

**FINAL
ENVIRONMENTAL IMPACT REPORT
FOR THE
BAYFRONT SPECIFIC PLAN**

**City of Chula Vista Case Number EIR 85-1
State Clearinghouse Number 84103108**

**CITY OF CHULA VISTA
276 FOURTH AVENUE
CHULA VISTA, CA 92010**

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1.0 INTRODUCTION

1.1 PURPOSE

This environmental impact report (EIR) has been prepared according to the requirements set forth by the City of Chula Vista and the California Environmental Quality Act (CEQA) of 1970, as amended. It is an informational document intended for both the decision maker and the public and, as such, it represents the relevant information concerning the proposed Bayfront Specific Plan.

The subject of this EIR is the adoption of the Bayfront Land Use Plan as a general plan amendment and specific plan. The Bayfront Land Use Plan was prepared to satisfy the Local Coastal Program (LCP) requirements of the California Coastal Act. No EIR was prepared on the LCP because the adoption of the LCP was exempt from CEQA provisions. Despite that exemption, the implementation of the LCP by the City of Chula Vista is subject to CEQA provisions and, thus, requires the preparation of an EIR.

This EIR presents a worst-case analysis of impacts based on development in accordance with the proposed general plan amendment (GPA). Prior to development, the property would be subject to tentative and final subdivision map approval. Discretionary approval of the proposed project is the responsibility of the City of Chula Vista.

This report is intended to serve as a master environmental assessment, as described in Section 15069.6 of the CEQA Guidelines. This document provides an environmental data base of the resources and constraints of the project area and addresses the environmental impacts of the proposed project, along with its cumulative effects in relationship to other existing or proposed developments in the region. This master report will facilitate future environmental review of subsequent development plans by providing a data base to determine the scope of the additional environmental documentation required for each individual project.

Potentially significant issues have been addressed in this EIR. They include geology, soils, landform and visual quality, noise, biological resources, archaeology, land use, community infrastructure, utilities, transportation/circulation, air quality, and hydrology/water quality. For each major topic under analysis, a discussion is presented of project setting, potential or probable impacts, mitigation measures, and analysis of significance. Significant environmental effects which cannot be avoided if the project is implemented are also identified within the mitigation section under each topic and in Section 4.0. Cumulative impacts are also described in the impact discussion under each issue topic.

The requirements described in the State CEQA Guidelines, Title 14, Article 9, of the California Administrative Code, were followed in the preparation of the EIR. A brief summary of the proposed project and its consequences are contained within the Executive Summary (Section 1.2) of the report as required by Section 15140 of the guidelines. In accordance with Section 15142, a description of the environmental setting both on and adjacent to the proposed project site is given in the project setting

of the Land Use section. The relationship of the proposed project to the surrounding area projects and land uses is evaluated in the Land Use, Traffic, Community Infrastructure, and other appropriate sections. Other topics required by Section 15143 of the guidelines which describe the environmental impacts of the project occur in the report as outlined in the Table of Contents. The technical and supporting material discussed and cited in the text are listed in the References Cited section of this report or are included in the appendices, as outlined in the Table of Contents.

1.2 EXECUTIVE SUMMARY

1.2.1 Project Description

The 790-acre Bayfront Planning Area is located within the City of Chula Vista west of Interstate 5 between C and Palomar streets. San Diego Unified Port District lands lie to the west and north, with National City and Chula Vista on the north and east, respectively. The area lies within the coastal plain and exhibits very little topographic relief. The dominant land uses include nearly built out industrial operations south of G Street, agriculture (Vener Farms), and vacant fill areas to the north. Several areas containing wetlands (e.g., Sweetwater Marsh) also dominate the landscape.

The existing land use designations are indicated in the Chula Vista Bayfront Land Use Plan, which has been approved by the California Coastal Commission and the Chula Vista City Council. These land uses will be implemented upon approval by the Coastal Commission and City of Chula Vista of the proposed specific plan, which this report addresses. The specific plan will supersede the provisions of the existing zoning ordinance. The City of Chula Vista proposes to adopt the Bayfront Land Use Plan as a general plan amendment, specific plan, and revisions to the Subdivision Ordinance, thus allowing the plan to be implemented.

The specific plan proposes several types of new development for the Bayfront, predominantly within the agricultural and vacant areas north of G Street. These uses include multi-family residential units at three locations, highway-related commercial in four areas, commercial office park in three locations, marine-related commercial use at the northern boundary, a hotel, an area of specialty retail, industrial business park, neighborhood parks and public open space, landscaped parking areas, infill areas of general industrial, and several wetland areas.

1.2.2 Environmental Analysis

The environmental impacts of the proposed project are summarized below. More detailed discussions of the impacts and mitigation measures for each issue are contained in Section 3.0 of this report.

a. Geology

Although several faults exist in the vicinity of the site, no faults traverse the site itself. This factor, combined with the general quiescence of seismic activity in the area, limits the potential

for fault displacement on the site. The potential for ground shaking is not considered to be significantly greater than any other location within southern California. Potential liquefaction impacts exist because of the characteristics of the sand and silt deposits and high water table which occur over portions of the area. Prior to final project design, additional test borings are recommended (particularly in the D Street fill area). Adherence to appropriate building codes will also reduce the potential hazard for ground shaking.

b. Soils

The designation of land uses on the project site for the most part avoid those areas which pose constraints due to the soil characteristics. However, development is proposed for areas containing fill, which could create impacts due to differential settling and liquefaction. Remedial measures for development on the D Street fill and portions of Gunpowder Point are proposed as mitigation to limit these impacts. Further analysis of the fill areas is also recommended when specific building designs are known.

c. Landform and Visual Quality

The proposed project will significantly alter the visual character of the project area and, because of the height of structures, block views from I-5 to San Diego Bay. However, the proposed development of the Bayfront would do much to enhance the degraded visual quality associated with the existing land uses. The specific measures discussed in the Land Use Plan have attempted to integrate the proposed uses with the surrounding natural features of the site. Implementation of the plan will also result in numerous parks at points of visual access along the edge of wetlands and San Diego Bay. The mitigation provided as design measures in the plan will reduce the visual impact; however, the visual change will remain significant.

d. Noise

The major source of noise is from vehicular traffic associated with I-5. However, a rise in elevation is adjacent to the freeway from D Street to H Street, which serves as a barrier to the traffic noise. Future development of the project will result in traffic volumes along Tideland Avenue, E Street, and F Street that will be great enough to create noise in residential areas in excess of the city's standard (65 dBA). However, these impacts can be mitigated through the construction of solid masonry walls along the roadways adjacent to residential areas. The specific height and location will be determined during the subdivision phase of future development.

e. Biology

A major portion of the project includes valuable wetland habitat (about 200 acres, listed in Table 4). An extensive mitigation program has been incorporated into the project to substantially lessen impacts to biological resources. Further reductions to biological effects could be achieved through the implementation of a less intense

development. This alternative is not considered necessary for biological reasons or feasible from an economic viewpoint.

f. Archaeological/Historical Resources

Development of the Bayfront project area would impact several archaeological sites by destroying them through grading, fill, and other construction-related activities. The unmitigated loss of the resources would constitute a significant impact. Salvage excavation is recommended prior to any development of the property to mitigate resource impacts to a level of insignificance.

g. Land Use

The Bayfront Specific Plan will designate a number of land uses which are different than those that exist in the northern part of the plan area. As a result, plan implementation will allow the conversion of agriculture and vacant land to the plan uses. The plan area is isolated from other development on the north and west by water and on the east by I-5. The existing industrial land use in the southern part of the Bayfront Plan was integrated with the Midbayfront portion by locating business park uses in the adjacent area. Therefore, the plan is not expected to conflict with neighboring uses. In addition, the northern part of the plan is designed to provide an integrated community with residential, commercial, industrial, park, and recreation uses. Therefore, no significant land use impacts are anticipated.

h. Community Infrastructure

Community infrastructure relates to schools, fire protection, police service, library facilities, hospitals, solid waste disposal, and public transportation. Development of the Bayfront area as proposed would contribute to the cumulative impact of new development on each of the affected services. However, none of the impacts are considered significant since measures are available to mitigate the potential impacts.

i. Utilities

The affected utilities addressed in the body of the report include water, sewer, and electricity and natural gas distribution. Implementation of the Bayfront plan would contribute to the cumulative impact of new development on each of the utilities providing these services. The cumulative impact to the water supply in the San Diego region is considered significant. The potential impact to the other utilities will not result in a significant impact, as each of the utilities will be able to provide adequate service. Conservation measures will be incorporated in the final design of the project.

j. Transportation and Circulation

Implementation of the Bayfront Specific Plan will improve the circulation access into the Bayfront by extending Tidelands Avenue across Sweetwater Marsh, extending E and F streets westerly to Gunpowder

Point and Tidelands Avenue, and providing access onto the D Street fill. The plan will also provide pedestrian/bicycle routes throughout the Bayfront, integrate trolley and bus service into the area, and encourage other private modes of transportation to Bayfront users. The ultimate overall circulation system will have the capacity to adequately handle the generated traffic volumes. Potential significant impacts are anticipated at peak hour principally at the E Street/I-5 interchange. The project proposes widening of the E Street bridge, extended loop ramps at Bay Boulevard, and ramp connection to Route 54, which will reduce this impact. However, the traffic study further recommends staggering work shifts in the Bayfront area to further improve congestion at critical intersections. If this mitigation measure and the other proposed improvements are implemented, no significant impacts are expected.

k. Air Quality

The proposed project is in substantial conformance with the redevelopment plan used in developing Regional Air Quality Strategies (RAQS), and therefore, the specific plan will result in emissions which were anticipated as part of RAQS. Therefore, the project will not result in a significant impact to regional air quality.

i. Hydrology and Water Quality

Development of the site would alter both the existing hydrologic conditions and the water quality associated with the marsh and upland areas. Although the change in the drainage pattern is not expected to result in any flooding problems, it could impact the existing water quality associated with several of the marsh areas. The increased urban development over the site could also alter the existing chemical concentration and constituents of the water which is carried into the wetlands. Mitigation proposed as part of the project includes a storm-drain system which would preclude drainage directly into the wetland habitat without adequate filtering of sediments or trapping of pollutants. As a result, these water-quality impacts are not considered significant.

m. Growth Inducement

Since there is no undeveloped land adjacent to the project site, the Bayfront Specific Plan will not induce growth through the extension of utilities and services. Furthermore, the project is included in the Series 6 population forecasts. Therefore, the plan uses will create a demand for housing and other services, which will be accommodated in the future.

n. Project Alternatives

The alternative section addresses three alternatives: no project, delay of project, and less intense development. The no project alternative will avoid all the significant impacts associated with the project, while the delay in project will offer no advantage in reducing potentially significant impacts. The alternative of less intense development would further reduce the project's effects on the visual and

biological resources of the wetland areas adjacent to San Diego Bay. Because this alternative would not eliminate any significant biological impacts and because it is not viable from an economic viewpoint, it is not considered feasible.

2.0 PROJECT DESCRIPTION

2.1 PROJECT LOCATION

The Bayfront project covers approximately 790 acres along the San Diego Bay in the City of Chula Vista. It is west of Interstate 5 (I-5), located between the Sweetwater River on the north and Palomar Street on the south. West of the project site is San Diego Bay. About a mile to the east is downtown Chula Vista, with the U.S./Mexican border about six miles to the south (Figures 1 and 2). The Metropolitan Transit Development Board trolley line is adjacent to I-5 on the east, and the San Diego and Arizona Eastern (SD&AE) railroad is adjacent to I-5 on the west.

Nearly all of the southern half of the project site is currently developed in industrial land use, principally Rohr Corporation and the San Diego Gas & Electric (SDG&E) South Bay Power Plant. The northern half of the property is made up mostly of agriculture (100 acres) and salt-marsh wetlands (200 acres). Immediately north of the project site is the City of National City, and in the same vicinity east of I-5, construction has begun on the joint U.S. Army Corps of Engineers and Caltrans Sweetwater River Flood Control Channel and Highway 54 development. This project has a relationship to the Bayfront plan through its wetlands mitigation program. The San Diego Unified Port District has jurisdiction of all tidelands located between the mean high tide line and the City of Chula Vista's western boundary. The area under Port District jurisdiction is within the City of Chula Vista and is adjacent to the Bayfront project on the west; however, it is included in the Master Plan for the Port District and, therefore, is not part of this project.

2.2 PROJECT CHARACTERISTICS

The City of Chula Vista proposes to adopt the Bayfront Land Use Plan as a GPA, specific plan, and revisions to the Subdivision Ordinance to include the specific plan. The specific plan will supersede the zoning for the plan area. The Bayfront Land Use Plan (LUP) was prepared to satisfy the LCP requirements of the California Coastal Act. No EIR was prepared for the LUP because adoption of the LUP was exempt from CEQA. However, implementation of the LUP by means of a new specific plan to be adopted by the city is subject to CEQA and, thus, requires an EIR.

The Bayfront Land Use Plan has been divided into six subareas (Figure 3). Subarea 1 is located at the northernmost part of the plan area and encompasses all of the D Street fill. Subarea 2 includes Gunpowder Point and the two levees leading to it from the main upland area (Subarea 3). Subarea 3 includes all the plan area above mean high tide, generally between G and D streets, and is also referred to as the Midbayfront. This area is coincident with the major amount of agricultural activity occurring within the project boundaries. Subarea 4 covers most of the wetland areas, including the E Street marsh, Vener Pond, Sweetwater Marsh, and the connector marsh between the Sweetwater and Paradise marshes. Subarea 5 is the area generally south of G Street and north of L Street between mean high tide and I-5. Nearly all of this area is developed as industrial, with Rohr Corporation and the northern part of the South Bay Power Plant covering most of the subarea. Subarea 6

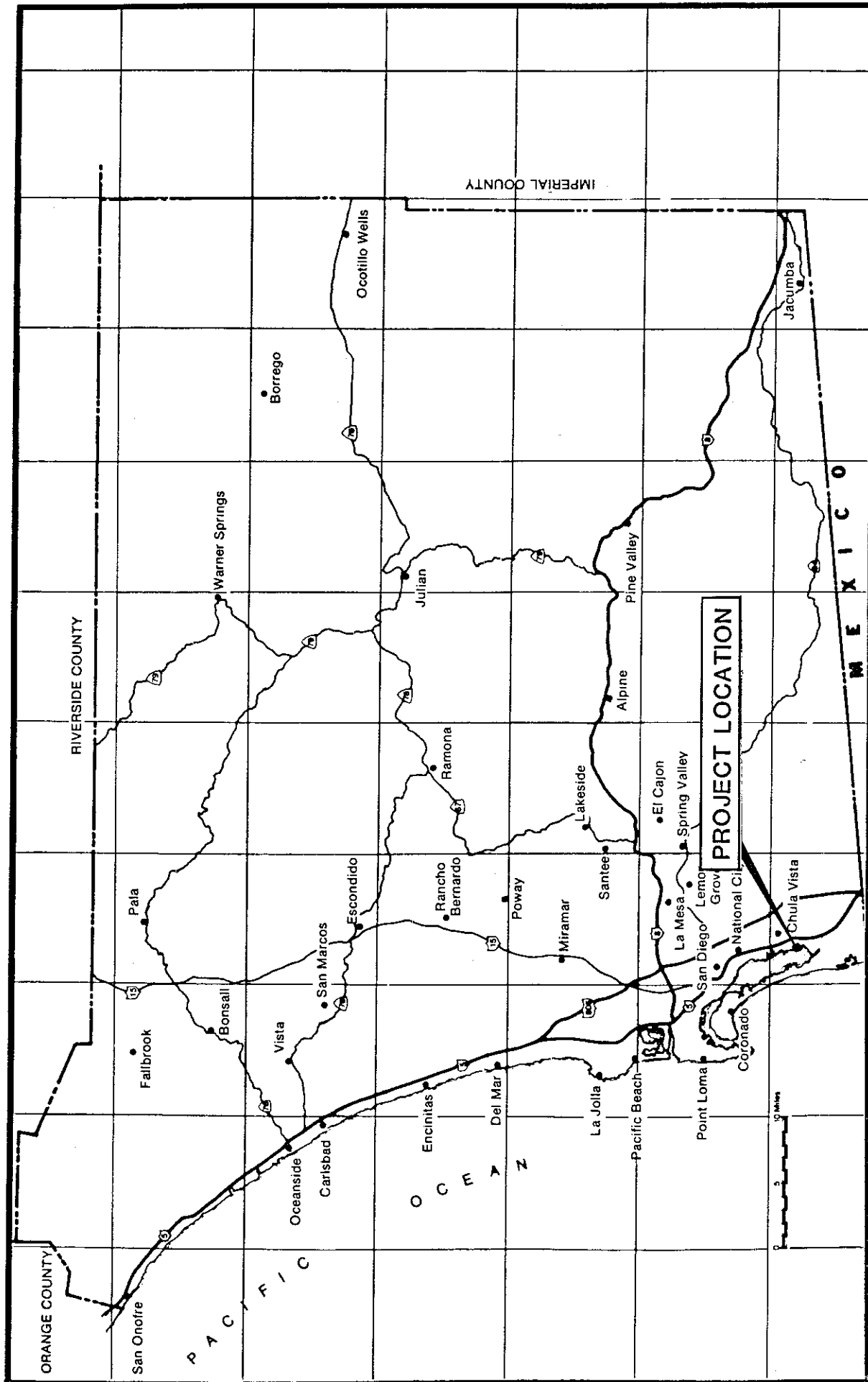


FIGURE 1. THE LOCATION OF THE PROPOSED PROJECT RELATIVE TO THE COUNTY OF SAN DIEGO.

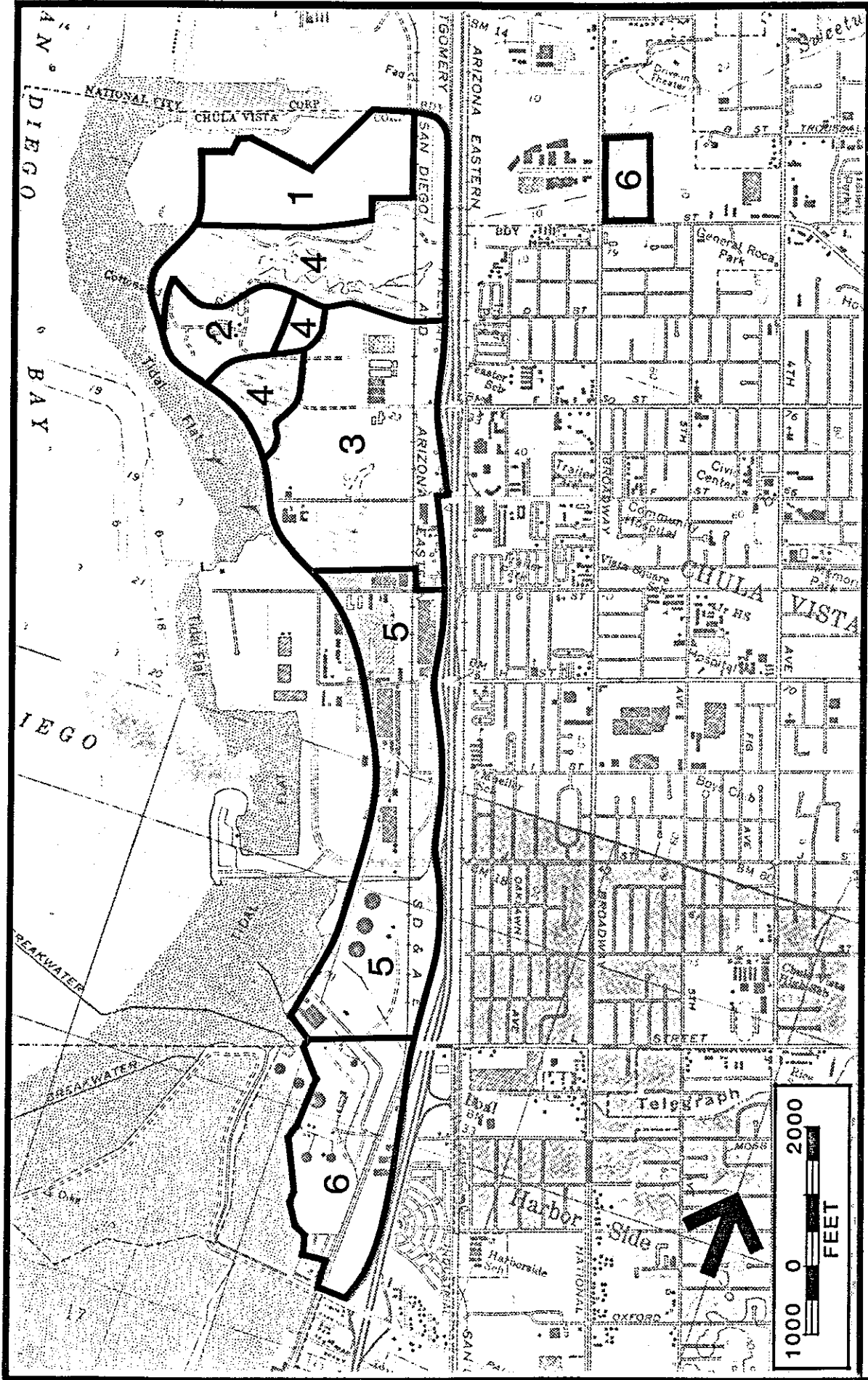


FIGURE 3. BAYFRONT LAND USE PLAN SUBAREA MAP

includes the area within the city limits south of L Street between mean high tide and I-5, which is the remaining part of the South Bay Power Plant and an inland area east of I-5, northeast of the intersection of Broadway and C Street. This inland parcel is almost completely vacant.

The plan has five major provisions: Land Use and Intensity; Circulation and Public Access; Utilities and Areawide Grading; Environmental Management; and Physical Form and Appearance. The plan contains discussions on other topics, including subarea site-specific development and design provisions, the relationship of the plan to coastal policies, and implementation of the plan. This section of the EIR will summarize the five major provisions of the plan, with the entire specific plan available for review in Appendix B.

The Land Use and Intensity provision of the plan culminates in the land use plan map (Figure 4). The intent of the plan is to provide for a variety of uses which complement the site and yet minimize the impacts to wetland areas. As a result, the wetland areas are for the most part designated open space. The land uses and acreage in each subarea is indicated in Table 1. Within Subarea 1 at the northern part of the plan, two marinas and related land uses are planned, both of which gain water access through the Sweetwater River Flood Control Channel. Immediately south of the marinas, south of Marina Vista Road, is a residential area with allowable densities ranging from 15 to 30 dwelling units per net acre. Within the southwest corner of the subarea, a water barrier is proposed to isolate a 10-acre least tern preserve (approximately five acres are within the plan and five acres are in the Port District). The minimum water barrier width is 25 feet and includes 9.6 acres, a portion of which is also within the San Diego Unified Port District jurisdiction.

South of Subarea 1 is Subarea 4, which includes the wetland areas mentioned previously. Subarea 2 (40.9 acres) is coincident with Gunpowder Point, an area planned as a resort hotel site covering about 14 acres. The plan allows for approximately 400 rooms, conference facilities, and commercial support uses for the hotel. The remaining 26.9 acres is devoted to 9.3 acres of wetland buffer, an 8-acre park, and 9.6 acres of restored upland habitat. Access to Gunpowder Point is via two existing levees, the southern one of which will serve as primary access, while the other will only provide emergency access. The primary access will be improved to two lanes to minimize impacts to adjacent wetland areas.

Subarea 3 is the largest undeveloped area within the plan (190 acres). Along the eastern boundary of the subarea between I-5 and the SD&AE railroad are two areas of highway commercial north and south of E Street totaling 20 acres. North of these commercial areas is a neighborhood park. Between I-5 and the railroad south of F Street is an office park area of 12 acres. The railroad and SDG&E power-line right-of-way is proposed as a landscaped parking area throughout the Bayfront plan. At the northeast corner of E Street and Tidelands Avenue is another highway commercial area. South of this commercial designation is 17.5 acres of proposed office park. Located west of this area is a neighborhood park and an open space area to preserve a freshwater wetland. Further west, at the northeast corner of F Street and Tidelands

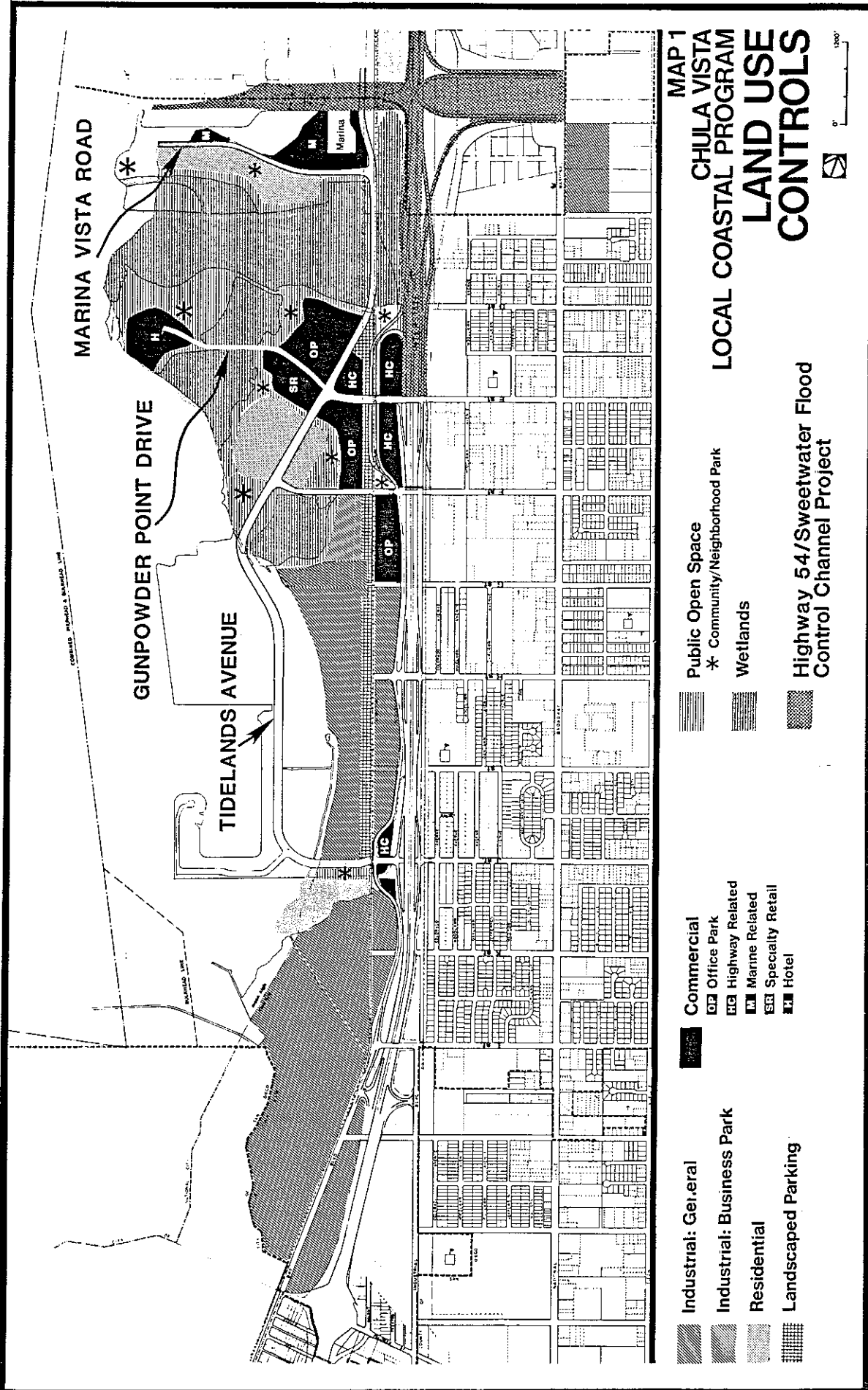


FIGURE 4. BAYFRONT LAND USE PLAN

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TABLE 1
SUMMARY OF PROPOSED LAND USES BY SUBAREA

Land Use	Total Acres	Subarea Acreages					
		1	2	3	4	5	6
Industrial							
General	260.9	-	-	-	-	152.1	108.8
Business park	<u>19.2</u>	-	-	10.2	-	9.0	-
Subtotal	280.1						
Residential	45.6	19.0	-	26.6	-	-	-
Commercial							
Office park	46.7	-	-	46.7	-	-	-
Highway-related	23.4	-	-	20.3	-	3.1	-
Marine-related	21.1	21.1	-	-	-	-	-
Specialty retail	8.0	-	-	8.0	-	-	-
Hotel	<u>14.0</u>	-	-	-	14.0	-	-
Subtotal	113.2						
Landscaped parking/ right-of-way	41.2	-	-	20.0	-	21.2	-
Public open space							
Wetlands	222.5	9.6	-	19.0	184.0	9.9	-
Wetland buffers	33.8	9.0	9.2	15.6	-	-	-
Upland resources	14.9	5.3	9.6	-	-	-	-
Parks	<u>39.0</u>	2.0	8.0	26.3	-	2.7	-
Subtotal	310.2						
TOTAL	790.3	66.0	26.8	192.7	198.0	198.0	108.8

Avenue, is a residential designation. At the southeast corner of F Street and Tidelands Avenue is an open space area for the preservation of a saltwater marsh. East of the open space area is a 10.2-acre industrial business park area. At the northern end of Subarea 3 west of Tidelands Avenue is a commercial office park area, neighborhood park, and wetland buffer area. South of the office park designation is an 8-acre area of specialty retail commercial along with a neighborhood park and wetland buffer zone to the west. Further to the south is an 18.1-acre residential area, another neighborhood park, and wetland buffer zone.

Most of Subarea 5 is currently developed as industrial land and is designated the same except for a small area of highway commercial located at the J Street interchange and an open space park south of Tidelands Avenue. South of the park is a small wetland area. All of Subarea 6 is designated general industrial, most of which is currently developed as industry.

There are two other major projects in the project vicinity. They are the combined Route 54/Sweetwater River Flood Control Channel Joint Caltrans/U.S. Army Corps of Engineers Project (Figure 4). This project, with the Corps acting as lead agency, was approved by the California Coastal Commission in April of 1983. The project includes construction of State Highway 54 from Interstate 805 (I-805) to I-5, along with an interchange with I-5 and construction of a flood-control channel from Bonita Mesa Road near I-805 to San Diego Bay. The flood-control channel will generally occupy the median between the eastbound and westbound lanes of Route 54. The project also includes widening a portion of I-5 in the vicinity of the interchange. Construction recently began early in 1984.

The Bayfront Specific Plan is adjacent to the San Diego Unified Port District on its western boundary. The Port District jurisdiction is defined as those lands lying within the tide and submerged land along San Diego Bay, with the tide line defined as the mean high tide. Therefore, the Bayfront Specific Plan does not include those lands within the jurisdiction of the Port. However, cooperation and coordination will be necessary to implement the Bayfront Specific Plan.

The Circulation and Public Access provision of the plan was designed with several objectives in mind; the major criteria include:

- a. Providing good regional access to the Bayfront
- b. Locating roadways to minimize impacts to wetlands
- c. Reducing the need for automobile travel by providing complementary public transit
- d. Providing pedestrian and bicycle circulation within the Bayfront area and connection to areas east of I-5.

The backbone of the circulation system is the northward extension of Tidelands Avenue as a divided six-lane roadway, except where Tidelands Avenue crosses Sweetwater Marsh. In this location, the road narrows to two lanes. Within Subarea 1 the major access road is Marina Vista Road, a four-lane divided road extending westward from Tidelands Avenue. East of Subarea 1 the Bayfront circulation system proposes a ramp system to

connect Tidelands Avenue with Highway 54 and I-5. E Street, a six-lane road, will provide the major access to the Bayfront from I-5. The E Street interchange with I-5 is proposed to be widened from six lanes at 83 feet to seven to nine lanes and a large pedestrian crossing at 130 feet. Gunpowder Point Drive is proposed to extend westward from Tidelands Avenue to provide access to Gunpowder Point. Where Gunpowder Point Drive crosses the wetlands, it is reduced to a two-lane 20-foot-wide roadway within a 30-foot right-of-way. F Street is proposed as a 100-foot right-of-way four-lane divided road, which will connect the existing F Street to Tidelands Avenue without an interchange with I-5.

A network of pedestrian and bicycle routes are included in the circulation plan to provide access to the shoreline and connecting links to the various neighborhood parks and connection to Chula Vista and the existing and proposed trolley stations east of I-5.

The Utilities and Grading provision of the plan describes these topics for the plan area. With respect to grading, the plan provides a brief background concerning geology and soils conditions in the project area. In particular, the discussion focuses on potential hazards and difficulties, such as the variability of soft compressible bay mud and geologic faults. Existing utilities are currently stubbed out at the boundaries of the project area where land is undeveloped. For the most part, initial projects will require looping utilities or building off-site improvements. The goals for this plan provision include:

- a. Providing adequate sizing for the most intensive users
- b. Minimizing the import of soil for protection from flood and high tide conditions
- c. Protecting natural resources from undue impact during construction
- d. Providing an on-site storm drainage system which would preclude drainage directly into wetland habitat without adequate filtering of sediments or trapping of pollutants.

The plan also provides a generalized utility system plan for water and sewer along with a concept plan for grading and identifies specific problems associated with the coincidental location of part of Bay Boulevard and the SDG&E right-of-way.

The Environmental Management provision of the plan has three objectives: (a) to provide long-term protection of the critical natural habitat through a multi-jurisdictional planning and implementation program with adequate safeguards and guarantees; (b) to incorporate the mitigation requirements of the Caltrans/Corps of Engineers highway flood-control project into the environmental management provision of the plan; (c) to maintain coordination with the Port District to assure that the environmental management objectives can be successively implemented. The plan includes specific measures for each subarea which address the approach to protect and manage the natural resources for that subarea. Among the specifics are detailed cross sections of buffer zones in different locations throughout the project as well as other measures to reduce impacts to wetlands.

The last major provision of the plan is Physical Form and Appearance. The objectives of this provision include preserving wetlands in a healthy state; changing the existing substandard industrial image; improving the shoreline appearance; clearing or screening with landscaping blighted areas; and developing a visual relationship between the areas that comprise it, as well as to existing Chula Vista development east of I-5. To accomplish these goals, the plan provides landscape recommendations for screening, parking area plants in informal groves, and formal street tree planting. Gateways are also identified as special treatment areas for design of landscaping, signage, lighting, and adjacent structures. Architectural design at the edge of development will require special attention to integrate with neighboring use; for example, habitat protection, pedestrian and bicycle access, and privacy. Views within the site and outward are identified for maintenance and enhancement.

3.0 ENVIRONMENTAL ANALYSIS

3.1 GEOLOGY

3.1.1 Project Setting

The project site is within the coastal plain province, which is underlain by Tertiary sedimentary rocks. These overlie Cretaceous sedimentary rocks and older crystalline bedrock. The Bay Point Formation, which is Late Pleistocene in age, consists of marine and nonmarine fine- to medium-grained sands and is the predominant geologic unit on the site. The Bay Point Formation was the last extensive unit to be deposited, except for the recent floodplain alluvial deposits around the fringes of San Diego Bay. The bay itself is underlain by basin fill deposits comprising a sequence of alternating layers of sand and silt covered by varying amounts of organic by muds.

The acknowledged faults within the local vicinity of the project site include the east/west-trending Otay Valley fault; the north-trending La Nacion fault system, including the Sweetwater fault; the north/northwest-trending Rose Canyon-San Diego Bay fault; and the east/west-trending Telegraph Canyon fault. These faults in relation to the project site are shown in Figure 5. Regional faults can greatly affect the seismic characteristics of any site in the county. These include the Elsinore, San Jacinto, San Andreas, and San Clemente fault zones. None of the above faults traverse the Bayfront site.

The local faults in the project area are discussed in the Seismic Safety Element of the General Plan for the City of Chula Vista (1974), as well as other publications, and are summarized below for the purposes of this document.

a. Rose Canyon/San Diego Bay Fault Zone. The Rose Canyon/San Diego Bay fault zone passes about 1.3 miles west of the project area. It extends onshore from the area of La Jolla Shores south through San Diego Bay. North of La Jolla, the Rose Canyon/San Diego Bay fault zone may extend in the offshore region to the Newport/Inglewood fault. Southward extensions to the San Miguel fault in Baja California have also been suggested. Considerable disagreement exists as to the level of seismic risk attributable to the Rose Canyon/San Diego Bay fault zone. A maximum probable earthquake of between magnitude 5.5 and 6.5, however, is considered reasonable (WESTEC Services 1977:41).

b. La Nacion/Sweetwater Fault Zone. The center of the La Nacion/Sweetwater fault zone is located about 3.5 miles east of the Bayfront site. This is a northwest-trending structural feature with a suggested length of about 15 miles. Recent investigations indicate the fault should be considered potentially active. The maximum probable event for this fault is of magnitude 5.0 (WESTEC Services 1977:41).

c. Otay Valley Fault. The Otay Valley fault was inferred as a fault of small displacement hidden beneath the alluvium of Otay Valley in 1960. Very little has been published regarding the presence of this fault (WESTEC Services 1977:42).

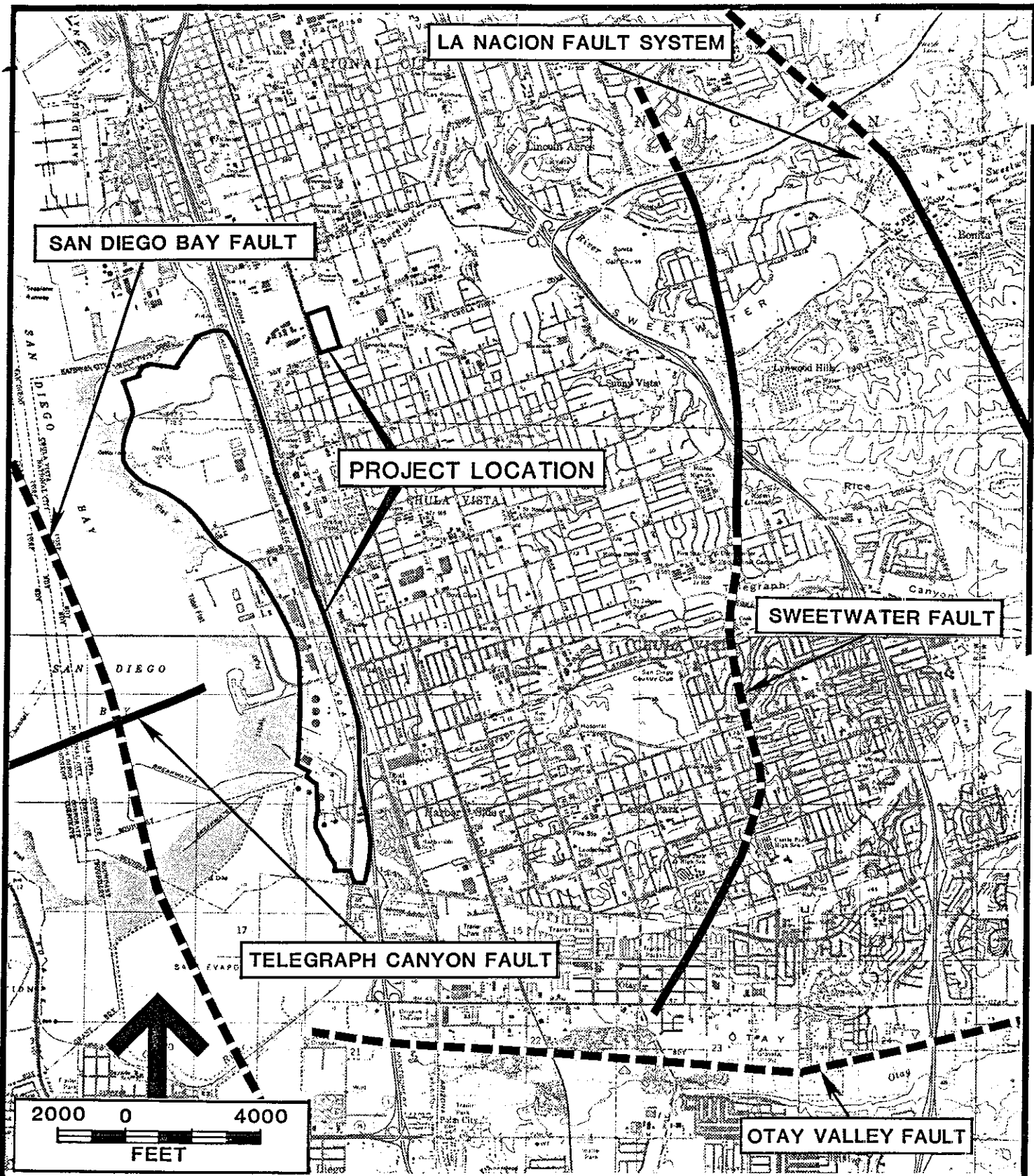


FIGURE 5. GEOLOGIC FAULTS

d. Telegraph Canyon Fault. The Telegraph Canyon fault was first proposed in a report by the Lockheed Company in 1967. Additional investigations took place in 1975 but failed to confirm its existence (WESTEC Services 1977:43).

The regional faults, which are well documented, are discussed briefly below.

a. Elsinore Fault Zone. The Elsinore fault zone trends northwest about 45 miles northeast of the study area. This zone has historically demonstrated moderate seismic activity with several recorded shocks of Richter magnitude of 4.0 to 4.9 and a few of magnitude 5.0 to 5.5. The largest recorded earthquake on the Elsinore fault zone had a magnitude of 6.0 (WESTEC Services 1977:39). The City of San Diego Seismic Safety Element estimates the maximum probable earthquake for the Elsinore fault zone is between magnitude 6.9 and 7.3, with a repeat interval of 100 years (WESTEC Services 1977:39).

b. San Jacinto Fault Zone. The San Jacinto fault zone, lying 66 miles to the northeast, is the most active large fault in San Diego County. Seventeen earthquakes of magnitude 6.0 to 7.0 have occurred along the 180-mile-long fault zone since 1890. Like the Elsinore fault zone, the maximum probable earthquake on the San Jacinto is between magnitude 6.9 and 7.3, with a repeat interval of 100 years (WESTEC Services 1977:40).

c. San Andreas Fault Zone. The San Andreas fault zone, although outside San Diego County lying approximately 95 miles from the Bayfront site, should also be considered. This zone extends some 650 miles from Point Arena in northern California to Baja California. Numerous large-magnitude shocks are associated with the San Andreas. The maximum probable earthquake is on the order of magnitude 8.0 to 8.5, with a recurrence interval of 40 to 100 years (WESTEC Services 1977:40).

d. Offshore Faults. The most extensive fault in the offshore region is the San Clemente fault, which lies about 40 miles southwest of the Bayfront site. It is theoretically capable of generating an earthquake of magnitude 7.7. Because of the limited historic activity of the San Clemente fault, it is not believed as hazardous to the San Diego area as the Elsinore fault (WESTEC Services 1977:40).

3.1.2 Potential Impacts

The project site, as with any locale in southern California, is subject to seismic hazards from ground shaking. However, the absence of any fault traversing the site and the general quiescence of seismic activity in western San Diego County limit the potential for fault displacement on the site. Although earthquakes from the Elsinore and San Jacinto fault zones could affect the site (based on a maximum probable earthquake of 6.9 to 7.3), the potential for ground shaking is not considered to be significantly greater than any other area in southern California.

The soil characteristics and shallow groundwater table on the site could also present possible geologic hazards associated with liquefaction during an earthquake. Since the sand and silts on portions of the Bayfront site exhibit little cohesiveness and the groundwater table is generally three feet above mean sea level, soil liquefaction causing the ground to fail is a possibility. However, a report prepared by Southern California Testing (SCT) Labs in 1976 for an earlier Bayfront EIR concluded that the potential for liquefaction is remote (WESTEC Services 1977:114).

Seismically triggered flooding from tsunamis and seiches is an additional potential impact. Both of these potential impacts are considered remote (WESTEC Services 1977:115-116).

3.1.3 Mitigation

To avoid potential problems related to seismic activity and the underlying soil conditions, the SCT report recommended that additional test borings be conducted prior to any development. This is necessary to detect sand lenses which could liquefy upon ground shaking and cause ground failure. The report further recommended that "such an investigation is most warranted for structures planned for the hydraulic fill area at the northern end of the site (D Street fill)" (SCT 1976:7). This area is proposed for residential development, marine activities, wetlands, and public open space. Further mitigation measures to limit potential impacts from ground shaking at the Bayfront site include adherence to appropriate code requirements for construction and engineering.

3.1.4 Analysis of Significance

The significance of the potential seismic hazards which exist at the Bayfront site is not considered greater than other areas within southern California. Potential impacts can be minimized through proper analysis, engineering, design, and construction.

3.2 SOILS

3.2.1 Project Setting

The soils associated with the project area are related to the geologic formations and erosional/depositional processes discussed in the previous section, as well as man-made fills. Much of the character of the original soils has been altered by filling in the past. As a result, soils now found exposed on the surface are marsh deposits, tidal flat sediments or bay muds, hydraulic fill, uncontrolled fills, and formational soils.

The formational soils related to the Bayfront unit consist predominantly of alternating layers of natural, loose to medium dense, silty and clayey sand. The area of Vener Farms is comprised of these soils, which are currently utilized for truck farming. A large portion of the Gunpowder Point area also consists of formational soils. In these soils are random, buried pockets or lenses of firm clay or older bay mud. These soils also exist beneath the marsh deposits, the hydraulic fill, and possibly beneath the tidal flat sediments (WESTEC Services 1977:43).

The marsh deposits and bay muds on the tidal flats are organic silty clays and clayey silts with an almost liquid consistency. The thickness of these deposits is up to 40 feet, with more typical thicknesses of 5 to 10 feet. The thickness of the mud tends to be highly erratic near the shoreline (WESTEC Services 1977:44). These areas include Sweetwater Marsh, the Paradise Creek channel area, the F/G Street marsh, and the E Street marsh.

Filling in the project area has been accomplished by methods ranging from the dumping of various unwanted and often unsuitable materials trucked from nearby areas to the placement of carefully planned and engineered fills involving diking and hydraulic dredging. Many of the older fills consist of earth, rubbish, and other waste materials which have been dumped on bay mud or marsh deposits. These areas include the filled portions of the G and E Street marshes and Gunpowder Point. More modern hydraulic fills were created by diking off the proposed fill area, removing natural soft mud deposits, and pumping in relatively clean sediment from the bay (WESTEC Services 1977:44). The D Street fill exemplifies this type of fill.

3.2.2 Potential Impacts

Since the majority of the proposed development will occur on those areas containing formational soils (e.g., Vener Farms and Gunpowder Point), the potential impacts related to soil characteristics are limited in areal extent. As indicated in Figure 4, most of the office park, residential, commercial, and hotel development avoids those areas containing fills, tidal flat sediments, or marsh deposits. The SCT report, which served as the geotechnical document for the WESTEC Services EIR in 1977 stated, "the risk of liquefaction within the Baypoint Formation soils is substantially less than that for the bay/alluvial deposits and is considered not to be a significant geologic hazard" (SCT 1976:4).

The most significant potential soils impacts at the project site are related to the presence of organic mud deposits on the tidal flats, marshlands, and possibly beneath fill areas. The weak, compressible nature of these soils makes them very poor foundation materials. In addition, the mud thickness is often very erratic and variable, leading to possible differential settlement problems. The mud deposits will tend to squeeze out from beneath heavy loads or, where lateral squeezing is deliberately prevented by confinement, they will gradually compress or subside over a period of years under the weight of fill or structures. The construction of facilities on older, poorly planned fills consisting possibly of deleterious materials over bay muds could lead to irregular settlements. If such settlements amount to several inches or more, damage to roadways or utilities could occur (WESTEC Services 1977:117-118).

The proposed residential, park, and marina developments for the D Street hydraulic fill area could present potential impacts due to settlement and liquefaction from the sands and silt contained within the fill.

3.2.3 Mitigation

With the exception of the development on portions of Gunpowder Point and the D Street fill, the proposed land uses within the Bayfront area can occur without special remedial measures for soil grading. Development of the hotel on Gunpowder Point will require remedial site preparation due to the presence of randomly placed uncontrolled fill over portions of the area. The SCT report recommended specific measures such as soil removal and recompaction to mitigate the potential impact from differential settling. The report also suggested additional geotechnical studies prior to development (SCT 1976:10). The high density residential development and marinas on the D Street fill will also require special site preparation and foundations because of the liquefaction and differential settling potential of the underlying fill composition. The SCT report suggests several potential mitigation measures for this area, including surcharge fills and special foundations (piles and floating foundations). Further analysis of the fill will be necessary when specific building designs are known (SCT 1976:9).

3.2.4 Analysis of Significance

Although the soil conditions of the site pose constraints to development in certain areas, the use of proper design, construction, and analytical techniques should prevent adverse impacts (WESTEC Services 1977:120).

3.3 LANDFORM AND VISUAL QUALITY

3.3.1 Project Setting

The entire project area consists of approximately 790 acres within the coastal plain, with elevations that range from the mean high tide line to 30 feet above mean sea level (MSL). The sparsely developed area north of G Street (Plan Subareas 1-4) is dominated by Sweetwater Marsh and is relatively flat. Levee access roads to Gunpowder Point, the SD&AE railroad bed, and other fill areas are elevated above the marshlands. The upland features include the Vener Farms agricultural area, the D Street fill, and Gunpowder Point.

The existing visual attributes associated with the Bayfront plan area are highly variable. The dominant views of the area and beyond to the bay occur from I-5 in the vicinity of the Sweetwater channel crossing. Views also exist from Bay Boulevard from F Street northward. In general, the area north of G Street provides an open area of visual relief in an urban landscape and contains views of the Sweetwater/Paradise marsh complex, San Diego Bay, the vacant D Street fill, and agricultural use. Internally, however, the aesthetic character of much of the plan area is limited because of the haphazard and often degraded status of the land uses. The juxtaposition of agricultural (fields and warehouses); industrial (Rohr, SDG&E, Rayne filtration system, and boatworks); power lines (SDG&E 138 and 69 kV); railways; billboards; vacant areas with discarded materials (Gunpowder Point and north of the F/G Street marsh); unlandscaped parking (for the Rohr facility); road fill adjacent to the F/G Street marsh; commercial development (adjacent to the freeway at E Street); and the vacant D Street fill all detract from the scenic qualities offered by the wetlands, San Diego Bay, and the Silver Strand to the west. Existing views in the distance also include the trolley line, I-5, and Chula Vista to the east; Mexico to the south; and 24th Street shipyards and lumberyards to the north. The limited public roadways throughout the site also impair access to the visual resources associated with the bay.

3.3.2 Potential Impacts

Implementation of the Bayfront plan will do much to remove the degraded visual array which currently manifests itself throughout much of the plan area. The removal of inappropriate uses, along with the architectural design, intensity, mixture, circulation pattern, and extensive landscaping associated with the proposed uses throughout the plan area, will enhance the aesthetic appearance and provide increased public access to the Bayfront. The specific measures utilized in the various Bayfront subareas have attempted to provide a visual relationship with the bay and marsh areas. This integration of man's use of the land and water resources into a natural environment is proposed by (a) preserving wetlands, (b) changing the existing substandard industrial image and developing a public/commercial recreational role, (c) removing or landscaping structures which are a blight on the area, and (d) relating the Bayfront to Chula Vista, the freeway, and arterial approaches (Sedway Cooke 1983:III-40). The plan details the design features which have been

proposed to enhance the physical form of the site (see Appendix B). The form and appearance of specific areas, such as the D Street fill, Tidelands Avenue, Gunpowder Point, the Midbayfront, Gateways, and the SDG&E right-of-way, are each addressed in the plan.

Although the impact of the plan implementation will positively affect the overall visual appearance of the site and provide increased public access to the visual resources, it will also create the effect of removing a generally open area from a surrounding environment which is dominated by more intense urban development. The development proposed for the D Street fill, the resort hotel on Gunpowder Point, and development proposed on existing agricultural lands (Midbayfront) will delete and interrupt the visual amenity of an open area in an urban environment. For these reasons, the visual impact is considered significant.

3.3.3 Mitigation

Since implementation of the plan will generally integrate and enhance the landform and visual appearance of the Bayfront and provide view corridors of distant views, no mitigation beyond assurances that the design criteria specified in the plan will be adhered to are necessary. The visual impact from loss of an open area within an urban environment is only possible through the no project alternative, which is discussed in Section 6.0 (Alternatives).

3.3.4 Analysis of Significance

Although the proposed plan for the Bayfront will enhance the aesthetic character of the area in some ways, the impacts to the existing visual quality and landform through the introduction of the planned development are considered significant.

3.4 NOISE

3.4.1 Project Setting

The project is located in an area characterized by a variety of land uses, ranging from agriculture to manufacturing with corresponding noise environments. However, the major noise source is vehicular traffic from I-5, which is situated along the eastern project boundary. Also, Tidelands Avenue contributes to the noise environment. Other potential noise sources include the SD&AE Railroad and the San Diego Trolley. The former is west and adjacent to I-5, while the trolley is east and adjacent to I-5.

The SD&AE Railroad tracks north of E Street are not presently used and there is no future plans for their use. South of E Street, the railroad tracks receive light use, about once every two weeks, primarily to serve Rohr. As a result, rail traffic on these tracks will not contribute significantly to on-site noise. Noise from I-5 dominates the noise environment substantially, and therefore, the trolley noise was not considered separately.

Noise from point sources include the existing industrial development, most of which consists of the Rohr manufacturing facility and the SDG&E South Bay Power Plant. Future noise point sources are expected from industrial and commercial uses. Manufacturing processes and large air-conditioning units for offices are examples of these noise generators.

To determine the noise from vehicular traffic, the Federal Highway Administration (FHWA) Noise Prediction Model was used. The noise scale used in this study is L_{dn} (day-night average noise level). The L_{dn} is a 24-hour, time-weighted annual average noise level based on the A-weighted decibel. A-weighting is a frequency correction that correlates sound pressure levels with the frequency response of the human ear. Time weighting involves the addition of ten decibels (dBA) to the average noise levels (L_{eq}) between 10:00 p.m. and 7:00 a.m. The nighttime period is weighted to account for added sensitivity to noise during the nighttime. The model also takes into account the effect of topographic variation and barriers.

For I-5, one cross section was used. This cross section was selected to represent critical points in describing the noise environment for strategic receptors on the property (residential land use). Noise calculations were also completed for those areas where no topographic attenuation will occur. For these areas, no cross section is necessary to perform the calculations. The input data for the model is presented in Table 2. The major data used to calculate the noise contours are a traffic volume of 101,000 and a traffic mix of 94 percent autos, 2 percent medium trucks, and 4 percent heavy trucks. As shown in the cross section (Figure 6), a significant rise occurs between I-5 and the proposed residential areas. This ridge provides an effective barrier for the majority of the I-5 noise. However, a segment of the highway is not blocked by this rise. Therefore, the analysis considered the relative

TABLE 2
NOISE MODEL INPUT DATA
FOR EXISTING ROADS

Source	Segment	Angles	Volume (ADT)	Traffic Mix			Speed (mph)	Source to Barrier (feet)	Source to Receptor (feet)	Barrier Height (feet)	Receptor Height (feet)
				Autos	Medium Trucks	Heavy Trucks					
Interstate 5	1	-87/-65	101,000	94%	2%	4%	55	460	0	11	
	2	-65/87	101,000	94%	2%	4%	55	460	15	11	

TABLE 3
NOISE MODEL INPUT DATA
FOR FUTURE ROADS

Source	Segment	Angles	Volume (ADT)	Traffic Mix			Speed (mph)	Source to Barrier (feet)	Source to Receptor (feet)	Barrier Height (feet)	Receptor Height (feet)
				Autos	Medium Trucks	Heavy Trucks					
Interstate 5	1	-87/-65	141,000	94%	2%	4%	55	0	460	0	11
	2	-65/85	141,000	94%	2%	4%	55	350	460	15	11
Tidelands	1	-87/87	10,125	95%	3%	2%	35	calculated at 50 feet	standard distance*		
F Street	1	-87/87	5,365	95%	3%	2%	30	calculated at 50 feet	standard distance*		
E Street	1	-87/87	12,000	95%	3%	2%	30	calculated at 50 feet	standard distance*		

*Source was considered an equivalent lane distance.

CENTER LINE OF
INTERSTATE 5

TIDELANDS
AVENUE

RECEPTOR 2

RECEPTOR 1

HORIZONTAL SCALE 1" = 200'
VERTICAL SCALE 1" = 50'

FIGURE 6. INTERSTATE 5 CROSS SECTION

noise contribution from both of these portions, the shielded and the nonshielded segments, for two receptors. The resulting calculations were used to develop the existing noise contour map (Figure 7). The noise generated from I-5 reaches 80 dBA adjacent to the freeway, and in the vicinity of D Street south to H Street, the noise diminishes to 65 dBA within 500 feet from I-5 due to the ridge. From D Street north, there is no topographic barrier, and as a result, the 65-dBA contour extends 1,500 feet west from the freeway on to the D Street fill. Tidelands Avenue carries traffic volumes at approximately 2,000 ADT, which is not great enough to generate traffic noise in excess of standards allowed for the adjacent industrial uses.

3.4.2 Impacts

The noise standards as specified in the City of Chula Vista General Plan require that the exterior noise level for residential land uses not exceed 65 dBA. In addition, multi-family residential uses are regulated by the California Noise Insulation Standard (California Administrative Code, Title 25, Chapter 1, Article 4), which requires that interior noise levels not exceed 45 dBA. This interior noise standard is also used by the City of Chula Vista for single-family homes. Wood frame constructed walls will typically reduce exterior noise levels of 65 dBA to interior levels of 45 dBA.

The development of future noise contours was based on projected traffic volumes. For I-5 in the year 1995, SANDAG projections were used; and for the proposed internal streets, the results from the traffic study were used. The data used in performing the future noise model calculations is found in Table 3. The future noise contours are indicated on Figure 8. The right-of-way cross sections for Tidelands Avenue and F Street are shown on Figures 9 and 10, respectively. The traffic volumes used for the internal roads are based on complete build-out of the project as indicated in the traffic study. As a result, all of the internal streets generate noise levels in excess of 65 dBA but not 70 dBA. The noise generated by I-5 is only slightly greater than existing levels.

Based on the noise standards and the existing noise levels and land uses, there are no significant impacts. However, future noise levels in excess of 65 dBA will affect proposed residential areas located east and west of Tidelands Avenue at F Street. Noise levels greater than the city standard from vehicular traffic will not impact industrial and commercial uses in the plan. Point-source noise impacts from commercial or industrial uses to nearby residences is also possible. Usually, this source is from air-conditioning units. However, since the specific building locations and design are unknown at this time, this impact cannot be quantified.

3.4.3 Mitigation Measures

Where significant impacts occur to residences, it is anticipated that construction of a masonry wall near the roadway would attenuate the noise levels to a level of insignificance. Since specific

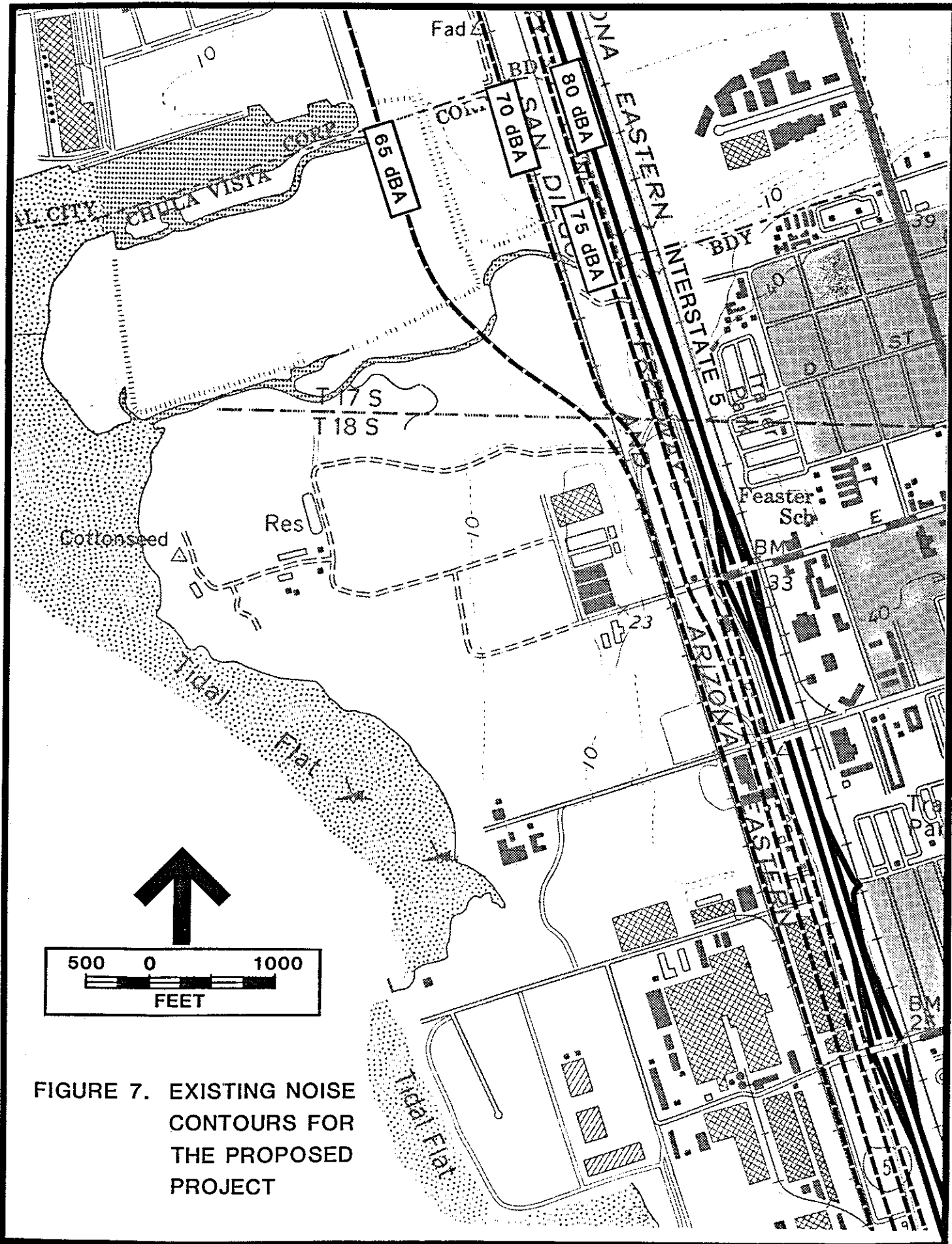


FIGURE 7. EXISTING NOISE CONTOURS FOR THE PROPOSED PROJECT

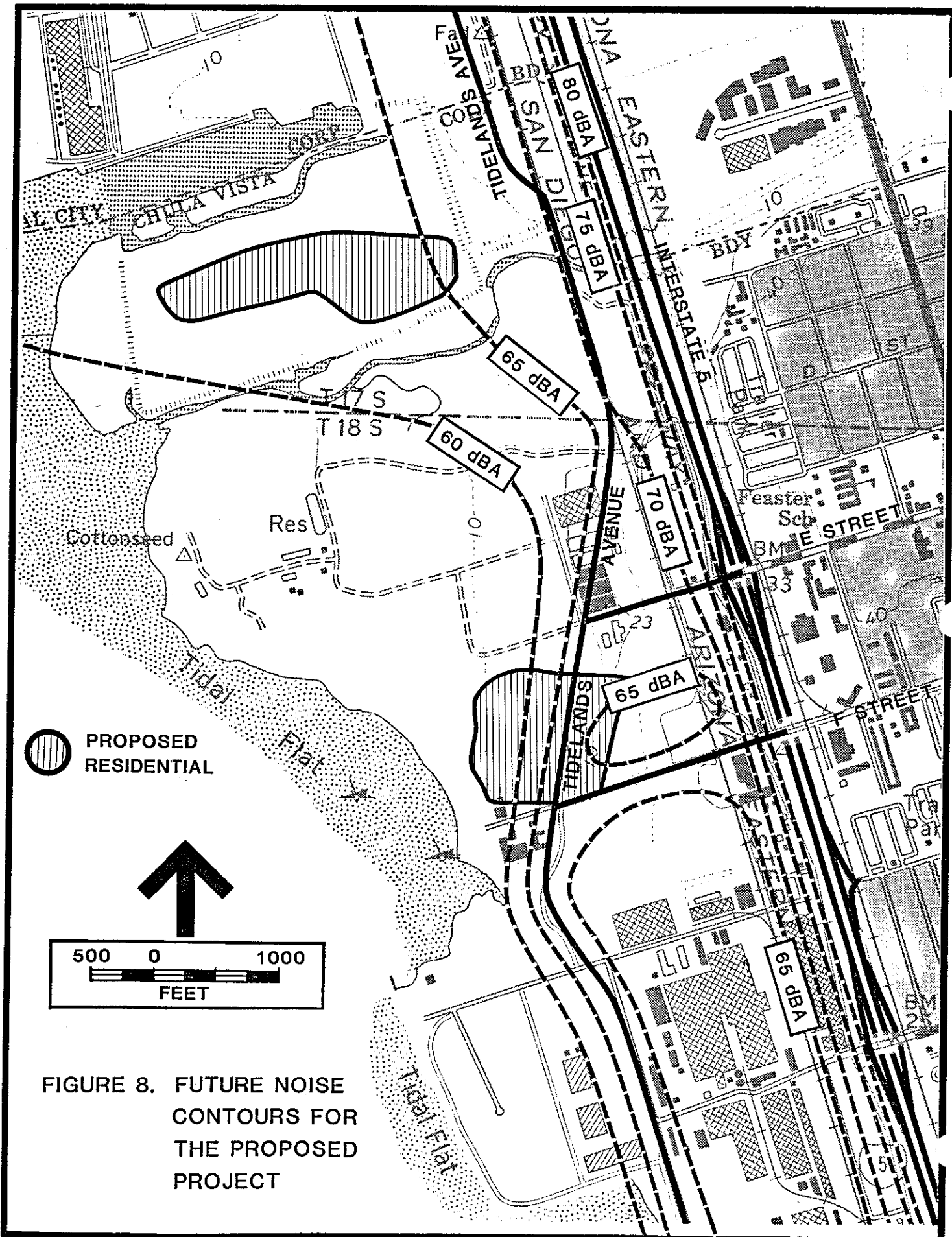


FIGURE 8. FUTURE NOISE CONTOURS FOR THE PROPOSED PROJECT

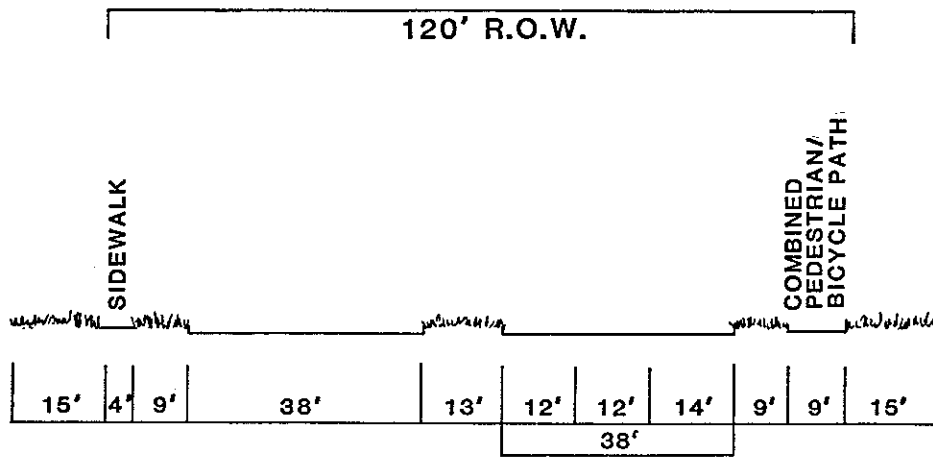


FIGURE 9. TIDELANDS AVENUE RIGHT-OF-WAY CROSS SECTION

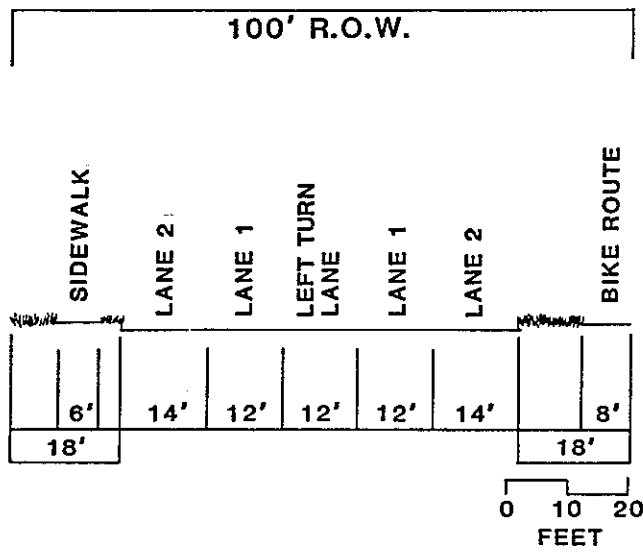


FIGURE 10. F STREET RIGHT-OF-WAY CROSS SECTION

building and roadway plans are not known, the height and location of the walls cannot be determined.

3.4.4 Analysis of Significance

The implementation of noise-attenuating walls will reduce the noise levels below the City of Chula Vista standard. Therefore, the impact will be reduced to a level of insignificance.

3.5 BIOLOGICAL RESOURCES

The following summary and assessment of biological resources existing within the Chula Vista Bayfront Redevelopment Area (Figure 4) is based primarily on technical information from the Chula Vista Local Coastal Program (Sedway Cooke 1983), Draft Environmental Statement, Sweetwater River Flood Control Channel, State Highway Route 54, Interstate Highway Route 5, Recreation Facilities and Conservation of Marshlands (U.S. Army Corps of Engineers 1977), Sweetwater River Final Environmental Impact Statement (U.S. Army Corps of Engineers 1982), Biological Assessment for Endangered Species Consultation on the Sweetwater Flood Control Channel and Freeway Interchange Combined Project (Caltrans 1981), and Final Analysis of Select Biological Issues Relating to the Chula Vista Bayfront Plan (Jones & Stokes Associates, Inc. 1983). Other sources are referenced in the text or listed in the bibliography.

The proposed specific plan and its biological effects are related to other projects which have recently been approved and permitted in the area. These include the Sweetwater River flood control improvements by the Army Corps of Engineers and the I-5/Highway 54 interchange improvements by Caltrans. In certifying the Land Use Plan (LUP) for the Bayfront Redevelopment Area, the Coastal Commission found that the LUP incorporated these other projects and biological mitigation measures required as part of their approvals (California Coastal Commission 1984:18-19).

3.5.1 Project Setting

3.5.1.1 Vegetation

In addition to current industrial (231 acres) and agricultural (100 acres) development within the project area and disturbed vacant land (221 acres), the project area includes approximately 200 acres of wetlands (Table 4). These wetlands (Figures 11 and 12) include several distinct habitats: mudflats (exposed only at the lowest tides), low marsh (exposed at all low tides and inundated by most high tides), high marsh (inundated only by the highest tides), and salt flats (inundated at highest tides with ponded areas that become hypersaline). The project area also supports freshwater marsh and aquatic habitats (Table 5).

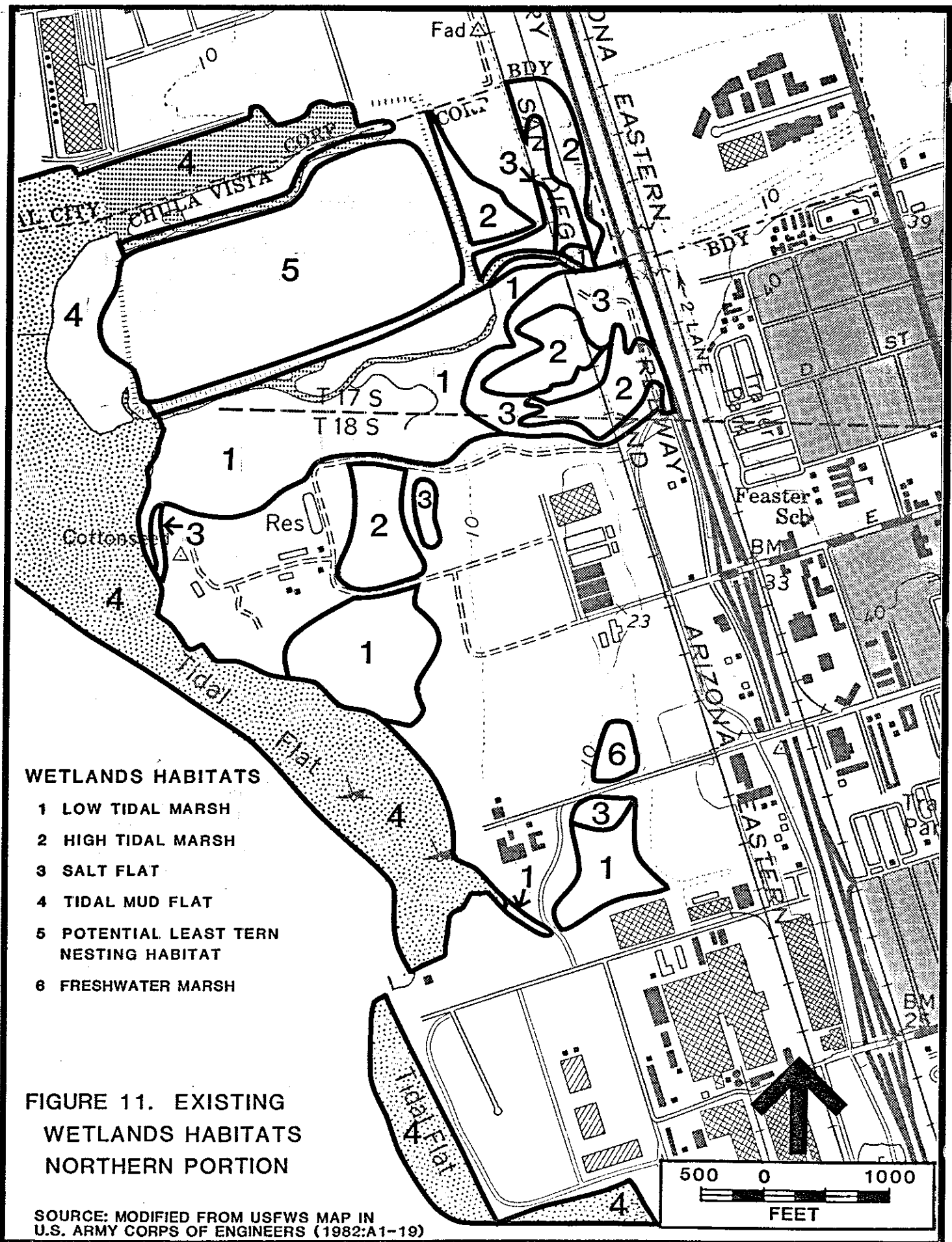
The Sweetwater Marsh/Paradise Marsh complex can be characterized as a coastal salt marsh with freshwater influence. The Sweetwater Marsh/Paradise Marsh complex is the highest quality salt marsh area remaining in San Diego Bay. The wetlands habitats within this complex represent significant proportions of the remaining wetlands of San Diego Bay (mudflats, 37 percent; low marsh, 40 percent; and high marsh 95 percent).

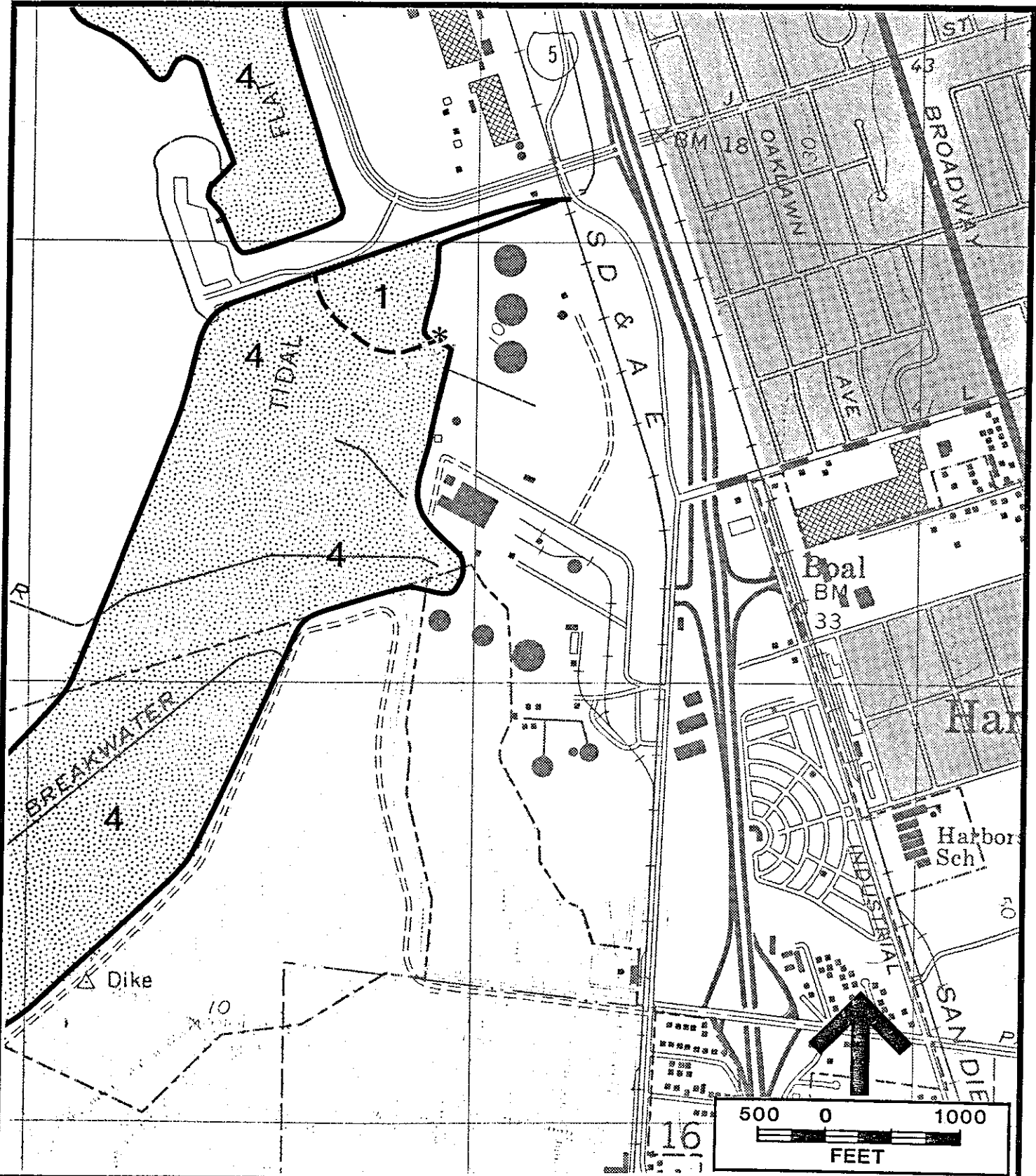
Twenty-five salt marsh vascular plant species were identified in the study area, including all characteristic southern California salt marsh species. Mudflats adjacent to the complex support at least four species of algae that provide habitat for young fish and small organisms. Two species of multicellular algae and eel grass (Zostera marina), also

**TABLE 4
CURRENT LAND USE CATEGORIES
WITHIN THE PROJECT AREA**

Land Use	Acres
Industrial	231
Agriculture	100
Commercial	13
Rights-of-way	15
Landscaped parking	10
Vacant land/fill areas	221
Wetlands ¹	
Sweetwater Marsh	120
Paradise Creek channel area	15
Vener Pond	15
Vener (E Street) Marsh	34
F-G Street Marsh	15
Freshwater (remnant) marsh	<u>1</u>
Total Wetlands	200
TOTAL	790

¹These approximate values do not include mudflats along San Diego Bay and are derived from the U.S. Army Corps of Engineers report (1977).





WETLANDS HABITATS

1 LOW TIDAL MARSH 4 TIDAL MUD FLAT * AREA NOT FORMALLY MAPPED

FIGURE 12. EXISTING WETLANDS HABITATS SOUTHERN PORTION

TABLE 5
WETLANDS RESOURCES WITHIN THE PROJECT AREA

Sweetwater Marsh. Sweetwater Marsh is a coastal salt marsh that receives freshwater input from the Sweetwater River. The freshwater is primarily derived from urban runoff occurring in approximately 37 square miles of watershed below the Sweetwater Dam. The marsh is bounded by the D Street fill on the north, I-5 on the east, upland areas including Gunpowder Point on the south, and San Diego Bay on the west.

Paradise Creek Channel. The Paradise Creek channel area is a highly degraded marsh (Williams and Rieger 1973) between the I-5 right-of-way and the SD&AE Railroad right-of-way on the west. The area apparently was used as a sanitary landfill, as evidenced by the amount of broken glass and other debris below the soil surface. A man-made diversion channel provided an outlet for Paradise Creek when the original outlet was obliterated by development of the 24th Street Terminal. Continued disturbance of this area results from off-road-vehicle activity.

Vener Pond. Vener Pond is bounded on the north by a breached dike, on the east by agricultural fields, on the south by a dike, and on the west by agricultural fields on Gunpowder Point. Both the north and south dike served as access roads to Gunpowder Point, but the north dike is no longer in use and has been breached, allowing tidal influence at tides greater than 5.6 feet above mean lower low water (MLLW). A small corrugated pipe culvert through the south dike connects Vener Pond with Vener (E Street) Marsh. The pond area contains small islands with limited development of Salicornia (pickleweed) stands. Most of the area consists of mudflats and is free of vascular plant growth. During periods of very high tide cycles, the restricted flushing prevents complete drainage during low tide, and some areas remain flooded during several tidal cycles. This persistent inundation is probably responsible for maintenance of the mudflats and restriction of plant growth.

E Street (Vener) Marsh. The E Street Marsh is bounded on the north by Gunpowder Point and the access road across the south dike, on the east by agricultural fields, on the south by a boat works and soft-water filter business, and on the west by San Diego Bay. It is a coastal salt marsh with no freshwater input from streams.

F-G Street Marsh. The F-G Street marsh is bounded by F Street on the north, a fill area on the east, a manufacturing facility and G Street on the south, and Tidelands Avenue on the west. It receives storm-drain discharge from the Rohr Industries area to the southeast and retains connection to San Diego Bay by way of a channel under Tidelands Avenue.

Freshwater Pond. The freshwater (or remnant) marsh is about a 1.25-acre pond located on the north side of F Street. At one time it was part of the F-G Street marsh, but hydrologic isolation from the latter has resulted in development of freshwater marsh vegetation around a seasonal pond fed by winter rains and agricultural runoff.

important habitat components for small fish and invertebrates, cover the bottoms of most of the channels in the marsh complex.

Two other features of biological significance in the project area are Gunpowder Point and the D Street fill. Gunpowder Point is a 40.8-acre upland feature surrounded by Sweetwater Marsh on the north, Vener Pond on the east, the E Street marsh on the south, and San Diego Bay on the west (see Figure 11). Vegetation on the site is dominated by introduced bromes and other grasses, Russian thistle, tree tobacco, horehound, ice plants, and other invasive species. The site is occupied by the remains of an abandoned munitions factory, two homesites, and about five acres of agricultural fields. Access is currently provided by a road on a dike along the south edge of Vener Pond. Existing land use characteristics on Gunpowder Point are summarized in Table 6.

The D Street fill is made up of sandy gravel material virtually barren of vegetation covering approximately 98 acres located on the extreme north of the project area (area 5 on Figure 11). The fill is bounded on the north by the 24th Street Terminal ship channel, on the east by the SD&AE Railroad, on the south by Sweetwater Marsh, and on the west by San Diego Bay. This area has potential value as least tern nesting habitat, as discussed below.

3.5.1.2 Wildlife

The wildlife diversity within the study area varies greatly between the urbanized land and wetland habitats. No specific data are available for the urbanized lands, but at least 109 species of birds including 77 migratory species are known to use the wetlands resources of the Sweetwater Marsh/Paradise Marsh complex. The marsh and adjacent mudflat areas provide foraging and resting areas for many species and the marsh provides nesting habitat for many common species and several important species, including short-eared owl, clapper rail, Belding's savannah sparrow, and possibly black rail. The California least tern has also used the open sandy D street fill for nesting.

Jones and Stokes (1983:43) provide a description of least tern nesting data from several sources, including information regarding recent nesting activity at the D Street fill over the last few years. This information indicates that in the past, as many as 47 pairs of nesting least terns have used the D Street fill and that nesting activity has occurred on from 22 to 40 acres of this area. Because of increasing disturbance in the form of off-road-vehicle activity in recent years, nesting success has decreased despite efforts by the Department of Fish and Game to fence the area. In 1979, 5.3 acres were fenced, but the 1980 breeding colony was severely disturbed and no young were fledged. In 1981, no nesting was attempted in the area. In 1982, one pair nested at the D Street fill, and two young were successfully fledged. The following year, 1983, saw one nesting pair of least terns in the area, but no fledglings were produced (Elizabeth Copper, 12/21/84).

TABLE 6
GUNPOWDER POINT
EXISTING LAND USE CHARACTERISTICS

Characteristics	Acres
AGRICULTURAL OPERATIONS	
Agricultural fields	4.79
Buildings, structures, and foundation	1.38
Dirt roadway	3.95
Debris piles, mounds, and pits (An additional 0.5 acre of mounds exist within the upland category of the degraded lagoon.)	2.61
Disturbed soils and graded areas	<u>7.64</u>
Subtotal	20.37
NATURAL AREAS	
Weed grassland characterized by invasive species	17.22
<u>Frankenia palmeri</u> stand	0.12*
Wetland mosaic (at northwest corner of Gunpowder Point)	1.99
Degraded lagoon (Upland: includes 0.5 acre of mounds not included in debris piles, mounds, and pits category above.) (Wetland: this 0.65 acre of wetland is not included in the Gunpowder Point total acreage.)	<u>1.20</u>
Subtotal	20.53
TOTAL	40.80

SOURCE: Sedway Cooke Associates (1983)

*This area may be increased slightly by the recent discovery of a second population.

In 1984, a larger area was fenced in a more secure fashion. Two waves of nesting occurred during this summer, each consisting of approximately 20 pairs. Nests of the first wave were destroyed, but out of the second group, late in the summer, 18 young were fledged. The nesting activity occurred in a widely dispersed colony, occupying most of the approximately 50 acres which were fenced (Copper, 12/21/84).

Williams and Rieger (1973) reported three mammals from the study area (long-tailed weasel, house mouse, and, possibly, gray fox). Although little research has been conducted on the mammals of southern California salt marshes, several other species of rodents and small mammals might be expected to occur in the wetlands on the study area.

The tidal habitats (channels and intertidal areas) support almost all of the major fish and large invertebrate species found in undisturbed southern California estuaries. Invertebrates include several species of bivalve molluscs, polychaete worms, gastropod molluscs, crabs, and a large diversity of other species. At least nine species of fishes are known from the area, including California killifish, topsmelt, cheek-spot goby, and small diamond turbot. The area appears to be an important nursery area for at least some of the important game species that are found in San Diego Bay.

3.5.1.3 Sensitive Resources

The wetlands habitats within the study area are the regionally significant remnants of a highly productive and previously more extensive habitat type (Zedler 1982). In addition to the high floral and faunal productivity and diversity associated with these wetlands, they are important because of the dependence or use of several sensitive plant and animal species, including five that are state or federally listed.

A small population of state and federally listed saltmarsh birds beak (Cordylanthus maritimus ssp. maritimus) was identified in the Sweetwater Marsh opposite Gunpowder Point (Caltrans 1981). The population is located due north of Vener Pond just south of the main channel in the Sweetwater Marsh (Jorgensen, 12/21/84). This annual plant is subject to population fluctuations due to narrow ecological requirements for propagule dissemination, germination, and growth. Current research on the ecology and life history of the species (Zedler 1984) indicates a potential suitability (and perhaps necessity) of habitat over a much larger area within the marsh than where it has been actually observed, including all areas within the six- to seven-foot mean lower low water (MLLW) zone of the high marsh.

Seven common coastal salt marsh species that are not included in federal, state, or CNPS listings are considered by the U.S. Army Corps of Engineers (COE) as locally sensitive. These species are sensitive because they are restricted to salt marsh habitat, which has been dramatically reduced in its extent.

A population of Frankenia palmeri, a species identified by the CNPS as rare in California but more widespread in Baja California, occurs in the uplands of southeastern Gunpowder Point. This population

is probably the only location for the species in the United States and is of scientific interest as the northern limit of its distribution.

Two listed bird species with populations that are dependent upon the coastal salt marsh habitats in the study area are the federally endangered light-footed clapper rail (Rallus longirostris levipes) and the state-endangered Belding's savannah sparrow (Passerculus sandwichensis beldingi). Both of these species are nonmigratory and nest and forage in the wetlands. The numbers of pairs of clapper rails in the wetlands of the study area as determined by call counts in 1984 were Sweetwater Marsh, 14 pairs; the E Street marsh, 2 pairs; and the F-G Street marsh, 1 pair (Zimbal and Massey 1984). One pair was also noted from the adjacent Paradise Marsh in National City. The black rail, another wetlands-dependent species (listed as rare in California), may also occur in the marsh habitat.

Two other federally listed birds, the California brown pelican (Pelicanus occidentalis californicus) and California least tern (Sterna albifrons browni) also use the wetlands habitats for foraging and loafing. California least terns also nest within the study area on the sandy open habitat of the D Street fill. Nesting success of the least tern has been variable in recent years, most likely because of inadequate protection of the colonies from disturbance.

The wandering skipper (Penoquina panoquinoides errans, a butterfly), a candidate for federal listing, occurs in salt marsh habitat on the study area and is dependent upon salt-tolerant grasses found in the marsh and along beaches in San Diego County.

The U.S. Fish and Wildlife Service (USFWS) has listed the wandering sponge (Tertilia mutabilis), an invertebrate occurring in the area, as a locally rare species.

3.5.2 Potential Impacts

The following discussion regarding potential impacts from implementation of the Bayfront Specific Plan has been reorganized and revised as a result of substantial input received during the public review period on the draft EIR. The principal results of this revision are (a) a more specific identification of impacts and better correlation between impacts and proposed mitigation measures and (b) the identification of those topics which are still points of disagreement between the various agencies, consultants, or other experts which have been involved.

The potential direct impacts which may occur from implementation of the specific plan are as follows:

- a. Direct loss of wetland habitat through infilling or dredging of the following areas (totaling 6.45 acres):

- 1) Approximately 3.7 acres at the northeast corner of the D Street fill. This area was described by Caltrans (1981) and the Army Corps of Engineers (1982:Figure 4) as salt flats and by USFWS as "high marsh" (COE 1982:A1-19). Dredging for the marina (1.3 acres) and development of adjacent uses (2.4 acres) would destroy this wetland.
 - 2) Approximately one acre in Sweetwater Marsh, which will be filled to widen the existing levee for the extension of Tidelands Avenue north of D Street to the D Street fill area. This fill is schematically pictured in the specific plan (Figure 2, Section B, p. 29) and described in the text of the specific plan as "less than one acre" (Section 19.88.06(a)).
 - 3) Approximately 0.5 acre along Vener Marsh/Vener Pond, which would be filled to improve the access to Gunpowder Point along the southerly levee. The specific plan (Section 19.88.04(b)) describes this area as "less than 1/2 acre."
 - 4) Approximately 1.25 acres of freshwater (or remnant) marsh north of F Street. This area would be transformed into a detention basin to decrease peak flows and trap sediment from storm runoff. Although the specific plan (Section 19.88.05(b)) describes this area as a "low-lying agricultural field," it does support freshwater marsh vegetation.
- b. Potential reduction in the area available for breeding of the California least tern. The D Street fill currently consists of approximately 98 acres of sandy gravel material virtually barren of vegetation (Sedway Cooke 1983:III-27). As noted above in Section 3.5.1.2 of this report, estimates of the area used for least tern breeding range from 22 to 40 acres (and up to 50 acres for the 1984 season). The specific plan would restrict the area available for breeding to 10 acres.
- c. Possible loss of wildlife habitat and other impacts to species utilizing adjacent wetlands through the construction of a hotel, parking, and associated uses on approximately 14 acres of Gunpowder Point. The major issue in this regard is the fact that the upland areas of Gunpowder Point could provide foraging and resting areas to replace those which will be lost to development in the specific plan. The height of the proposed hotel at Gunpowder Point (proposed at eight stories) and the activity associated with it could pose a barrier or obstruction to birds using adjacent wetlands. There is, however, considerable disagreement regarding whether development in this area would have any real and direct impacts. In the

earlier environmental report dealing with Chula Vista's Bayfront development, no impacts were ascribed to development on Gunpowder Point other than some direct fill into the marsh area in the earlier proposal (WESTEC Services 1977:163, 164).

In reviewing designs for the Sweetwater River flood-control channel and State Highway 54 project, the USFWS stated in 1975 that "Gunpowder Point (36 acres) and the 'G' Street Marsh (15 acres) are nearby units of upland and marsh habitat respectively that complement and augment the integrity of Sweetwater Marsh" (COE 1982:A1-2). Although the USFWS noted it would be "advantageous to include Gunpowder in the acquisition package" (COE 1982:A1-12), it did not make a firm recommendation to include this land within the area to be acquired (COE 1982:A1-20). The California Department of Fish and Game concurred with USFWS recommendations.

To clarify their position at a later date, USFWS noted the importance of protecting "this upland area's possible function in the maintenance of a viable wetland ecosystem for the endangered least tern and light-footed clapper rail" (COE 1982:A2-48).

When it appeared that proposed preservation of Sweetwater Marsh was in doubt, the California Department of Fish and Game placed a stronger emphasis on the importance of Gunpowder Point--"Failure to acquire Gunpowder Point (and a corridor across the marsh) results in loss of much of the endangered species preservation capability of the lands proposed for that purpose" (COE 1982:A2-103, 104).

At hearings regarding Chula Vista's Bayfront Land Use Plan, the California Coastal Commission received testimony from the Department of Fish and Game and others, which argued that Gunpowder Point is important for its relation to the surrounding wetlands. This area may be used by Belding's savannah sparrow and other species as a foraging area, resting place, or refuge during adverse conditions. Other testimony, however, argued that such interrelationships between Gunpowder Point and the wetlands do not exist or are unimportant in maintaining the habitat for sensitive species using the wetlands (California Coastal Commission 1984:12-16). The commission ultimately found that the proposed development in the upland area of Gunpowder Point was sited and designed to prevent impacts which would significantly degrade the sensitive habitat area and would be compatible with the continuance of the wetland habitat areas.

Thus, while development on Gunpowder Point as proposed represents a potential impact to the habitat value of

the surrounding wetlands, there is obvious disagreement regarding the reality or magnitude of the impact.

- d. Potential impacts from altered hydrology and pollutants from urban runoff. While this topic is discussed in Section 3.12 of this EIR, two biological implications of these water quality impacts warrant discussion.

First, the altered storm flows associated with urbanized areas and their typically impervious surfaces may have an effect on the preserved marshlands. The extent of runoff--its duration and peak flow values--may cause minor variations in the distribution of some plants, and the pollutants typical of urbanized areas may adversely affect the wetlands.

Second, one of the measures proposed to minimize the above impacts may have an adverse effect of its own. The Land Use Plan (Sedway Cooke 1983:III-36) and Specific Plan (Section 19.88.05 and Map 6) suggest that fresh water would be discharged into the upstream portion of the F-G Street marsh to supplement runoff from the development. The only detail regarding this proposal is that it would use "high quality runoff from the industrial softwater manufacturing operation at the foot of F Street" (Sedway Cooke 1983:III-36). This proposal was intended to provide restoration or replacement for the degraded freshwater pond habitat which would be lost to the proposed detention basin. Thus, its effects are intended to be beneficial. This proposal, however, would essentially replace existing salt marsh with new freshwater marsh. Depending on the relative weights assigned to habitat values, this effect could be negative.

- e. Potential reduction in light-footed clapper rail due to road kills or altered behavior in the vicinity of the Tidelands Avenue extension and Gunpowder Point access road. The clapper rail will occasionally run across roadways (Jorgensen, 10/15/84), making them vulnerable to being killed by passing vehicles. Clapper rail road kills have been documented by Massey and Zimbal (1980) in a similar road situation at Upper Newport Bay. The movement patterns of clapper rails between different portions of the marshlands, or their breeding activities and other behaviors such as fledgling dispersal, may be altered or restricted by the presence of improved roadways and automobile traffic. With breeding pairs in this vicinity numbering less than 20, any population loss either from road kills or behavioral changes would be significant.

Potential indirect impacts associated with development pursuant to the specific plan would result from increased traffic, human activity, noise, lights, and other actions which would disturb wildlife

utilizing the preserved wetlands. Of principal concern in this regard is the potential effects on breeding least terns. Jones and Stokes (1983:51) state, "Terns appear to require a buffer zone of approximately 100 feet from human activity; terns usually react when a human approaches within 100 feet. Where protective fences have been erected at nest sites, terns consistently nest well within the fenced area (i.e., 20-30 yards from fence) (Massey and Atwood 1979, 1981a)."

Furthermore, with regard to light-footed clapper rails, Jones and Stokes indicated:

Light-footed clapper rails appear to be adaptable to benign human activities in proximity to marsh habitat. There is no evidence to support the statement that light-footed clapper rails are more sensitive to human disturbance than any other water bird. . . . The literature survey reveals that light-footed clapper rails are secretive, and are sensitive to:

1. Harassment by humans.
2. Harassment by dogs and other domesticated animals.
3. Water quality impacts on marsh habitat.
4. Road traffic if it leads to road kills.

(Jones and Stokes 1983:67).

Because of their endangered status, and because of the relatively small numbers of individuals involved, these indirect effects on least terns and clapper rails may be significant.

Finally, because of their inclusion in areas to be preserved, either in Sweetwater Marsh or in the buffer areas on Gunpowder Point, no adverse impacts are anticipated on the known populations of saltmarsh birds beak and *Frankenia palmeri*.

3.5.3 Mitigation

The specific plan has incorporated many measures that reduce the potential impacts to biological resources. These measures have been developed over years of negotiation with various regulating agencies and studies performed by other consultants. They are summarized below and described in detail within the Environmental Management section of the specific plan in Appendix B. The following discussion has been reorganized from the draft EIR to facilitate comparison with the identified impacts.

- a. Potential impacts resulting from the direct filling or dredging of wetlands will be mitigated through the restoration of wetland habitat in certain areas that have suffered filling or degradation through past uncontrolled activities. As noted in the previous section, 6.45 acres of wetland habitat would be directly eliminated by the proposed development. The areas to be restored as compensation for this loss are as follows:

- 1) Approximately 3.4 acres in and adjacent to Vener Pond, 3.0 acres adjacent to the E Street marsh, and 2.5 acres of degraded salt marsh in the F-G Street marsh will be restored to "high quality" wetland habitat [Sedway Cooke 1983:III-36; Specific Plan Section 19.88.05; California Coastal Commission 1984:5].
- 2) Approximately one acre of "high quality wetland" will be created in Sweetwater Marsh in conjunction with the Tidelands Avenue extension [Sedway Cooke 1983:III-37; Specific Plan Section 19.88.06(b)].
- 3) The artificial lagoon berm will be removed and a "healthy wetland" will be restored over approximately 1.2 acres at the southwest corner of Gunpowder Point [Sedway Cooke 1983:III-33; Specific Plan Section 19.88.04(c)].
- 4) Fill and spoil material will be removed from the "wetland upland mosaic" and wetland habitat will be restored over approximately 2 acres at the northwestern corner of Gunpowder Point [Sedway Cooke 1983:III-33; Specific Plan Section 19.88.04(c)].

The total area specified for wetland restoration is 9.9 acres, plus the 3.2 acres on Gunpowder Point that will be improved. This area exceeds that which will be destroyed by the project. Assuming that equal habitat value is provided under the direction of the environmental management program discussed below, this wetlands restoration will mitigate the direct impacts of filling and dredging.

Although not a direct component of the Bayfront Land Use Plan and Specific Plan, two other aspects of wetlands preservation should be mentioned. First, as part of the Sweetwater River flood-control project and State Route 54 improvements, the major portion of Sweetwater Marsh is to be acquired for permanent preservation. This will be accomplished through a cooperative effort among the COE, Caltrans, the Chula Vista Redevelopment Agency, and the property owner. Second, Caltrans will be creating an additional 9.6 acres of salt-marsh habitat along the southerly edge of the D Street fill, as partial mitigation for the State Route 54 improvements. These actions have been recognized in planning the Bayfront development.

- b. Potential impacts to the California least tern resulting from a reduction of potential breeding area will be offset by the creation of a preserve which will be isolated by a water channel and protected from disturbance by vehicles, direct human activity, and pets. The efficacy

of this mitigation is the subject of considerable disagreement--the California Department of Fish and Game believes that 40 acres at this location is necessary to provide adequate mitigation (see letter of comment regarding the draft EIR); USFWS recommends that approximately 25 acres be included (Kaufman, 9/25/84). Jones and Stokes (1983:43-55) present arguments that an appropriately designed and protected preserve of 10 acres can be an effective breeding area for least terns.

In well-protected small preserves at Venice Beach (3 acres) and Huntington Beach (3.7 acres), between 23 and 63 breeding pairs have nested regularly in recent years (Jones and Stokes 1983:49-50). If the lower limit of this rate could be approached on half of the 10-acre preserve, then the area would support approximately 100 breeding pairs of least terns. This number is considerably in excess of the highest estimates of recent nesting during the last 10 years at the D Street fill. Thus, even though the potential area for least tern nesting would be reduced, the added protection from disturbance by humans, which is currently the case due to off-road-vehicle usage, may reasonably be expected to provide mitigation.

In approving the Bayfront Land Use Plan, the California Coastal Commission determined that the proposals provided "adequate protection against significant disruption of least tern habitat values" (California Coastal Commission 1984:22), based on the fact that size alone is not the only determining factor in the effectiveness of a least tern breeding preserve.

- c. Impacts from the loss of upland habitat on Gunpowder, while not considered significant by the Coastal Commission and Jones and Stokes (1983), would be mitigated by the restoration of upland habitat over an area of approximately 9.6 acres. This area is currently occupied by various structures, spoil material, agricultural fields, old borrow pits, and other features. It would be restored to coastal sage scrub or other appropriate vegetation to provide an upland habitat complementary to the surrounding wetlands [Sedway Cooke 1983:III-33; Specific Plan Section 19.88.04(c)].
- d. Potential impacts from the altered characteristics of storm runoff will be mitigated by two features of the project: First, existing runoff impacts related to current agricultural activities on Gunpowder Point and elsewhere in the Bayfront area will be eliminated.

Although it has not been explicitly documented in any reports reviewed for this EIR, it is likely that fertilizers and/or pesticides are used in the farming operations. Because of the immediate proximity of the various marshlands, it would seem unavoidable that some agricultural chemicals would reach the wetland habitat areas. As the urban development proposed in the project replaces the current agricultural operations, the increase in urban water pollutants would be partially offset by a reduction in the inadvertent discharge of agricultural pollutants.

Second, the proposed drainage system within the Bayfront development would direct most storm runoff into the open waters of San Diego Bay rather than into the marshlands. As depicted in Map 5 of the specific plan, drainage from the developed portion of Gunpowder Point and from about half of the Midbayfront area would be directed into San Diego Bay. Runoff entering the F-G Street marsh would do so via a permanent detention/desilting basin which would reduce the amount of sediment and urban pollutants reaching the marsh. Although the drainage for the D Street fill is not explicitly shown in Map 5, it is clear from the grading information provided that at least a portion of this area will drain into Sweetwater Marsh. This impact will be reduced in part by improved tidal flushing in Sweetwater Marsh. In addition, measures including detention basins and various grading restrictions contained in Section 19.87.07 of the specific plan will further reduce potential storm runoff impacts.

Based on information presently available, it is not clear whether the proposed discharge of fresh water into the F-G Street marsh would represent an improvement (or mitigation) as intended or an adverse habitat conversion. This matter should be considered more carefully as part of the environmental management program discussed below. If it is determined that this freshwater flow would not provide any beneficial effects, it could easily be directed to the open bay waters, thus avoiding its potential impacts.

- e. Potential impacts to the light-footed clapper rail may not occur at all, according to the conclusions of Jones and Stokes (1983:66-67). Based on these findings, traffic and the passive human activities allowable along the marshland perimeters within the plan (walking, jogging, observation) would have little or no adverse effects. The only potentially significant impact to light-footed clapper rails would be that from road kills. The design for the access road to Gunpowder Point (Figure 7 in the specific plan) would clearly discourage birds from walking across the road between marsh areas. Tidelands Avenue could also be designed in a manner, perhaps with

low fences or walls adjacent to it, which would prevent birds from walking into the roadway. Indeed, the widened bridge structure proposed for Tidelands Avenue would improve the opportunity for wading birds to travel between Sweetwater Marsh and the upstream marsh areas.

Potential indirect impacts related to the proximity of human activity near the preserved wetlands will be mitigated through the project design, which restricts or prohibits human presence in some areas and provides for nonactive pursuits in other areas. The major focus of this mitigation is a 100-foot-wide buffer area that would be located around the periphery of the preserved wetland areas. The land area for this buffer is to be acquired by the Army Corps of Engineers and Caltrans as part of the Sweetwater River flood-control and State Route 54 improvement project. The Bayfront Land Use Plan and Specific Plan and their implementation will provide the design and construction of appropriate landscaping, fencing, and walkways to control human intrusion and maintain the buffer between developed areas and the wetlands.

The general concept of the buffers would allow limited human activity, such as walking, jogging, and observation, in the 50 feet of the buffer located furthest from the marsh, while the 50 feet nearest the wetlands would be landscaped with plantings which provide a visual barrier with limited breaks to permit some views into the wetlands. In some areas within the outer portions of the buffer, bicycle paths would be provided. The general concept of this kind of buffer with limited recreational uses was first proposed by the COE (1982:9) and endorsed by the USFWS (COE 1982:A2-40, 59) pending review of detailed designs.

The buffer areas are delineated in Specific Plan Map 6. Detailed descriptions of the buffers are as follows:

- a. D Street Fill and Least Tern Area (Specific Plan, Figure 9). This buffer would include a minimum 25-foot channel within a 60-foot zone specified as a water barrier adjacent to the least tern preserve. The remaining 40 feet of buffer is located on the D Street fill and would include a pedestrian path and limited activities adjacent to residential development. A five-foot fence would separate the outer 40 feet of the buffer from the water barrier and tern area.
- b. Gunpowder Point (Specific Plan, Figure 10). Around the perimeter of Gunpowder Point, the 100-foot buffer would include a pedestrian path within the 20 feet furthest from the wetlands. The remaining 80 feet towards the wetlands would be landscaped with appropriate upland species and contain a five-foot fence, screened within a drainage swale.
- c. Midbayfront, Residential Areas (Specific Plan, Figures 11 and 12). Adjacent to the residential areas in the Midbayfront, the wetland areas would be buffered by a

100-foot strip. Within this strip and moving from the developed areas to the wetland, the following improvements would occur: ornamental landscaping in a 20-foot strip adjacent to residences, an eight-foot bicycle path and five-foot pedestrian path within an approximately 25-foot strip, and a five-foot fence and landscaped berm blending into native species within the 50 feet adjacent to the marsh areas.

- d. Midbayfront, Industrial/Business Areas (Specific Plan, Figure 13). Buffers adjacent to the office and industrial uses would provide for landscaping and outdoor activity areas within an approximately 25-foot strip adjacent to buildings. A public pedestrian path and landscaping would be provided within the next 20 feet. The final 50 feet adjacent to the wetlands would include a five-foot fence, landscaped berm, and native coastal species as in the other buffer areas.
- e. Midbayfront, Specialty Retail Areas (Specific Plan, Figure 14). A 20-foot strip of the buffer furthest from the marsh areas would include landscaping and a 12-foot combination bike and pedestrian path. The 80 feet adjacent to the marsh would have a five-foot fence, landscaped berm, and native species.

There are two points of disagreement regarding the effectiveness of the proposed buffers as mitigation of the indirect impacts of human activity near the wetlands. First, the buffer provides a distance of only 60 feet between the points of nearest human approach and the area to be preserved for least tern breeding. If least terns respond negatively to human approaches within 100 feet, then the buffer would not provide completely natural conditions at the perimeter of the least tern area. Visual screening with vegetation and the added security provided by the water barrier within the buffer may serve to reduce the influence of human activity. The point made by Jones and Stokes (1983:54) and accepted by the California Coastal Commission (1984:22) is that size alone is not the key to a successful least tern nesting preserve. The Coastal Commission did find that the Land Use Plan provided adequate protection against significant disruption of least tern habitat values.

A second concern regarding the proposed buffer designs relates to the extent of potential uses in some areas. In all areas, the buffers provide a minimum distance of 50 feet adjacent to the wetlands which would be planted in native species which make a smooth transition to visual screen plantings and a five-foot fence within the 50 feet. Outside of this 50-foot natural buffer, the proposed improvements would serve the multiple purposes of (a) visually screening the wetlands from human activities; (b) providing public access via walkways, bikeways, and observation points; and (c) providing certain amenities including ornamental landscaping and outdoor activity areas for adjacent development.

These buffer designs were included as part of the Bayfront Land Use Plan (Sedway Cooke 1983:30-36) and were approved by the California Coastal Commission. In determining that the Land Use Plan provided adequate public access, the Coastal Commission stated, "The Commission finds that such carefully located and screened paths are consistent with Section 30212(a) because wildlife and marsh vegetation values within environmentally sensitive habitat areas will not be significantly adversely affected by such passive use" (1984:7). Specific details regarding the precise locations for observation points and the precise uses which would be permitted in the outermost portions of the buffer areas can be determined upon review of individual development plans.

In addition to the design features discussed above, the specific plan also includes an extensive Environmental Management Program (Section 19.88.5). This program identifies the Bayfront Conservancy Trust as the agency that would own the preserved wetlands and oversee their restoration and management. The Board of Directors of the Trust would include representatives from the California Department of Fish and Game, U.S. Fish and Wildlife Service, and other environmentally oriented organizations as well as members representing the City of Chula Vista, the Port District, and the major Bayfront landowner. The composition of the board is described in Section 19.88.54 of the specific plan. The principal duties of the Trust would be to prepare a detailed management plan for the restoration, enhancement, and improvement of the wetland habitat and to prepare a public education program regarding the resources of the bayfront. The outline of the Bayfront Management Plan included within the specific plan identifies the various components of the overall wetlands restoration and maintenance proposal and notes which agencies have responsibility for the various actions. The remaining questions regarding augmentation of the freshwater flow into the F-G Street marsh, the precise design of various trails and passive recreation areas, and the need for wildlife fences adjacent to roadways can and should be addressed as part of the development of this management plan.

Initial funding for the Trust and its activities would be provided by the City of Chula Vista and the developer of the property as well as by the involved federal and state agencies. Annual funding support for the Trust and its maintenance functions would be provided by a new Bayfront Open Space and Maintenance Assessment District.

The concept of wetlands management by a private trust with representatives from development interests and funded by assessments on private land has not been accepted by the U.S. Fish and Wildlife Service. As an alternative, the land in the marsh areas could be deeded directly to the federal government to be managed by USFWS, or to the state to be managed by the California Department of Fish and Game, or to the state Coastal Conservancy. The problem with such arrangements lies in the difficulty in transferring private money for maintenance operations to federal or state entities. A potential solution to the administrative difficulties may involve a private third party, such as the Nature Conservancy, who can receive private funding and has experience directly managing preserves and in working with the various agencies involved in resource management. This particular disagreement--defining the roles of the various agencies in owning and managing the wetlands--is a matter

which can be resolved during consultations between the city and/or private applicants and the resource agencies involved. Such consultations are required as part of Section 7 of the federal Rare and Endangered Species Act and will occur in conjunction with the U.S. Army Corps of Engineers process in issuing necessary permits for dredging and filling in wetland areas.

In summary, all of the identified biological impacts of the proposed Bayfront Specific Plan can be avoided or substantially lessened through the implementation of the wetland restoration, enhancement, buffering, and maintenance programs within the Land Use Plan and Specific Plan. There is disagreement, however, regarding the potential effectiveness of the proposed least tern breeding preserve, the extent of the impact of development on Gunpowder Point, the effectiveness of proposed buffer areas, and the precise roles of various entities in preserving and managing the wetlands. Extensive testimony reflecting this controversy was presented to the California Coastal Commission during hearings regarding the Land Use Plan. In approving the Land Use Plan, the commission found that the plan was consistent with the policy requirements of Section 30240 of the California Coastal Act:

- (a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on such resources shall be allowed within such areas.
- (b) Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade such areas, and shall be compatible with the continuance of such habitat areas.

3.5.4 Analysis of Significance

In reaching the conclusion that the Land Use Plan was consistent with Section 30240 of the Coastal Act, the Coastal Commission noted:

. . . the Commission has balanced the legitimate interests of the City in sound economic development and the productive use of its land against the important coastal resource values at stake in this area. In this process, the Commission has given significant weight to the LUP's proposed provision of two high-priority coastal values at Gunpowder Point--visitor-serving facilities and expanded public access to the shoreline.

Finally, in review of the Gunpowder Point proposals as well as those for the "D" Street Fill area and the extension and Tidelands Avenue, the commission has been mindful that . . . the Coastal Act provides that the precise content of an LCP is to be determined by local government (California Coastal Commission 1984:16).

As indicated above, the commission has, with respect to Gunpowder Point, balanced the concentration of development in the least environmentally sensitive areas of the Chula Vista Bayfront with the city's policies for major wetland protection and enhancement. Although some interested parties testified before the commission in favor of other ways to protect Bayfront coastal resource values, the commission found that the provisions embodied in the LUP are consistent with the standards of Chapter 3 of the Coastal Act.

(The above California Coastal Commission findings differ from the wording presented in the draft EIR dated November 1, 1984. This is because the coastal findings were not available in their final wording until December 21, 1984.)

In implementing this approved Land Use Plan, the specific plan would provide wetland restoration and protection measures consistent with the proposals of the LUP. These measures would avoid the direct impacts of wetlands destruction by a program of enhancement and replacement with reclaimed marsh areas. Other direct impacts related to the development on Gunpowder Point--reduction of the least tern nesting area, altered drainage characteristics, construction of roadways near clapper rail habitat--and the indirect impacts of increased human activity would all be substantially reduced by the measures incorporated into the project.

3.6 ARCHAEOLOGICAL/HISTORICAL RESOURCES

3.6.1 Project Setting

Previous surveys for archaeological and historical resources have resulted in a total inventory of the project area. WESTEC Services, Inc. (1977) prepared a report describing archaeological sites in the northern portion of the property west of I-5 and north of G Street. Bull and Ezell (1973) surveyed the Sweetwater River channel, including the small property east of I-5; later studies (Leach 1977) resulted in excavation data for cultural resources in the area. Caltrans personnel have also examined areas within the Bayfront zone. Recent studies (DeCosta 1981; Snyder 1982) have focused on a historic dump in Paradise Marsh. A bikeway route was surveyed along the present railroad alignment by Caltrans (Corum 1978). The railroad line was also surveyed for the Metropolitan Transit Development Board (Carrico 1978). Bull (1977) prepared a report describing the excavation of the prehistoric site at Gunpowder Point. The specific resources found as a result of these studies will be discussed in the following paragraphs.

SDi-8873H is a historic dump with three main areas of deposit. The northernmost area is outside the Bayfront property within Paradise Marsh. An eastern location is east of I-5. Locus C extends from the Sweetwater River north and is on the Bayfront property. These deposits have been investigated by Caltrans (DeCosta 1981) and have been determined to contain garbage discards dating from 1915 through 1950. The integrity of this otherwise significant find has been compromised by repeated scouring for usable discards and normal leveling and material movement associated with dump operations; the site was determined to be ineligible for inclusion on the National Register of Historic Places (Snyder 1982).

Site SDi-4958/SDM-W-1323 was excavated by RECON (Bull 1977). This site once covered the entire Gunpowder Point area, but agricultural and other disturbances have reduced it in size substantially. The only remaining intact deposit is located on the northernmost bluff area. Eighty-nine artifacts were found during the RECON excavation. In addition, shell and animal bone were found. At the time of the preparation of the RECON report, the plan was to fence the site and incorporate it into an open space area.

SDi-5512/SDM-W-1653 was recorded during a Caltrans survey of a proposed bikeway route (Corum 1978). The site is described as a disturbed scatter of flakes, flake tools, and shell. This site has never been tested and its significance is unknown. It was estimated to be 15 by 100 meters in size with an unknown depth.

SDi-6025/SDM-W-1840 was recorded during the WESTEC Bayfront survey. The site consists of scattered flake tools and shell. It was recorded as being 85 by 50 meters in size with an unknown subsurface deposit. This site is also highly disturbed but has been classified as a midden site with some potential to yield important data.

Two archaeological sites have been recorded on the eastern square of property that is within the redevelopment area. Both have been impacted to some extent by recent development.

Site SDi-3 is a shell midden located in the western portion of the small area. According to the Army Corps of Engineers, this site has been disturbed heavily by modern impacts but may still contain some important information. The size and exact dimensions of the site are not known at this time because of the disturbance.

Site SDM-W-2241, in the same general southwestern area of the small square property as SDi-3, was recorded by George Carter, who noted the shell scatter of the latter site. He defined SDM-W-2241 as a geological deposit that contains artifacts representative of Early Man. At the time of recordation, the site had been disturbed by road construction.

Record searches have been obtained from San Diego State University and the San Diego Museum of Man. The data contained in these documents has been incorporated into this report, but site locations and precise descriptions are not included to protect the resources.

Besides the two record search institutions cited above, the Army Corps of Engineers (Gloria Lauter, archaeologist) and Caltrans, District 11 (Martin D. Rosen, archaeologist) personnel were consulted.

3.6.2 Potential Impacts

Development of the Bayfront project area will adversely impact the archaeological sites within the project area by destroying them through grading, fill, and other construction-related activities. No cultural resources were found near the project boundaries so that indirect impacts are unlikely.

3.6.3 Mitigation Measures

The present condition of the sites discussed in this section is not known. Therefore, preliminary tests coordinated with the planned development need to be done. These tests would consist of surface collections of artifacts, posthole excavations to establish site size and depth, and one-by-one-meter unit excavation to sample the artifacts and establish site significance. Sites determined to contain significant cultural materials would then be sampled further to achieve mitigation, unless the sites can be preserved in open space easements.

Following any data collection program, the artifacts should be cataloged and analyzed. A report describing the results of the project should be prepared.

3.6.4 Analysis of Significance

All of the archaeological resources located on the Bayfront property, except for the historic dump site, SDi-8873H, constitute important sources of data on prehistoric populations. Their unmitigated loss would be a significant impact.

3.7 LAND USE

3.7.1 Project Setting

The mixed array of existing land uses within the 790-acre Chula Vista Bayfront area includes agricultural, industrial, and commercial uses. Vacant areas are also scattered throughout the site which contain wetlands, uncontrolled and hydraulic fills, and neighborhood and community parks. Access to the site currently exists from I-5 at E, H, J, and L streets, with Bay Boulevard serving as a frontage road nearly the entire length of the site. At the present time, only F Street and Tidelands Avenue provide internal public access. Table 7 depicts the current acreages for each of these uses.

Nearly the entire plan area is held within three corporate ownerships: San Diego Gas & Electric (SDG&E) owns 84 acres south of J Street; Rohr Corporation owns 100 acres between G and J streets; and the Atchison, Topeka and Santa Fe Railway (AT&SF) owns approximately 400 acres north of G Street. Other small holdings exist between I-5 and the SD&AE right-of-way which vary in size from 0.5 to 3.5 acres (Sedway Cooke 1983:III-1). Both the SD&AE and SDG&E rights-of-way (for 138-kV and 69-kV transmission lines) exist near the eastern boundary of the site and run the length of the project. Figure 13 depicts the existing land uses within the project boundary.

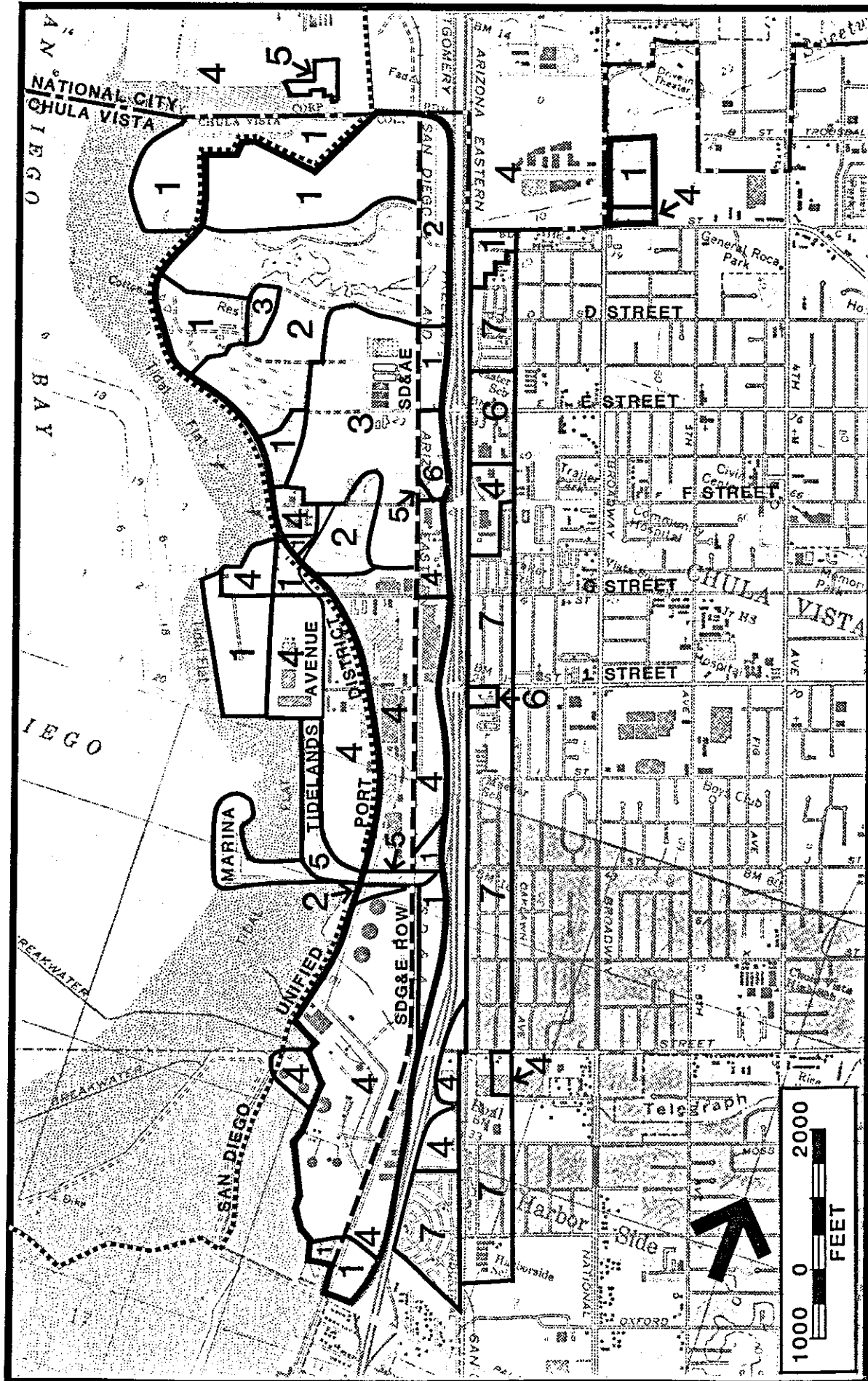
As indicated by Figure 13, industrial uses dominate the landscape in the area roughly south of G Street. Rohr's manufacturing operations and parking areas occupy a large percentage of this southern area and are the most intensive land use in the plan. Their operation also occurs to the west of the plan area on the San Diego Unified Port District lands. Utilization of the area south of J Street is mainly for the power plant operations of SDG&E. Other uses include the salt works (4 acres), a park site, an industrial park, and an auto wrecking yard. Vacant areas containing approximately 20 acres also lie between I-5 and Bay Boulevard at J Street.

To the north of G Street, the agricultural use by Bay Pointe, Ltd. (Vener Farms truck crops) is the dominant use. Approximately 100 acres in this area between Rohr's operations and Sweetwater Marsh is in agricultural production. Wetlands occupy an area containing approximately 200 acres (Sweetwater Marsh, Paradise Channel, E Street marsh, F-G Street marsh, a remnant freshwater marsh, and Vener Pond). Other vacant lands exist at Gunpowder Point and the entire D Street fill area. Gunpowder Point, in the northern portion of the plan area, also contains five acres in agricultural use, various relic structures, and a residence. The industrial uses located at the end of F Street include various boat works and the Rayne water purification system. Highway commercial uses are located in the small ownerships between I-5 and the SD&AE right-of-way, which include restaurants and a motel. A small park is located at the foot of F Street.

Aside from the above land uses west of I-5, a 16.8-acre parcel east of the freeway is also included in the land use plan area. This

**TABLE 7
EXISTING USES WITHIN THE
CHULA VISTA BAYFRONT PLAN AREA**

Type of Use	Area	Acreage
Agriculture	Vener Farms, Gunpowder Point	100
Commercial	Highway-related at E-F streets	13
Industrial	SDG&E Power Plant, Rohr operations, Rayne water systems, boat works, industrial park south of L Street, salt works, and mixed industrial uses between H and G streets along Bay Boulevard	230
Vacant land	Gunpowder Point, D Street fill, inland parcel, areas south of J Street, F/G Street vacant areas, and scattered areas north of F Street	167
Right-of-way/landscaped parking	SDG&E and SDA&E	60
Wetlands	Sweetwater Marsh, Paradise Creek channel, F/G Street marsh, E Street marsh, Vener Pond, a remnant freshwater marsh near F Street, and a mudflat area at J Street	200
Parks	F Street and J Street areas	20
TOTAL		790



- 1 VACANT LAND 2 CONSERVATION/WETLANDS 3 AGRICULTURE
- 4 INDUSTRIAL 5 PARK SITE 6 COMMERCIAL 7 RESIDENTIAL

FIGURE 13. EXISTING LAND USES

parcel is bounded on the north by the Sweetwater flood-control channel and is zoned for light industrial use. At the present time, this parcel is partially vacant.

Uses adjacent to the project site exist in Chula Vista, in National City, and on San Diego Unified Port District lands. The 24th Street Shipyards, a park and boat launching area, and other heavy industrial uses are nearby in National City to the north. The Port District lands, which lie to the north and west between the project boundary and the mean high tide line, contain other Rohr operations, the marina off of Tidelands Avenue, portions of the D Street fill, and other vacant underutilized lands. The adjacent development in Chula Vista east of I-5 is predominantly residential.

From a land use planning standpoint, the Chula Vista Bayfront Land Use Plan (Phase II of the LCP) has been approved by the California Coastal Commission as a local coastal program and adopted by the Chula Vista City Council. This plan, which is in substantial conformance with the 1974 Chula Vista Redevelopment Plan for the Bayfront (one of four redevelopment districts within the city), provides the current land use designations for the area. The existing zoning is in conformance with the redevelopment plan. The Bayfront Specific Plan (Phase III of the LCP), which this document addresses, differs slightly from the currently approved Land Use Plan by designating uses for the areas of development reserve. These alterations are discussed in the following impact section. Figure 14 illustrates the uses proposed in the LCP.

In addition to the LCP, there are several other jurisdictional planning operations either adjacent to or within the plan area. As discussed above, the National City Planning Area is adjacent to the plan area on the north, with Port District lands to the north and west. The Bayfront Land Use Plan calls for coordination between the City of Chula Vista and Port District planning efforts. In addition, a joint project between Caltrans and the U.S. Army Corps of Engineers is under construction to the north and east of the project area along the Sweetwater River. The project includes creating a flood-control channel for the Sweetwater River to enter the bay just north of the D Street fill and the construction of Route 54 and its interchange with I-5. The flood-control channel will occupy the median between the eastbound and westbound lanes of Route 54. The project also includes the widening of a portion of I-5 and the acquisition of marshlands in Paradise and Sweetwater marshes.

3.7.2 Potential Impacts

Approval of the Chula Vista Bayfront Specific Plan (Phase III of the LCP) will allow the Chula Vista Bayfront Land Use Plan to be implemented. Approval of the specific plan will supersede the provisions of the existing zoning ordinance. Realization of the plan will increase the acreage in urban use over the entire site from 290 acres to approximately 450 acres. The majority of the increase will occur in Subareas 1 through 4 (the area north of G Street) due to the conversion of agricultural land and the utilization of vacant (wetlands and fill) areas. The change in the overall development intensity in the area will substantially alter the existing character of the site. However, the plan has

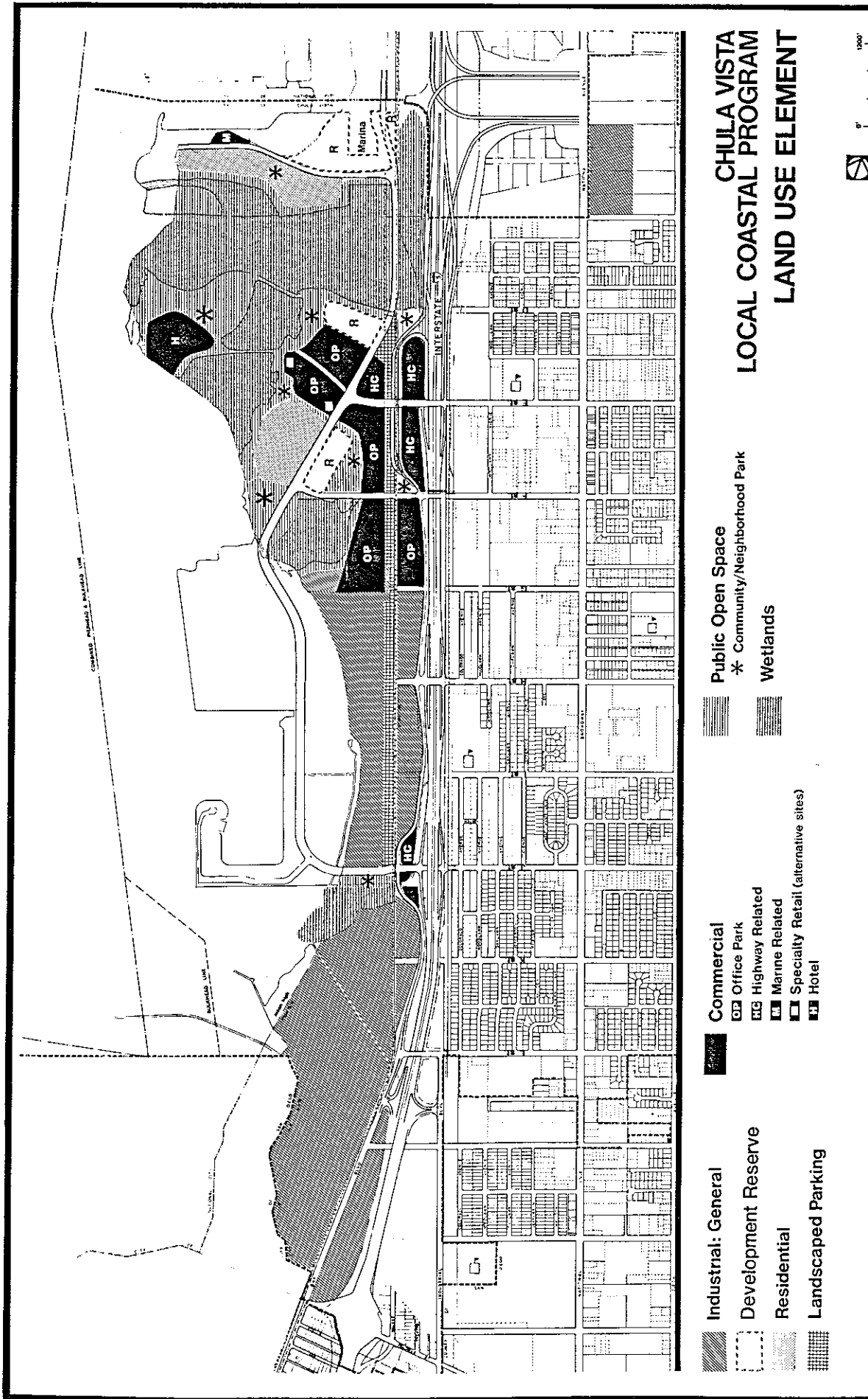


FIGURE 14. ADOPTED LOCAL COASTAL BAYFRONT PLAN

been designed to integrate the proposed uses with the existing natural features. Table 1 reflects the proposed land use acreages for the Bayfront area as a whole and by subarea.

The proposed land uses and their relationship to the plan area are briefly discussed below. A more detailed analysis is contained in the plan itself, which is included as Appendix B of this report. Figure 4 shows the location of each of the proposed uses.

a. Industrial. The change in industrial uses for the Bayfront plan area will increase the total amount to approximately 50 acres. This type of use will generally remain concentrated in the area south of G Street. The increases will occur at several of the plan areas: (1) at the inland parcel east of I-5, (2) on the vacant parcel south of J Street and east of the railroad right-of-way, and (3) within the area east and south of the F/G Street marsh.

The specific plan modifies the approved Land Use Plan by including the area south of Lagoon Road and north of the Rohr facility as an industrial business park. All of the new industrial use proposed for the Bayfront north of G Street, with the exception of the inland parcel, will consist of industrial business park. This is in accordance with Coastal Act policies which delete general industrial uses from the improved Bayfront area (Sedway Cooke 1983:V-19). The existing industrial uses at Rohr and SDG&E will be allowed to continue and expand (Sedway Cooke 1983:III-3).

b. Commercial. Both the scope and overall acreage of commercial development within the Bayfront area will be greatly increased. The existing highway-related commercial will increase from 13 acres to 23 acres. Three areas north of E Street, which are either used for agriculture or vacant, are proposed highway commercial. The vacant area at the J Street/Bay Boulevard intersection is also proposed for highway commercial. Commercial office parks are proposed for three locations (totaling 47 acres) that are now predominantly agriculture. Other new commercial uses include a hotel on Gunpowder Point (14 acres), marine-related commercial on the D Street fill (21.1 acres), and an area of specialty retail (8 acres) west of the E Street marsh. The total commercial acreage proposed is approximately 113 acres. The specific plan differs from the approved Bayfront Land Use Plan by increasing the specialty retail area by 7 acres, decreasing the office park area by 5.3 acres, and increasing the marine-related commercial area by 13.4 acres.

c. Residential. Areas containing high-density multi-family units are proposed for a portion of the D Street fill and two areas of existing agricultural land in Subarea 3. The plan suggests a broad range of housing types in an attempt to integrate this new use into the Bayfront setting. Approximately 46 acres are proposed for residential use. The Land Use Plan proposed 57 acres for residential development.

d. Landscaped Parking. Landscaped parking beneath the existing SDG&E right-of-way power line is proposed for 19.5 acres from D Street to J Street. The plantings will be no more than 15 feet in

height to maintain sufficient clearance from the power lines. SDG&E has recognized this as a compatible use within the right-of-way (Sedway Cooke 1983:III-42).

e. Public Open Space. Public open space includes those areas designated in the plan as wetlands (222 acres), wetland buffer areas (34 areas), upland resources (15 acres), and parks (39 acres). The designation refers to all physically and visually accessible open land for public enjoyment and use. Each of the following wetland uses are discussed in more detail in the Bayfront plan, and the biological implications of the alterations are presented in Section 3.5 (Biological Resources) of this report.

1. Wetlands designation includes all existing, restored, enhanced, or newly created salt marshes, ponds, and mudflats. No use beyond natural habitat protection or minor scientific and educational use is proposed (Sedway Cooke 1983:III-5).

2. Wetland buffers include all the zones adjacent to the wetland areas required for habitat protection and preservation of the health and vitality of the adjacent wetland ecosystem. Permitted uses in the buffer zones include provisions for controlled public access, minor grading and landscaping, and minor scientific or educational uses (Sedway Cooke 1983:III-6).

3. Upland resources include the remaining upland habitat for the least tern reserve at the southwest corner of the D Street fill and the upland revegetation zone on Gunpowder Point. No uses are permitted on the least tern reserve except for minor scientific or educational uses. The upland revegetation zone on Gunpowder Point will be accessible to pedestrians but not improved for specific uses except passive recreational uses and minor scientific or educational uses.

4. The existing park acreage is contained in the F and J Street parks and totals 20 acres. A series of seven additional community or neighborhood parks to be used for recreation would be established throughout the Bayfront plan area. Limited parking would be provided at several of the parks, and all would be linked via a continuous, publicly accessible pedestrian system. These new park areas will increase the total to 39 acres.

f. Roadways and Rights-of-Way. The major roadway improvements and alterations proposed by the Land Use Plan include the extension of Tidelands Avenue across Sweetwater Marsh, the westerly extension of E and F Streets to Tidelands Avenue, improved access to Gunpowder Point via the two levee roads, and an access road onto the D Street fill. A complete analysis of the entire circulation system is addressed in Section 3.10 (Transportation and Circulation). Tidelands Avenue will cross Sweetwater Marsh within the existing SD&AE right-of-way and will alter the existing wetlands conditions. This impact is discussed in detail in Section 3.5. The proposed acreage for roadways and rights-of-way under the Bayfront plan is approximately 40 acres.

Each of the above proposed land uses, with the exception of the industrial uses, will alter the character of the Bayfront site by removing areas of less intensive development (agriculture, wetlands, and vacant fill) and replacing them with a variety of intensive urban land uses. Although the land use impacts to much of the agriculture and vacant fill lands are not considered significant, the proposed plan will remove a generally open area from the surrounding urban environment. The impact of the proposed land uses to wetland habitat is considered significant and is fully discussed in Section 3.5.

The specific plan integrates the proposed uses with those existing and planned uses surrounding the project as well as the uses within the plan. For example, the plan provides good pedestrian and vehicular access across I-5 to Chula Vista and identifies industrial business park land use as a transition to the existing industrial use in Subarea 5. Also, the plan includes both residential and office park uses, which results in peak-hour traffic being split between those trips which are leaving the area in the morning and those which are entering. The same holds true during the evening peak hour. Furthermore, the provision of both residential and office park uses within the plan allows for people to live and work in the same area, further reducing traffic impacts.

3.7.3 Mitigation

The land use impacts resulting from the proposed conversion of agricultural land and some of the vacant fill areas to several types of intensive land uses have been mitigated through the design measures contained within the plan. The uses are consistent with the intent of the approved Land Use Plan, which has attempted to integrate the natural features of the area with the proposed uses. Specific design criteria of the plan are included in Appendix B.

The impact of the proposed development on Gunpowder Point, portions of the D Street fill, the extension of Tidelands Avenue across the Sweetwater Marsh, and the alteration of the F/G Street marsh areas have significant biological implications, and mitigation measures are discussed in Section 3.5 (Biological Resources).

3.7.4 Analysis of Significance

The loss of agricultural areas within the Bayfront plan is not considered significant given that there are no prime agricultural soils on the property. In addition, the utilization of much of the vacant fill areas for commercial, parking, industrial, residential, or parks is also not considered a significant impact.

3.8 COMMUNITY INFRASTRUCTURE

3.8.1 Schools

3.8.1.1 Project Setting

The residential development areas proposed for the Bayfront are located within the Chula Vista City School District (elementary) and Sweetwater Union High School District (junior and senior high). The elementary school closest to the project area is the Mae L. Feaster School, located just east of I-5 on Flower Street. At the present time, this school is at capacity and students are being bused out due to the overflow conditions. The City School District is currently engaged in an effort to integrate schools and make recommendations on school assignments (Linn, Chula Vista City School District, 10/11/84). Within the Sweetwater Union High School District, Chula Vista junior and senior highs would serve the Bayfront area. Both of the current enrollments at these schools also exceed their capacities (Hendee, Sweetwater Union High School District, 10/12/84).

3.8.1.2 Potential Impacts

Ultimate maximum residential development of the Bayfront area would, according to the generation rates provided by the Chula Vista City School District and the Sweetwater Union High School District, add approximately 274 elementary school students and 343 junior high school and high school students, or a total of 617 students. Appendix A explains the derivation of these figures.

The proposed residential development would contribute to overcrowding of the school facilities within both of these districts and thus impair the normal functioning of educational programs in the districts. The location of the proposed development, west of I-5 and the San Diego Trolley line, would also create the additional impact of requiring the Chula Vista City School District to bus students to the school for safety purposes (Linn, Chula Vista City School District, 10/11/84).

3.8.1.3 Mitigation

Both districts would require enforcement of the City of Chula Vista ordinance requiring a letter of service availability prior to approval of the residential units. This letter would require the developer to agree to make a contribution toward the cost of providing temporary classroom facilities, which are considered the "best and proper solution" of the impacts (Hendee, Sweetwater Union High School District, 10/12/84).

3.8.1.4 Analysis of Significance

Since proper mitigation measures exist to alleviate the overcrowded school conditions within both districts, the impacts are not considered significant.

3.8.2 Fire Protection

3.8.2.1 Project Setting

The project area would be served by the City of Chula Vista Fire Department. The nearest existing station (Number 1) is located at 447 F Street, approximately one mile to the east of the project. The response time from this station is three minutes. This station houses one engine and truck company with eight men on duty at this station 24 hours per day. A second engine company would respond from the station at 80 East J Street, approximately four miles from the site, within three to five minutes. Three men are on duty at this station 24 hours per day (Thomas, Chula Vista Fire Department, 10/10/84). The Chula Vista Fire Department also maintains a mutual-aid agreement with the National City Fire Department whenever there is a fire in Chula Vista. The National City Fire Department would respond from its station at 16th and D streets in National City with three men and one engine company. The response time would be approximately five minutes (Piner, National City Fire Department, 10/10/84).

3.8.2.2 Potential Impacts

Fire protection services for the Bayfront from the station indicated above would be adequate. However, development of the plan area would contribute to the cumulative impact of new development on the department's ability to provide fire protection services.

3.8.2.3 Mitigation

To help reduce the potential for fire hazards within the project area, the proposed development should be constructed in accordance with fire standards specified by the Chula Vista Fire Department and other city codes (i.e., street design for ingress and egress, hydrant pressures, etc.).

3.8.2.4 Analysis of Significance

Although the proposed project would incrementally increase fire service demands, the impact is not considered significant.

3.8.3 Police Service

3.8.3.1 Project Setting

Police protection is currently provided by the City of Chula Vista Police Department. The police station is located at 276 Fourth Avenue, approximately one mile from the plan area. Average response time to the plan area is 2.5 minutes for emergency calls, 8 minutes for routine calls, and 12 minutes for less urgent calls (Blackstrom, Chula Vista Police Department, 10/17/84). At the present time, there is approximately one police officer per every 1,000 residents within the City of Chula Vista.

3.8.3.2 Potential Impacts

The project would contribute to the cumulative impact on police services, which requires additional officers and equipment as the city's population increases.

3.8.3.3 Mitigation

The proposed project in itself would not require that additional police services be added. However, additional police manpower and equipment eventually will be needed in response to overall population increases with the city.

3.8.3.4 Analysis of Significance

The impact on police service within the City of Chula Vista is not considered significant.

3.8.4 Library Services

3.8.4.1 Project Setting

The City of Chula Vista Public Library is located at 365 F Street, approximately one mile to the east of the project site. There are no branch libraries in the city. At the present time, the library is understaffed due to Proposition 13 and personnel cannot be trimmed any further, as only one or two librarians are on duty at any given time (Mancini, Chula Vista Public Library, 10/9/84).

3.8.4.2 Potential Impacts

Given the existing conditions associated with service offered by the Chula Vista Public Library, any increase in the number of potential users of the library would contribute to the cumulative impact of new development on library services (Mancini, Chula Vista Public Library, 10/9/84). The possible impacts include reductions on children services, auditorium and meeting room services, and further overloading of information services (Mancini, 10/10/84).

3.8.4.3 Mitigation

The proposed project would not in itself require that additional library services be added. However, additional library service (branch library, additional staffing, and increased public services) will be required in response to the overall demands being placed on the library from population increase throughout the city.

3.8.4.4 Analysis of Significance

Implementation of the proposed uses within the Bayfront plan area would not significantly impact the adequacy of the library service beyond that which already exists.

3.8.5 Hospital Services

3.8.5.1 Project Setting

The nearest hospital facility available to serve the project site is the Bay Hospital Medical Center, located on H Street, approximately 0.75 mile to the southeast. Bay Hospital has a capacity of 159 beds, and for the fiscal year 1983-84, the average occupancy of the beds was 81 percent. The emergency room is one of the busiest in the region, averaging 2,000 patients per month (Rosebrough, Bay Hospital Medical Center, 10/10/84). Any trauma patients would be sent to University Hospital.

3.8.5.2 Potential Impacts

The existing Bay Hospital Medical Center is considered to have adequate facilities to serve the new uses proposed by the Bayfront Specific Plan.

3.8.5.3 Mitigation

No mitigation measures are deemed necessary at this time since adequate facilities are available.

3.8.5.4 Analysis of Significance

The impact on hospital service is not considered significant.

3.8.6 Solid Waste

3.8.6.1 Project Setting

The project area is currently serviced by the Chula Vista Sanitary Service, Inc., a private hauler contracted by the City of Chula Vista. All of the solid waste collected in the vicinity of the project site is disposed of at the Otay landfill, located one mile east of Interstate 805 on Otay Valley Road. This landfill is open seven days per week and is owned and operated by the County of San Diego. The Otay landfill has a remaining life expectancy of approximately 20 years (Calieri, Chula Vista Sanitary Service, 10/9/84).

3.8.6.2 Potential Impacts

Estimates for the production of solid waste from the proposed uses for the Bayfront plan area indicate that approximately 34,300 pounds of solid waste would be generated per day from the proposed commercial and residential uses. This additional amount of solid waste would incrementally shorten the life span of the Otay landfill. Appendix A explains the derivation of these figures.

3.8.6.3 Mitigation

Since collection and disposal service will be available to the Bayfront area, no mitigation is required.

3.8.6.4 Analysis of Significance

The solid waste generated by the Bayfront plan area can be adequately handled by the Otay landfill, and therefore, the impact is not considered significant.

3.8.7 Public Transportation

3.8.7.1 Project Setting

The Bayfront plan area is located within the Chula Vista Transit service area. Although no routes cross I-5 into the bayfront, several routes now terminate at H and L streets, where they intersect with the freeway. These routes include 702A, 705, and 706, which lead into the center city to the east (Smith, Chula Vista Transit, 10/10/84). San Diego Transit also has bus routes (Route 32) into Chula Vista that terminate at the H Street trolley station west of Broadway. The San Diego Trolley is the primary form of public transportation in the area and lies just east of I-5. Approximately 13,000 to 15,000 persons per day pass through Chula Vista on the trolley. The trolley has stop stations at H Street and Palomar Street in the City of Chula Vista as it proceeds to and from San Diego and the international border (Price, San Diego Transit, 10/9/84).

3.8.7.2 Potential Impacts

Implementation of the project will necessitate increased public transportation in the Bayfront area to serve users of the tourist facilities, residents, and commercial and industrial park employees.

3.8.7.3 Mitigation

The extension of Chula Vista Transit bus service routes onto Clapper Rail Way, Lagoon Road, and Least Tern Road would provide adequate public transportation access into the Bayfront area. The extension of these routes is currently in the planning stages (Smith, Chula Vista Transit, 10/9/84). A future trolley station is also proposed on the north side of E Street.

3.8.7.4 Analysis of Significance

Since public transportation planning into the Bayfront area has been acknowledged by Chula Vista Transit and a nearby trolley station is proposed, none of the impacts are considered significant.

3.9 UTILITIES

3.9.1 Water

3.9.1.1 Project Setting

Water service is provided to the subject property by the Sweetwater Authority, which obtains water from the San Diego County Water Authority. The existing water lines in the area include:

- a. a 12-inch line along Bay Boulevard between E and J streets,
- b. a 12-inch line along E Street which becomes an 8-inch line upon crossing Bay Boulevard and leads to Vener Farms,
- c. a 12-inch line along G Street which extends to the end of G Street at San Diego Bay,
- d. 10-inch lines which extend south from G Street along Quay and Sandpiper,
- e. a 12-inch line along Tidelands Avenue, and
- f. a 16-inch line along F Street which terminates at Bay Boulevard.

Other lines also exist to the south to serve SDG&E and Rohr's operations.

At the present time, the maximum capacity from the Sweetwater Authority Filtration Plant is 30 million gallons per day (MGD). Agreements with the County Water Authority also provide access to an additional treated 30 MGD if necessary. The Authority is also in the process of constructing another reservoir off of Bonita Road, which will hold 18 million gallons (Silva, Sweetwater Authority, 10/18/84).

3.9.1.2 Potential Impacts

Ultimate development of the project site will result in approximately 539,810 gallons being consumed per day for residential and commercial uses. Since industrial water use can vary greatly depending on the specific type of use, the approximate consumption has not been included. The commercial and residential consumption can also be variable for this same reason. While this amount of water is not considered a disproportionate amount of water for the project, it will contribute incrementally to the increased demand for water resources in San Diego County. The Sweetwater Authority anticipates no problems in providing water for the project (Silva, Sweetwater Authority, 10/18/84). However, it is unlikely that the existing distribution system can meet the water demands of ultimate project development (Rossmiller, Sweetwater Authority, 11/26/84)

The basic water service proposed for the area will consist of a 16-inch line along E Street to Tidelands Avenue, a 16-inch line across Sweetwater Marsh connecting to Tidelands Avenue in National City, a 12-inch loop line to Gunpowder Point, and a 14-inch line connecting on Tidelands Avenue between G Street and E Street. Other lines proposed for the Bayfront area are shown in the specific plan (Appendix B). In addition, phased development of the project may require off-site pipeline construction to maintain adequate pressure and necessary flows for fires. The biological impacts associated with implementation of the water lines/road system are fully discussed in Section 3.5.

3.9.1.3 Mitigation

The water lines will be adequately sized to assure sufficient capacity for the most intensive user and to provide adequate pressure for fire flows during construction as well for the completed project (Sedway Cooke 1983:111-23). Because phased development may require off-site pipeline construction, especially in industrial areas, to maintain adequate pressure and fire flows, a temporary connection to National City pipelines shall be made during development of the D Street fill area, as well as a permanent valved connection for fire protection of facilities in either city. The major factor in sizing pipelines for this project will be fire flows, especially for commercial or industrial buildings, which may require 4,000 to 9,000 gallons per minute provided by looped 12-inch or single 16-inch pipelines (City of Chula Vista 1984:31). Sweetwater Authority is currently updating its 1979 Master Plan, which includes a computer-assisted hydraulic analysis. The Bayfront project will be included in this update, with the results providing assistance in the determination of system modifications as well as sizing of on-site water mains and storage capacity (Rossmiller, Sweetwater Authority, 11/26/84).

Although the ability to provide water to the area will not create adverse impacts, the proposed uses should adhere to the appropriate water conservation measures required by local and state policies. In addition, assessment fees will be charged by the Sweetwater Authority for connection to the service (Silva, Sweetwater Authority, 10/18/84).

3.9.1.4 Analysis of Significance

The cumulative impact of increased water consumption within the San Diego region is considered a significant impact.

3.9.2 Sewer

3.9.2.1 Project Setting

Sewer service is provided to the project area by the City of Chula Vista, which is a member agency of the San Diego Metropolitan Sewage System (Metro). Sewage flows from Chula Vista flow north to the Point Loma Treatment Plant via a 78-inch trunk sewer line that runs the length of the project between I-5 and the SD&AE Railway right-of-way.

The City of Chula Vista's current capacity rights for flows into the Metro system are 18.2 MGD. The current sewage generation within the city is approximately 9 MGD. Other existing sewer lines in the vicinity of the project include the following:

- a. Bay Boulevard: segments of an 8-inch line from approximately 300 feet north of F Street and about 300 feet south of F Street to G Street, and within an easement parallel to the SD&AE railroad tracks are 18- and 21-inch lines from G to J Street.
- b. G Street: 10- and 12-inch lines from Quay Avenue to approximately 1,000 feet west of I-5.
- c. J Street and Tidelands Avenue: a 12-inch line which transitions to a 10-inch and 8-inch line, with the 8-inch line extending west to the marina at the end of J Street.
- d. Quay Avenue: 10-inch line.
- e. Sandpiper Way: 8-inch line.

3.9.2.2 Potential Impacts

Sewer service would be available to the Bayfront plan area via extension of existing lines. Figures in Appendix B detail the proposed sewer line extensions. Briefly, the project area is proposed to drain to future metering facilities. Sewers flowing by gravity to these locations at even a relatively flat 0.2 to 0.4 feet per 100 feet would require considerable earthwork for the D Street fill and Gunpowder Point developments. Portions of those areas will drain towards a sewage lift station, which will force the sewage under pressure across the bridge or dike to gravity sewers. Phased development may require extensive off-site grading and sewer extensions (Sedway Cooke 1983:III-23).

It is anticipated that the proposed project will generate approximately 0.4 MGD of sewage on the average and 0.8 MGD as a peak flow (Sedway Cooke 1983:III-23). Implementation of these sewer lines/road system will also create biological impacts at certain locations. These impacts are discussed in detail in the Biology section of this report.

3.9.2.3 Mitigation

Since the proposed sewage lines are expected to adequately handle sewage flows from the project area and the capacity to handle the flows exists within the City of Chula Vista, no mitigation other than the connection fees will be required. Measures to mitigate the grading impacts (resulting in biological impacts) necessary to construct the sewer/road system are discussed in Section 3.5.

3.9.2.4 Analysis of Significance

The cumulative impact of increased sewage flows into the Metro system is not considered significant as Chula Vista's utilization

of its allotted capacity is well below the limit. The significance of the biological impacts related to the implementation of the sewer/road system is discussed in Section 6.3, Less Intense Development/Biologically Preferred Alternative.

3.9.3 Electricity/Natural Gas

3.9.3.1 Project Setting

Development of the Bayfront plan area would require electric and natural gas service, both provided by SDG&E. Gas and electric distribution facilities can be made available to the project area in accordance with SDG&E's rules, as filed, with approval by the California Public Utilities Commission. As discussed in the Land Use section of this report, a 138-kV and 69-kV transmission line in a 150-foot-wide right-of-way exist on the project site. Natural gas lines exist at the following locations:

- a. E Street: a 2-inch line terminates just west of Bay Boulevard.
- b. F Street: a 3-inch line terminates just west of I-5.
- c. G Street: a 6-inch line becomes a 4-inch line just west of the railroad right-of-way and a 3-inch line just east of Tidelands Avenue and continues to Quay Avenue.

Several other natural gas lines terminate at I-5 from the east.

3.9.3.2 Potential Impacts

Ultimate development of the Bayfront plan area would result in increased demands for electricity and natural gas. During grading and construction phases of the project, short-term energy demands would also be created for gasoline and diesel fuel. The most significant demand, however, would result from the long-term electrical and natural gas consumption associated with maintenance and operation of future industrial, commercial, and residential uses.

An approximate rate of energy consumption for commercial and residential development in accordance with the proposed land uses is 4,430,946 kilowatt-hours (kwh) of electricity per month and 67,063 therms of natural gas per month. Since industrial consumption of electricity and natural gas is highly variable depending on the specific type of use, usage figures have not been included. Estimates of the amount of fuel that would be consumed during project construction are not presently available.

Development of the project area is not expected to consume an excessive amount of energy for the type of development planned. However, it would result in a substantial increased demand for energy and would contribute to the cumulative demand for energy resulting from the new development. Although the energy demands are within the capacity of

SDG&E's resources at this time, the cumulative effect of the proposed project and other new developments is a much increased demand for energy resources, both in the local region and in the greater southern California area. While gas and electric distribution facilities can be made available to the project area, according to SDG&E's rules filed with and approved by the California Public Utilities Commission, the continued availability of gas and electric energy for this project and other future projects is dependent on the supply of fuel and other essential materials as well as governmental approval of facilities construction (Rose, SDG&E, 10/6/81).

Although the Bayfront Land Use Plan and specific plans do not detail improvements necessary for electric and natural gas distribution, it is assumed that all utility improvements will be underground, except for the existing 69-kV and 138-kV transmission lines. This will limit any associated visual impacts.

3.9.3.3 Mitigation

Although total mitigation of the incremental electrical and natural gas consumption impacts is not possible, a number of energy conservation measures could be incorporated into the future development plans for the project area to reduce the anticipated increase in demand. These measures include the following:

- a. Orient buildings to receive maximum benefit of active and passive solar access.
- b. Shade structures with vegetation, using nondeciduous trees on the north and deciduous trees on the south.
- c. Design buildings to incorporate energy conservation practices to the extent feasible, including design and construction of heat-venting systems, low-energy-use water-heating systems, window treatments, insulation, and weatherstripping.

Other measures required by Chula Vista City Ordinance and appropriate coastal policies would also be implemented.

3.9.3.4 Analysis of Significance

Since SDG&E would be able to adequately provide electricity and natural gas to the project area and is highly aware of the energy need associated with the Bayfront area (Lee, SDG&E, 10/17/84), the impacts are not considered significant.

3.10 TRANSPORTATION AND CIRCULATION

A traffic study for the Chula Vista Bayfront Specific Plan was prepared by Federhart & Associates in October 1984. The following discussion is taken from the Federhart & Associates study, which is included as Appendix C of this report, and the Traffic Analysis for the Chula Vista Bayfront Development Plan, prepared by Robert Conradt in July 1983.

3.10.1 Project Setting

The existing circulation system, shown in Figure 15, is limited both in terms of access to the Bayfront from I-5 and internally. Entry to the Bayfront is limited by the off-ramp configurations from I-5 and the location of wetland resources. At the present time, access is available at E, H, and J streets. One additional bridge at F Street provides for a connection to the east side of the freeway, but no freeway connection is available. The ramp at H Street primarily serves the Rohr Corporation, with the ramp at J Street serving the marina and Port District land further to the west. Thus, while J Street serves as an important southern access to Tidelands Avenue, E Street currently serves as the primary entrance to the Bayfront. Internally, except for the Rohr operations and some mixed commercial development immediately adjacent to the freeway, access to the Bayfront is poor. The only public road which extends to the waterfront is F Street, which does not provide lateral access at its terminus. The D Street fill, Gunpowder Point, Sweetwater Marsh, and the Vener Farms area are closed to public access. Public access to the waterfront does exist via Port District lands at the boat launch and park located outside of the Bayfront plan area.

The current average daily traffic (ADT) volumes associated with the existing circulation system were derived by Federhart & Associates from several sources and then estimated, where necessary, since no one source had a complete group of existing traffic counts covering the entire area. In most instances, the existing volumes are quite small and well within the street capacities. The current total volume of the project area is approximately 15,880 ADT at the present time. The allocation of these trips is shown in Appendix C. Although these traffic volumes are not excessive, problems do occur at the freeway approaches and ramps because of the high p.m. peak-hour percentages associated with the industrial shift changes from Rohr's operations.

3.10.2 Potential Impacts

The proposed circulation system, which is also shown in Figure 15, will contribute four major circulation improvements to the existing street network. These include (a) the relocation of Tidelands Avenue across Sweetwater Marsh to connect the northern and southern areas of the plan, (b) the westerly extension of F and E streets to Tidelands Avenue and Gunpowder Point, respectively, (c) the addition of an access road onto the D Street fill, and (d) widening of the E Street bridge. The plan will also provide pedestrian/bicycle routes throughout the Bayfront, integrate trolley and bus service into the area, and encourage other private modes of transportation to Bayfront users. These changes,

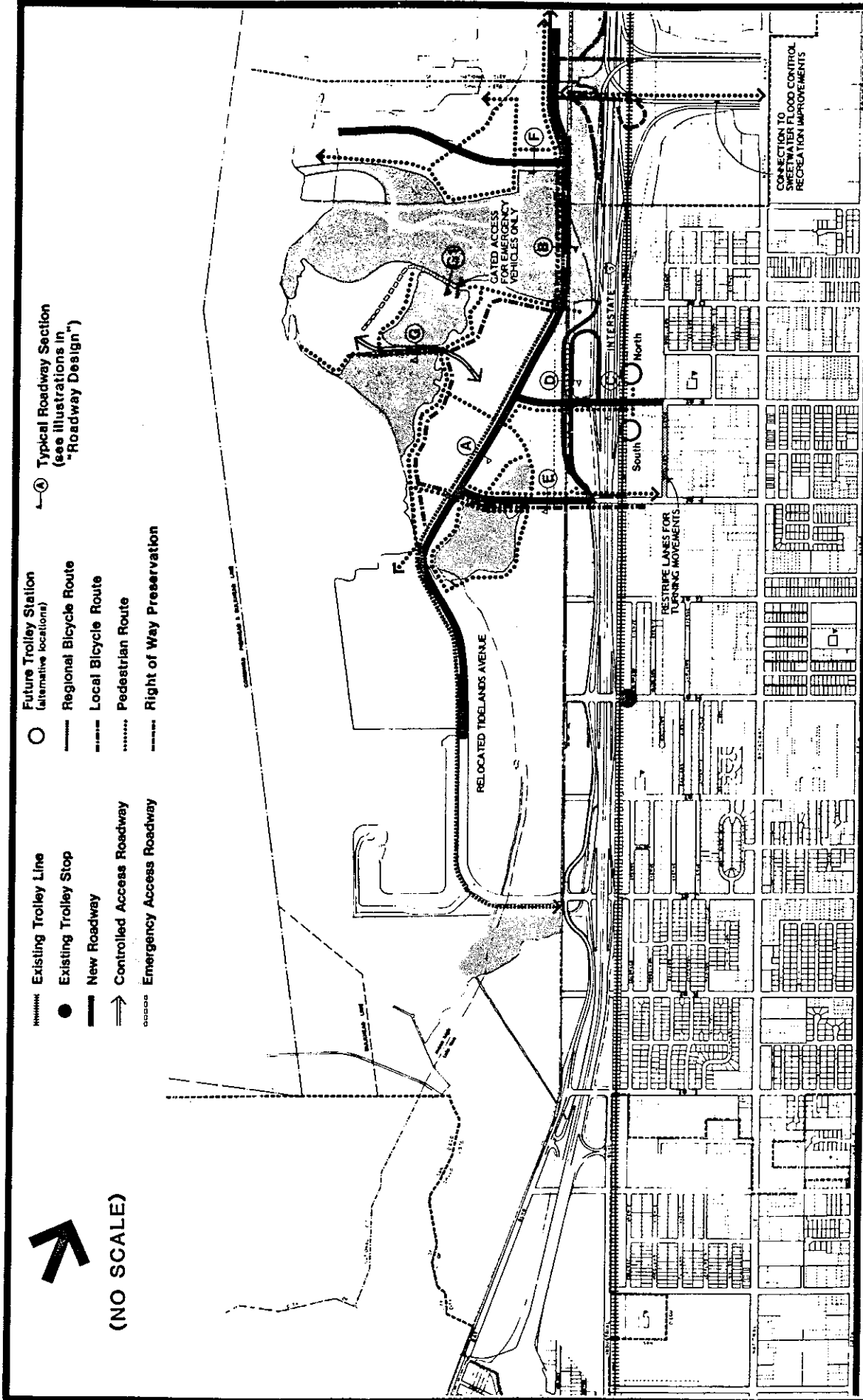


FIGURE 15. EXISTING AND PROPOSED CIRCULATION SYSTEM

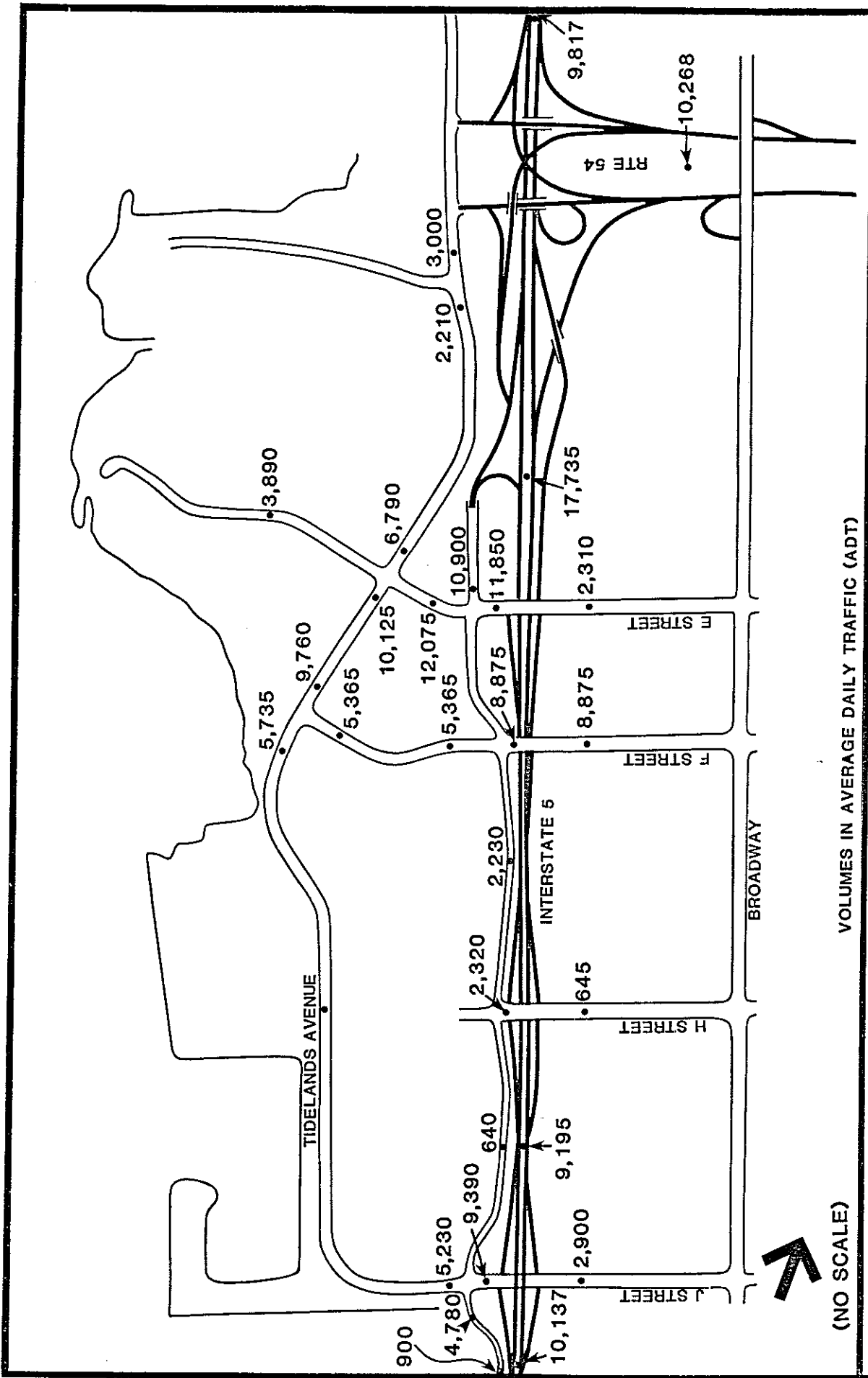
along with the traffic generated by the newly proposed land uses, will substantially alter the circulation pattern associated with the Bayfront.

The traffic generated from the proposed land uses was determined by Federhart & Associates (1984) from traffic generation rates used by SANDAG, Caltrans, the City of San Diego, and the Institute of Transportation Engineers. These rates were applied to the appropriate areas of the plan, with the resulting ADT distributed onto the proposed circulation system. The estimated traffic generation for each land use was refined with the assistance of Mr. Dave Zegler, redevelopment coordinator for the Chula Vista Redevelopment Agency, to provide traffic generation figures which will most accurately reflect the ultimate land use for the property. Furthermore, this ramp system was not identified in the LUP and, therefore, will require a future amendment to implement this facility. The distribution percentages were obtained from the SANDAG traffic zones and permitted the overall traffic assignments to be completed for the Bayfront area. Figure 16 shows the total project traffic distributed onto the proposed circulation system. This figure reflects only the traffic generated by the newly proposed land uses and does not include the existing traffic. According to the Federhart study, approximately 43,140 new trips would ultimately be generated on a daily basis. These new trips would approach I-5 from the west, travel south of J Street on Bay Boulevard, or travel north into National City on Tidelands Avenue. This total exceeds the existing ADT by 27,260 trips.

The distribution of the existing traffic and the project-generated traffic is shown in Figure 17. The majority of the streets within the Bayfront plan area will have the capacity to adequately serve the planned uses. However, as indicated in Figure 17, the E Street interchange between Bay Boulevard and I-5 will have the highest ADT. This volume could cause problems and adversely affect the level of service in the future if the improvements suggested in the Land Use Plan are not implemented.

These improvements include extended loop ramps at the E Street interchange and Bay Boulevard, widening of the E Street bridge, and Route 54 ramp connections to Tidelands Avenue. However, it should be noted that Caltrans does not favor the proposed on-ramp from Bay Boulevard, and neither this improvement or the proposed ramps from State Route 54 to Tidelands Avenue are the current five-year State Transportation Improvement Program (Granstedt, Caltrans, 11/21/84). In addition, these proposed improvements are within the I-5 right-of-way and therefore will require environmental review by Caltrans and the Federal Highway Administration. These facilities are proposed as part of the specific plan to prevent the levels of service from being degraded to an unacceptable status (Conradt 1983, Appendix B:3).

This analysis is based on Mr. Conradt's traffic analyses for the Bayfront Land Use Plan, which focused on the E Street/I-5 interchange, since this part of the circulation system will present critical traffic impacts. Conradt varied the combination of the number of E Street bridge lanes with several access schemes, including ramp connections to State Route 54 and the E Street loop on-ramp. Of the four he reviewed, the combination of Route 54 ramps, no loop on-ramp, and nine



VOLUMES IN AVERAGE DAILY TRAFFIC (ADT)

(NO SCALE)

FIGURE 16. DISTRIBUTION OF PROJECT GENERATED TRAFFIC

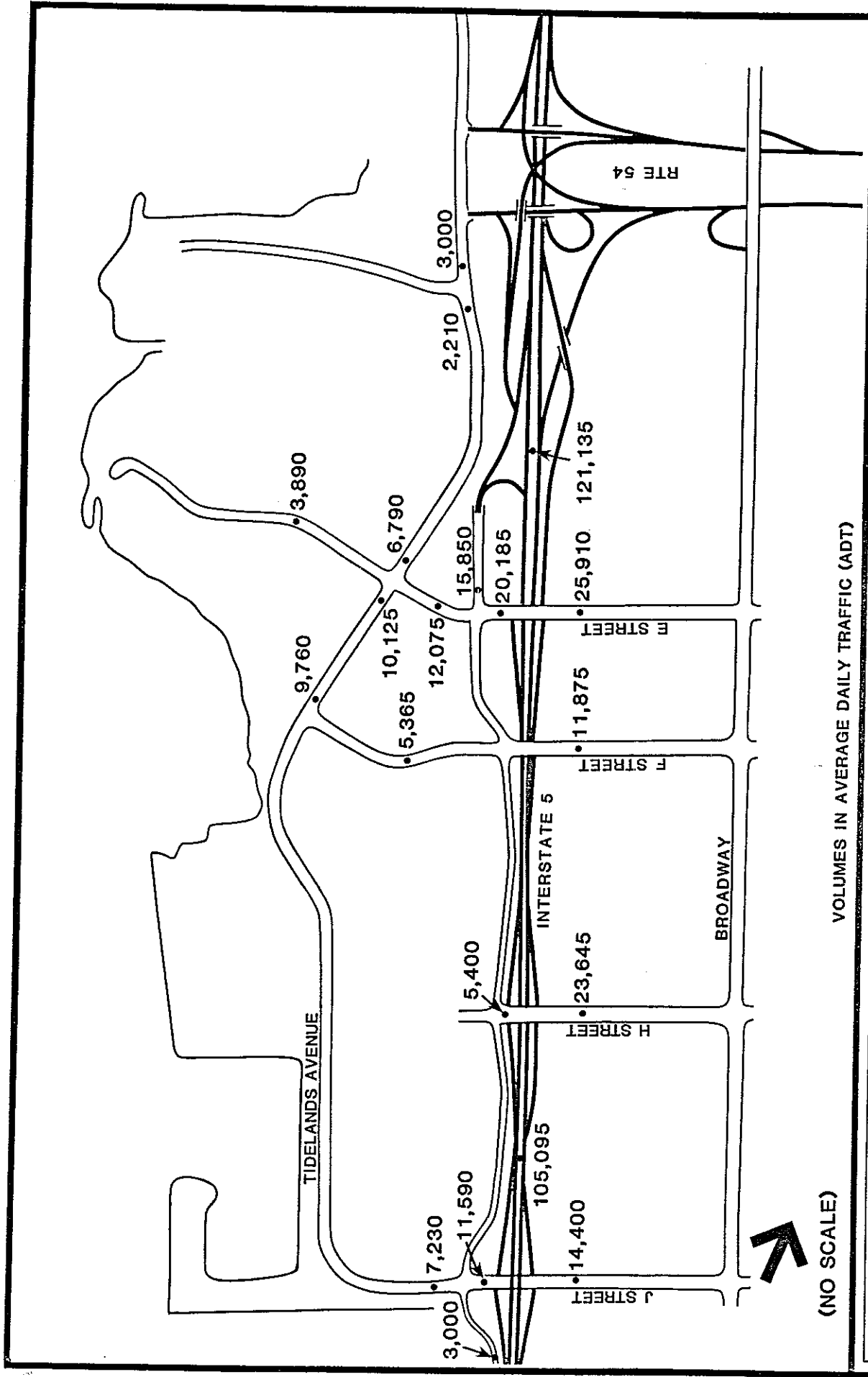


FIGURE 17. DISTRIBUTION OF PROJECT GENERATED AND EXISTING TRAFFIC

bridge lanes provided a level of service B for the Bay Boulevard intersection, level of service C at the intersection west of I-5, and level of service B at the intersection east of I-5, where A is the best and F the worst. By providing the Route 54 connections, the loop on-ramp and seven bridge lanes, the level of service for the Bay Boulevard intersection dropped from B to E, with the level of service at the intersection east of I-5 remaining the same at B. By adding the Bay Boulevard on-ramp, the four-way intersection west of I-5 was eliminated. The project also proposes restriping Woodlawn Avenue so traffic from Bayfront could use the F Street crossing and obtain access to the E Street interchange from the east (Conradt 1983, Appendix B:3).

Additionally, even if traffic volumes at this interchange cause problems in the future, the other access streets to the south of E Street will have substantial excess capacities to permit ingress and egress at less congested points. Since the completed circulation system will allow freedom of movement between all access points, regular users of the Bayfront area will adjust in order to avoid any short-time congestion.

The Federhart study also indicated that the proposed circulation system for other areas of the plan (e.g., Gunpowder Point and across Sweetwater Marsh) would be adequate to handle the anticipated traffic volume. In addition, no adverse impacts are expected from the pedestrian/bicycle system, a second trolley stop in the Bayfront, future bus service to interconnect the Bayfront and trolley, or other vehicular modes (private jitneys) to serve the concentrated employment centers or the hotel area. These circulation elements will be integrated with each other and the surrounding land uses to adequately serve the Bayfront development.

3.10.3 Mitigation

In order to alleviate potential impacts to the level of service at the E Street interchange, several measures have been incorporated into the ultimate design of the Bayfront Plan Circulation Element. These include:

- a. The widening of the E Street bridge from its present six-lane configuration to seven to nine lanes in phases coordinated with development. This widening would include improvements at the Bay Boulevard intersection to eliminate a left-turn movement on the southbound freeway ramp.
- b. An extended loop ramp at the Bay Boulevard intersection with E Street (optional).
- c. Ramp connections to Tidelands Avenue from Route 54.

As development takes place gradually over the future years, these improvements will be necessary to improve I-5 access along E Street. In addition, the Federhart & Associates report also recommended that dual left-turn lanes be provided from southbound Bay Boulevard to

E Street and southbound Tidelands Avenue to both E Street and F Street. These improvements will accommodate the natural left turns toward I-5 and the east. It is also recommended that as new land uses develop at the Bayfront, the peak hours (particularly for the industrial and office uses) be staggered so that they do not conflict with existing or future peak hours. The staggering of peak hours can spread the peaks out so that all access points can function adequately and avoid congestion. Currently, the evening peak hour at the various Bayfront I-5 interchanges range from 4:15 p.m. to 5:00 p.m. If this were expanded to 3:00 p.m. to 5:00 p.m., it would substantially reduce impacts to these interchanges.

3.10.4 Analysis of Significance

Since the overall circulation system will have the capacity to support the planned land uses along with the existing development, (providing the aforementioned mitigation measures are implemented), the potential traffic generation impacts will be adequately mitigated over the years of development. Therefore, the impacts are not considered significant.

3.11 AIR QUALITY

3.11.1 Project Setting

The subject property has the same cool, semiarid Mediterranean climate found throughout southern California. This climate is characterized by hot, dry summers and mild, wet winters. The prevailing winds are westerly to northwesterly due to the offshore Pacific High Pressure Zone, which is the predominant climatic influence in the region. These are usually mild winds of no more than ten knots in velocity. There are also occasional hot, dry easterly winds in the region. These winds usually occur for two- or three-day periods in the autumn months. The rainfall is generally light in the coastal region, with the maximum rainfall occurring between December and March. There is a high percentage of sunshine throughout the year.

The project site has a mean annual temperature of 61°F and an average seasonal precipitation of approximately 15 inches. The winter temperatures range from 44°F to 64°F, and summer temperatures range from 59°F to 75°F (Close et al. 1970:96-110). In addition to warm temperatures and mild winds, the project area experiences frequent temperature inversions, which tend to trap stagnant air and air pollutants in a limited volume near the ground. This is a common condition in coastal San Diego County and is accentuated by the hill and canyon topography of the region.

During the summer months, the afternoon temperature inversion layer, the altitude at which pollution is trapped, varies between 1,500 feet and 2,500 feet above MSL. During the winter, this inversion layer ranges between 800 feet above MSL and 2,500 feet above MSL, resulting in a mixing depth ranging from 900 to 2,000 feet. This change between the morning and afternoon mixing depths from winter to summer increases the ability of the atmosphere to disperse pollutants during the winter (Brown, Air Pollution Control District [APCD], 3/24/77). Thus, there is a greater concentration of air pollutants during the summer in the San Diego region.

The San Diego Air Basin as a whole has been designated as a nonattainment area for several air pollutants, since the concentrations of these pollutants periodically exceed state or federal air quality standards. These pollutants include ozone, carbon monoxide, nitrogen dioxide, suspended particulates, and hydrocarbons. The San Diego Air Basin has been designated as an attainment area for sulfur dioxide. The San Diego County APCD and the State of California Air Resources Board maintain a system of eight air monitoring stations in the San Diego region. The station nearest the planning area is the Chula Vista station, located approximately 2.5 miles to the southeast. The air quality for the project area is expected to be similar to the values given for this nearby coastal monitoring station. The ambient air quality standards currently applicable in the State of California are listed in Table 8, and the air quality measurements at the Chula Vista monitoring station for the years 1978 through 1981 are listed in Table 9.

TABLE 8

**AMBIENT AIR QUALITY STANDARDS
APPLICABLE IN CALIFORNIA**

Pollutant	Averaging Time	California* Standards	Federal Standards	
		Concentration	Primary	Secondary
Ozone	1 Hour	0.10 ppm (200 µg/m ³)	(0.12 ppm) 235 µg/m ³	Same as Primary Standard
Carbon Monoxide	12 Hours	10 ppm (11 mg/m ³)	---	Same as Primary Standard
	8 Hours	---	10 mg/m ³ (9 ppm)	
	1 Hour	40 ppm (46 mg/m ³)	40 mg/m ³ (35 ppm)	
Nitrogen Dioxide	Annual Average	---	100 µg/m ³ (0.05 ppm)	Same as Primary Standard
	1 Hour	0.25 ppm (470 µg/m ³)	---	---
Sulfur Dioxide	Annual Average	---	80 µg/m ³ (0.03 ppm)	---
	24 Hours	.05 ppm in comb. w/ .10 ppm Ox or 100 µg/m ³ TSP	365 µg/m ³ (0.14 ppm)	---
	3 Hours	---	---	1300 µg/m ³ (0.5 ppm)
	1 Hour	0.5 ppm (1310 µg/m ³)	---	---
Suspended Particulate Matter	Annual Geo-Metric Mean	60 µg/m ³	75 µg/m ³	60 µg/m ³
	24 Hours	100 µg/m ³	260 µg/m ³	150 µg/m ³
Lead (Particulate)	30-Day Average	1.5 µg/m ³	1.5 µg/m ³	---
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m ³)	---	---
Hydrocarbons (Corrected for Methane)	3 Hours (6-9 a.m.)	---	160 µg/m ³ (0.24 ppm)	Same as Primary Standard
Ethylene	8 Hours	0.1 ppm	---	---
	1 Hour	0.5 ppm	---	---
Visibility-Reducing Particles	1 observation	In sufficient amount to reduce the prevailing visibility to 10 miles when the relative humidity is less than 70%	---	---

*Photochemical oxidants measured as Ozone.

ppm - Parts per million

µg/m³ - Micrograms per cubic meter

SOURCE: Air Quality in San Diego County: Annual Air Monitoring Report, 1979 (County of San Diego 1979 : 2).

TABLE 9
SUMMARY OF AIR QUALITY DATA
AT THE CHULA VISTA MONITORING STATION

Pollutant	Number of Days Over Standard							
	State				Federal			
	1978*	1979*	1980†	1981†	1978*	1979*	1980†	1981†
Oxidant (ozone)	N/A	N/A	54	84	7	6	12	5
Carbon monoxide	0	0	0	0	0	0	0	0
Sulfur dioxide	0	0	0	0	0	0	0	0
Reactive hydrocarbons	N/A	N/A	N/A	N/A	232	177	168	180
Nitrogen dioxide§	0	0	0	0	0	0	0	0
Particulates#	0	2	12	3	0	0	0	0

*Air Quality in San Diego County: Annual Air Monitoring Report (County of San Diego 1979 and 1980).

†Marlyn Menard, APCD, 9/27/82.

§Annual average - parts per hundred million - standard violation > 5 ppm (100 mg/m³)

#Expressed as the percentage of samples taken which exceeded the specified standard.

Authority for the control of air pollution within the county rests with the APCD, which regulates individual point sources of pollutants, such as industrial installations, power plants, gasoline stations, and dry cleaners. The San Diego Association of Governments (SANDAG) has worked with APCD in the development of the Regional Air Quality Strategies (RAQS) (APCD 1976a) to control pollution from all sources as required by federal and state law. In general, SANDAG's role in the development and implementation of RAQS is related to land use and transportation planning. The actual implementation of the various strategies outlined in the RAQS is the responsibility of different agencies, including federal, state, and local governments and transit districts as well as APCD and SANDAG.

The effectiveness of the RAQS depends on the ability of APCD and SANDAG to project future emissions of pollutants throughout the region. By knowing these future emission levels, the agencies know how much of a reduction in emissions is necessary to achieve the federal and state standards. The future emissions are estimated using a variety of computer programs, which in turn utilize estimates of future population growth in the region. Thus, the effectiveness of the RAQS also depends on the accuracy of the future population projections.

In preparing the RAQS, the APCD and SANDAG based their projections of the future air pollutant emissions on the estimated future population of the various communities and community planning areas in the county. Specifically, the revised RAQS (APCD 1978a), as they currently stand, are based on the SANDAG Series V population forecasts for the County of San Diego. These projections were, in turn, based on the general plans adopted throughout the county. The subject property is located in the City of Chula Vista within the Bayfront Redevelopment Project Plan area, which was utilized when the Series V projections were adopted in 1979.

3.11.2 Potential Impacts

The primary air quality impacts which would occur as a result of future development in accordance with the proposed specific plan land use designations would be air pollutant emissions from automobile and truck traffic to and from the development, local emissions from the burning of natural gas for space and water heating in the development, and air basin-wide emissions from power plants generating electricity for use in the development. A summary of the estimated emissions which would be generated by the proposed project are listed in Table 10, with more detailed information presented in Appendix D.

The proposed project is in conformance with the land use assumptions utilized in the Series V forecasts. Therefore, the adoption of the specific plan will not have an effect on the regional population distribution and, therefore, is not expected to affect the average trip length for the region. Consequently, the proposed project will not have a significant impact on the effectiveness of RAQS.

TABLE 10
SUMMARY OF EMISSIONS FROM THE PROPOSED SPECIFIC PLAN
(kilograms per day)

Emission Source	Reactive Hydrocarbons	Carbon Monoxide	Oxides of Nitrogen	Sulfur Dioxide	Particulates
Vehicles	444.30	3,828.46	516.69	--	--
Power generation	--	23.04	165.42	2.51	46.23
Domestic heating	--	2.03	10.15	0.06	1.01
TOTAL	444.30	3,853.53	692.26	2.57	47.24

Emissions generated by future development of the project area would generate a small fraction of the forecasted emission levels for the entire basin. Since the San Diego Air Basin already has oxidants, reactive hydrocarbons, nitrogen oxides, and particulate concentrations in excess of state and federal standards, any increase in air pollutant emissions should be considered significant.

Future development of the site, in accordance with the proposed land uses, would also generate dust and other pollutants from grading and construction. This occurrence, however, would only take place for a relatively short time and would be subject to control in accordance with the rules of the San Diego APCD.

3.11.3 Mitigation

The deterioration of air quality in the San Diego Air Basin is a regional problem; however, it can be addressed, in part, by implementing mitigating measures on a project-by-project basis. Mitigation strategies suggested for the reduction of emissions are stated in the adopted revised RAQS. Some specific RAQS strategies which can be implemented to reduce air pollution include:

- a. The extension and maximum use of public transit (tactic T-5)
- b. The maximum use of carpools and park-and-ride facilities (tactic T-24)
- c. Development of bicycle and pedestrian pathways (tactics T-7 and T-27)
- d. Utilization of energy conservation techniques in building construction to minimize on-site energy consumption, including provision of adequate wall and ceiling thickness, insulation, north-south orientation of building and windows, etc. (tactics C-24, C-25a, and C-25b)
- e. Implementation of construction techniques to minimize particulate and chemical emissions, including wetting down unpaved roadways and sites of construction activity, turning off idling equipment not in use, etc. (tactics F-1 and F-6).

Strategy a would be implemented by the Chula Vista Transit District and strategy b by Caltrans and the City of Chula Vista. Strategy c is part of the proposed specific plan and will therefore be implemented through the plan development. The City of Chula Vista would be responsible for implementing strategies d and e.

3.11.4 Analysis of Significance

The ultimate construction of the project is not expected to result in increased air pollutants other than what was expected when RAQS were developed. Therefore, the project is not expected to result in a significant impact to air quality.

3.12 HYDROLOGY AND WATER QUALITY

3.12.1 Project Setting

Surface waters exist on the project site primarily as salt-water marshes. These areas include Sweetwater Marsh, the Paradise Creek channel, the E Street marsh, the F/G Street marsh, and Vener Pond. Much of this marshland is subject to tidal flooding twice daily by ocean water from the bay. Other marsh areas, such as Vener Pond, are flooded only occasionally during extreme high tides or periods of heavy rainfall. The northern levee road between Vener Pond and Sweetwater Marsh has been breached, allowing interaction between the two areas. In addition, the F/G Street marsh receives storm drainage from Rohr Industries and retains connection to San Diego Bay via a channel under Tidelands Avenue. Interaction with the E Street marsh via a pipe culvert under the southern levee road also exists. The Sweetwater River channel, largely at mean sea level through the project area, is also subject to tidal inundation.

Located at the terminus of the Sweetwater drainage basin, freshwater flows occur perennially due to agricultural and domestic use of water in the basin below Sweetwater Dam (approximately 37 square miles). Freshwater also flows into all marsh and pond areas from the adjacent 100 acres in agricultural production during and following periods of rainfall and agricultural irrigation. In addition, major discharges occur from the reservoir behind the dam when the water level is sufficiently high to permit flows over the spillway (e.g., in 1980).

The Standard Project Flood for the Sweetwater River downstream of Sweetwater Dam has a design discharge of 60,000 cubic feet per second (cfs) and an estimated average frequency of occurrence of once every 500 years (U.S. Army Corps of Engineers 1982:14). According to Corps of Engineers frequency curves, the 100-year and 50-year floods would reach maximum rates of flow of about 35,000 and 21,000 cfs, respectively. The 100-year flood level is approximately at elevation 10.

The existing drainage pattern into the Sweetwater/Paradise Marsh complex is currently in the process of being altered through construction of a flood channel for the Sweetwater River by the U.S. Army Corps of Engineers. The newly excavated channel, when completed, will divert freshwater flows from the existing Sweetwater streambed into the bay just north of the D Street fill. A specially designed culvert structure will allow tidal flow at low and high tides, including floodwaters, and redirect freshwater into the marshes north and south of the channel (U.S. Army Corps of Engineers 1982:44). An Environmental Impact Statement (EIS) prepared by the U.S. Army Corps of Engineers in 1982 fully discusses the hydrological and water quality impact the channel will create on the marsh complex.

Groundwater beneath the Bayfront site ranges in elevation from approximately sea level in the westerly extent to +2 to +4 feet in the east. In general, the configuration of the water table approximates that of the ground surface. The depth to groundwater, thus, is on the order of 0 to 25 feet, depending on the ground elevation. Due to extensive agricultural irrigation in the area, localized shallow zones of

saturation, representing perched groundwater above the regional water table, are expected to exist (WESTEC Services 1977:44).

Surface water quality in the lower elevations of the Sweetwater Marsh complex, which is reached by tidal flooding from San Diego Bay, appears to be generally good. Those portions of the marsh at higher elevations are only inundated by the highest tides. Thus, the surface water present in those areas tends to be highly saline. The volume of saltwater with which the Sweetwater/Paradise Marsh complex is flushed is many times greater than the volume of fresh river water available for marsh flushing (U.S. Army Corps of Engineers 1982:21). As mentioned above, generally the freshwater flow in the Sweetwater River channel results from perennial agricultural and domestic use of freshwater and winter runoff in the drainage basin below Sweetwater Dam. This water is contaminated by agricultural (including the adjacent Vener Farms area) and urban pollutants. Freshwater flooding from dam discharges occurs rarely (U.S. Army Corps of Engineers 1982:21).

Groundwater quality in the lower reaches of Sweetwater Valley has a high percentage of sodium and calcium chloride, 50,000 parts per million (U.S. Army Corps of Engineers 1982:15). This poor-quality water is due to contamination by connate water (water trapped in rock) migrating to the valley from the surrounding San Diego Formation seawater intrusion from San Diego Bay. Groundwater in the area is rated as inferior for domestic or agricultural uses (State of California 1967:132).

3.12.2 Potential Impacts

Development of the Bayfront site, as with any conversion of a nonurban area, would lead to a number of hydrologic impacts. These include increased runoff rates, altered chemical content of runoff waters, and altered drainage pattern. Each of these potential impacts can also affect the resulting water quality.

Developed areas generally exhibit a higher runoff volume than comparable nonurban areas. With development of the project area, the quantity of surface runoff flow will increase. The discharge curve will change from a gradual increase and relatively high flow rate to a discharge characterized by a rapid buildup, with a peak runoff during and immediately following rainfall, then a more rapid decrease in flow. Surface drainage will ultimately flow directly into San Diego Bay or the wetland area via the storm drain system.

The change from agricultural and vacant land to urban uses would also result in the altered chemical content of the runoff waters that now flow off the property. The nutrients and pesticide concentration of the runoff which now enters the marsh areas will be reduced. However, urban use will generate a number of different chemical-waste products, which include oil and other petroleum products, heavy metals, soaps and detergents, and pesticides. Many of these will be picked up in runoff and carried into the bay wetlands.

The proposed grading concept for imported fill will require approximately 1,000,000 cubic yards of earth to ensure that the building pads are above the 100-year flood level (Sedway Cooke 1983:III-23). The alterations proposed for Gunpowder Point, the D Street fill, and the Midbayfront will change the existing drainage pattern and also affect the existing water quality. The altered hydrologic conditions proposed by the plan could affect the existing water quality at marsh areas and, thus, create impacts to the associated biological resources. Specifically, the proposed freshwater source to supplement seasonal flows into the F/G Street marsh could have an adverse impact on this salt marsh area. These impacts are more fully discussed in Section 3.5 (Biological Resources).

Groundwater will be impacted by implementation of the plan through a reduction in the recharge to the aquifer beneath the site. The impact is considered insignificant because of the extremely low quality of the existing groundwater.

3.12.3 Mitigation

It is an overall objective of the plan to protect the wetland resources and "provide for an adequate on-site storm drainage system incorporated into the street design to preclude drainage directly into wetland habitat without adequate filtering of sediments or trapping of pollutants" (Sedway Cooke 1983:V-12). The plan also mentions that "special caution is required at the marshes to reduce runoff problems of silting and oil or chemical deposit" (Sedway Cooke 1983:V-13). Several measures have been incorporated into the Bayfront plan which attempt to reduce the potential for hydrologic and water quality impacts resulting from development of the site. These include the following:

- a. A major storm-water detention basin in the Midbayfront (at the existing low-lying agricultural field north of the F/G Street marsh) will be needed to accept urban runoff. The facility will store runoff during peak periods and act as a sediment/containment trap. The basin will be connected to the new freshwater pond adjacent to the F/G Street marsh to provide a seasonal water supply. This detention pond also will be a permanent water feature used as a central landscape element.
- b. A year-round freshwater source to support/supplement seasonal inflow in the F/G Street marsh will be provided by high-quality water from the soft-water manufacturing operation at the foot of F Street. This water will be delivered to the freshwater pond adjacent to the F/G Street marsh via an underground pipe on the margins of the degraded portions of the marsh.
- c. The existing railroad viaducts connecting portions of Sweetwater Marsh on each side of the railroad will be rebuilt to improve tidal flows/flushing into the eastern portion of the marsh.

- d. The northern levee road to Gunpowder Point will be used for emergency access only and a bridge structure will be utilized over the existing breached section of the levee. No changes in the tidal interaction between Vener Pond and Sweetwater Marsh are envisioned.
- e. A drainage facility will be utilized at Gunpowder Point to limit runoff into the marsh areas.

Reduction of the chemical contaminants in the runoff is very difficult to achieve unless controlled at the source. During grading and construction, steps should be taken to insure that all waste chemicals, especially lubricants, paints, and fuels, are properly contained and transported off the site, where they should be recycled or destroyed. Controlling chemical loads after the project is occupied depends primarily upon individual usage and disposal of detergents, petroleum products, fertilizers, pesticides, and other chemical wastes. Street cleaning and a parking lot maintenance program should be established to periodically remove debris that collects on paved areas. The program should also include outdoor storage and disposal bin areas. This action would reduce the amount of contaminants and materials in the downstream runoff.

3.12.4 Analysis of Significance

Implementation of the Bayfront plan will alter the existing drainage pattern and associated water quality. However, the specific plan has identified mitigation measures which will limit these impacts to a level of insignificance.

4.0 UNAVOIDABLE SIGNIFICANT ADVERSE IMPACTS

The proposed specific plan and ultimate development will result in a significant change to the land use and character of the project site. Significant unavoidable impacts associated with the plan are described below.

a. Landform and Visual Aesthetics

For nearly half of the project area which is currently undeveloped, the ultimate development of the project will result in a significant impact to the visual aesthetics of the area. Mitigation measures incorporated into the design of the project will ensure an aesthetically pleasing development, yet its visual character will be substantially different than that which is present now.

b. Water

The cumulative significant impact to water supply in the San Diego region is based on the need to import most of the region's water.

5.0 EFFECTS FOUND NOT TO BE SIGNIFICANT

5.1 NONSIGNIFICANT EFFECTS

5.1.1 Utilities and Energy

Development on the subject property would result in an incremental increase in the demand for utilities, which would contribute to a cumulative impact in the area. However, the anticipated demand is not expected to exceed comparable developments within other areas of the San Diego region, and SDG&E's facilities are not expected to be significantly impacted by development of the project area. The cumulative impact to water is considered significant.

5.1.2 Land Use

The specific plan attempts to integrate the proposed land uses by the selection and location of the uses as well as by the project design guidelines. The subject property does not include land defined as prime agricultural soils. In addition, the property is not within an agricultural preserve, nor is it designated for agricultural use by any adopted land use plans. Therefore, the loss of the subject property as an agricultural resource is not considered to be significant and no significant impacts are anticipated.

5.1.3 Community Infrastructure

Although the project will create an incremental increase in demand for services, the impact is not expected to be significant.

5.1.4 Air Quality

Impacts to air quality are not considered significant since the project was taken into account as part of formulating the RAQS.

5.2 SIGNIFICANT EFFECTS THAT ARE MITIGATED

5.2.1 Archaeology

Field and archival surveys were conducted to identify any archaeological sites located on the property. It is assumed that cultural resources identified will be salvaged, thereby mitigating this potential loss.

5.2.2 Geology and Soils

Potential significant impacts resulting from geological and soils constraints will be mitigated by appropriate geotechnical and structural engineering.

5.2.3 Noise

Potential noise impacts from vehicular traffic will be mitigated by the design and construction of noise attenuation barriers during the development phase of the project.

5.2.4 Transportation and Circulation

Potential significant peak-hour impacts at the E Street/I-5 interchange can be mitigated by incorporating the improvements in the specific plan and staggering shifts for various office and manufacturing facilities in the Bayfront area.

5.2.5 Hydrology and Water Quality

Hydrology and water quality impacts will be mitigated to a level of insignificance through appropriate engineering and control of sediment and pollutant infiltration into the wetlands.

5.2.6 Biological Resources

Direct and indirect impacts to biological resources will be reduced through a program to restore and enhance wetlands in certain areas; provide a protected and isolated least tern breeding sanctuary; restore upland habitat on Gunpowder Point adjacent to Sweetwater Marsh; provide landscaping, fencing, and berms in buffer areas to minimize the effects of human activity; provide drainage improvements to minimize the effects of urban runoff; and provide a comprehensive management program to maintain and preserve the wetland and buffer areas. While these measures are considered by the city to provide adequate mitigation, disagreeing views have been expressed by some experts.

6.0 ALTERNATIVES TO THE PROPOSED ACTION

Section 15143(d) of the CEQA Guidelines requires that "the discussion of alternatives shall focus on alternatives capable of eliminating any significant adverse environmental effects or reducing them to a level of insignificance, even if these alternatives substantially impede the attainment of the project objectives, and are more costly." Three basic alternatives are discussed below for the proposed project that could reduce the anticipated impacts.

6.1 No Project

The no project alternative would result in no specific plan for the Bayfront area as well as no implementing ordinance for the approved LCP. Therefore, no development would be permitted. As a result, the potentially significant impacts identified in the EIR would not occur. These include impacts to archaeological resources, the circulation system, hydrology and water quality, biological resources, and constraints related to noise and geology and soils. The unavoidable impacts to visual resources and the contribution to the cumulative impact regarding water supply would also not occur if the project were not pursued.

The existing conditions and activities on the property would be continued under this alternative. To the extent that the current agricultural activities, off-road-vehicle use, and occasional trash dumping detract from environmental resource values, there would be no improvement in the condition of the property.

The Army Corps of Engineers and Caltrans are committed to certain actions which would preserve and enhance the Sweetwater Marsh area as mitigation for impacts of their respective projects. Thus, some wetlands preservation and restoration would occur, but it would probably be more costly and time consuming if not coordinated with the property owner and city's efforts to redevelop the bayfront area. In addition, the current level of degradation to the wetlands from agricultural pesticide flow would probably continue. This alternative would also fail to achieve the city's goals regarding increased public access to and enjoyment of coastal resources and to generate the economic benefits anticipated with the project.

6.2 Delay of Project

This alternative would delay all of the environmental impacts associated with the proposed project, but it is expected that each of these impacts will occur to a similar degree once the project is finally implemented. The primary effect of this alternative would be to increase the cost of the ultimate development while providing no long-term environmental benefits.

6.3 Less Intense Development

(In the draft EIR, this alternative was subtitled "biologically preferred alternative." Since its major features are essentially identical to Alternative A studies by Sedway Cooke (1983b) and since it would

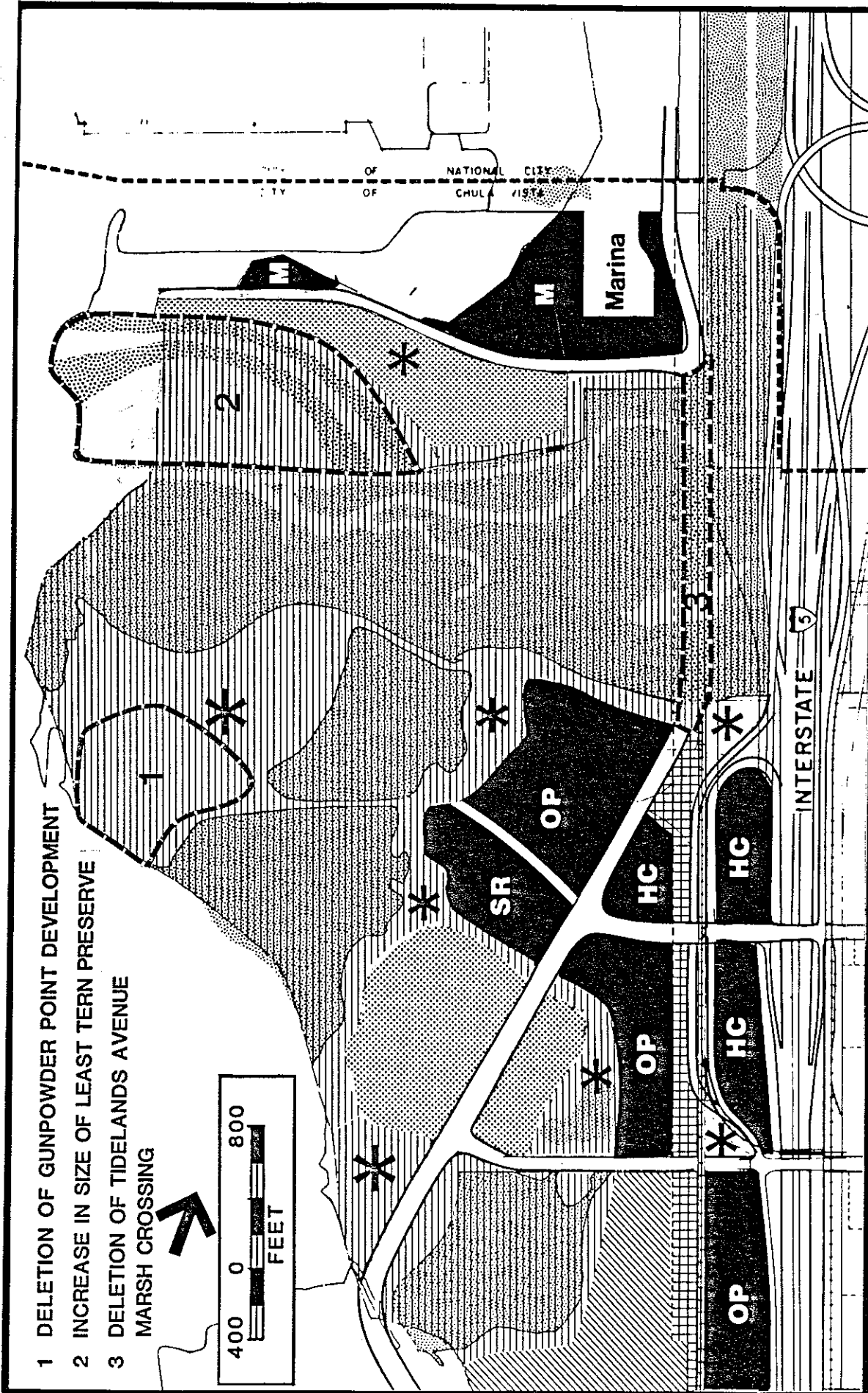


FIGURE 18. LESS INTENSE DEVELOPMENT

provide some benefits with respect to topics other than biology, the subtitle has been removed.)

Three principal features of a less intense development which would provide further reductions of biological effects of the Bayfront development are:

- a. Deletion of development on Gunpowder Point.
- b. Decrease in developed area on the D Street fill, and increase in the least tern nesting area.
- c. Deletion of the Tidelands Avenue crossing of Sweetwater Marsh, requiring access to the D Street fill from the north.

Various other modifications could be incorporated within this alternative--such as altering the proposed buffer designs or modifying the drainage design--but these refinements could also be incorporated within the proposed specific plan. This discussion, therefore, will focus on the effects of the major features noted above.

Figure 18 illustrates the features of this alternative in a schematic fashion. Within this alternative, there would be no development on Gunpowder Point. The hotel could be relocated to a portion of the Midbayfront area or could be deleted altogether. For the D Street fill area, two subalternatives were considered by Sedway Cooke, both of which provided a larger least tern area than the final proposal. In both subalternatives, there would have been some marine/industrial development on the utilized portions of the D Street fill. Since access would have to be from the north in the absence of the Tidelands Avenue extension, the D Street fill would not be interconnected with the remaining portions of the Bayfront, and industrial uses were considered appropriate.

The benefits associated with this alternative are primarily related to biology and visual aesthetics. The direct impact of upland habitat reduction and indirect impacts of increased human activity on Gunpowder Point would be avoided within this alternative. There is dispute, however, as discussed in the biology section, regarding the extent of these impacts and the need for preservation of all of Gunpowder Point.

Deletion of the hotel, which could be up to twelve stories tall, would reduce the visual impact of the overall project and provide more uninterrupted panoramic views across San Diego Bay from the Bayfront area. In this regard, the less intense development alternative would provide a reduction of the project's visual impacts.

To the extent this alternative would create slightly reduced demands for utilities and community services relative to the proposed development, it would provide some additional minor benefits. The comparative traffic impacts of this alternative were considered by Sedway Cook (1983b:6). Essentially, the impacts were found to be similar to the proposed development.

Disadvantages associated with this alternative include the possibility of increased visual impacts associated with industrial development on the D Street fill and a reduced overall feasibility of the development.

7.0 THE RELATIONSHIP BETWEEN LOCAL SHORT-TERM USES OF MAN'S ENVIRONMENT AND THE MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY

Approval of the proposed general plan amendment and specific plan would allow development of approximately 205 acres in commercial, residential, industrial, and park and open space uses. Although this development would occur over a long period of time in relation to a person's life span, this is a short-term use in a historical sense.

The short-term effects of project implementation on the long-term productivity of the site include the physical alterations of the site and the impacts associated with occupation of the proposed development. Physical alterations include a reduction of open land in order to provide living space and commercial opportunities for new residents, alterations to the existing topography, loss of agricultural lands, and loss of existing biological resources. Impacts associated with occupation of the proposed development include increases in traffic levels with concomitant increases in noise and air pollution emissions. In addition, all public service agencies would experience an increase in the demand for their services.

An additional long-term effect of the project would be the provision of housing and additional commercial facilities for a rapidly expanding regional population. Associated economic impacts which could occur include an increase in land values, an expanded tax base for municipal improvements, and an economic market for local businesses. However, there will be coincident increases in service demands.

If development of the subject property did not occur, then the property would remain available for utilization for agricultural production, the demand for public services would not be created, the visual character of the undeveloped property would be maintained, and sensitive biological resources would not be affected.

The long-term support of a rapidly expanding population should be examined with respect to the ability of the region to supply adequate services in the future. Energy has been, and will continue to be, a critical resource necessary for the maintenance of both residential and industrial growth. Implementation of energy conservation measures becomes increasingly important as the demand for energy approaches the available supply and as the cost of energy continues to increase. Similarly, water in the San Diego region is becoming an increasingly scarce resource. Lack of potable water may limit the ability of the region to support the rapidly increasing population. Future agricultural production in the region would experience a decline if water resources, by necessity, were diverted to residential and industrial uses.

8.0 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES THAT WILL RESULT FROM THE PROPOSED PROJECT

a. Landform and Visual Aesthetics

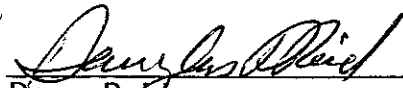
Future development on the project site would have an unalterable effect upon the natural landform and visual character as a result of grading pads and access roads and constructing buildings.

b. Cumulative Impacts


Development of the proposed project would result in other unavoidable environmental effects, as identified in the Environmental Analysis section of this report and summarized below. Most of these effects, however, are not significant on the local level but are significant insofar as they would contribute to the cumulative effects of urbanization in the region. These effects include short-term grading and construction impacts resulting from increased dust and noise emissions; an incremental increase in traffic on existing streets resulting in a demand for additional streets and/or improvements; a local increase in ambient noise levels associated with increased traffic volumes; an increased demand for urban services; and an increased demand for energy and water supplies.

10.0 PARTICIPATING STAFF

This report was prepared by the City of Chula Vista with the assistance of Regional Environmental Consultants (RECON). The following persons participated in the preparation of the report.



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City of Chula Vista



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Nancy Kaufman

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13.0 COMMENTS AND RESPONSES

Added 12-17

California Coastal Commission
SAN DIEGO COAST DISTRICT
6154 Mission George Road, Suite 220
San Diego, CA 92120
(619) 280-6992

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State Clearinghouse

December 13, 1984

Mr. Mark Boehme
State Clearinghouse
Office of Planning and Research
1400 Tenth Street, Room 121
Sacramento, CA 95814

Re: Draft Environmental Impact Report for the Bayfront Specific Plan,
SCH #84103108

Dear Mr. Boehme:

Thank you for the opportunity to comment on the above referenced Draft Environmental Impact Report (DEIR). Our comments chiefly concern the consistency of the Specific Plan with the Commission Certified Land Use Plan (LUP) for the Chula Vista Bayfront.

2a The major inconsistency with the approved land use plan concerns the off-ramps from Route 54 to Tidelands Avenue. At the time of the Commission hearing on the LUP, representatives of the City of Chula Vista clarified in their oral presentation that the future freeway connection was not part of the proposal submitted to the Commission. The text of the LUP submitted indicated that the expanded inter-change may be needed at some future time, but in its findings on the LUP, the Commission found that it was not included in the LUP. The references to the Route 54/Tidelands Avenue connections should be deleted and should not be identified as mitigation measures for the significant impacts on traffic and circulation predicted to occur from project approval. If it is ultimately determined that these ramps are essential to mitigate the traffic impacts projected in this document, the City of Chula Vista will have to amend the certified LUP to include these connections.

2b In addition, the DEIR should recognize that the proposed ramps would cross the "connector marsh" as identified in the Sweetwater River Final Environmental Impact Statement. This area is required as mitigation land for impacts resulting from the combined Corps/Caltrans project. Any use of these lands for purposes other than mitigation could require the amendments to both the Consistency Determination for the Sweetwater River project (CD 19-82) and the permits issued to Caltrans for the freeway and interchange construction (Nos. 6-83-319 and 6-84-50). Alternate means of mitigating traffic impacts should be identified.

2a The transportation and circulation section of the EIR has been revised to reflect the status of the off-ramps from State Route 54 to Tidelands Avenue.

2b The biological section of the EIR has been revised to include the potential impacts which may result to the connector marsh as a result of the proposed ramps to State Route 54.





SWEETWATER AUTHORITY
 505 GARRETT AVENUE
 POST OFFICE BOX 2328
 CHULA VISTA CALIFORNIA 92012-2328
 (619) 420-1413

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 CONTROLLER/SECRETARY

RECON
 1094 Cudahy Place
 Suite 204
 San Diego, CA 92110
 Attention: Mr. Kim Howlett

Dear Mr. Howlett:

Subject: DRAFT ENVIRONMENTAL IMPACT REPORT
 FOR BAYFRONT SPECIFIC PLAN

1 A review of your Draft Environmental Report for subject project indicates that, without modifications to the Authority existing distribution system, it is unlikely the demands of 9,000 gallons per minute indicated in your report can be supplied.

The Authority is presently updating its 1979 Master Plan and as a part of this update, a computer assisted hydraulic analysis will be made. The configuration and sizing of water mains along with demands specified in your report will be added to the computer model and the results of this analysis will assist in the determination of system modifications, as well as sizing of onsite mains needed to meet your proposed demands. Added storage needs will also be determined at this time.

If you have any questions, please contact Mr. Joe Gray at 420-1413.

Very truly yours,

SWEETWATER AUTHORITY

RDR
 Roland D. Rossmiller
 Chief Engineer

RDR:bc

1 The EIR has been revised to reflect the information provided in the letter.

*A Public Agency,
 Serving National City, Chula Vista and Surrounding Areas*

The DEIR proposes to establish a 10-acre least tern nesting area at the southwest corner of the D Street fill as mitigation for impacts on least tern nesting areas.

The DEIR does not recognize, however, that about three to four acres of this 10-acre site are located on lands under the jurisdiction of the San Diego Unified Port District, over which the City of Chula Vista and the proposed specific plan will have no effect. The DEIR also does not reflect that a significantly larger area than this 3-4 acres has been set aside for habitat purposes in the certified Port Master Plan.

2c The EIR indicates that about five of the ten-acre least tern preserve is within Port District jurisdiction on page 11 in the Project Description. The location of other areas within the Port District which have been set aside for habitat purposes is not particularly germane to the mitigation requirements of the Bayfront project.

2d The DEIR also discusses the approval of the underlying LUP for the Bayfront area as a determination that the biologically preferred alternative was found to be infeasible. Although the California Coastal Commission approved the LUP upon which the Specific Plan is based, the Commission's findings spoke primarily to the consistency of the LUP to the applicable policies of the Coastal Act of 1976. No action taken by the Commission can be interpreted as exempting the City of Chula Vista from investigating alternative developments as required by the California Environmental Quality Act. The Commission's approval of the LUP could be amended to incorporate any or all features of the biologically preferred alternative.

2d The biological section of the EIR has been revised so it no longer indicates that the Coastal Commission LUP approval determined that the biologically preferred alternative is infeasible.

Again, thank you for the opportunity to comment on the Draft EIR.

Sincerely,



Charles Damm
Assistant District Director
San Diego Area Office

CD:PBW:am

Memorandum

To : Mrs. Terry Roberts
 Manager, State Clearinghouse
 Office of Planning and Research

Date: December 10, 1984

File : 11-SD-005
 6.8-R10.4

From : DEPARTMENT OF TRANSPORTATION
 District 11

Subject: Bayfront Specific Plan, SCH#84103108

Caltrans District 11 comments on this draft EIR are as follows:

- 3a 1. Pages 70 and 73 propose several measures to mitigate potential traffic impacts to the interchange of Interstate Route 5 and E Street. Such measures generally require funding by local government or project proponents.
- 3b 2. Caltrans and the Federal Highway Administration would have approval power for work within the right-of-way of Interstate 5 or State Route 54. Because of that shared responsibility, additional environmental documentation may be required before the feasibility of the proposed mitigation measures can be established.
- 3c 3. Caltrans does not favor the proposed loop on-ramp from Bay Boulevard (page 73). Reasons for that opposition are detailed in a letter dated November 20, 1984, to Mr. Paul Desrocher of The City of Chula Vista. Our contact person for discussion of the on-ramp and other improvements is John Fischer, District Design Engineer, (619)237-6724.

3a Comment noted.

3b The transportation and circulation section of the EIR has been revised to indicate Caltrans and FHWA authority for improvements in the I-5 and State Route 54 right-of-way along with the additional environmental documentation required.

3c Caltrans' disfavor concerning the proposed loop on-ramp from Bay Boulevard has been indicated in the transportation and circulation section of the EIR.

James T. Cheshire
 James T. Cheshire, Chief
 Environmental Planning Branch

JTC:MO:sw

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DEC 17 1984

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VERBATIM TRANSCRIPTION OF JO ANNE SORENSON OF
JONES AND STOKES ASSOCIATION, INC.

Jo Anne Sorenson:

Mr. Chairman and members of the Commission, my name is Jo Anne Sorenson. I'm a consulting biologist with the firm of Jones and Stokes Associates. We are at 2321 "P" Street in Sacramento, California. I wish to speak to you about 4 two items: first the biological work that we did for the City, and secondly, my comments on the EIR.

Before the last round of planning started on the Bayfront, Jones and Stokes Associates were asked by the City of Chula Vista to look at---take a new look at the biological issues surrounding the Bayfront and to develop a scientific, quantitative assessment of the issues. We looked at three different items: first the present or absence of the ecological link between the uplands of Gunpowder Point and the wetlands of the Sweetwater Marsh; secondly, the size and location of the California Least Tern nesting site on "D" Street fill; and thirdly, the impacts on human activities on wetland species, effects and impacts of roads and bridges, and impacts of human activities on the Lightfooted Clapperrail, one of the endangered species found in the area. We undertook the study by first surveying by letter and telephone all the agencies and individuals that had shown interest in the biology of the Bayfront and we asked them for any specific data that they might have or know about. This included review of literature, looking at the files of the Fish

4 The biological impacts and mitigation sections of the EIR have been revised to clearly specify potential biological impacts and corresponding mitigation which will result from the project, incorporating the information presented in the Jones and Stokes report "Analysis of Select Biological Issues Relating to the Chula Vista Bayfront Plan."

and Wildlife Service Endangered Species office, Fish and Game, Corps of Engineers and others. And, thirdly, we undertook our own field work. We produced a draft report which was subject to peer review and sent it out to all of those agencies and individuals that had commented on the Bayfront Plan in the late 70's and anyone else that was interested and we followed up any leads and comments they had. We completed the field work which covered a full year, four seasons, high and low tides and stormy weather. All of that information was compiled into a final report. All of the data and suggestions to planners, which was our way of getting some interpretation of the scientific data as it related to the Bayfront plan.

The findings of the Jones and Stokes Report could be put under three headings. The first topic is Gunpowder Point. We determine with a recognized and scientific method, the location of the transition zone between the wetlands and the uplands. We map the upper boundary between the transition zone and the upland and we found that it corresponded to 5 feet in sea level. Another question of interest at Gunpowder Point was the relationship between Sweetwater Marsh and the upland of Gunpowder Point. The only way to analyze what is a complex problem in interrelationship is to separate it into smaller parts. At Gunpowder Point, we looked at each species or species group which was known to occur there. We looked at their habitat map and their habits, what they do for resting, feeding, nesting behavior, and we look for interrelationships between---among the various species. In our results, we found there was very little connection between the Marsh and the upland. A

few upland species forage in the wetland, which means they go downhill. There is little use of the uplands by wetlands species except for a few species that use the very edge of the wetlands. We found that the species do go to the transition zone during very high tides and during storms. Also of interest was the Belding Savannah Sparrow. It's a wetlands species that ventures only as far uphill as the upper boundary of the transition zone. They were upland observations of Savannah Sparrows, but these were not Belding Savannah Sparrow. The subspecies are very similar in appearance and the non-Belding Savannah Sparrows are found both in the wetlands and in the uplands. This is a curious point at the time of the Coastal Commission hearing because there seemed to be confusion on the part of the Agency and others of what species or subspecies were on the site and where they occurred. If the species that is of interest is in very low numbers as they Belding Savannah Sparrow, it is found in the wetlands.

In summary now, at Gunpowder Point we found no significant link between the uplands and the wetlands. We found that the transition zone is needed as a refuge for wetlands during the highest tide and storm. We found that there is a need for a refuge and is accommodated in the existing plan by the transition zone, by buffers, and for an extra margin of safety in the upland reserve as proposed at Gunpowder Point. The Belding Savannah Sparrow are amply protected with these precautions. It should also be pointed out that right now approximately half of Gunpowder Point is not available for wildlife. It's in houses and old facilities and in agriculture operation. After development of Gunpowder Point, approximately half of Gunpowder Point will be available for wildlife, but that half will now be a restored upland reserve offering much

better habitat quality. The hotel was specifically sited to provide a maximum upland reserve and to be away from the Sweetwater Marsh and Vener Pond wildlife concentration. Another point of interest on Gunpowder Point is the presence of Frankenia Palmeri, its a plant species which is common in Baja and attains its northern edge of distribution at the Bayfront area. It is not a designated rare, endangered, or threatened species. It is found in the buffer on the south side of Gunpowder point and the population will be protected with fencing or other appropriate means. The upland reserve could be a very appropriate location for expanding this population.

The second major question we looked at was the California Least Tern and the "D" Street fill. In the Jones and Stokes Associates report, literature and agency file data were assembled to determine that successful Least Tern fledging depends on food source, the size of an area, protection from harassment from humans and domestic pets, and protection from other intrusions. Successful sites have been a small as less than one acre. Jones and Stokes Associates' Report recommended a minimum of 10 acres. We suggest that placement next to the Marsh and open water and to make the site more secure to form an island by using a tidal channel. The LUP places a 10 acre nesting site in the southwest corner of "D" Street fill, adjacent to the Bay and Marsh and separated from development by a tidal channel. The location is the best in the Bayfront. The size is adequate based on data from other sites. The site will be secure from land base predators and harassment, and the site will be managed and protected. in combination with other sites in San Francisco

Bay, excuse me, San Diego Bay, there were 13 active sites in 1983. The "D" Street site could contribute to increased numbers of Least Tern. The quality of the 10 acre site is much better than recent Coastal Commission approved sites in other places such as Las Cerritos and Venice in Los Angeles County.

The third major question concerns the effects of human activity on wetland wildlife. A special concern were roads and bridges and their effect on the Lightfooted Clapperrail. The Jones and Stokes report clearly states that roads must not decrease tidal circulation or water quality and the plan does not decrease either. The literature review indicates that birds treat roads, and other developments like topography, they avoid them or they go around them, but they're part of their life. Most wetland species show a decided preference for following wetland corridors which is probably why we saw so few overflights by birds at Gunpowder Point. Birds habituate to human activity. And in an earlier Coastal Commission finding for the Las Cerritos Wetland, which is a State Coastal Conservancy Project, the Commission indicated, and this is a quote, "The U.S. Fish and Wildlife Service has advised the Commission that birds readily recognize and habituate to the activities of humans within cars, thus a road provides an effective buffer as long as the runoff is directed away from the wetland to avoid adverse effect." The Commission continued. Testimony of biologists have established that many perhaps most species will be able to habituate to human activity and thus will be able to utilize all suitable habitat areas even those closest to human activity. The buffers are specifically designed to stream human activities from the wetland wildlife. As far as the Lightfooted Clapperrail is

concerned, human activity is not incompatible provided that the birds are not harassed or approached closely, that dogs and other pets are excluded from their habitat, that the Rails are discouraged from crossing roads and that the habitat is not degraded. The LUP plan buffers will prevent harassment by humans or their pets and prevent access by foot onto the roads. The LUP protects the wetland habitat and restores additional wetland habitat.

The second item I wish to mention to you are some concerns I have with the Draft Environmental Impact Report. I think it would be a much useful document for the decisionmakers if the authors were to add some specific biological data to support their assumptions and conclusions. The document needs substantiation. Each specific impact which they identify needs to have specific mitigation and the LUP describes this specific mitigation for impact. They should include those impacts carefully tied to each of the impacts they perceive. Then, if the authors feel that additional mitigation would further reduce impacts, those carefully thought through and documented mitigation measures need to be addressed in the EIR. The EIR needs to provide the decisionmakers with all the facts they need to support their decision. I respectfully suggest that the Commission direct the preparers of the EIR to document, substantiate, qualify, and quantify to the best of their abilities the assumptions and the conclusions they have reached and to make that information part of the final EIR.

Thank you.

WPC 1576P



December 14, 1984

City of Chula Vista
Planning Department
276 Fourth Avenue
Chula Vista, California 92010

SUBJECT: COMMENTS ON DRAFT ENVIRONMENTAL IMPACT REPORT
FOR THE BAYFRONT SPECIFIC PLAN (CITY OF CHULA
VISTA, CASE NO. EIR 85-1, STATE CLEARINGHOUSE
NO. 84103108) PREPARED FOR THE CITY OF CHULA
VISTA BY RECON, NOVEMBER 1, 1984

Attached are comments made by the Citizens for a Beautiful Bayfront regarding the DEIR. In effect, we cannot support the DEIR as written.

Penny Allen
Penny Allen

C. R. Campbell
C. R. Campbell

PA: CRC:p

666 Mariposa Circle • Chula Vista, CA 92011 • (619) 421-0868

COMMENTS REGARDING BAYFRONT EIR

Upon reading the Draft Environmental Impact Report for the Bayfront Specific Plan prepared by Recon, Inc. for the City of Chula Vista, dated November 1, 1984, one has the general impression that the Bayfront Specific Plan is without any sound environmental merit. Yet, one knows this is not true from the evidence thus far presented to the State Coastal Commission. The question remains to be asked, "Is there a factual basis, with or without precedence, supporting the City's consultants in their observations of significant unavoidable impacts?"

Obviously, one must have the appropriate technical training to answer the question. However, some measure of common sense and logic must be called up to support the consultant's conclusions. And in this one finds a series of doubts that cannot be put aside simply by technical information alone. Consider the summary conclusions given on page 84 wherein "Significant unavoidable impacts associated with the plan..." are cited; namely,

Landform and Visual Aesthetics... wherein a currently undeveloped area of Bayfront, an open space containing the remnants of trash fills, human habitation and outmoded buildings on scattered sites should somehow be negatively impacted by the proposed development. There are planned open spaces in the various proposed developments; there are 100 wide buffers screening buildings and roads from view; there are at least 188 acres of marshland to be set aside in perpetuity as open space; there are planned views to the bay, to the marsh and to designed open spaces within the proposed developments. Logic dictates that this cannot be negative impact, in the sense that visual aesthetics and landform are somehow ruined by these enhancements in a significant and unavoidable way.

Water supply is mentioned as suffering a significant unavoidable impact as the by-product of Bayfront development. Apart from the brief mention of a freshwater desalination test facility in the City's Bayfront Land Use Plan as a means to supply fresh water to the various developments in the subject area; and apart from the obvious fact that water quality; indeed, water availability is a worldwide issue, the content of the observations mentioned in the draft EIR fail to reflect that this serious problem cannot be solved by stopping development or proposing alternatives such as little or no development in any given area. The need to develop a prime land use area is equal to the need to provide a strong economic return. Water supply is a factor in that economic return. Therefore, logic dictates that it will take more than an EIR to oppose development.

Biological Resources - Much has been said by the so-called 'expert biologists' on either side of the issues. Frankly, it appears that the arguments are tending now to be reduced to petty numbers such as the size of a least tern sanctuary. If the literature cited in the EIR cannot support, once and for all, an optimum size for the bird sanctuary, why then does the controversy still rage as to the nesting area size. Cannot the controversy be

5a The landform and visual quality issue is perhaps the most subjective issue of the EIR, since opinion varies widely as to whether the existing open space is more or less visually appealing as compared to the ultimate development proposed for the project site. However, the introduction of the proposed development, including an eight-story hotel on Gunpowder Point and buildings ranging in height from five (55 feet) to two (22 feet) stories, will unquestionably obstruct existing views in many locations of the open area associated with the agriculture operations, Sweetwater Marsh complex, and San Diego Bay. This impact, which remains after consideration of the specific plan design and landscape specifications, is the basis for the significance determination.

5b The comment pertains to the economic nature of the proposed project. Therefore, no response is required.

5c The biological and alternative section of the EIR has been revised and reflects the concerns addressed within the biological portion of the letter.

solved by stating a less than significant unavoidable impact if the sanctuary is tested at 10 acres for X number of years? Indeed, other issues relating to the plant and animal life existing in the Bayfront can be resolved by logic rather than controversy; by testing rather than supposition; by compromise rather than unresolvable absolutes.

In short, the authors of the EIR, in exposing the issues, go beyond their mandate in describing the mitigation they view as necessary; they suggest an alternative plan containing very little development, as if, some of the measures discussed so far in the City's specific plan have, no weight, no matter at all. This is a denial of the efforts and needs of the many to support mere opinion.

Most disturbing, in part, are the comments made in the EIR regarding the least tern preserve.

"Reduction of the least tern nesting habitat to a reserve of ten acres... would represent a significant adverse impact. Conclusive data cannot be presented to address the question of minimum area necessary for successful reproduction, but inferences from other California least tern sites may be instructive." (EIR, Nov. 1, 1984, p. 42, Section 3.5.2a.)

Yet, Jones and Stokes, the City's biological consultant has determined that "...Our review of the literature and file data indicates that size per se is not the key to a successful least tern nesting reserve, but rather one of a combination of interacting factors." Namely,

- "...1. access to open water
2. suitability of nesting substrate
3. area of site (smallest known successful site is 0.33 acre.)
4. predator access
5. human harassment"

In short, one does not have to be an environmental expert, replete with knowledge, to see the logic and subtlety of the argument Jones and Stokes against those who are absolutely certain that size of the next area; i.e., 10 acres or more is the limiting factor to provide successful growth in the tern population. Consider these concluding remarks by Jones and Stokes. "...A formally established and managed nesting reserve that is designed to include all the pertinent recent and ongoing research may not have to be larger than 10 acres to be successfully fledged California least tern. Sites smaller than 1 acre have been successful when other critical factors have been met." (J&S, 1983, p. 54)

Another controversial issue that deserves specific mention in addition to the remarks previously made concern the Tidelands Avenue crossing of the Sweetwater Marsh. The EIR expresses several opinions that tend to contradict the evidence previously accepted by the Coastal Commission. Consider the statements made regarding the roadway and migratory bird populations; namely, "the presence of the roadway may have a direct effect on the population of

light-footed clapper rails on the marsh complex. "Even though the "movement patterns" of the bird species are not "well documented," the authors of the EIR yet suggest that road could act as a carrier and therefore "...offer the potential for disruption of the social organization of the local population in ways that are not presently understood." (Recon, 1984 p 43)

One is aware of the fact that these unknowns are the source of contention for the State and Federal departments in charge of protecting wildlife and therefore they offer tremendous opposition to the plan to cross the marsh with a road.

Yet, there is an existing railroad track that is out there in an admittedly degraded portion of the marsh. The proposed Tidelands Avenue crossing will occur in that same railroad right-of-way with very little disruption to the marsh. Indeed, the tidal flows and the marsh will be enhanced by placing the roadbed on piers rather than fill. (LUP 1983, p. 11-2) Concerning the disruption of the clapper rail populations in the marsh, Jones and Stokes have found that "It has been documented for both forest (MacClintock et. al. 1977) and marsh (Wetlands Evaluation Class 1981) habitats that some type of connecting corridor, even if it is disturbed or degraded, can have a beneficial effect on bird usage and species diversity in the two disjunct habitats." (J&S 1983, p. 63) Again, Jones and Stokes assert that "Whether construction of a road crossing and/or a bridge will interfere with the mobility of birds utilizing the Sweetwater Marsh is not known." (J&S, 1983, p. 63.)

The issues concerning the Gunpowder Point buffer system deserve special mention. Although general comment has been made earlier, there must be said several refutations of the observations made as to potential impacts in developing the Point. First, upon review of the literature, it is difficult to understand the EIR authors' opinion that "the proposed buffer areas around the wetlands and least term preserve are inadequate.... This is because the buffer zone is identified at the edge of the wetland rather than the edge of the ecotone.... (and) pedestrian access is identified within the buffer zone which is counter to the purpose of the buffer; that is, to eliminate activity adjacent to sensitive wetland habitat." (Recon. 1984, p. 43) The Jones and Stokes report clearly states that "the upper boundary of the marsh upland ecotone can be mapped... with a reasonable degree of accuracy because of the distinct changes in vegetation across the ecotone. The ecotone is generally narrow, varying from 1-3 meters in width at most of the transect locations at Gunpowder Point. Because of occasional use by Belding's savannah sparrows, this zone should be preserved (Jones and Stokes, 1983, p.35). Further, the City's approved Land Use Plan clearly states that "The 100 foot wide buffer to be acquired as part...project mitigation...shall be configured to protect the existing marshes and pond." Further, "Screen the more critical pond side of the southern levee with landscaping to reduce (human) disturbance to marsh and water birds." (LUP, 1983, pp. 111-32, 33.) Additionally, in the City's proposed specific plan it is stated that "...All human and domestic pet access to Sweetwater Marsh, Vener Pond, the "E" Street Marsh, and the "F"-"G" Street Marsh shall be limited.... Pedestrian and bicycle access to the Inboard 50

feet of the (100 foot wide) buffer shall be limited. (Bayfront Specific Plan, Sect. 19.88.05 (a) p.45) With numerous illustrations given throughout the Specific Plan describing the buffer system, it appears as if the EIR authors did not research the material as closely as expected to dispel their doubts.

Finally, in retrospect a minor issue but evidencing the problem one has observed in attempting to understand the EIR commentary, the issue of building heights. The EIR authors state, "Finally, there are no provisions to restrict the height of buildings adjacent to the buffer..." (Recon, 1984, p.44) In the approved Land Use Plan, it is stated, regarding Gunpowder Point, "Maintain a maximum building height of 8 stories in order to minimize coverage. Conditionally permit up to a maximum of 12 stories if it can be shown that increasing open land area will benefit the natural resource values." (LUP, 1983, 111-32.) This statement is also mentioned in the City's proposed Specific Plan (Section 19.90.02(4)) and also discussed in the Subarea 1-D Street Fill, to wit: "Buildings facing onto the marsh buffer zone shall be designed and sited to present a broken, variegated edge.... Building heights shall not exceed two stories along this edge." (Section 19.90.04.2) And in the same section, "Higher building heights up to four stories are permitted if... structure (are) sited a distance of 150 feet or more from the buffer zone." (Section 19.90.04.2 Building Heights).

In summary, the EIR authors have displayed a lack of research effort that quite frankly tends to be alarming. The Bayfront project does have ample scientific support for its treatment of the environment. There is an evident respect for the marsh and its wildlife; there is a respect for the upland ecosystem as well. There is a strong planning effort that cannot be denied because it clearly follows the dictum of one of the most ardent environmentalists, John Muir, when he said, "Man has a responsibility for the land and its creatures. He is in stewardship of it." What better way to end this criteria than to say the City's plan is an outstanding example of man in "stewardship" of the land.

WPC 1334H



San Diego Gas & Electric

December 10, 1984

FILE NO.

Environmental Review Coordinator
City of Chula Vista
P.O. Box 1087
Chula Vista, CA 92012

Attention: Douglas Reid

RE: EIR-85-1 (Bayfront Specific Plan Draft EIR)

Gentlemen:

Thank you for providing San Diego Gas & Electric (SDG&E) with the opportunity to respond on this draft EIR.

At this time SDG&E would like to clarify the point mentioned on Page 67, Section 3.9.3.2 of the Draft EIR - "All utility improvements will be underground"

While new distribution gas and electric service needed to serve this project can be underground our existing 69 kv and 138 kv transmission lines will remain overhead.

Please feel free to contact me at 696-2398 should you have any further questions.

Sincerely,

H. David Reed

H. David Reed
Land Assistant

HDR:dc

6 The electricity/natural gas section of the EIR has been revised to indicate that existing 69- and 138-kV electrical transmission lines will not be underground.

RECEIVED

BY.....

DEC 11 1984

PLANNING DEPARTMENT
CHULA VISTA, CALIFORNIA

POST OFFICE BOX 1931 - SAN DIEGO, CALIFORNIA 92112 - TELEPHONE 619/232-4292

**San Diego
ASSOCIATION OF
GOVERNMENTS**

Suite 524 Security Pacific Plaza
1200 Third Avenue
San Diego, California 92101
(619) 236-5300

December 7, 1984

Mr. Douglas D. Reid
Environmental Review Coordinator
City of Chula Vista - Planning Dept.
276 Fourth Avenue
Chula Vista, CA 92010

Dear Mr. Reid:

On December 7, 1984, the SANDAG Executive Committee reviewed the "Draft Environmental Impact Report for the Bayfront Specific Plan." The Executive Committee acted to support the Bayfront Specific Plan with no further review needed by SANDAG. Attached for your information is the SANDAG Project Notification Report NI-25 for the Bayfront project.

If you have any questions concerning the SANDAG review action, you may contact Mr. Bill Tuomi of my staff at 236-5369. We wish you success with the Bayfront Specific Plan project.

Sincerely,

Bill Tuomi
For LEE F. HULTGREN
Director of Transportation

LFH/BT/rw

Attachment: Project Notification Report NI-25

RECEIVED

BY _____

DEC 11 1984

PLANNING DEPARTMENT
CHULA VISTA, CALIFORNIA

We recognize that our views are not necessarily consistent with the position adopted by the Coastal Commission.

Robert C Fox
Jack C. Parnell
Director

cc: USFWS-Laguna Niguel
California Coastal Commission-Long Beach Office
California Coastal Commission-San Francisco Office



Chula Vista Investment Company

P.O. Box 8088, Rancho Santa Fe, Ca. 92087 • (619) 756-4457

December 13, 1984

Mr. Douglas D. Reid
Environmental Review Coordinator
The City of Chula Vista
Planning Department
276 Fourth Avenue
Chula Vista, California 92010

Dear Douglas:

The following comments were prepared by R. Mitchel Beauchamp on December 7, 1984 in response to biological portions of the draft Environmental Impact Report to the Chula Vista Bayfront Specific Plan.

1. Page 3, 1.2.2 e. Biology

9a The acreage figure of "about 200 acres" of wetland habitat is incorrectly accounted for. Figure 12 on Page 37 alone, shows over 250 acres of Tidal Mud Flat, which is considered a wetland habitat. The total wetland habitat, based upon Figures 11 and 12 would seem to be more like 450 acres. Since wetland impacts usually involve a "numbers game," precise delimiting of acreages and wetland types would seem cogent, especially Tidal Mud Flats. Also included, at least graphically, in the EIR are wetlands under the jurisdiction of the Unified Port District. Also, the statement is made that Port District lands are excluded from consideration in the EIR, they do appear in the Figures, contrary to that premise.

2. Page 3, 1.2.2 e. Biology

9b Use of the term "valuable wetland" is not clear, particularly in light of the aforementioned 200 acre figure. Does "valuable wetland" mean tidal mud flat, low tidal marsh, high tidal marsh, freshwater marsh or salt flat? Or does it mean a combination of these?

3. Page 3, 1.2.2 e. Biology

9c Past action of the California Coastal Commission in approval of the LCP presupposes that impacts to wetland resources are no significant. Since the proposed development

A joint venture of Santa Fe Land Improvement Company and Watt Industries/San Diego, Inc.

9a The acreage of wetlands pertains to those wetlands within the Bayfront Specific Plan area (see Table 4). The tidal mudflat is, for the most part, not within the specific plan area. The Port District lands are directly excluded from consideration; however, they are included graphically to provide a biological reference for the on-site wetlands.

9b Valuable wetland means a combination of wetland types that are part of the highest quality salt marsh area remaining in San Diego Bay.

9c Unfortunately, the approval of the LUP in and of itself does not provide the legal determination that biological impacts are not significant for the CEQA process.

Such local support will result in wildlife agencies being able to direct their funding and limited personnel to other sensitive biological resource areas requiring protection and management.

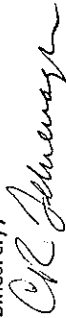
26. Page 87, 6.1 No Project
- 9Z The degradation of the wetland as now seen is the result of "No Project." Continued agricultural use will allow pesticide flow into the marsh and bay, deposition of agricultural plastics at field edges and wetlands, and limited or prohibited public access. The "No Project" alternative does have impacts which should be considered.
27. Page 87, 6.3 a.
- 9aa No credible data are presented to justify a 10 acre, 25 acre or 50 acre CLT preserve, aside from the US Fish and Wildlife Service recommendation. The inconsistency of this "size of Preserve" argument is obviously a point that cannot be substantiated.
28. Page 89, 6.3 b.
- 9bb This compensation is considered in the restoration of selected sites on Gunpowder Point.
29. Page 89, 6.3 c.
- 9cc The Tidelands Avenue crossing has not been shown to have an adverse impact in light of the current habitat rehabilitation upstream.
30. Page 89, 6.3 d.
- 9dd Buffers on Gunpowder Point will exceed 100' in certain areas, but most other areas will approach this 100' limit. The interpretation of a mapped ecotone boundary will vary widely among biologists. The wetland boundary will not. Mapping of the wetland boundary will be required for management purposes as well as for detailed land use plan designs.
31. Page 89, 6.3 f.
- 9ee This assertion is based upon a lack of information and assumes situations which could be mitigated to predictable conditions.
32. Page 89, final paragraph
- 9ff The assumption that no acceptable intermediate ground exists other than implementation of all components of the
- 9Z This point has been added to the No Project section of the EIR.
- 9aa This issue has been clarified in the revised biological section.
- 9bb See response 9aa.
- 9cc See response 9l.
- 9dd This section has been revised to reflect the changes made to the biological section.
- 9ee This issue has been deleted from this alternative discussion.
- 9ff This point has been included in the mitigation discussion of the revised biological section.

alternatives does not consider the positive effect of a resource-oriented management program. The positive value of public education on wetland values which such a program embodies has major implication with preservation of remaining wetland habitat in Southern California.

The provision of continued, local economic support for the preservation and education program in the Specific Plan is unique for implementation of an LCP. Usually such preservation is dumped into the lap of governmental conservation agencies, which lack proper funding or manpower to follow through with adequate preservation or rehabilitation, much less an active interpretive program.

By not adequately addressing the positive impact both to the Bayfront marshes themselves, and on increased public awareness of wetland values, the analysis of impacts presented in this EIR is substantially deficient and non-responsive.

Sincerely,



Charles R. LeMenager
Executive Vice President

CRL/dt

PROJECT NOTIFICATION

DATE: December 7, 1984

TO: Executive Committee

FROM: Executive Director

SUBJECT: Project Notifications Submitted to Areawide Clearinghouse, November 1984

Item No.

(C) NI-25

Draft Environmental Impact Report, Bayfront Specific Plan/City of Chula Vista

Reviewed Pursuant to the California Environmental Quality Act (CEQA)
Deadline: December 10, 1984

STAFF
RECOMMENDATION

NOT REVIEW

The proposed action is adoption by the City of Chula Vista of the Bayfront Specific Plan as a general plan amendment and specific plan. The project area shown on Figure A is the 790-acre Bayfront Planning Area located west of Interstate 5 between "C" and Palomar Streets. The Bayfront Land Use Plan (Phase II LCP) was approved by the California Coastal Commission in March 1984. This Specific Plan (Phase III LCP) implements the land use plan and details proposed uses in areas previously shown as a development reserve category.

The specific plan proposes several types of new development for the Bayfront primarily in the existing agricultural and vacant area to the north. Approximately 46 acres of multi-family residential are proposed in three areas with commercial related land uses including a 400-room hotel totaling about 113 acres. Presently, about 230 acres are used for industrial purposes primarily by Rohr Corporation and the SDG&E power plant. The specific plan would designate about 50 additional acres for industrial uses and about 41 acres would be included as landscaped parking/right of way. The largest land use category entails 310 acres of public open space including 271 acres of wetlands, wetland buffers, and upland resources, and 39 acres of parks.

The proposed circulation system includes extending Tidelands Avenue across Sweetwater Marsh with ramp connections to Route 54 at the combined I-5/SR54 highway and flood channel project. The project proposes widening the "E" Street overcrossing over I-5 and the development of an "E" Street trolley stop. Pedestrian, bicycle, and bus routes would be integrated into the plan.

The alternative section addresses these alternatives including a "no project", a "delay of project", and a less intense development/biologically sensitive alternate. The proposed Bayfront Specific Plan best meets the land use objectives of the City of Chula Vista and is consistent with the Series 6 growth forecasts for the area.

Staff recommends "not review" of the project. At some future time, SANDAG could become involved in the programming of the proposed Route 54 to Tidelands Avenue ramp connections.



December 17, 1984

Doug Reid
City of Chula Vista
276 Fourth Avenue
Chula Vista, CA 92010

Subject: Bayfront Specific Plan, SCH #84103108

Dear Mr. Reid:


The State Clearinghouse submitted the above named draft Environmental Impact Report (EIR) to selected state agencies for review. The review period is closed and the comments of the individual agency(ies) is(are) attached. If you would like to discuss their concerns and recommendations, please contact the staff from the appropriate agency(ies).

When preparing the final EIR, you must include all comments and responses (CEQA Guidelines, Section 15132). The certified EIR must be considered in the decision-making process for the project. In addition, we urge you to respond directly to the commenting agency(ies) by writing to them, including the State Clearinghouse number on all correspondence.

In the event that the project is approved without adequate mitigation of significant effects, the lead agency must make written findings for each significant effect and it must support its actions with a written statement of overriding considerations for each unmitigated significant effect (CEQA Guidelines Section 15091 and 15093).

If the project requires discretionary approval from any state agency, the Notice of Determination must be filed with the Secretary for Resources, as well as with the County Clerk. Please contact Mark Boehme at (916) 445-0613 if you have any questions about the environmental review process.

Sincerely,


John B. Ophanian
Chief Deputy Director

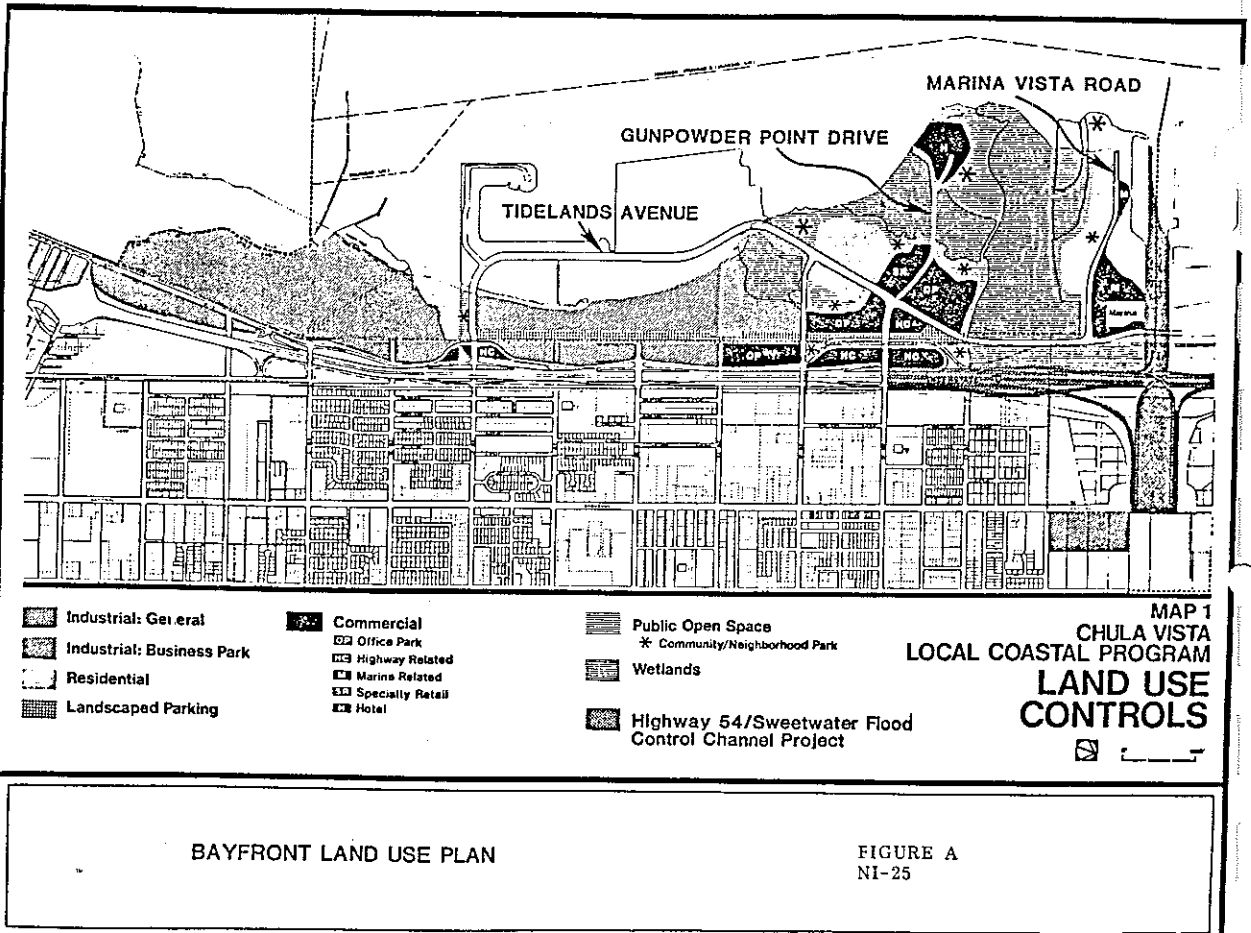
cc: Resources Agency
attachment

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DEC 20 1984

PLANNING DEPARTMENT
CHULA VISTA, CALIFORNIA





(916/445-0613)

December 18, 1984

Doug Reid
City of Chula Vista
276 Fourth Avenue
Chula Vista, CA. 92010

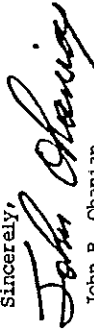
Subject: Bayfront Specific Plan, SCH #84103108

Dear Mr. Reid:

The enclosed comments on your draft environmental documents were received by the State Clearinghouse after the end of the state review period. We are forwarding these comments to you because they provide information or raise issues which may assist you in project review.

To ensure the adequacy of the final document you may wish to incorporate these additional comments into the preparation of your final environmental document.

Sincerely,


John B. Chanian
Chief Deputy Director

enclosure

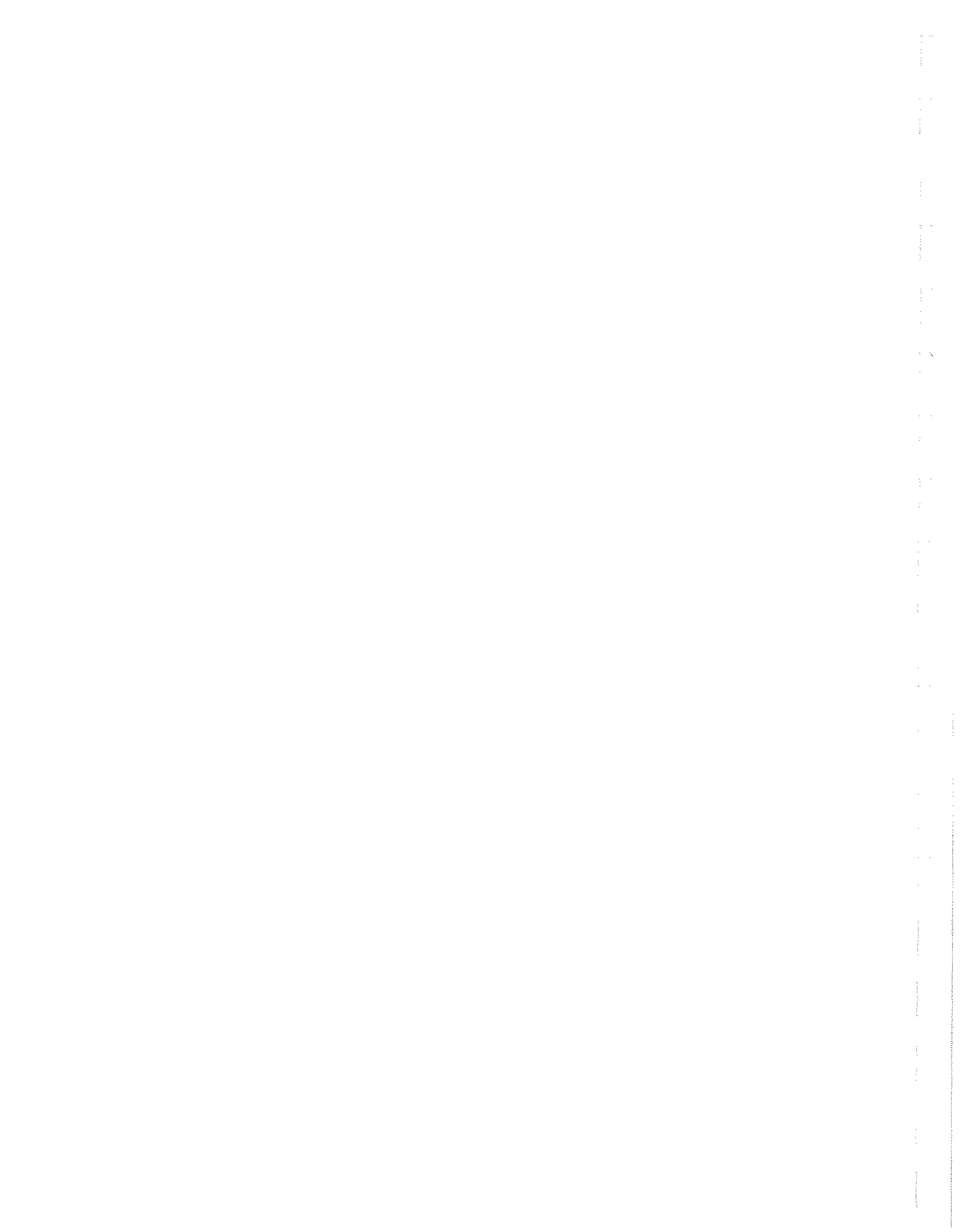
cc: Resources Agency

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BY _____

DEC 24 1984

PLANNING DEPARTMENT
CHULA VISTA, CALIFORNIA



APPENDICES



APPENDIX A

APPENDIX A PROJECT DATA

1. Resident Population. The number of residents is based on population per household for census tract 122 in Chula Vista, which was obtained from the 1980 census (Pugh, SANDAG, 10/18/84).

2. Student Generation. Student generation rates of 0.25 student per dwelling unit for high school and junior high school students and 0.2 student per dwelling for elementary school students were obtained from the Sweetwater Union High School District (Hendee, 10/16/84) and the Chula Vista City School District (Linn, 10/12/84), respectively.

3. Vehicle Trip Generation. Vehicle trip generation was provided by Federhart & Associates from their report Traffic Study for Chula Vista Bayfront Master Plan (Appendix C).

4. Vehicle Mileage. The adjusted trip length of 5.9 miles per day used in calculating vehicle mileage is based on data from Centroid Nodes 79, 99, and 100, within which the project is located. This data is from the San Diego Metropolitan Area Transportation Study by Caltrans and the county Integrated Planning Office (Caltrans 1975).

5. Energy Consumption

a. Electricity. Electricity consumption was calculated using rates obtained by Mike Gleason at SDG&E. These rates include 600 kilowatt-hours (kwh) per dwelling per month for residential areas and 2 kwh per square foot of floor space per month for commercial areas.

b. Natural Gas. Natural gas consumption is based on factors obtained from Mike Gleason at SDG&E. These rates include 45 therms per dwelling unit per month for residential areas and 0.003 therm per square foot of floor space per month for commercial areas.

c. Gasoline Consumption. The estimated gasoline consumption was calculated from an average mileage of 18 miles per gallon for all vehicles, as contained in the report Travel Behavior Survey (SANDAG 1978).

6. Water Consumption. Residential water consumption is based on a factor of 150 gallons per resident per day; hotel commercial water consumption is calculated using a rate of 120 gallons per 1,000 square feet per day; and all other commercial is calculated using 70 gallons per 1,000 square feet per day (Hom, City of San Diego, 9/3/80).

7. Sewage Generation. Sewage generation is based on a factor of 240 gallons per day per residential equivalent dwelling unit (EDU) and utilizes the conversion factor of 1 EDU per 1,800 square feet of commercial building floor area (Thomas, County of San Diego, 10/17/84).

8. Solid Waste Generation. Residential solid waste generation is calculated using a factor of 5.5 pounds per resident per day; for commercial uses, it is calculated using a factor of 0.022 pound per square foot of floor space per day (Davis, County of San Diego, 8/31/80).

PROJECT STATISTICS

<u>Project Area</u>	=	790 acres
<u>Land Use</u>		
General industrial	=	755,330 square feet
Industrial business park	=	355,450 square feet
Commercial office park	=	864,557 square feet
Specialty retail	=	148,104 square feet
Marine-related commercial	=	390,624 square feet
Hotel	=	304,920 square feet
Highway-related commercial	=	96,268 square feet
Residential units	=	1,370 units
<u>Resident Population</u>		
1.939 residents/unit x 1,370 units	=	2,656 residents
<u>Student Generation</u>		
Elementary		
0.2 student/unit x 1,370 units	=	274 students
Junior and Senior High		
0.25 student/unit x 1,370 units	=	<u>343</u> students
Total		617 students
<u>Vehicle Trips</u>	=	43,140 trips/day
<u>Vehicle Mileage</u>		
5.9 miles/trip x 43,140 trips/day	=	254,526 miles/day
<u>Energy Consumption</u>		
Electricity		
Residential		
600 kwh/unit/month x 1,370 units	=	822,000 kwh/month
Commercial		
2 kwh/sq.ft./month x 1,804,473 sq.ft.	=	<u>3,608,946</u> kwh/month
Total		4,430,946 kwh/month
Natural Gas		
Residential		
45 therms/unit/month x 1,370 units	=	61,650 therms/month
Commercial		
0.003 therm/sq.ft./month		
x 1,804,473 square feet	=	<u>5,413</u> therms/month
Total		67,063 therms/month
Gasoline		
254,526 miles/day ÷ 18 miles/gallong	=	14,140 gallons/day

Water Consumption

Residential

150 gal./resident/day x 2,656 residents = 398,400 gallons/day

Hotel Commercial

120 gallons/1,000 sq.ft./day
x 304,920 square feet = 36,590 gallons/day

Other Commercial

70 gallons/1,000 sq.ft./day
x 1,499,583 square feet = 104,970 gallons/day

Total 539,960 gallons/day

Sewage Generation

Residential

240 gallons/unit/day x 1,370 units = 328,800 gallons/day

Commercial

240 gallons/EDU/day x 1,804,473 sq.ft.
÷ 1,800 sq.ft. (1 EDU) = 240,596 gallons/day

Total 569,396 gallons/day

Solid Waste Generation

Residential

5.5 pounds/resident/day
x 2,656 residents = 14,608 pounds/day

Commercial

0.022 pound/sq.ft./day
x 1,804,473 sq.ft. = 39,698 pounds/day

Total 54,306 pounds/day

APPENDIX B

CHULA VISTA BAYFRONT SPECIFIC PLAN

**CHULA VISTA LOCAL COASTAL PROGRAM
PHASE III**

A Division of the

CHULA VISTA ZONING ORDINANCE

TITLE 19 - CHULA VISTA MUNICIPAL CODE

**CITY OF CHULA VISTA
DEPARTMENT OF COMMUNITY DEVELOPMENT
Chula Vista, CA**

October 17, 1984

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CHULA VISTA SPECIFIC PLAN ORDINANCE

(AMENDMENT TO CHULA VISTA MUNICIPAL CODE, TITLE 19 - ZONING)

Section 19.07.035 - Specific Plans - Supersedence of Zoning Designations

At the discretion of the City Council, whenever a specific plan is adopted without intent to implement it through standard zoning designations, it shall be considered to supersede all underlying zoning designations, provided, however, that provisions relating to Signs (19.60), Off-Street Parking and Loading (19.62), Nonconforming Uses (19.64), and Performance Standards (19.66) shall apply. Additionally, administrative procedures included in Chapter 19.14 shall also be considered to be applicable, as well as all other provisions of Title 19 other than provisions regarding uses or controls imposed by a zone designation and other than the special permit and other procedures of Sections 19.92 and 19.93.

(AMENDMENT OF HEADING OF TITLE 19 - ZONING, should now read TITLE 19 - ZONING AND SPECIFIC PLANS)

CHAPTER 19.80 - SPECIFIC PLAN #1 - CHULA VISTA BAYFRONT

LISTING OF SECTIONS

	<u>Page</u>
Scope and Purpose	
Use Classifications	
Signs	
Permitted Land Uses	
Development	
Circulation	
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Physical Form and Appearance	
Subarea Site Specific Development and Design Provisions	
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Post-Certification Procedures	

SCOPE AND PURPOSE

Section 19.81 - Purpose

The purpose of the Chula Vista Bayfront Specific Plan is to implement the Chula Vista General Plan and the Bayfront Land Use Plan, adopted by the Chula Vista City Council and the California Coastal Zone Conservation Commission, which are also being implemented by the Chula Vista Bayfront Redevelopment Plan.

19.81.01 - Scope of the Specific Plan

The Specific Plan for the Chula Vista Bayfront shall supersede the Chula Vista Zoning Ordinance under Government Code, Section 65450 ff., and shall also implement or be coordinated with all elements of the Chula Vista Bayfront Land Use Plan and the Bayfront Redevelopment Plan.

19.81.02 - Conflicts, Interpretation, and Applicability of Provisions

Whenever the provisions of this Specific Plan conflict with the provisions of the Chula Vista Zoning provisions or whenever the provisions reflect an internal conflict, the following rules shall apply: the specific plan provisions shall supersede those of the zoning ordinance; the subarea provisions shall supersede areawide provisions; and any map specification or designation other than guideline maps or prototypical illustrations or sections shall supersede textual provisions. In all cases, whenever provisions require interpretation, the Chula Vista Bayfront Land Use Plan shall provide clarification or amplification.

19.81.03 - Plan Amendment

Plan amendments which involve modification to the locational aspects of Land Use Controls (Map 1), Building Height Controls (Map 2), Development Intensity and Siting (Table 1), Permitted Signs (Table 2) or Environmental Management (Map 6), as well as any regulation or designation related thereto shall be considered equivalent to a rezoning action in the Chula Vista Zoning Ordinance and shall adhere to the same procedure. All other amendments shall be subject to approval by the Planning Director with an appeal available to the Planning Commission and City Council, if necessary.

19.81.04 - Land Use

Permitted land uses in the Specific Plan area shall be controlled by Map 1, the Land Use Controls Map. Land use designations include: industrial: general; industrial: business park; residential; development reserve; commercial: office park; commercial: highway-related; commercial: marine-related; commercial: specialty retail; commercial: hotel; landscaped parking; public open space and wetlands.

The specific land uses allowed in each of these designations shall be determined using the use classifications and the definitions and listings found therein, provided that in the event subsequent data or findings of a geotechnical or biological nature on developable areas render the acceptability of such land uses infeasible or so environmentally damaging as to nullify the balanced character of the plan, such uses shall not be permitted in those areas.

All land uses shall also adhere to the Performance Standards, Chapter 19.66 of this Zoning Ordinance, which is hereby incorporated by reference.

19.81.05 - Incorporation by Reference

Wherever this Specific Plan refers to another Article, Section, or Subsection of the Chula Vista Zoning Ordinance, Title 19 of the Municipal Code, such Article, Section, or Subsection shall be deemed incorporated herein by reference; provided, however, that such Article, Section, or Subsection shall be superseded in relevant part by any amendment hereto in this Article.

USE CLASSIFICATIONS

Section 19.82

Use classifications provide generic groupings for ease of consideration and communication. They are supplemented by the Administrative Guidelines (Appendix A), which lists uses by common name within each grouping to facilitate understanding of the classifications.

RESIDENTIAL

Section 19.82.01 - Residential Activities

Residential Activities include the occupancy of living accommodations on a weekly or longer basis, with none of the living units under the same ownership or management on the same lot being occupied on a basis shorter than one week; but exclude institutional living arrangements involving the provision of a special kind of care or forced residence, such as in nursing homes, orphanages, asylums, and prisons.

COMMERCIAL

Section 19.82.05 - Food Sales Commercial Activities

Food Sales Commercial Activities include the retail sale, from the premises, of food or beverages for home consumption.

Section 19.82.06 - Food Service Commercial Activities

Food Service Commercial Activities include the retail sale, from the premises, of prepared food or beverages for on-premise or other non-home consumption.

Section 19.82.07 - Convenience Sales and Service Commercial Activities

Convenience Sales and Service Commercial Activities include the retail sale, from the premises, of drugs and other frequently needed small personal convenience items such as toiletries, tobacco, and magazines, as well as the provision of personal convenience services which are typically needed frequently or recurrently, such as barber and beauty care; and includes shoe shining, operation of self-service laundromats and laundry or drycleaning pick-up stations, but exclude other apparel cleaning and repair services.

Section 19.82.08 - Medical Service Commercial Activities

Medical Service Commercial Activities include the provision of therapeutic, preventive, or corrective personal treatment services by physicians, dentists, and other practitioners, as well as the provision of medical testing and analysis services.

Section 19.82.09 - General Retail Sales Commercial Activities

General Retail Sales Commercial Activities include the retail sale or rental from the premises, primarily for personal or household use, of goods consisting primarily of

items of a food or convenience character; but exclude sale or rental of motor vehicles, except for parts and accessories, and sale of materials used in construction of buildings or other structures, except for paint, fixtures, and hardware.

Section 19.82.10 - General Personal Service Commercial Activities

General Personal Service Commercial Activities include the provision to individuals of informational, instructional, amusement, and similar service of a non-professional nature which are not typically needed frequently.

Section 19.82.11 - Consultative and Financial Service Commercial Activities

Consultative and Financial Service Commercial Activities include the provision of financial, insurance, and real estate brokerage services, as well as the provision of advice, designs, information, or consultation of a professional nature.

Section 19.82.12 - Consumer Laundry and Repair Service Commercial Activities

Consumer Laundry and Repair Service Commercial Activities include the cleaning or repair of personal apparel and household appliances, furniture, and similar items, other than convenience services, but exclude repair of motor vehicles and of structures.

Section 19.82.13 - Group Assembly Commercial Activities

Group Assembly Commercial Activities include the provision of cultural, entertainment, educational, and athletic services, other than of a civic nature, to assembled groups of spectators or participants.

Section 19.82.14 - Administrative Commercial Activities

Administrative Commercial Activities include the executive, management, administrative, and other headquarters or clerical activities of private, profit-oriented firms, other than public utility firms.

Section 19.82.15 - Business and Communication Service Commercial Activities

Business and Communication Service Commercial Activities include the provision, primarily to firms rather than to individuals, of services of a clerical, goods brokerage, communication, or minor processing nature, including multicopy and blueprinting services; but exclude printing of books, other than pamphlets and small reports for another firm, and the storage of goods, other than small samples, for sale.

Section 19.82.16 - Retail Business Supply Commercial Activities

Retail Business Supply Commercial Activities include the retail sale or rental from the premises, primarily to firms and other organizations using the goods rather than to individuals, of office equipment and supplies and similar goods, together with the provision of incidental maintenance services; but exclude sale or rental of motor vehicles, except for parts and accessories, and sale of materials used in construction of buildings or other structures, except for paint, fixtures, and hardware.

Section 19.82.17 - Research and Development Commercial Activities

Research and Development Commercial Activities include research of a technological, industrial or scientific nature, other than medical testing and analysis and routine product testing, which is offered as a service or which is conducted by or for a private profit-oriented firm, other than a public utility firm, and which may be devoted in whole or in part to public purposes.

Section 19.82.18 - General Wholesale Sales Commercial Activities

General Wholesale Sales Commercial Activities include the storage and sale, from the premises, of goods to other firms for resale, as well as the storage of goods on the premises and their transfer therefrom to retail outlets of the same firm; but exclude sale or storage of motor vehicles, except for parts and accessories, and sale or storage of materials used in construction of buildings or other structures, except for paint, fixtures, and hardware.

Section 19.82.19 - Contractor Sales and Services Commercial Activities

Construction Sales and Services Commercial Activities include construction and incidental storage activities performed by construction contractors on lots other than construction sites, as well as the retail or wholesale sale, from the premises, of materials used in the construction of buildings or other structures, other than paint, fixtures, and hardware.

Section 19.82.20 - Transient Habitation Commercial Activities

Transient Habitation Commercial Activities include the provision of lodging services to transient guests on a less-than-weekly basis.

Section 19.82.21 - Automotive Sales, Rental, and Delivery Commercial Activities

Automotive Sales, Rental, and Delivery Commercial Activities include the retail or wholesale sale or rental, from the premises, of motor vehicles, with incidental maintenance, as well as the retail or wholesale sale or rental, from the premises, of any type of goods where orders are placed predominantly by telephone or mail order with delivery being provided by motor vehicle.

Section 19.82.22 - Automotive Servicing Commercial Activities

Automotive Servicing Commercial Activities include the sale, from the premises, of goods and the provision of services which are generally required in the operation and maintenance of automotive vehicles and the fulfilling of motorist needs, including sale of petroleum products together with sale and servicing of tires, batteries, automotive accessories, and replacement items, lubricating services, and performance of minor repairs.

Section 19.82.23 - Automotive Repair and Cleaning Commercial Activities

Automotive Repair and Cleaning Commercial Activities include the major repair or painting of motor vehicles, including body work and installation of major accessories, as well as the washing and polishing of motor vehicles.

Section 19.82.24 - Automotive Fee Parking Commercial Activities

Automotive Fee Parking Commercial Activities include the parking and storage of motor vehicles on a fee basis, other than the operation of parking facilities by a Civic Activity.

Section 19.82.25 - Boat Sales or Rental Commercial Activities

Boat Sales or Rental Commercial Activities include the retail or wholesale sale or rental of boats or other marine vessels, with incidental maintenance.

Section 19.82.26 - Boat Servicing Commercial Activities

Boat Servicing Commercial Activities include the sale, from the premises, of goods and the provision of services which are generally required in the operation and maintenance of boats or other marine vessels and the fulfilling of boating needs, including the sale of petroleum products, drydocking, servicing of boats, sale of boat equipment, accessories and replacement items, and performance of minor repairs.

Section 19.82.27 - Animal Sales Commercial Activities

Animal Sales Commercial Activities include the sale or auction from the premises of large animals for food or zoological purposes, as well as all appurtenant storage facilities, such as stockyards, corrals, and the like.

Section 18.82.28 - Animal Services Commercial Activities

Animal Services Commercial Activities include the services relating to the storage, maintenance, grooming or keeping of household or other animals.

Section 19.82.29 - Transport and Warehousing Commercial Activities

Transport and Warehousing Commercial Activities include the provision of warehousing and storage, freight handling, shipping, and trucking services.

Section 19.82.30 - Building Maintenance Services Commercial Activities

Building Maintenance Services Commercial Activities include the provision of services to buildings involving cleaning, maintenance, custodial and security.

Section 19.82.31 - Funeral and Interment Services Commercial Activities

Funeral and Interment Services Commercial Activities include the provision of undertaking and funeral services involving the care and preparation of the human deceased prior to burial.

INDUSTRIAL

Section 19.82.35 - Custom Manufacturing Activities

Custom Manufacturing Activities include the following activities. They also include certain activities accessory thereto, as specified below.

(a) Manufacturing, compounding, processing, assembling, packaging, treatment, or fabrication of the following products:

Experimental, film, electronic, or testing;
Electronic instruments and devices;
Office computing and accounting machines and typewriters; and
Scientific, electric measuring and control instruments and testing equipment.

(b) Printing, publishing, and sign-making.

(c) Accessory uses incidental thereto, including administrative, executive and financial offices and incidental services, such as restaurants to serve employees, when conducted on the premises; wholesale business storage or warehousing for products of the types permitted to be manufactured in the zone; other accessory uses and buildings customarily appurtenant to a permitted use.

(d) Retail sales of products produced or manufactured on the site.

Section 19.82.36 - Light Industrial Activities

Light Industrial Activities include the following activities. They also include activities accessory thereto.

(a) Manufacturing, compounding, processing, assembling, packaging, treatment, or fabrication of articles of merchandise, from the following previously prepared materials:

Cellophane
Cork
Fabrics and fibers
Leather
Paper
Plastics
Rubber
Straw
Textiles
Wood, but excluding operation of a planing mill

(b) Photographic developing.

(c) Manufacturing, compounding, processing, assembling, packaging, treatment, or fabrication of the following products:

Beverages, but excluding alcoholic beverages
Business machines
Ceramics, other than handicraft
Clothing, and other textile products, other than custom clothing
Electrical and electronic equipment and appliances
Food, but excluding fish, meat, sauerkraut, vinegar, and yeast
Furniture and fixtures
Ice
Pens, pencils, and artists' materials
Pharmaceuticals

Pianos and organs
Small metal tools and products
Sporting and athletic goods
Toiletries

Section 19.82.37 - General Industrial Activities

General Industrial Activities include the following activities. They also include activities accessory thereto.

(a) Manufacturing, compounding, processing, assembling, packaging, treatment, or fabrication of articles of merchandise, from the following materials:

Clay
Glass
Graphite
Metal
Stone

(b) Shipbuilding.

(c) Manufacturing, compounding, processing, assembling, packaging, treatment, or fabrication of the following products:

Barrels and casks
Boilers
Emery cloth and sandpaper
Excelsior and packing materials
Film
Monuments
Motor vehicles
Oil cloth and linoleum
Porcelain
Salt
Shoe and stove polish
Transit vehicles

Section 19.82.38 - Scrap Operations Industrial Activities

Scrap Operations Industrial Activities include the storage and sale, from the premises, or dismantling or other processing of used or waste materials which are not intended for reuse in their original form, except when such activities are part of a manufacturing operation.

AGRICULTURAL

Section 19.82.39 - Plant Nursery Agricultural Activities

Plant Nursery Agricultural Activities include the cultivation for sale of horticultural specialties such as flowers, shrubs, and trees, intended for ornamental or landscaping purposes.

Section 19.82.40 - Crop Raising Agricultural Activities

Crop Raising Agricultural Activities include the raising of tree, vine, field, forage, and other plant crops, intended to provide food or fibers.

Section 19.82.41 - Small Animal Raising Agricultural Activities

Small Animal Raising Agricultural Activities include the raising, keeping, grazing or feeding of small animals for pets, animal products, animal increase, or value increase.

Section 19.82.42 - Large or Specialty Animal Raising Agricultural Activities

Large or Specialty Animal Raising Agricultural Activities include the raising, keeping, grazing or feeding of large or specialty animals for pets, zoos, animal products, animal increase, or value increase.

Section 19.82.43 - Agricultural Packing and Processing Activities

Agricultural Packing and Processing Activities include the packing, cleaning or processing of fish, meat, eggs, dairy or produce.

Section 19.82.44 - Agricultural Supplies and Services

Agricultural Supplies and Services include the sale or services relating to agricultural operations, typically intended to enhance crop yields through fertilization, pest control, and other treatment or assistance.

CIVIC

Section 19.82.50 - Essential Service Civic Activities

Essential Service Civic Activities include the maintenance operations of the following installations. They also include certain activities accessory thereto.

(a) Electric, gas, and telephone distribution lines and poles, and water, storm drainage, and sewer lines, with incidental appurtenances thereto, but excluding electric transmission lines.

(b) Parks and botanical gardens, but excluding playgrounds, playing fields, bandstands, auditoriums, and similar assembly areas.

(c) Freeways, rapid transit routes, streets, alleys, and paths, but excluding uses on, under, or over such ways, which uses are not customarily appurtenant thereto.

Section 19.82.51 - Limited Child-Care Civic Activities

Limited Child-Care Civic Activities include the provision of day-care service for eight or fewer children.

Section 19.82.53 - Community Assembly Civic Activities

Community Assembly Civic Activities include the activities typically performed by, or at, the following institutions or installations. They also include certain activities accessory thereto.

- (a) Churches, temples, and synagogues.
- (b) Food service and other concessions located within public parks.
- (c) Public, parochial, and private non-profit clubs, lodges, meeting halls, and recreation centers.
- (d) Public and parochial playgrounds and playing fields.
- (e) Temporary non-profit festivals.

Section 19.82.54 - Non-Assembly Cultural Civic Activities

Non-Assembly Cultural Civic Activities include the activities of public or private non-profit libraries, galleries, and collections not primarily designed for public use or for the performing arts.

Section 19.82.55 - Community Education Civic Activities

Community Education Civic Activities include the activities typically performed by the following institutions. They also include certain activities accessory thereto.

- (a) Orphanages.
- (b) Foster and family care homes for more than six persons placed by an authorized agency.
- (c) Public, parochial, and private day-care centers for four or more children.
- (d) Public, parochial, and private nursery schools and kindergartens.
- (e) Public, parochial, and private elementary, junior high, and high schools.

Section 19.82.56 - Non-Assembly Scientific Activities

Non-Assembly Scientific Activities include the activities of scientific or biological observatories or interpretive centers intended primarily for collection of scientific data.

Section 19.82.57 - Administrative Civic Activities

Administrative Civic Activities include the activities typically performed by public, parochial, and public utility administrative offices.

Section 19.82.58 - Parking Services

Parking Services include the provision of short-term automobile storage in garages or lots which are publicly operated.

Section 19.82.59 - Utility and Vehicular Civic Activities

Utility and Vehicular Civic Activities include the maintenance and operation of the following installations.

- (a) Communications equipment installations and exchanges.
- (b) Electrical substations.
- (c) Emergency hospitals operated by a public agency.
- (d) Gas substations.
- (e) Neighborhood newscarrrier distribution centers.
- (f) Police stations and fire stations.
- (g) Post offices, but excluding major mail-processing centers.

SIGNS

Section 19.83 - Regulation of Signs

The size, location and design of all signs in the area shall be subject to the Chula Vista Bayfront Sign Program, adopted August 7, 1980 and incorporated herein by reference. The Bayfront Sign Program shall be applied by these regulations from the north city limits south to Palomar Street, with variations allowed under the planned Sign Program.

Section 19.83.01 - General Description of Signs

Signs are any facilities, whether located inside or outside a building, which are visible from any lot line, and the primary purpose of which is the conveyance of an idea, advertising, endorsement, identification, or information, by means of visual symbols, lettering, illustration, or any other means of directing attention or communicating; and include display surfaces together with such facilities as are utilized in supporting, maintaining, and illuminating the display surfaces.

Section 19.83.02 - Residential Signs

Residential Signs are signs which give notice of the name or address of residential facilities on the same lot or the name or occupation of a resident thereof, or the condition of use of a parking area or other private facility serving a Residential Activity.

Section 19.83.03 - Special Signs

Special Signs are signs which serve a temporary or other special function of an emergency, patriotic, religious, or community nature, including official notices and warning signs posted by a governmental agency; the flag of any nation, state, international organization, or other governmental agency; memorial plaques, historical tablets, and other commemorative symbols; temporary displays of a patriotic or religious nature, temporary non-structural posters for civic or political campaigns; and non-illuminated, non-verbal religious symbols.

Section 19.83.04 - Development Signs

Development Signs are temporary signs which announce the anticipated sale, lease, rental, or character of facilities being constructed or altered, or of facilities or lots in a real estate subdivision development, or which identify persons or firms engaged in the promotion, design, construction, or alteration thereof.

Section 19.83.05 - Realty Signs

Realty Signs are temporary signs which pertain to the sale, lease, rental, or display of existing lots or buildings or other facilities.

Section 19.83.06 - Civic Signs

Civic Signs are signs, other than Special Signs, which give notice of the name or service, or other function or operation, of a Civic Activity on the same lot, or the address or conditions of use of a parking area or other facility serving such activity.

Section 19.83.07 - Business Signs

Business Signs are any of the following:

(a) A sign directing attention to, or otherwise pertaining to, a commodity, service, business, or profession which is sold, produced, conducted, or offered as one of the major functions of a Commercial, Manufacturing, or Agricultural Activity on the same lot.

(b) A sign, or portion thereof, directing attention to, or otherwise pertaining to, a commodity or service which is sold, produced or offered by a Commercial, Manufacturing, or Agricultural Activity on the same lot, but which does not constitute a major function thereof, whenever:

1. Such sign is located behind a display window; or
2. Such sign has a display surface not greater than 12 square feet on any one face; or
3. Such advertising is incidental to a sign pertaining to a major function and does not occupy more than one-half of the area of display surface thereof.

(c) A sign giving notice of the address or conditions of use of a parking area or other facility serving a Commercial, Manufacturing, or Agricultural or Extractive Activity.

Section 19.83.08 - Advertising Signs

Advertising Signs are any of the following:

(a) A sign directing attention to, or otherwise pertaining to, a commodity, service, business, or profession which is not sold, produced, conducted, or offered by any activity on the same lot.

(b) A Sign directing attention to, or otherwise pertaining to, a commodity, service, business, or profession which is sold, produced, conducted, or offered by a Commercial, Manufacturing, or Agricultural or Extractive Activity on the same lot but which does not constitute a major function thereof, whenever such sign is not classified as a Business Sign.

PERMITTED LAND USES

Section 19.84

Section 19.84.01 - Residential Permitted Uses

All lands designated on Map I, Land Use Controls, as **Residential**, shall be permitted to accommodate the following use classifications:

- Residential
- Essential Service Civic
- Limited Child-Care Civic
- Residential Signs
- Special Signs
- Development Signs
- Realty Signs
- Civic Signs

Section 19.84.02 - Residential Conditionally Permitted Uses

All lands designated on Map I, Land Use Control, as **Residential**, shall be permitted to accommodate the following use classifications pursuant to the **CONDITIONAL USE PROCEDURE** at Chapter 19.14:

- Food Sales and Service Commercial
- Consumer Laundry and Repair Commercial
- Convenience Sales and Service Commercial
- Community Assembly Civic
- Community Education Civic
- Residential Signs
- Special Signs
- Development Signs
- Realty Signs
- Civic Signs

Section 19.84.03 - Landscaped Parking Permitted Uses

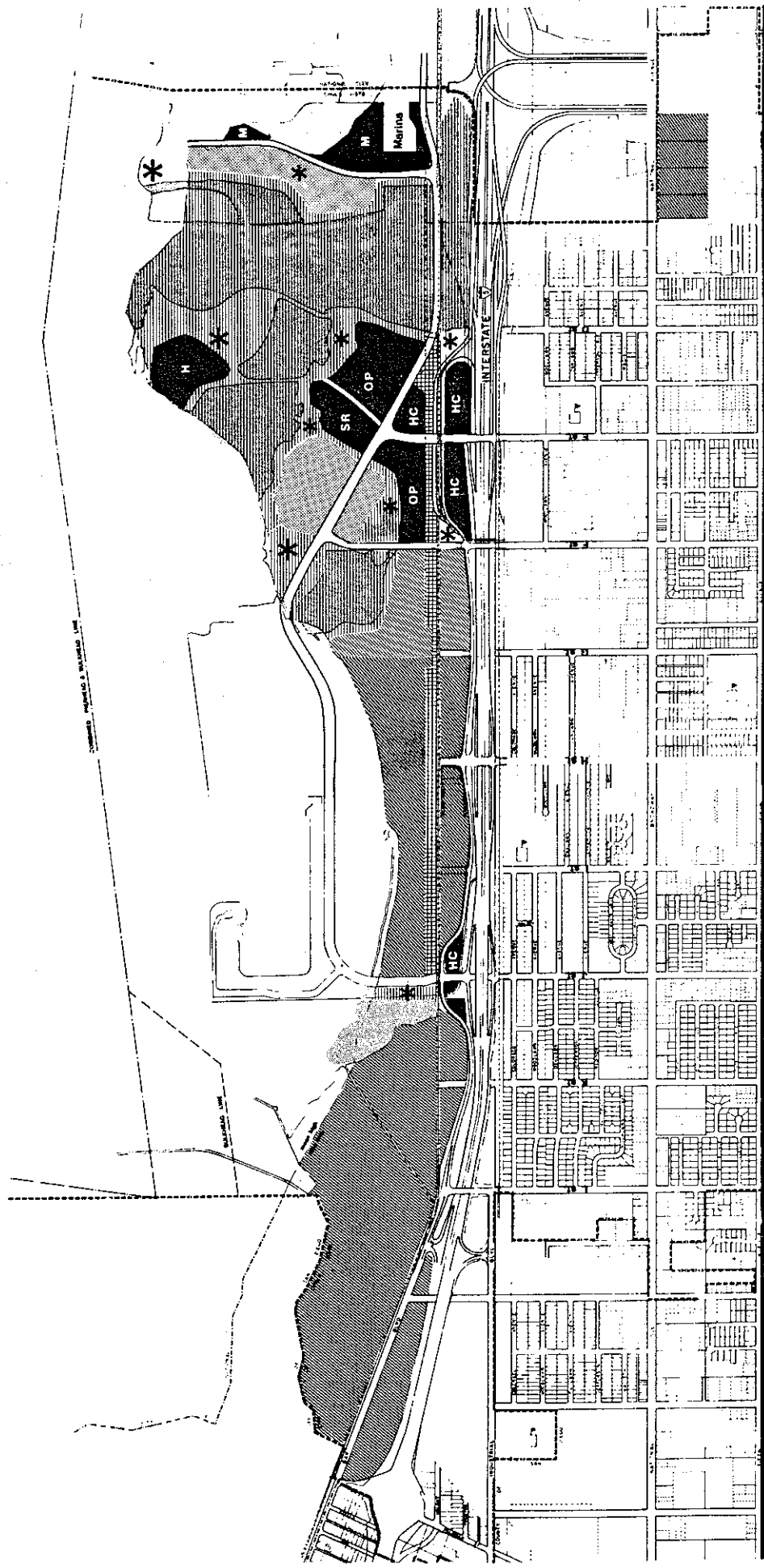
All lands designated on Map I, Land Use Controls, with a **Landscaped Parking** designation shall be permitted to accommodate the following uses:

- Parking Services Civic
- Automotive Fee Parking Commercial
- Special Signs
- Civic Signs

Section 19.84.04 - Commercial: Office Park Permitted Uses

All lands designated on Map I, Land Use Controls, with a **Commercial: Office Park** designation shall be permitted to accommodate the following uses:

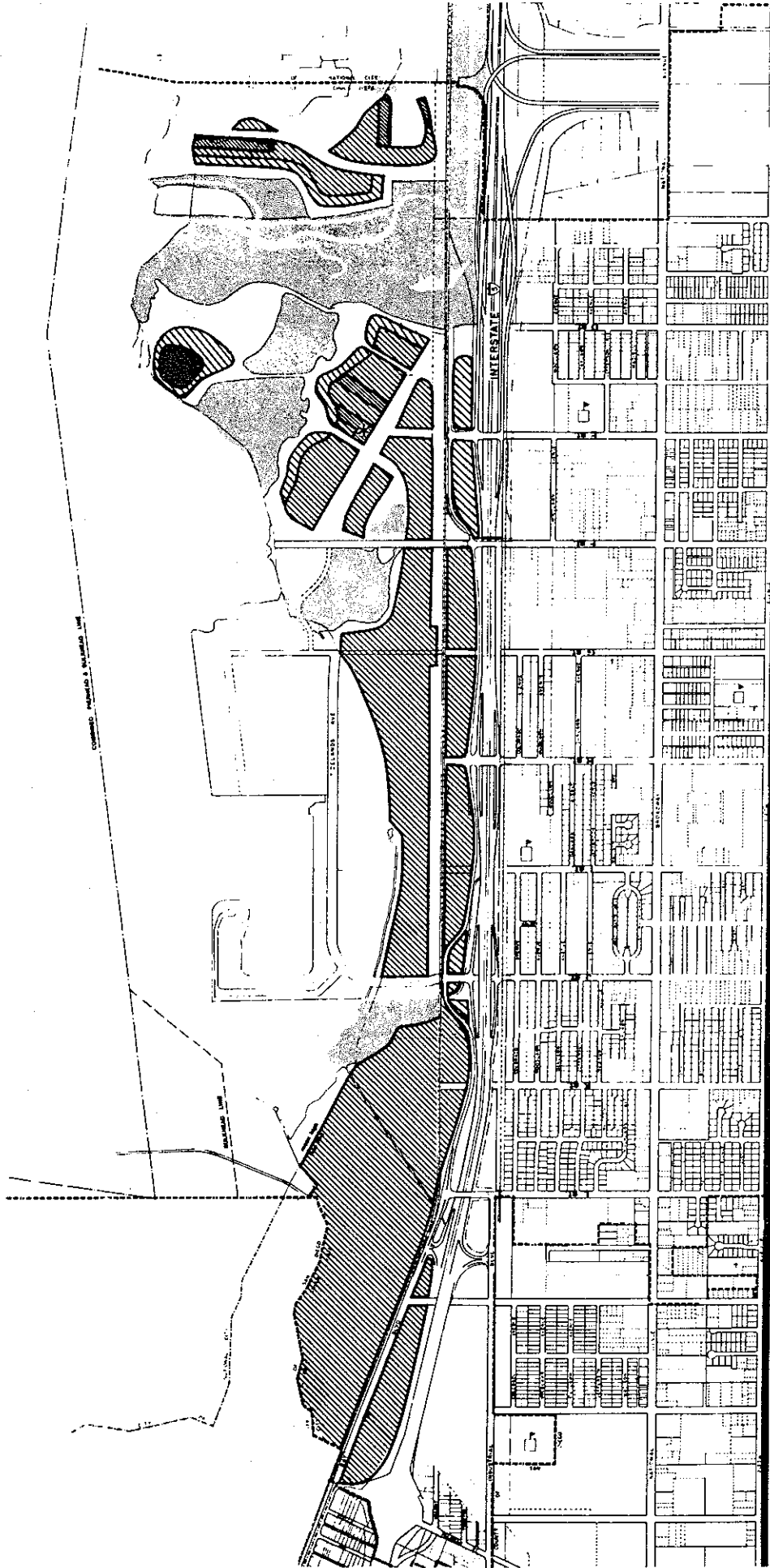
- Food Service Commercial
- Convenience Sales and Service Commercial
- Medical Service Commercial



**MAP 1
CHULA VISTA
LOCAL COASTAL PROGRAM
LAND USE
CONTROLS**

- Industrial: General**
- Industrial: Business Park**
- Residential**
- Landscaped Parking**
- Commercial**
- Office Park**
- Highway Related**
- Marine Related**
- Specialty Retail / Mixed Use**
- Hotel**
- Public Park and Open Space**
- Community/Neighborhood Park**
- Wetlands**








MAP 2
CHULA VISTA
LOCAL COASTAL PROGRAM
BUILDING HEIGHT
CONTROLS



DEVELOPMENT AREAS

-  2 Story Maximum (22 feet)
-  4 Story Maximum (44 feet)
-  5 Story Maximum (55 feet)

-  8 Story Maximum (88 feet)
 (12 Story Conditional - 132 feet)

* 70 Foot Maximum

- General Personal Service Commercial
- General Retail Sales Commercial
- Consultative and Financial Commercial
- Administrative Commercial
- Business and Communication Service Commercial
- Parking Services Civic
- Community Assembly Civic
- Non-Assembly Cultural Civic
- Administrative Civic
- Special Signs
- Development Signs
- Realty Signs
- Civic Signs
- Business Signs

Section 19.84.05 - Commercial Highway-Related Permitted Uses

All lands designated on Map 1, Land Use Controls, with a **Commercial Highway-Related** designation shall be permitted to accommodate the following uses:

- Food Sales Commercial
- Convenience Sales and Service Commercial
- Transient Habitation Commercial
- Automotive Servicing Commercial
- Automotive Repair and Cleaning Commercial
- Automotive Fee Parking Commercial
- Parking Services Civic
- Community Assembly Civic
- Administrative Civic
- Utility and Vehicular Civic
- Special Signs
- Development Signs
- Realty Signs
- Civic Signs
- Business Signs

Section 19.84.06 - Commercial Marine-Related Permitted Uses

All lands designated on Map 1, Land Use Controls, with a **Commercial Marine-Related** designation shall be permitted to accommodate the following uses:

- Food Sales Commercial
- Food Service Commercial
- Convenience Sales and Service Commercial
- General Retail Sales Commercial, limited to boating and yachting sales, including ship chandleries
- Retail Business Supply Commercial, for marine-related businesses only
- Transient Habitation Commercial
- Boat Sales or Rental Commercial
- Boat Servicing Commercial
- Boat Repair and Cleaning Commercial
- Automotive Fee Parking Commercial
- Parking Services Civic
- Community Assembly Civic

Non-Assembly Cultural Civic
Utility and Vehicular Civic
Special Signs
Development Signs
Realty Signs
Civic Signs
Business Signs

Section 19.84.07 - Commercial Specialty Retail Permitted Uses

The following uses shall be permitted within areas designated **Commercial Specialty Retail** on Map I, Land Use Controls, provided that the City of Chula Vista may approve a single site, to be used for Commercial Specialty Retail within three months after request for any site by the landowner with submission of a statement documenting the relative attributes of the various sites, any of which may be selected with regard to the potential for specialty retail:

Food Service Commercial
Convenience Sales and Service Commercial
General Personal Service Commercial
General Retail Sales Commercial
Group Assembly Commercial
Automotive Fee Parking Commercial
Essential Service Civic
Parking Services Civic
Limited Child-Care Civic
Community Assembly Civic
Non-Assembly Cultural Civic
Special Signs
Development Signs
Realty Signs
Civic Signs
Business Signs

Section 19.84.08 - Commercial: Hotel Permitted Uses

The following uses shall be permitted within the areas designated as **Commercial: Hotel** on Map I, Land Use Controls:

Food Service Commercial
Convenience Sales and Service Commercial, designed and located as an
integral portion of the hotel-conference facility
Group Assembly Commercial
Automotive Fee Parking Commercial
Parking Services Civic
Transient Habitation Commercial
Community Assembly Civic
Community Recreation Civic
Non-Assembly Scientific Civic
Non-Assembly Cultural Civic
Special Signs
Development Signs
Business Signs

Section 19.84.09 - Industrial: Business Park Permitted Uses

All lands designated on Map 1, Land Use Controls, as **Industrial: Business Park** shall be permitted to accommodate the following use classifications:

- Administrative Commercial
- Food Service Commercial
- Convenience Sales and Service Commercial
- Business and Communication Service Commercial
- Retail Business Supply Commercial
- Research Development Commercial
- Automotive Fee Parking Commercial
- Custom Industrial
- Essential Service Civic
- Parking Services Civic
- Community Assembly Civic
- Special Signs
- Development Signs
- Realty Signs
- Civic Signs
- Business Signs

Section 19.84.10 - Public Open Space Permitted Uses

The following uses shall be permitted within any lands designated as **Public Open Space** on Map 1, Land Use Controls:

- Non-Assembly Cultural Civic
- Community Recreation Civic
- Non-Assembly Scientific Civic
- Special Signs

Section 19.84.11 - Wetlands and Buffers

The following uses shall be permitted within lands designated as **Wetlands and Buffers**, on Map 1, Land Use Controls:

- Restoration or enhancement of wetlands areas, with development or construction limited to interpretive facilities which will preserve natural resource or habitat values.

Section 19.84.12 - Industrial: General Permitted Uses

All lands designated on Map 1, Land Use Controls, as **Industrial: General** shall be permitted to accommodate the following use classifications:

- Food Service Commercial
- Convenience Sales and Service Commercial
- Business and Communication Service Commercial
- Retail Business Supply Commercial
- Research and Development Commercial
- General Wholesale Sales Commercial
- Transportation and Warehousing Commercial
- Automotive Fee Parking Commercial

Custom Industrial
Light Industrial
General Industrial
Essential Service Civic
Special Signs
Development Signs
Realty Signs
Civic Signs
Business Signs

Section 19.84.50 - Interim Uses

Interim Uses may be permitted on a temporary basis for a period of not more than two years, with maximum two-year extensions, upon the issuance of a conditional use permit, provided that such uses adhere to the following criteria:

1. They do not involve new structures of more than 5,000 square feet;
2. They do not foreclose any possibilities of new conservation or development specified in the land use plan; and
3. They do not adversely affect the surrounding area or its effective functioning or appearance.

DEVELOPMENT

Section 19.85

The following provisions shall regulate the lot size, floor area, height, coverage, setback, and useable open space, density, intensity, and physical form of development within the Bayfront area.

Section 19.85.01 - Building Height

The maximum heights of buildings shall be controlled by Map 2, Building Height Controls, and shall be measured in stories or feet, whichever is less:

Two-story maximum - 22 feet.

Four-story maximum - 44 feet.

Five-story maximum - 55 feet.

Eight-story maximum - 88 feet.

Twelve-story conditional - a maximum of 132 feet, provided that the increase in height above 88 feet can be shown to produce a visually and environmentally superior solution for a visually prominent and resource-sensitive location, and which adheres to the following standards:

- a. Linear slab or cruciform design shall be avoided in favor of a stepped building form.
- b. The building shall enclose a south facing public outdoor space.

Special Condition - a maximum height of 70 feet is allowed within 400 feet of the intersection of E Street and Bay Boulevard in the southwest corner of such intersection.

Section 19.85.02 - Residential Density

The minimum residential density shall be 15 dwelling units per acre, and the maximum residential density shall be 30 dwelling units per acre, provided, however, that such measurements shall be taken in the aggregate for larger parcels permitting the transfer of unused density on internal developed areas to other portions of the site.

CIRCULATION

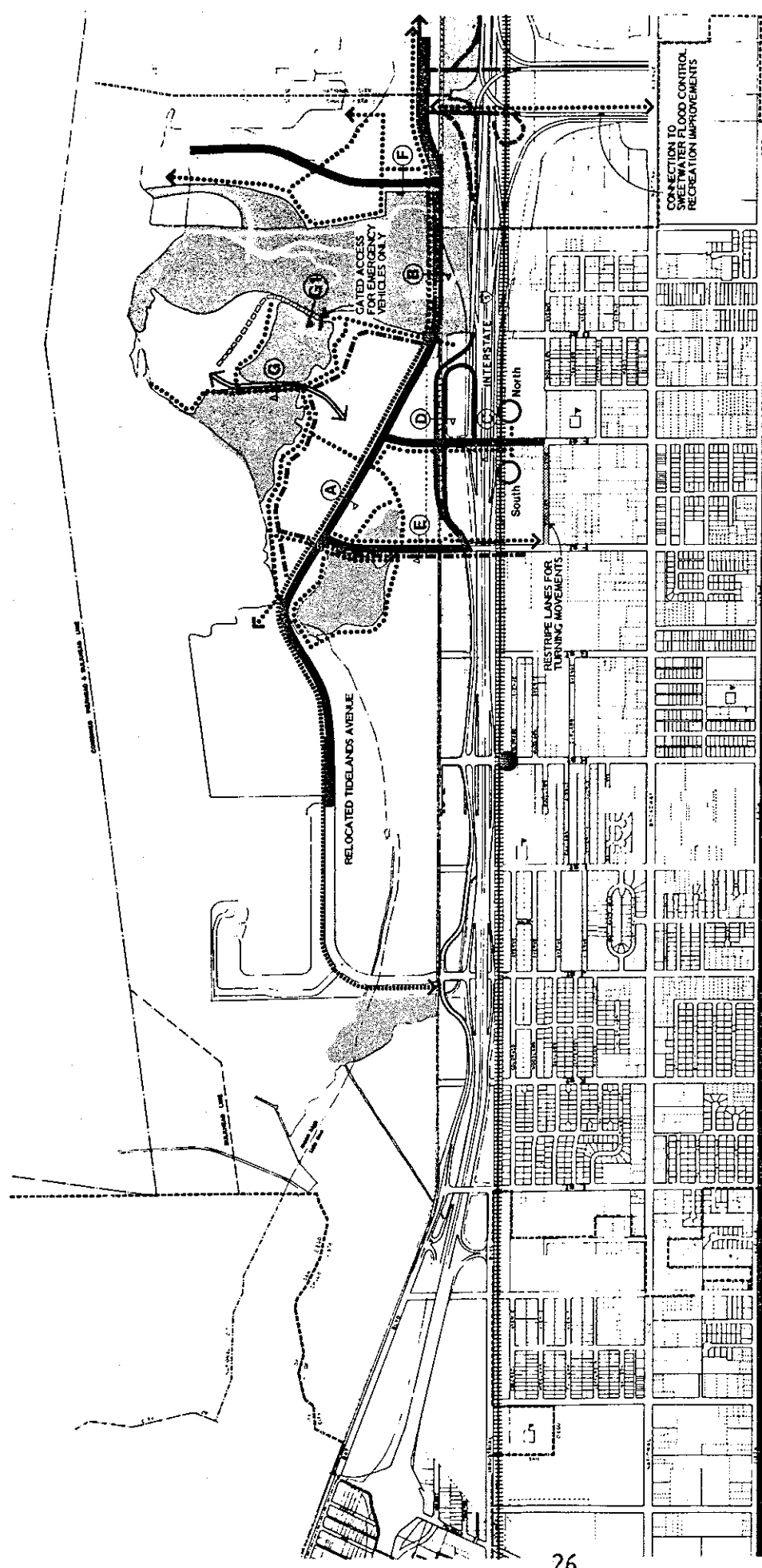
Section 19.86 - Circulation Criteria

All public or private plans for development of roads, pedestrian ways, bicycle paths, transit systems or stations, or freeway connections, shall adhere to Map 3, Circulation. Precise proposals for location shall adhere to the following circulation objectives:

1. Provide good regional access to the Bayfront.
2. Route roadways in a manner which minimizes adverse effects on valuable marshlands, protects lands with high recreation value, and avoids fragmentation of developable lands into inadequately sized or located parcels.
3. Create auto-free zones along the shoreline and other areas which have unique environmental conditions or potential, and make provision for pedestrians and bicyclists.
4. Reduce dependency upon the private automobile by providing public transit service, including smaller "mini-transit" vehicles or private jitneys.
5. Develop the network of transportation facilities, including freeways, major arterials, parking areas, and pedestrian and bicycle paths, into a system in which there is convenient transfer from one mode to another. An easily understood relationship between the various parts of the transportation system and the major destinations within the Bayfront should exist.
6. Avoid congestion of the freeways and connection arterials by maintaining a mix of land uses where peak traffic generating periods are staggered throughout the day.
7. Provide motorists, both on freeways and on arterials within and adjoining the Bayfront, with enjoyable scenic experiences.
8. Provide for convenient pedestrian, bicycle, and vehicular access to the Bayfront from community areas east of Interstate 5.
9. Provide sufficient separation between pedestrian ways, bicycle paths, and roadways to ensure traffic safety and the elimination of noise, functional disruption, and visual intrusion caused by motor vehicles.

Section 19.86.01 - Roadway Design

The design of roadways by public agencies or private entities shall adhere to the following roadway cross-sections, cross-referenced by a letter designation to Map 3, Circulation, depicting typical roadway sections by a letter specification.



**MAP 3
CHULA VISTA
LOCAL COASTAL PROGRAM
CIRCULATION**

- Existing Trolley Line
- Existing Trolley Stop
- New Roadway
- Controlled Access Roadway
- Emergency Access Roadway
- Future Trolley Station (alternative locations)
- Regional Bicycle Route
- Local Bicycle Route
- Pedestrian Route
- Right of Way Preservation
- Typical Roadway Section (see illustrations in "Roadway Design")



Section 19.86.02 - Bus and Jitney Service

Bus service may be provided along Tidelands Avenue, E Street, F Street, and Bay Boulevard. Public or private jitney service should supplement this service. This service should connect to the Bay Front (E Street) Trolley Station and interconnect with the rest of the Chula Vista Transit Service.

Section 19.86.03 - Parking on Gunpowder Point

Up to 430 surface parking spaces may be directly located on Gunpowder Point, with 30 of these allocated to public or handicapped parking, to be consolidated into an area hidden from view by landscaped berms with 50% of the parking totally concealed. Restaurant, conference and employee parking shall be located in the Midbayfront, off Gunpowder Point.

Section 19.86.04 - On-Street Parking Prohibition

Streetside parking will not be permitted along any major roadways identified in the Circulation Plan, including Tidelands Avenue, D Street, E Street, F Street or Bay Boulevard.

Section 19.86.05 - On-Site Parking

Parking included as part of a private development shall be located in areas away from the shoreline and public open space corridors and, where feasible, screened from view from major arterials by use of landscaped berms and tree planting. Where possible, large-scale parking shall be avoided in favor of smaller disaggregated parking areas separated by buildings or landscaping.

Section 19.86.06 - Landscaped Parking in the SDG&E Row

Where parking is incorporated into the SDG&E Row, the following bonus provisions shall apply: The parking areas shall be landscaped with a continuous perimeter planting of trees and ground covers. Tree planting will be tightly spaced to provide a dense canopy at eye level. Tree species will be limited to those that will not interfere with the overhead power lines and shall be trimmed as necessary to meet standards set by SDG&E.

Section 19.86.07 - Community Park Parking

Public parking areas shall be provided at each of the major community or neighborhood parks adjacent to a major roadway, as shown in the land use map. Parking areas will be incorporated into open space areas in close proximity to roadways and, where possible, shall be screened from view. One parking space shall be provided for each 10,000 square feet of accessible open space.

Section 19.86.08 - Pedestrian Routes

Continuous shoreline access shall be provided within the 100-foot upland area designated as wetland buffers in Map 6. A continuous improved public path will be integrated into minor landscape improvements to the wetland buffers. Pedestrian access will be provided along the southern levee from the Midbayfront to Gunpowder Point through a controlled access roadway. At the D Street Fill area and at the J Street Marina Park area, public access shall be integrated with Port land

ROADWAY DESIGN

FOR SECTION LOCATION SEE MAP 3 - CIRCULATION MAP

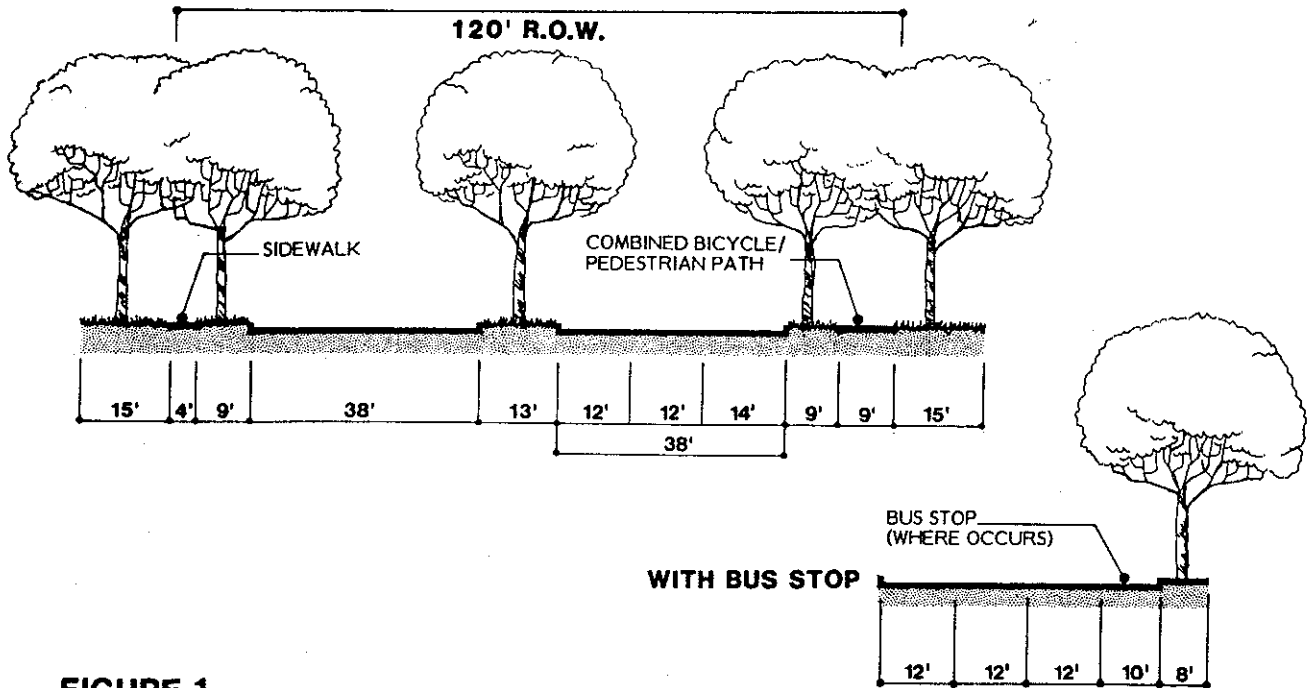
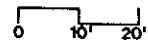


FIGURE 1
SECTION A (Prototypical) Looking South
TIDELANDS AVENUE - 3 Lane Segment



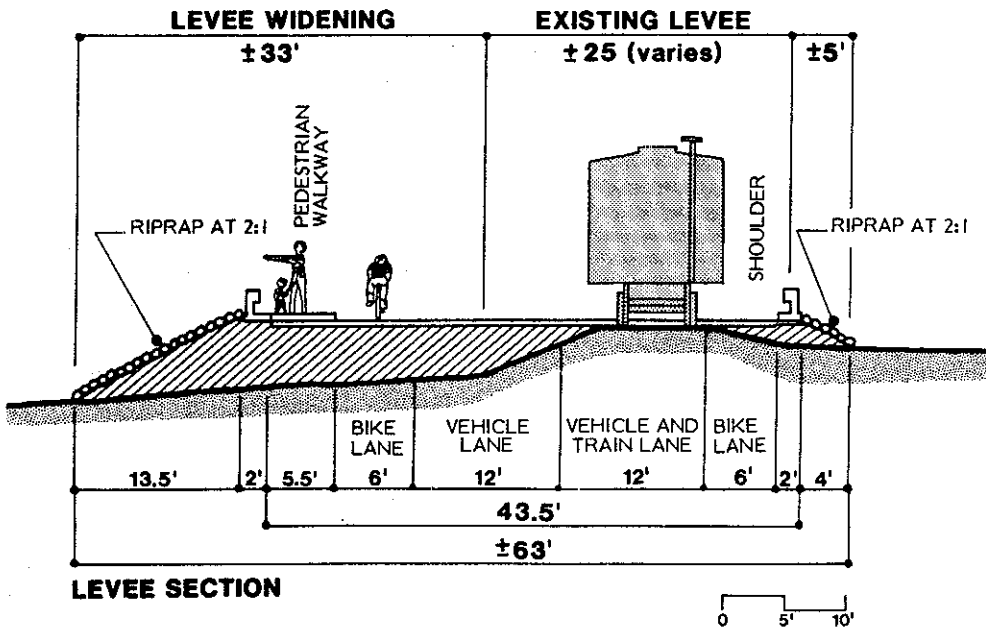
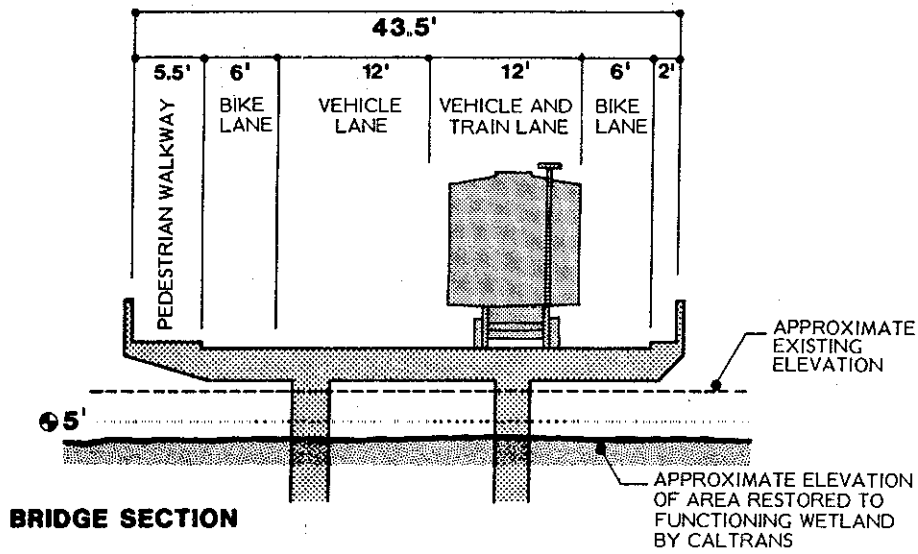
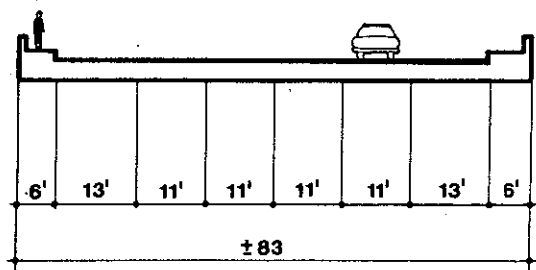
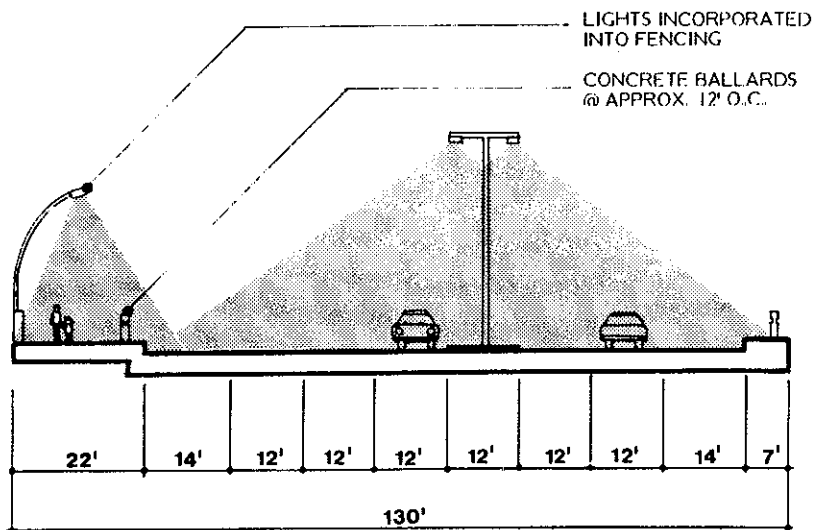


FIGURE 2
SECTION B (Prototypical) Looking South
RAILROAD/TIDELANDS AVE. CROSSING OF SWEETWATER MARSH

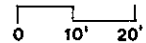


EXISTING FREEWAY BRIDGE



WIDENED BRIDGE

**FIGURE 3
SECTION C (Prototypical) Looking West
FREEWAY BRIDGE WIDENING AT E STREET**



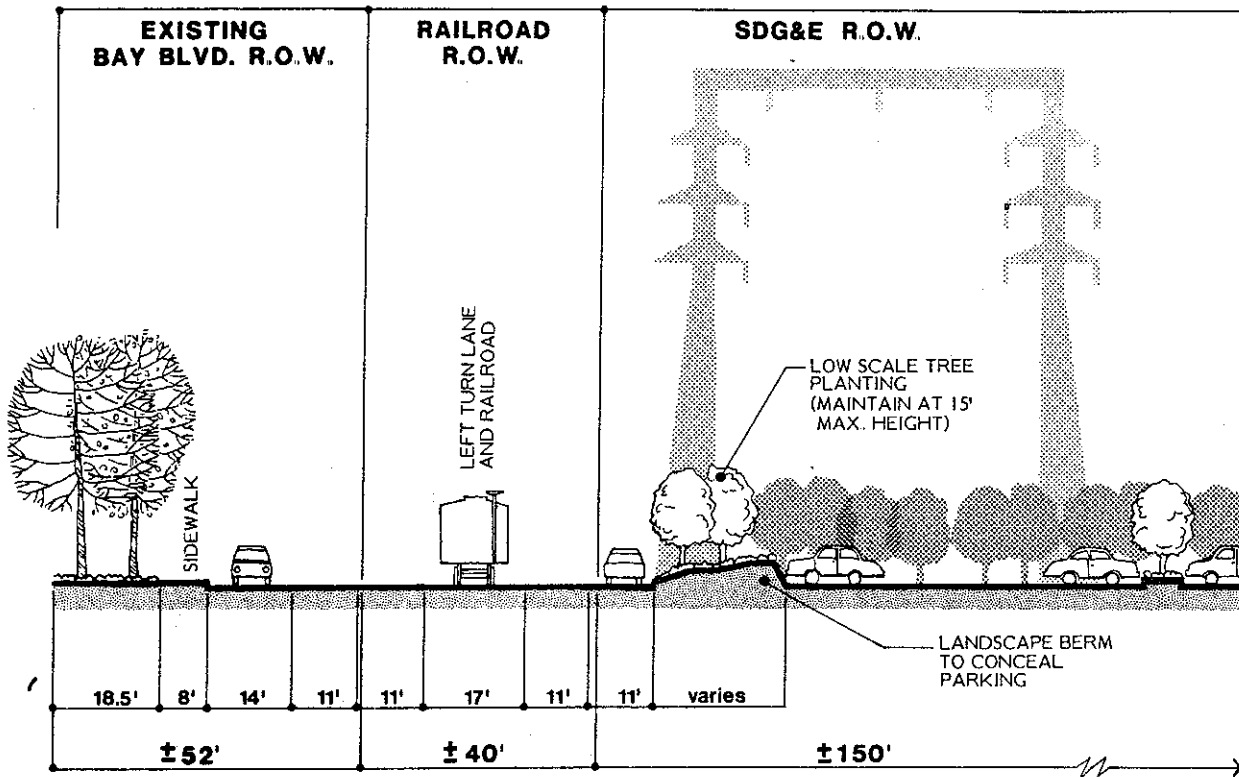


FIGURE 4
SECTION D (Prototypical) Looking South
BAY BLVD. FRONTAGE

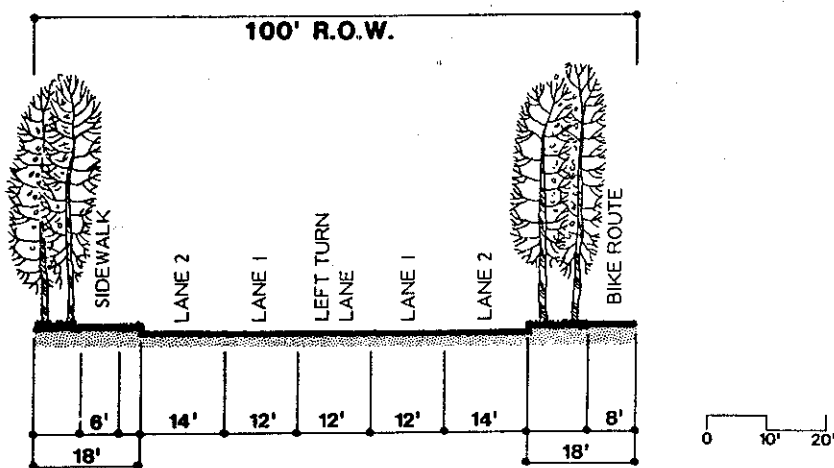
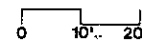


FIGURE 5
SECTION E (Prototypical) Looking West
F STREET EXTENSION - With Bike Lane

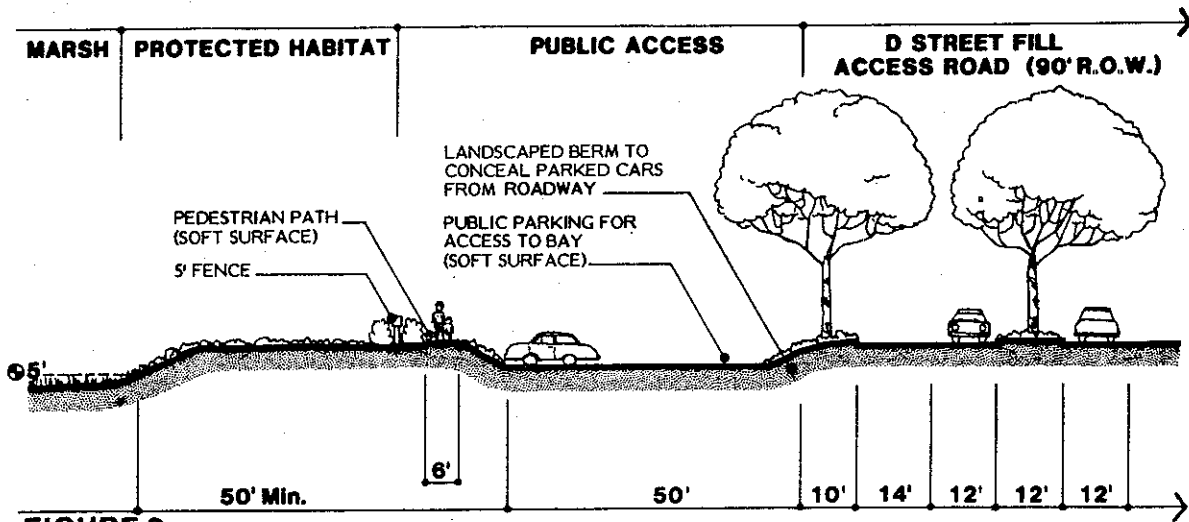


FIGURE 6
SECTION F (Prototypical) Looking West
GATEWAY TO D STREET FILL

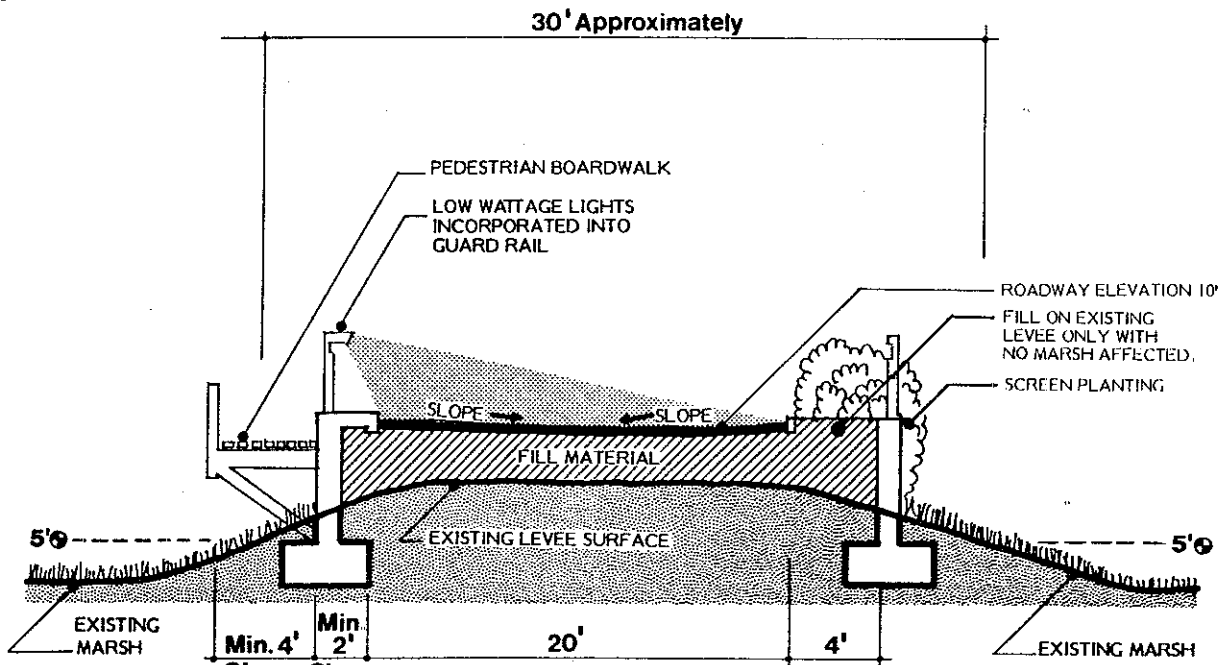


FIGURE 7
SECTION G (Prototypical) Looking West
ACCESS TO GUNPOWDER POINT

development. Pedestrian and bicycle routes in the Bayfront will interconnect with the proposed recreational improvements included in the CalTrans/Corps of Engineers project. The flood control project should anticipate this interconnection and provide for the necessary bridges or other structures. Pedestrian routes also shall interconnect major open spaces in the Bayfront to adjacent city neighborhoods via E Street and F Street. Pedestrian routes shall adhere to the pedestrian route delineation shown on Map 3.

Section 19.86.09 - Bicycle Routes

Map 3, Circulation, shall control development and location of a continuous shoreline bicycle route to be a part of the statewide system. Joint pedestrian and bicycle use of the Gunpowder Point paths shall be permitted.

Section 19.86.10 - Street Names

Street names for future streets shall be those designated in the subarea provisions of this Ordinance.

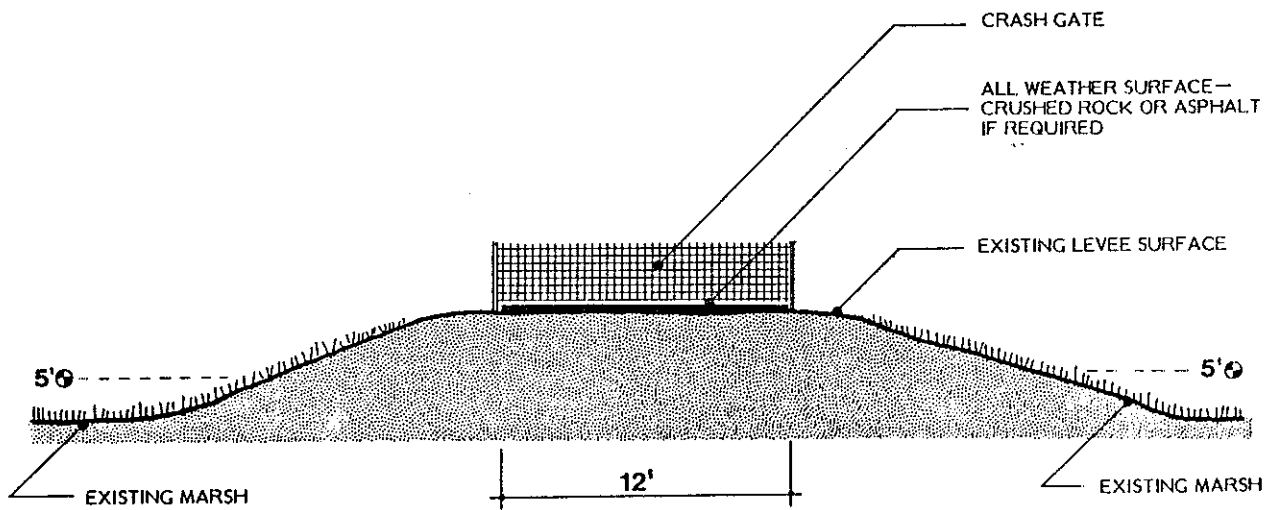
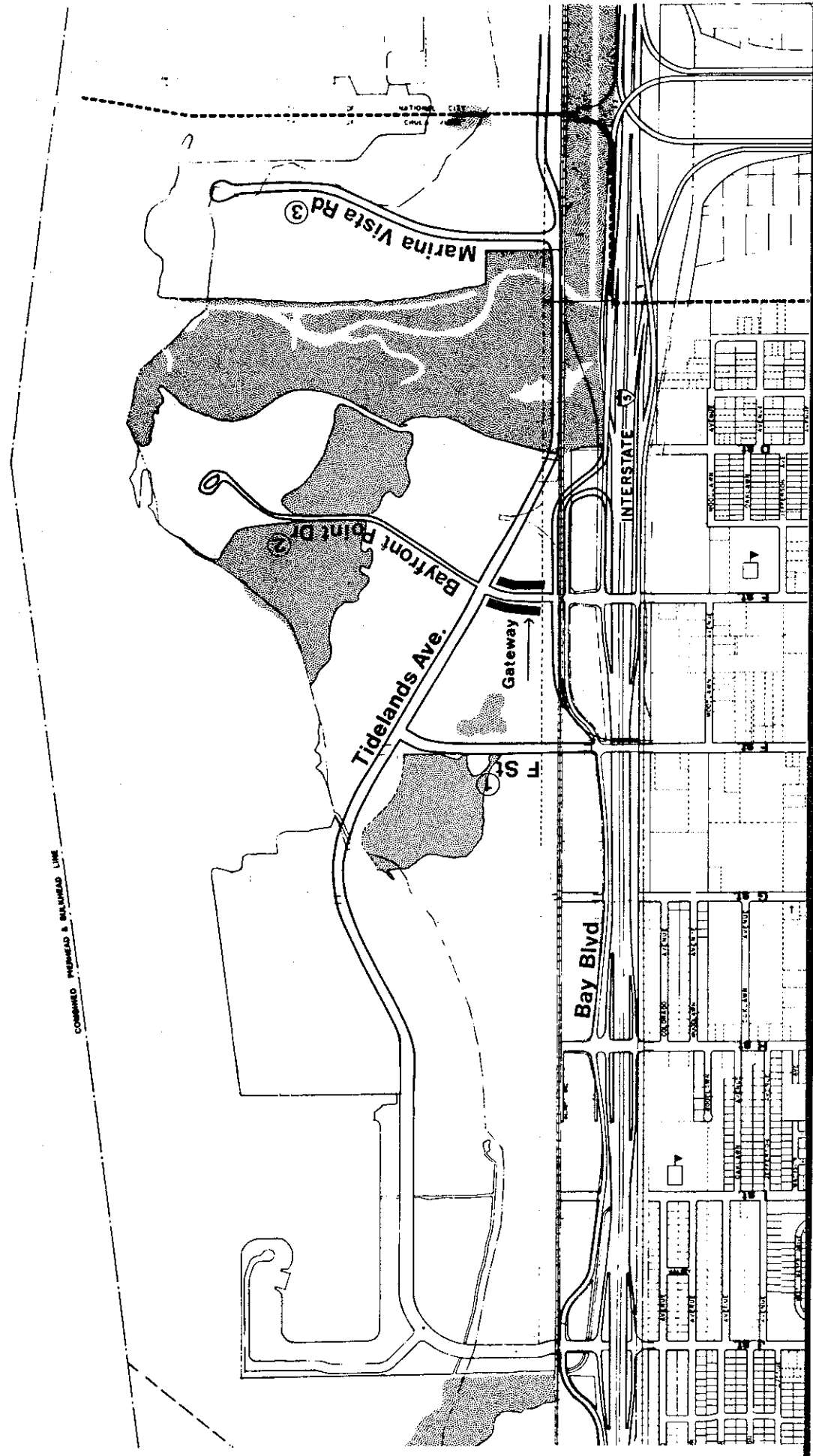


FIGURE 8
SECTION G1 (Prototypical) Looking East
SECONDARY ACCESS TO GUNPOWDER POINT-EMERGENCY ROUTE ONLY



MAP 3A
CHULA VISTA
LOCAL COASTAL PROGRAM
STREET NAMES

- ALTERNATIVE NAMES**
- ① Lagoon Rd
 - ② Gunpowder Bay Rd
 - ③ Caribe Point Rd

SEDWAY COOKE ASSOCIATES
 URBAN AND ENVIRONMENTAL
 PLANNING AND DESIGNERS



COMBINED HIGHWAY & RAILROAD LINE

UTILITIES

Section 19.87

Section 19.87.01 - Stormwater Management and Drainage

Grading and drainage concepts shall be incorporated into street plans to utilize streets in the stormwater collection system. Building pad grades and generalized design grades for streets shall be designated to ensure protection from concurrent storm and high-tide events and to provide sufficient cover over underground utilities.

Section 19.87.02 - Geotechnical Constraints

A detailed evaluation of liquefaction shall be routinely made for any major engineering project. With the exception of Original Upland areas as shown in Map 5, geotechnical studies shall be provided prior to any development.

Geotechnical studies may be appropriate for certain upland areas and shall be required where valid data is not available.

Section 19.87.03 - Utility Service and Grading Objectives

Map 4, Utility System, shall control the location of sewered water systems. The following objectives shall guide the design and implementation of utility services and areawide grading:

1. Provide adequate sizing of utility lines to assure sufficient capacity for the most intensive users.
2. Minimize the import of soil to that necessary for the protection of developable areas from flooding during concurrent storms and high-tide conditions.
3. Protect existing natural resources from undue impact during construction phases.
4. Provide for an adequate on-site storm drainage system to preclude drainage directly into wetland habitat without adequate filtering of sediments or trapping of pollutants.
5. Provide appropriate slope gradients in critical locations to ensure proper drainage.

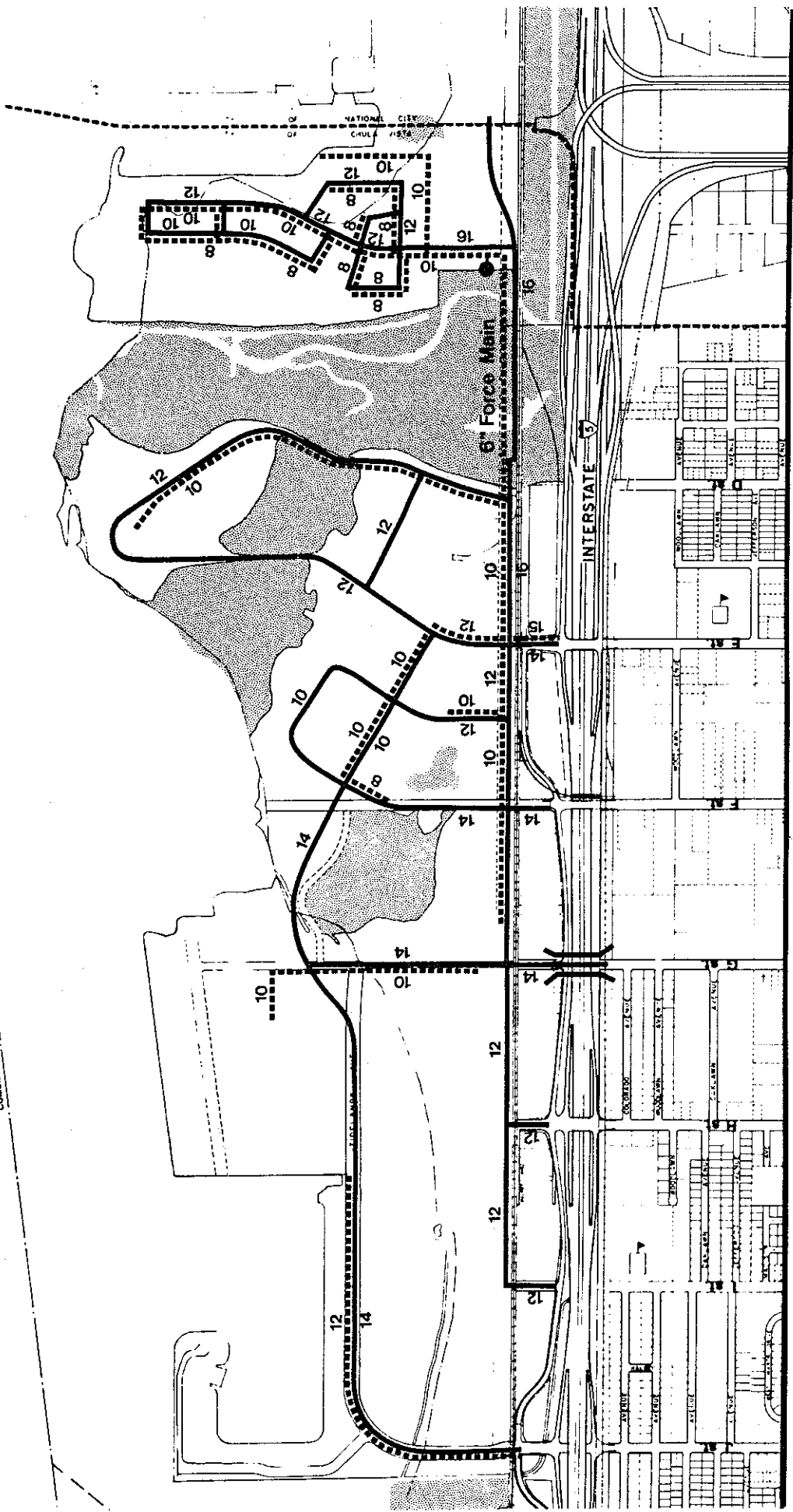
Section 19.87.04 - Water Service

The 12-inch waterline in G Street connecting the lines in Bay Boulevard and Tidelands Avenue is necessary to maintain a looped system during development of the Project. An easement for pipeline operation shall be maintained even though the area might be fenced for security reasons by Rohr Industries.

Section 19.87.05 - Off-Site Pipelines

Because phased development may require off-site pipeline construction, especially in industrial areas, to maintain adequate pressure and fire flows, a temporary connection to National City pipelines shall be made during development of the D Street Fill

COMBINED PIPESHEAD & BULKHEAD LINE



MAP 4
CHULA VISTA
LOCAL COASTAL PROGRAM
UTILITY
SYSTEM

- 12 — Water Line *
- 10 - - - - - Sewer Line *
- Sewer Pump Station
- Utility Bridge

* All sizes noted are optimum; variations will be required for special conditions.



area, as well as a permanent valved connection for fire protection of facilities in either city. The major factor in sizing pipelines for this project will be fireflows, especially for commercial or industrial buildings, which may require 4,000-9,000 gallons per minute provided by looped 12-inch or single 16-inch pipelines.

Section 19.87.06 - Proposed Sewer Service

The Metropolitan Sewerage System of San Diego (Metro System), servicing Chula Vista via a 78-inch diameter trunk sewer, should serve the Project area by draining to an existing manhole north of E Street where metering facilities would be constructed. Sewers flowing by gravity to this location will require considerable earthwork for the D Street Fill (Subarea 1) and Gunpowder Point (Subarea 2) developments. Portions of those areas should drain toward a sewage lift station which will force the sewage under pressure across the bridge or dike to gravity sewers. Phased development may require extensive off-site grading and sewer extensions.

Section 19.87.07 - Grading and Drainage

The project shall import earth to ensure building pads above the 100-year flood level (about elevation 10) and above higher high-tide level. The grading concept for imported fill is shown in Map 5, Land Form and Drainage.

Special care shall be taken at the marshes to reduce problems of silting and oil or chemical leakage. Some diversion of flood water is necessary and desilting/retention basins may be required. A major detention basin shall be built in the Midbayfront to accept surface drainage and provide for desilting, and oil and chemical entrapment.

The following additional regulations shall apply:

All grading activities for the road, utilities, and installation of erosion and sedimentation devices shall be prohibited within the period from October 1 to April 1 of each year.

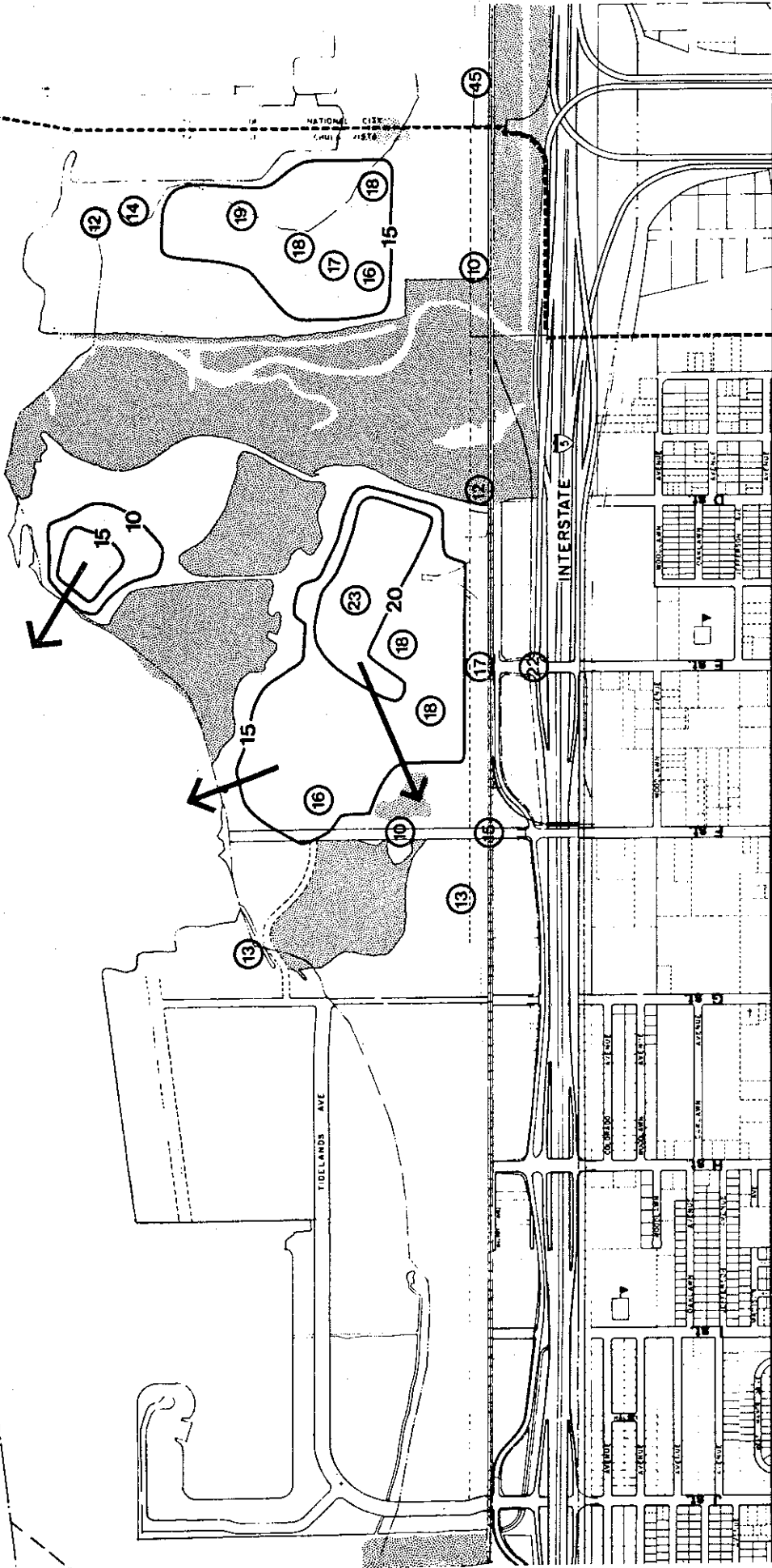
All permanent erosion control devices shall be developed and installed prior to any on-site grading activities.

All areas distributed by grading shall be planted within 60 days of the initial disturbance and prior to October 1 with temporary or permanent (in the case of finished slopes) erosion control methods. Such planting shall be accomplished under the supervision of a licensed landscape architect and shall consist of seeding, mulching, fertilization and irrigation adequate to provide 90% coverage within 90 days. Planting shall be repeated if the required level of coverage is not established. This requirement shall apply to all distributed soils including stockpiles.

Section 19.87.08 - SDG&E Row

Due to roadway configuration for Bay Boulevard at the intersection with E Street, street widening should occur on the west side of the SD & AE Railroad tracks within the 150-foot-wide SDG&E right-of-way. Some relocation of the two separate 69-KV power lines presently running on either side of the railroad tracks may be necessary. If feasible, these lines should be consolidated and incorporated

COMBINED PIERHEAD & BULKHEAD LINE



MAP 5

CHULA VISTA
LOCAL COASTAL PROGRAM

PLANNED LAND FORM: GRADING/FILLING AND DRAINAGE

—15— Contour Line

ⓑ Spot Elevation

← Drainage Direction



0' 1200'

elsewhere in the utility right-of-way. Where the Tidelands Avenue extension is incorporated into the railroad levee at the Sweetwater Marsh crossing, the roadway bed will cross beneath the tower lattice power lines at either end, for which coordination with SDG&E is required.

ENVIRONMENTAL MANAGEMENT

Section 19.88

Section 19.88.01 - Environmental Management Policies and Objectives

The following objectives shall serve as guidelines for future protection and enhancement of the wetland and upland resources in the Bayfront.

1. Provide for the long-term protection of critical natural habitat areas by cooperating in a multi-jurisdictional planning and implementation program with adequate safeguards and guarantees.
2. Incorporate the mitigation requirements of the CalTrans/Corps of Engineers joint highway and flood control project into the environmental management provisions of the Chula Vista Bayfront Land Use Plan, so that land development and resource protection measures will be complementary.
3. Maintain coordination with the San Diego Unified Port District in the development of plans and programs for areas adjacent to the Chula Vista Bayfront to assure that environmental management objectives in the Bayfront Land Use Plan can be successfully implemented.

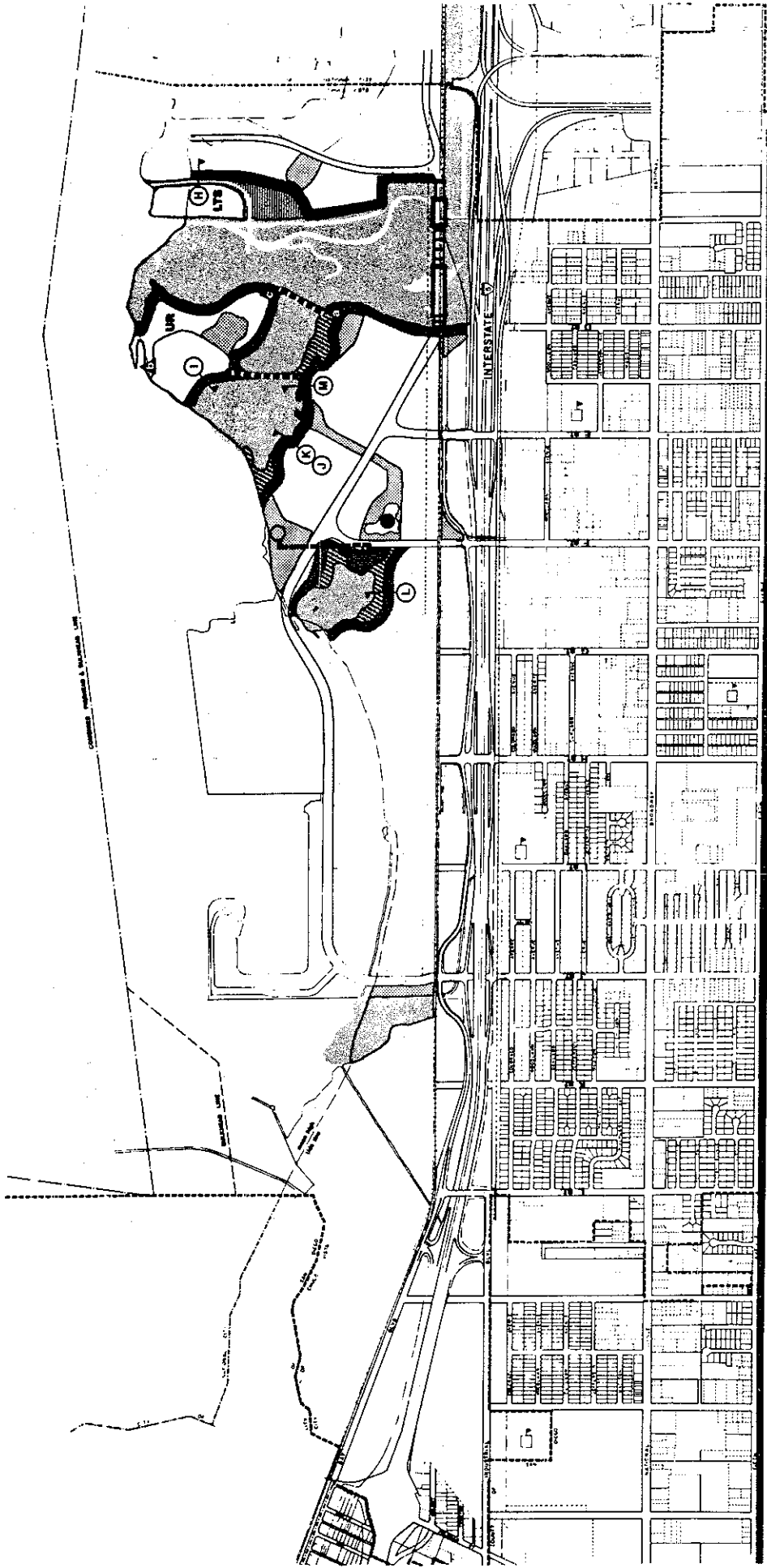
The management program shall be implemented by pursuing the Environmental Organization and Administration Objectives included in Environmental Organization and Administration, at Section 19.88.5.

Section 19.88.02 - Environmental Management Program

Map 6, Environmental Management, provides for specific protection and enhancement measures for the wetland and upland resources and design provisions for critical wetland buffer conditions. Cross-sections H through P, which follow, are prototypical illustrations of specific land use guidelines adjacent to various wetland resources which shall apply to all new development.

Section 19.88.03 - Subarea I-D Fill Environmental Management Provisions

- (a) Least Tern Sanctuary. A minimum 10-acre least tern sanctuary shall be located at the southwest corner of the D Street Fill to maintain the greatest length of natural habitat on three sides of the sanctuary perimeter. A wetland channel shall separate the sanctuary from the adjacent developed areas (Map 6, Section H). The channel shall be designed for minimum maintenance utilizing tidal flushing to maintain channel depth. The channel shall be adequate to provide a barrier to access for humans, dogs, and cats.
- (b) Proposed Upland Conversion of Wetland. The required provision for 9.6 acres of upland conversion to wetland by CalTrans shall be located adjacent to the Sweetwater Marsh and generally east of the proposed least tern sanctuary. This new wetland shall be used to create a channel separating the least tern sanctuary from the developed portion of the D Street Fill to increase feeding areas directly east of the proposed sanctuary.



MAP 6
CHULA VISTA
LOCAL COASTAL PROGRAM
ENVIRONMENTAL
MANAGEMENT

- | | | |
|-------------------------------|----------------------------|---|
| Wetland Resources | Upland Resources | Widened Levee |
| Protected Wetlands | Wetland Buffer (100 feet) | Causeway (replaces levee) |
| Upland Conversion to Wetlands | Least Tern Sanctuary | Road on Existing Levee |
| Wetland Enhancement | Upland Revegetation | Interpretive Center (alternative locations) |
| Freshwater Pond | Public Park and Open Space | Year Round Fresh Water Source |
| Detention Basin | | Section (see text) |



- (c) Proposed Wetland Buffer. The 100-foot-wide buffer to be acquired as part of the CalTrans/Corps of Engineers project mitigation requirements shall be configured to protect the existing Sweetwater Marsh edge and the proposed new wetland. Pedestrian access to the inboard 50 feet of the buffer shall be limited. Visual access from the buffer shall be provided into the wetland at regular and appropriate points along the length of the buffer.

Section 19.88.04 - Subarea 2-Gunpowder Point

- (a) Proposed Building Envelope. The maximum FAR in the developable portion of the designated site shall be 0.5. Development on Gunpowder Point will be limited to an approximately 14-acre area within a zone farthest removed from environmentally sensitive natural habitats. Buildings shall be located at least 300 feet away from the northeast and northwest corners of Gunpowder Point to minimize possible influence on flight paths of some bird species. Placement of development directly adjacent to Sweetwater Marsh or Vener Pond shall be avoided by a minimum building setback of 200 feet. A minimum 100-foot buffer shall be maintained to provide for a refuge within the ecotone.

Buildings shall be confined to the southwest portion of the Point directly adjacent to the bay. The largest open space area consistent with the development program shall be maintained. Parking and building footprint coverage shall be minimized rather than building height. Hotel-employee-serving parking shall be provided in the Midbayfront area. A maximum building height of 8 stories shall be maintained in order to minimize coverage and a maximum of 12 stories shall be permitted if it is shown that increasing open land area will benefit natural resource values and other requisite findings are made.

- (b) Proposed Wetland Buffer and Levee Access. The 100-foot-wide buffer to be acquired as part of the CalTrans/Corps of Engineers project mitigation requirements shall be configured to protect the existing marshes and pond. Access to Gunpowder Point shall be via the south levee with emergency access via the north levee. All human and domestic pet access to Sweetwater Marsh, Vener Pond, and E Street Marsh shall be limited. A hidden fence shall be incorporated into a graded drainage swale to control access to the wetland without interfering with distance views (Reference: Map 6, Section I). Public attention shall be directed to specific controlled viewing locations along the south and east perimeter of the Point. Disruption to wildlife from use of the southern levee shall be minimized by limiting fill in the wetlands (less than 1/2 acre) to only that necessary for levee reinforcement or protection to adequately maintain the proposed roadway. The more critical pond side of the southern levee shall be screened with landscaping to reduce disturbance to marsh and water birds (Reference: Map 3, Section G). Pedestrian access shall be provided on the southern levee on the E Street Marsh side on the roadway. All access to the northern levee shall be prohibited except for emergency vehicles.
- (c) Proposed Restoration. Degraded or limited natural resources on Gunpowder Point shall be enhanced with a program of wetland and upland restoration. An interpretive center shall be developed for public use. The center may be located in areas of high wildlife use if carefully screened (e.g., developed as a photographic blind). Alternative locations for the interpretive center are shown in Map 6. The existing Frankenia palmeri population shall be preserved. Adjacent lands shall be protected and the spread of the population encouraged. The berm

WETLAND BUFFER DESIGN

FOR SECTION LOCATION SEE MAP 6 – ENVIRONMENTAL MANAGEMENT

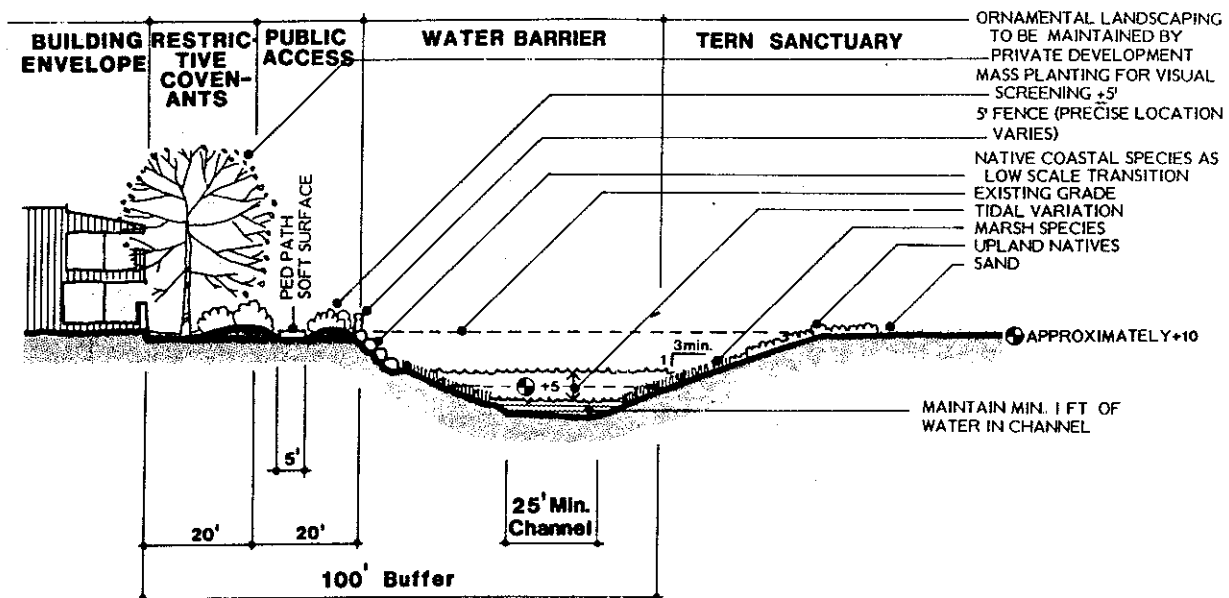
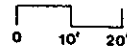


FIGURE 9
SECTION H (Prototypical) Looking East
EXCAVATED CHANNEL AT TERN ISLAND SANCTUARY



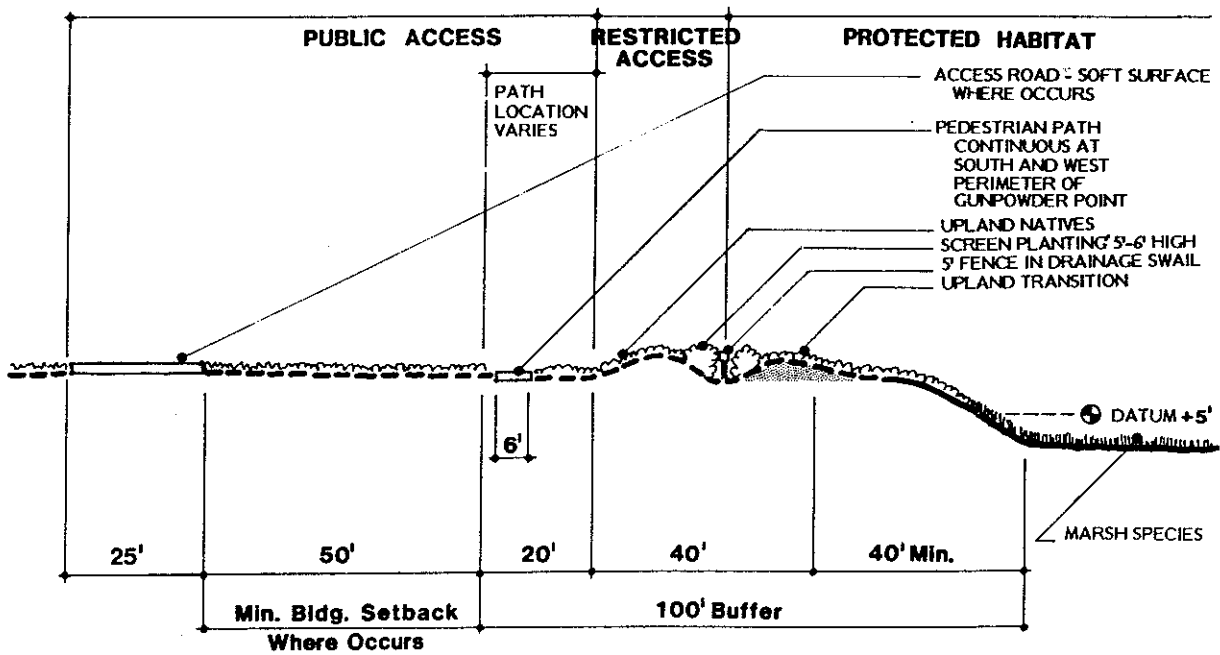
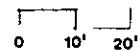


FIGURE 10
SECTION I (Prototypical) Looking North
HIDDEN FENCE AT GUNPOWDER POINT



around the lagoon in the southwest corner of Gunpowder Point shall be removed and it shall be restored to a healthy wetland. This area may also be established as a focus of one of the interpretive centers. Spoil from the wetland-upland mosaic in the northwestern corner shall be removed, and it shall be restored to wetland. The undeveloped portions of the upland shall be restored to a southern coastal scrub or other appropriate upland vegetation type(s). A restoration program shall include: (1) removal of existing structures, spoil, and other remnants of human use; (2) grading to level spoil and fill borrow pits; (3) an approved revegetation design to establish a native and naturalized landscape community; and (4) a soil erosion design to control erosion of scarified areas into adjacent wetlands during revegetation operations.

Section 19.88.05 - Subarea 3-Midbayfront

- (a) Proposed Wetland Buffer. The 100-foot-wide buffer to be acquired as part of the CalTrans/Corps of Engineers project mitigation requirements shall be configured to protect the existing marshes and pond. In addition, a 100-foot buffer shall be provided around the F-G Street Marsh except where the existing industrial building encroaches within the buffer area. Adjacent to the existing structure, the buffer will be as wide as space permits. All human and domestic pet access to Sweetwater Marsh, Vener Pond, the E Street Marsh, and the F-G Street Marsh shall be limited (Reference: Map 6, Sections J through M). Pedestrian and bicycle access to the inboard 50 feet of the buffer shall be limited. Visual access from the buffer into the wetlands shall be provided at points along the length of the buffer, as shown in Map 7.
- (b) Proposed Wetland Restoration. Degraded areas of former wetlands shall be restored to high-quality salt marsh or mudflat in areas adjacent to Vener Pond, the E Street Marsh, and the F-G Street Marsh. Additionally, seasonal freshwater supply will be increased and urbanized runoff into the wetlands controlled. As compensation for filling of less than 1 acre of existing wetland elsewhere in the Bayfront in order to achieve the necessary circulation improvements, filled or degraded margins will be restored as high-quality wetlands.

At the low-lying agricultural field north of the F-G Street Marsh, a stormwater detention facility shall be constructed to accept urban runoff from the Midbayfront. This facility shall be utilized to store runoff during peak storm periods and as a sediment trap. This storm detention facility shall be connected to the new freshwater pond at the F-G Street Marsh to provide a seasonal water supply to the wetland. Procedures for assuring water quality standards shall include the following:

1. Drainage shall be directed away from the faces of cut and fill slopes or any slope subject to erosion into approved drainage structures.
2. Where necessary riprap, check dams, etc., shall be employed to control erosion.
3. All steep slopes shall be planted to reduce erosion, with approved irrigation and maintenance.
4. The maintenance of planted slopes, erosion control facilities, etc., shall be the responsibility of the developer.

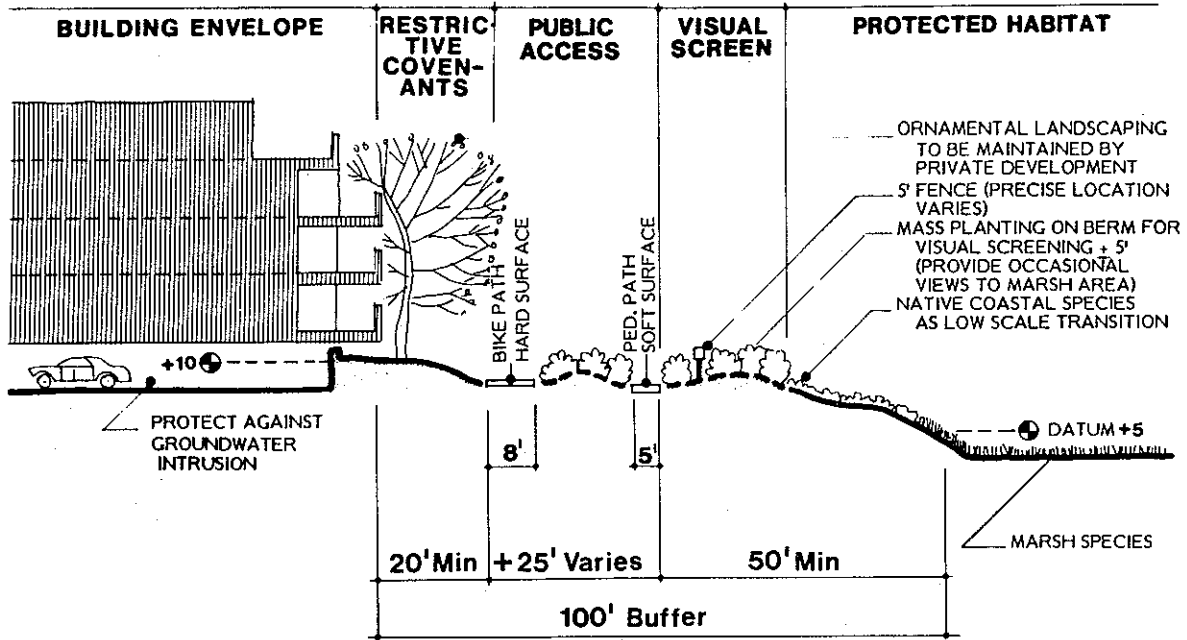


FIGURE 11
SECTION J (Prototypical) Looking South
RESIDENTIAL BUFFER-Mid-Rise MFD

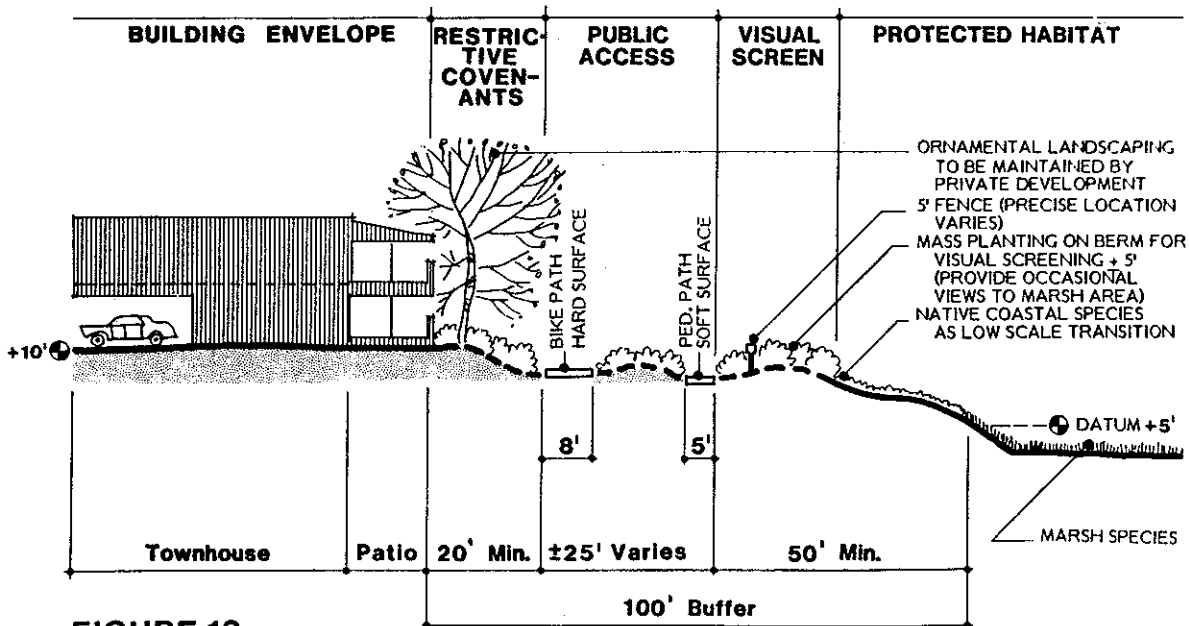
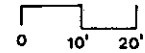


FIGURE 12
SECTION K (Prototypical) Looking South
RESIDENTIAL BUFFER - Townhouse



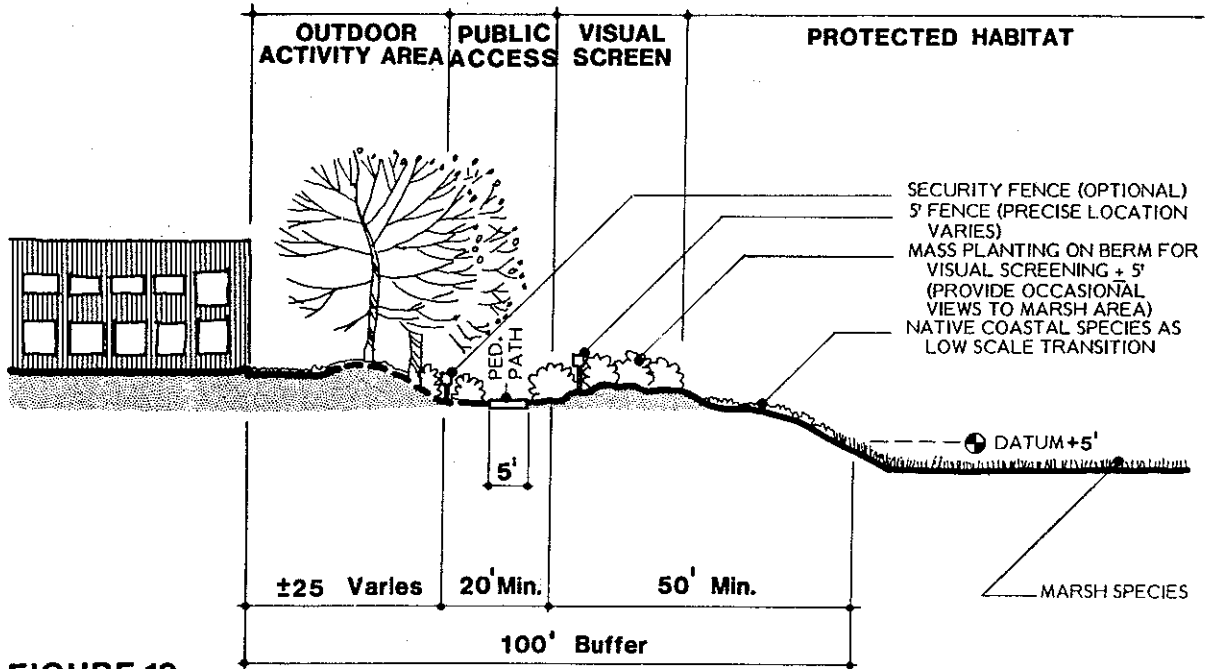


FIGURE 13
SECTION L (Prototypical) Looking West
OFFICE PARK BUFFER

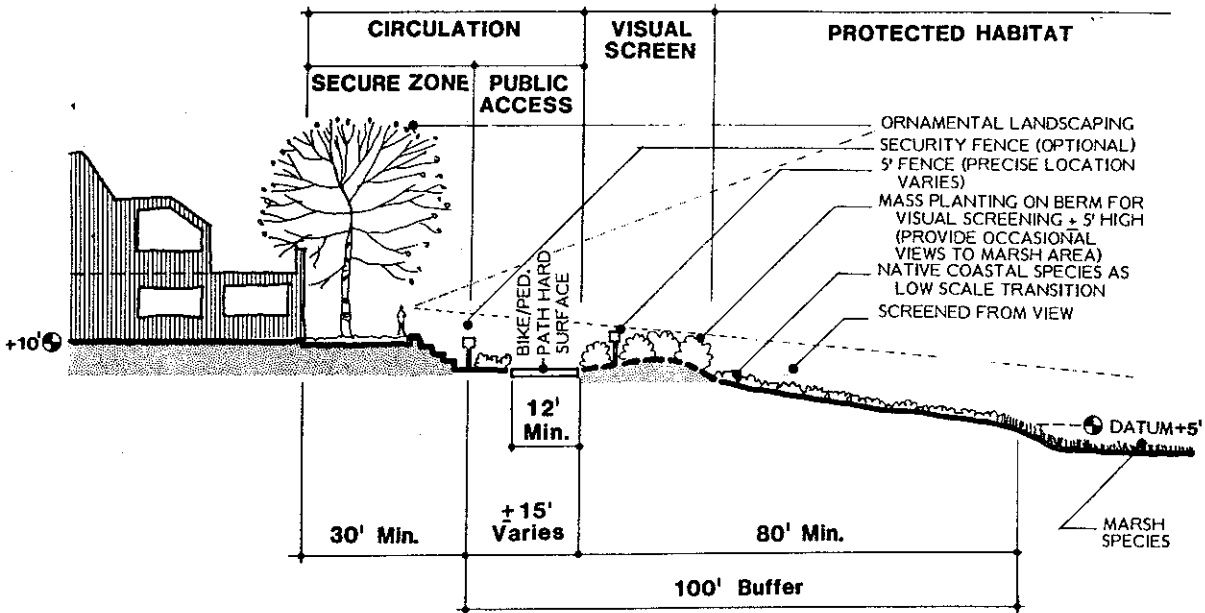


FIGURE 14
SECTION M (Prototypical) Looking West
SPECIALTY RETAIL BUFFER

Section 19.88.06 - Subarea 4-Marsh Areas

- (a) Proposed Tidelands Extension. Tidelands Avenue shall cross the Sweetwater Marsh in conjunction with improvements to the existing railroad causeway. This will include fill on degraded portions of the Marsh located on the western boundary of the existing causeway, with the area to be filled less than 1 acre. The existing railroad viaducts spanning the water channels connecting the portions of the Sweetwater Marsh on both sides of the railroad shall be rebuilt to increase the length of the span and thereby to improve existing tidal flow to the eastern portion of the Marsh.

- (b) Proposed Restoration. The Tidelands Avenue extension shall be a part of a restoration program for the railroad levee crossing of Sweetwater Marsh. To accommodate the wider cross-section required for the roadway without adversely impacting the marsh, the amount of existing bridging will be increased, fill removed, and wetlands restored to compensate for the fill required for the remaining portions of the roadway. An equivalent area of approximately 1 acre of high-quality wetland will be created for the amount of poor-quality (between eight- and nine-foot elevation) salt flats covered in the road widening. Additional areas of high ground adjacent to the west side of the road will be lowered in elevation to establish an improved salt marsh in that area.

ENVIRONMENTAL ORGANIZATION AND ADMINISTRATION

Section 19.88.5

Section 19.88.51 - Environmental Organization and Administration

The City of Chula Vista Local Coastal Program Land Use Plan, approved by the California Coastal Commission on March 27, 1984, recognizes the need for a comprehensive management program for the Sweetwater Marsh complex. The purpose of this Section is to expand upon and define the objectives of the Land Use Plan and to provide for a cooperative marsh management program involving local, state, and federal governmental agency, landowner, and citizen participation. The State Coastal Conservancy has informally agreed to play the principal role of coordinating the marsh management program and further defining the program and its responsibilities. Such coordination is urgently needed because of the many governmental entities whose programs and projects may affect or are located in or adjacent to the Sweetwater Marsh complex, including the City of Chula Vista Bayfront Local Coastal Program; the Corps of Engineers/CalTrans Sweetwater River Flood Control Channel/Route 54-Interstate Highway 5 interchange; and implementation of the Port Master Plan by the San Diego Unified Port District.

Section 19.88.52 - Bayfront Conservancy Trust

To implement the habitat preservation and enhancement objectives provided for by the Bayfront Land Use Plan and to monitor or coordinate mitigation measures required in connection with already approved projects, this Environmental Management Plan creates the Chula Vista Bayfront Conservancy Trust. The Environmental Management Plan and the Bayfront Conservancy Trust will incorporate features previously found to be beneficial in other wetland/natural resource management programs.

Section 19.88.53 - Management Goals and Objectives

The following management objectives shall direct management actions.

1. Maintain, restore, and enhance wetland and upland habitat areas in a biologically productive state consistent with applicable LUP provisions and technical advice by the State Coastal Conservancy, Department of Fish and Game, and U.S. Fish and Wildlife Service.
2. Create and fund the Chula Vista Bayfront Conservancy Trust to receive and hold dedications of land; engage in restoration, enhancement, and preservation of Sweetwater Marsh complex natural resources; and increase public knowledge of and support for natural resource conservation, including through an active public educational program.

Section 19.88.54 - Administrative Organizations: Bayfront Conservancy Trust Governing Board

Consistent with the Bayfront LCP Land Use Plan, all presently privately owned property within the Sweetwater Marsh complex (approximately 188 acres) will be given in fee to the Bayfront Conservancy Trust, which will be created jointly by the City of Chula Vista and the State Coastal Conservancy consistent with the Environmental

Management Plan. The Bayfront Conservancy Trust will be governed by an 11-member Board of Directors, which will consist of: (1) the Mayor of Chula Vista, who shall also be the chairman; (2) a representative of the San Diego Unified Port District; (3) a representative of the County of San Diego; (4) a representative of the principal landowner in the Bayfront; (5) a representative of the California Department of Fish and Game; (6) a representative of the U.S. Fish and Wildlife Service; (7) a representative of the biological and environmental sciences, designated by the Chancellor of the University of California, San Diego; (8) a representative of the environmental movement, designated by the chair of the San Diego Chapter of the Sierra Club; (9) a representative of the California Coastal Commission, designated by the chairman of the Commission; (10) a representative of the State Coastal Conservancy, designated by the chair of the Conservancy; and (11) a citizen of Chula Vista appointed by the Chula Vista Redevelopment Agency, who shall serve for a two-year term and who may be reappointed.

Section 19.88.55 - Bayfront Conservancy Trust Organization and Functions

The Bayfront Conservancy Trust shall be organized as a non-profit organization under the laws of the United States and California, and shall adopt bylaws in accordance therewith and with the management goals and objectives set forth in this Environmental Management Plan. On January 1 of every year, the Bayfront Conservancy Trust shall, in addition to any other reports required by law, submit an annual report for the year preceding to the City Council of Chula Vista on the status of implementation of the Bayfront LCP, including acreage of habitat areas restored, enhanced, and protected; a count of wildlife, including endangered species, utilizing the Bayfront; a full accounting of the Bayfront Conservancy Trust's past-year and coming-year budgets; and recommendations for the improvement of the Bayfront Environmental Management Program. The State Coastal Conservancy has agreed to provide technical and organizational support to assist in the formation of the Bayfront Conservancy Trust.

Section 19.88.56 - Revenue Sources

The bylaws of the Bayfront Conservancy Trust shall provide that it may receive and seek donations, grants, or other contributions from all sources. Consistent with mitigation of previously approved coastal development permits and the Bayfront LCP Land Use Plan, initial funding for restoration and revegetation shall be provided by the U.S. Army Corps of Engineers, the California Department of Transportation, City of Chula Vista redevelopment funds, and developer funds. In addition, the City of Chula Vista will seek funding support from the State Coastal Conservancy pursuant to Propositions 18 and 19 (1984).

Ongoing Sweetwater Marsh wetland and other habitat area maintenance will be funded by:

- a. Bayfront Open Space and Maintenance Assessment District. In conjunction with creation of the Bayfront Conservancy Trust, the City of Chula Vista will establish the Bayfront Open Space and Maintenance Assessment District to provide annual funding support for Sweetwater Marsh/upland habitat maintenance. As a condition of project approval, the Chula Vista Redevelopment Agency will require that all commercial and residential development, and their subsequent respective owners, be annually assessed to support the wetland/upland habitat maintenance program.

- b. Other Sources. Grant and other funding support for long-term continuing Bayfront natural resource conservation and enhancement needs identified by the Bayfront Conservancy Trust will be sought from all available public and private sources. The Bayfront Conservancy Trust bylaws shall provide that identification and achievement of long-term funding of resource conservation and enhancement activities in addition to normal maintenance funded by the Bayfront Open Space and Maintenance Assessment District be of the highest priority.

Section 19.88.57 - Program Definition

The implementation of the actions identified above are based on commitments or requirements contained in the Chula Vista Bayfront Redevelopment Plan, Bayfront LCP Land Use Plan, and the Corps of Engineers and CalTrans Consistency Determination CD-18-82.

The Bayfront Conservancy Trust, working in close cooperation with the State Coastal Conservancy and all of the agencies that have an interest in the wetlands and other natural resource values of the Bayfront, shall prepare a detailed and implementable Bayfront Management Plan. The Bayfront Management Plan initial restoration and clean-up at a minimum shall consist of the following.

Section 19.88.58 - Bayfront Management Plan Elements: Initial Restoration and Clean-Up

1. Gunpowder Point

- a. Removal of dwellings, masonry structures, and debris (by landowner)
- b. Regrading of disturbed land area to natural conditions (by landowner)
- c. Removal of invasive and non-native plants per LUP (Biological Analysis) (by landowner, Bayfront Conservancy Trust)
- d. Removal of demolition debris and concrete rubble on Gunpowder Point-San Diego Bay intertidal area/beaches

2. Removal of Flotsam, Debris, Fill

- a. Southwest side of Sweetwater Marsh (by Corps of Engineers)
- b. Sweetwater Marsh (by Corps of Engineers)
- c. E Street Marsh (by Corps of Engineers)
- d. F-G Street Marsh (by Bayfront Conservancy Trust/State Coastal Conservancy)
- e. Bayside of Gunpowder Point

Section 19.88.59 - Wildlife Habitat Restoration and Enhancement

The staff of the State Coastal Conservancy has agreed to the City of Chula Vista's request that the Conservancy assume the lead role in preparing and coordinating preparation of the detailed wildlife habitat restoration and enhancement plan for the Bayfront. At a minimum, such plan should include:

1. Coastal Salt Marsh Habitat

- a. East side of Vener Pond (by Corps of Engineers)
- b. South side of E Street Marsh (by Corps of Engineers)

- (i) Erosion damage due to normal use
 - (ii) Weed removal
- b. Sediment Removal
 - (i) Culvert blockage removal
 - (ii) Open channel constriction or blockage, especially at Least Tern sanctuary
 - (iii) Siltation basin clean-out
- c. Interpretive/Public Access Signs
 - (i) Weathering
 - (ii) Vandalism
- d. Trash Removal
 - (i) Upland litter removal
 - (ii) Flotsam removal from marshes
 - (iii) Removal of invasive/non-native species
- e. Emergency Storm Damage Repair
 - (i) San Diego Bay shoreline
 - (ii) Trail erosion
 - (iii) Sweetwater Marsh complex tidal circulation
- f. Gunpowder Point Nature Preserve
 - (i) Habitat management to control invasive species
 - (ii) Litter/trash removal
- g. Offshore
 - (i) Removal of derelict ships (by Port of San Diego)
 - (ii) Removal of rubble exposed on tidal flats and replacement of beach materials
- h. Habitat Area Monitoring
 - (i) Least Tern sanctuary (by Bayfront Conservancy Trust/U.S. Fish and Wildlife Service/California Department of Fish and Game)
 - (ii) Use of wetlands by the light-footed clapper rail and Belding's Savannah sparrow
 - (iii) Other bird species (by Bayfront Conservancy Trust)
 - (iv) Coastal salt marsh bird's beak population (by Bayfront Conservancy Trust/U.S. Fish and Wildlife Service)
 - (v) Frankenia palmeri population (by Bayfront Conservancy Trust)
 - (vi) F-G Street revegetation (by Bayfront Conservancy Trust)
 - (vii) Plant populations at Sweetwater Marsh, Gunpowder Point, Vener Farms (by Bayfront Conservancy Trust/Corps of Engineers/Cal-Trans)

Section 19.88.61 - Educational and Interpretive Program

The Bayfront Conservancy Trust, in cooperation with Chula Vista schools, other educational institutions, non-profit organizations, and community groups, will design and implement a Sweetwater Marsh public educational and interpretive program, which at a minimum will consist of:

1. On-Site Activities

- a. In cooperation with the State Coastal Conservancy, public access/interpretive sign program, develop and maintain public access and interpretive signs to and along trails, vista points, and other points of interest on the Bayfront.
- b. Conduct guided tours of Bayfront natural areas for the public, including hotel visitors.
- c. Establish a Bayfront volunteer and internship program.
- d. Perform maintenance functions relating to the Gunpowder Point preserve, and to public access to the Bayfront.

2. Off-Site Activities

- a. Outreach Sweetwater Marsh educational program at elementary school level
- b. Outreach Sweetwater Marsh educational program (interns, docents) at secondary school level
- c. Ongoing public information program about Sweetwater Marsh complex through electronic and printed media
- d. Bayfront Conservancy Trust participation in professional meetings, community events, etc.

Section 19.88.62 - Staffing

A Bayfront/Sweetwater Marsh naturalist-manager and a volunteer director-information coordinator will be required to oversee implementation of the Bayfront Environmental Management Program and provide liaison with interested school districts, community groups, conservation organizations, and other interested persons. Both positions should be contract employees of the Bayfront Conservancy Trust, report to its Board of Directors, and be funded through the assessments of the Bayfront Open Space and Maintenance District. The initial budget for these two staff positions plus equipment, educational materials, publications, and access to biological monitoring studies should be \$100,000 per year.

The base of operations for these two staff positions should be the interpretive center on Gunpowder Point. Depending upon the level of public utilization of the Interpretive Center and other public facilities in the Bayfront, additional seasonal naturalists-rangers may be required to provide meaningful educational programs as well as provide for the protection and maintenance of the coastal natural resources.

PHYSICAL FORM AND APPEARANCE

Section 19.89

Section 19.89.01 - Basic Form and Appearance Objectives

The following objectives shall serve as guidelines for use of land and water resources to preserve a sound natural environment:

1. Preserve existing wetlands in a healthy state to ensure the aesthetic enjoyment of marshes and the wildlife which inhabit them.
2. Change the existing industrial image of the Bayfront, and develop a new identity consonant with its future prominent public and commercial recreational role.
3. Improve the visual quality of the shoreline by promoting public and private uses which provide proper restoration, landscaping, and maintenance of shoreline areas.
4. Remove, or mitigate by landscaping, structures or conditions which have a blighting influence on the area.
5. Develop a readily understandable and memorable relationship of the Bayfront (and the areas and elements which comprise it) to adjoining areas of Chula Vista and to the freeway and arterial approaches to the Bayfront.

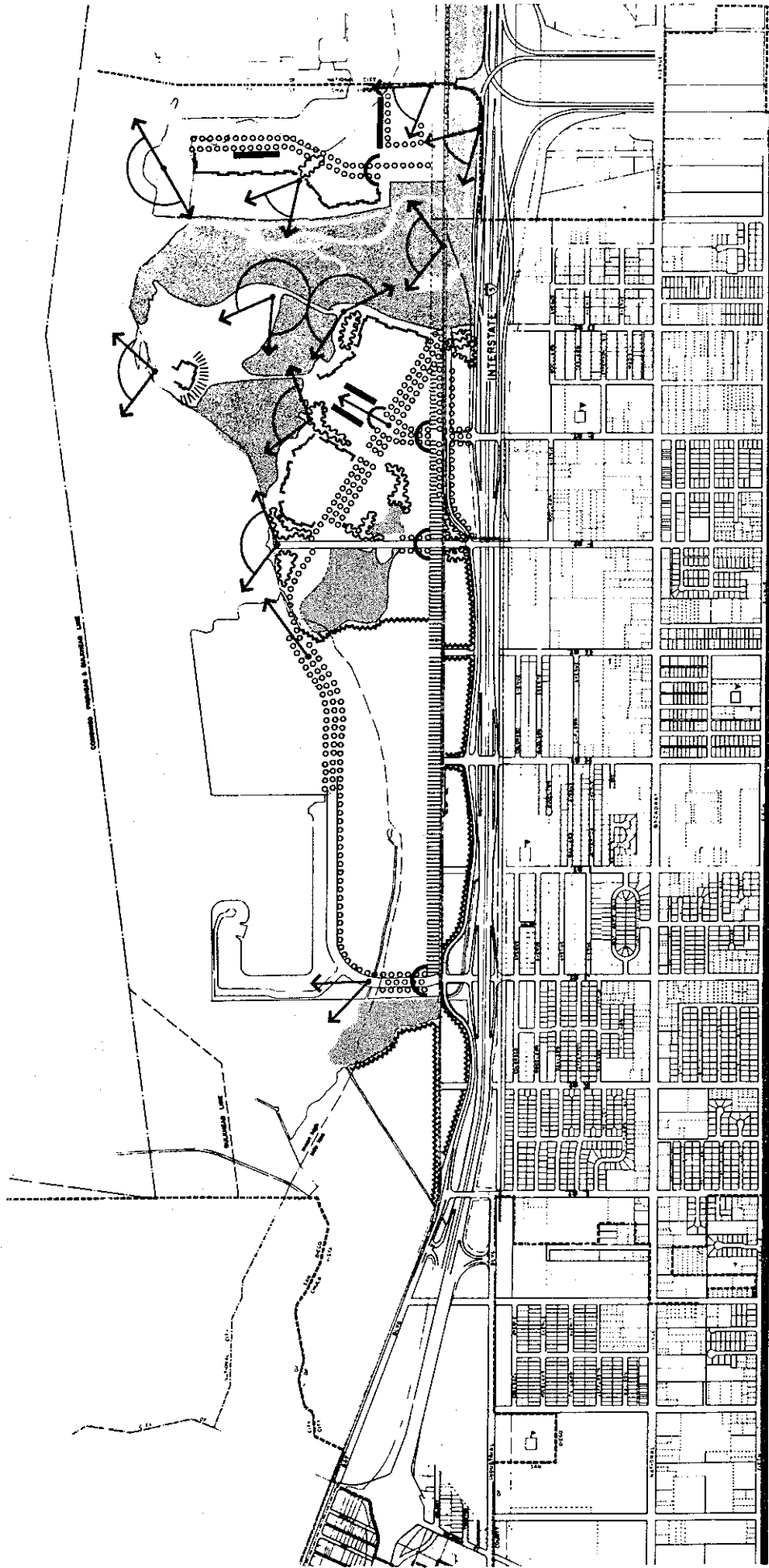
To promote these policies, the Form and Appearance provisions of the Land Use Plan acknowledges three major components which comprise the physical form of the area: (1) natural resource areas to be preserved; (2) an open space system including walkways, bicycle ways, and park areas; and (3) development units having common usage and/or qualities, which should be treated as distinctive, but closely interrelated, visual entities. To reinforce the physical quality of these three components, Map 7, Form and Appearance, identifies: (1) landscape character and function; (2) major gateways; (3) architectural edges; and (4) views.

Section 19.89.02 - Landscape Character and Function

Major landscape components shall adhere to Map 7, Form & Appearance, to establish strong visual continuity in response to varied functional needs.

Section 19.89.03 - Landscape Screening










All areas designated for Landscape Screening in Map 7 shall include dense planting of trees and shrubs to serve three purposes: (1) diminish the visual impact of large existing industrial structures, such as those of Rohr Industries and SDG&E's plant and transmission towers, and extensive parking areas and outdoor storage areas; (2) define major entry points to the Bayfront and frame views; and (3) be used in masses as visual stopping points to limit views and provide natural vertical elements. The following standards shall guide Landscape Screening design:



MAP 7

CHULA VISTA
LOCAL COASTAL PROGRAM

FORM &
APPEARANCE

-  Landscape Screening
-  Parking Area Planting
-  Informal Grove
-  Formal Street Tree Planting
-  Gateway
-  Irregular Building Edge
-  Distant View to Protect
-  Building Base Screened by Earth Berm
-  Firm Architectural Edge

<u>Characteristics</u>	<u>Representative Location</u>
<ul style="list-style-type: none"> o 40' to 60' height o upright form o evergreen 	<ul style="list-style-type: none"> o Bay Boulevard

Existing pines and other trees shall be preserved to the maximum possible extent.

Section 19.89.04 - Parking Area Planting

All areas designated for Parking Area Planting in Map 7 shall include a planting program coordinated with parking improvements beneath the power lines. The 150-foot-wide right-of-way that bisects the Bayfront may include auto parking to diminish the visual impact of the power lines and strengthen the ground plane connection between both sides of the right-of-way. SDG&E criteria will permit planting that can be kept not more than 15 feet high, thereby maintaining sufficient clearance at the lowest point in the power line catenary. Planting in parking areas should establish a dense ground plane massing of shrubs and short trees to create a grove effect that screens cars from view and ties together in a strong horizontal line an intersecting mass of foliage on either side of the right-of-way (see Section D in Map 3 ,Circulation). The following standards shall guide Parking Area Planting design:

<u>Characteristics</u>	<u>Representative Location</u>
<ul style="list-style-type: none"> o 10' to 15' height o globular or multi-stem form o evergreen 	<ul style="list-style-type: none"> o SDG&E Row

Section 19.89.05 - Informal Groves

All areas designated for Informal Groves in Map 7 shall use a series of Informal Groves to identify the major community or neighborhood parks interconnected by continuous pedestrian circulation along the Bayfront's edge and into its interior. These Groves shall be planted with the same species in informal drifts to provide shade for recreational uses. The following standards shall guide Informal Grove design:

<u>Characteristics</u>	<u>Representative Location</u>
<ul style="list-style-type: none"> o 40' to 80' height o upright and open-branching in contrast with dense, vertical form o mixed deciduous and evergreen 	<ul style="list-style-type: none"> o Community Parks

Section 19.89.06 - Formal Street Tree Planting

All areas designated Formal Street Tree Planting in Map 7 have been designated for the major circulation spines of the Bayfront. The planting should be in regularly spaced intervals using species with predictable form characteristics to achieve strong linear avenues that guide views and establish perspective.

<u>Characteristics</u>	<u>Representative Location</u>
<ul style="list-style-type: none"> o 40' to 60' height o Crown shaped form o Evergreen 	<ul style="list-style-type: none"> o Tidelands Avenue, E Street and D Street o Bay Boulevard and Marina Edge on D Street

Section 19.89.07 - Gateways

Special consideration shall be given at Gateways (see Map 7) to roadway design, including signing and lighting, landscaping, and siting and design of adjoining structures to allow for design treatment which conveys an entry character.

Section 19.89.08 - Architectural Edges

The development shall comply with the following conditions in the specified areas:

1. Habitat Protection. Structures shall be sited a sufficient distance from natural habitat areas to protect the natural setting and prevent interference with wildlife.

2. Pedestrian and Bicycle Access. Structures shall be sited at a sufficient distance from the water's edge or marsh edge to ensure unencumbered pedestrian and bicycle access.

3. Privacy. Structures shall be designed so that the uses which take place in a structure or private space adjoining the structure do not detract from, or prevent appropriate public use of, adjoining public open spaces. Reciprocally, the public areas shall be designed and their use regulated in a manner which does not diminish the intended use of adjoining developed lands.

4. Firm Edges. Firm Edges as shown in Map 7, are required where a strong visual form, generally linear, is necessary to provide either for a terminus of views, visual distinctions between areas, channeled or controlled views in certain directions, or a sense of entry or arrival. These edges should be formed by buildings, but also may be achieved by use of earth berms or mass plantings.

5. Irregular Building Edges. Irregular building edges are required where it is visually desirable to soften or de-emphasize the distinction between open space areas and adjoining development. This prevents harsh contrasts between different areas, allows visual penetration between areas, and variation in the spatial experiences and qualities in these areas.

6. Building Base Screened by Earth Berm. In areas so indicated on Map 7, an earth berm shall be built up so that the base of the building shall not be visible from beyond the berm.

Section 19.89.09 - View Points

Development of the Bayfront shall ensure provision of three types of views:

1. Views from the Freeway and Major Entry. Ensure a pleasant view onto the site and establish a visual relationship with the bay, marshes, and bay-related development.

2. Views from Roadways Within the Site (particularly from Tidelands Avenue, to the marshlands, bay, parks and other bay-related development). Locations shall preserve a sense of proximity to the bay and marshlands.

3. Views from the Perimeters of the Bayfront Outward. Views which are primarily pedestrian-oriented, stationary and more sustained should be experienced from parts of the open space and pathway system and enable viewers to renew visual contact at close range with the bay and marshlands.

SUBAREA SITE SPECIFIC DEVELOPMENT AND DESIGN PROVISIONS

Section 19.90

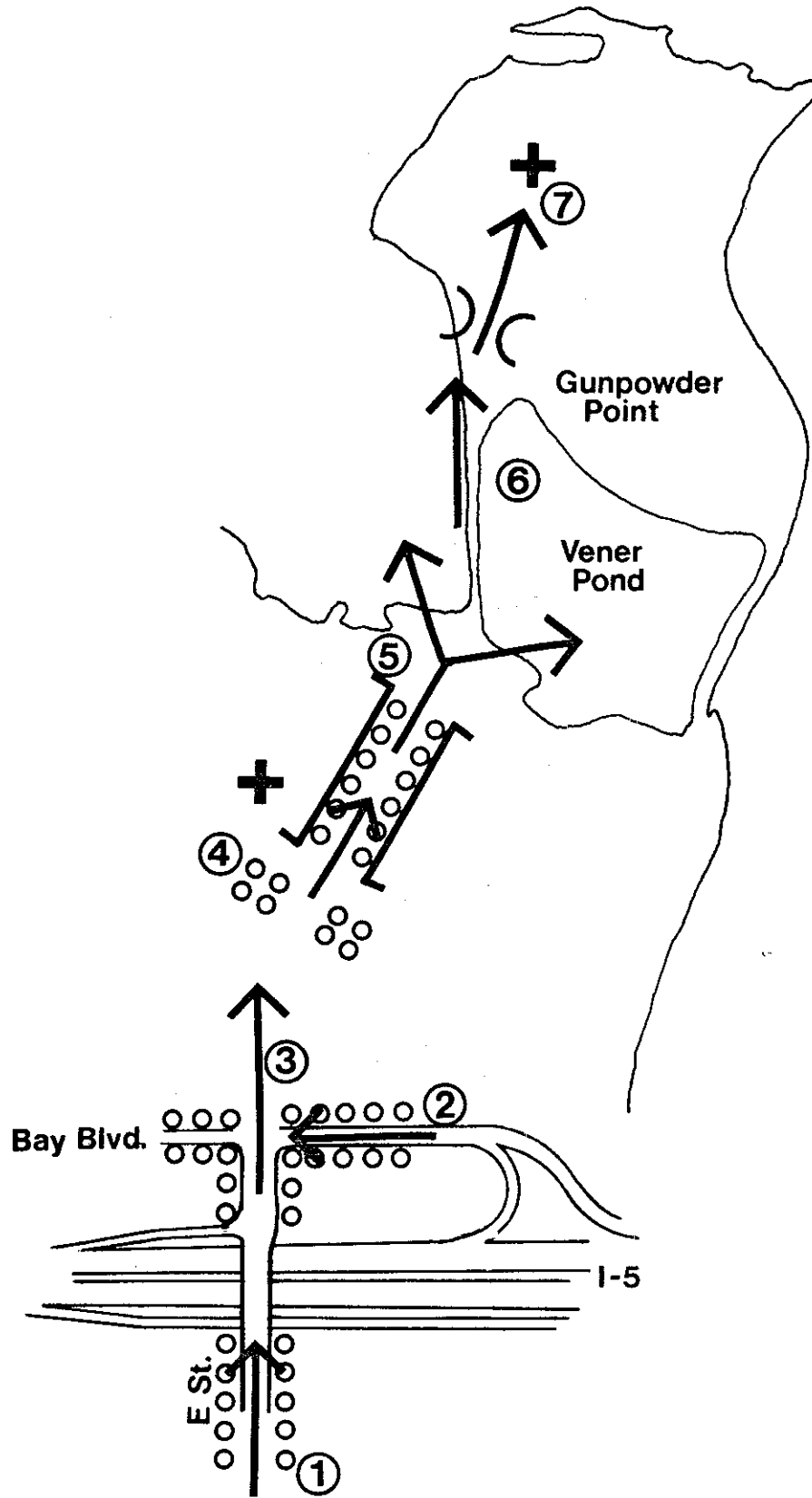
Section 19.90.01 - Bayfront Gateway View Sequence Policy

The corridor view sequence policy shown in Map 8, Sequence of Views Along the Bayfront Gateway, shall be pursued by adhering to design requirements corresponding to the indicated number.

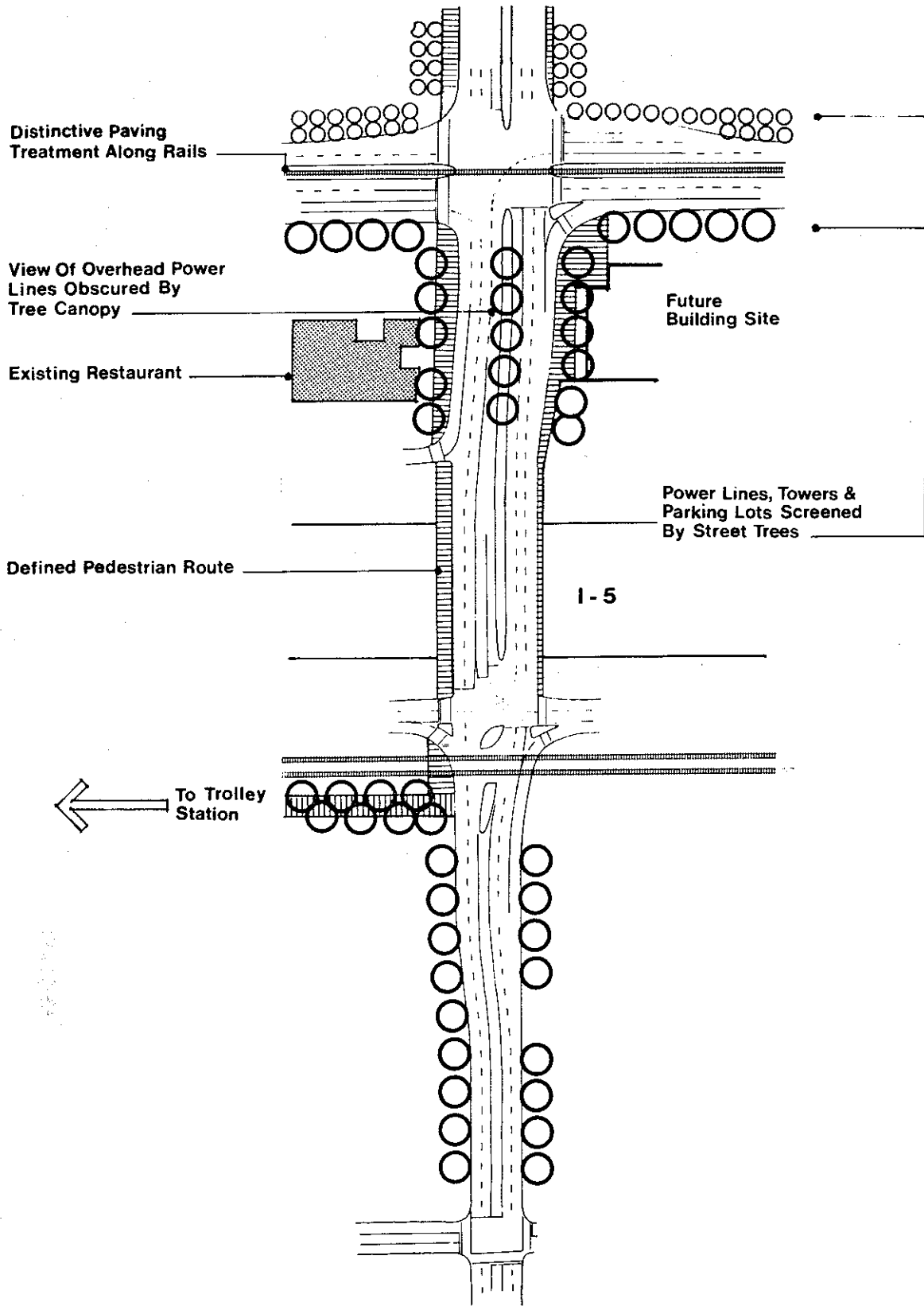
- 1. Street Entry.** A dense canopy of trees shall be provided on both sides of E Street to obscure views of SDG&E power lines and focus views on the immediate landscape of the street. The street trees shall be closely spaced and in a regular rhythm to achieve this objective. Immediately west of the freeway, future buildings on the north side shall be sited and designed to reinforce the sense of entry created by the street trees and existing building mass. Map 9, Landscape Concept at E Street Gateway, conveys a conceptual plan.
- 2. Bay Boulevard Entry.** A sense of entry shall be created on the southbound freeway entrance to the Bayfront. A canopy of trees shall be provided along both sides of Bay Boulevard to screen the power lines and transmission towers from view and direct motorists to the E Street intersection. At E Street, the Bayfront-oriented movement shall be accentuated by widening the roadway along the west side and provision of an additional left turn lane. Map 9 depicts an illustrative design.
- 3. E Street/Bay Boulevard Intersection.** Upon approaching and crossing Bay Boulevard, an axial view terminated by the building mass of commercial structures in the Midbayfront areas shall be created. To permit this visual relationship, a tower, dome or other vertical form reaching a height of 70 feet shall be permitted in the commercial area of Tidelands Avenue.
- 4. F Street/Tidelands Avenue Intersection.** After crossing Tidelands Avenue, a channeled view of Vener Pond and Gunpowder Point shall be provided by a combination of closely and regularly spaced trees and two- to three-story building facades along each side.
- 5. Views to Vener Pond.** At Point 5 on Map 8, panoramic views of Vener Pond, Gunpowder Point and San Diego Bay shall be provided. Major massing of trees should be avoided along the shoreline to protect this view.
- 6. Views along Levee.** From the roadway linking the Midbayfront and Gunpowder Point, views shall be focused on the hotel complex.
- 7. Hotel Complex Entry.** Upon arrival on the island the view of the hotel complex shall be temporarily interrupted by veering the roadway to the right as it passes through the earth berms surrounding the hotel grounds. This shall then be followed by an abrupt shift in the roadway and a closeup view of the hotel entryway.

Section 19.90.02 - Subarea 2 - Gunpowder Point

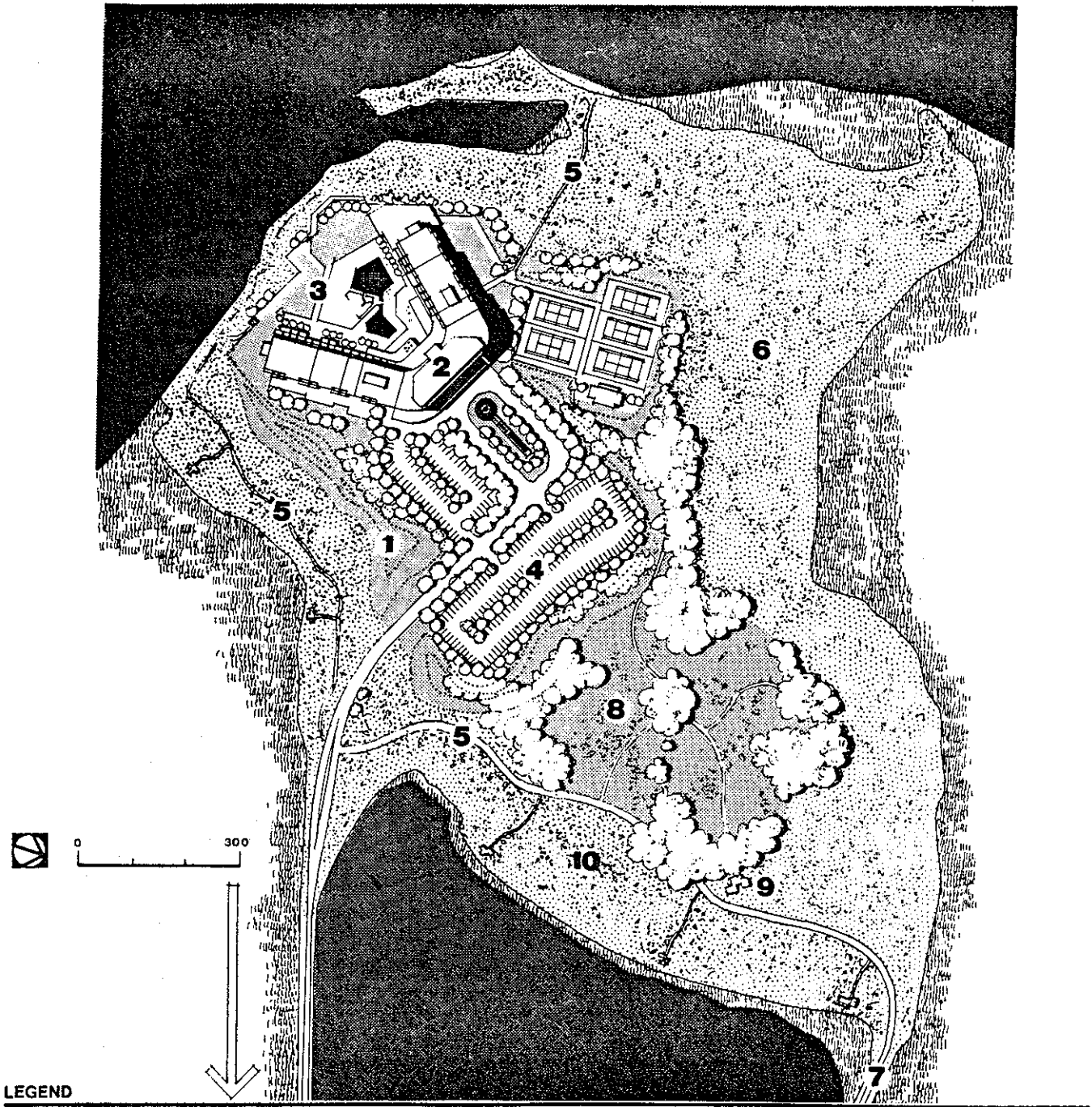
The following design and development conditions are required in Subarea 2 and are illustrated in Map 10, Gunpowder Point Hotel Illustrative Plan.



MAP 8 SEQUENCE OF VIEWS ALONG THE BAYFRONT GATEWAY - ILLUSTRATIVE



MAP 9 LANDSCAPE CONCEPT AT E-STREET GATEWAY



LEGEND

- 1** EARTH BERM ENCLOSING APPROXIMATELY 14 ACRES
- 2** APPROXIMATE SITING OF HOTEL/CONFERENCE STRUCTURE. STEPPED BUILDING FORM TO BE USED TO VISUALLY INTEGRATE STRUCTURE WITH NATURAL SETTING. BUILDING HEIGHT LIMITED TO 8 STORIES WITH CONDITIONAL APPROVAL UP TO 12 STORIES.
- 3** SOUTH ORIENTED PUBLIC SPACE DESIGNED FOR INTENSIVE USE.
- 4** HOTEL/CONFERENCE PARKING LIMITED TO 215 SURFACE SPACES AND 430 SPACES OVERALL.
- 5** LIMITED PEDESTRIAN ACCESS.
- 6** TWENTY-TWO ACRE REVEGETATED UPLAND HABITAT.
- 7** EMERGENCY ACCESS ROUTE.
- 8** APPROXIMATELY EIGHT ACRES OF LANDSCAPED COMMUNITY PARK WITH PASSIVE RECREATION IMPROVEMENTS.
- 9** INTERPRETIVE CENTER.
- 10** SHORELINE TRAIL ZONE FOR LIMITED PUBLIC ACCESS AND WILDLIFE OBSERVATION.

MAP 10 GUNPOWDER POINT HOTEL ILLUSTRATIVE PLAN

1. **Siting.** The hotel complex shall be sited in the southernmost portion of the island to avoid conflicts with sensitive natural habitats. The land area to be altered for hotel and conference facility use shall be limited to approximately 14 acres, leaving a balance of nearly 27 acres for restored upland natural habitat, wetland buffers and passive use parklands.
2. **Permitted Uses.** Permitted uses on Gunpowder Point are specified in Section 19.84.08 relating to the Commercial: Hotel designation.
3. **Parking.** Parking required for the hotel/conference complex shall be 400 spaces. A reduction in this requirement may be granted if vanpool or limousine service is provided by the hotel operator. A maximum of 200 surface parking spaces may be provided on Gunpowder Point with the remaining balance located remotely in the Midbayfront.
4. **Building Height and Form.** Building height shall be limited to eight stories with conditional approval of 12 stories, if it can be demonstrated that the increase in height produces a visually and environmentally superior solution. Linear slab or cruciform structures of a uniform height shall be avoided; stepped building forms shall instead be used to provide a better visual fit with the land form of Gunpowder Point. The building form should envelope a south facing public outdoor space as shown in the design and development guidelines on Map 11, Mid-Bayfront Specific Design and Development Guidelines.
5. **Landscaping.** The landscaping of Gunpowder Point shall consist of three major elements: (1) natural habitats to be protected and enhanced; (2) buffering landscaping between restored upland habitat and hotel complex; and (3) internal landscaping of the hotel complex. Natural habitat protection and enhancement requirements are as follows:
 - a. Buffer Zone Between Hotel/Conference Complex and Upland Habitat. An earth berm, with an elevation 5 to 7 feet higher than the adjoining upland habitat, shall surround the hotel/conference complex on the east, north and west side. The berm shall be designed to screen the parking, recreation facilities, landscaped hotel grounds and lower portions of the hotel structure from the revegetated upland reserve. The outward facing surfaces of the berm shall be planted with southern coastal scrub or other appropriate upland vegetation to provide for its visual integration with the adjoining uplands.
 - b. Internal Landscaping of Hotel/Conference Complex. Within the area surrounded by the earth berm a greater variety of landscape materials may be employed. The following guidelines shall be observed.
 - i. Within the entry zones (approach, roadway and parking area) large scale trees, planted in an irregular, informal pattern shall visually define the approach to the hotel, screen view of the parking from the upper floors of the hotel, and in conjunction with ground covers and change in elevation, conceal parking from view of arriving and departing hotel guests. Additionally this landscaping will serve to further visually separate the hotel/conference complex from the adjoining upland.
 - ii. If illumination is provided for outdoor recreational facilities, a combination of low mounted luminaires and intervening tree masses

should be used to reduce night-time intrusion of light into the adjoining upland habitat.

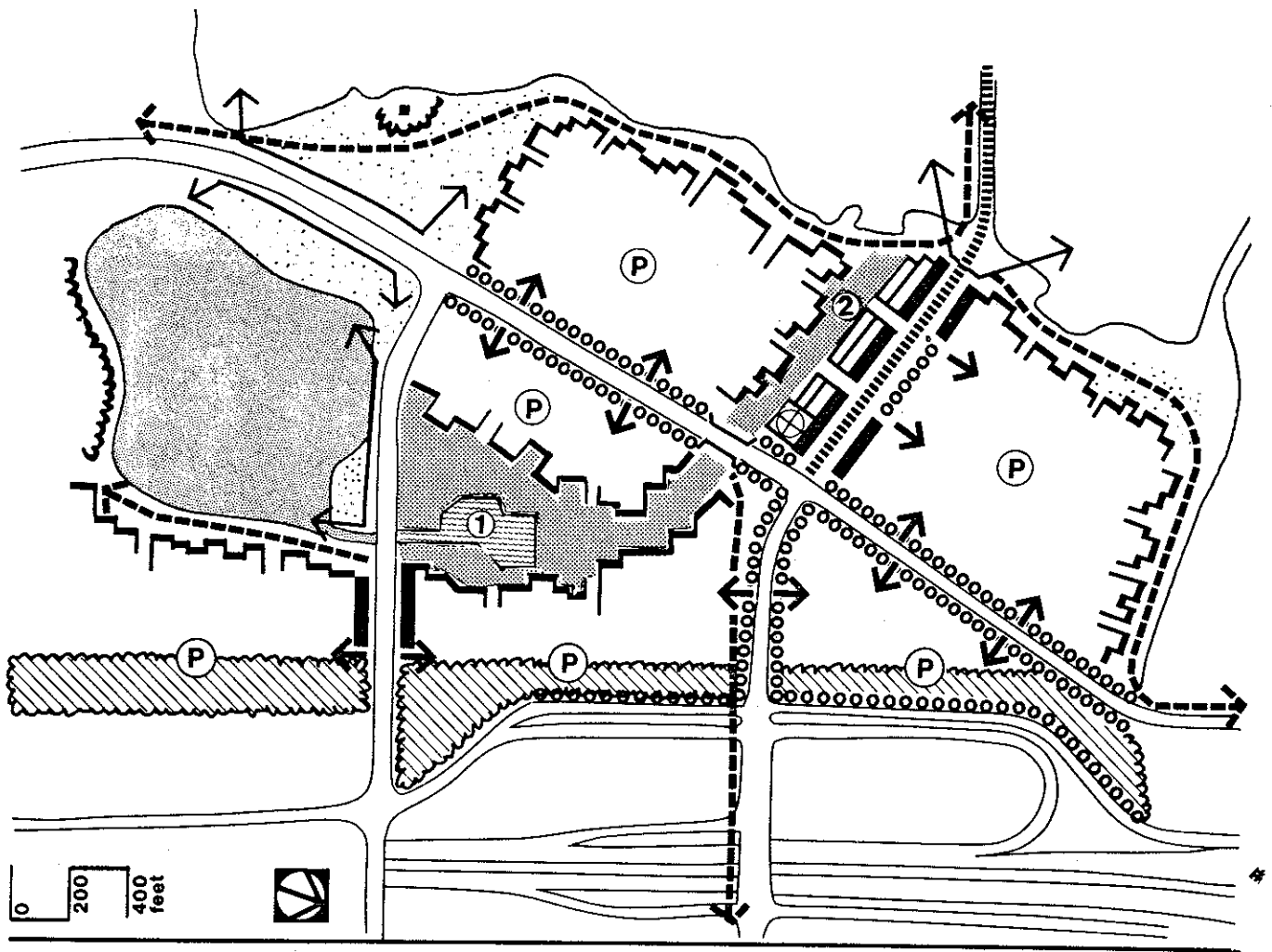
- iii. A large-scale south-oriented outdoor area shall be provided for users of the hotel/conference complex. (Reference: Map 10.) Within this area a wide variety of landscape materials are permissible and a highly contrasting appearance with other open spaces on Gunpowder Point is desirable. An abrupt change in appearance with this ornamental landscape adjacent to the hotel shall be provided along the south facing shoreline by revegetation of a 100-foot strip with native vegetation.









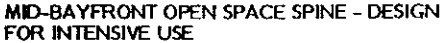







6. **Public Access.** Public access shall be provided to Gunpowder Point via the pedestrian boardwalk incorporated into the south levee roadway. A series of publicly accessible outlooks shall be provided to allow visual access to the wetland habitat areas with minimal intrusion. Outlooks shall be designed similar to photographic blinds. Visitors shall be encouraged to park in the Midbayfront.

Section 19.90.03 - Subarea 4 - Midbayfront

Specific design and development guidelines for the Midbayfront reflect the following objectives: (1) provision of a pedestrian system integrating all the activities of the Midbayfront and linking the area with contiguous areas of the Bayfront and the proposed E Street trolley station; (2) provision of a system of open space which serves as a major recreational resource, a means of enhancing the visual appearance and image of the area and a method for integrating and unifying development throughout the area; and (3) establishment of visually and functionally satisfying relationships between buildings, open space and roadway and parking areas.

1. **Pedestrian Continuity.** Internal pedestrian circulation shall regularly connect with the main perimeter circulation along the wetland buffers. Architectural facades adjacent to the shoreline shall be broken frequently to allow for ground level circulation. A major pedestrian link shall be included in the public open space linking the shoreline with the interior storm detention facility. Provision shall be made for pedestrian continuity across or beneath Tidelands Avenue.
2. **Access to Individual Development Sites.** The main auto access points to the Midbayfront development parcels are shown on the designated development guidelines. Internal automobile circulation shall be minimized to locate parking reservoirs close to points of access but not adjacent to major open spaces.
3. **Building/Open Space Relationships.** Map 11 specifies the relationship of buildings to major public outdoor spaces. The storm drainage pond should be developed as a landscape feature in the public open space corridor and adjacent development sites should orient their structures to face this landscape amenity (Reference: Sections N and O). A landmark building site is specified to provide a major identifying feature for the Midbayfront. Additionally, special siting requirements for structures at the F Street approach and approach to Gunpowder Point are specified.



- | | | | |
|---|--|---|--|
|  | FACETED BUILDING FRONTAGE |  | PANORAMIC VIEWS TO BE RETAINED AND ENHANCED |
|  | STEPPED BUILDING FORM |  | RESTRICTED AUTO ACCESS |
|  | VERTICAL BUILDING FORM
(APPROXIMATE HEIGHT 70 FEET) |  | ACCESS TO PARKING—LIMIT POINTS OF INGRESS AND EGRESS |
|  | BUILDINGS SITED TO DEFINE MAJOR PUBLIC SPACES AND/OR ENTRANCES |  | MAJOR PARKING AREAS |
|  | MID-BAYFRONT OPEN SPACE SPINE - DESIGN FOR INTENSIVE USE |  | MAJOR PEDESTRIAN LINKS TO OTHER BAYFRONT/CITY AREAS |
|  | SDG & E CORRIDOR—PARKING AND INTENSIVE LANDSCAPING |  | DETENTION POND—DEVELOP AS PERMANENT WATER FEATURE. USE AS CENTRAL LANDSCAPE ELEMENT. |
|  | LARGE SCALE, REGULARLY SPACED STREET TREES |  | ORIENT MAJOR SPECIALITY RETAIL TO OPEN SPACE. INCORPORATE GROUND LEVEL RETAIL ALONG NORTH EDGE OF RESIDENTIALLY DESIGNATED AREA. |
|  | LANDSCAPE MASKING OF VISUALLY DISCORDANT STRUCTURES | | |
|  | PARK SPACE | | |

MAP 11 MID-BAYFRONT SPECIFIC DESIGN AND DEVELOPMENT GUIDELINES

MIDBAYFRONT DESIGN

- 4. Enhancement of Visual Character.** Landscape screening surrounding the existing small-scale industrial activity shall be located in the public open space zone at the foot of F Street, with landscape massing beneath the SDG&E power lines and street tree planting along the major travel routes.

Section 19.90.04 - Subarea I- D Street Fill

- 1. East Marina Area.** Permitted is the dredging and creation of a small boat marina accommodating approximately 200 boats (Reference: Map 12, D Street Fill Specific Design and Development Guidelines).

Views. Views should be provided of the marina from both the Tidelands Avenue Bridge, which will have a height of 45 feet above mean high tide as it crosses the channel, and from the major arterial approach to the D Street area.

Public Access. Public access should be provided along the south and west edges of the marina by construction of a pedestrian promenade (Reference: Section P). This would be integrated with a pedestrian way in conjunction with the Port's Plan.

Architectural Edge. Buildings along the west edge of the marina may be constructed to a height of five stories. A comfortably scaled pedestrian space should be created by siting the buildings approximately 80 feet from the water's edge and by stepping the facing buildings back after the third story (Reference: Section Q).

- 2. Southwest Housing Area.** Approximately 19 acres are designated in the southwest portion for housing with a permitted density of 15-30 dwelling units per acre subject to the following:

Buffer Setback. Structures shall be sited 100 feet or more from marshlands.

Architectural Edge. Buildings facing onto the marsh buffer zone shall be designed and sited to present a broken, variegated edge facing the marsh, rather than a continuous flat-wall effect. Building heights shall not exceed two stories along this edge.

Landscaping. Tree planting and landscaping within the immediate residential area bordering the buffer shall be a semi-transparent screen to allow some views out over the marsh while still breaking up the geometric shapes of the structures.

Colors. Natural building materials and muted earth colors shall predominate.

Building Heights. Higher building heights up to four stories are permitted if parking is provided on the first level for structures sited a distance of 150 feet or more from the buffer zone. (Reference: Map 10.)

Park. A centrally located park shall be provided both for use of residents and the general public. A park area of approximately three acres shall be provided. The park shall be sited and designed to provide a landscape focus for the

MID-BAYFRONT DESIGN

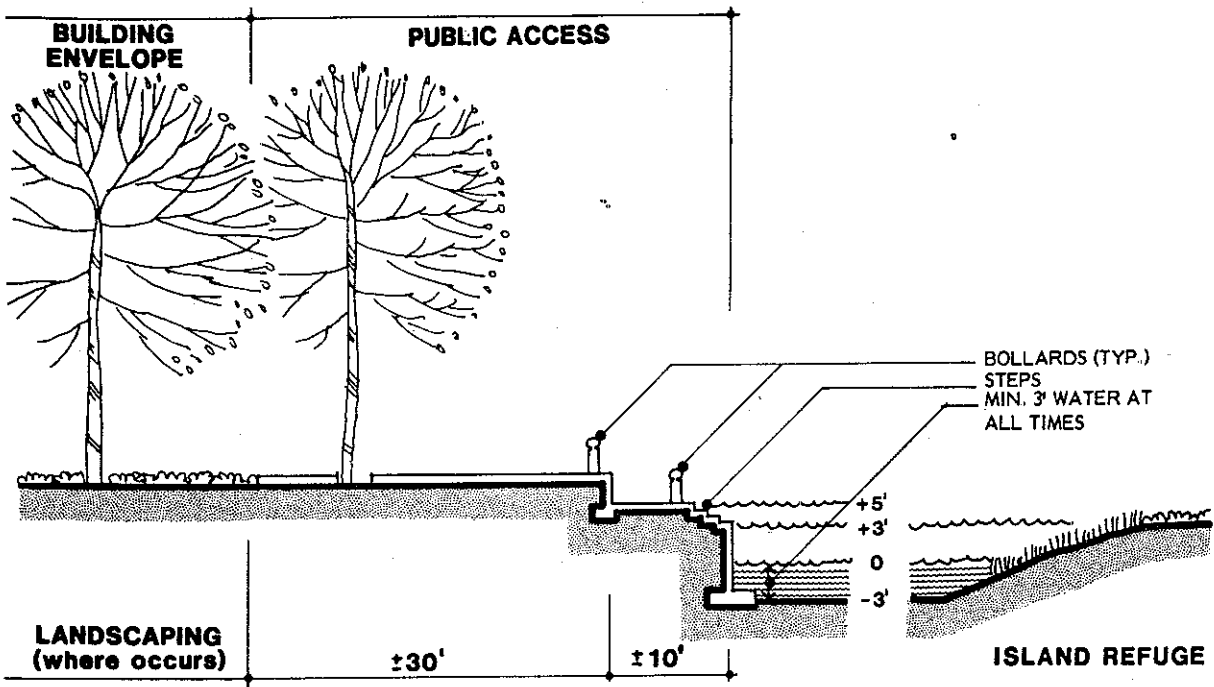


FIGURE 15
SECTION N (Prototypical)
TYPICAL HARD EDGE DETAIL AT DETENTION POND

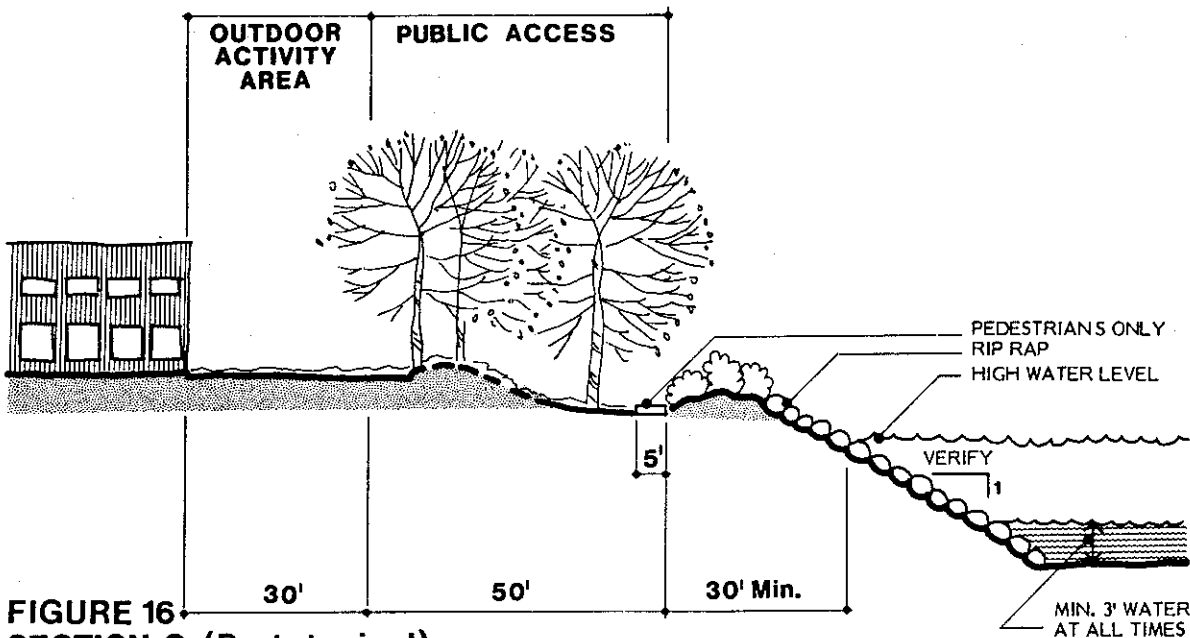
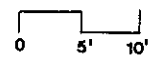




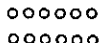
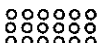
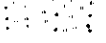


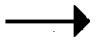

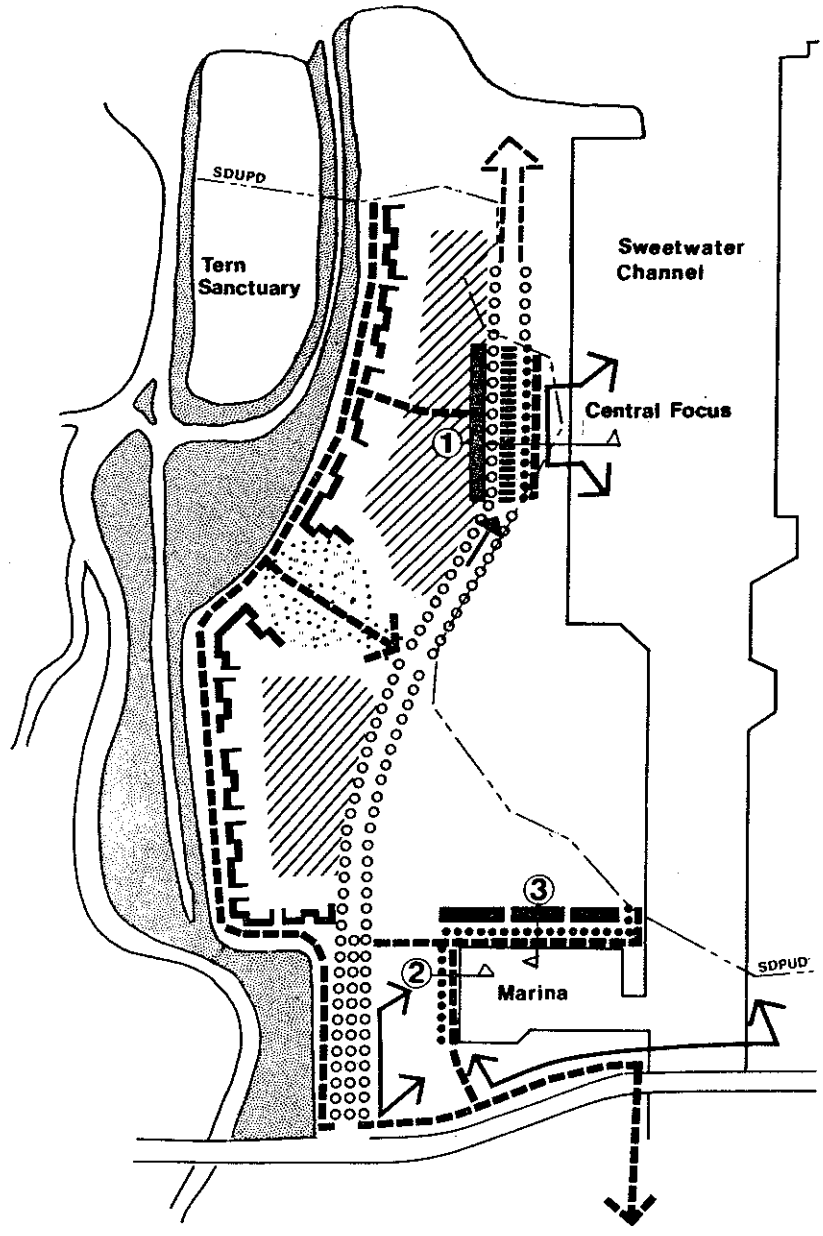


FIGURE 16
SECTION O (Prototypical)
TYPICAL SOFT EDGE DETAIL AT DETENTION POND



-  FOUR STORY STRUCTURES
-  FACETED BUILDING FACADES—TWO STORY STRUCTURES
-  VISUALLY PROMINENT BUILDING MASS STRONGLY DEFINED ARCHITECTURAL EDGE (5 STORIES PERMISSIBLE)
-  URBAN PROMENADE—INTEGRATE WITH SIMILAR TREATMENT ON PORT LANDS
-  LARGE SCALE, REGULARLY SPACED STREET TREES—NO MEDIAN TREES
-  LARGE SCALE, REGULARLY SPACED STREET TREES—WITH MEDIAN TREES
-  PUBLIC PARK
-  PEDESTRIAN WAY—COORDINATE WITH PEDESTRIAN WAYS ON PORT LANDS
-  SPECIAL PAVEMENT TREATMENT
-  FOCUSED ROADWAY VIEW OF INNER HARBOR
-  PANORAMIC VIEWS
- ① SEE SECTION R
- ② SEE SECTION P
- ③ SEE SECTION Q



MAP 12 D STREET FILL SPECIFIC DESIGN AND DEVELOPMENT GUIDELINES

D STREET FILL & MARINA DESIGN

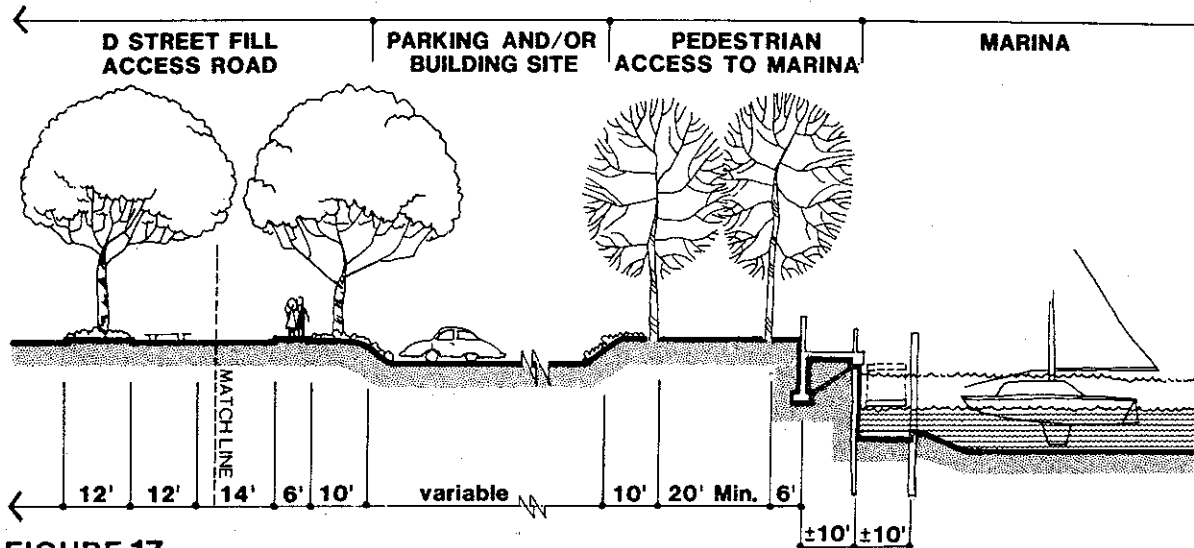


FIGURE 17
SECTION P (Prototypical) Looking West
INTERIOR MARINA WATERFRONT

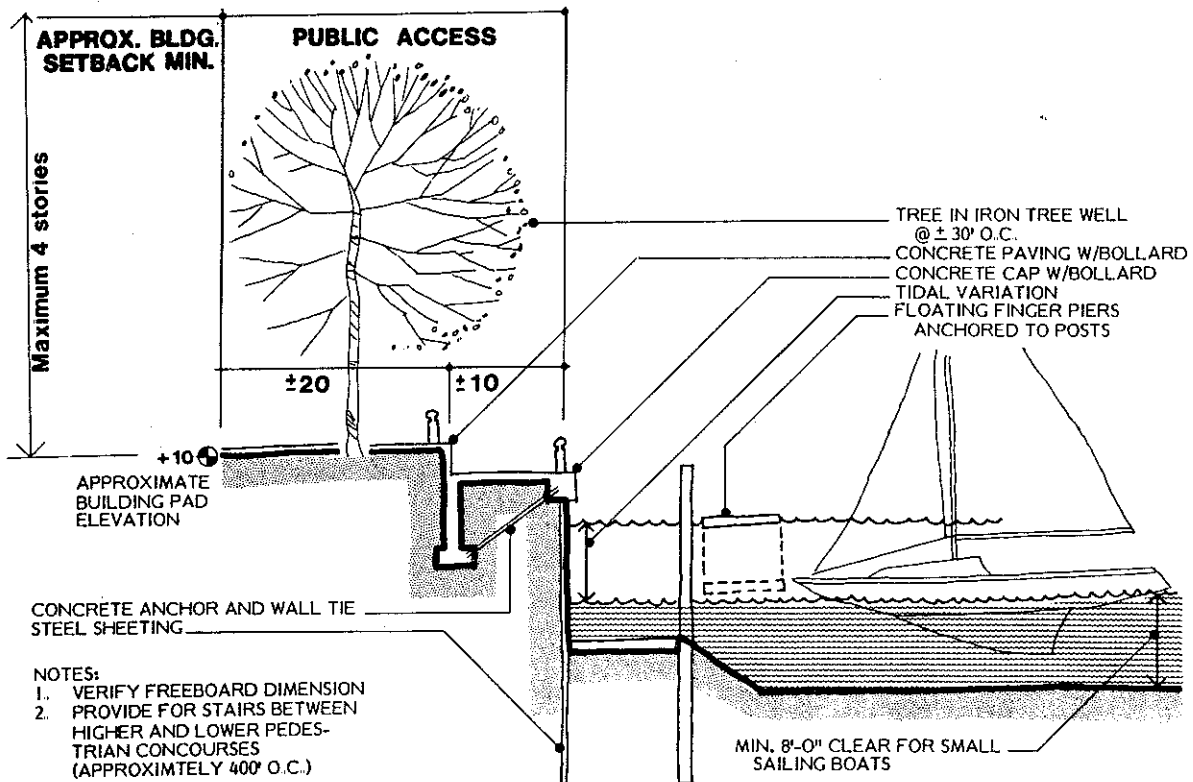


FIGURE 18
SECTION Q (Prototypical) Looking South
HARD EDGE AT MARINA

residential area while also serving as an open space connection between the east and west sides of the D Street area.

3. Sweetwater Channel.

Exposure to Sweetwater Channel. Public physical and visual exposure to the Sweetwater Channel shall be provided from the major east-west arterial.

Visual and Functional Center. The point of convergence of Port and private lands and the Channel shall serve as the primary visual and functional center of the D Street area. Development on the Channel side shall accommodate water-related uses such as restaurants, boat berths, small boat sales and repairs which serve the general public and contribute to an urban waterfront appearance for the area. This development shall be sited and designed to protect and enhance water-oriented views of properties on the south side of the roadway (Reference: Section R).

Dominant Structures. Development along the south side of the roadway shall visually dominate other structures in the D Street area and be oriented in both views and use to the Sweetwater Channel.

Public Promenade. A public promenade shall be provided along the Channel edge and integrated with a pedestrianway in conjunction with development on the Port lands to the east and west. The promenade shall be integrated with the roadway and south side development and constructed to impart a lively, urban appearance.

Section 19.90.05 - Subarea 5—Industrial Zone

Modifications to Rohr operations or building program shall be accompanied by an overall landscape master plan. The landscape plan shall provide necessary screening of on-site parking and storage areas, the establishment of foreground planting for major structures to provide a human scale to the large undifferentiated walls, and a detailed schedule for proposed landscape improvements included in the master plan.

Section 19.90.06 - Subarea 6 - Southern and Inland Parcels

1. Southern Parcel

The salt works should be incorporated into a State wildlife preserve over 20 years. The remaining area is designated for industrial use on the General Plan and is expected to remain Industrial. It is anticipated that the SDG&E facility will remain in operation on a permanent basis, while the salt works will continue into the foreseeable future. The vacant industrial land is located between Bay Boulevard and Interstate 5 and does not have any direct Bay frontage. Visitor-serving facilities should be located here because of the proximity of the freeway and the generating plant. In addition, no uses shall be located on this property which would economically compete with the Bayfront.

2. Inland Parcel

The property is designated for research and limited industrial uses in the General Plan and is currently zoned F-I (Flooding) and I-L (Light Industrial). This area is not coastal-related and no change in the existing use is anticipated.

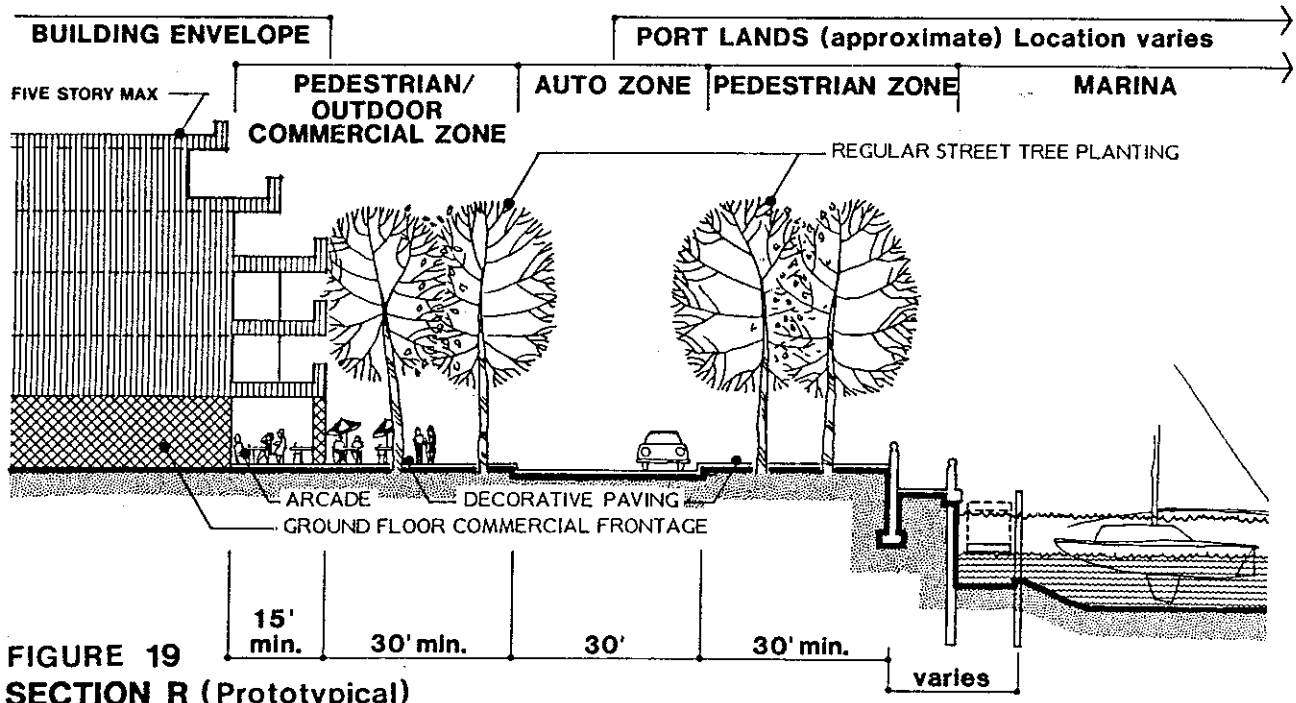
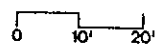


FIGURE 19
SECTION R (Prototypical)
CONCEPT FOR FIRM ARCHITECTURAL EDGE
AT INTERFACE WITH PORT LANDS



GENERAL PROVISIONS

SIGN STANDARDS

Section 19.91.01 - Applicable Sign Regulations

The provisions of Chapter 19.60 of the Chula Vista Zoning Ordinance, Title 19 of the Chula Vista Municipal Code, shall be applicable to all signs in the Bayfront area. These provisions generally control the construction, issuance of permits, nonconformance and materials. The regulations of the specific plan control the allowability of various signs in designated areas of the Bayfront. The Chula Vista Bayfront Sign Program controls the aesthetic character and general placement of signs. These three sets of sign controls are complementary. However, in the event that there is an inconsistency among any or all of these regulations, the provisions of the Specific Plan shall apply, and the interpretations given thereto by the Director of Planning shall prevail.

OFF-STREET PARKING STANDARDS AND REGULATIONS

Section 19.91.02 - Applicable Off-Street Parking and Loading Standards and Regulations

The provisions of Chapter 19.6 the Chula Vista Zoning Ordinance, Title 19 of the Chula Vista Municipal Code, shall be applicable to all off-street parking and loading areas in the Bayfront area. These provisions generally control construction and development and design standards of off-street parking areas, as well as the precise number of spaces required for designated uses, at Section 19.62.050. In the event that there is no precise correspondence in the use classifications with the common names used in this section, the Planning Director shall have the authority to designate the requirements and the common names for proposed uses shall generally be deemed to control.

NONCONFORMING USES

Section 19.91.03 - Regulation of Nonconforming Uses

The provisions of Chapter 19.64, Nonconforming Uses, of the Chula Vista Zoning Ordinance, Title 19 of the Chula Vista Municipal Code, shall be applicable to all uses in the Bayfront Area. For purposes of these regulations, "uses" shall be considered to include any use covered under the use classifications of the Specific Plan, and "zone" shall be construed to mean the land use designation included in the Land Use Controls Map or any other map which deals with or affects the legality of a structure or its location.

PERFORMANCE STANDARDS

Section 19.91.04 - Application of Performance Standards

The provisions of Chapter 19.66 of the Chula Vista Zoning Ordinance, Title 19 of the Chula Vista Municipal Code, shall be applicable to all uses and their operation,

located in the Bayfront area. These provisions control the performance of any uses, and can be considered to preclude uses which may be construed, either by their design or anticipated operation, to have a strong likelihood of violating such standards. These standards are supplemented in the Bayfront area by the following three provisions dealing with: Stormwater Collection; Geotechnical Hazards; and Grading and Erosion Control Standards.

Section 19.91.04a - Stormwater Collection System

An all-gravity system should be used with provisions for intercepting the drainage from various points in the area. Building pads shall be placed above the 100-year flood level (approximately elevation 10) and above higher high tide level. Gravity pipe or street flow shall be at a minimum slope of six inches per one hundred feet (0.5% slope). Desilting/retention basin shall be required at particular junctures, and a major detention basin shall be constructed in the Midbayfront to accept surface drainage and to provide for desilting and oil and chemical entrapment. The major orientation, however, shall be to San Diego Bay.

Section 19.91.04b - Geotechnical Hazards

Due to the existence of the Rose Canyon/San Diego Bay/Tijuana Fault and the Otay Fault, seismic reinforcement of all structures shall be required to withstand the potential liquefaction hazards.

Section 19.91.04c - Grading and Erosion Control

Grading shall be accomplished so that drainage shall not enter saltwater marshes and lagoons that are preserved as wildlife refuges. Minimum grade elevation shall be 7.6 feet above mean sea level. Gutter elevations shall be established at sufficient height above mean sea level to allow for anticipated head losses throughout the drainage system. Sedimentation control shall be accomplished at key locations surrounding Gunpowder Point and in the Midbayfront.

COASTAL DEVELOPMENT PERMIT PROCEDURES

Section 19.92

Section 19.92.01 - Purposes

This part establishes the permit procedures for developments located in the coastal zone as defined in Section 30150 of the Public Resources Code. This article is based on the Local Coastal Program Implementation Regulations adopted by the California Coastal Commission pursuant to Public Resources Code Sections 30333 and 30501, and as such shall constitute the procedural requirements for review of developments in the coastal zone pursuant to Public Resources Code Section 30600(d).

Section 19.92.02 - Definitions

"Aggrieved Person" means any person who, in person or through a representative, appeared at a public hearing of the City in connection with the decision or action appealed, or who, by other appropriate means prior to a hearing, informed the City of the nature of his concerns, or who for good cause was unable to do either.

"Allowable Use" means any use allowed by right which does not require a public hearing or any discretionary or non-discretionary permit of the approving authority.

"Appealable Development" means, in accordance with Public Resources Code Section 30603(a), any of the following:

- a. Developments approved by the local government between the sea and the first public road, or within 300 feet of the inland extent of any beach or of the mean high tide line of the sea where there is no beach, whichever is the greater distance.
- b. Developments approved by the local government, not included within paragraph (a) above, located on tidelands, submerged lands, public trust lands, within 100 feet of any wetland, estuary, stream or within 300 feet of the top of the seaward face of any coastal bluff.
- c. Any development which constitutes a major energy facility. The phrase "major public works project or a major energy facility" as used in Public Resources Code Section 30603(a)(5) or energy facility as defined by Public Resources Code Section 30107, with a value exceeding \$100,000, as adjusted from the 1982 base year per the Engineering News Record Construction Cost Index.

"Appellant" means any person who may file an appeal and includes an applicant, any aggrieved person, or any two members of the Coastal Commission.

"Applicant" means the person, partnership, corporation, or state or local government agency applying for a coastal development permit.

"Approving Authority" means the City officer, planning commission or council approving a coastal development permit.

"Categorically excluded development" means a development (upon request of the City, public agency or other person) which the Coastal Commission has determined, pursuant to Section 30610(e) of the Public Resources Code, to have no potential for

significant adverse environmental effects and therefore has been issued an exclusion from the coastal development permit requirements in accordance with the applicable regulations.

"Coastal Commission" means the California Coastal Commission.

"Coastal Development Permit" means a letter or certificate issued by the City in accordance with the provisions of this chapter, after the applicant has submitted all necessary supplementary documentation required to satisfy the conditions precedent in the notice to issue a coastal development permit.

"Conditional Use" means any use which requires a public hearing.

"Local Coastal Program" means the City's land use plan, zoning ordinances, zoning maps, and other implementing actions certified by the Coastal Commission as meeting the requirements of the California Coastal Act of 1976.

"Notice to Issue Coastal Development Permit" means a letter or certificate issued by the City in accordance with the provisions of this chapter, approving a development subject to fulfillment of conditions prior to issuance of a coastal development permit, but if such conditions are fulfilled, as being in conformance with and adequate to carry out the Local Coastal Program.

"Permitted Use" means any allowed by right which does not require a public hearing, but does require a discretionary or non-discretionary permit (e.g., building permit) to be issued by the approving authority.

"Other Permits and Approvals" means permits and approvals, other than a coastal development permit required to be issued by the approving authority before a development may proceed.

Section 19.92.03 - Applicability

Except as provided in Section 19.92.04 below, any applicant wishing to undertake a development in the coastal zone shall obtain a coastal development permit in accordance with the provisions of this article, in addition to any other permit required by law. Development undertaken pursuant to a coastal development permit shall conform to the plans, specifications, terms and conditions approved in granting the permit. The procedures prescribed herein may be used in conjunction with other procedural requirements of the approving authority, provided that the minimum requirements as specified herein are assured.

Section 19.92.04 - Exemptions

- a. Repair and maintenance activities which do not result in an addition to or enlargement or expansion of the object of such activities, except as otherwise specified by the Coastal Commission in Subchapter 7, Title 14, California Administrative Code, and any amendments thereafter adopted.
- b. Activities of public utilities as specified in the Repair, Maintenance and Utility Hook-Up Exclusion adopted by the Coastal Commission on September 5, 1978.

- c. Occupancy permits.
- d. Improvements to single-family residences, except as otherwise specified by the Coastal Commission in Subchapter 6, Title 14, California Administrative Code, and any amendments thereafter adopted.
- e. Improvements to any structure other than a single-family residence or a public works facility, except as otherwise specified by the Coastal Commission in Subchapter 7.5, Title 14, California Administrative Code, and any amendments thereafter adopted.

Section 19.92.05 - Notice of Exempt Development

A permit issued by the City for a development which is exempt from the coastal development permit requirements shall be exempt from the notice and hearing requirements of this article. The City shall maintain a record for all permits issued for exempt developments which shall be made available to the Coastal Commission or any interested person upon request. This record may be in the form of any record of permits issued currently maintained by the City provided that such record includes the applicant's name, the location of the project, and a brief description of the project.

Section 19.92.06 - Notice of Appealable Developments

Within ten (10) calendar days of accepting an application for an appealable coastal development permit or at least seven (7) calendar days prior to the first public hearing on a development proposal, the City shall provide notice by first class mail of pending application for appealable development. This notice shall be provided to each applicant, to all persons who have requested to be on the mailing list for that development project or for coastal decisions within the City, to all property owners and residents within 100 feet of the perimeter of the parcel on which the development is proposed, and to the Coastal Commission. The notice shall contain the following information:

- 1. a statement that the development is within the coastal zone;
- 2. the date of filing of the application and the name of the applicant;
- 3. the number assigned to the application;
- 4. a description of the development and its proposed location;
- 5. the date, time, and place at which the application will be heard by the local governing body or hearing officer;
- 6. a brief description of the general procedure of local government concerning the conduct of hearing and local actions; and
- 7. the system for local and Coastal Commission appeals, including any local fees required.

Costs of notice which are not reimbursed to local governments through grants or SB90 reimbursement pursuant to Public Resources Code Section 30353.

Section 19.92.07 - Public Hearing on Appealable Developments

At least one public hearing shall be held on application for an appealable development, thereby affording any persons the opportunity to appear at the hearing and inform the City of the nature of their concerns regarding the project. Such hearing shall occur no earlier than seven (7) calendar days following the mailing of the notice required in Section 19.92.05. The public hearing may be conducted in accordance with existing local procedures or in any other manner reasonably calculated to give interested persons an opportunity to appear and present their viewpoints, either orally or in writing.

Section 19.92.08 - Notice of Local Government Action Where Hearing Continued

If a decision on a coastal development permit is continued by the City to a time which is neither (a) previously stated in the notice provided pursuant to Section 19.92.06 nor (b) announced at the hearing as being continued to a time certain, the City shall provide notice of the further hearings (or action on the proposed development) in the same manner, and within the same time limits, as established in Section 19.92.07.

Section 19.92.09 - Notice of Non-Appealable Developments that Require a Public Hearing: Conditional Uses

Notice of such developments shall be given at least ten (10) calendar days before a hearing in the following manner:

1. Notice in the manner prescribed in Section 19.92.06 above; or
2. Notice as prescribed herein:
 - a. If the matter is heard by the planning commission, notice shall be published in a newspaper of general circulation or (if there is none) posted in at least three public places in the local jurisdiction;
 - b. Notice by first class mail to any person who has filed a written request therefor;
 - c. Notice by first class mail to property owners within 300 feet of the proposed project;
 - d. Notice by first class mail to residents within 100 feet of the proposed project;
 - e. Notice by first class mail to the Coastal Commission; and
 - f. The notice shall contain a statement that the proposed development is within the coastal zone.

Section 19.92.10 - Notice of Non-Appealable Developments that Do Not Require a Public Hearing: Permitted Uses

Notice of such developments shall be provided in the manner prescribed in Section 19.92.05 above.

Section 19.92.11 - Determination of Applicable Notice and Hearing Procedures

The determination of whether a development is categorically excluded or appealable for purposes of notice, hearing and appeals shall be made by the City at the time the application for development is submitted. This determination shall be made with reference to the certified Local Coastal Program, including maps, categorical exclusions, land use designations, and zoning ordinances adopted as a part of the certified Local Coastal Program. Where an applicant, interested person, or the City has a question as to the appropriate procedures, the following procedures shall be followed.

1. The City shall make its determination as to what type of development is being proposed (i.e., exempt, categorically excluded, appealable, non-appealable) and shall inform the applicant of the notice and hearing requirements for that particular development. The local determination may be made by the designated approving authority.
2. If the determination of the City is challenged by the applicant or an interested person, or if the City wishes to have a Coastal Commission determination as to the appropriate designation, the City shall notify the Coastal Commission by telephone of the dispute/question and shall request an Executive Director's opinion.
3. The Executive Director shall, within two (2) working days of the City's request (or upon completion of a site inspection where such an inspection is warranted), transmit a determination as to whether the development is exempt, categorically excluded, non-appealable, or appealable.
4. Where, after the Executive Director's investigation, the Executive Director's determination is not in accordance with the City determination, the Coastal Commission shall hold a hearing for the purpose of determining the appropriate designation for the next Coastal Commission meeting in the appropriate geographic region following the City's request.

Section 19.92.12 - Finality of City Action

A local decision on an application for a development shall be deemed final when (1) the local decision on the application has been made and all required findings have been adopted, including specific factual findings supporting the legal conclusions that the proposed development is or is not in conformity with the certified Local Coastal Program, and that the required conditions of approval adequate to carry out the certified Local Coastal Program as required in the implementing ordinances have been imposed, and (2) all rights of appeal have been exhausted as defined in Section 19.92.16.

Section 19.92.13 - Final City Action - Notice

Within seven (7) calendar days of a final decision on an application for any development (except categorically excluded or exempt developments), the City shall provide notice of its action by first class mail to the Coastal Commission and to any persons who specifically requested notice of such final action by submitting a self-addressed, stamped envelope to the City (or, where required, who paid a reasonable fee to receive such notice). Such notice shall include conditions of approval, written findings, and the procedures for appeal to the Coastal Commission.

Section 19.92.14 - Failure to Act - Notice

- a. **Notification by Applicant:** If the City has failed to act on an application within the time limits set forth in Government Code Sections 65950-65957.1, thereby approving the development by operation of law, the person claiming a right to proceed pursuant to Government Code Section 65950-65057.1 shall notify, in writing, the City and the Coastal Commission of his or her claim that the development has been approved by operation of law. Such notice shall specify the application which is claimed to have been approved.
- b. **Notification by City:** When the City determines that the time limits established pursuant to Government Code Sections 65950-65957.1 have expired, the City shall, within seven (7) calendar days of such determination, notify any person entitled to receive notice pursuant to Section 19.92.13 that it has taken final action by operation of law pursuant to Government Code Sections 65950-65957.1. The appeal period for projects approved by operation of law shall begin to run only upon the receipt of the City's notice in the Coastal Commission office. (This section shall apply equally to a City determination that the project has been approved by operation of law and to a judicial determination that the project has been approved by operation of law.)

Section 19.92.15 - Local Government Action - Effective Date

A final decision of the City on an application for an appealable development shall become effective after the ten (10)-working-day appeal period to the Coastal Commission has expired or after the twenty-first (21st) calendar day following the final local action unless any of the following occur.

- a. An appeal is filed in accordance with the Coastal Commission's regulations; or
- b. The notice of final local government action does not meet the requirements of Sections 19.92.13 and 19.92.14.

Where any of the circumstances in Section 19.92.15(a) or (b) occur, the Commission shall, within five (5) calendar days of receiving notice of that circumstance, notify the City and the applicant that the effective date of the City action has been suspended.

Section 19.92.16 - Exhaustion of Local Appeals

- a. An appellant shall be deemed to have exhausted local appeals for purposes of filing an appeal under the Coastal Commission's regulations and be an aggrieved person where the appellant has pursued his appeal to the local appellate body as required by the City's appeal procedures, except that exhaustion of all local appeals shall not be required if any of the following occur.
 1. The City requires an appellant to appeal to more local appellate bodies for permits in the coastal zone in the implementation section of the Local Coastal Program;
 2. An appellant is denied the right of the initial local appeal by a local ordinance which restricts the class of persons who may appeal a local decision;

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 1. The City requires an appellant to appeal to more local appellate bodies for permits in the coastal zone in the implementation section of the Local Coastal Program;
 2. An appellant is denied the right of the initial local appeal by a local ordinance which restricts the class of persons who may appeal a local decision;

3. An appellant is denied the right of local appeal because local notice and hearing procedures for the development did not comply with the provisions of this article; or
4. The City charges an appeal fee for the filing or processing of appeals.

Where the local government would ordinarily require an appeal fee for the processing of appeals within the appealable areas of the coastal zone, the City may apply to the Coastal Commission for a reimbursement of that fee through an SB90 claim or similar reimbursement process.

- b. Where a project is appealed by any two (2) members of the Coastal Commission, there shall be no requirement of exhaustion of local appeals, provided, however, that notice of Coastal Commission appeals shall be transmitted to the local appellate body (which considers appeals from the local body that rendered the final decision), and the appeal to the Coastal Commission shall be suspended pending a decision on the merits by that local appellate body. If the decision of the local appellate body modifies or reverses the previous decision, the Commissioners shall be required to file a new appeal from that decision.

Section 19.92.17 - Appeal Fee

The fee for filing and processing an appeal within the City of Chula Vista shall be \$125.00 (one hundred twenty-five and no/100 dollars).

MISCELLANEOUS SUPPLEMENTARY PROVISIONS: CHULA VISTA ZONING ORDINANCE

Section 19.60.321 - Signs in Scenic Coastal Areas

No new off-site advertising signs or billboards shall be located in the LCP Land Use Plan Area. Existing signs in existing locations may be maintained and repaired consistent with all other applicable Sections of this Code.

Add to Section 19.14.080

- E. That the proposed conditional use, if located in the coastal zone, is consistent with the certified Local Coastal Program and is consistent with the intent of the zoning district.

Add to Section 19.14.190

- E. In the coastal zone, granting of variances is consistent with and implements the certified Local Coastal Program, and that the granting of such variances does not reduce or in any way adversely affect the requirements to protect coastal resources as specified in the zones included in this chapter, and that the variance implements the purposes of the zones adopted in implementation of the Local Coastal Program.

ADMEND SECTION ON ZONING PERMITS AND CERTIFICATES OF OCCUPANCY, BY ADDING A NEW SUBSECTION C)

To ensure that development in the coastal zone complies with all applicable provisions of the Local Coastal Program, a coastal development permit shall be required before any building permit may be issued for any structure or site used for new development.

AMEND SECTION ON BUILDING PERMITS TO ADD:

- a. The City shall not issue a building permit until the Planning Director has granted zoning permission, and in the coastal zone, a coastal development permit, for the structure included in the building permit.

AMEND SECTION ON CERTIFICATES OF OCCUPANCY TO ADD:

- a. The City shall not issue a certificate of occupancy for a structure or alteration until it has found that the structure or alteration conforms with the zoning permit, or a coastal development permit, where applicable . . .

ADD TO SECTION 19.08.020

Any person who violates any provision of the certified Local Coastal Program adopted pursuant to Division 20 of the California Public Resources Code shall be subject to the penalties contained therein (Pub. Res. Code Sec. 20820 et seq.).

ADD A NEW SECTION 10-5.2807 TO ARTICLE 28

Add a New Section 19.08.021 - Notification of Litigation Concerning Development in the Coastal Zone and Attorney General Intervention

The provisions of California Public Resources Code Section 20800, et seq., shall apply to development in the Chula Vista coastal zone and in any case where no appeal has been filed from the decision of the City on a development permit in the coastal zone (including decisions on non-appealable developments) or where an appeal has been filed, but the Commission has determined not to hear the appeal, and when litigation has subsequently been commenced against the City concerning its decision, the City and plaintiff or petitioner shall promptly forward a copy of the complaint or petition to the Executive Director of the California Coastal Commission. At the request of the local government, and with the concurrence of the California Coastal Commission, the Executive Director shall request the Attorney General to intervene in such litigation on behalf of the California Coastal Commission. Administrative remedies pertaining to coastal development permits are not deemed to have been exhausted unless all appeal procedures provided by the California Coastal Act (Public Resources Code Section 30000, et. seq.) and these regulations have been exhausted.

MISCELLANEOUS SUPPLEMENTARY PROVISIONS

Chula Vista subdivision ordinance.

APPENDIX A

USE CLASSIFICATION SYSTEM—ADMINISTRATIVE GUIDELINES

The following listing is presented as an illustrative guide to the application of the use classifications. However, these are for administrative guidance only, and in the event that there is a conflict between an appropriate application of the use classification description in the text of this specific plan and the street application of a common name, the former shall apply.

RESIDENTIAL

Family

Dwellings, Multiple
Dwellings, Single-Family
Dwellings, Two-Family

Group

Apartment Hotels
Dwellings, Multiple
Dwellings, Single-Family
Dwellings, Two-Family

Group Care

Children, Boarding of (not greater than eight)
Convalescent Homes (intermediate care only)
Dwellings, Multiple
Dwellings, Single-Family
Dwellings, Two-Family
Family Care Homes (not greater than eight)
Foster Homes (not greater than eight)
Group Homes (not greater than eight)
Homes for the Aged (not greater than eight)
Nurseries (not greater than eight)
Nursing Homes (intermediate care only)
Orphanages
Resident Care Facilities (not greater than eight)
Rest Homes (intermediate care only)

COMMERCIAL

Food Sales

Bakeries, Retail
Butcher Shops
Candy Stores
Cheese Shops
Dairy Product Stores
Delicatessens
Donut Shops
Fish and Seafood Markets
Food Catering (retail)
Fruit and Vegetable Markets
Grocery Stores
Health Food Stores
Ice, Sales
Liquor Stores
Markets, Retail

Food Service

Bars
Cabarets
Coffee Shops
Delicatessens
Nightclubs
Parlors, Frozen Custard/Ice Cream
Refreshment Stands
Restaurants
Short-Order Eating Places
Snack Bars
Take-Out Restaurants
Taverns

Convenience Sales and Service

Uses permitted by food sales, food service, general personal service and general retail sales, provided it is administratively determined that they meet the convenience description set forth in Section 19.82.07.

Medical Service

Acupuncture Services
Blood Banks
Chiropodist Offices
Chiropractor Offices
Dental Offices, Clinics or Laboratories
Dietician and Nutritionist Offices and Clinics

Medical Service (cont'd)

Group Medical Centers
Health Maintenance Organizations
Home Health and Nursing Agencies
Laboratories, Biochemical, Dental, Medical, Optometrical and X-Ray
Medical Offices, Clinics or Laboratories
Medical Testing and Analysis Services
Optometrical Offices, Clinics and Laboratories
Osteopath Offices
Physical Therapy Offices and Centers
Podiatrist Offices
Psychiatrist Offices and Clinics
Psychologist Offices and Clinics
Psychotherapist Offices and Clinics

General Retail Sales

Air Conditioning (auto)
Aircraft Equipment, Parts and Supplies
Antique Stores
Apparel and Accessories Stores
Appliance Stores
Art Equipment and Supplies
Art Galleries, Commercial
Athletic Goods Stores
Auction Rooms, Public
Auto Parts (tools)
Auto Upholstery
Bait and Tackle (live)
Bicycle Stores
Bookstores
Camera and Photographic Supplies
Candle Shops
China or Glassware Shops
Cigars and Cigarettes
Cosmetics Shops
Costume Rental Establishments
Custom Shop, Including Repair, Limited as to Floor Area
Department Stores
Discount Department Stores
Drapery and Curtain Shops
Drugstores
Dry Goods (yarn, fabrics, etc.)
Fixtures
Floor Coverings (carpet, rug, linoleum, etc.)
Flower Stores and Plant Shops

General Retail Sales (cont'd)

Furniture and Home Appliances
Furriers and Fur Apparel
Gifts, Novelties, Souvenirs
Gourmet Shops
Greeting Card Shops
Hardware Stores
Hearing Aid and Supply Shops
Hobby Supplies
Interior Decorating
Jewelry Stores
Landscape Supplies and Equipment
Lawn Care Products and Garden Supplies
Leather Goods
Linen Shops
Luggage Stores
Magazine Stores or Stands
Mail Order Houses
Marine Crafts and Accessories
Medical Appliances
Metalware Shops
Millinery Shops
Monuments, with Incidental Processing
to Order
Mufflers
Newsstands
Novelty Shops
Nursery Retail
Optical Goods
Orthopedic Stores
Paint Stores
Parts for Motorcycles, Campers and
Trailers
Pawn Shops
Pet Supply Stores
Piano Stores
Picture Frames
Plant Shops
Plumbing (retail only)
Radios
Record and Sheet Music Shops
Rubber Stamp Stores
Second-Hand Clothing and Book Stores,
Thrift Shops
Second-Hand Furniture Stores
Sewing Machines
Shoe Stores
Spice Shops
Sporting Goods Stores
Stamp and Coin Collectors
Stationery and Supplies
Stereos
Sundries

General Retail Sales (cont'd)

Super Drug Stores with Variety Goods
Surgical Supplies
Televisions
Thrift Shops
Tires and Tubes
Tobacco Stores
Toiletry Stores
Toy Stores
Trophy Supplies
Uniforms
Upholstery Shops
Variety Stores
Watch or Clock Stores
Wigs
Window Shades, Awnings

General Personal Service

Apparel Laundering and Drycleaning
(self-service and drop-off)
Art Studios
Babysitting Services
Barber Shops
Beauty Shops
Body-Building Studios
Correspondence Schools
Dance Studios
Dog Grooming
Drama Studios
Driving Schools
Drycleaning, Pick-Up Stations
Income Tax Services
Maid and Butler Services
Photo-Finishing (drop-off only)
Photography Studios
Reducing and Weight Control Clinics
Reducing Salons
Schools (barber, beauty, business,
language, modeling and other
vocational or trade schools)
Service Organizations (Red Cross,
Travelers Aid, etc.)
Shoeshine Stands
Tailors (alterations and restyling)
Theatrical Agencies
Ticket Sales Offices
Travel Bureaus

Consultative/Financial Service

Advertising Consulting
Architectural Services

Consultative/Financial Service (cont'd)

Attorneys
Bail Bonds
Banks
Business Consulting and Research
Check-Cashing Agencies
Clearinghouses
Commodity Brokerages
Consultants
Credit Institutions
Currency Exchanges
Designers
Economic Consulting and Research
Educational Consulting and Research
Engineering and Surveying
Escrow Services
Farm Management Offices
Holding and Investment Services
Hospital Insurance Organizations
Insurance Companies
Landscape Architects
Lending Institutions
Management Consultants
Medical Insurance Organizations
Mortgage Loan Offices
Property Management Offices
Real Estate Appraisal Firms
Real Estate Offices
Safety Deposit Companies
Savings and Loan Associations
Securities Brokerages
Security and Commodity Exchanges
Stock and Bond Brokerage Offices
Title Abstracting Services

Consumer Laundry & Repair Service

Apparel Repairs
Bicycle Repairs
Camera Repairs
Carpet Cleaning Firms
Diaper Service Laundries
Drape Cleaning
Drycleaners
Dyeing Establishments
Electrical Appliance Repairs
Fix-It Shops
Furniture Finishing (consisting of removing old finishes from furniture, staining and applying new finishes)
Furniture Repairs and Cleaning
Fur Repairs and Storage
Hat Repairs

Consumer Laundry & Repair Service (cont'd)

Institutional and Commercial Linen
Supply Firms
Jewelry Repairs
Laundries and Laundromats
Laundry Services
Lawnmower and Tool Sharpening and Repairs
Leather Item Repairs
Locksmith and Key Shops
Musical Instrument Repairs
Piano Tuning and Repairs
Plating (small household items only)
Radio and Television Repairs
Rug Cleaning Establishments
Saw, Knife, Lawnmower and Tool Sharpening and Repairs
Self-Service Laundries or Drycleaners
Shoe Repairs
Uniform Renting and Cleaning Establishments
Upholstery Shops
Watch and Clock Repairs
Welding (small articles)

Group Assembly

Amateur Baseball Fields
Amphitheaters
Archery Ranges
Arenas, Sports
Auditoriums
Ballrooms
Boat Rentals
Bowling Alleys
Clubs (nightclubs and cabarets)
Clubs and Lodges (private and non-profit)
Clubs, Athletic
Commercial Sport and Recreational Enterprises
Exhibition Halls
Fishing Areas
Gem Hunts
Golf Driving Ranges
Gun and Rifle Ranges
Health Clubs and Spas
Legitimate Theaters
Little League, Organized Baseball, Permanent Bleachers
Meeting Halls for Rent

Group Assembly (cont'd)

Miniature Golf
Motion Picture Theaters
Nature Reserves
Nature Resorts
Picnicking Areas
Riding and Hunting Areas
Rodeo Arenas
Skating Rinks
Skating Rinks (with seating areas)
Skiing
Spectator Sports Facilities
Sport Fishing
Stadiums
Swimming Beaches
Swimming Pools
Table Tennis Halls
Tennis Courts
Tennis Courts (permanent bleachers)
Theaters (motion picture, legitimate)
Trap and Skeet Ranges
Water Sports (lake or ocean)
Wildlife Areas
Yacht Basins

Administrative

Accounting and Auditing Services
Administrative Offices
Business Organizations, Offices
Contractors, Offices Only
Organizations, Civic, Labor, Political,
Veterans', Welfare and Charitable
Services (offices only)
Professional Organizations, Offices
Public Utility Corporation Offices
Telegraph Offices
Telephone Company Offices

Business and Communication Services

Addressing and Mailing Services
Advertising Services (outdoor or aerial)
Assaying Services
Bookkeeping Services
Clerical Services
Commercial Photography (aerial and map
service)
Commercial Testing Laboratories
Common Carriers
Data Processing
Drafting Studios
Employment Agencies

Business and Communication Services (cont'd)

Inventory Services
Messenger Services
Microfilming Services
Minor Processing Services
Multi-Copy and Blueprint Services
Protective Agencies
Radio Studios
Safe Repair Shops
Secretarial and Stenographic Services
Telecommunications Services
Telegraph Service Centers
Telephone Answering Services
Telephone Service Centers
Television Studios

Retail Business Supply

Barber Equipment and Supply Firms
Dental Equipment Supply and Service
Firms
Drafting Supply Firms
Engineering Supply and Service Firms
Equipment and Supplies for Service
Establishments
Hospital Equipment and Service Firms
Hotel or Office Equipment Supply and
Service Firms
Laboratory Equipment Supply Firms
Nursery Equipment Supply Firms
Office Equipment and Supply Firms
Office Equipment Repair Shops
Optical Equipment and Supply Firms
Professional Equipment and Supply Firms
Research Instruments Supply and Service
Firms
Restaurant Equipment and Service Firms
Shoe Repair Equipment Firms
Undertakers' Equipment and Supply
Firms

Research and Development

Applied Research
Electronics Research
Industrial Research
Laboratory Research, Experimental or
Testing
Medical Research Laboratories
Oceanographic Research
Pharmaceutical Research
Scientific Laboratories

Research and Development (cont'd)

Space Research and Development
Technical Laboratories

General Wholesale Sales

Markets, Wholesale
Wholesale Distributors
Wholesale Establishments
Wholesale Offices or Showrooms

Construction Sales and Services

Air Conditioning Equipment
Building Contractors
Building Maintenance Materials
Building Materials - Tile, Cement,
Fencing, Roofing Materials, etc.
Burglar Alarm Systems
Carpenters
Concrete Services
Contractors' Equipment Storage Yard
Ditching Services
Electrical Contractors
Electrical Supplies
Explosive Contractors (not storage of
explosives)
Fire Fighting Equipment and Supplies
Fixture Sales (wholesale)
Floor Covering Installations
Glass and Glazing Contractors
Glass Sales
Hardware Sales (wholesale)
Heating and Air Conditioning
Contractors
Heating Equipment
House or Building Wreckers or Movers
Janitorial Supplies
Lumber (sales, yards, etc.)
Metal Works Contractors
Ornamental Ironworks
Painting Contractors
Paint Sales (wholesale)
Paving Contractors
Plumbing Equipment
Remodeling Contractors
Roofing Contractors
Sheet Metal Contractors
Sprinkler and Landscaping Contractors
Swimming Pool Equipment and Supplies
Swimming Pool Installation and Services
Tools, Rentals or Sales
Wallpaper Sales and Services
Water Well Drilling

Transient Habitation

Boatels
Group Camps (overnight)
Health Resorts
Hotels
Motels
Motor Lodges
Recreational Vehicle Parks
Resort Hotels
Resort and Recreation Facilities
Retreat Houses
Tourist Cabins
Trailer Round-Ups
Travel Trailer Parks

Automotive Sales, Rental & Delivery

Agricultural Equipment Dealers
Bus Sales
Camp Trailers, Sales or Rentals
Construction Material, Delivery
Farm Equipment Dealers
Firewood or Fuel Delivery
Forklifts, Sales or Rentals
Garden Supplies Delivery
Heavy Construction Equipment, Sales or
Rentals
Mail Order Houses
Mobile Homes, Sales
Motor Homes, Sales or Rentals
Tractors and Equipment Dealers
Trailers, Sales or Rentals
Trucks, Sales or Rentals
Water Delivery

Automotive Servicing

Automotive Service Stations
Automotive Supply Stores
Tire Stores

Automotive Repair and Cleaning

Aircraft Service and Maintenance
Auto Air Conditioning Equipment,
Installation and Services
Auto Alignment Services
Auto Electrical Services
Auto Glass, Installation and Services
Auto Laundries
Auto Mufflers, Installation and Services

Automotive Repair and Cleaning (cont'd)

Auto Repair Garages
Auto Tires, Installation and Services
Auto Upholstery, Installation and Services
Body and Paint Shops
Car Washes
Motor Freight Maintenance Garages
Motorcycle-Motor Scooter Repairs
Recreational Vehicle Repairs
Steam Cleaning Automotive
Towing Services (no storage)
Truck Equipment and Parts, Installation and Services
Truck, Painting and Lettering
Truck, Repairs and Services
Truck, Washing

Automotive Fee Parking

Auto Parking Lot
Auto Storage Lot
Garage, Parking
Off-Street Parking

Boat Sales or Rental

Boat Sales
Boat Rental
Ship Chandleries

Boat Servicing

Boat Repairs, Servicing or Cleaning
Boat Works or Yards
Drydocks
Maritime Centers
Ship Chandleries

Animal Sales

Animal Auctions
Animal Sales Yards
Livestock Auction Yards
Stockyards

Animal Services

Animal Hospital (large animals)
Animal Hospital (small animals)
Boarding Kennels
Dog Bathing
Dog Clipping

Animal Services (cont'd)

Dog Training Services
Dog and Cat Hospital
Guard Dog Training
Horsetraining Services
Pet Clinics
Pet Grooming
Pet Motels
Public Corrals
Public Stables
Riding Clubs
Veterinary Hospital (large animals)
Veterinary Hospital (small animals)

Transport and Warehousing

Auto Storage Garages
Distributing Plants
Freight Handling
Moving and Storage Firms
Parcel Delivery Truck Fleets
Private Storage
Public Warehouses
Refrigerated Warehouses
Storage Yards
Storage, Cold and Food
Trucking Terminals
Warehouses

Building Maintenance Services

Disinfecting and/or Exterminating Services
Gardeners (landscape maintenance)
Janitorial Services
Maintenance and Custodial Services
Sewer and Drain Cleaning
Sweeping Services
Window Cleaning Services

Funeral and Interment Services

Cinerariums
Columbariums
Crematories
Crematoriums
Funeral Parlors
Mausoleums
Mortuaries
Undertaking Establishments

INDUSTRIAL

Listing of Industrial and Manufacturing uses is found in the Use Classifications Section of the Specific Plans.

Scrap Operations

- Automobile Wrecking
- Bottles, Baling or Storage
- Junk, Baling or Storage
- Junkyards
- Old Iron, Baling or Storage
- Paper, Scrap, Baling or Storage
- Rags, Baling or Storage
- Recycling Centers
- Rubber, Baling or Storage
- Rubber Reclaiming
- Salvage Yards
- Ship Salvaging

AGRICULTURAL

Plant Nursery

Floracultural Stock
Flowers, Commercial Cut and
Decorative
Herb Growing
Horticultural Stock
Mushroom Growing
Nursery, Wholesale or Retail
Potted Plant Growing
Sod, Grass

Crop Raising

Alfalfa
Berries
Citrus Fruit Trees or Bushes
Cotton
Field and Seed Crops
Fruit Trees
Grain
Hay (includes alfalfa)
Melons
Nut Trees
Tobacco
Truck Crops
Vegetables
Vines (grapes, etc.)

Small Animal Raising

Chinchillas
Hamsters
Poultry
Rabbits
Turkeys

Large or Specialty Animal Raising

Amphibians
Apiaries
Aviaries
Bears
Beef Cattle
Birds
Bovine Animals
Buffalo
Cougars
Dairies
Feed Lots
Fish
Foxes

Large or Specialty Animal Raising (cont'd)

Goats
Hog Ranches
Horse Ranches
Insects
Lions
Monkeys
Mountain Lions
Ocelots
Pig Farms
Sheep
Skunks
Snakes, Venomous or dangerous
Swine
Tigers
Wildcats
Worm Farms
Zoos, Private

Agricultural Packing and Processing

Contract Sorting, Grading and Packaging
Egg Processing
Fisheries
Flower Packing
Grain Cleaning
Milking
Nut Shelling and Cooking
Sheep Shearing

Agricultural Supplies and Services

Crop Dusting
Farm Advisory
Feed and Grain
Fertilizers
Harvesting Services and Equipment
Storage
Hay
Pesticides and Herbicides
Tree Services
Weed Control

CIVIC

Essential Service

Electric Distribution Lines and Poles
Gas Distribution Lines
Open Space (of a passive use)
Parks, Public (passive use only)
Sewer Collection Lines
Storm Drainage Collection Lines
Telephone Distribution Lines and Poles
Water Distribution Lines

Limited Child Care

Public Day Centers (for eight or fewer children)
Public Nurseries (for eight or fewer children)

Community Assembly

Amusement Parks
Aquariums
Auditoriums
Bandstands (public)
Birth Control Clinics
Botanical Gardens
Camping Areas (non-profit)
Carnivals
Churches
Circuses
Community Centers
Community Health Clinics
Convalescent Hospitals
Exhibition Halls
Extended Care Facilities
Fairgrounds
Golf Courses
Historic Sites
Hospitals
Marinas (public)
Meeting Halls
Monument Sites
Neighborhood Centers
Nursing Homes
Open Space Areas (of an active use)
Parks
Picnicking Areas (public)
Places of Worship
Playgrounds and Playing Fields (of an active outdoor use)
Public Health Services
Recreation Centers

Community Assembly (cont'd)

Refreshment Buildings (in public parks, playgrounds or golf courses)
Religious Assembly
Religious Complexes
Religious Reading Rooms
Sport Fishing (public)
Sports Arenas (public)
Stadiums
Swimming Beaches or Pools (public)
Synagogues
Temples
Universities
Zoological Gardens

Non-Assembly, Cultural

Art Galleries
Libraries (non-profit)
Private Museums

Community Education

Colleges
Correspondence Schools (public)
Elementary Schools
High Schools (junior or senior)
Junior Colleges
Junior High Schools
Military Academies
Schools (elementary, and junior and senior high)
Schools for the Handicapped (including the blind)
Senior High Schools

Non-Assembly, Scientific

Observatories
Planetariums

Administrative

Civic Centers
Government Centers
Government Office Buildings

Parking

Public Parking Garages
Public Parking Lots

Utility and Vehicular

Airports
Bus Stations (passenger or freight)
Cinerariums
Columbariums
Communication Equipment Installations
and Exchanges
Community Antenna Television Systems
Corporation Yards (public or public
utility)
Electric Transmission Lines
Electrical Substations
Fire Stations
Funeral Parlors
Gas Substations
Heliports and Helistops
Mail Processing Centers (major)
Mortuaries
Police Stations
Post Offices
Power Plants (steam, fossil)
Pumping Stations (sewage or water)
Radio Transmission Facilities (including
booster and relay)
Rail Stations (passenger or freight)
Reservoirs (water)
Service Buildings (in public parks,
playgrounds or golf courses)
Telephone Exchange or Switching
Facilities
Television Transmission Facilities
(including booster and relay)
Transportation Terminals
Undertaking Establishments
Water Tanks
Water Treatment Facilities

APPENDIX B
CHULA VISTA BAYFRONT SIGN PROGRAM
ADOPTED AUGUST 7, 1980

GOAL AND OBJECTIVES

Goal

The goal of the Chula Vista Bayfront Sign Program is to control signs--eliminating those which are obtrusive and encouraging those that are creative and interesting while establishing a sense of place for the area.

Objectives

1. To establish guidelines and criteria for all signs within the Chula Vista Bayfront Redevelopment Project area.
2. To establish a Design Review Committee charged with the following tasks:
 - (a) to make decisions regarding appropriateness of private signs,
 - (b) to preserve the integrity of the Bayfront, and
 - (c) to encourage creative sign design.
3. To encourage vitality within a development through the use of sign design.
4. To avoid the proliferation of private business signs along the freeway.
5. To incorporate into the design of public signs the elements of the Bayfront logo.
6. To promote Bayfront development progress, special events, and to identify new businesses coming into the area discretely but effectively.
7. To assure equality in sign impact.
8. To establish "Bayfront" identity through a cooperative program with CalTrans.

DESIGN REVIEW

The establishment of a Design Review Board for the Chula Vista Bayfront is of primary importance. The Board shall be established by the Redevelopment Agency of the City of Chula Vista, and should review all parts of the Bayfront project--the architecture, landscaping proposals, and each sign proposed for the area. This mechanism will ensure the regulation and control needed to create a distinctive atmosphere for the Bayfront.

Chula Vista Design Review Committee - Appointed

The Chula Vista Design Review Committee has been appointed to function as the Design Review Board herein described and has been charged with the responsibility of interpreting and applying sign design guidelines contained in this document. The Board is specifically directed to encourage creative sign design and diversity. The Redevelopment Agency shall retain ultimate authority for fair and equitable application.

Submittal and Review Procedures

Submittal of a complete program of all desired signs shall be required for every development proposed within the Bayfront. Sign plans should be submitted coincidentally with development plans scheduled for architectural review.

The minimum submittal shall include a plot plan with property lines, building footprints, curb and center lines of adjacent streets, building and sign elevations, and location of each proposed sign. Each sign will be drawn to scale indicating colors, materials, typestyles, dimensions of lettering, copy areas, sign height and width, methods and intensity of lighting, and means of installation.

The Design Review Committee has established its own requirements and procedures for submittals and has the discretion to change these from time to time as it deems necessary.

The Design Review Committee also has the authority to allow an individual project to deviate from established guidelines if the character of the Bayfront will be enhanced by its action.

GUIDELINES: IN GENERAL

Design Intent and Rationale

THIS SIGN PROGRAM STRIVES TO INSURE THAT GRAPHICS IN GENERAL, AND EACH SIGN IN PARTICULAR, BECOMES A VIABLE, INTEGRAL PART OF THE CONCEPT OF CHULA VISTA BAYFRONT REDEVELOPMENT. THE INTENT OF THIS PROGRAM IS TO ESTABLISH A FORMAT FOR IMAGINATIVE SIGN DESIGN WHICH IS APPROPRIATE FOR THE BAYFRONT.

Every effort must be made to create graphic identifications that are integral and consistent with the Bayfront theme and with the architecture of each particular project. Graphic identifications which are symbolic of the business or service rather than standard "letter copy" are encouraged, i.e., logo. The design of signing for a project within this area should consider using pictorial imagery in combination with well-considered typefaces, spacing, colors, and materials. (Refer to Exhibit Two for rule of good sign design.)

Two-Phase Program

Because the needs of businesses in the Bayfront will be different in its early stages and in the final development, guidelines have been adopted to accommodate their needs during both these phases. During the interim phase (early in Bayfront development), developments will receive liberal signing.

Once the Bayfront is sufficiently developed, the need for abundant signing will be lessened because the Bayfront's identity will be established and will help to attract business traffic. A more "low-key" sign program has been adopted for the final development phase.

The Influence of Bayfront Topography

The general topography of the Bayfront is flat and open. The natural color of the area is muted. Therefore, signing must be discrete in order to avoid an overwhelming impact.

A Low-Key Sign Program

These guidelines establish a sign program which is "low-key." Signs are intended to be adequate for identification, but not for advertising. Harmony of materials, textures, forms, colors, scale and feeling is intended for the Chula Vista Bayfront Redevelopment Project.

The Necessity for Size Regulation

Uniform size parameters are created to ease competition among private interests. This assures more equal distribution of the right to identify a place of activity.

Height Limitation

The ten-foot height limitation proposed in this criteria is in accordance with the intent of the California Coast Regional Commission's guidelines, and also maintains a sense of scale to Bayfront topography and the intent of achieving a "low-key" sign program.

Roof Signs

Signs mounted on the roofs or mechanical penthouses of any building are prohibited. Such signs violate the intended Bayfront scale and are not in keeping with a distinctive Bayfront sign program.

Ground Signs Encouraged

Low ground signs are encouraged. They should be integrated with the landscape, complementary to the architecture, incorporated into retaining walls or other landscape features. The objective is to reduce visual clutter.

Wall Signs

Wall signs must be compatible with and proportionate to the architecture, and maintain harmony of materials and form. The purpose of these signs is to identify the business or private development; whole wall areas are not intended to be "read" as sign structures or sign backgrounds. Only one wall sign shall be visible at one time.

Support Structure

Support structures should be integral parts of entire sign design and have aesthetic as well as structural importance.

Lighting

Lighting methods should be considered a part of each sign. The intensity and color of light should be harmonious with the building architecture and sign design. In any lighted sign, the intensity should be no more than that required for nighttime readability. Color of light should approximate natural daylight. Incandescent fluorescent is recommended in lieu of standard fluorescent. External lighting, where the source of the illumination is not directly visible, is the preferred method of lighting. Flashing/strobe light shall not be used. Signs must be modified after installation if lighting proves too intense.

Guideline Jurisdiction

The guidelines specified herein shall govern signs within the Chula Vista Bayfront Redevelopment Project. Since every possibility cannot be anticipated by this report, details which might be omitted shall be governed by the Chula Vista Zoning Ordinance. Where there is a conflict between the Bayfront Redevelopment Sign Program and the Chula Vista Zoning Ordinance, the more restrictive regulation shall govern.

Restrictions and Prohibited Signs

The following signs shall be prohibited or restricted as noted:

- a. Pole signs, excluding pole signs for which the supports are integrally designed as an aesthetic component of the sign character.
- b. Flashing, oscillating, animated or moving signs, or signs with moving parts shall be prohibited.

- c. The use of fluorescent-type paints is prohibited.
- d. Signs advertising goods shall be prohibited.
- e. All billboard signs shall be prohibited, except as defined by Bayfront promotional signs.
- f. Temporary signs, banners, sale notices, etc., shall be displayed behind the glass of the structure.

The Design Review Board shall establish requirements and procedures for submittals.

New Signs

The sign owner shall be responsible for the fulfillment of all requirements of these criteria. Conformance will be strictly enforced and non-conforming or unapproved signs or any part thereof shall be brought into conformance at the expense of the owner.

Existing Signs

Existing (non-conforming) signs shall be brought into conformance either:

- (1) when any change of land use occurs, or
- (2) by the final development phase,

whichever occurs first.

Approvals for signs and their installation shall be obtained by the owner or his representative prior to installation. All signs shall be constructed, installed, and maintained in as-new condition at the owner's expense. All current building and electrical codes shall govern the construction of signs.

GUIDELINES: SPECIFIC

PUBLIC SIGNS

Public signs are those signs built and maintained by the City or other public agency through an adopted financial plan. They are divided into subsections according to function and location.

Freeway-Oriented Signs

The signs are located in the freeway right-of-way or on private property. All signs in the freeway right-of-way must be approved by CalTrans.

- a. **CalTrans Signs:** CalTrans signs, designed and maintained by the state, include all signs identifying exits and general directions. These signs will be designed by CalTrans per state regulations.
- b. **CalTrans Signs with Bayfront Identity:** The City of Chula Vista is considering a joint project with CalTrans to develop a Bayfront identity sign to supplement the standard CalTrans signs which give generic service information (i.e., "FUEL, FOOD, LODGING," etc.). Costs will be borne by the City, and installation coordinated with CalTrans. (Refer to Exhibit Three for example.)
- c. **Bayfront Promotional Signs:** Bayfront Promotional Signs are designed to help establish the new Bayfront community's identity. They will be located along Interstate 5, two minimum: one each for north and southbound traffic; additional signs as necessary; five maximum quantity. Space will be rented, leased or existing structures purchased outright.

Promotional signs, and especially landscaped areas around them, will provide a unique, attractive logo design in a theme-setting frame and limited changeable copy which will be subject to Design Review Board approval. (Refer to Exhibits Four a, b, c, and d for examples, and to Exhibit Five for proposed locations.)

These signs, if appropriately used, will establish the redevelopment area's identity and functions for freeway travelers.

Promotional signs are intended to be temporary and it is anticipated that they will be retired when the Bayfront Redevelopment Project is substantially complete. Their utilization will be reviewed in 1985 and subject to the Redevelopment Agency's discretion.

Internal Signs

Signs within the Bayfront, not oriented to the freeway.

- a. **Street Name Signs:** Street name signs shall have special mountings and frames to identify streets as being a part of the new Bayfront community. The sign copy will be the Bayfront letter style (Bookman Bold, upper and lower case) and colors. The support will be constructed of wood. (Refer to Exhibit Six for example.)

- b. **Directional Signs:** Directional signs at intersections will help establish gateways to the redevelopment area, and may include such generic information as Convention Center, Marina, Special-Use Park, Wildlife Refuge, etc., as necessary. Directional information for private developments may be included also at the discretion of the Design Review Board, but for the interim development phase only. Information will be clustered on one sign per intersection. Signs will have standardized mountings and trip. (Refer to Exhibit Seven for example.)

A minimum of six directional signs will be necessary for adequate information. Each shall include specially designed landscaped areas to create a setting.

- c. **Information Signs:** Public information signs are designed for public facilities and services such as parks, marshes, marinas, trim, and colored to be unified with the basic public sign theme. (Refer to Exhibit Eight for example.)
- d. **Traffic and Parking Control Signs:** Traffic control and parking signs shall be designed with standard copy faces, and shall be trimmed with the wood frames and supports of the Bayfront motif. Exact sizes and locations are required by state regulation. It is suggested that the minimal number of signs necessary for effectiveness be used. (Refer to Exhibit Eight for example.)

To help establish the new Bayfront identity, natural-stained (Olympic semitransparent 901) cedar frames shall enclose all public signs. The Bayfront logo and Bookman Bold typestyle shall be used throughout. Specific reds, yellows and browns are the principal logo colors (Frazee Z57-23, 3, 29).

Private Signs

Guidelines for private signs are organized according to location and project type. A somewhat more liberal criteria is established to serve business needs during the Bayfront's initial development phase. The signs approved in this phase are called "interim signs."

When the Bayfront is substantially built out, interim signs must be replaced, modified, or removed entirely to comply with the more restrictive sign criteria established for the final development phase.

The Redevelopment Agency shall determine when this changeover will occur based on their appraisal of the Bayfront's progress. Developers submitting signs for approval for projects to be built close to the changeover date will be given the choice of complying with the final-phase criteria or building interim signs which would be removed or modified at their expense in the near future.

The rationale for this phased system is that when the Bayfront development is beginning and a Bayfront identity is being established, certain private projects will need additional signs to attract business.

When the area nears completion and a Bayfront identity is clearly established, the Bayfront itself will attract business traffic. At this time, more restrictive sign criteria can be implemented.

FINAL PHASE: ULTIMATE BAYFRONT DEVELOPMENT STAGE

Freeway Signs: Private signs which are oriented to the freeway shall not be allowed, except as provided during the interim phase.

Corner Lots: The identification allowance for sign development on corner lots may be divided to provide for a sign on each frontage; however, the total allowance for both signs combined is not to exceed 50 square feet.

Multi-Tenant Buildings or Complexes: Office, retail-commercial and industrial uses which are multi-tenant shall be allowed additional tenant identification signs; each tenant shall be allowed a maximum of three square feet on or adjacent to the entry door. These tenant signs shall be visible from on-site parking and/or pedestrian walkways, but not intended to be readable from public streets.

Directional and Information Signs: These signs shall be allowed on a need basis. They shall be directional in nature and not intended as identification signs. Their maximum height shall be four feet with four square feet maximum copy area per side.

Special Event Signs (Temporary): Special events such as grand openings shall be allowed temporary signs. Such signs shall have a limited life as determined by the Design Review Board.

Construction Signs (Temporary): Signs for owners, contractors and subcontractors, architects, etc., for new projects under construction shall be subject to Design Review Board approval.

Allowable Copy Area

1. **Hotel/Motel, RV Parks, Restaurants, and Retail-Commercial:** Total copy area for all identification signs combined shall be limited to not more than 50 square feet per parcel. Signs may be wall signs and/or ground signs. Ground signs may be single- or double-faced but may not exceed ten feet in height. An additional changeable copy area of 25 square feet maximum shall be allowed for uses which include entertainment or convention facilities. Changeable copy area shall be single-faced only.
2. **Automotive Service:** Service stations shall be allowed one identification sign per lot. Signs shall be ground signs or wall signs and shall have no more than 40 square feet of copy area, six feet maximum height.
3. **Industrial and Office Uses:** Industrial or office uses shall be allowed one identification sign per lot, visible from the internal street. Signs shall not exceed 40 square feet in area or six feet maximum in height. Total sign area may include a directory or tenant listing if the project is multi-tenant.

INTERIM PHASE: BAYFRONT DEVELOPMENT STAGE

1. **Commercial Uses Adjacent to Freeway:** Commercial businesses will require some identification from the freeway during the Bayfront development period. Such uses with freeway exposure shall be allowed either wall or low-profile monument signs with name and/or logo only during the Bayfront development phase, and such signs shall have a specific date by which they must be removed. If the business logo is well-established as an identity mark, then use of logo alone is preferable. Each lot may have two wall signs or one ground sign only. Only one wall sign shall be visible at a time. Maximum total copy area shall be 100 square feet. Ground signs may be doubled-faced or parallel to the roadway and are intended to be low-profile monument signs.
2. **Automotive Service:** Service stations with freeway exposure shall be allowed freeway identification during the initial redevelopment of the Bayfront. Sizes shall be as small as possible and still have freeway identity, in no case to exceed 50 square feet total sign area. Such signs shall be subject to strict review and shall have a limited and specific retirement date at the discretion of the Design Review Board.

DEFINITIONS

Background Area of Sign

The background of the sign shall be considered the entire area in which copy can be placed. In computing the area of sign background, only the face or faces which can be seen from any one direction at one time shall be counted.

Billboard

A billboard is any sign usually designed for use with changing advertisement copy, which is normally used for the advertisement of goods or services rendered at locations other than the premises on which the sign is located.

Changeable Copy Sign

A changeable copy sign is one that is characterized by changeable copy regardless of method of attachment.

Copy Area

Copy area is that portion of the total sign area devoted to lettering and/or symbolic communication. The copy area shall be determined by circumscribing the smallest possible rectangle around the copy, letters or symbol.

Directional Signs

A directional sign is one that contains directional information for pedestrian or vehicular traffic or location.

Directory Signs

Directory signs are signs that list businesses, services, room numbers or employees.

Externally Illuminated Signs

An externally illuminated sign is a sign whose face is artificially illuminated by an external light source.

Flashing, Animated or Moving Signs

Flashing, animated or moving signs are defined as signs that:

- a. Intermittently reflect light from either an artificial source or from the sun; or
- b. Have an illumination which is intermittent, flashing, oscillating, or of varying intensity; or
- c. Have any visible portion in motion, either constantly or at intervals, which motion may be caused by either artificial or natural sources; or
- d. Utilize whirligigs or any similar item which uses wind as its source of power.

Freeway Signs or Freeway-Oriented Signs

Freeway signs or freeway-oriented signs are those signs that have copy directed for freeway visibility either in the freeway right-of-way or on a property adjacent to the freeway.

Freestanding Sign

A freestanding sign is one which is supported by one or more columns, uprights or braces in or upon the ground.

Ground Sign

A ground sign is supported by the ground, by a continuous base (monument sign), or by poles or posts.

Height of Sign

The height of a sign is the distance measured from finished grade to the highest projection of the sign. On sloping ground, finished grade is defined as the average elevation between the high and low points of adjacent grade.

Identification Sign

An identification sign is one that identifies a business name or principal service only. The sign should not serve as an advertisement device.

Information Sign

An information sign provides information for public and private facilities or services, and the use thereof.

Internally Illuminated Signs

Internally illuminated signs are signs that have characters, letters, figures, design, or outline illuminated by electrical lights contained behind the sign face.

Monument Sign

A monument sign is a ground sign which is supported by a visually continuous base.

Multiple Copy Sign

A multiple copy sign is one that advertises other than the name of the business and the principal product or service.

Pole Sign

A pole sign is a sign supported by the use of one or multiple poles or columns.

Promotional Sign

A promotional sign is a public sign which identifies the Bayfront and has changeable copy for information, announcements, or identification of private businesses and services in the area.

Public Sign

A public sign is any sign that is owned by government. Examples: bike route, bus stop, or speed limit signs, or park or public facility identifications.

Sign

A sign is defined as any structure or device, logo, electric or non-electric, and all parts thereof which are used for advertising purposes upon or within which any poster, bill, bulletin, printing, lettering, painting, device or other advertising of any kind whatsoever is placed. A sign shall not include any support frame or standard used exclusively for displaying the flag of the United States of America, the State, or the City, nor shall these flags be considered signs.

Sign Area

Sign area shall include the background area of the copy. In the case of individual cut-out letters, sign area will include the exposed surface of the panel on which the letters are mounted.

Temporary Sign

A temporary sign is intended to advertise community or civic projects, construction projects, real estate for sale or lease, or other special events on a temporary basis.

Traffic Control Sign

Traffic control signs are directional signs which direct traffic flow including pavement arrows and signs. Examples: Loading Zone, Handicapped Parking, No Parking.

Wall Sign

A wall sign is one that is in any manner affixed to any wall of a building or structure.

APPENDIX C

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TRAFFIC AND PARKING STUDIES

TRAFFIC STUDY FOR CHULA VISTA BAYFRONT MASTER PLAN

Introduction

In September 1984, Federhart & Associates was retained by the City of Chula Vista's EIR consultant for the City's proposed Bayfront project. Federhart & Associates was retained to prepare a traffic study of the Bayfront Master Plan Land Use as it will impact the existing and proposed circulation system. That traffic study has now been completed and this report will document its findings.

The Project

The Chula Vista Bayfront project is to be located in Chula Vista between the I-5 freeway and San Diego Bay except for 16 acres of light industrial land use to be located east of I-5. Figure 1 locates the project, while Figure 2 shows the proposed land use. Note from the legend that the project will include a variety of land uses including active residential, industrial, commercial, and recreational uses along with passive open space and wetlands. The many uses were derived in order to keep a mix of uses in the project so that residents could live, work, shop, and play within the project to the greatest extent possible, thus keeping external traffic to a minimum.

The Bayfront project of Figure 2 consists of about 440 gross

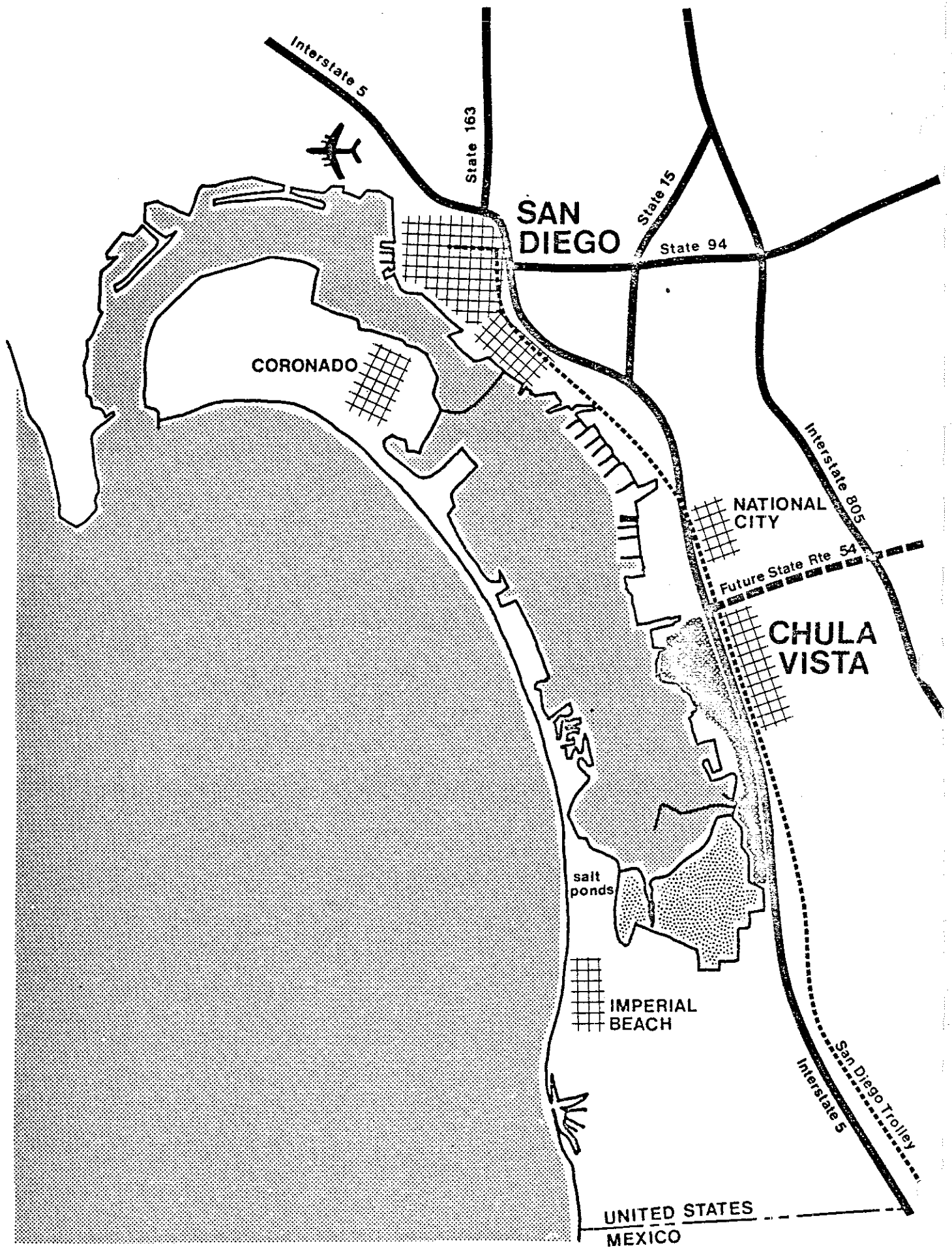


Figure 1. REGIONAL LOCATION

TABLE D-1
SUMMARY OF EMISSIONS FROM THE PROPOSED SPECIFIC PLAN
 (kilograms per day)

Emission Source	Reactive Hydrocarbons	Carbon Monoxide	Oxides of Nitrogen	Sulfur Dioxide	Particulates
Vehicles	444.30	3,828.46	516.69	--	--
Power generation	--	23.04	165.42	2.51	46.23
Domestic heating	--	2.03	10.15	0.06	1.01
TOTAL	444.30	3,853.53	692.26	2.57	47.24

TABLE D-2
PROJECT EMISSIONS CONTRIBUTION
TO SAN DIEGO AIR BASIN TOTALS (1995)

Pollutant	Project Total (kg/day)	Basinwide Total* (kg/day)	Project's Contribution to Basinwide Totals (percentage)
Reactive hydrocarbons	444.30	412,232	0.11
Carbon monoxide	3,853.53	1,973,992	0.20
Oxides of nitrogen	692.26	289,652	0.24
Sulfur dioxide	2.57	†	†
Particulates	47.24	387,716	0.01

SOURCE: Regional Emission Trends Projections for the San Diego Air Quality Management Plan (County of San Diego 1978b).

*Assumes control levels in effect in 1977 will continue unchanged.

†No projection is available.

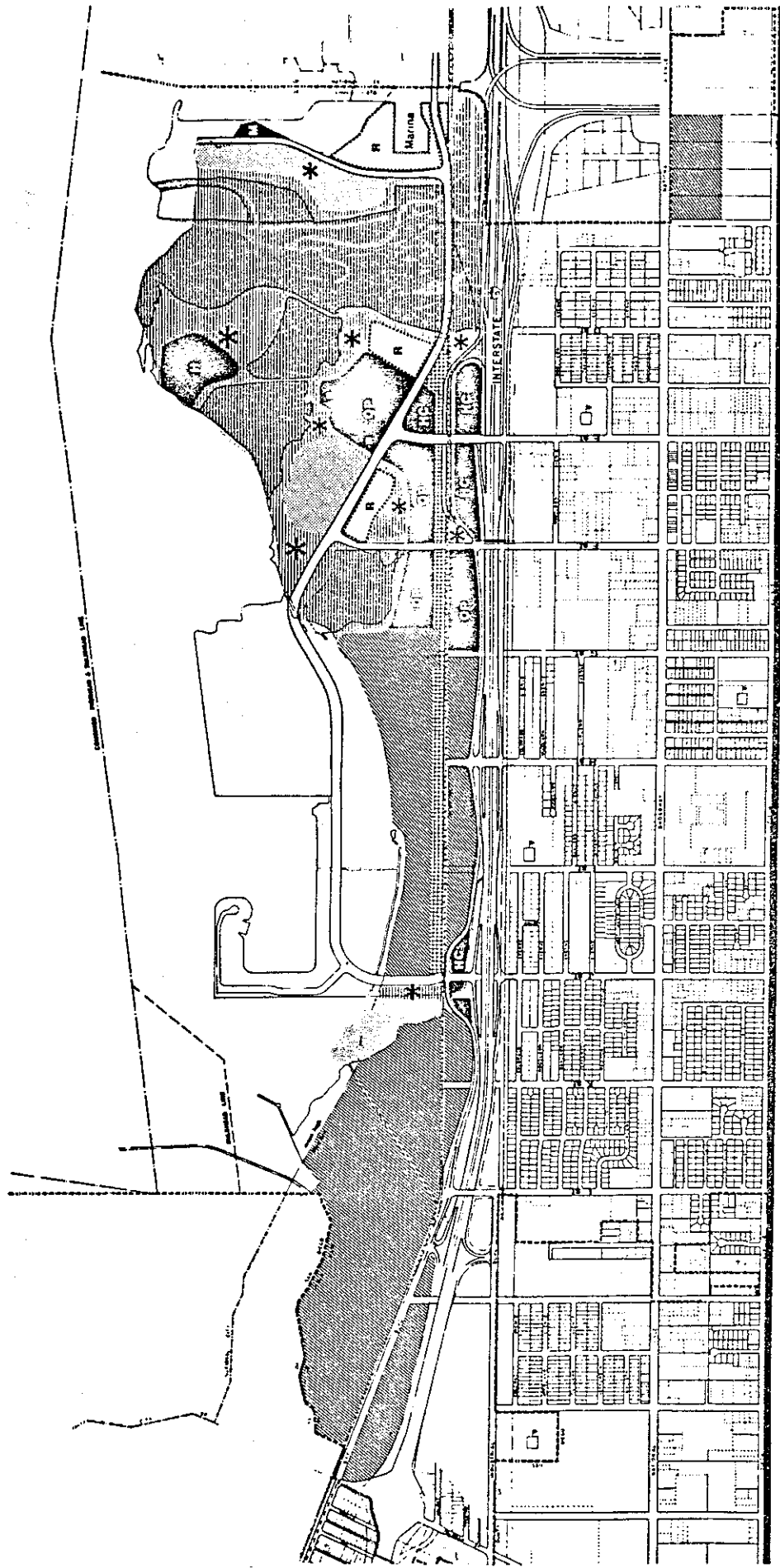


FIGURE 4
CHULA VISTA
LOCAL COASTAL PROGRAM
LAND USE
ELEMENT

- Industrial
- Residential
- Development Reserve
- Landscaped Parking
- Commercial
- Office Park
- Highway Related
- Marine Related
- Specialty Retail (alternative sites)
- Hotel
- Public Open Space
- Community/Neighborhood Park
- Wetlands

SEDWAY COOKE ASSOCIATES
 LAND USE AND PLANNING

acres of developable land west of I-5. Well over 210 gross acres are already developed mainly as the industrial lands of San Diego Gas and Electric and the Rohr Corporation. Table 1 shows this breakdown of gross acres as derived recently by the civil engineer for the EIR consultant. Note on Table 1 that each area has a letter to identify that parcel. These letters will be retained throughout this report for identifying net acres, traffic generation, and traffic assignment units.

Existing Traffic and Circulation

As mentioned above, there already is considerable acreage of Table 1 developed and generating traffic. Figure 3 is a sketch of the existing circulation system with existing daily traffic (ADT) placed upon it. This existing traffic was derived from a number of sources and then estimated, where necessary, since no one source had a complete group of existing traffic counts covering the entire area. What is shown is the daily traffic and, in most cases, these volumes appear quite small and well within normal street capacities of the type existing or planned for the project area. Of interest is the total volume of a cordon placed around the project area lying west of I-5. This total is about 15,880 ADT at the present time, or an average of about 3,200 ADT on each of the five external access streets.

The traffic volumes on Figure 3, though not great west of I-5, do cause problems at the freeway approaches and ramps because

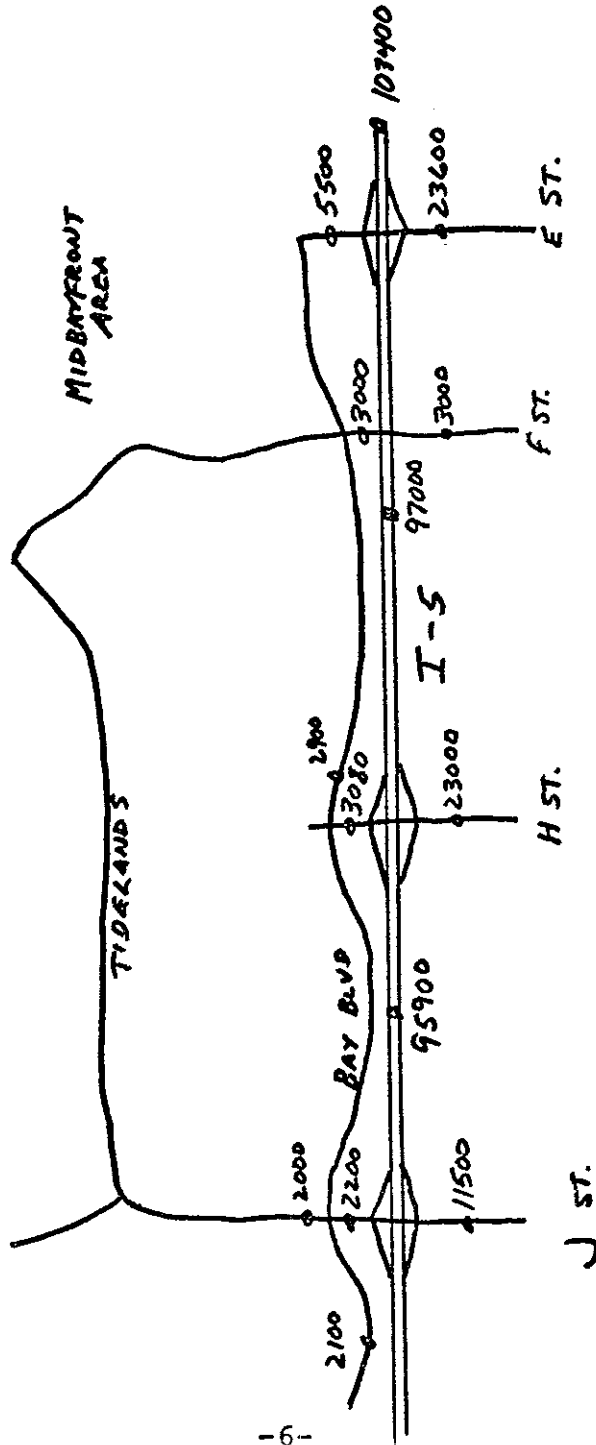
Table 1
Bayfront Land Use by Area

<u>Area Label</u>	<u>Land Use</u>	<u>Area (gross acres)</u>
A	Hotel: 304,920 sq.ft., 8 stories (maybe 12) (400 rooms with conference facilities and support commercial)	<u>8</u>
B	Residential: high density multi-family (15-30 du/net acre)	19.0
C	Commercial: marine related; allows transient housing (FAR 0.5)	13.4
D	Marina	2.0
E	Marina: 200 boats (small commercial marina repair and storage)	5.7
F	Park	2.0
H	Park	8.0
I	Residential: high density multi-family	18.1
J	Office park (FAR 0.5)	17.2
K	Specialty retail (FAR 0.5)	8.0
L	Commercial: highway (FAR 0.25)	6.0
M	Office park (FAR 0.5)	17.5
N	Residential (15-30 du/net acre)	8.6
O	Industrial: business park (FAR 0.5)	10.2
P	Commercial: highway (FAR 0.25)	9.0
Q	Commercial: highway (FAR 0.25)	11.0
R	Office park (FAR 0.5)	12.0
S	Commercial: highway (FAR 0.25)	3.1
T	Park	2.7
U1	Vacant: marine-oriented industrial - Port of San Diego	37.0
U	Industrial: mostly Rohr	109.7
U2	Vacant: industrial general	14.4
V	Industrial: mostly SDG&E South Bay power plant	108.8

FAR = floor area ratio per net acre



D STREET
FILL AREA



EXISTING ESTIMATED TWO WAY DAILY TRAFFIC

DERIVED FROM: CITY OF CHULA VISTA
SANDAG
CALTRANS

FIGURE 3

they have such high P.M. peak-hour percentages due to the industrial shift changes. This means that high percentages of the daily traffic travel during the peak hours and mixes with the more normal traffic traveling to and from the east at I-5. Since there are limited solutions, the future alleviation of these existing peak-hour problems must come principally by staggering industrial shifts and encouraging other land uses to have their peak hours earlier or later than the existing peaks.

As can be seen on the existing circulation system of Figure 3, there is currently limited public access to Chula Vista's bay front shoreline. The San Diego Unified Port District Boat Launch and Park located off the westerly extension of "J" Street outside the Bayfront Plan area provides the only nearby public access to the bay. Except for Rohr Corporation and some mixed commercial development immediately adjacent to the freeway, the entire Bayfront area is vacant. The only public road which extends to the waterfront is "F" Street. No lateral access extends from the end of "F" Street. The "D" Street Fill, Gunpowder Point, the Sweetwater Marsh, and the Vener Farm are completely closed to public use.

The entries to the Bayfront are limited by the off-ramp configuration of I-5 and the location of wetland resources. The proposed new development is concentrated in the mid-Bayfront and the "D" Street Fill. At the present time, access is available at "E" Street, "H" Street, and "J" Street. One additional bridge at

"F" Street provides for a connection to the east side of the freeway but no freeway connection is available.

Because of its location, the "H" Street ramps primarily serve the Rohr Corporation, and the "J" Street ramps serve the marina and Port lands westerly of Rohr. While "J" Street serves as an important southerly termination of Tidelands Avenue, "E" Street will function as the primary gateway to the Bayfront.

At the present time, there is no vehicular access to the "D" Street Fill area. Off-road vehicles utilize this portion of the Bayfront, arriving via National City or the areas adjacent to the railroad levee. When the Sweetwater channel is completed by the Corps of Engineers, access via National City will be cut off.

Proposed Circulation System

Plan Provisions. Public access to the shoreline is one of the key provisions of the Bayfront Plan. The plan provides 31 acres of public park and another 33.8 acres of wetland buffer, to which a portion is accessible to the public. A total of 3.2 miles of shoreline access is provided. The plan opens up far more shoreline to the public than is currently available. Figure 4 shows the Circulation Element of the Bayfront plan. Note that, for the first time, there is a facility (relocated Tidelands Avenue) that ties together the south part of the plan with the north or National City end of the plan. Also note that there will be a number of east/west streets tying the waterfront uses to the

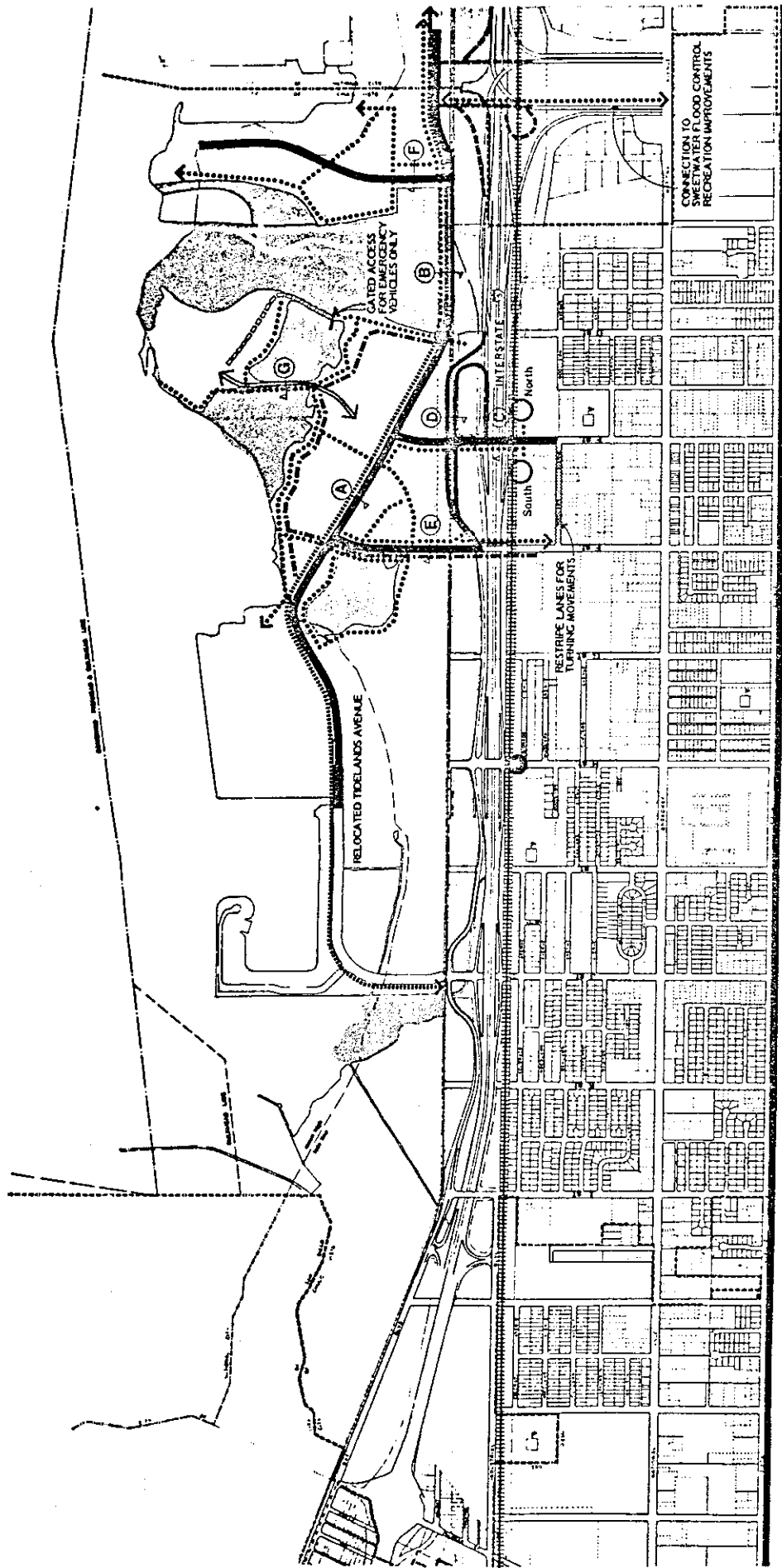


FIGURE 6
CHULA VISTA
LOCAL COASTAL PROGRAM
CIRCULATION
ELEMENT

SEDWAY COOKE ASSOCIATES
 PLANNING AND ENGINEERING

Typical Roadway Section

- Existing Trolley Line
- Existing Trolley Stop
- New Roadway
- Controlled Access Roadway
- Emergency Access Roadway
- Future Trolley Station (alternative locations)
- Regional Bicycle Route
- Local Bicycle Route
- Pedestrian Route
- Future Freeway Connection

principal regional access facilities. This plan meets the basic circulation objectives as expressed below:

1. Provide good regional access to the Bayfront from I-5 and provide for future connections directly to Route 54.

2. Route and design roadways in a manner which minimizes adverse affects on valuable marshlands, protects lands with high recreation value, and avoids fragmentation of developable lands into inadequately sized or located parcels.

3. Create auto-free zones along the shoreline and other areas which have unique environmental conditions or potential, and make provision for pedestrians and bicyclists.

4. Reduce dependency upon the private automobile by providing for complementary public transit service, including smaller "mini-transit" vehicles or private jitneys and interchange with the "E" Street trolley station.

5. Transportation Facilities. "Develop the network of transportation facilities, including freeways, major arterials, parking areas, and pedestrian and bicycle paths, into a system in which there is convenient transfer from one mode to another and an easily understood relationship between the various parts of the transportation system and the major destinations within the Bayfront."

6. Traffic Generation. "Avoid congesting the freeways and connecting arterials by maintaining a mix of land uses where peak traffic generating periods are staggered throughout the day."

7. Scenic Views. "Provide motorists, both on freeways and on arterials within and adjoining the Bayfront, with enjoyable scenic experiences."

8. View Intrusion. "Provide sufficient separation between pedestrian ways, bicycle paths, and roadways to ensure traffic safety and the elimination of noise, functional disruption, and visual intrusion by motor vehicles."

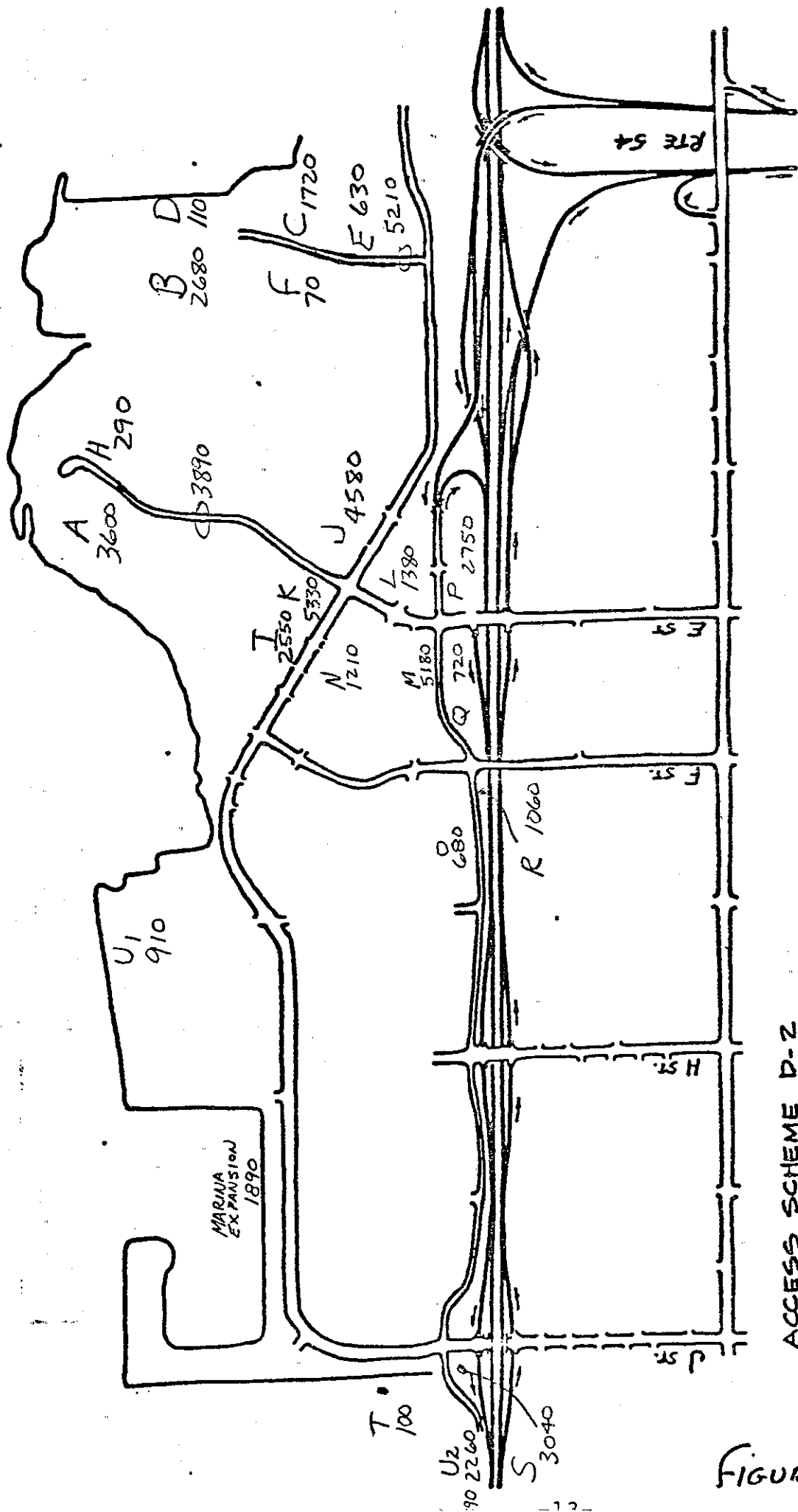
Project Traffic Generation

In order to quantify the proposed project's traffic impact, it is first necessary to estimate its future traffic. In the case of the Bayfront project, traffic generation units were gathered for each land use from SANDAG, CalTrans, the City of San Diego, and the Institute of Transportation Engineers. These units were applied to the various areas of the plan shown on Figure 2 and in Table 1. The Table 1 gross acres and uses were used to obtain net acres and building sizes which could then be used in the traffic generation calculations for the new land uses yet to be built and occupied. Table 2 shows the traffic generation estimates for each of the new land uses in the Bayfront area. Note that this table does not include Rohr or SDG&E traffic or that from the other existing commercial developments in the area. Note, however, that the last item in Table 2 shows the traffic coming in the future from the 60% of the existing Port District marina that is yet to be developed. Figure 4 graphically shows

Table 2

Chula Vista Bayfront Traffic Generation
Table of New Uses

<u>Area</u>	<u>Land Use</u>	<u>Net Acres</u>	<u>ADT Units</u>	<u>ADT Rate</u>	<u>ADT</u>	<u>External ADT</u>
A	Hotel	NA	400 rms.	10.0	4000	3600
B	Residential	16.15	372 du	8.0	2980	2680
C	Marine Comm'l	11.39	11.39 acs.	168.0	1910	1720
D	Marina Service	2.0	2.0 acs.	60.0	120	110
E	Marina	NA	200 boats	3.5	700	630
F	Park	2.0	2.0 acs.	40.0	80	70
H	Park	8.0	8.0 acs.	40.0	320	290
I	Residential	15.39	354 du	8.0	2830	2550
J	Office Park	14.62	318.4 1000 ft. ²	20.0	5090	4580
K	Spec'lty Retail	6.8	148.0 1000 ft. ²	40.0	5920	5330
L	Comm'l Highway	5.1	5.1 acs.	300.0	1530	1380
M	Office Park	14.88	324.0 1000 ft. ²	18.0	5180	4660
N	Residential	7.3	168 du	8.0	1340	1210
O	Ind'l/Bus. Pk.	8.67	188.8 1000 ft. ²	4.0	760	680
P	Comm'l-Hwy	7.65	7.65 acs.	400.0	3060	2750
Q	Comm'l-Hwy	4.0	4.0 acs.	200.0	800	720
R	Office Park	6.0	6.0 acs.	20.0	1180	1060
S	Comm'l-Hwy	3.1	33.8 1000 ft. ²	100.0	3380	3040
T	Park	2.7	2.7 acs.	40.0	110	100
U1	Marine-oriented Industry	31.5	226 1000 ft. ²	4.0	910	820
U2	Ind'l-General	14.4	250.9 1000 ft. ²	10.0	2510	2260
V	Ind'l-Low	4.0	139.4 1000 ft. ²	8.0	1120	1010
Exist. Marina	Marina - to be added		600 boats	3.5	2100	1890
					47,930	43,140



ACCESS SCHEME D-2

LAND USE AREAS AND EXTERNAL ADT OF EACH

FIGURE 4

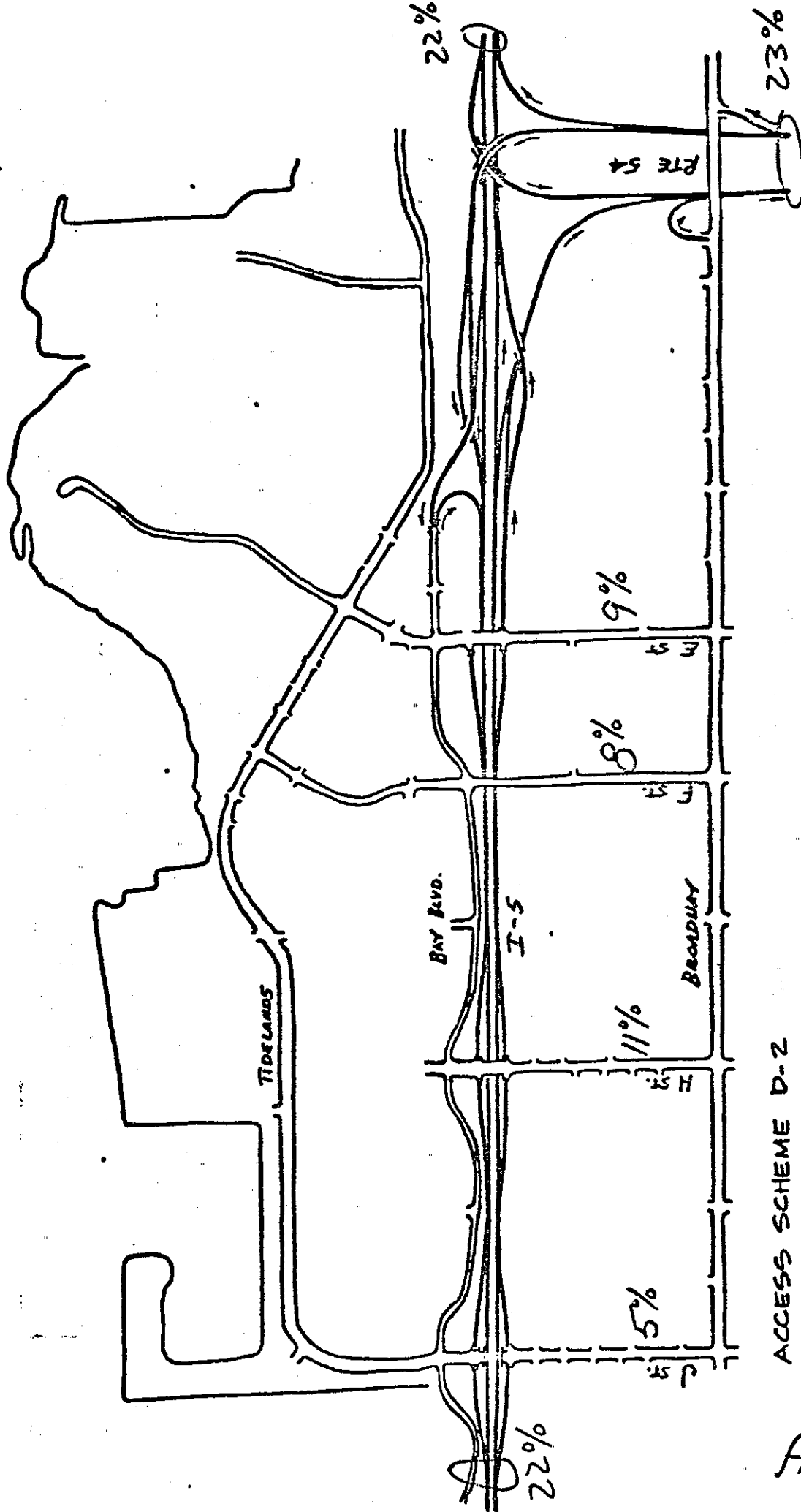
the location of the areas shown in Table 2 and shows the external traffic generated by each of the area land uses. It is this traffic from each of the areas that must be assigned to the proposed circulation system to be sure that it can accommodate the expected traffic.

Project Traffic Distribution

In order to make a traffic assignment for a project, the directional traffic distribution percentages must be known in addition to the traffic generation. In the case of the Chula Vista Bayfront project, this consultant had SANDAG make a selected traffic zone trace of the traffic zones contained in the project as they were defined in the Chula Vista traffic forecast. With this project zone trace in hand, the directional percentages were derived. Figure 5 shows these directional percentages.

Project Traffic Assignment

Using the project traffic of Table 2 and Figure 4 and the distributional percentages of Figure 5, a traffic assignment was made for all the new traffic in the project area. Each of the areas shown on Figure 4 had an individual assignment made on the proposed streets in the same manner and on the same route a user would travel to and from that land use. When all the individual assignments were completed, they were aggregated and summarized on one sheet, showing the total new project traffic on each link



ACCESS SCHEME D-2

CHULA VISTA BAY FRONT TRAFFIC DISTRIBUTIONAL PERCENTAGES

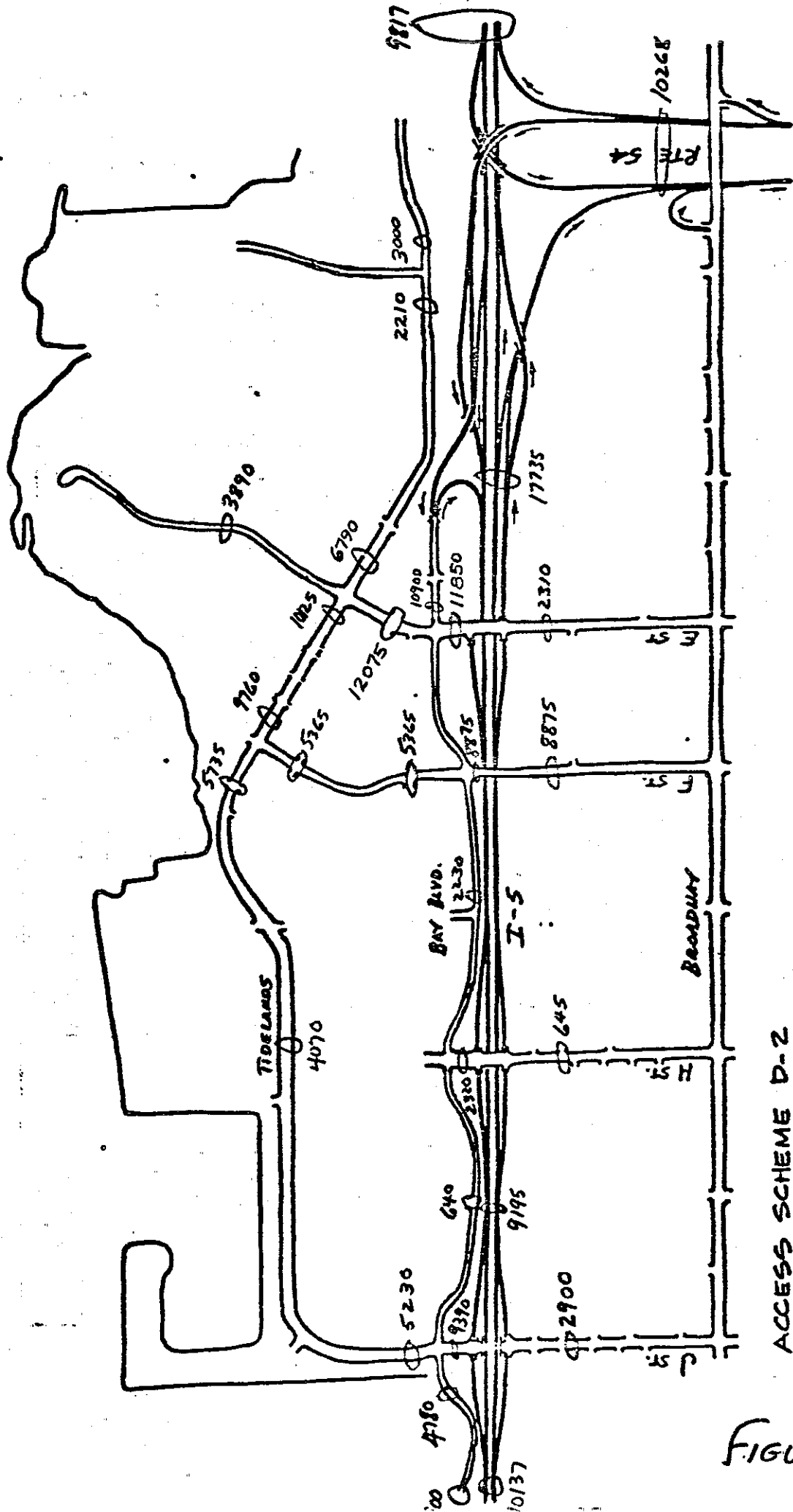
FIGURE 5

of the proposed system. Figure 6 shows that total project traffic. Note that this is all "new traffic" and is in addition to the existing traffic to and from the existing uses in the area such as the Rohr Corporation. Note that this assignment shows a total of 43,140 daily new trips approaching I-5 from the west or traveling south of "J" Street on Bay Boulevard or traveling north into National City on Tidelands Avenue. This new total is almost three times (2.72 times) the existing total of 15,880 shown on Figure 3.

Traffic Analysis

Since there are six external routes to/from the project area, the average project traffic on each from Figure 6 is 7,190 ADT. This is mentioned just to show that the capacities are there if the project traffic will spread out over all access routes. Since Tidelands north to National City is a limited two-lane roadway with a railroad track, its capacity will be limited to about 3,000 ADT. If this is set as a limit, then the other five access routes will have an average of 8,025 ADT of project traffic. If this is added to the existing average of 3,200 ADT on the same five access routes, the combined average is 11,225 ADT. This average is well within the capacity of the planned street widths of the external access system.

The above refers only to the average street loadings in the project area. Actually, the desire of the users of the project land uses would change the averages considerably (see Figure 6).



ACCESS SCHEME D-2

PROJECT DAILY TRAFFIC ASSIGNMENT

FIGURE 6

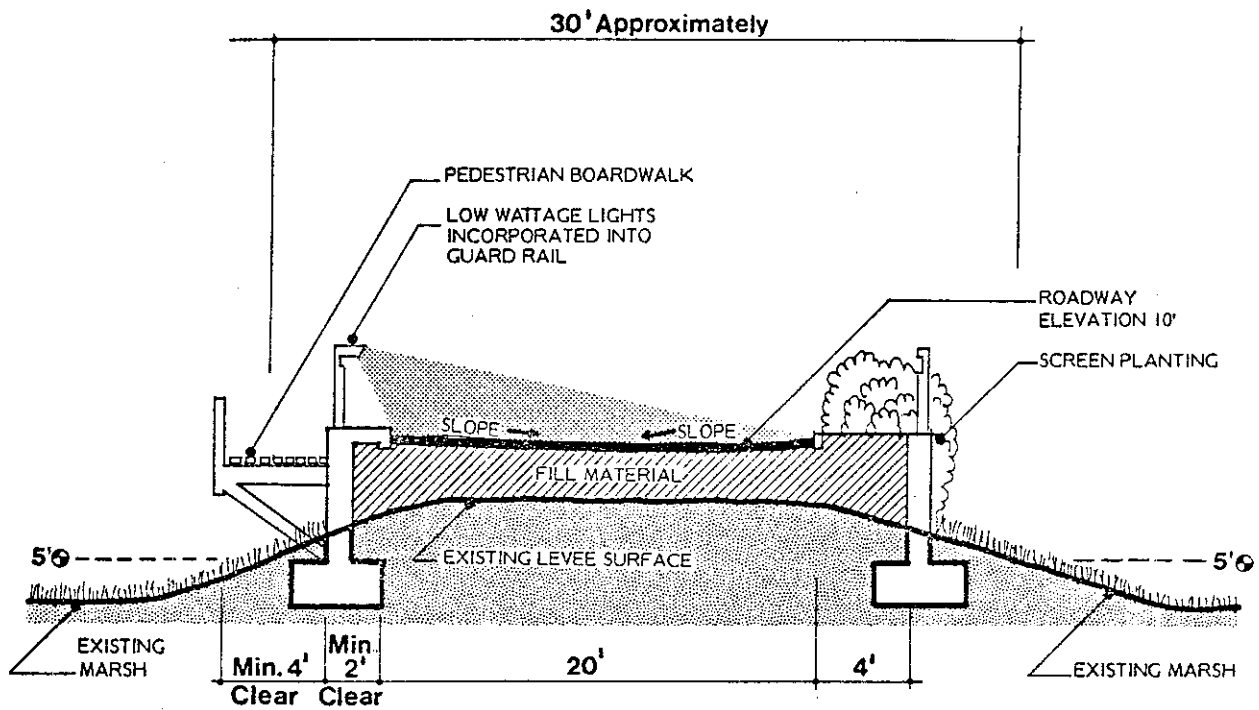
Figure 7 is a combination of existing traffic (Figure 3) and the desires of the project users (Figure 6) on the planned system. Note that "E" Street between I-5 and Bay Boulevard has the highest ADT (20,185). This number would reach 24,155 if the ramps are not reworked as shown on access scheme D-4. Additionally, since there would be so many left turns in the 24,155 figure that would conflict at the entry/exits of the existing diamond ramps, it would be impossible to serve this 24,155 volume within normal levels of service. The reader is encouraged to read the Chula Vista Bayfront Land Use Plan Alternatives Assessment (July 14, 1983) for a detailed analysis of the "E" Street I-5 ramp area. It also must be remembered that if the 20,185 volume causes problems in the future, even with the D-4 ramp scheme, the project area will not be traffic locked. The other access streets to the south of "E" all have considerable excess capacity left, and since the completed circulation system will allow freedom of movement back and forth between all access points, regular patrons of the project land uses will quickly learn where they should travel, at which time of day, in order to avoid any short-time congestion problems.

With regard to use of non-private vehicle modes of travel to and from the project land uses, the Circulation Plan of Figure 4 seems very responsive. Note that the heart of the new project development will take place opposite the proposed "E" Street

trolley station. Note also that good pedestrian access will connect this station to all the project land uses in this area, thus enhancing the use of the trolley for access to the project. The circulation system will also make it very easy, when needed in the future, for a mini-transit or a tram system to circulate within the project in the future and then connect to the trolley station.

With regard to bicycle usage, note that the plan provides a continuation of the Regional Bicycle Route which is being developed along the east side of San Diego Bay. Note also, however, that there is also a local bicycle route that allows recreational bike riders to enjoy the future vistas and other amenities that will be available within the Bayfront project.

In the mid-Bayfront area, some concern has been expressed as to the adequacy of the planned access to Gunpowder Point. Access to Gunpowder Point is a key element of the circulation plan. The link between the hotel/conference facility on the Point and the rest of the Bayfront is via two existing levees. The main access is proposed to be on the southern levee. In order to minimally disrupt wildlife using the adjacent wetlands, it is proposed to provide a 20-foot-wide controlled access roadway on the southern levee. As indicated in Section G (Figure 8), the two-lane road can be integrated into the levee without undue impact on the adjacent marshes. In order to raise the roadbed above the 10-foot elevation, it is proposed to provide structural reinforcement, or



**SECTION G
ACCESS TO GUNPOWDER POINT**

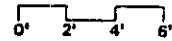


FIGURE 8

some equivalent reinforced sloped embankment that minimizes impact on wetland resources, (fill would result only for minor engineering requirements to assure road safety). A boardwalk is included as part of the roadway section but adjacent to the "E" Street Marsh side only. In addition, screen planting is proposed to reduce the impact on Vener Pond from automobile traffic and to shield the wetlands from the street lighting incorporated into the guard rail. With the estimated maximum ADT of 3,890 on the two-lane roadway to Gunpowder Point, this consultant can foresee no traffic problems along the roadway as planned. There are many, many roadways in this county, state, and country carrying these volumes at much higher speed on narrow two-lane roads than will be the case here. Lighting, signing, pavement striping, and raised pavement markers can make this 20-foot levee roadway safe and adequate to carry the estimated traffic.

A secondary access to Gunpowder Point is proposed only as an emergency route with a crash gate located on the levee as shown in the Circulation Map, Figure 4. The proposed improvements for this emergency road provide for a soft-surfaced roadbed and a bridge structure over the breached section of the levee. No changes in the tidal interaction between the pond and Sweetwater Marsh are envisioned.

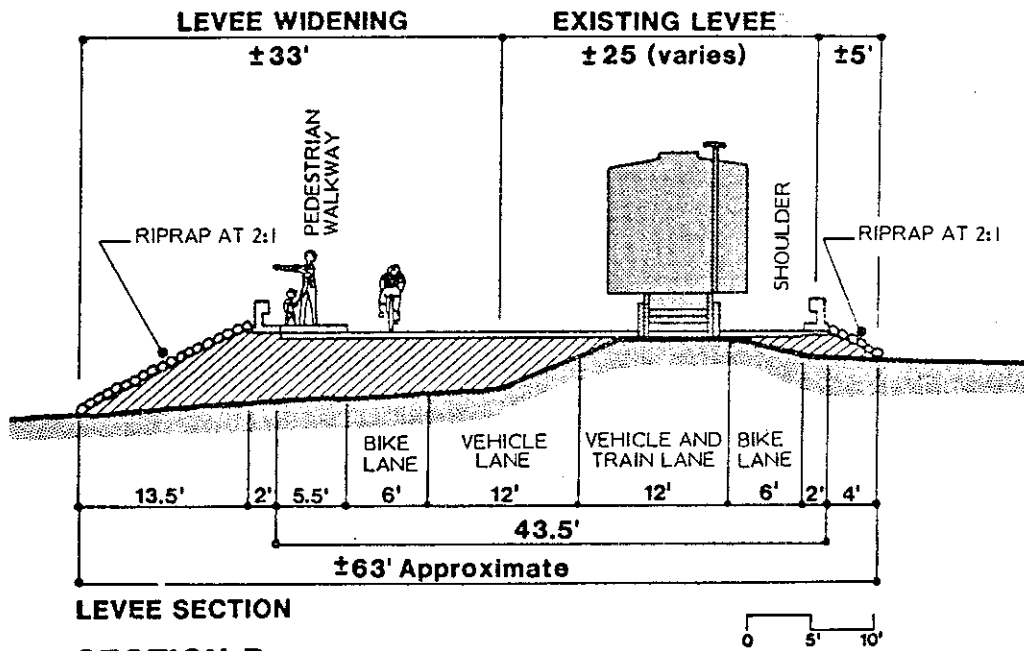
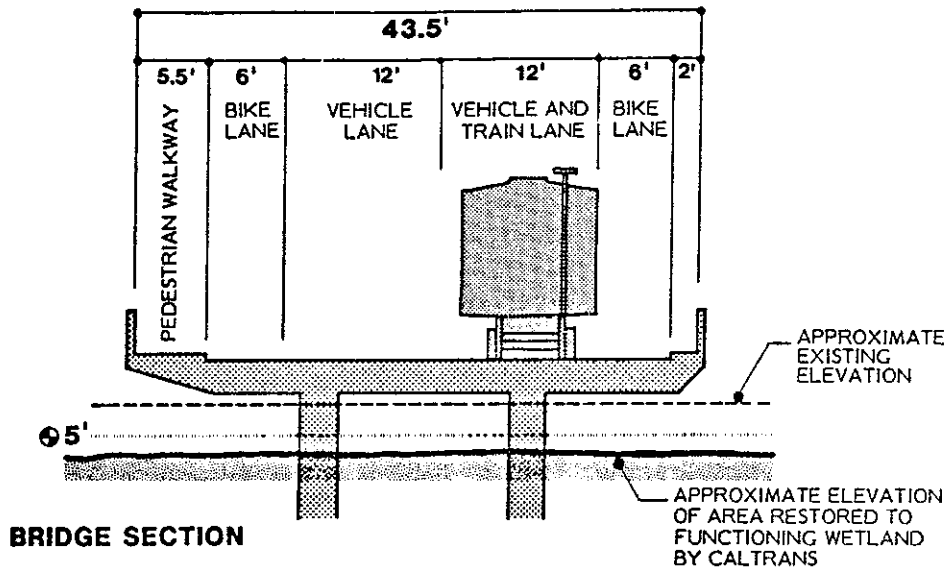
The extension of Tideland Avenue across the Sweetwater Marsh to National City has been controversial for a long, long time.

The proposal now contained on the Circulation Element of Figure 4 would seem to be a workable compromise that serves all the interests involved yet provides a roadway wide enough to accommodate the 3,000 ADT shown on Figures 7 and 6.

The crossing of the Sweetwater Marsh will occur on a combination of existing levee and viaduct bridging of the wetland. Tidelands Avenue will be located on the existing SDA&E railroad levee that presently crosses the marsh. In order to accommodate the infrequent railroad use of the right-of-way, the tracks will be incorporated into one of the automobile traffic lanes (see Section B, Figure 9). This roadway section is entirely adequate to accommodate the anticipated volumes as long as the traffic control devices mentioned above for the Gunpowder Point access are also included here, and the parking of railroad cars is not a frequent occurrence. When ready for pavement marking, the City Traffic Engineer should carefully drive the roadway and carefully note where his automobile tires travel with relation to the railroad tracks. He should then mark the travel lanes so that the auto tires are not normally running on the rails. This should be so marked to prevent the tendency of the rails to "throw" a small vehicle traveling on them, thus possibly causing accidents for the unwary traveler.

Recommendations and Mitigation Measures

As shown in this report, the overall circulation system will



SECTION B
RAILROAD/TIDELANDS AVE. CROSSING OF
SWEETWATER MARSH

have the capacity to support the planned land uses along with the existing development. As development takes place gradually over the future years, certain improvements will be necessary to improve I-5 access along "E" Street. The Circulation Alternatives Assessment document details the recommended improvements and bridge widening necessary to improve this important access point.

This consultant also recommends that dual left-turn lanes be provided from southbound Bay Boulevard to "E" Street and southbound Tidelands Boulevard to both "E" Street and "F" Street, thus accommodating the natural left turns toward I-5 and the east.

It will also be a natural and automatic happening in the future as new land uses develop, to stagger the peak hours (particularly of the Industrial and Office uses) so that they do not conflict with existing or future peak hours. It is strongly recommended that this policy be implemented in the future.

There are three major transit improvements recommended for the Bayfront. They are: (1) the provision of a second trolley stop in the Bayfront area; (2) the provision of future bus service to interconnect the Bayfront with the trolley station; and (3) to encourage the development of privately supported jitneys serving concentrated employment centers such as Rohr Corporation and the proposed destination resort hotel/conference facility.

There is a good plan of pedestrian access contained in the project's Circulation Element. It is recommended that its

within the 100-foot wetland buffer adjacent to wetlands). Additionally, joint pedestrian and bicycle use of the Gunpowder Point paths is permitted. All the bicycle provisions on Figure 4 are recommended for early implementation.

It is felt that with the improvements to the "E" Street access route and with the implementation of the planned circulation element, with the minor improvements recommended above, the project's vehicular traffic will be adequately mitigated so that, generally, the system will function very well.

Additionally, if short-lived problems develop during the peak hours, the staggering of peak hours can spread the peaks out so that all access points can function at improved levels of service, thus mitigating congestion.

Finally, the plan focuses on providing good transit service by planning on substantial use of the new trolley station by providing good pedestrian access and encouraging a mini-bus or tram service within the project and to the trolley station. Since all of these remedies for any potential future problems will be self-evident in the future, and since the problems themselves will develop only very gradually, it is this consultant's professional opinion that the project's circulation problems will be adequately mitigated over the years of development.

James W. Federhart, P.E.
Federhart & Associates 10/29/84

APPENDIX D

APPENDIX D AIR QUALITY DATA

1. Statistics. The statistical data used in the air quality computations are found in Appendix A, Project Data.

2. Computations. The computations of the estimated emissions from the proposed project are based on methods found in Air Quality Assessment for Environmental Impact Reports (County of San Diego 1976b). These emission estimates are calculated for the projected year of completion of the proposed project. Emissions were computed for the following source categories:

- a. Vehicles. This category includes emissions from motor vehicles of all types whose use can be attributed to the project.
- b. Power Generation. This category includes emissions produced in the San Diego Air Basin by the generation of electricity to supply the power needs of the project.
- c. Heating. This category includes emissions resulting from the burning of natural gas to provide water and space heating for the project.

3. Emission Factors. Emission calculations are based on "emission factors," which are statistical averages or quantitative estimates of the rate at which a pollutant is emitted into the atmosphere as the result of some activity (such as the combustion of gasoline in vehicles) divided by the level of that activity (e.g., gallons consumed). The emission factor thus relates the quantity of pollutants emitted to some indicator of activity, such as the quantity of fuel burned or the number of miles traveled. The emission factors used in this report are based on information found in Compilation of Air Pollutant Emission Factors (AP-42) (U.S. Environmental Protection Agency 1977) and information supplied by Ray Weeks, an environmental management specialist formerly with the San Diego County APCD.

It should be noted that emission factors and the emission estimates derived from their use are general estimates only and should not be considered as absolute predictions of future emissions. Emissions that would be generated by the proposed project are summarized below and in Tables D-1 and D-2.

AIR QUALITY COMPUTATIONS FOR 1995

Emissions from Motor Vehicles:

Reactive Hydrocarbons

Distance-related

$$0.61 \text{ gram/mile} \times 254,526 \text{ miles/day} = 155.26 \text{ kg/day}$$

Trip-related

$$6.70 \text{ grams/trip} \times 43,140 \text{ trips/day} = \underline{289.04} \text{ kg/day}$$

$$\text{Total} = 444.30 \text{ kg/day}$$

Carbon Monoxide

Distance-related

$$7.35 \text{ grams/mile} \times 254,526 \text{ miles/day} = 1,870.77 \text{ kg/day}$$

Trip-related

$$45.38 \text{ grams/trip} \times 43,140 \text{ trips/day} = \underline{1,957.69} \text{ kg/day}$$

$$\text{Total} = 3,828.46 \text{ kg/day}$$

Oxides of Nitrogen

Distance-related

$$2.03 \text{ grams/mile} \times 254,526 \text{ miles/day} = 516.69 \text{ kg/day}$$

Emissions from Power Generation:

Carbon Monoxide

$$0.156 \text{ gram/kwh} \times 147,698 \text{ kwh/day} = 23.04 \text{ kg/day}$$

Oxides of Nitrogen

$$1.12 \text{ grams/kwh} \times 147,698 \text{ kwh/day} = 165.42 \text{ kg/day}$$

Sulfur Dioxide

$$0.017 \text{ gram/kwh} \times 147,698 \text{ kwh/day} = 2.51 \text{ kg/day}$$

Particulates

$$0.313 \text{ gram/kwh} \times 147,698 \text{ kwh/day} = 46.23 \text{ kg/day}$$

Emissions from Domestic Heating:

Carbon Monoxide

$$0.907 \text{ gram/therm} \times 2,235 \text{ therms/day} = 2.03 \text{ kg/day}$$

Oxides of Nitrogen

$$4.54 \text{ grams/therm} \times 2,235 \text{ therms/day} = 10.15 \text{ kg/day}$$

Sulfur Dioxide

$$0.027 \text{ gram/therm} \times 2,235 \text{ therms/day} = 0.06 \text{ kg/day}$$

Particulates

$$0.454 \text{ gram/therm} \times 2,235 \text{ therms/day} = 1.01 \text{ kg/day}$$