.0	PROJECT DESCRIPTION	9
3.1	Environmental Setting	9
3.2	City of Imperial Beach General Plan Bikeway Policies	9
3.3	Project Description.....	14
4.0	ENVIRONMENTAL ANALYSIS.....	21
4.1	Traffic	21
4.2	Air Quality	32
4.3	Aesthetics.....	39
5.0	PROJECT ALTERNATIVES	46
5.1	Growth Inducing Impacts	46
5.2	Unavoidable and Irreversible Environmental Effects.....	47
5.3	Palm Avenue/Rainbow Drive Intersection Traffic Signal Alternative.....	47
5.4	Environmentally Superior Project Alternative.....	47
6.0	CUMULATIVE IMPACTS	51
6.1	Cumulative Projects.....	51
7.0	OTHER REQUIRED CONSIDERATIONS	61
7.1	Growth Inducing Impacts	61
7.2	Unavoidable and Irreversible Environmental Effects.....	61
7.3	Effects Found Not To Be Significant.....	61
8.0	REFERENCES.....	65
8.1	EIR Preparers.....	65
8.2	Persons and Organizations Consulted.....	65
8.3	References.....	65

Appendices

Appendix A – Notice of Preparation (NOP) and Responses

Appendix B – Environmental Initial Study

Appendix C – Traffic Technical Report

Appendix D – Air Quality Technical Report

List of Figures

Figure 1- Regional Location	10
Figure 2 - Bicycle Transportation Plan.....	11
Figure 3 - Palm Avenue ECO Bikeway Vicinity Map (USGS).....	12
Figure 4 - Types of Bikeways.....	15
Figure 5 – Existing Conditions and Conceptual Improvements	20
Figure 6 – Palm Avenue Average Daily Trips	23
Figure 7 - Palm Avenue Roadway Segments and Intersections	24
Figure 8 – Palm Avenue Looking West Towards Second Street.....	40
Figure 9 – Palm Avenue Looking West Towards Alabama Street.....	41
Figure 10 – Palm Avenue Looking East Towards 4 th Street.....	42
Figure 11 – Palm Avenue Looking West Towards 7 th Street	43
Figure 12 Project Alternatives (Full Length Plans).....	49
Figure 13 Project Alternatives (Cross Sections).....	50
Figure 14 Cumulative Projects Map	52

List of Tables

Table 1-1 Summary of Project Impacts and Mitigation Measures	6
Table 3-1 City of Imperial Beach General Plan Bikeway Policies.....	13
Table 3-2 Proposed Class 1 Bicycle Paths.....	16
Table 3-3 Proposed Class 2 Bicycle Lanes.....	16
Table 3-4 Proposed Class 3 Bicycle Routes	17
Table 4-1 Existing Roadway Segment Conditions – SANTEC Method	22
Table 4-2 Existing Roadway Segment Conditions – Florida Method	22
Table 4-3 Horizon Year (2030) Roadway Segment Conditions – SANTEC Method.....	26
Table 4-4 Horizon Year (2030) Roadway Segment Conditions – Florida Method.....	27
Table 4-5 Horizon Year (2030) Intersection Conditions.....	27
Table 4-6 Summary of Roadway Conditions – SANTEC Method.....	29
Table 4-7 Summary of Roadway Conditions – Florida Method.....	29
Table 4-8 Summary of Intersection Conditions.....	30
Table 4-9 Traffic Mitigation Measures.....	31
Table 4-10 Other Recommended Improvements Rainbow Drive Intersection	31
Table 4-11 National and California Ambient Air Quality Standards	32
Table 4-12 Pollutant Emissions Thresholds	36
Table 4-13 Estimated Construction Emissions.....	38
Table 6-1 Cumulative Projects List	53

Acronyms

ADTs	Average Daily Trips
BMPs	Best Management Practices
BTP	Bicycle Transportation Plan
CAA	Clean Air Act
CAAQS	California Air Quality Strategy
CARB	California Air Resources Board
CCA	California Coastal Act
CEQA	California Environmental Quality Act
CO	Carbon Monoxide
EIR	Environmental Impact Report
LOS	Level of Service
NAB	Naval Amphibious Base
NAAQS	National Ambient Air Quality Standards
NOP	Notice of Preparation
NRRF	Naval Radio Receiving Facility
Pb	Lead
PM ₁₀	Particulate Matter – 10 micrograms
RAQS	Regional Air Quality Strategy
ROC/ROG	Reactive Organic Compounds/Reactive Organic Gasses
SANDAG	San Diego Association of Governments
SANTEC	San Diego Traffic Engineers Council
SCAQMD	South Coastal Air Quality Management District
SDAB	San Diego Air Basin
SIP	State Implementation Plan
SO _x	Sulfur Dioxide
SO ₄	Sulfates
SR	State Route
USGS	United States Geological Survey
US EPA	United States Environmental Protection Agency
VOC	Volatile Organic Compounds

1.0 Executive Summary

1.1 Introduction

This Environmental Impact Report (EIR) addresses the Imperial Beach Bicycle Transportation Plan (BTP) and the ECO Bicycle Palm Avenue Traffic Calming Plan (Palm Avenue ECO Bikeway Project), which includes Palm Avenue from 7th Street to 3rd Street. Analysis of the BTP is at a program level, meaning that individual projects recommended in the BTP are conceptual and will be subject to subsequent review for compliance with the California Environmental Quality Act (CEQA) at the time they are designed and proposed for construction. The BTP, which describes the methods of accommodating, improving, and promoting safe and efficient bicycle travel within the City of Imperial Beach, is proposed as an amendment to the Circulation Element of the General Plan. The ECO Bikeway Palm Avenue Traffic Calming Project, from 7th Street to 3rd Street, is the first project to be proposed under the BTP. The ECO Bikeway Palm Avenue Traffic Calming Project will require a Coastal Development Permit. This EIR addresses the ECO Bikeway Palm Avenue Traffic Calming Project, from 7th Street to 3rd Street, on a project level, meaning that a contract may be awarded and construction may proceed if and when the City certifies the EIR and approves the project.

The proposed project is to be funded with Bicycle Transportation Account (BTA) funds that are administered by the California Department of Transportation (CALTRANS). BTA funds must be used to improve the safety and convenience for bicycle commuters, in conformance with Section 891.2 of the California Streets and Highway Code.

1.2 Project Location and Environmental Setting

The BTP evaluates the feasibility of and recommends bicycle routes and improvements that cover the entire City of Imperial Beach, San Diego County, California, while the Palm Avenue Eco Bikeway Project, which is the first segment to be proposed for construction as recommended by the BTP, is located on Palm Avenue, between 7th Street and 3rd Street. Palm Avenue is the primary route to and from the beach area. Palm Avenue connects to Interstate 5 (I-5) to the east and Seacoast Drive to the west and SR 75 connects to I-5 and the City of Coronado to the north.

BTP – The City of Imperial Beach is located on the Pacific Ocean in the extreme southwestern corner of the United States. The City of Imperial Beach is considered a commuter city where much of the population works outside the city. Major employment centers within the City are government, commercial services, and schools. Commercial development is concentrated along Palm Avenue and Seacoast Drive. Topography throughout the City is nearly flat with the highest elevation approximately 30 feet above sea level. The street network consists of a grid pattern. The weather is moderate and pleasant year-round due to the proximity to the Pacific Ocean. The Bayshore Bikeway connects the City of Imperial Beach with the City of Coronado via SR-75 and there are plans to connect the City of Imperial Beach with the City of San Diego.

ECO Bikeway Palm Avenue Traffic Calming Project - The ECO Bikeway Palm Avenue Traffic Calming Project is located entirely within the Palm Avenue right-of-way, from 3rd Street to 7th Street, within the City of Imperial Beach. Palm Avenue is designated as a four-lane collector in the Circulation Element of the City of Imperial Beach General Plan and provides a primary east/west connection between Interstate 805 (I-805), I-5 and Seacoast Drive along the Pacific Ocean. SR-75 connects the City of Coronado with the City of Imperial Beach and diverges from Palm Avenue at 9th Street. Single-family and multi-family residential development is found along Palm Avenue from 7th Street to 3rd Street, giving way to commercial development to the west towards 3rd Street.

According to the San Diego Association of Governments (SANDAG) Census 2000, Imperial Beach has a population of 26,992. The census has also determined that approximately 1 percent of all commuters in Imperial Beach do so by bicycle on a regular basis. This represents a bicycle commuter population of 131 adults. Approximately 1.5 percent of all school children ride bicycles to and from school on a regular basis. This represents an additional 85 bicycle commuters within Imperial Beach. Therefore, the total bicycle commuter population in Imperial Beach is estimated to be 216 riders. These estimates are considered to be low as they only reflect regular bicycle commuters and not occasional bicycle commuters or recreational riders. Overall, bicycle use in Southern California is above the national average, and beach communities such as Imperial Beach tend to have the highest percentage of bicyclists due to the mild climate, flat terrain, attraction of the beach and ocean as a destination, and limited parking for automobiles.

1.3 Project Objectives

The objectives of the BTP are to:

- Identify the existing conditions within the City of Imperial Beach relating to bicycle transportation;
- Determine the need and feasibility for bicycle projects outlined in the City's General Plan;
- Recommend a citywide network of Class 1 bicycle paths, Class 2 bicycle lanes, and Class 3 bicycle routes that will maximize the safety and efficiency of bicycle travel within the City while improving aesthetics and pedestrian traffic; and
- Increase the number of bicycle commuters by at least 5 percent.

The objectives of the ECO Bikeway Palm Avenue Traffic Calming Project are to:

- Create a vital physical link between the Bayshore Bikeway and the Seacoast Drive beach area and other points of interest within the City of Imperial Beach as shown in the Imperial Beach General Plan for the Eco Bikeway Route;
- Improve the aesthetics of the landscaping and streetscape to be more desirable to pedestrians, bicyclists, and motorists;
- Provide traffic calming measures to reduce vehicle speeds; and
- Increase on-street parking opportunities.

1.4 Project History

The ECO Bikeway Palm Avenue Traffic Calming Project was included as part of an “Ecoroute Bikeway” proposed in the 1994 City of Imperial Beach General Plan Circulation Element with the intent of providing a connection to the Bayshore Bikeway that would encourage riders to explore Imperial Beach. The BTP is an update of the 1994 City of Imperial Beach General Plan and Local Coastal Plan’s Circulation Element and is designed to complement the Circulation Element by directing roadway improvements to include bicycle facilities. A Bike Spur project (Transportation Enhancement Act TEA 21 Silver Strand Improvement Project/City CIP Project #S01-114) was rejected by the City Council on October 6, 2004 due to the extremely high bid amount that was submitted.

While the Ecoroute Bikeway considered in the 1994 Circulation Element evaluated a number of potential bicycle routes through the City, the Palm Avenue route was identified as the key link between the Bayshore Bikeway and the City’s beachfront commercial area. The City of Imperial Beach completed their section of the Bayshore Bikeway in 1996. The Palm Avenue Eco Bikeway Project was also identified as an important component of the City’s Ecotourism plan, the goal of which is to stimulate tourism resulting in economic benefit by capitalizing on the natural amenities that surround the City. Therefore, the City of Imperial Beach prepared a Bicycle Route Feasibility and Traffic Calming Study for Palm Avenue and 7th Street in September 2005.

The Bicycle Route Feasibility and Traffic Calming Study presented three conceptual plans for improvements to facilitate bicycle travel and to provide traffic calming on the subject section of Palm Avenue. Each plan required the reduction of motor vehicle travel lanes from 4 lanes to 2 lanes. The differences were in the curb and sidewalk designs and the resultant impact to on-street parking. The options were for no on-street parking, full on-street parking, or a balance of on-street parking and curb extensions at intersections to provide additional traffic calming measures and reduce crossing distances on Palm Avenue for pedestrians. The West Palm Avenue Bikeway and Traffic Calming Study was prepared in April 2006 to refine the project plans and to solicit public input.

The City held several public meetings and workshops, including one held March 29, 2007 attended by 22 people. In consideration of the public comments received, the City selected Alternative 3 as the preferred approach to the ECO Bikeway Palm Avenue Traffic Calming Project. The City also continued work on a citywide BTP, with a 60 percent draft submittal in June 2007 and a final submittal in February 2008. Work commenced on the preparation of this EIR addressing the 60 percent draft BTP on a program level and the Eco Bikeway Palm Avenue Traffic Calming Project, between 7th Street and 3rd Street, on a project level. The draft EIR was subsequently updated in April 2008 to address the February 2008 final submittal of the BTP.

1.5 Project Description

BTP – The BTP consists of an evaluation of existing conditions within the City of Imperial Beach, as well as future land use plans and anticipated development and population densities, to determine the best way to accommodate, improve, and promote

safe and efficient bicycle travel within the City. Recommendations consist of Class 1 bicycle paths, Class 2 bicycle lanes, and Class 3 bicycle routes. The intent is to provide a comprehensive and coordinated plan for bicycle transportation that benefits the entire City so that specific proposals for bicycle-related improvements may be evaluated for conformance with the BTP. These future projects may require right-of-way acquisitions, modification of vehicle travel lanes, sidewalks, curbs, gutters, crosswalks, signage, and other modification of the public right-of-way. The specifics of potential future projects cannot be determined until such time as they are proposed. One project, the ECO Bikeway Palm Avenue Traffic Calming Project, has been proposed to date. This EIR provides project-level analysis of that project. Future projects would be subject to additional review under the California Environmental Quality Act (CEQA). That review could lead to the issuance of a Categorical Exemption, Negative Declaration, Mitigated Negative Declaration, or EIR depending upon the project specifics and the potential for significant environmental impacts.

ECO Bikeway Palm Avenue Traffic Calming Project - The proposed BTP includes the reclassification of Palm Avenue, between 3rd and 7th Streets, from a four-lane collector to a two-lane collector with a two-way left turn lane. This reclassification will allow for modifications to existing motor vehicle travel lanes, parking areas, medians, landscaping, sidewalks, curbs, gutters, and signs, and the addition of Class 2 bicycle lanes along Palm Avenue. The purpose of the project is to provide an improved bicycle connection between the Bayshore Bikeway and the beachfront commercial area in Imperial Beach. The proposed bicycle lanes, traffic calming measures, and associated improvements within the Palm Avenue right-of-way are in conformance with the Imperial Beach ECO Route Bikeway proposed in the City's 1994 General Plan Circulation Element:

- Curb extensions along Palm Avenue between 3rd Street and 7th Street;
- Potential median curb installations at Carolina Avenue, 4th Street, and 5th Street for westbound Palm Avenue and Corvina Street for eastbound Palm Avenue; and
- Westbound Palm Avenue lane transition from two to one lane, either on Palm Avenue west of 7th Street or at the SR-75 and Palm Avenue intersection.

Table 1-1 – Summary of Project Impacts and Mitigation Measures

Impacts	Mitigation Measures	Conclusions
<p>Traffic – The reduction of 4 travel lanes for motor vehicles to 2 travel lanes for motor vehicles on Palm Avenue from 7th Street to 3rd Street would cause traffic congestion between Rainbow Drive and 7th Street to increase to LOS E with project construction and LOS F in 2030 using the SANTEC Method. LOS is considered to be a significant impact. However, traffic impacts measured using the Florida Method would be less than significant for all roadway segments and intersections with project construction and in 2030. The Florida Method is considered to be more representative of actual impacts than the SANTEC Method because it evaluates traffic impacts on an hourly basis, including AM and PM Peak Hours, as compared to a 24-hour capacity analysis.</p>	<p>None feasible or required.</p>	<p>Adoption of the BTP would not have a direct impact on traffic in the city. Approval of the Palm Avenue ECO Bikeway would result in a reduction in level of service for motor vehicle traffic along Palm Avenue between 7th Street and 3rd Street but would benefit pedestrian and bicycle traffic along the same stretch of road. Traffic impacts would be less than significant using the Florida Method, which is a more accurate method of predicting future traffic impacts than the SANTEC Method. No mitigation measures are necessary for traffic impacts.</p>
<p>Air Quality – Project construction would result in short-term impacts to air quality. The proposed project would not increase traffic volumes, but would increase the level of traffic congestion during peak hours on Palm Avenue through the reduction of motor vehicle travel lanes from four to two. This would result in long-term air quality impacts. An air quality technical analysis determined that the vehicular emissions would be below air quality significance thresholds.</p>	<p>None required.</p>	<p>Short-term and long-term impacts to air quality would be below a level of significance. No mitigation measures are necessary for air quality impacts.</p>
<p>Aesthetics – The proposed project would replace existing traffic lanes, medians, and sidewalks with bicycle lanes, parking, new medians, sidewalks, and landscaping. Bulb-outs at intersections would provide additional space for landscaping and enhanced crosswalks. There would be an overall improvement in the aesthetics of Palm Avenue along the project length.</p>	<p>None required.</p>	<p>The proposed project would improve the aesthetics of the Palm Avenue corridor between 7th Street and 3rd Street. No mitigation measures for aesthetics are necessary.</p>

2.0 INTRODUCTION

The initial identification of general areas of environmental impact to be addressed in this EIR is contained in the environmental considerations section of the NOP issued for this EIR by the City of Imperial Beach, in accordance with the City's Procedures of Environmental Review. The comment(s) received in response to the NOP were used to determine the scope of this Draft EIR. As provided by the State CEQA Guidelines, the impact analysis documented in this EIR focuses on potential significant effects, which have been identified in the following areas:

The City of Imperial Beach has determined that this focused Environmental Impact Report (EIR) should be prepared to address potentially significant traffic, air quality, and aesthetic impacts associated with the proposed project. These three environmental topics were selected based on the responses to the Notice of Preparation (NOP) (Appendix A) and the results of an Environmental Initial Study that was prepared for the project (Appendix B). The Planning Commission and City Council will consider the contents of this EIR when considering whether or not to approve the proposed project.

2.1 Intended Uses of this EIR

The City of Imperial Beach will use this EIR for:

- Approval of the BTP as an Amendment to the Circulation Element of the General Plan;
- Approval of the construction of the Palm Avenue ECO Bikeway from 7th Street to 3rd Street;
- Local Coastal Program Compliance for the BTP; and
- Coastal Development Permit and Design Review for the Palm Avenue ECO Bikeway from 7th Street to 3rd Street.

2.2 Issues to be Resolved

The City held a public meeting for the BTP and Palm Avenue ECO Bikeway Projects on March 29, 2007. The purpose of the meeting was to solicit public input regarding the BTP and Palm Avenue Projects. Issues raised regarding the BTP included the feasibility of an underpass under SR-75 at 7th Street, the construction of a Class 1 bicycle path to the beach area, the construction of an informative kiosk at the intersection of 7th Street and the Bayshore Bikeway, the construction of restrooms, bicycle racks/lockers, and drinking fountains along the Bayshore Bikeway within the City of Imperial Beach, the provision of bicycle racks and other parking facilities at City parks, the Tijuana Estuary Visitors Center, shopping centers and schools, the use of alleyways for bicycle routes, and the designation of a number of specific streets for Class 2 bicycle lanes or as Class 3 bicycle route. All public comments were addressed in the BTP other than those found to be

outside the City's jurisdiction, such as crosswalks on SR-75 that would be the responsibility of Caltrans.

Issues to be resolved regarding the Palm Avenue ECO Bikeway include whether or not the City should reduce the travel lanes on Palm Avenue from 2 lanes in each direction to 1 lane in each direction between 7th Street and 3rd Street as the lane reduction would benefit bicyclists and pedestrians and would provide additional on-street parking with improved aesthetics, but would increase traffic congestion. City police, fire, and emergency officials would have to review and approve of the project plans to make sure that emergency access is not compromised. The cost of installing and maintaining the proposed increased landscaping was also identified as a public concern.

In conclusion, the issues to be resolved include the choice among project alternatives, which are described in Chapter 5. As a planning document, the BTP provides guidance for future bicycle projects in the City of Imperial Beach. Details regarding each project will be worked out on a project-by-project basis. At this point in time a route is either designated for future Class 1, Class 2, or Class 3 bicycle facilities or it is not. There are no alternatives to the BTP.

Three alternative project designs have been evaluated for the Palm Avenue ECO Bikeway Project, from 7th Street to 3rd Street. The City Council has identified Alternative 3 as the preferred alternative. This alternative has also been identified as the Environmentally Superior Alternative in this EIR. Within Alternative 3 is a recommendation for a traffic signal at the Palm Avenue/Rainbow Drive intersection. Warrants have been met that indicate that a traffic signal would be appropriate at this location. The traffic study shows that a traffic signal would improve the level of service at this intersection, but that the continued use of a two-way stop sign would also be acceptable. Therefore, it must be resolved whether the proposed project should include the installation of a traffic signal at the Palm Avenue/Rainbow Drive intersection.

3.0 PROJECT DESCRIPTION

3.1 Environmental Setting

BTP - The BTP covers the entire City of Imperial Beach, San Diego County, California, which is located on the Pacific Ocean in the extreme southwestern corner of the United States (Figure 1). The City of Imperial Beach is considered a commuter city where much of the population works outside the city. Major employment centers within the City are government, commercial services, and schools. Commercial development is concentrated along Palm Avenue and Seacoast Drive. Topography throughout the City is nearly flat with the highest elevation approximately 30 feet above sea level. The street network consists of a grid pattern. The weather is moderate and pleasant year-round due to the proximity to the Pacific Ocean.

The Bayshore Bikeway connects the City of Imperial Beach with the City of Coronado via SR-75 and there are plans to connect the City of Imperial Beach with the City of San Diego. Figure 2 provides a map of existing and proposed bicycle facilities within the City of Imperial Beach.

ECO Bikeway Palm Avenue Traffic Calming Project - The proposed Palm Avenue ECO Bikeway Project is located entirely within the Palm Avenue right-of-way, from 3rd Street to 7th Street (Figure 3). Palm Avenue is designated as a 4-lane collector in the Circulation Element of the City of Imperial Beach General Plan and provides a primary east/west connection between I-805, I-5, and Seacoast Drive along the Pacific Ocean. Palm Avenue connects I-5 to the east and Seacoast Drive to the west and SR 75 connects to I-5 and the City of Coronado to the north. Single-family and multi-family residential development is found along Palm Avenue from 7th Street to 3rd Street, giving way to commercial development to the west towards 3rd Street.

The subject segment of Palm Avenue between 7th and 3rd Streets is a four-lane collector, 64 feet wide curb-to-curb, with center left turn lanes and raised medians with landscaping and enhanced paving. The inside travel lanes are 12 feet wide, the curb lanes are 13 feet wide, and the median is 14 feet wide. This segment of Palm Avenue currently handles 12,600 ADTs. Palm Avenue, west of 3rd Street, is physically the same width as the project area, but has been striped to provide two travel lanes and parking instead of four travel lanes.

3.2 City of Imperial Beach General Plan Bikeway Policies

The City of Imperial Beach has addressed the need for improved bicycle facilities in the 1994 General Plan. The following City Policies provide the regulatory setting under which the BTP and subsequent Palm Avenue ECO Bikeway Projects are being undertaken (Table 3-1).



Figure 1
Regional Location Map
Imperial Beach, CA





Figure 2
Bicycle Transportation Plan





Source: USGS 7.5' Quarangle (Imperial Beach 1967 Photorevised 1975)

Figure 3
 Palm Avenue Eco Bikeway Vicinity Map
 (USGS)



**Table 3-1
City of Imperial Beach General Plan Bikeway Policies**

Policy C-15 Bikeways Plan	The General Plan proposes 7 th Street, a small segment of Encina Avenue, and Connecticut Street as a Class 3 bike route. The General Plan also proposes a “Sidewalk bike route” along Palm Avenue between 3 rd and 7 th Streets.
Policy C-16 Ecoroute Bikeway	“A special Ecoroute Bikeway shall be established to encompass Imperial Beach’s environmental assets including South San Diego Bay, the Tijuana River Estuary, the dunes on South Seacoast Drive, the beach, the pier and the breakwaters...Distinctive signage shall be developed to designate the route as well as a painted line on the pavement along the route. Opportunities for interpretive stations should occur along the route...”
Policy C-18 Sidewalk Bike Route	“The Palm Avenue sidewalks between 3 rd and 7 th Streets shall be signed to encourage bicyclists but shall also remain available for pedestrians.” (Note: This type of route is not recognized by Caltrans and is strongly recommended against.)
Policy C-19 Bikeway Facilities Encouraged	<p>“Bikeways shall be encouraged within the City and adjoining jurisdictions as a compliment to Imperial Beach’s small town residential character and recreation emphasis, as an effective alternative to automobile travel, to maximize the impact of air quality and energy conservation and for the convenience of residents and visitors.</p> <p>The City shall install bicycle storage facilities in public areas such as the beach, City Hall and parks and other public facilities in order to encourage bicycle use. Bicycle storage facilities should be considered as a required condition of approval on new development applications for proposed commercial, hotel or major residential projects.”</p>

3.3 Project Description

3.3.1 Bicycle Transportation Plan (BTP)

The Bicycle Transportation Plan is proposed as an amendment to the Circulation Element of the City's General Plan. The purpose is to promote the orderly and coordinated development of safe and efficient bicycle facilities throughout the City of Imperial Beach. Bikeways proposed within the City of Imperial Beach fall within three classes: Class 1; Class 2; and Class 3. Figure 4 shows the typical sections for each type of bikeway. Recommended bicycle paths, lanes, and routes are shown on Figure 2. The following paragraphs describe each class of bicycle facility.

Class 1 Bicycle Paths are hard surfaced routes with an exclusive right-of-way physically separated from vehicular roadways and intended specifically for non-motorized use. They are generally two-way with center striping and a minimum width of 8 feet.

Class 2 Bicycle Lanes are marked bicycle lanes within roadways adjacent to the curb lane, delineated by appropriate striping and signage. Bicycle lanes help delineate available road space for preferential use by cyclists and motorists, and to promote more predictable movements for each.

Class 3 Bicycle Routes provide directional signage only and typically designate a preferred route between destinations such as residential and shopping areas. Bicyclists share the vehicular right-of-way. A wider than standard outside lane is recommended as there is no pavement striping to designate a bicycle lane. Class 3 bicycle routes are typically designated where roadway speeds and ADTs are fairly low and where route directness and number of users is not likely to be significant. Bicycle route guide signs should be provided at decision points along designated bicycle routes, including signs to inform bicyclists of bicycle route directions and changes and confirmation signs for route direction, distance, and destination.

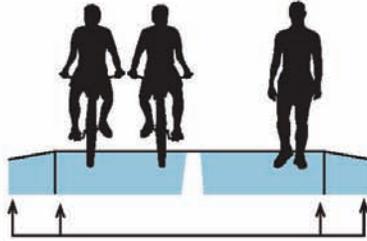
PROPOSED BIKEWAY FACILITIES

The BTP recommends a number of Class 1, Class 2, and Class 3 bicycle facilities. The analysis and recommendations are in the form of segment analyses. Each segment analysis includes a description of the segment, including the length, number of traffic lanes, traffic volume, speed limit, and parking configuration. Please refer to the BTP for these details for each segment. The following paragraphs present the proposed bicycle facilities recommended by the BTP in general terms, grouped by Class 1, Class 2, and Class 3 facilities. Figure 2 includes the proposed alignment of all Class 1, Class 2, and Class 3 facilities within the City of Imperial Beach. The segment numbers match those found in the BTP and repeated in Tables 3-2, 3-3, and 3-4 of this document.

Typical Sections

Locational Criteria

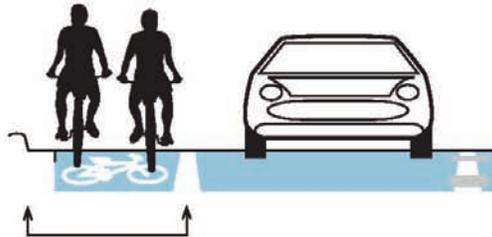
Class 1 (Bike Path or Bike Trail)



8' paved + 2' graded edge min. for two-way
(Greater width recommended where high bike
volumes or high levels of mixed use occur)

Right-of-way separated from motor vehicular traffic. Used where adjacent roadway speeds and ADTs are too high for safe joint use, for connections through open space areas and parks, or where no other facility type is feasible.

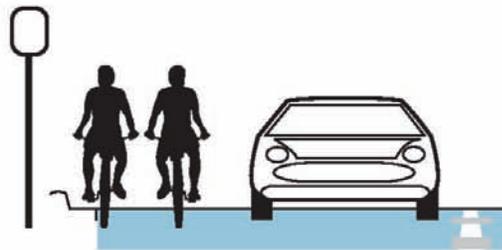
Class 2 (Bike Lane or Bikeway)



5' min. total width where curb occurs, 6' adjacent
to parking (Wider bike lane recommended
where bike volumes are high)

Within vehicular right-of-way, but delineated by warning symbols and striping. May be used where roadway speeds and ADTs are fairly high, but adequate roadway width is available. Directness and number of users are significant factors.

Class 3 (Bike Route)



(Wider than standard outside
lane recommended)

Within vehicular right-of-way, but delineated by directional signage only. Used where roadway speeds and ADTs are fairly low, and where route directness and number of users is not likely to be significant. Primarily for route directions on suggested roadways.

Source: City of Imperial Beach Bicycle Transportation Plan

Figure 4
Types of Bikeways

Proposed Class 1 Bicycle Paths

The City of San Diego is currently developing a new section of Class 1 Bicycle Path between Imperial Beach and Chula Vista. This bicycle path, which will be part of the Bayshore Bikeway, will replace the current routing along Palm Avenue. The City of San Diego will be making this connection to the City of Imperial Beach. The only Class 1 bicycle paths proposed within the City of Imperial Beach are three alternatives for a northern connection to the Bayshore Bikeway along Silver Strand Boulevard (SR-75) and a short path through a corner of the Tijuana Estuary to the Tijuana Estuary Visitors Center. Table 3-2 provides a summary of the proposed Class 1 bicycle paths that are proposed in the BTP.

Table 3-2 – Proposed Class 1 Bicycle Paths

Street	Segment Number	Segment	Length
State Route 75-Alt. #1	Red 1	W. Side of SR-75 to Silver Strand Blvd.	0.75 mile
State Route 75-Alt. #2	Red 2	W. Side of SR-75 to Rainbow Drive	0.60 mile
State Route 75-Alt. #3	Red 3	E. Side of SR-75 to Rainbow Drive	0.80 mile
Tijuana Estuary	Red 4	Caspian Way to Grove Avenue	0.30 mile

Proposed Class 2 Bicycle Lanes

Class 2 bicycle lanes are proposed along Palm Avenue between Seacoast Drive and 3rd Street, Palm Avenue between 3rd Street and 7th Street (Palm Avenue ECO Bikeway Project), Palm Avenue between 7th Street and 12th Street, Rainbow Drive between SR-75 and Palm Avenue, Imperial Beach Boulevard between Seacoast Drive and 3rd Street, Silver Strand Boulevard (SR-75) between Rainbow Drive and Palm Avenue, and 13th Street between the Bayshore Bikeway and Palm Avenue. In addition, the existing Class 3 bicycle route on 13th Street is proposed for conversion to a Class 2 bicycle lane. Table 3-3 provides a summary of the proposed Class 2 bicycle lanes that are proposed in the BTP.

Table 3-3 – Proposed Class 2 Bicycle Lanes

Street	Segment Number	Segment	Length
Palm Avenue	Blue 1	Seacoast Drive to 12th Street	1.4 miles
Imperial Beach Boulevard	Blue 2	Seacoast Drive to City of San Diego	2.0 miles
13 th Street	Blue 3	Bayshore Bikeway to Iris Avenue	1.3 miles
Rainbow Drive	Blue 4	SR-75 to Palm Avenue	0.16 mile

Proposed Class 3 Bicycle Routes

Class 3 bicycle routes are proposed along Seacoast Drive, from Palm Avenue south to the end of the cul-de-sac and along 7th Street, south to Encina Avenue, west on Elm Avenue, and south on Connecticut Street to Iris Avenue. Class 3 bicycle routes are also proposed for 3rd Street, from Imperial Beach Boulevard to Caspian Way, Caspian Way to the Tijuana Estuary Visitors Center, 5th Street from Grove Avenue to Iris Avenue, Iris Avenue from 5th Street to Connecticut Street, and 9th Street from Palm Avenue to Holly Avenue. Table 3-4 provides a summary of the Class 3 bicycle routes that are proposed in the BTP.

Table 3-4 – Proposed Class 3 Bicycle Routes

Street	Segment Number	Segment	Length
7 th Street	Green 1	Bayshore Bikeway to Elm Avenue	0.8 mile
Seacoast Drive	Green 2	Palm Avenue to Cul-de-Sac	1.2 miles
3 rd Street	Green 3	Imperial Beach Boulevard to Caspian Way	388 feet
Caspian Way	Green 4	3 rd Street to 4 th Street	0.2 mile
4 th Street	Green 5	Caspian Way to Imperial Beach Blvd.	388 feet
5 th Street	Green 6	Grove Avenue to Iris Avenue	0.3 mile
Iris Avenue	Green 7	5 th Street to Connecticut Street	0.2 mile
Connecticut Street	Green 8	Iris Avenue to Elm Avenue	0.9 mile
Oneonta Avenue	Green 9	Connecticut Street to 9 th Street	0.3 mile
Holly Avenue	Green 10	9 th Street to 11 th Street	0.3 mile
11 th Street	Green 11	Holly Avenue to Iris Avenue	0.1 mile
Iris Avenue	Green 12	11 th Street to 13 th Street	0.3 mile
Iris Avenue	Green 13	13 th Street to City of San Diego	0.2 mile
Florida Avenue	Green 14	Palm Avenue to Imperial Beach Blvd.	0.5 mile
9 th Street	Green 15	Palm Avenue to Holly Avenue	0.9 mile
Elm Avenue	Green 16	Seacoast Drive to City of San Diego	1.4 miles

Sidewalk Bicycle Route

The Circulation Element of the General Plan calls for a Sidewalk Bicycle Route on the Palm Avenue between 3rd Street and 7th Street (the same segment as the proposed ECO Bikeway Palm Avenue Traffic Calming Project). These sidewalks are proposed to be signed to encourage bicyclists, but will remain available for pedestrians. The BTP does not include any recommendations for sidewalk bicycle routes (Note: This type of route is not recognized by Caltrans and is strongly recommended against.)

ECO Route Bikeway

The General Plan states “A special Ecoroute Bikeway shall be established to encompass Imperial Beach’s environmental assets, including South San Diego Bay, the Tijuana River Estuary, the dunes on South Seacoast Drive, the beach, the pier, and the breakwaters...Distinctive signage shall be developed to designate the route as well as a painted line on the pavement along the route...” The Palm Avenue ECO Bike Route, from 7th Street to 3rd Street, and 7th Street from the Bayshore Bikeway to Palm Avenue provides the first project under the BTP towards the completion of the Ecoroute Bikeway.

Bicycle Parking

Bicycle parking is necessary at destination points within the city to provide convenient and secure parking for cyclists. The city does provide bicycle racks at a number of popular destinations, such as the beach, library, and parks. The selection and placement of bicycle racks is an important issue because the lack of secure parking keeps many people from using their bikes for basic transportation. The BTP does not specify exactly where improved bicycle parking facilities should be placed or the design of the facilities. Instead, the BTP provides examples of good and bad design features as well as examples of areas suitable for long-term bicycle parking and areas suitable for short-term bicycle parking. The City would follow the recommendations of the BTP when installing new bicycle parking facilities in public places such as at the beach and within parks. Private development projects, or those of other public agencies such as the school district, would also be expected to consider the information put forth in the BTP regarding the need for bicycle parking facilities and the design recommendations.

3.3.2 ECO Route Palm Avenue Traffic Calming Project

The proposed BTP includes the reclassification of Palm Avenue, between 3rd and 7th Streets, from a four-lane collector to a two-lane collector with a two-way left turn lane. Specific physical roadway changes proposed along Palm Avenue, from 7th Street to 3rd Street, include:

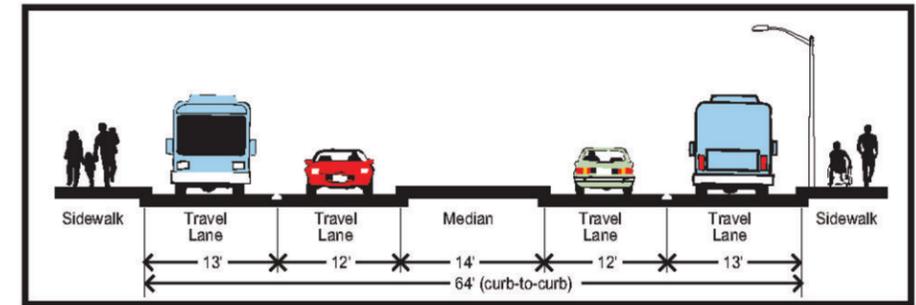
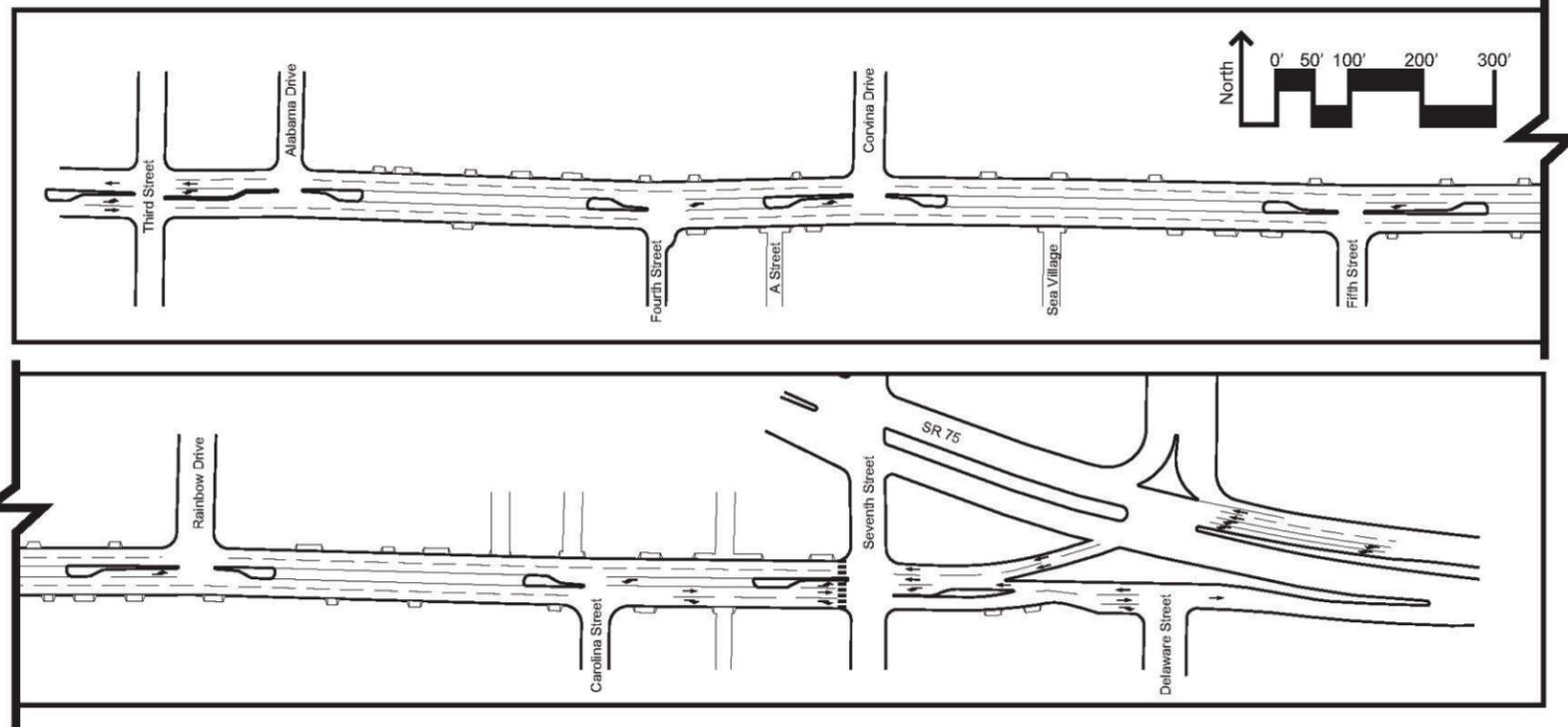
- Curb extensions along Palm Avenue between 3rd Street and 7th Street;
- Median curb installations at Carolina Avenue, 4th Street, and 5th Street for westbound Palm Avenue and Corvina Street for eastbound Palm Avenue; and
- Westbound Palm Avenue lane transition from two to one lane west of Rainbow Drive.

Figure 5 shows the existing conditions and proposed conceptual design of the Palm Avenue improvements. The reclassification from four lanes to two lanes will allow for modifications to existing motor vehicle travel lanes, parking areas, medians, landscaping, sidewalks, curbs, gutters, and signs, and the addition of Class 2 bicycle lanes along Palm Avenue. The purpose of the project is to provide an improved bicycle connection between the Bayshore Bikeway and the beachfront area in Imperial Beach. The proposed bicycle lanes, traffic calming measures, and associated improvements within the Palm Avenue right-of-way are in conformance with the Imperial Beach Ecoroute Bikeway proposed in the City's 1994 General Plan Circulation Element.

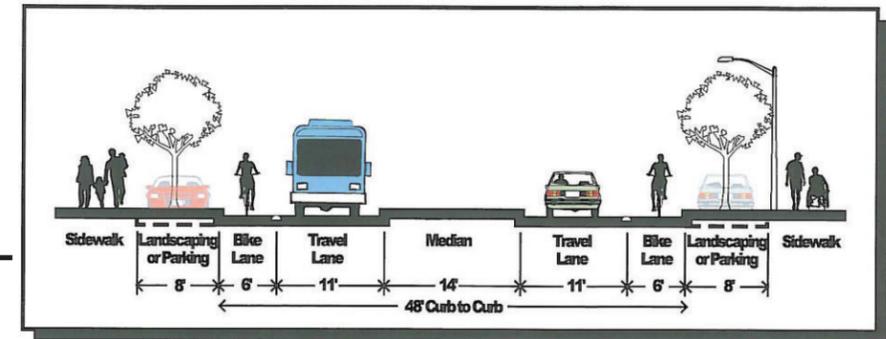
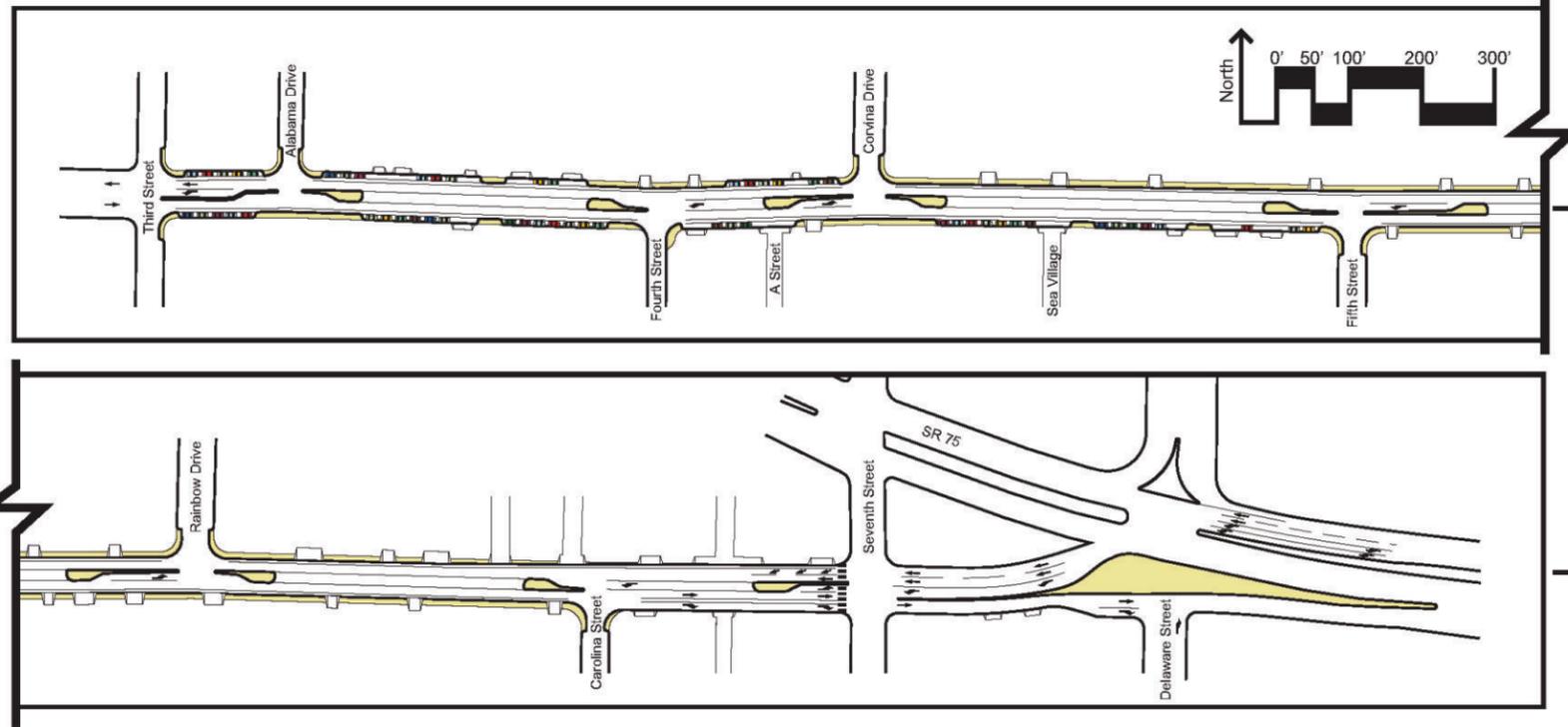
The Palm Avenue/Rainbow Drive intersection is currently controlled by a two-way stop sign. A signal warrant was conducted to determine if a traffic signal would be appropriate at this location. The signal warrants were met, meaning that traffic conditions are such that a traffic signal may be desirable. Traffic conditions do not require a traffic signal because the existing stop signs are not causing the LOS to drop below D during the AM and PM peak hours. Therefore, the City must decide whether or not to install a traffic signal at this location.

The eastern portion of the Palm Avenue ECO Bikeway Project will provide a transition zone between the full-width improvements and the existing four motor vehicle travel lanes. Eastbound Palm Avenue will be designated as a Class II Bicycle Route from Rainbow Drive to 7th Street (bicycle lane). Westbound Palm Avenue will be designated as a Class III Bicycle Route between 7th Street and Rainbow Drive (signage only). The right-hand motor vehicle travel lane will be a right-turn lane into northbound Rainbow Drive. The left-hand through lane will be the only westbound motor vehicle lane west of Rainbow Drive.

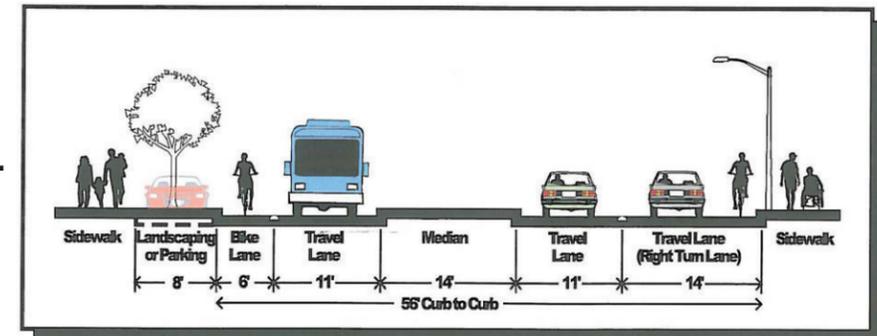
Existing Conditions



Proposed Conditions



**Palm Avenue - Typical Cross Section
3rd Street to Rainbow Drive**



**Palm Avenue - Typical Cross Section
Rainbow Drive to 7th Street**

Figure 5
Existing Conditions and Conceptual Improvements

4.0 ENVIRONMENTAL ANALYSIS

4.1 Traffic/Transportation

This traffic/transportation section is based on the BTP and a traffic study conducted by Katz, Okitsu & Associates (KOA Corporation 2008). The Traffic Impact Study (Appendix C) addresses the ECO Bikeway Palm Avenue Traffic Calming Project, which is specific to Palm Avenue, between 7th Street and 3rd Street.

4.1.1 Existing Traffic Conditions

The BTP evaluates all streets throughout the entire City of Imperial Beach for potential Class 1, Class 2, or Class 3 bicycle facilities. Figure 6 shows the average daily trips (ADT) for the most heavily traveled streets in Imperial Beach. The traffic on each street segment proposed for a bicycle facility must be considered to determine the overall safety for bicyclists and the potential for traffic impacts associated with the modification of existing travel lanes. In most cases traffic impacts would be expected to be minor or none at all. In the few cases where the construction of bicycle facilities could result in traffic impacts traffic technical studies would be prepared.

Palm Avenue is a four-lane major collector that currently handles approximately 14,000 average daily trips (ADT). Within the project study area, from 7th Street to 3rd Street, Palm Avenue is divided into two roadway segments at Rainbow Drive. Palm Avenue currently operates at a level of service (LOS) B or C for both segments, depending upon the methodology used. The two methods are the SANTEC Method and the Florida Method. While the SANTEC Method is the more common method used in the San Diego region, the Florida Method is considered to be more accurate because it evaluates traffic impacts on an hourly basis, including AM and PM peak hours, while the SANTEC Method evaluates 24-hour traffic volumes and compares them to roadway capacity. Tables 4-1 and 4-2 show the existing roadway segment conditions as well as the future roadway segment conditions when measured using these two methodologies.

The study area for the traffic analysis included the two roadway segments and six intersections as shown in Figure 7.

Roadway Segments:

- Palm Avenue between 3rd Street and Rainbow Drive
- Palm Avenue between Rainbow Drive and 7th Street

Intersections:

- Palm Avenue and 3rd Street
- Palm Avenue and 4th Street
- Palm Avenue and Corvina Street

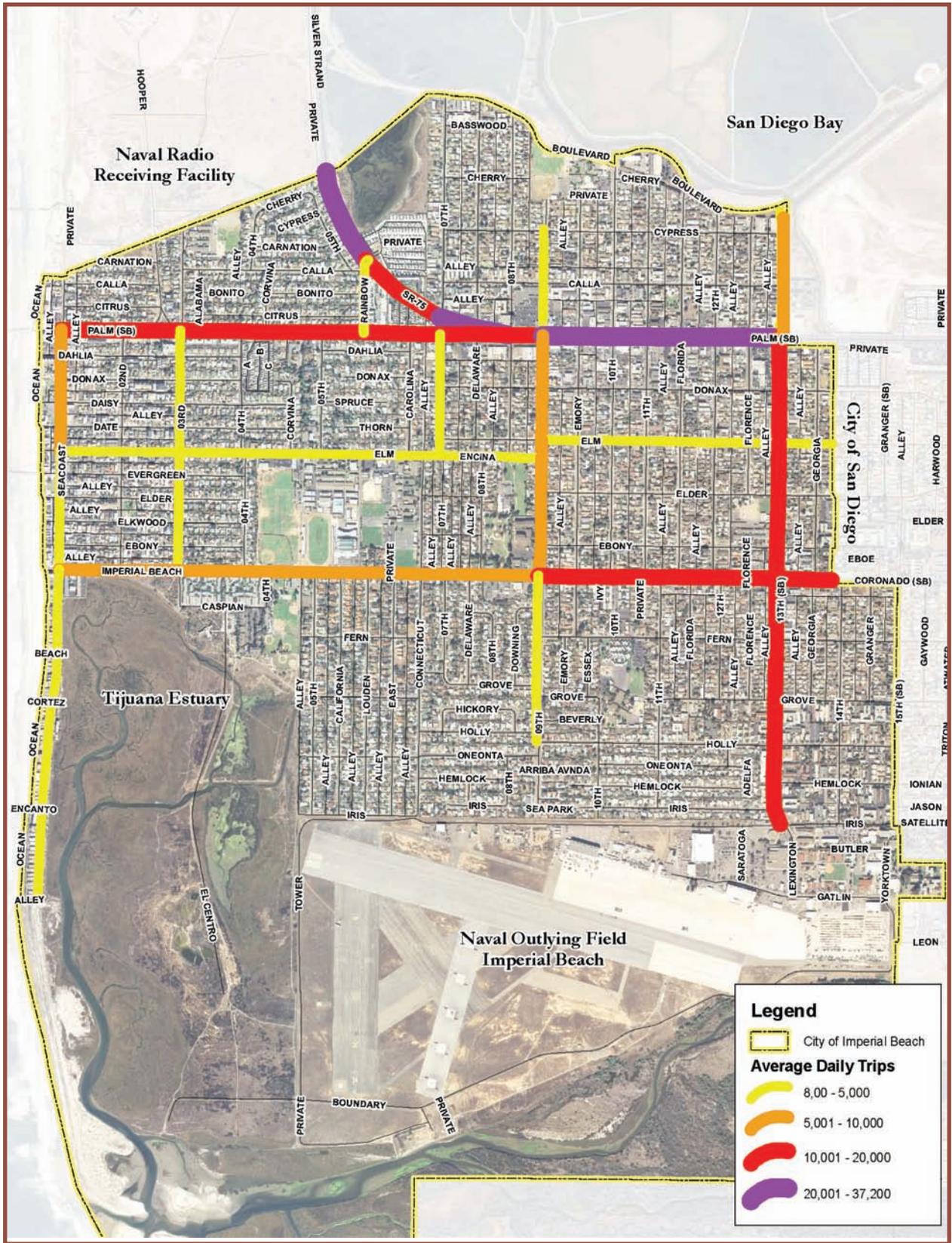
- Palm Avenue and 5th Street
- Palm Avenue and Rainbow Drive
- Palm Avenue and Carolina Street
- Palm Avenue and 7th Street

**Table 4-1
Existing Roadway Segment Conditions – SANTEC Method**

Roadway Segment	Existing Without Project				Existing With Project				Δ V/C	Significant ?
	Lanes/Class	ADT	V/C	LOS	Lanes/Class	ADT	V/C	LOS		
Roadway Name										
3 rd Street and Rainbow Drive	4/Collector	12,502	0.42	B	2/Collector w/TWLTL	12,502	0.83	D	0.42	No
Rainbow Drive to 7 th Street	4/Collector	13,953	0.47	B	3/Collector w/TWLTL	13,953	0.80	D	0.33	No

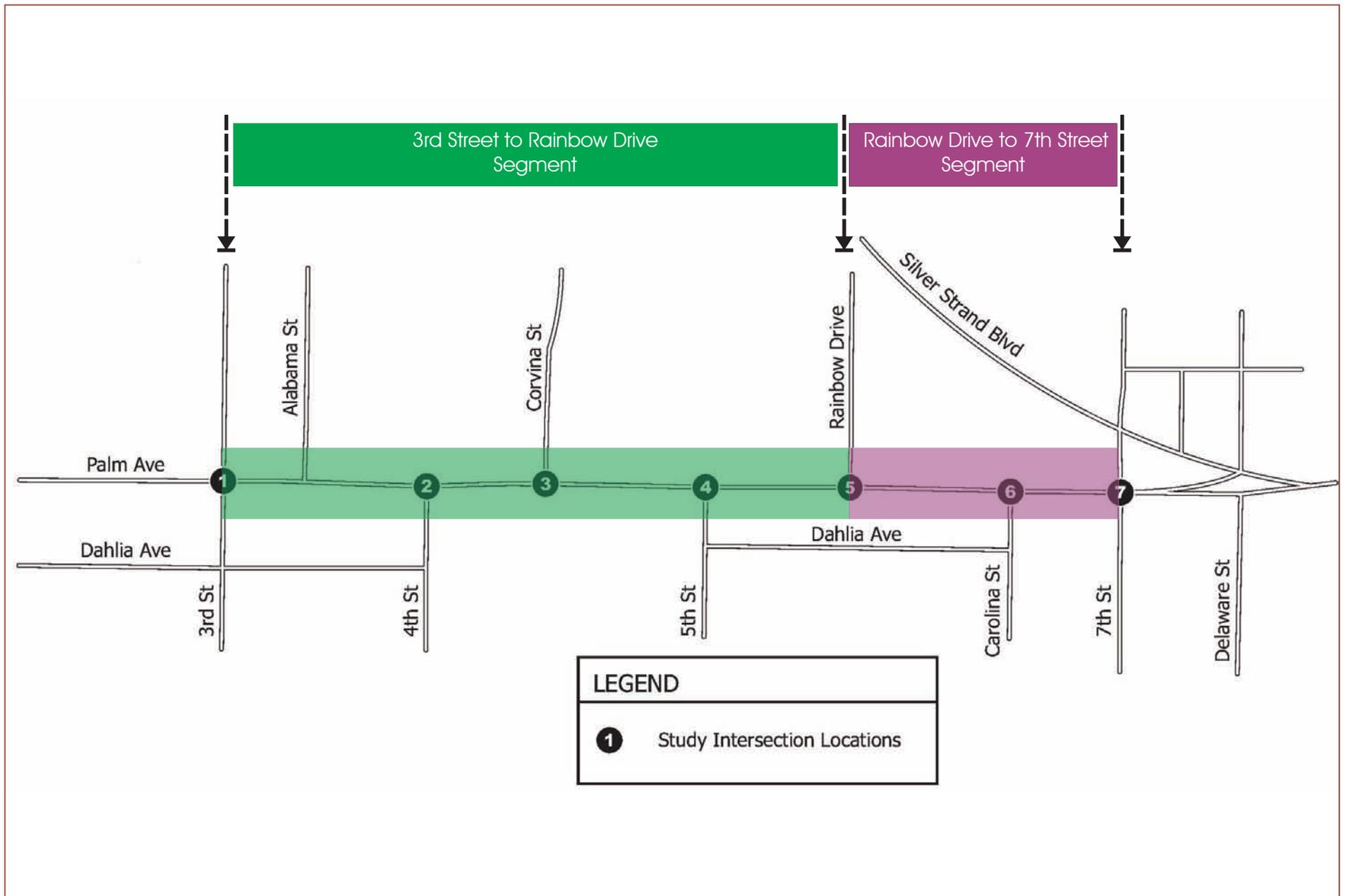
**Table 4-2
Existing Roadway Segment Conditions – Florida Method**

Roadway Segment	Existing Without Project				Existing With Project				Δ V/C	Significant ?
	Lanes/Class	ADT	V/C	LOS	Lanes/Class	ADT	V/C	LOS		
AM Peak Hour										
3 rd Street and Rainbow Drive	FL 4-Divided	798	0.26	C	FL2-Divided	798	0.51	C	0.26	No
Rainbow Drive to 7 th Street	FL 4-Divided	1,086	0.35	C	FL 3-Divided	1,086	0.60	D	0.25	No
PM Peak Hour										
3 rd Street and Rainbow Drive	FL 4-Divided	911	0.29	C	FL 2-Divided	911	0.59	C	0.29	No
Rainbow Drive to 7 th Street	FL 4-Divided	990	0.32	C	FL 3-Divided	990	0.55	C	0.23	No



Source: City of Imperial Beach Bicycle Transportation Plan

Figure 6
Average Daily Trips



Source: IMPERIAL BEACH ECO BIKEWAY TRAFFIC IMPACT STUDY (July 2007)

Figure 7
Roadway Segments and Intersections

4.1.2 Traffic Significance Criteria

Thresholds used to evaluate potential traffic/circulation impacts are based on applicable criteria in the State CEQA Guidelines (CCR §§15000-15387), Appendix G and the San Diego Traffic Engineers' Council (SANTEC) Guidelines. A significant traffic/circulation impact would occur if the project would:

- Cause an increase in traffic, which 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).
- Exceed, either individually or cumulatively, a level of service standard established by the SANDAG congestion management program for designated roads or highways.
- Result in a change in traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.
- Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).
- Result in inadequate emergency access.
- Result in inadequate parking capacity.
- Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks).

4.1.3 Traffic Impact Analysis

Would the proposed project cause an increase in traffic, which 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)?

The BTP is a planning document that is intended to encourage projects that facilitate safe and efficient bicycle travel within the City of Imperial Beach. Traffic that would be generated would be short-term construction traffic. Many Class 2 bicycle lane and Class 3 bicycle route projects would be limited to restriping and the posting of signs. Class 1 bicycle paths are by definition separate from existing street systems. The Palm Avenue ECO Bikeway Project would not increase traffic on Palm Avenue, but would increase congestion. This increased congestion would decrease the short term LOS from B to D and E and the long term LOS from C to E and F using the SANTEC methodology of evaluating traffic impacts. Any LOS less than D is considered to be significant. It is noted that evaluation of the traffic impacts on the subject roadway segments using the Florida Method, which is considered to be a more accurate assessment because it considers traffic impacts on an hourly basis, including the worst traffic periods during the AM and PM peak hours, results in findings of LOS D or better in the short term and long term. Therefore, while project traffic impacts are considered to be significant using the

SANTEC Method, the LOS E and F may be overstated. Traffic impacts are concluded to be less than significant using the Florida Method.

Would the proposed project exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?

The proposed project would not generate traffic. Therefore, Congestion Management Plans are not applicable. Future (Year 2030) traffic volumes were obtained from the San Diego Association of Governments (SANDAG). Peak hour turning movements were derived from calculations based on a 23 percent growth rate using volumes from the SANDAG Series 10 traffic forecast model. Tables 4-3 and 4-4 show the conclusions of the traffic study for the future operation of roadway segments using the SANTEC and Florida Methods of analysis. Table 4-5 shows the conclusions of the traffic study for the future operation of project intersections. Cumulative traffic impacts are significant using the SANTEC Method and less than significant using the Florida Method. The City has concluded that cumulative traffic impacts would be less than significant because the analysis of peak hour traffic using the Florida Method shows that the LOS will remain an acceptable LOS D in 2030. In addition, the goals and objectives for the proposed project include traffic calming and improved safety and efficiency for bicyclists between the Bayshore Bikeway and the beach area. The proposed project satisfies those objectives.

**Table 4-3
Horizon Year (2030) Roadway Segment Conditions – SANTEC Method**

Roadway Segment	Horizon Year Without Project				Horizon Year With Project				Δ V/C	Significant?
	Lanes/Class	ADT	V/C	LOS	Lanes/Class	ADT	V/C	LOS		
Palm Avenue										
3rd Street and Rainbow Street	4/Collector	14,406	0.48	C	2/Collector w/TWLTL	14,406	0.96	E	0.48	Yes
Rainbow Drive to 7th Street	4/Collector	16,046	0.53	C	2/Collector w/TWLTL	16,046	1.07	F	0.53	Yes

**Table 4-4
Horizon Year (2030) Roadway Segment Conditions – Florida Method**

Roadway Segment	Horizon Year Without Project				Horizon Year With Project				Δ V/C	Significant?
	Lanes/Class	Peak Hr Vol	V/C	LOS	Lanes/Class	Peak Hr Vol	V/C	LOS		
AM Peak Hour										
3rd Street and Rainbow Street	FL 4-Divided	967	0.31	C	FL 2-Divided	967	0.62	D	0.31	No
Rainbow Drive to 7th Street	FL 4-Divided	1,292	0.41	C	FL 2-Divided	1,292	0.83	D	0.42	No
PM Peak Hour										
3rd Street and Rainbow Street	FL 4-Divided	1,094	0.35	C	FL 2-Divided	1,094	0.70	D	0.35	No
Rainbow Drive to 7th Street	FL 4-Divided	1,184	0.38	C	FL 2-Divided	1,184	0.76	D	0.38	No

**Table 4-5
Horizon Year (2030) Intersection Conditions**

Intersection	Horizon year Without Project		Horizon year with Project		Δ Delay	Significant
	Delay	LOS	Delay	LOS		
AM Peak Hour						
Palm Ave. and 3rd St.	13.7	B	16.2	C	2.5	No
Palm Ave. and 4th St.	12.4	B	15.3	C	2.9	No
Palm Ave. and Corvina St.	14.7	B	19.1	C	4.4	No
Palm Ave. and 5th St.	14.1	B	19.9	C	5.8	No
Palm Ave. and Rainbow Dr.	29.4	D	30.2	D	0.8	No
Palm Ave. and Carolina St.	27.7	D	26.4	D	-1.3	No
Palm Ave. and 7th St.	18.5	B	18.5	B	1.7	No
PM Peak Hour						
Palm Ave. and 3rd St.	13.5	B	18.0	C	4.5	No
Palm Ave. and 4th St.	14.3	B	17.8	C	3.5	No
Palm Ave. and Corvina St.	14.7	B	18.7	C	4.0	No
Palm Ave. and 5th St.	11.2	B	13.7	B	2.5	No
Palm Ave. and Rainbow Dr.	35.9	E	22.7	C	-13.2	No
Palm Ave. and Carolina St.	17.2	C	17.3	C	0.1	No
Palm Ave. and 7th St.	17.8	B	17.8	B	-0.1	No

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

The proposed project would reduce hazards to bicyclists and pedestrians along Palm Avenue, between 7th Street and 3rd Street. The separation of bicyclists from motor vehicular travel lanes and the reduction in crossing distances for pedestrians at intersections would reduce motor vehicle/bicycle and motor vehicle/pedestrian conflicts. The overall impact of the proposed project would be positive.

Would the proposed project result in inadequate emergency vehicle access?

The proposed project would reduce the level of services along Palm Avenue from LOS B to LOS D and E in the short term and from LOS C to LOS E and F in the long term. Any reduction in LOS to E or F is considered significant. Increased congestion could result in slightly longer response times for emergency vehicles traveling on Palm Avenue. However, motor vehicles would have room within the proposed bicycle lanes to allow emergency vehicles to pass in case of an emergency. This would effectively compensate for any increase in traffic congestion caused by the proposed project. Emergency vehicle access along Palm Avenue would remain acceptable.

Would the proposed project result in inadequate parking capacity?

The current configuration of Palm Avenue, between 7th Street and 3rd Street, provides two travel lanes in each direction and a two-way center turn lane. There is no on street parking allowed. The proposed project would provide one travel lane in each direction, one bicycle lane in each direction, and on street parking. The proposed project would not increase the demand for parking. Therefore, the proposed project would have a positive effect on parking capacity.

Would the proposed project conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?

The proposed BTP is in conformance with the Circulation Element of the City's General Plan and supports the use of bicycles as an alternative form of transportation to the motor vehicle. The only City policy that the proposed project is in conflict with is the goal to maintain LOS D or better on City streets and intersections. In the case of the Palm Avenue ECO Bikeway Project, that goal conflicts with the goals and policies of promoting alternative forms of transportation. Therefore, the proposed project would have a positive effect on an alternative form of transportation.

Intersection and roadway segments were analyzed under existing conditions with and without the proposed project. Peak hour and ADT counts were collected at State Route 75 and Delaware Street. 24-hour traffic counts were collected along Palm Avenue west of 7th Street and on 4th Street south of Palm Avenue.

Palm Avenue, from 3rd Street to 7th Street, operates at LOS C or better without the proposed project. With the proposed project the level of service will drop to LOS E upon completion. In 2030 Palm Avenue would operate at LOS D or better without the project. The level of service would be reduced to LOS F with the proposed project.

4.1.4 Significant Traffic Impacts

Adoption of the BTP would not result in any impacts to traffic. Construction of Class 1 bicycle paths and designation of Class 3 bicycle routes would be unlikely to have any adverse impacts to traffic. The addition of Class 2 bicycle lanes to existing roadways is most likely to impact traffic, especially if the addition of bicycle lanes requires the elimination of travel lanes for motor vehicles. In the case of the Palm Avenue ECO Bikeway Project, between 7th Street and 3rd Street, the reduction of travel lanes for motor vehicles would increase traffic congestion. Table 4-6 shows that traffic impacts to existing conditions would be significant from 7th Street west to Rainbow Drive and that future (2030) traffic impacts would be significant from 7th Street to 3rd Street. This determination of significance was made using the SANTEC Method. Table 4-7 shows that using the Florida Method, traffic impacts to roadway segments and intersections during the AM and PM peak hours would not be significant. Table 4-8 shows that traffic impacts would also not be significant at area intersections with the construction of the proposed project either with existing conditions or future conditions.

**Table 4-6
Summary of Roadway Segment Conditions – SANTEC Method**

Roadway Segment	Existing						Horizon Year					
	Without Project		With Project		Δ V/C	Significant?	Without Project		With Project		Δ V/C	Significant?
	V/C	LOS	V/C	LOS			V/C	LOS	V/C	LOS		
Palm Avenue												
3rd Street to Rainbow Street	0.42	B	0.83	D	0.42	No	0.48	C	0.96	E	0.48	Yes
Rainbow Drive to 7th Street	0.47	B	0.93	E	0.47	Yes	0.53	C	1.07	F	0.53	Yes

**Table 4-7
Summary of Roadway Segment Conditions – Florida Method**

Roadway Segment	Existing						Horizon Year					
	Without Project		With Project		Δ V/C	Significant?	Without Project		With Project		Δ V/C	Significant?
	V/C	LOS	V/C	LOS			V/C	LOS	V/C	LOS		
AM Peak Hour												
3rd Street to Rainbow Street	0.26	C	0.51	C	0.26	No	0.31	C	0.62	D	0.31	No
Rainbow Drive to 7th Street	0.35	C	0.70	D	0.35	No	0.41	C	0.83	D	0.42	No
PM Peak Hour												
3rd Street to Rainbow Street	0.29	C	0.59	C	0.29	No	0.35	C	0.70	D	0.35	No
Rainbow Drive to 7th Street	0.32	C	0.64	D	0.32	No	0.38	C	0.76	D	0.38	No

**Table 4-8
Summary of Intersection Conditions**

Intersection	Existing					Horizon Year				
	W/O Project		With Project			W/O Project		With Project		
	Delay	LOS	Delay	LOS	Sig?	Delay	LOS	Delay	LOS	Sig?
AM Peak Hour										
Palm Ave. and 3rd St.	11.2	B	12.3	B	No	13.7	B	16.2	C	No
Palm Ave. and 4th St.	11.5	B	13.3	B	No	12.4	B	15.3	C	No
Palm Ave. and Corvina St.	13.1	B	15.9	C	No	14.7	B	19.1	C	No
Palm Ave. and 5th St.	12.8	B	16.4	C	No	14.1	B	19.9	C	No
Palm Ave. and Rainbow Dr.	21.1	C	21.3	C	No	29.4	D	30.2	D	No
Palm Ave. and Carolina St.	20.5	C	20.0	C	No	27.7	D	26.4	D	No
Palm Ave. and 7th St.	18.9	B	19.4	B	No	18.5	B	18.5	B	No
PM Peak Hour										
Palm Ave. and 3rd St.	11.1	B	13.2	B	No	13.5	B	18.0	C	No
Palm Ave. and 4th St.	12.7	B	14.8	B	No	14.3	B	17.8	C	No
Palm Ave. and Corvina St.	13.2	B	15.9	C	No	14.7	B	18.7	C	No
Palm Ave. and 5th St.	10.6	B	12.4	B	No	11.2	B	13.7	B	No
Palm Ave. and Rainbow Dr.	22.0	C	17.2	C	No	35.9	E	22.7	C	No
Palm Ave. and Carolina St.	14.8	B	15.0	B	No	17.2	C	17.3	C	No
Palm Ave. and 7th St.	18.1	B	17.6	B	No	17.8	B	17.8	B	No

4.1.5 Traffic Mitigation Measures

No mitigation measures are feasible to compensate for the replacement of motor vehicle travel lanes with bicycle lanes and enhanced pedestrian facilities. It is understood that a reduction in motor vehicle travel lanes results in decreased roadway capacity, which leads to more traffic congestion. Traffic impacts would remain significant based on the SANTEC significance criteria.

Although there would be a reduction in roadway capacity and an associated increase in travel times and congestion for motor vehicles, analysis of traffic impacts using the Florida Method results in a conclusion that traffic impacts would be less than significant.

Table 4-9 summarizes the mitigation section of the traffic technical report. Table 4-10 compares the LOS and delay associated with an existing two-way stop sign at the Palm Avenue/Rainbow Drive intersection as compared to what the LOS and delay would be if a signal were installed at this location. It is noted that the signal is not a required mitigation measure, but is recommended to improve the flow of traffic.

**Table 4-9
Traffic Mitigation Measures**

Location	Type Of Impact	Mitigation
Palm Avenue: 3rd Street to Rainbow Street	Cumulative	Mitigation has not been identified for this location. A more detailed analysis (Florida Method), which analyzes the segment during the peak hours where traffic volumes are the highest, shows that the segment operates a good level of service.
Palm Avenue: Rainbow Drive to 7th Street	Direct	Mitigation has not been identified for this location. A more detailed analysis (Florida Method), which analyzes the segment during the peak hours where traffic volumes are the highest, shows that the segment operates a good level of service.

**Table 4-10
Other Recommended Improvements
Rainbow Drive 2-Way Stop vs. Signal**

Intersection	2 Way Stop		Signal		Δ Delay
	Delay	LOS	Delay	LOS	
AM Peak Hour					
Palm Ave. and Rainbow Dr.	30.2	D	13.5	B	-16.7
PM Peak Hour					
Palm Ave. and Rainbow Dr.	22.7	C	17.3	B	-5.4

4.1.6 Significance of Traffic Impacts After Mitigation Measures

No mitigation measures are feasible that would meet the project objectives to provide improved facilities for bicyclists and pedestrians. Traffic impacts would remain significant based on the SANTEC thresholds of significance, but would be less than significant using the Florida Method. Because the purpose of the project is to promote bicycle transportation and provide traffic calming in a high-density area of the City leading to the beach where improved bicycle and pedestrian safety and increased on-street parking is desired, and because the City has determined that reduced traffic speeds are desirable at this location, traffic impacts are considered to be acceptable and less than significant.

4.2 Air Quality

This section is based on an Air Quality Technical Report prepared by Scientific Resources Associated (SRA 2007) and identifies the existing air quality conditions and sensitive receptors in the project area and describes the overall regulatory framework for air quality management in the region. The Air Quality Technical Report is included as Appendix D.

4.2.1 Existing Air Quality Conditions and Regulations

Climate and Meteorology

The project is located in the San Diego Air Basin (SDAB). The climate of San Diego County and air quality in the SDAB is profoundly influenced by the Pacific Ocean and its semi-permanent high pressure systems that result in dry, warm summers and mild, occasionally wet winters. One of the main determinants of the climatology is a semipermanent high-pressure area (the Pacific High) in the eastern Pacific Ocean. In the summer, this pressure center is located well to the north, causing storm tracks to be directed north of California. This high-pressure cell maintains clear skies for much of the year. When the Pacific High moves southward during the winter, this pattern changes, and low-pressure storms are brought into the region, causing widespread precipitation. In San Diego County, the months of heaviest precipitation are November through April, averaging about 9-14 inches annually. The mean temperature is 62.2 degrees Fahrenheit (°F), and the mean maximum and minimum temperatures are 75.7 °F and 48.5 °F, respectively.

The normal wind pattern is moderate to strong onshore winds during the day and weak offshore winds at night. The Santa Ana wind condition is a reversal of the normal winds, and offshore winds blow pollutants out to the ocean. A strong Santa Ana will produce clear days. However, a weak Santa Ana, and conditions at the start and end of a Santa Ana wind period, will transport air pollutants from Los Angeles and Orange Counties out to sea and southward, then back to shore in San Diego County. This phenomenon will produce higher pollutant concentrations in the coastal communities such as Imperial Beach.

Regulations

Air quality is defined by ambient air concentrations of specific pollutants identified by the United States Environmental Protection Agency (USEPA) to be of concern with respect to the health and welfare of the general public. The Federal Clean Air Act (CAA) of 1970, as amended in 1977 and 1990, required the USEPA to establish National Ambient Air Quality Standards (NAAQS), below which no adverse effects to public health are anticipated in response to prolonged exposure. The CAA allows states to adopt ambient air quality standards and other regulations as long as they are at least as stringent as the federal standards. The California Air Resources Board (CARB) has established the more stringent California Ambient Air Quality Standards (CAAQS).

Areas that do not meet the NAAQS or the CAAQS for a particular pollutant are considered to be “non-attainment areas” for that pollutant. The San Diego Air Basin (SDAB), which includes the City of Imperial Beach, is designated as basic non-attainment for the 8-hour NAAQS for O₃. The SDAB is in attainment for all other criteria pollutants. The SDAB is currently classified as a non-attainment area under the CAAQS for O₃, PM₁₀, and PM_{2.5}. Table 4-11 presents a summary of the ambient air quality standards adopted by the federal and California Clean Air Acts.

The APCD operates a network of ambient air monitoring stations throughout San Diego County. The closest air quality monitoring station to Imperial Beach is located in Chula Vista. The Chula Vista monitoring station measured exceedances of the federal 8-hour ozone standard on one occasion in 2004 and state O₃, PM₁₀, and PM_{2.5} standards during the period from 2004 to 2006.

4.2.2 Air Quality Significance Criteria

Thresholds used to evaluate potential impacts to air quality are based on applicable criteria in the State CEQA Guidelines (CCR §§15000-15387), Appendix G; the San Diego Air Pollution Control District (SDAPCD) regulations; and the City of San Diego’s Significance Determination Thresholds for CEQA. A significant impact to air quality would occur if the project would:

- Conflict with or obstruct implementation of the applicable air quality plan.
- Violate any air quality standard or contribute substantially to an existing or projected air quality violation.
- Result in cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).
- Expose sensitive receptors to substantial pollutant concentrations.
- Create objectionable odors affecting a substantial number of people.
- Exceed the pollutant emission thresholds in Table 4-12.

**Table 4-11
National and California Ambient Air Quality Standards**

Pollutant	Averaging Time	NAAQS ¹		CAAQS ²
		Primary ³	Secondary ⁴	Concentration ⁵
Ozone (O ₃)	1-Hour	Note 6	-	0.09 ppm (180 µg/m ³)
	8-Hour	0.08 ppm (157 µg/m ³)	Same as Primary Standard	0.070 ppm (137 µg/m ³) ⁹
Carbon Monoxide (CO)	8-Hour	9.0 ppm (10 mg/m ³)	None	9.0 ppm (10 mg/m ³)
	1-Hour	35 ppm (40 mg/m ³)		20 ppm (23 mg/m ³)
Nitrogen Dioxide (NO ₂)	Annual Average	0.053 ppm (100 µg/m ³)	Same as Primary Standard	-
	1-Hour	-		0.25 ppm (470 µg/m ³)
Sulfur Dioxide (SO ₂)	Annual Average	0.03 ppm (80 µg/m ³)	-	-
	24-Hour	0.14 ppm (365 µg/m ³)	-	0.04 ppm (105 µg/m ³)
	3-Hour	-	0.5 ppm (1300 µg/m ³)	-
	1-Hour	-	-	0.25 ppm (655 µg/m ³)
Suspended Particulate Matter (PM ₁₀)	24-Hour	Note 10	-	50 µg/m ³
	Annual Arithmetic Mean	50 µg/m ³	Same as Primary Standard	20 µg/m ³ note 7
Fine Particulate Matter (PM _{2.5})	24-Hour	35 µg/m ³ note 11	-	-
	Annual Arithmetic Mean	15 µg/m ³	Same as Primary Standard	12 µg/m ³ note 7
Lead (Pb) ⁸	30-Day Average	-	-	1.5 µg/m ³
	Calendar Quarter	1.5 µg/m ³	Same as Primary Standard	-
Hydrogen Sulfide (HS)	1-Hour	No Federal Standards		0.03 ppm (42 µg/m ³)
Sulfates (SO ₄)	24-Hour			25 µg/m ³
Visibility Reducing Particles	8-Hour (10 am to 6 pm, Pacific Standard Time)			In sufficient amount to produce an extinction coefficient of 0.23 per km due to particles when the relative humidity is less than 70 percent.
Vinyl chloride ⁸	24-Hour			0.01 ppm (26 µg/m ³)

¹ NAAQS (other than O₃, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once a year. The O₃ standard is attained when the fourth highest 8-hour concentration in a year, averaged over 3 years, is equal to or less than the standard. For PM₁₀, the 24-hour standard is not to be exceeded more than once per year. The annual standard is attained when the 3-year average of the weighted annual mean at each monitor within an area does not exceed 50 µg/m³. For PM_{2.5}, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over 3 years, do not exceed 65 µg/m³. The annual standard is attained when the 3-year average of the weighted annual mean at single or multiple community-oriented monitors does not exceed 15 µg/m³.

² California Ambient Air Quality Standards for O₃, CO (except Lake Tahoe), SO₂ (1- and 24-hour), NO₂, PM₁₀, and visibility reducing particles, are values that are not to be exceeded. All others are not to be equaled or exceeded.

³ National Primary Standards: The levels of air quality necessary, with an adequate margin of safety, to protect the public health.

⁴ National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

ppm = parts per million; µg/m³ = micrograms per cubic meter; mg/m³ = milligrams per cubic meter; km = kilometer
Source: ARB 2007, USEPA 2007

⁵ Concentration expressed first in units in which it was promulgated. Ppm in this table refers to ppm by volume or micromoles of pollutant per mole of gas.

⁶ The federal 1-hour O₃ standard was revoked for most areas of the United States, including all of California on June 15, 2005.

⁷ On June 5, 2003, the Office of Administrative Law approved the amendments to the regulations for the state ambient air quality standards for particulate matter and sulfates. Those amendments established a new annual average standard for PM_{2.5} of 12 µg/m³ and reduced the level of the annual average standard for PM₁₀ to 20 µg/m³. The approved amendments were filed with the Secretary of State on June 5, 2003. The regulations became effective on July 5, 2003.

⁸ The CARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

⁹ Effective May 17, 2006.

¹⁰ The EPA has revoked the annual standard for PM₁₀; the revocation was effective December 18, 2006

¹¹ The 24-hour standard for PM_{2.5} has been reduced from 65 µg/m³ to 35 µg/m³, effective December 18, 2006.

**Table 4-12
Pollutant Emission Thresholds**

Pollutant	lbs/hr	lbs/day	Tons/year
Carbon Monoxide (CO)	100	550	100
Oxides of Nitrogen (NO _x)	25	250	40
Particulate Matter (PM ₁₀)	-	100	15
Oxides of Sulfur (SO _x) ^(a)	25	250	40
Lead and Lead Compounds ^(b)	-	3.2	0.6
Volatile Organic Compounds (VOC)	-	137 ^(c)	
Reactive Organic Compounds/Reactive Organic Gases (ROC/ROG)	-	137 ^(c)	15 ^(d)

Source: City of San Diego CEQA Significance Determination Thresholds, 2004.

- San Diego Air Basin has been in attainment of SO_x standard due to sulfur-free natural gas for electricity generation and lack of heavy industrial/manufacturing uses in the region.
- Lead emissions have steadily declined due to catalytic converters and increased use of lead-free gasoline. San Diego is no longer required to monitor for lead.
- OC threshold based on SCAQMD levels per South Coast Air Quality Management District (SCAQMD) levels per SDAPCD (9/01).
- Thresholds level from the South Coast Air Quality Management District (SCAQMD).

4.2.3 Air Quality Impact Analysis

Would the proposed project conflict with or obstruct implementation of the applicable air quality plan?

Projects that proposed development that is consistent with the growth anticipated by the general plans and/or SANDAG's growth forecasts are considered to be consistent with the RAQS and the State Implementation Plan (SIP). The Imperial Beach Bicycle Transportation Plan and the Palm Avenue ECO Bikeway Project will not result in growth or have any effect on future development densities or patterns in Imperial Beach. Therefore, the Bicycle Transportation Plan and Palm Avenue ECO Bikeway Project could not conflict with or obstruct the implementation of applicable air quality plans. The promotion of bicycle and pedestrian travel within the City of Imperial Beach could only help improve air quality.

Would the proposed project violate any air quality standard or contribute substantially to an existing or projected air quality violation?

As a planning document, the Imperial Beach Bicycle Transportation Plan would not have any potential impact on air quality. Most future projects implemented under the Bicycle Transportation Plan would result in minimal short-term air quality impacts associated with construction and no long-term impacts associated with operation. The Palm Avenue ECO Bikeway Project is an exception because it would reduce travel lanes for motor

vehicle traffic, which would in turn increase traffic congestion. Therefore, the Palm Avenue ECO Bikeway Project would result in both construction and operational impacts to air quality. The construction impacts will be caused by emissions from construction equipment and vehicles and dust generated by construction. Operational impacts may occur where motor vehicle traffic is delayed through the reduction in travel lanes and other restrictions associated with the creation and use of bicycle lanes. On the other hand, each bicycle trip that replaces a motor vehicle trip will reduce operations impacts to air quality. Overall air quality impacts would be minimal and would not conflict with or obstruct implementation of the San Diego County Regional Air Quality Strategy (RAQS).

Would the proposed project result in cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (Including release emissions which exceed quantitative thresholds for ozone precursors)?

The proposed project would result in a small amount of short-term construction traffic and use of construction equipment to modify the sidewalks, curbs, gutters, and pavement along Palm Avenue. This would be a relatively small street improvement project that would generate emissions well within the anticipated construction emissions for San Diego County. There would not be any long-term motor vehicle traffic associated with the proposed project. The proposed project is intended to increase opportunities for bicycle travel and pedestrians in the project area, which would reduce air quality impacts. The traffic impact analysis determined that any increase in traffic congestion caused by the reduction in motor vehicle travel lanes would be less than significant.

Would the proposed project expose sensitive receptors to substantial pollutant concentrations?

The air quality technical report included an evaluation of CO hot spots, which are typically evaluated where the LOS of an intersection or roadway decreases to LOS E or worse and sensitive receptors such as residences, commercial developments, schools, hospitals, etc. are located in the vicinity of the affected intersection or roadway segment. The analysis in the air quality technical report was based on a computer model that considers the traffic volumes, vehicle mix, level of congestion, and proximity to the sensitive receptors to determine if the anticipated pollutant levels would exceed state or federal thresholds. The conclusion for this project was that there would not be a substantial increase in pollutants and that no thresholds would be exceeded. Because the proposed project would not generate any new motor vehicle trips and would not move any travel ways closer to residential buildings, the only variable was the duration of delay at existing intersections and the additional emissions from vehicles during those delays. Ultimately, there would be little measurable change in existing air quality in the project area and sensitive receptors would not be exposed to substantial pollutant concentrations. The potential reduction of future motor vehicle trips and associated emissions through increased use of bicycles in the project area was not factored into the analysis.

Would the proposed project create objectionable odors affecting a substantial number of people?

The proposed project would result in short-term odors associated with asphalt during paving and paint during the painting of curbs and lane makers. These odors would be very localized and would be most noticeable while the hot asphalt is spread and rolled and as the quick-drying paint is applied. These odors are typical of an urban environment and would not affect a substantial number of people. Therefore, this potential impact would be less than significant.

Would the proposed project exceed the pollutant emission thresholds in Table 4-12?

Emissions associated with most proposed construction projects can be separated into two types; those associated with project construction and those associated with motor vehicle traffic generated by a proposed project that would utilize the improved roadway following construction. The proposed project would not generate any additional traffic. However, as previously noted, the proposed project would reduce the LOS of traffic meaning that there would be increased traffic congestion. The increased traffic congestion would result in a minor increase in tailpipe emissions.

Emissions of pollutants such as fugitive dust that are generated during construction are generally greatest closest to the construction site. A computer model was used to estimate construction emissions. The calculation assumed a six-month construction period and included the emissions from passenger vehicles used by construction workers to travel to and from the project site as well as the construction equipment and vehicles used on the project site. As is shown in Table 4-13, the projected emissions were well below the established significance thresholds. In addition, the construction would be short and temporary. Therefore, the emissions associated with construction would not result in a significant impact to ambient air quality.

Operational impacts associated with the project are confined to the potential for air pollutant concentrations to increase due to increased congestion at intersections that would be affected by the project. Based on the Traffic Impact Analysis (Katz, Okitsu & Associates 2007), the project itself would not generate additional traffic, and the forecasted volumes will remain unchanged at all segments and intersections.

The Transportation Project-Level Carbon Monoxide Protocol (hereinafter referred to as the "Protocol") (California Department of Transportation 1997) indicates that CO "hot spots" have the potential to form for projects that have the potential to increase congestion. CO "hot spots" are typically evaluated when (a) the level of service (LOS) of an intersection or roadway decreases to a LOS E or worse; and (b) sensitive receptors such as residences, commercial developments, schools, hospitals, etc. are located in the vicinity of the affected intersection or roadway segment.

Table 4-5 provides a summary of the LOS at key project intersections with and without the Palm Avenue ECO Bikeway Project. As shown in Tables 4-5, the project would not result in degradation in the LOS at affected intersections to LOS E or worse. Accordingly, no project-related exceedances of the CO standard are predicted, and the project would not cause or contribute to a violation of an air quality standard.

Table 4 - 13 Estimated Construction Emissions

Emission Source	ROG	NO_x	CO	SO_x	PM₁₀	PM_{2.5}
lbs/day						
Paving						
Paving Offgassing	0.05	-	-	-	-	-
Paving Off-road Diesel	2.22	13.27	7.15	0.00	1.15	0.01
Paving On-road Diesel	0.01	0.23	0.08	0.00	0.01	0.01
Worker Travel – Vehicle Emissions	0.07	0.13	2.22	0.00	0.01	0.01
TOTAL	2.36	13.62	9.44	0.00	1.17	1.08
Significance Criteria	137	250	550	250	100	55
<i>Significant?</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>

4.2.4 Significant Air Quality Impacts

No significant impacts to air quality have been identified.

4.2.5 Air Quality Mitigation Measures

No mitigation measures are necessary for impacts to air quality.

4.3 Aesthetics

4.3.1 Existing Conditions

The Bicycle Transportation Plan covers many streets within the City of Imperial Beach. Many of the streets are residential while some are commercial. The Palm Avenue ECO Bikeway Project passes single- and multi-family residential properties and commercial establishments. Concrete sidewalks with curbs and gutters and palm trees are found along the subject length of Palm Avenue. Figures 8-11 provide photographs of the existing conditions along Palm Avenue. Figure 8 shows Palm Avenue west of the project area where the number of travel lanes has already been reduced to two lanes and there is on-street parking. Figures 9-11 show the existing four-lane configuration of the subject section of Palm Avenue where there is a center median with turn lanes but no on-street parking. As can be seen in Figure 10, there are no bicycle lanes along this stretch of Palm Avenue and bicyclists are inclined to use the sidewalk.

4.3.2 Significance Criteria

Thresholds used to evaluate potential aesthetic/visual quality impacts are based on applicable criteria in the State CEQA Guidelines (CCR §§15000-15387), Appendix G. A significant aesthetic/visual quality impact would occur if the project would:

- Have a substantial adverse effect on a scenic vista.
- Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.
- Substantially degrade the existing visual character or quality of the project site and its surroundings.
- Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area.

4.3.3 Aesthetics Impact Analysis

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

Palm Avenue provides a narrow view corridor to the west of the Pacific Ocean and to the east of Otay Mountain. Although not designated as official scenic vistas, these views are attractive features of Imperial Beach. The Design Element of the Imperial Beach General Plan/Local Coastal Plan describes community-wide design features and polices designed to protect the scenic qualities of the city. The primary goal of the Design Element is to preserve and enhance the visual quality of the environment for the aesthetic enjoyment of both residents and visitors (Imperial Beach 1994). The proposed project will conform to the City's Design Element and would enhance the visual character of the Palm Avenue



Figure 8
Palm Avenue Looking West from 3rd Street Towards 2nd Street



Figure 9
Palm Avenue Looking West Towards Alabama Street

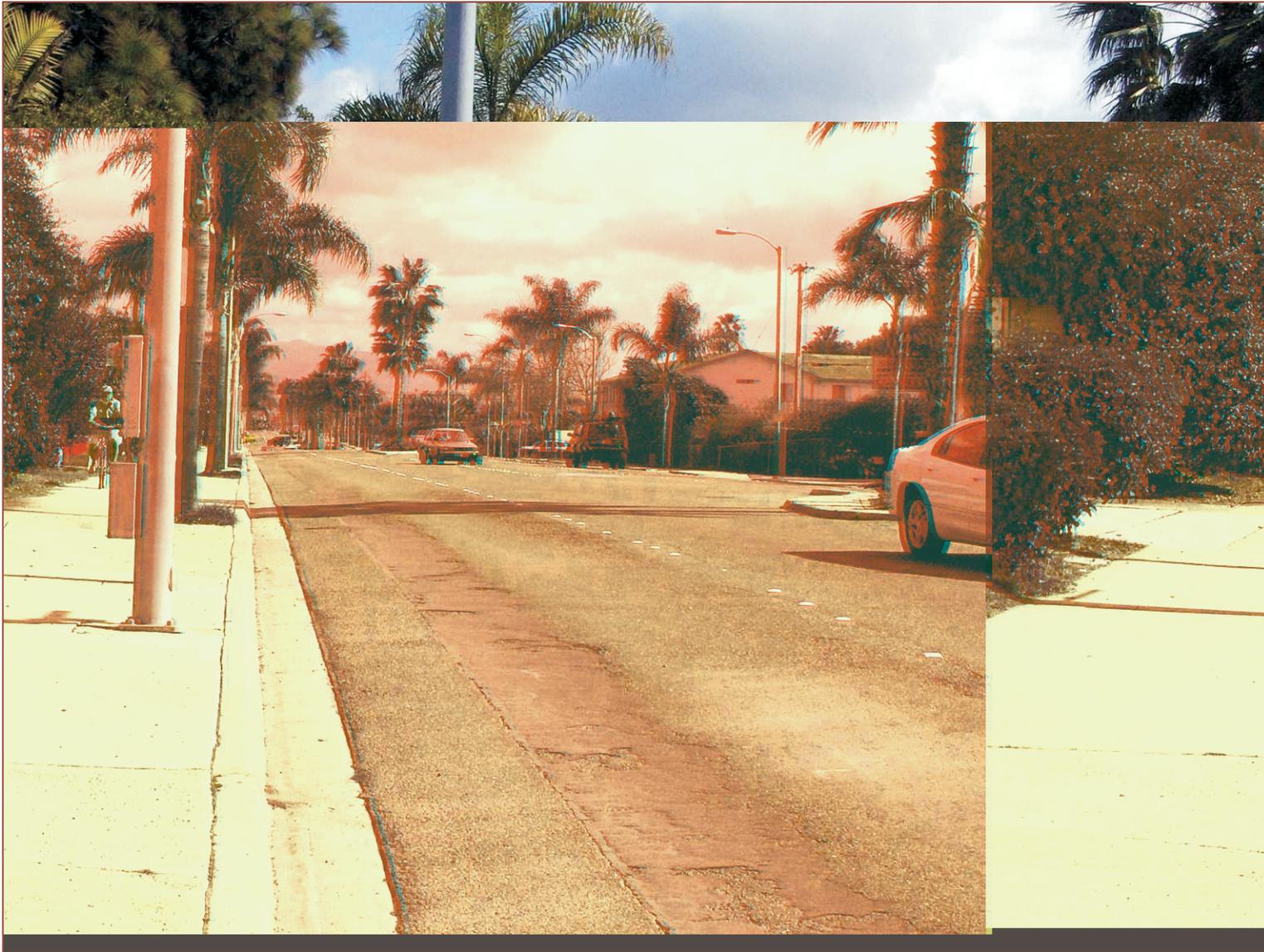


Figure 10
Palm Avenue Looking East Towards 4th Street



Figure 11
Palm Avenue Looking at 7th Street

corridor while preserving the views to the east and west. The proposed project would not result in an adverse effect on a scenic vista.

In addition to improving the aesthetics of the existing streetscape, the proposed project will reduce the impervious surfaces by adding new planter/landscape areas to the Palm Avenue. Thus there is the expectation that there will be a reduction of polluted storm water and urban nuisance water runoff into the receiving waters.

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

Palm Avenue is not a designated state scenic highway and there are not any rock outcroppings or historic buildings within the Palm Avenue right-of-way. The existing landscaping is dominated by palm trees, which are scenic resources that contribute to the beach environment. Some palm trees would have to be removed during project construction. Ultimately, the landscaping along Palm Avenue would be increased and enhanced and there would be no net loss of palm trees. One of the project objectives is to improve the aesthetics of the landscaping and streetscape to be more desirable to pedestrians, bicyclists, and motorists. Therefore, the proposed project would result in a positive impact to the existing scenic resources found along Palm Avenue, between 7th Street and 3rd Street.

Would the proposed project substantially degrade the existing visual character or quality of the project site and its surroundings?

No. As is noted above, one of the project objectives is to improve the aesthetics of the landscaping and streetscape to be more desirable to pedestrians, bicyclists, and motorists. Therefore, the proposed project would result in a positive impact to the existing scenic resources found along Palm Avenue, between 7th Street and 3rd Street.

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

All work will occur within the existing Palm Avenue right-of-way. The proposed project would not create a new source of substantial light or glare. Existing sidewalks would be expanded and streetlights may be relocated and replaced with new light standards. There would not be an increase in the overall number or intensity of streetlights.

4.3.4 Significant Aesthetic Impacts

No significant visual impacts have been identified.

4.3.5 Aesthetic Mitigation Measures

No significant impacts to visual resources are anticipated. Therefore, no mitigation is required.

5.0 PROJECT ALTERNATIVES

Bicycle Transportation Plan (BTP)

The City looked at numerous options while preparing the BTP and ultimately included those bicycle facilities and routes that best met the existing facilities and anticipated future demand for bicycle travel routes. Existing bicycle travel patterns, residential density, employment centers, recreational centers, and tourist attractions such as the beach and Bayshore Bikeway were all considered in the creation of the BTP. As an amendment to the City's General Plan, the BTP is a long-range planning document intended to guide the logical and orderly construction of bicycle facilities and designation of bicycle routes throughout the City of Imperial Beach. There is not a requirement to construct any of the recommended facilities and each project is subject to environmental review for compliance with CEQA prior to approval for construction. It is noted that many of the future projects, such as the designation of bicycle lanes within existing rights-of-way, are likely to be exempt from CEQA. Other projects, such as bicycle paths adjacent to sensitive wetland areas, may require an EIR. Because the BTP allows for multiple alternatives through the selection of individual projects over an extended period of time, there are no project alternatives to the BTP other than the No Project Alternative. Project alternatives need only be considered for those future projects that require an EIR. In the case of the proposed Class 1 bicycle path that would connect the Bayshore Bikeway with the City of Imperial Beach along Silver Strand Boulevard (SR-75), three alternatives are presented in the BTP. One provides an alternative to the Palm Avenue connection involving the Naval Radio Receiving Facility while the other two involve connections to Palm Avenue via Rainbow Drive.

ECO Bikeway Palm Avenue Traffic Calming Project

The Palm Avenue ECO Bikeway Project, from 7th Street to 3rd Street, is the first project to be proposed under the BTP. The City of Imperial Beach Bicycle Route Feasibility and Traffic Calming Study, Palm Avenue and 7th Street (KTU+A 2005) suggested three alternative configurations for Palm Avenue between 7th Street and 3rd Street. The preferred alternative selected by the City Council for further evaluation was one in which Palm Avenue would be reduced from a four-lane collector to a two-lane collector with a two way left turn lane configuration. The space formerly occupied by the curb lane would become landscaped area (or parking) and adjacent bicycle lanes. The selection of Alternative 3 as the preferred project led to the City of Imperial Beach West Palm Avenue Bikeway and Traffic Calming Study, 3rd to 7th Street (KTU+A 2006).

5.1 No Project Alternative

A No Project Alternative is required to be evaluated in an EIR per Section 15126(e) of the CEQA Guidelines. The No Project Alternative assumes that no changes to Palm Avenue would occur, including the elimination of travel lanes for motor vehicles or the addition of bicycle lanes.

5.2 Traffic Calming Project Alternatives

Three configurations of the Palm Avenue ECO Bikeway Project were investigated by the City, identified variously as Options 1-3 and Alternatives 1-3 (Figures 12 and 13). Alternative 3 was ultimately selected as the proposed project. Alternative 1 consists of full-length curb extensions with no parking along Palm Avenue. This alternative would reduce traffic congestion somewhat by eliminating on-street parking. Alternative 1 would also result in wider sidewalks, which would facilitate increased pedestrian activities and room for sidewalk amenities such as outdoor seating at restaurants and cafes. Alternative 2 consists of minimum curb extensions and full-length parking. This alternative would provide the greatest amount of parking, which would be an advantage for local merchants and residential properties along the project alignment. Alternative 3, the proposed project, consists of balanced curb extensions with west end parking. This alternative provides a balance of on-street parking with curb extensions to calm traffic and improve pedestrian circulation and safety. All three traffic calming alternatives, including the proposed project, include bicycle lanes in each direction and require the reduction of travel lanes for motor vehicles from four lanes to two lanes.

5.3 Palm Avenue/Rainbow Drive Intersection Traffic Signal Alternative

Within Alternative 3 is a recommendation for a traffic signal at the Palm Avenue/Rainbow Drive intersection. The Palm Avenue/Rainbow Drive intersection is currently controlled by a two-way stop sign. A signal warrant was conducted to determine if a traffic signal would be appropriate at this location. The signal warrants were met, meaning that traffic conditions are such that a traffic signal may be desirable. However, traffic conditions do not require that a traffic signal replace the existing stop signs as the stop signs are not causing the LOS of the intersection to drop below D during the AM and PM peak hours. Therefore, the City must decide whether or not to include the installation of a traffic signal at this location as part of the proposed project.

5.4 Environmentally Superior Alternative

CEQA requires that an EIR identify the environmentally superior alternative from among the alternatives, and the proposed project. The environmentally superior alternative causes the fewest or least significant environmental impacts while achieving most of the objectives of the proposed project. Based on the comparison of the proposed project and the potential alternatives, the No Project Alternative would result in the fewest environmental impacts. However, this alternative would not meet the objectives of the project in that there would be no Palm Avenue ECO Bikeway to connect the Bayshore Bikeway with the Seacoast Drive beachfront commercial area. CEQA (Section 15126.6(e) (2)) requires that “If the environmentally superior alternative is the ‘no

project' alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives.”

As described above in Section 5.2, the proposed project would not generate any long-term traffic, but would increase traffic congestion and would reduce the level of service on Palm Avenue so as to create a significant impact per the SANTEC Method of analysis. The same traffic would not be significant per the more detailed Florida Method of analysis, which evaluates traffic during the critical AM and PM peak hours. For these reasons, the Traffic Calming Alternatives have not been identified as the Environmentally Superior Alternatives compared to the proposed project. The proposed project, considered in comparison to other alternatives to development of the site, is identified as the Environmentally Superior Alternative.

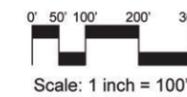
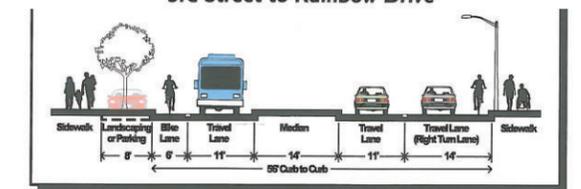
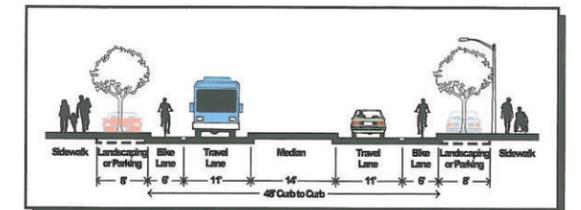
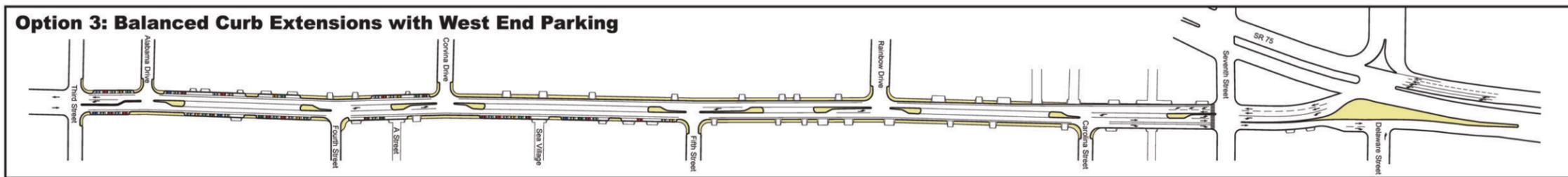
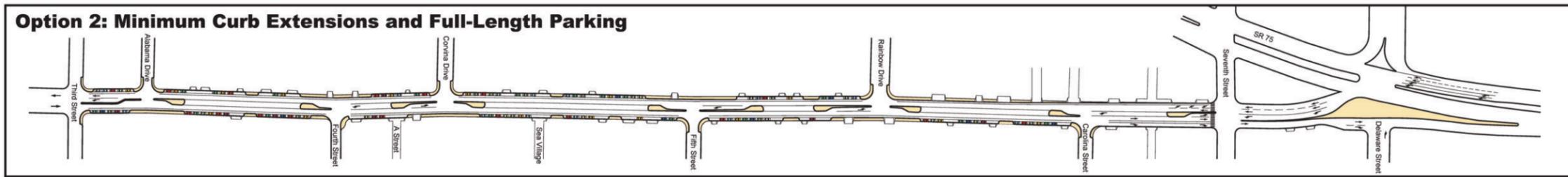
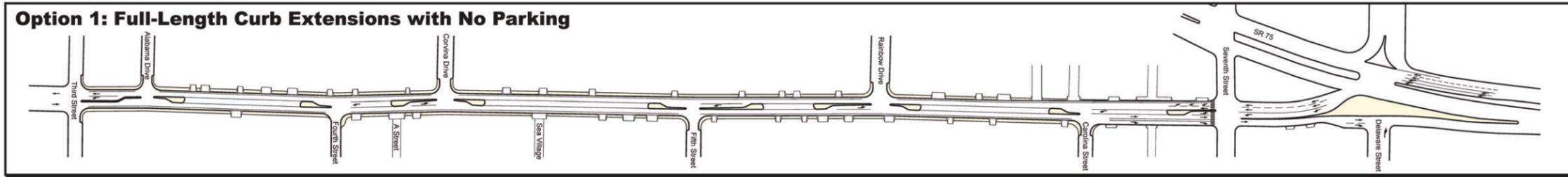
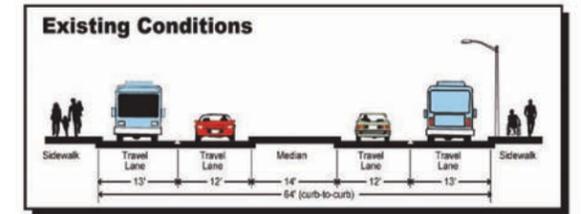
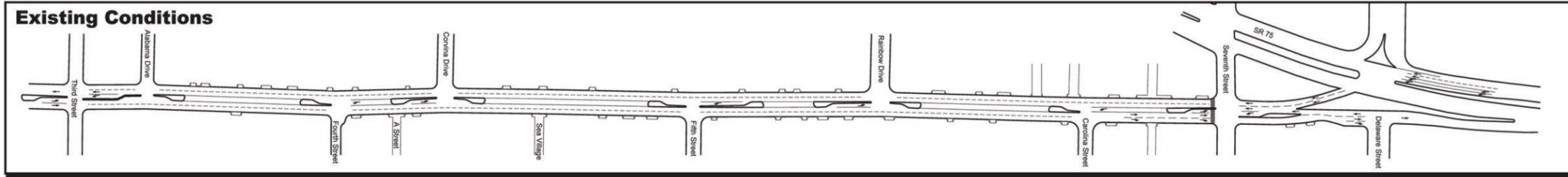
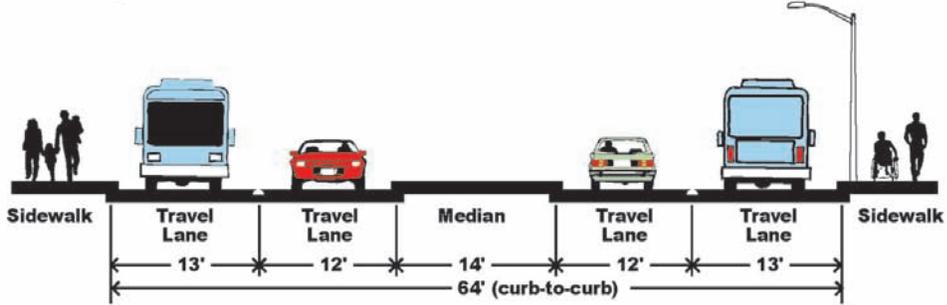
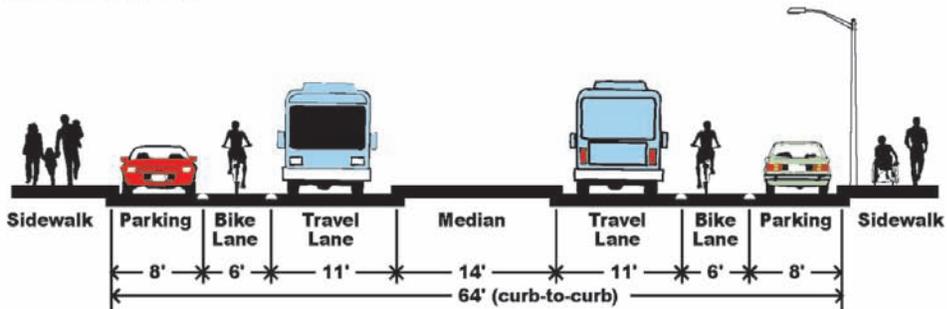


Figure 12
Project Alternatives (Full Length Plans)

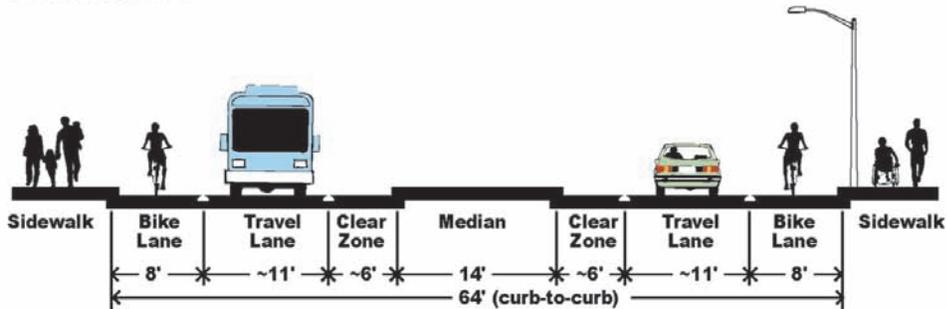
Existing Conditions



Alternative 1



Alternative 2



Alternative 3

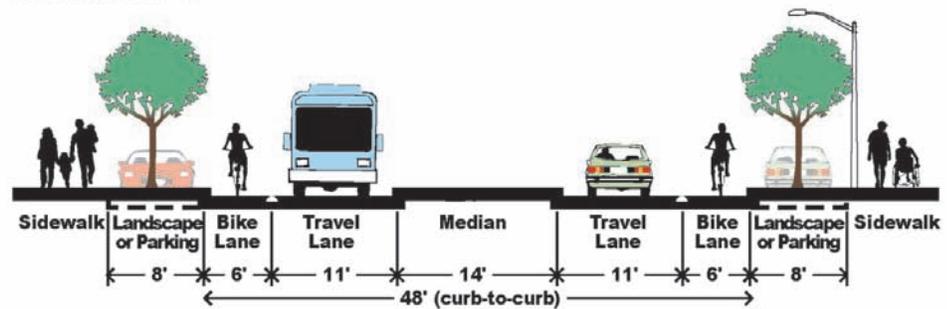


Figure 13
Project Alternatives (Cross Sections)

6.0 CUMULATIVE IMPACTS

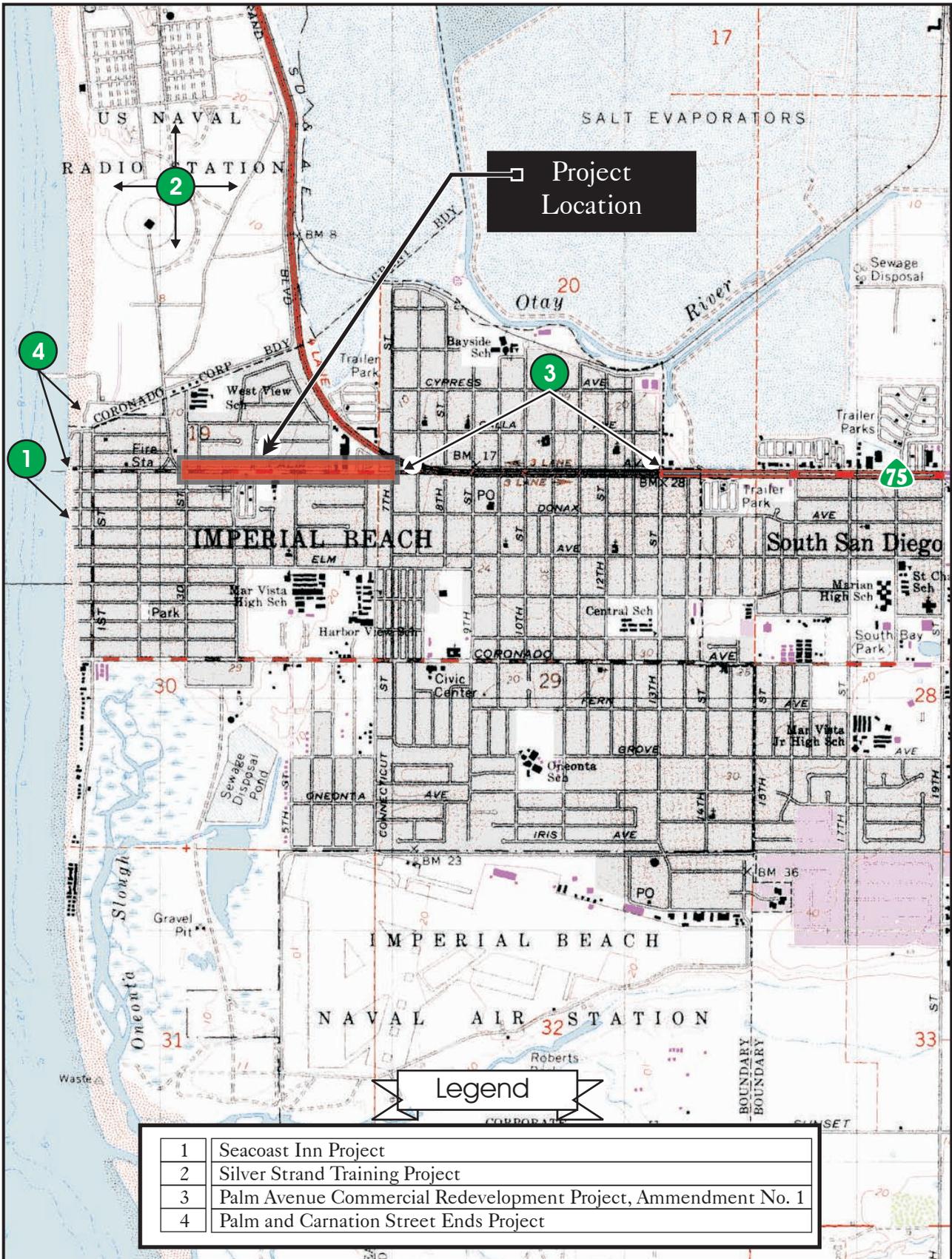
Section 15130 of CEQA requires that an EIR address cumulative impacts of an activity when the activity's incremental effects would be considerable. Cumulatively considerable means that the incremental effects of an individual activity would be considerable when viewed in connection with the effects of other past, current or probable activities. A cumulative effect is not considered considerable if the effect would be essentially the same whether the proposed activity is implemented or not. Probable activities include those that: 1) have an application on file at the time the Notice of Preparation is released; 2) are included in an adopted capital improvement program, general plan, regional transportation plan, or similar plan; 3) are included in a summary of projections of activities designated in a general plan or similar plan; 4) are anticipated as later phases of approved activities; or 5) are included in money budgeted by public agencies. The basis for the analysis of cumulative impacts is dependent on the nature of the issue. According to Section 15130 of the CEQA Guidelines, the discussion of cumulative effects need not provide as great detail as is provided for the effects attributable to the project alone. The discussion should be guided by the standards of practicality and reasonableness.

The evaluation of cumulative impacts is required to be based on either: 1) a list of past, present, and probable activities producing related or cumulative impacts; 2) a summary of projections contained in an adopted general plan or related planning document; or 3) in a prior environmental document which has been adopted or certified, which described or evaluated regional or area wide conditions contributing to the cumulative impact.

A total of six approved, planned, and reasonably foreseeable projects have been included in the analysis. Each project is briefly described below. Analysis of the environmental impacts associated with these projects has been or will be conducted separately with the results incorporated into documents prepared specifically for these projects. Cumulative impacts resulting from these projects together with the proposed action are discussed in Section 6.2.

6.1 CUMULATIVE PROJECTS

A review of project files, including other environmental documents prepared for projects within or adjacent to the City of Imperial Beach, identified six past, current, or potential future projects. Table 6-1 provides a summary and Figure 14 illustrates the location of the six cumulative projects in the vicinity of the Palm Avenue ECO Bikeway Project. These projects were included because they propose potentially cumulative impacts from operations that impact traffic and air quality or that would change the aesthetics of the community. In order to determine the expected environmental effects of the related projects, environmental documentation for approved projects and unpublished environmental studies were reviewed.



Source: USGS 7.5' Quarangle (Imperial Beach 1967 Photorevised 1975)

Figure 14
Cumulative Projects Impact Map



**Table 6-1
Cumulative Projects List**

Project Name	Description	Status	Environmental Document
Seacoast Inn	Demolition of the 38-room old Seacoast Inn and construction of a 78-room modern hotel with restaurant, pool, meeting rooms, and underground parking on a 1.39-acre lot.	Draft EIR August 2007. Final EIR certified December 5, 2007	EIR
Silver Strand Training Complex	The United States Navy is evaluating the effects of current and future operations, maintenance, and potential expansion of the Naval Amphibious Base (NAB) Coronado and Naval Radio Receiving Facility (NRRF) Imperial Beach.	A Draft EIS is under preparation. However, the project has been delayed by the Navy due to changing priorities.	EIS per NEPA
Palm Avenue Commercial Redevelopment Project, Amendment No. 1	The proposed Palm Avenue Master Plan will fulfill multiple objectives that have been identified by the City of Imperial Beach as key elements to strengthen the community, stimulate economic growth and at the same time protect the surrounding environment. This project will identify the needs and local issues that affect the livability of the community through extensive public involvement. Some of these objectives, determined by previous studies conducted by the City, include suggestions to make exiting transit services more efficient, implementation of pedestrian enhancement and traffic calming measures and to encourage “walkability” that will in turn support, commercial, retail and mixed-use development.	Final EIR Certified July 18, 2001. This project expanded the redevelopment area of Imperial Beach from the original Palm Avenue/13 th Street area to include virtually the entire city. City adoption of the Amendment completes the project. There are no redevelopment projects proposed, planned, under environmental review, or funded in the redevelopment area at this time (September 2007).	EIR
Palm Avenue and	Improvements to the Palm	Projects approved	EIR

Carnation Avenue Street End Projects	Avenue and Carnation Avenue including improved beach access, pedestrian plazas for sightseeing, resting, etc., erosion control, and beach enhancement	by Port of San Diego and City of Imperial Beach. Pending Coastal Commission approval for Carnation Avenue	Completed Coastal Permit issued for Palm Avenue, pending for Carnation Avenue
Old Palm Avenue Focus Plan	Traffic calming improvements and street furniture on Palm Avenue from Seacoast Drive to 3 rd Street	Project Approved; CEQA exempt. Construction scheduled for 2007-2008	Notice of Exemption
Seacoast Drive Street Improvements Phase 3 RDA CIP	Traffic calming improvements on Seacoast Drive from Palm Avenue to Imperial Beach Boulevard, and road maintenance on 2 nd and 3 rd Streets	Current Project; Plans are currently being prepared	Notice of Exemption

Cumulative project activities include the redevelopment of the Seacoast Inn on Seacoast Avenue, potential changes in training operations on military lands immediately north of the City of Imperial Beach, a master plan for the redevelopment of the Palm Avenue Commercial Area to the east of the Palm Avenue ECO Bikeway project site, and the improvement of the Palm Avenue and Carnation Avenue street ends where they meet the beach and the Pacific Ocean. The analysis in Section 6.2 evaluates the geographical and temporal relationships of the proposed action and reasonably foreseeable and recently completed project when determining their combined, cumulative effect on each environmental resource.

6.1.1 Seacoast Inn

The City released a Notice of Preparation (NOP) for the Seacoast Inn project dated October 27, 2006, released a Draft EIR for public review in August 2007, and certified a Final EIR December 5, 2007. The Seacoast Inn project consists of the demolition of a 38-room hotel and associated parking lot, and the construction of a new hotel on a 1.39-acre site at 800 Seacoast Drive. The new hotel is proposed under a Specific Plan to include 78 to 81 rooms, a restaurant, patio dining, pool, meeting rooms, and approximately 105 parking spaces in one level underground. The maximum height of the proposed facility may not exceed four stories or 40 feet, per City of Imperial Beach policy. The project includes constructing a new vertical seawall 35 feet east of the existing timber seawall, with all building and associated improvements east of the new seawall. The project may also include street end improvements at the western terminus of Date Avenue, south of the 1.39-acre lot. Issues identified by the City in the NOP as potentially significant included land use and public policy, aesthetics, biological

resources, cultural resources, traffic and circulation, noise, air quality, water quality, geology and soils, hazardous materials, and growth inducing impacts. Subsequent environmental review identified significant impacts to cultural resources, noise, geology and coastal processes, and hazardous materials. With the exception of significant and unmitigable short-term noise impacts associated with the use of a pile driver, mitigation would reduce all impacts to below a level of significance.

6.1.2 Silver Strand Training Complex

The Navy is currently preparing an EIS to evaluate the effects of current and future operations, maintenance, and potential expansion of the Naval Amphibious Base (NAB) Coronado and Naval Radio Receiving Facility (NRRF) Imperial Beach. A variety of amphibious training exercises are carried out on the beaches of the NAB and NRRF and the Navy is considering a redistribution of those operations. The operations consist of small explosive and pyrotechnics training, excavations for machines and operational camps, boat and causeway beaching, pile driving, beach traffic associated with foot soldiers, SCUBA swimmers, boats, submersibles, hovercrafts, light-wheeled vehicles, and amphibious tracked vehicles.

6.1.3 Palm Avenue Commercial Redevelopment Project, Amendment No. 1

The City of Imperial Beach has prepared an EIR to extend its redevelopment area by approximately 1,125 acres. The project intends to rejuvenate Imperial Beach by commercial redevelopment of the downtown district, including public improvement upgrades. The project also involves cooperation with the City of San Diego as some of the redevelopment will occur within its boundaries, noticeably the old salt evaporation pond on Palm Avenue, "Pond 20", because it acts as a gateway to the City of Imperial Beach. The Imperial Beach Redevelopment Agency proposed the project for the purpose of alleviating blight/decay and promoting re-investment.

The project will involve upgrading public and commercial properties, roads and walkways, as well as potentially making capital available for residential upgrading. These operations are not specified at present, but would aim to generate a more attractive destination for visitors and residents alike. On July 18, 2001, the Final EIR was certified by the City Council/ Redevelopment Agency per Resolution R-01-36 and Resolution No. 2001-5477. Per Resolution 2001-5480, they approved the responses to comments and findings. This project expanded the redevelopment area of the City from the original Palm Avenue/13th Street area to include virtually the entire city.

6.1.4 Palm Avenue and Carnation Avenue Street End Projects

The Palm and Carnation Avenue Street End Projects are designed to enhance the appearance of these two street ends while improving public safety and access to the beach. An EIR has been completed for these two projects. Construction of the Palm Avenue component has begun and the application for the State Coastal Development Permit for the Carnation Avenue component has been withdrawn by the City.

6.1.5 Old Palm Avenue Focus Plan

The Old Palm Avenue Focus Plan project consists of Traffic calming improvements and street furniture on Palm Avenue from Seacoast Drive to 3rd Street. This section of Palm Avenue is located between the Palm Avenue ECO Bikeway project and Seacoast Drive, which parallels the beach. This project would not eliminate any travel lanes or otherwise result in potentially significant impacts. It was therefore determined to be exempt from CEQA.

6.1.6 Seacoast Drive Street Improvements Phase 3 RDA CIP

The Seacoast Drive Street Improvements Phase 3 RDA CIP consists of traffic calming improvements on Seacoast Drive from Palm Avenue to Imperial Beach Boulevard, and road maintenance on 2nd and 3rd Streets. This project intersects with the Old Palm Avenue Focus Plan improvements described above. The Seacoast Drive improvements will also not eliminate any travel lanes or otherwise result in potentially significant impacts. It was therefore determined that this project would also be exempt from CEQA.

6.2 CUMULATIVE ANALYSIS

6.2.1 Aesthetics

The adoption of the BTP as a long range planning document and amendment to the City's General Plan would not have any effect on aesthetics. Each project would be reviewed for potential aesthetic impacts as it is proposed. The Palm Avenue ECO Bikeway Project includes improved sidewalks and pedestrian crossings and increased median and sidewalk landscaping with decreased asphalt dedicated to motor vehicle travel. Most individuals would view the proposed project design features as an improvement over the existing aesthetics of the Palm Avenue corridor between 7th Street and 3rd Street.

6.2.2 Agricultural Resources

There are no designated agricultural areas within the City of Imperial Beach. The proposed BTP and Palm Avenue ECO Bikeway Project would be limited to existing street rights-of-way and would not impact any agricultural areas. Therefore the BTP and the Palm Avenue ECO Bikeway could not have an adverse impact on agricultural resources.

6.2.3 Air Quality

Adoption of the BTP would not have a measurable direct effect on air quality although any replacement of auto trips with bicycle trips would result in a positive impact. Construction of individual bicycle projects such as the Palm Avenue ECO Bikeway Project would contribute to short-term air quality impacts associated with construction activities. In certain cases long-term air quality impacts could be increased through increased traffic congestion. The significance of air quality impacts considers the cumulative nature of such impacts. Therefore, the finding that the increased traffic congestion on Palm Avenue that would be caused by the Palm Avenue ECO Bikeway Project would not cause air quality impacts to exceed a level of significance addresses potential cumulative impacts as well.

6.2.4 Biological Resources

Adoption of the BTP would not result in a direct impact to biological resources. Two areas of high biological sensitivity where Class1 Bicycle Paths are recommended are along the Silver Strand near the Naval Radio Receiving Facility at the northern limits of the City and along the northeastern corner of the Tijuana Estuary. The remainder of the recommended facilities are shown within existing and developed street rights-of-way. Each future project would require project-level environmental analysis and any potential impacts to sensitive biological resources would have to be avoided, reduced, or compensated for through mitigation.

There are no biological resources along the Palm Avenue ECO Bikeway between 7th Street and 3rd Street. Therefore there could not be any cumulative impacts to biological resources.

6.2.5 Cultural Resources

The BTP is a planning document that recommends that various city streets be used for bicycle lanes or routes. Bicycle paths are also recommended in several areas of the city. All bicycle facilities must be constructed within public rights-of-way and all future construction projects are subject to subsequent environmental review. Even when the discovery of cultural resources is deemed unlikely, the City requires that if cultural materials (e.g., unusual amounts of shell, animal bone, bottle glass, ceramics, structure/building remains, human remains, etc.) are discovered during project-related construction activities, ground disturbances in the area of the find must be halted immediately and the resource must be assessed for significance. The Palm Avenue ECO Bikeway is limited to modifications to the curb, gutter, sidewalk, asphalt, and landscaping within the existing developed Palm Avenue right-of-way between 7th Street and 3rd Street. Impacts to native soils are unlikely. Therefore, it is unlikely that the project would add to cumulative impacts to cultural resources. As noted above, the City has a standard condition to address the discovery of cultural resources during construction.

6.2.6 Geology and Soils

The adoption of the BTP would not have any impact on geology or soils. The Palm Avenue ECO Bikeway is proposed within the existing developed right-of-way of Palm Avenue between 7th Street and 3rd Street. Therefore, there could not be any cumulative impacts regarding geology or soils.

6.2.7 Hazards and Hazardous Materials

Adoption of the BTP would not result in any hazards or the use of hazardous materials. The Palm Avenue ECO Bikeway would reduce hazards for bicyclists and pedestrians along Palm Avenue between 7th Street and 3rd Street. No hazardous materials would be used other than those typically associated with roadway and sidewalk construction such as gasoline, diesel, motor oil, asphalt, concrete, etc. The use and disposal of hazardous materials used in project construction is highly regulated. Therefore, there could not be any cumulative hazards or hazardous materials impacts.

6.2.8 Hydrology and Water Quality

Adoption of the BTP would not have any impact on hydrology or water quality. The Palm Avenue ECO Bikeway would be constructed entirely within the existing Palm Avenue right-of-way. Water usage would be minimal and would be limited to project construction. Existing storm drains would be modified to compensate for changes to the existing curbs, gutters, and sidewalks. An increase in landscaped areas, combined with a decrease in paved areas, would reduce storm water runoff and would provide additional area for the absorption of runoff, thus reducing pollutant loads on receiving waters. Therefore, there could not be cumulative impacts to hydrology or water quality.

6.2.9 Land Use and Planning

The BTP is proposed as an amendment to the City's General Plan and therefore must be consistent with other elements of the General Plan. Therefore, there could not be cumulative land use and planning impacts.

6.2.10 Mineral Resources

The BTP and the Palm Avenue ECO Bikeway project are for the most part limited to existing street rights-of-way that would be inappropriate for the extraction of mineral resources. Therefore, there could not be cumulative impacts to mineral resources.

6.2.11 Noise

Bicycle travel produces very little noise. Therefore, there would not be any potential long-term noise impacts associated with adoption the BTP. Short-term potential noise impacts would be limited to construction noise within existing street rights-of-way. This

sort of work is subject to compliance with the City's Noise Ordinance and would be consistent with activities expected within an urban environment. Therefore potential cumulative noise impacts associated with the BTP would be less than significant.

The Palm Avenue ECO Bikeway project would result in both short-term and long-term noise impacts between 7th Street and 3rd Street. Short-term impacts would be associated with the demolition of existing curbs, gutters, sidewalks, pavement, and medians and the construction of new reconfigured facilities. Construction noise is expected in an urban environment and is regulated by the City's Noise Ordinance. Long-term noise impacts could result from the predicted decrease in the LOS. With increased traffic congestion, the duration of motor vehicles adjacent to residences is likely to be increased. The increased duration of vehicles at intersections would increase the duration of the engine noise. The increased delay was determined to be less than significant for traffic impacts and the associated noise impacts would also be less than significant. This is because the distance from the traffic lane to the residences will actually increase and peak noise levels would not increase.

6.2.12 Population and Housing

Adoption of the BTP and approval of the Palm Avenue ECO Bikeway would not displace any housing or result in an increase in population that would require the construction of additional housing. The proposed improvements would facilitate the safe and efficient flow of bicycle traffic within the City.

6.2.13 Public Services

Adoption of the BTP and approval of the Palm Avenue ECO Bikeway would not require new or expanded public services. Therefore there could not be a cumulative impact to public services.

6.2.14 Recreation

Adoption of the BTP and approval of the Palm Avenue ECO Bikeway would increase future opportunities for recreational cycling within the City and would improve the ease of bicycle transportation to established recreation areas. There would not be an adverse impact on recreational facilities. Therefore there could not be a cumulative impact to recreation or recreation facilities.

6.2.15 Traffic/Transportation

Traffic growth on area roadways is a function of the expected land development, economic activity, and changes in demographics. Several methods can be used to estimate this growth.

For this analysis a growth rate of 13.0% for the *Palm Avenue* based on the SANDAG Series 10 traffic forecast model was applied to existing volumes and specific project traffic from cumulative projects was added to develop horizon year base volumes. The growth factor was calculated by comparing the year 2000 and 2030 SANDAG models and is a conservative estimation for regional growth in the horizon year. The growth shown in the SANDAG model Series 10 accounts for a major growth due to new developments or redevelopments along the beach on the west side of Palm Avenue. Among the major projects that were accounted for are the neighborhood and street front commercial and multifamily dwelling. The major part of the growth is also contributed from the beach.

The training expansion program of the Naval Radio Receiver Facility and the Naval Amphibious Base, which is located north of *Palm Avenue*, will add up cumulative project traffic as the access to the base from I-5 is through *Palm Avenue*. A conservative approach in determining the trip generation was made which was added to the existing volume that was grown to develop the future volume.

6.2.16 Utilities and Services Systems

Adoption of the BTP and approval of the Palm Avenue ECO Bikeway would not require any new public utilities or service systems or increase the existing demands on utilities or service systems. Some modifications to existing water, sewer, gas, electric, phone, and cable TV may be required with the reconfiguration of Palm Avenue.

7.0 OTHER REQUIRED CONSIDERATIONS

7.1 Growth Inducing Impacts

Section 15126.2 (d) of the CEQA Guidelines requires that an EIR discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, whether directly or indirectly in the surrounding environment. The EIR must also discuss the characteristics of projects that could encourage and facilitate other activities that could significantly affect the environment. Direct growth-inducing impacts are commonly associated with the provision of public services, utilities, and roads to a previously undeveloped area. The provision of infrastructure and services to a site can foster growth by reducing development constraints for nearby areas, thereby inducing other landowners in the area to convert their property to other uses. Direct impacts can also result from population growth taxing existing public services, or a particular development increasing the pace or density of existing surrounding developments. Indirect growth-inducing impacts include the additional demand for housing, commodities, and services that new development causes or attracts by increasing population in an area. The proposed project does not convert property into residential, commercial or industrial property, which may require increased services in the area. The project is not expected to have any growth inducing impacts.

7.2 Unavoidable and Irreversible Environmental Effects

Section 15126.2 (b) and (c) of the CEQA Guidelines requires that an EIR address any significant environmental effects which cannot be avoided, and any irreversible changes to the environment that may result from implementation of the proposed project, respectively. This discussion shall include significant impacts that can be mitigated, but not below a level of significance. Significant environmental impacts for six issue areas have been identified in Section 4.0, Environmental Analysis, of this EIR. All of the significant impacts identified as environmental effects can be mitigated to below a level of significance.

7.3 Effects Found Not To Be Significant

7.3.1 Agricultural Resources

The proposed project site is entirely within the Palm Avenue right-of-way, which is developed with paved travel lanes and concrete sidewalks. There are no agricultural resources within this urban environment. The proposed project could not result in significant impacts to agricultural resources.

7.3.2 Biological Resources

The proposed project site is entirely within the Palm Avenue right-of-way, which is developed with paved travel lanes and concrete sidewalks. There are no biological resources within this urban environment. The proposed project could not result in significant impacts to biological resources.

7.3.3 Cultural Resources

The proposed project site is entirely within the Palm Avenue right-of-way, which is developed with paved travel lanes and concrete sidewalks. There are no known cultural resources within this urban environment. While it is possible that cultural resources exist beneath the pavement, no excavation of native soils would occur as part of the proposed project. Therefore, the proposed project could not result in significant impacts to cultural resources.

7.3.4 Geology and Soils

The proposed project site is entirely within the Palm Avenue right-of-way, which is developed with paved travel lanes and concrete sidewalks. The existing road base should be suitable for the reconfiguration of the travel lanes, curbs, gutters, sidewalks, and landscaping and the addition of bicycle lanes. No issues regarding geology or soils have been identified. This potential impact would be less than significant.

7.3.5 Hazards and Hazardous Materials

No hazards or hazardous materials are anticipated within the Palm Avenue right-of-way.

7.3.6 Hydrology and Water Quality

The proposed project will include the reconfiguration of the existing storm drain inlets. Best Management Practices (BMPs) would be employed during project construction to prevent the washing of sediments and construction debris into the storm drains. The amount and quality of storm water runoff from the project site would not change following construction. This potential impact would be less than significant.

7.3.7 Land Use and Planning

Adoption of the BTP requires an amendment to the Circulation Element of the City's General Plan. The BTP considers population densities, employment densities, and potential densities in the recommendation of specific improvements to the bicycle circulation network. The BTP is consistent with the other elements of the General Plan. The Palm Avenue ECO Bikeway Project will require conversion of a section of four-lane road to a two-lane road. Therefore, Palm Avenue must be redesignated as a two-lane road in the Circulation Element of the General Plan. Such a change in designation is

included in the project description. No other land use or planning issues have been identified.

California Coastal Act

The Palm Avenue ECO Bikeway Project is located within the coastal zone and is subject to the California Coastal Act (CCA). Legislation that created the CCA went into effect January 1, 1977, and was amended as recently as January 1, 2002. The primary purpose of the CCA 1977 is to “protect, maintain, and enhance the quality of the coastal environment.” A principal goal is to maintain public access to and along the coast and to maintain public recreational opportunities, consistent with resource conservation and rights of private property owners. Through the CCA, the CCC was granted the authority to review and approve plans and projects located within the coastal zone within the jurisdiction of a local government or a port district. The CCC has permitting authority over lands in the coastal zone unless the CCC has certified a City’s LCP. The City of Imperial Beach has been issuing Coastal Development Permits under a certified LCP since 1985. The City’s LCP is included within the City’s General Plan. The joint General Plan/LCP meets both the State General Plan requirements and Coastal Plan requirements. The overriding goal of the plan is the retention of the quality of life and atmosphere of a small beach-oriented town that is not overcrowded like many other coastal communities in the region and has human scale and relaxed pace of life (Imperial Beach 1994). The BTP and the Palm Avenue ECO Bikeway Project will both promote the small beach-oriented town by increasing the emphasis on bicycle and pedestrian access to the coastal area and throughout the city.

7.3.8 Mineral Resources

Because the proposed project is located within an existing street right-of-way within an urban area it would not have any affect on the ability to recover a known mineral resource.

7.3.9 Noise

Because the proposed project would replace outside motor vehicle travel lanes with bicycle and pedestrian areas and because traffic speeds would be decreased through the reduction of lanes and other traffic calming measures, noise levels along Palm Avenue would be reduced.

7.3.10 Population and Housing

The proposed project would not eliminate any existing housing opportunities nor would it be expected to attract new residents to the City of Imperial Beach. The proposed project is expected to increase the number of visitors to the beachfront commercial area, and ultimately other areas of the city, by bicycle. No additional housing would be required to accommodate these visitors.

7.3.11 Public Services

With the possible exception of increased maintenance of landscaping along Palm Avenue, the proposed project would not alter existing public service requirements or patterns in the project area.

7.3.12 Utilities and Service Systems

No existing utilities would need to be relocated and no new utilities would be required to serve the proposed project.

8.0 REFERENCES

8.1 EIR Preparers

Tierra Environmental Services

Mr. Michael L. Page, AICP – Principal Environmental Planner

Katz, Okitsu & Associates

Mr. Ryan Zellers, P.E. – Associate Transportation Engineer

Mr. Seth Torma, P.E. – Assistant Transportation Engineer

8.2 Persons and Organizations Contacted

Mr. Hank Levien, Director, City of Imperial Beach, Public Works

Ms. Victoria Madrid, Project Manager, City of Imperial Beach Public Works

Mr. Jim Nakagawa, City Planner, City of Imperial Beach Planning Department

8.3 References

EDAW, Inc.

2007 Seacoast Inn Environmental Impact Report. August

Imperial Beach

1994 General Plan

KTU+A/KOA Corporation

2007 Imperial Beach Bicycle Transportation Plan, 60% Draft Submittal, June

KTU+A

2006 City of Imperial Beach West Palm Avenue Bikeway and Traffic Calming Study, 3rd to 7th Street, April

KTU+A

2005 City of Imperial Beach Bicycle Route Feasibility and Traffic Calming Study, Palm Avenue and 7th Street, September

KOA Corporation

2008 Imperial Beach ECO Bikeway Traffic Impact Study, February

Scientific Resources Associated

2007 Air Quality Technical Report, August 23